APPENDIX A

City of Manteca
Water Master Plan
TM #1 Water Modeling Software Evaluation

Technical Memorandum

HydroScience
Strategic Water Solutions

Sacramento • Berkeley • San Jose

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Subject: TM #1 – Water Modeling Software Evaluation
City of Manteca – Water Master Plan

Date: September 23, 2021

The City of Manteca (City) has retained HydroScience Engineers (HydroScience) to prepare a Water Distribution System Master Plan (WMP), which includes the building of a hydraulic model. This technical memorandum (TM) presents an evaluation of the software programs available for hydraulic modeling of water distribution systems from the two industry-leading vendors: Innovyze (https://www.innovyze.com/en-us) and Bentley (https://www.bentley.com/en).

The City does not have an existing water distribution system model nor does the City own any modeling software licenses and historically has not conducted any hydraulic modeling in-house. Although the City GIS system is regularly updated and maintained, there are no immediate plans to conduct hydraulic modeling in-house.

This TM will serve as the basis for recommending a hydraulic modeling software. Software programs were evaluated based on consideration for this WMP study as well as future model updates and continued use.

Modeling Software Options

This section discusses and compares Innovyze's InfoWater®, Innovyze's InfoWorks®WS Pro (InfoWorks), and Bentley's WaterGEMS® (WaterGEMS). HydroScience currently owns licenses for both InfoWater and WaterGEMS. These programs are analyzed herein based on the following criteria (and more):

- Purchase and subscription pricing;
- Available features and applications;
- Software stability;
- Software accuracy;
- Platform compatibility needs/interface (i.e. ArcGIS, AutoCAD, SCADA);
- Ease of use;
- Technical support; and
- Vendor reputation.

InfoWater®

InfoWater is an Innovyze software that uses an ArcGIS platform and is a successor of H_2ONet. InfoWater includes hydraulic and dynamic water quality modeling, energy management, real-time simulation and control, fire flow analysis, and automated on-line SCADA interface capabilities. InfoWater uses a relational database and geodatabase to store model data and can automatically assign GIS attributes to be used in the model without manually mapping data from GIS to model data fields. For land use-based analyses, the software allows for import of land use categories from parcel GIS shapefiles, however, limits the number of land use categories to ten.

InfoWater operates using the EPANET engine and utilizes the Colebrook White (CW), Darcy Weisbach (DW), or Hazen Williams (HW) set of friction equations; the user can choose which set of friction formulas will be applied to a simulation run, but these methods cannot coexist within a single simulation. The operating speed of InfoWater's simulations is restricted by the EPANET engine which is optimized for small to medium networks and performs slower for larger networks and longer simulations.

The InfoWater fire flow module is designed to evaluate the system given fire flow and velocity and residual pressure constraints, identifying critical infrastructure that are either exceeding velocity constraints or below minimum residual pressure. The module also will report the amount of available fire flow at a hydrant.

InfoWater has a rich scenario manager that provides the user the ability to build a single model with an array of modeling scenarios and alternatives for development of various physical and hydrologic conditions. Every change made to a parent scenario is propagated throughout all scenarios.

InfoWater also has InfoWater MSX (Multi-Species eXtension), which adds capabilities to accurately model multiple interacting constituents, sediment deposition and re-suspension in drinking water distribution systems, and water temperature.

Because this software does use an integrated ArcGIS platform, its ease of use is increased with a strong base understanding of GIS. There is a separate software called InfoWater SA (stand-alone) that is essentially the same software without the GIS platform.

The InfoWater product brochure, along with the overview and specifications from Innovyze's website (https://store.innovyze.com/WaterDistribution/InfoWater?cclcl=en_US), can be found in **Attachment A**.

InfoWorks®WS Pro

InfoWorks is an Innovyze product that uses a standalone platform and is a successor of InfoWorks®WS. InfoWorks includes water quality modeling, demand management – including pressure-related demand – for cost-benefit analyses, leak detection, fire flow analysis, criticality assessments for both pipes and valves, and real-time comparisons of actual values against modeling results with linkage to SCADA and telemetry data. The current water quality analysis capabilities include single species chemical transport, water age, source tracing, and turbidity analysis; multiple solute interaction analysis capabilities are also under development and will be

available with future software program updates. For land-use based analysis, there is no limit to the number of unique demand types and patterns.

InfoWorks utilizes a workgroup model management system to allow for simultaneous updates by multiple team members; all model data is maintained in a single, centralized, multi-user master database with a conflict management system used to resolve changes made to objects by different users.

InfoWorks does not utilize the EPANET engine, though Innovyze does support a separate version which does: InfoWorks WS Pro EPEng. Similar to InfoWater, the CW, DW, and HW set of friction equations are all available within InfoWorks, and they can coexist within the same simulation. The operating speed of InfoWorks is much better, compared to InfoWater, for larger networks; simulations are run much faster due to the modified engine and database structure. InfoWorks is most commonly utilized in Europe where a single water system will typically serve large portions of an entire country.

Similar to InfoWater, the fire flow analysis module in InfoWorks will evaluate the system given fire flow requirements and velocity and residual pressure constraints, and infrastructure outside of the stated criteria will be identified.

InfoWorks does not currently support a parent/child scenario management system, though this is in development and will be released as part of a future software program update. Currently, users can have multiple copies of a network within a single master database, but the networks are not related to each other – changes do not propagate throughout. InfoWorks does, however, include a data flagging system which allows each user to track the source of each of their changes.

InfoWorks also offers InfoWorks TS, a module which adds the capability to perform transient analyses to accurately predict water hammer within a system and assess various protection measures.

Results from an InfoWorks model simulation as well as the network itself can be exported directly to GIS for viewing. Innovyze also offers InfoWorks Viewer, which is a limited license option that allows a user to utilize the complete analytical functionality of InfoWorks without the ability to edit/modify the model.

Innovyze does not currently have a product data sheet for InfoWorks. Included in **Attachment B** is the overview and specifications from Innovyze's website (https://store.innovyze.com/WaterDistribution/InfoWoWSP?cclcl=en_US).

WaterGEMS®

WaterGEMS is a successor of Bentley's original water hydraulic analysis software WaterCAD. WaterGEMS includes fire flow analysis, water quality simulations, and criticality and energy cost analyses. WaterGEMS uses a multi-platform environment, meaning that the same model file can be opened in ArcGIS, AutoCAD, MicroStation, or a standalone WaterGEMS platform without having to import or export any data. In addition, a WaterGEMS model can be opened and reviewed in WaterCAD. WaterCAD is a less expensive water hydraulic analysis software that can be operated with AutoCAD or as a standalone platform. For land use-based analyses, the

software allows for import of land use categories from parcel GIS shapefiles with no limit to the number of land use categories.

WaterGEMS utilizes a modified hybrid hydraulic engine. It allows the user to choose between the Manning, HW, or DW set of friction equations, though they cannot coexist in the same simulation run.

The WaterGEMS fire flow module identifies any infrastructure that are exceeding velocity constraints or unable to meet residual pressure constraints. Given these constraints, the fire flow module will also report the amount of available fire flow at each hydrant.

Similar to InfoWater, WaterGEMS contains a rich scenario management system that allows the user to create child scenarios that inherit all data from the parent. If any changes are later made to the parent, those changes will trickle down through all children scenarios. Conversely, the user can override values if the changes are made directly in the child scenario. This allows for the development of multiple alternatives for analysis to evaluate an unlimited number of "what if?" situations. Then, when a model batch run is set up, multiple scenarios can be submitted for calculation at the same time.

Bentley has a format called iModel which has a corresponding free viewer. WaterGEMS can publish iModels which give access to graphically viewable files on PCs and tablets that have individual asset inputs and results available for viewing.

InfoWater and InfoWorks files can be converted to WaterGEMS by exporting/importing using a common platform, such as EPANet. Because the modeling files are compatible with multiple platforms, the user has the option to work in the platform that suits the user's capabilities or needs.

The WaterGEMS product data sheet, along with an overview of the software from Bentley's website can be found in **Attachment C:** (https://www.bentley.com/en/products/product-line/hydraulics-and-hydrology-software/watergems).

Summary

InfoWater, InfoWorks, and WaterGEMS are comparable with regards to software capability. All three offer robust tools for system analyzing, such as fire flow, with some tools being easier to run in one software over the others. All three software programs are known to be stable and highly accurate, offering a wide range of features, options, and scenarios for representing and analyzing water system operation.

Both Innovyze and Bentley are known for having timely and quality customer support. In Northern California, Innovyze software programs are more common than Bentley, but their reputations are comparable. Innovyze support will often be a dedicated individual that can be contacted via phone or email. Bentley uses a ticketing system to provide tech support. Innovyze is a more personalized support system, though both are effective. Both offer web-based, live, and on-site training options.

The following table summarizes some of the basic criteria for each software.

Table 1: Brief Software Comparison for 5,000 Links

Criteria	*InfoWater®*	*InfoWorks®WS Pro*	*WaterGEMS®*
Company	Innovyze	Innovyze	Bentley
Software Requirements	ArcGIS	None	None[1]
Initial Purchase Price	$11,150	$25,570	$20,968
Annual Subscription Price	$2,230	$5,114	$5,033
Other Costs	$3,500 (GIS seat)[2] $500 (annual)	None	None
ArcGIS Platform	X		X
AutoCAD Platform			X
Standalone	InfoWater SA	X	X
SCADA Integration	X	X	X
GUI	Least intuitive interface	Less intuitive interface	More intuitive interface
Analyzing Tools	Comparable	Comparable	Comparable
Tech Support	Dedicated individual – more personalized experience	Dedicated individual – more personalized experience	Ticketing system – less personal and contacts may vary

Notes:
1. Can operate as a standalone software; however, requires licensing for ArcGIS, AutoCAD, or Microstation for operating the respective platform, if desired.
2. Requires ArcMap Basic license. Price listed assumes that the City currently has an ArcMap Basic license that is completely occupied. Price is for an additional concurrent use license.

As mentioned previously, InfoWorks is typically used for very large distribution systems, and is more commonly used in Europe. The City's water distribution system is considered small-to-medium size, containing approximately 5,000 links. For a system of this size, the speed and robustness of InfoWorks does not provide an advantage over InfoWater and/or WaterGEMS. Additionally, InfoWorks does not offer parent/child scenario management which is a key component for analyzing different scenarios for this study. InfoWorks is also significantly more expensive. Thus, InfoWorks has been omitted from further consideration. Going forward, a comparison is presented between InfoWater and WaterGEMS. A full detailed comparison of features for InfoWater and WaterGEMS is included in **Attachment D**.

Model Maintenance Options

For regular hydraulic model maintenance, the City has two options: (1) purchase the software license and maintain the hydraulic model in-house or (2) work with a third-party consulting firm to maintain and operate the hydraulic model for new development and redevelopment analyses on an as-needed basis. This section will present a brief comparison of some of the advantages and disadvantages of each scenario.

City-Maintained Model

The two major factors to consider for in-house model maintenance are cost and technical experience. The software costs associated with in-house modeling include the purchase price and the ongoing software subscription costs. Continuing subscription is highly recommended to receive ongoing technical support. In addition, modeling software is typically updated at least annually as the vendor addresses instabilities and makes improvements to the software. Maintaining a subscription ensures that the City has access to the most current and stable version.

The second factor is technical experience and confidence in the operation and results. To achieve an acceptable level of accuracy and confidence in the model results, staff should be trained and experienced in the use of the software. In addition, hydraulic modeling can be a time-consuming operation; if the staff does not use the program on a regular basis, operational efficiency may decrease as it can be easy to forget how to operate and navigate the tools.

The primary advantage of having in-house modeling capabilities is the immediate access to the software and models for analysis of various scenarios beyond just new and redevelopment. The City can use the model to analyze planned maintenance outages, changes in sources of supply, and/or other operational situations that may occur.

If the City purchases the software program and opts to maintain the hydraulic model in-house, we recommend assigning dedicated staff to this task, preferably staff with robust GIS experience, as well as software training. There is typically a steep learning curve to become familiar with how to navigate, update, and operate a hydraulic model. Prices for training can range depending on whether it is web-based, in-person, or on-site. Course levels also range from introductory to advanced and start around $1,700 and can be up to several thousand dollars and multiple days.

Third-Party Maintained Model

The alternative to in-house modeling and maintenance is contracting with a third-party consultant to evaluate any new development projects, update the model as construction projects are completed, and provide as-needed modeling support. Third-party consultants are typically well-versed in various modeling platforms and have dedicated modeling staff that stay familiar with model software operation. Consultants also own the modeling software and pay for ongoing subscription maintenance, absorbing the purchase and annual costs on behalf of their clients. Consultants typically have access to various modeling software and platforms to address the range of needs for their clients.

As an example, HydroScience currently has ongoing contracts with other municipalities to maintain their water distribution and sewer collection system hydraulic models. When there is a new development, HydroScience will evaluate the impacts of those new developments, assess the capacity of the system, and identify deficiencies and the necessary requirements for the new development. In the case of the City of Sunnyvale, HydroScience provided training for eight internal staff. However, since the City did not have enough hydraulic modeling work to justify even a dedicated part-time position, other work priorities took precedence. As such, the City opted for an annual purchase order with HydroScience to provide as-needed modeling services based on time and material. There have been some years where there have been no modeling services needed and others in which the City has needed to increase the contract amount.

HydroScience has provided ongoing model maintenance support, development impact analyses, fire flow analyses, and litigation support for a variety of municipal clients.

The obvious advantages of having a third-party consultant conduct the analyses are costs as well as experience. The additional advantage is that a third-party analysis limits the potential for conflict-of-interest allegations from developers. For development-related modeling services, it is typical for most public agencies to charge developers a fee to recoup the cost of modeling services and since the charges are from a third-party provider, it is rarely disputed by the developer.

Conclusion

Taking into consideration all the discussed comparisons, HydroScience recommends that the City use InfoWater for the building of the water distribution system hydraulic model for the purpose of this WMP effort.

InfoWater and WaterGEMS both have the capability to easily and accurately model the City's system. The primary differences in these two programs are front-end graphical user interface (GUI) platform compatibility and cost. WaterGEMS's GUI is a more intuitive interface and is easier to pick up on a basic level. WaterGEMS also has the added benefit of running in AutoCAD, ArcGIS, and/or standalone, which does not require and additional software license for ArcGIS or AutoCAD integration. However, the City predominately uses ArcGIS, so the AutoCAD capabilities of WaterGEMS are not relevant. There are no other notable advantages between the modeling programs.

Purchase price and other additional costs are not a significant consideration unless the City elects to purchase the software to conduct in-house modeling; HydroScience already carries the required licensing for both InfoWater and WaterGEMS. However, if the City does elect to purchase the software and bring those capabilities in-house, cost does become a consideration. For this reason, HydroScience recommends that the City uses InfoWater for this WMP study.

City Decision

Given the above considerations as well as conversation between HydroScience and City Staff, the City has elected to use WaterGEMS for the building of the water distribution system hydraulic model for the purpose of this WMP effort. The following criteria motivated this decision:

- Compatibility with AutoCAD & GIS,
- Viewing capabilities without the need to buy a software license,
- No limit on land use types,
- Intuitive GUI,
- Appropriate for a City this size (i.e. 5,000 links),
- Short term quarterly licenses available, if needed, and
- Cost is in the middle (not lowest or highest).

Next Steps

The following tasks will be completed next as part of the water master planning efforts:

- Continue data collection,
- Existing staffing plan evaluation,
- Interim water rate study,
- Calibration plan and hydrant testing, and
- Baseline unit demand analysis.

ATTACHMENT A
City of Manteca
TM #1 – Water Modeling Software Evaluation
InfoWater Product Information

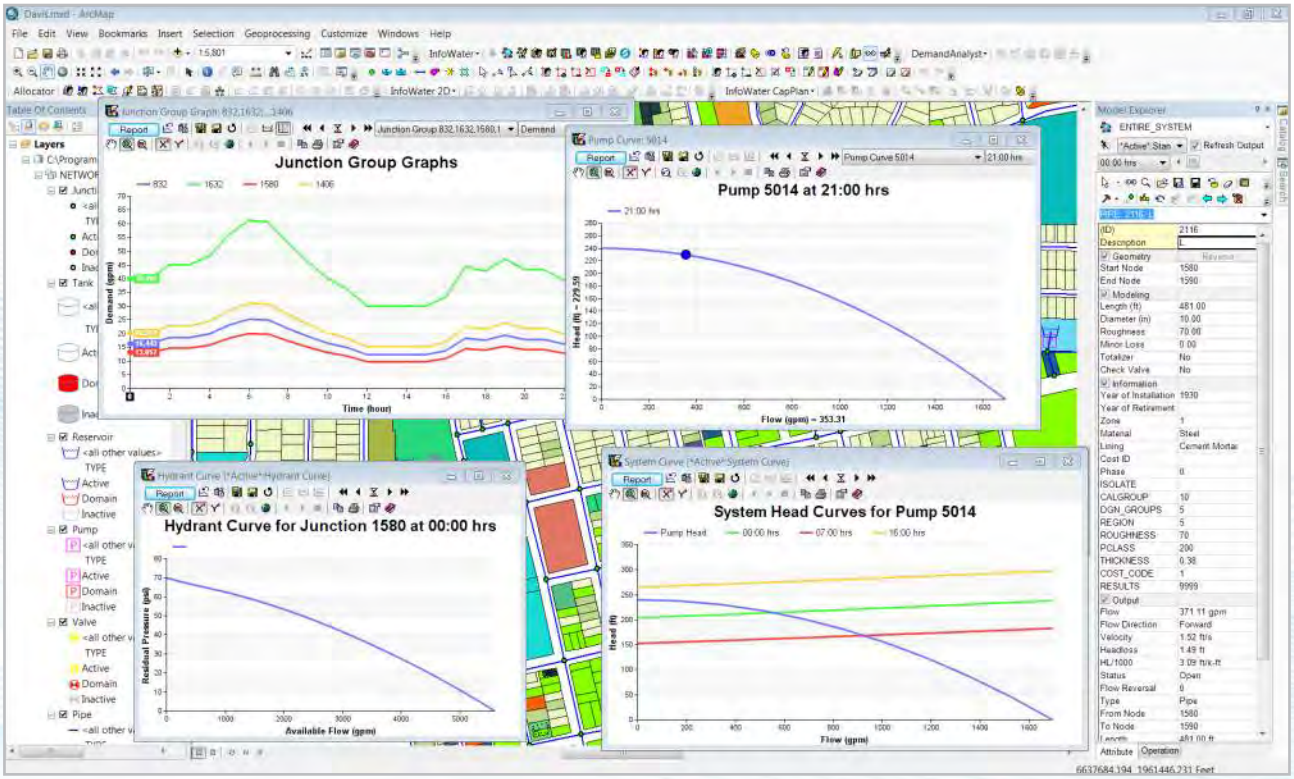
InfoWater®

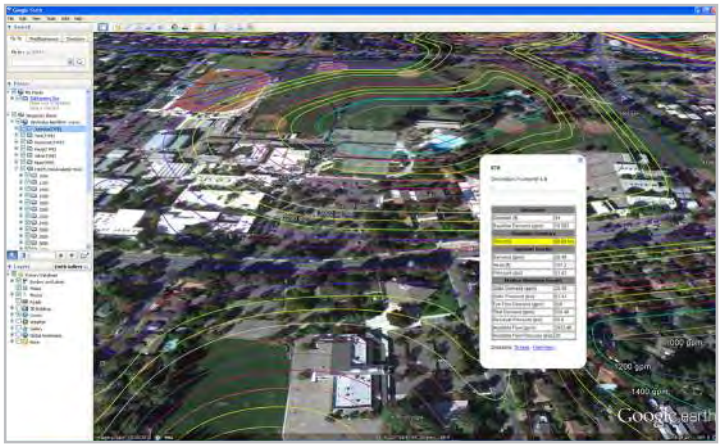
ARCGIS INTEGRATED WATER DISTRIBUTION MODELING AND MANAGEMENT

InfoWater is a fully ArcGIS integrated water distribution network modeling and management software application. It seamlessly integrates advanced water network simulation and optimization functionality with the latest generation of ArcGIS. InfoWater capitalizes on the intelligence and versatility of the geodatabase architecture to deliver unparalleled levels of geospatial analysis, infrastructure management and business planning.

APPLICATIONS

- Network model build/run in ArcGIS
- Valve criticality analysis
- Pump and valve optimization
- Demand and fire flow management
- Water security planning
- Water quality (multi-species) assessment
- Energy and capital cost management
- Regulatory (IDSE) compliance
- Pipe break analysis
- Temperature modeling
- Sediment transport and deposition
- Turbidity modeling
- Leak detection and reduction
- Sensor location optimization
- Carbon cost calculation
- Pressure zone management
- Unidirectional flushing
- Vulnerability/risk assessment





Esri Partner Conference
2015 Award Winner
ArcGIS for Desktop Based Application

COMPLETE MODEL BUILD ENVIRONMENT

InfoWater allows the quick and convenient building of water distribution models as an ArcGIS extension. Models can be created, edited, updated and stored within a geodatabase utilizing data taken directly and inferred from the corporate geodatabase and a variety of other data sources. Multiple scenarios can be created and fully automated updates maintained using the GIS Data Exchange Tool. InfoWater contains a powerful set of quality assurance and control features to ensure that models are of the highest standard, including network trace, connectivity, link and node tools; pre-analysis hydraulic and topology data checks; and the ability to pinpoint disconnected areas.

EXTENSIVE SIMULATION OPTIONS

InfoWater uses a modified hybrid network solution engine to ensure excellent simulation speed, stability and accuracy. Comprehensive network modeling capabilities are available, either within the standard InfoWater package or as part of the wider suite. These include water quality, fire flow simulation, valve criticality, water demand and pressure zone management, unidirectional flushing, multi-species modeling, energy use and cost calculations, automatic calibration and design of networks, and carbon footprint analysis.

ADVANCED PIPE BREAK ANALYSIS

InfoWater can explicitly model water main breaks and leaks, enabling users to develop effective leakage reduction and control and demand and maintenance management strategies to maximize the quantity of revenue-producing water, minimize economic losses, ensure hydraulic and water integrity, improve the quality of service, and conserve this precious resource. Breaks can be specified for any pipe in the network along with their location, size, and time of occurrence. They can also be automatically distributed at the two end nodes of a pipe. InfoWater will compute and report the total water volume lost to breaks as well as their impact on the hydraulic (e.g. flows, pressures velocities, and fire-fighting capacity) and water quality (e.g. chlorine concentrations) integrity of the water distribution system.

RICH PRESENTATION OF RESULTS

Using powerful ArcGIS thematic mapping functionality, InfoWater makes it easy to turn dry database information into stunningly colorful, fully dimensional visualizations. It is possible to generate beautiful, accurate and smooth contours for any variable — even overlay multiple contours on a single drawing. Users can draw on a range of other sophisticated graphical presentation tools, including color-coded mapping, dynamic annotation and labeling, graphing, profiling, customizable tabular reporting, and vivid VCR-style animation to produce truly compelling results.

INFOSURGE TRANSIENT ANALYSIS

InfoSurge provides the most advanced and comprehensive platform available for analyzing complex hydraulic transients with incredible power, speed and ease of use. Cavitation or excessive pressure surging during transient operation can lead to pipeline or component failure, and surge control devices are often required to prevent the development of such conditions. The proper selection and evaluation of these devices requires reliable transient flow analysis. Surge analysis is vital in the design of water supply and distribution systems to ensure their safety and reliability under emergency conditions.

esri Partner Network Gold

ADDITIONAL INFORMATION

www.innovyze.com/products/infowater
sales@innovyze.com

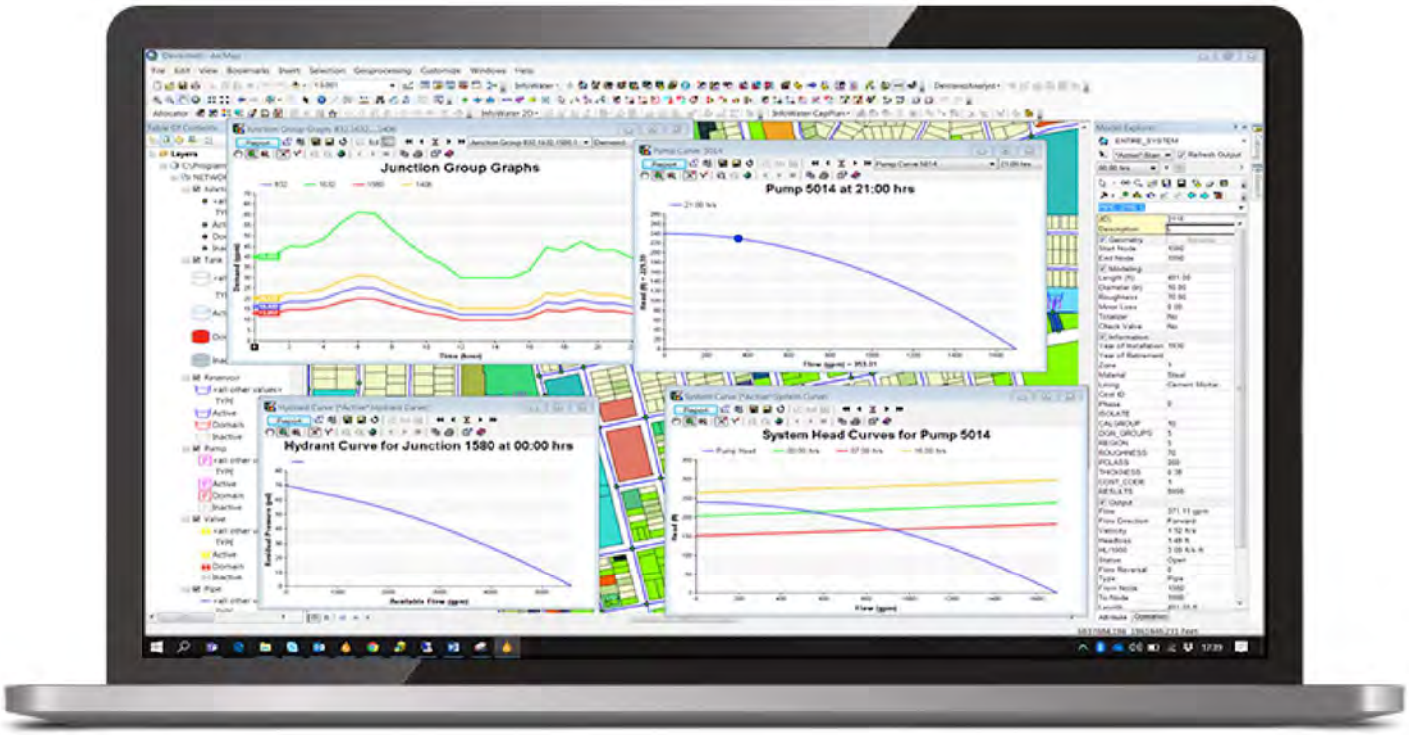
NEWS & CASE STUDIES

www.innovyze.com/news/?infowater

LATEST PRODUCT UPDATES

www.innovyze.com/updates

InfoWater



InfoWater

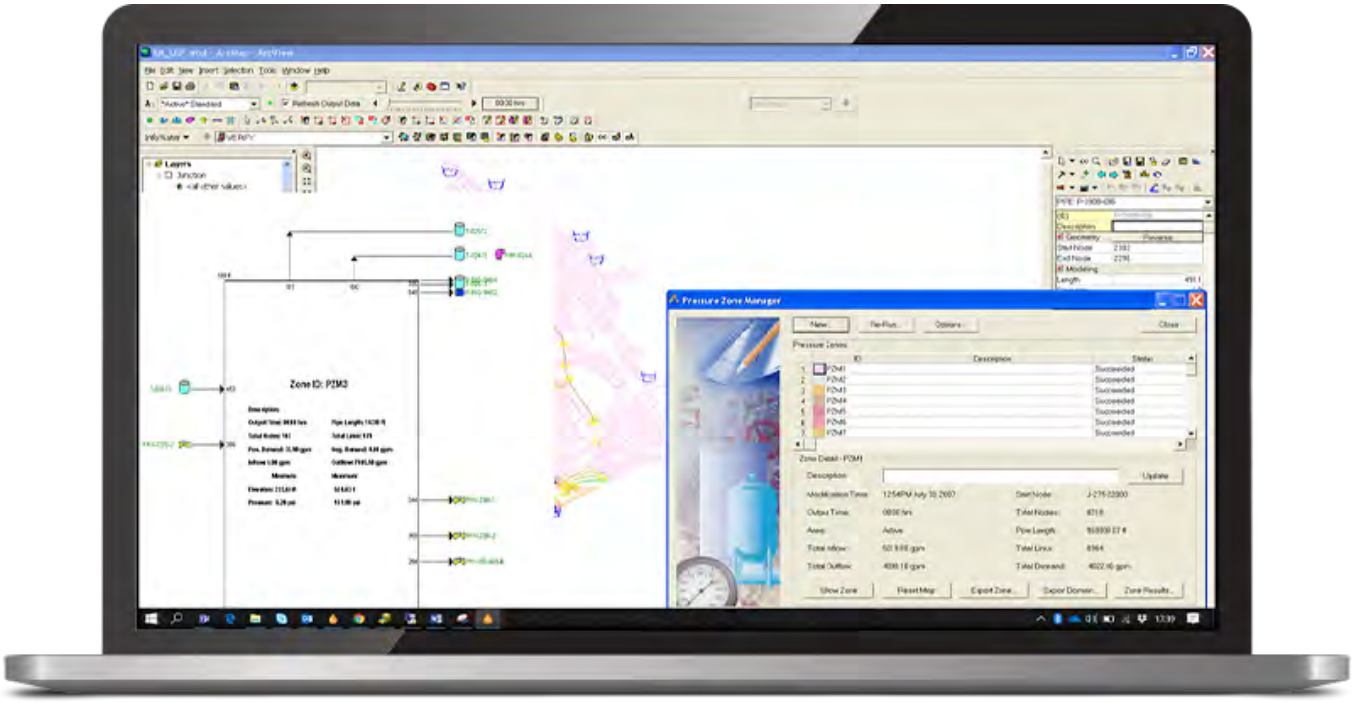
--Please Select--

InfoWater is available as three options (InfoWater, InfoWater Suite, and InfoWater Executive Suite), and in floating and fixed licenses.

InfoWater options: https://www.innovyze.com/en-us/products/infowater/infowater-additional-options (https://www.innovyze.com/en-us/products/infowater/infowater-additional-options)

- *A Fixed Seat License is tied to a single computer and may not be shared between multiple computers. It is best for single power users or small organizations.*
- *A Floating Seat License allows the software license to be accessed by multiple computers and shared among different users. It is best for larger organizations with many different software users.*

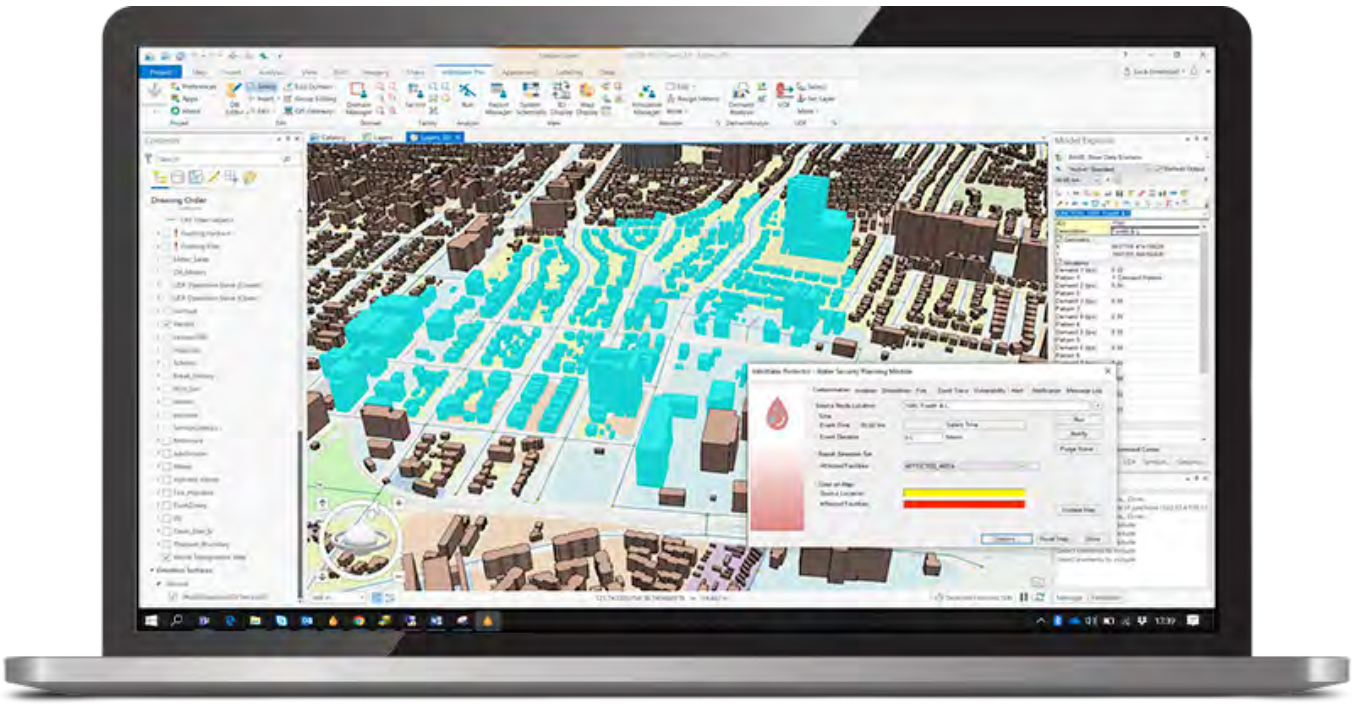
InfoWater - Analyze, model, and manage water distribution networks within ArcGIS.



Manage pressures and maintain service levels

Ensuring adequate pressure in all conditions (not too low or too high) is challenging.

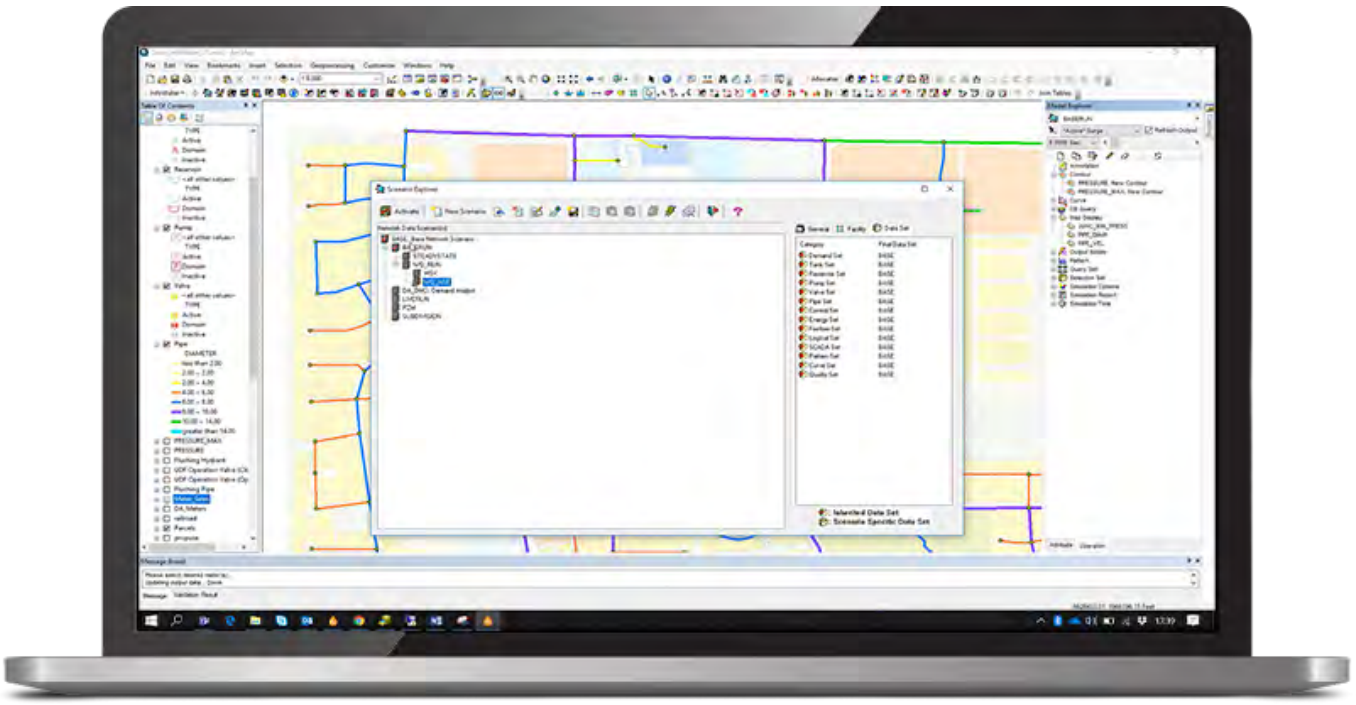
InfoWater automatically delineates pressure zones based on zone boundary elements such as tanks, pumps, control valves, checks valves, closed pipes, and reservoirs, so you can easily optimize and manage pressure zones and DMAs (District Metered Areas).



Leverage Esri's ArcGIS

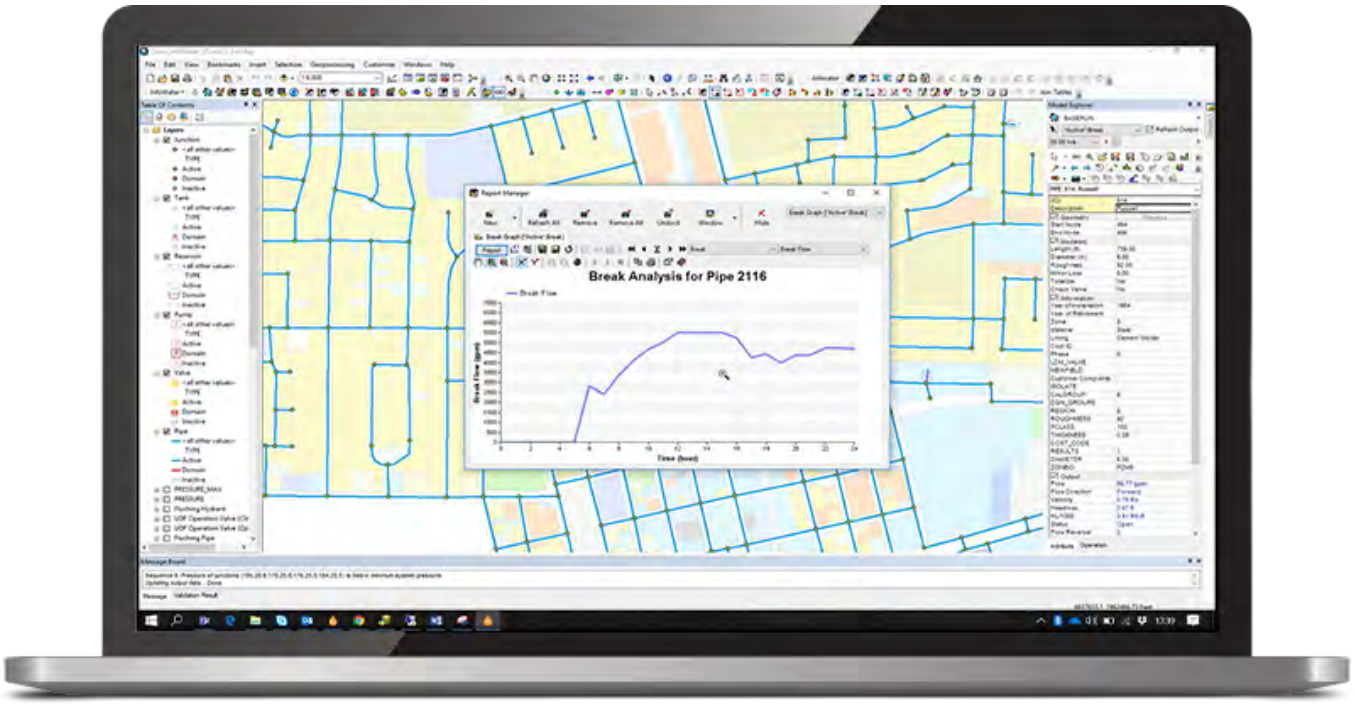
Take full advantage of GIS data. With InfoWater being built on ArcGIS, you are always inside of ArcGIS.

InfoWater provides a comprehensive geospatial environment for network model construction, graphical editing, hydraulic simulation, results presentation, and map generation, including 3D map displays.



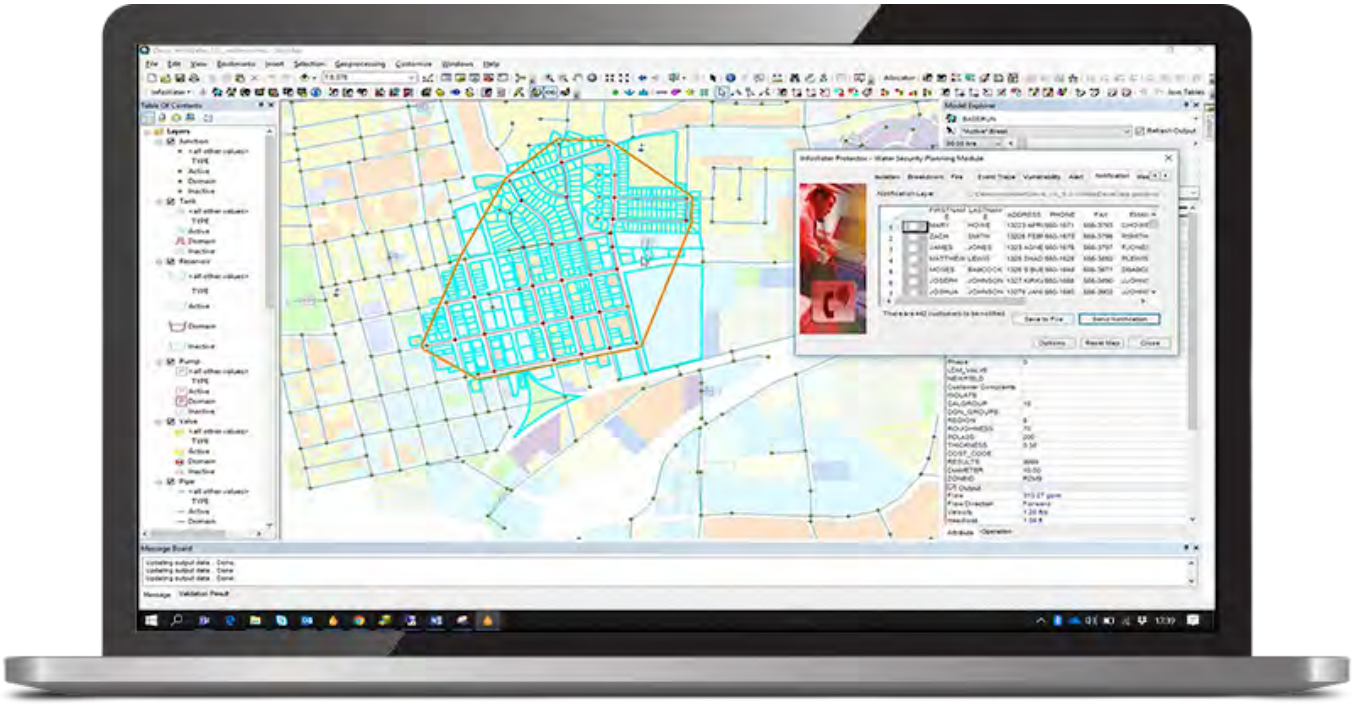
Assess your what-if scenarios

To understand the impact of model modifications, you can create, analyze, and compare various what-if scenarios - such as identifying the best pump operation strategies, most impactful incident response actions, master planning build-out options, cost-effective design alternatives, and much more.



Respond to emergencies effectively

InfoWater lets you prepare to respond to incidents . You can proactively determine how many of your customers would be affected and how they would be impacted by a pipe break, a fire (ensuring enough pressure), a contamination, or an outage, such as a power outage or a pipe replacement.



Track and improve water quality

Nothing needs to be safer and higher quality than potable water. With InfoWater, simulate the movement and concentration of water quality constituents. Model water age to control odors, and find the percentage of water originating from a specified source location.

Features

InfoWater offers all the capabilities your organization demands from a state-of-the-art hydraulic network solver. Command real-time simulations, optimize hydraulic performance, analyze water quality conditions, determine firefighting capabilities, perform online calibration, evaluate energy cost savings, and design sound unidirectional flushing programs, with astounding speed and accuracy.

GIS

InfoWater extends the core features of ArcGIS™, providing a comprehensive geospatial environment for complete network model construction, graphical editing, network simulation, results presentation, map generation, and enterprise-wide data sharing and exchange. It also adds rich discipline-specific functionality to ArcGIS™ designed to streamline and facilitate all aspects of the water distribution modeling workflow.

Hydraulic Modeling Capabilities

- steady-state and extended period simulations
- computes friction headloss using the Hazen-Williams, Darcy-Weisbach, or Chezy-Manning formulas
- includes minor (local) head losses for bends, meters, fittings, etc.
- models constant or variable speed pumps
- models a fixed pressure pump (FPP) that automatically adjusts its speed to maintain a user specified target pressure (or head) anywhere in the system
- models turbines and totalizing flow meters
- calculates Net Positive Suction Head requirements (available NPSH, required NPSH, and cavitation index) to ensure cavitation free operation
- determines system head curves and fire hydrant rating curves
- calculates available and design fire flows at minimum residual pressures
- computes pumping energy and cost based on variable electricity and demand charges
- accommodates various types of static and dynamic control valves including shutoff, check, float, pressure reducing, pressure sustaining, dual pressure regulating (maintain downstream and upstream pressures), pressure breaker, vacuum breaker, motorized

throttled, general purpose, flow control, and reduced pressure backflow prevention valves
- allows single and multiple inlet/outlet storage tanks to have any shape (i.e., diameter can vary with height)
- models constant and variable head reservoirs
- considers multiple demand categories at nodes, each with its own pattern of time variation
- models pressure-dependent demand issuing from emitters (sprinkler heads)
- automatically carries out pressure-demand analysis to compute the percentage (%) of demand supplied to each node (ratio of actual demand vs specified demand)
- tracks flow reversals for pipe flushing
- determines pipe sequences for unidirectional flushing
- simulates leakage in a pipe
- specifies system operation based on both simple junction pressure, tank level, pipe flow, or timer controls and on complex(logical) rule-based controls
- provides on-line SCADA interface with alarms
- Fireflow simulation allowing Extended Period Simulation
- ModelTracker to organize and manage any modeling project and keep track of all changes with a list of notes

Water Quality Modeling

- tracks the movement of a non-reactive tracer material (e.g., fluoride) through the network over time
- models the movement and fate of a reactive material as it grows (e.g., a disinfection by-product) or decays (e.g., chlorine residual) with time
- calculates the age of water throughout a network
- computes the percent of flow from a given node reaching all other nodes over time
- multiple (unlimited) source trace
- analyzes kinetic reactions both in the bulk flow and at the pipe wall
- incorporates nth order kinetics to model reactions in the bulk flow
- uses zero or first order kinetics to model reactions at the pipe wall
- accounts for mass transfer limitations when modeling pipe wall reactions
- allows growth or decay reactions to proceed up to a limiting concentration
- employs global reaction rate coefficients that can be modified on a pipe-by-pipe basis
- permits wall reaction rate coefficients to be correlated to pipe roughness
- allows for time-varying concentration or mass inputs at any location in the network
- models storage tanks as being either complete mix, plug flow, or two-compartment reactors

Network Review

The Network Review/Fix Tool is a comprehensive network drawing examination and correction application for use in constructing reliable, credible working models ready for analysis. It offers users complete functionality to quickly identify and automatically correct any network topology problems (e.g., disconnected nodes) and data flaws (e.g., duplicated pipes or nodes) that may arise from digitizing a model or building it using pre-existing GIS and CAD datasets. The Tool consists of many useful applications including:

- Locate nodes in close proximity (overlapping/duplicate nodes)
- Locate pipe-split candidates
- Locate crossing pipes that do not intersect at as common node
- Locate orphan pipes (no terminal nodes)
- Locate superimposed/duplicate pipes
- Locate disconnected nodes
- Trace network to identify all pipes and nodes in the network that can be reached from any specified location (source node) via a connected path

Scenario Management

InfoWater's comprehensive tree-type scenario manager gives you the power to make capital improvement decisions with pinpoint accuracy. Its unique facility manager with advanced Active Topology Alternative lets you maintain a single model of your water system while quickly developing and evaluating an array of modeling alternatives. Every change you make cascades through the entire set of projects in an easy-to-use, tree-like structure, allowing you to switch between scenarios, compare input data, merge models, and compare results instantly giving you a clear illustration of how your system will react to different conditions and planning horizons. Reverse (child to parent) inheritance is also fully supported.

Rich, Spectacular Presentation

Using powerful ArcGIS thematic mapping functionality, InfoWater® makes it easy to turn dry database information into stunningly colorful, fully dimensional visualizations. You can generate beautiful, accurate, and smooth contours for any variable, including elevation, pressure, hydraulic grade line, demand, water age, chlorine concentration, and more, directly on the map—even overlay multiple contours on a single drawing. Draw on a range of other sophisticated graphical presentation tools, including color-coded mapping, dynamic annotation/labeling, graphing, profiling, customizable tabular reporting, and vivid VCR-style animation to produce truly compelling results.

Stored Graph

The Stored Graph saves all graph settings about graph appearance, model output sources, and external data sources. In order to compare modeled results and measured data, the user

can customize a standard graph by adding multiple axes and panels and referring to other model scenarios and external data sources.

Integrating SCADA With Network Models

With direct integration to remote SCADA sites (PLCs), you can readily make use of detailed real-time performance information such as flow, pressure, tank level and pump and valve setting data to maintain continuously calibrated models and validate them for improved decision making and real-time response strategies. InfoWater's data analysis and graphing (statistical and trending) tools let you convert huge quantities of real-time field data into actionable information you can use to manage, plan and improve.

System Requirements

Compatible 32-bit OS
Windows XP Pro SP2 or above, Windows Server 2003 SP2, Windows Vista, Windows Server 2008 R2, Windows 7 Pro or above

Compatible 64-bit OS
Windows XP Pro SP2 or above, Windows Server 2003 SP2, Windows Vista, Windows Server 2008 R2, Windows 7 Pro or above

Compatible ArcGIS
10.3, 10.4, 10.5, 10.6, 10.7, and 10.8 (Check your PC ability to run ArcGIS (http://cyri.systemrequirementslab.com/cyri_if/1186/10913))

Prerequisites
.Net Framework 3.5 (http://app1.innovyze.com/page/p_download/updates/supportex/dotnetfx35.exe), Microsoft Chart Controls for Microsoft .NET Framework 3.5 (http://app1.innovyze.com/page/p_download/updates/supportex/MSChart.exe), Microsoft Visual Basic PowerPacks 10.0 (http://app1.innovyze.com/page/p_download/updates/supportex/VisualBasicPowerPacksSetup. and Microsoft Visual C++ 2010 Redistributable – x86 v10.0.40219.1 (http://app1.innovyze.com/page/p_download/updates/supportex/vcredist2010_x86.exe)

Hardware Requirements

CPU Speed
2.2 GHz minimum or higher; Hyper-threading (HHT) or Multi-core recommended

Processor
Intel Pentium 4, Intel Core Duo, or Xeon Processors; SSE2 (or greater)

Memory/RAM
2 GB or higher

Screen Resolution
1024 x 768 recommended or higher at Normal size (96dpi)

Disk Space
500 MB of free space to accommodate a full setup installation and additional disk space – keep as much free disk space available as possible. Its virtual memory system needs additional free disk space when working on large projects

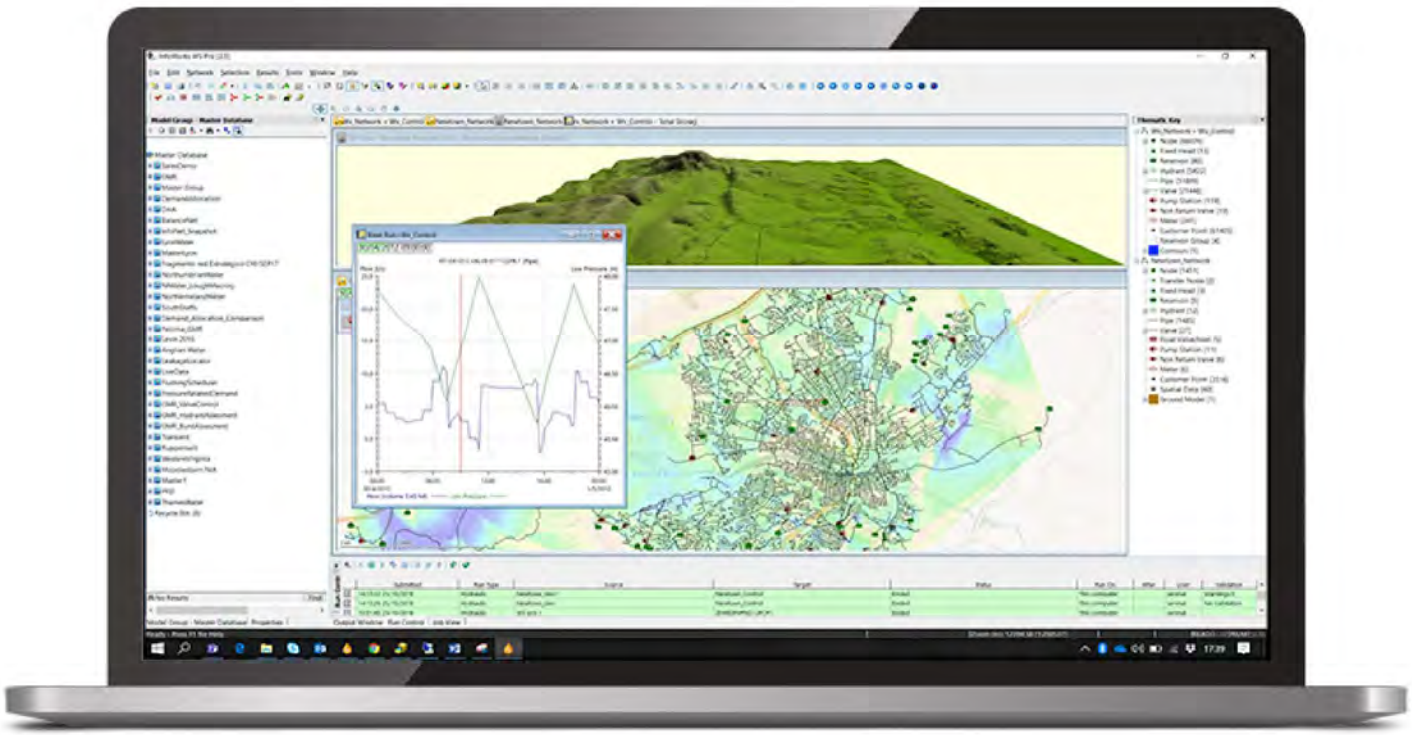
Video/Graphics Adapter
64 MB RAM minimum, 256 MB RAM or higher recommended. NVIDIA, ATI and INTEL chipsets supported

Networking Hardware
Simple TCP/IP, Network Card or Microsoft Loopback Adapter is required for the License Manager

Compatible ArcGIS
ArcGIS version 10.3 - 10.8 (Check your PC ability to run ArcGIS (http://cyri.systemrequirementslab.com/cyri_if/1186/10913))

ATTACHMENT B
City of Manteca
TM #1 – Water Modeling Software Evaluation
InfoWorks WS Pro Product Information

InfoWorks WS Pro



InfoWorks WS Pro

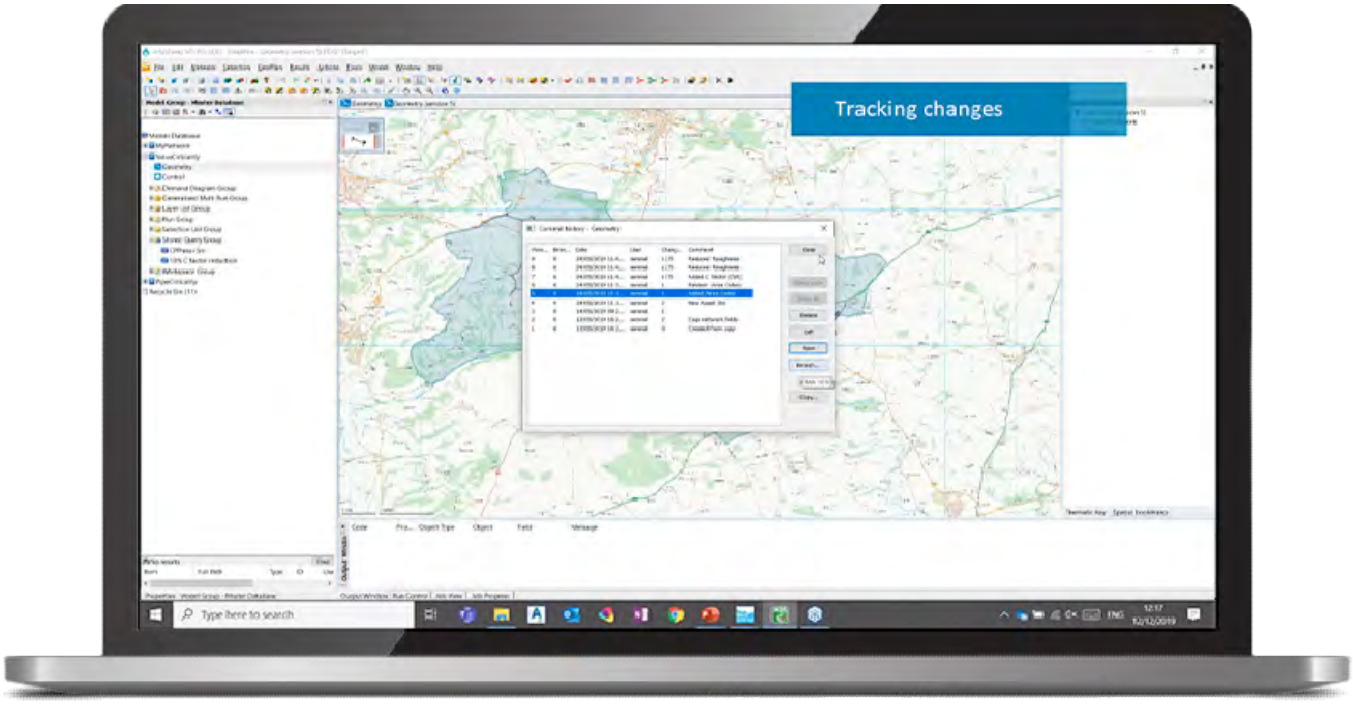
--Please Select--

InfoWorks WS Pro is available as a floating or fixed license, and by the number of links.

A link is a connection between two nodes. InfoWorks WS Pro classifies these into three types: pipes (or pipe segment), pumping stations, and valves.

- *A Fixed Seat License is tied to a single computer and may not be shared between multiple computers. It is best for single power users or small organizations.*
- *A Floating Seat License allows the software license to be accessed by multiple computers and shared among different users. It is best for larger organizations with many different software users.*

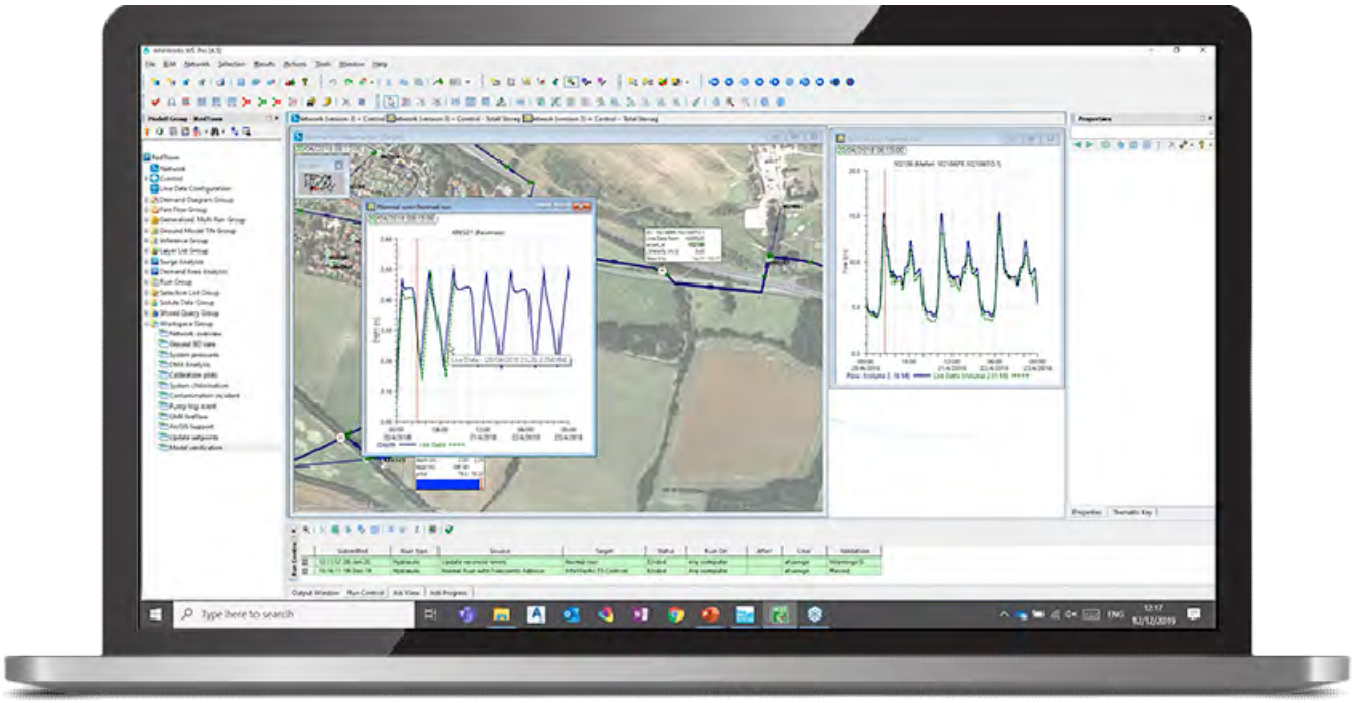
InfoWorks WS Pro - Comprehensive water distribution modeling in a collaborative environment.



Collaborate on the same model file

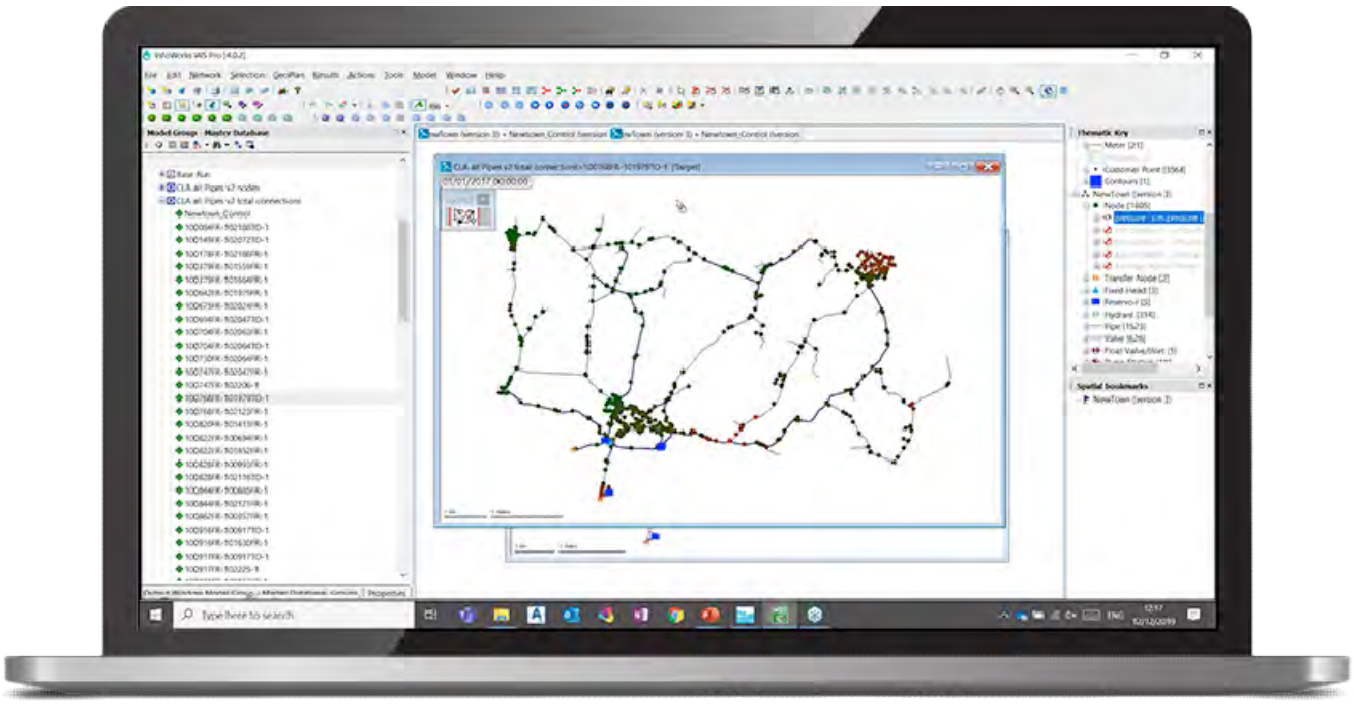
Single-user software products generate several versions of the same project file, which hinders water teams' productivity.

InfoWorks WS Pro enables scalable, enterprise-access hydraulic models, with multi-user access and editing, customizable user permissions, version-controlled model tracking, and data flags to keep track of changes in the model.



Leverage data to streamline model building and keep models up to date

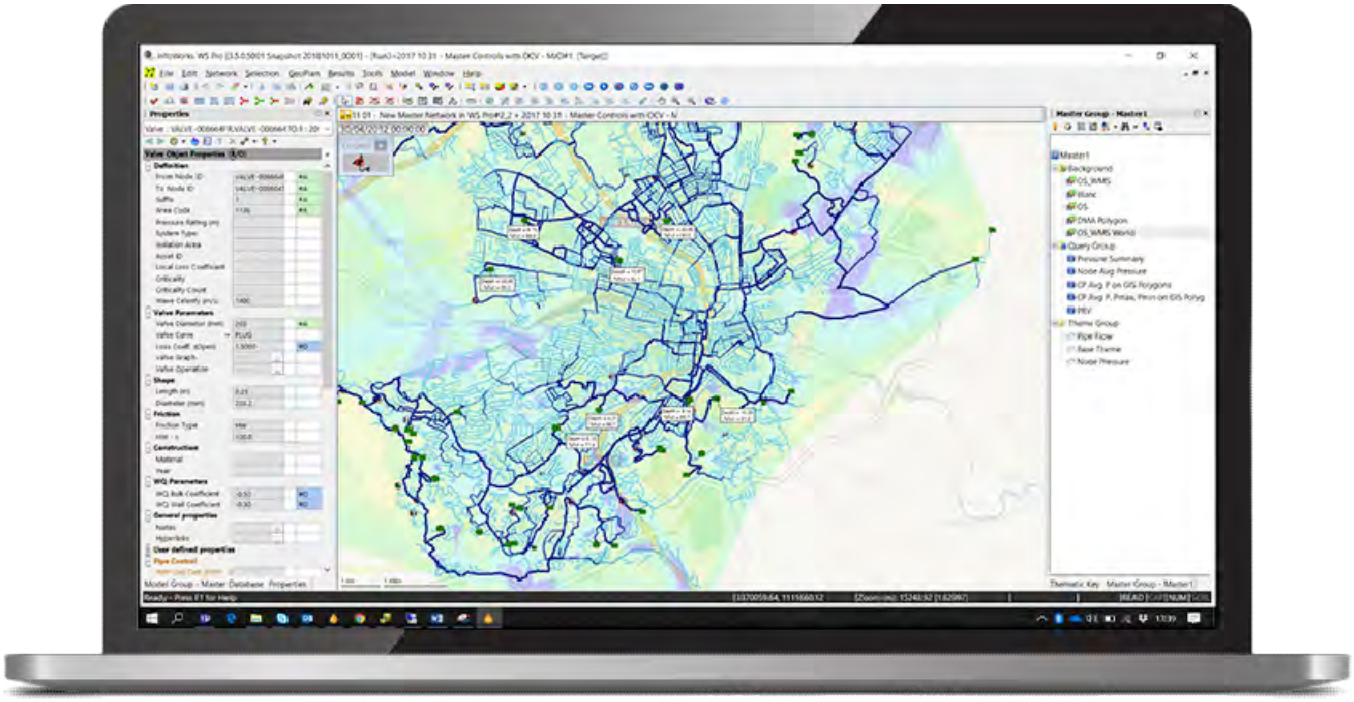
InfoWorks WS Pro connects to third-party applications, such as GIS and telemetry, to shorten model building time while ensuring your model results reflect the real system. It improves productivity and provides a decision-support tool you can rely on.



Efficient model simulation and optimized results

InfoWorks WS Pro conducts rapid analysis of very large, all-pipe models – no matter how many variables are changed.

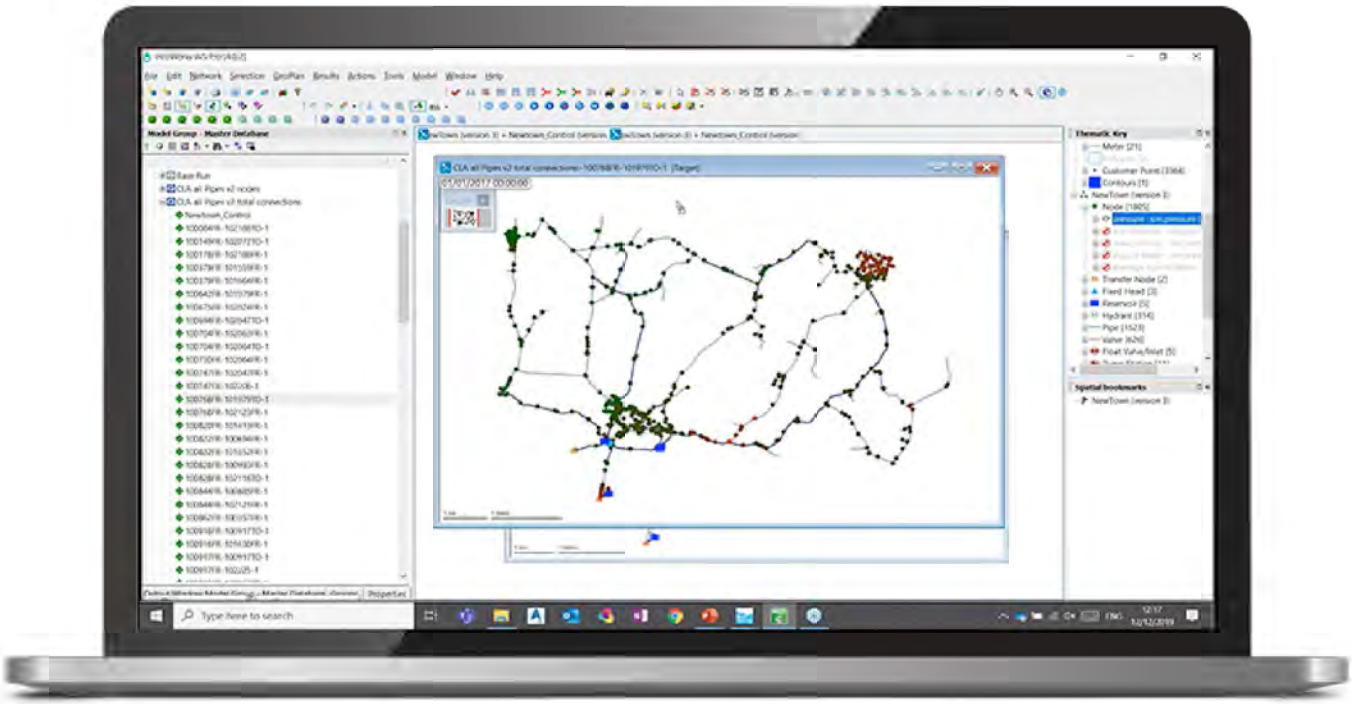
Concurrent an distributed simulations maximise your hardware resources, and with the Generalized Multi-Run capability, you can set up any simulation that runs multiple test cases, returning optimized results.



Mimic water operations

Supply the same amount of water, but at a much lower operating costs while ensuring adequate pressure.

With InfoWorks WS Pro, accurately assess level of service when reservoirs empty, explicitly model network assets (e.g. hydrants, meters), pump and valve operations, and realistic demands, and understand the impact of any operation on the rest of the system. It increases confidence in your model to guide operational decisions.



Ensure system resilience

Assess risk of failure and report on the effect of failure of a selection of links on the rest of the water system.

Use InfoWorks WS Pro's criticality link analysis to indicate where parallel pipes would be necessary for added resilience, and show how many customers would be affected by an outage/incident.

Criticality analysis can also help justify mains rehabilitation.

Features

InfoWorks WS Pro offers hydraulic and water quality modeling tools to help you effectively design and manage your water distribution systems.

Workgroup Model Management for Improved Teams Collaboration

Give multiple people access to your models:

- InfoWorks WS Pro maintains all model data into a single, centralized, and multi-user master database.
- Multiple people can edit the same object simultaneously.

Track all the changes that occurred over time:

- Models are held in a version-controlled system.
- You can view the commit history to compare, view or edit older versions of an object, confident that the integrity of the data and its source is maintained.
- InfoWorks WS Pro identifies and prompts you to resolve conflicts between changes to objects committed by different users.

Maximize productivity in your team
Whoever creates a database can assign varying levels of rights to other users, with the possibility to set up granularity within a database. It is also possible for items in the model to be associated with data flags, so that you can record the source and integrity of data within the model.

Data Integration

GIS connectivity
InfoWorks WS Pro offers seamless exchange of data between the model and external GIS in different formats (shapefiles, personal GDB, CSV, Oracle, SQL Server, MapInfo, etc.). You can also automate the exchange of data between the InfoWorks WS Pro master database and other third-party databases and file formats.

Hydraulic models, CAD, and asset management
InfoWorks WS Pro gives you the ability to import models from Stoner (Synergi), EPANET, AQUIS, WATSYS/WaterMax, AutoCAD DWG, and InfoAsset snapshot files.

Advanced users can also write and use a script to control the import of network data.

Telemetry
SCADA data can be linked to network objects allowing real-time comparison of actual against predicted values.

InfoWorks WS Pro leverages its open connection to telemetry to perform demand area analysis, calibration and leakage locator simulations.

It supports several types of telemetry databases, including SQL Server, Oracle, PI, iHistorian, and ClearSCADA.

Background images
InfoWorks WS Pro supports WMS (Web Mapping Service) for background images, in addition to standard feature layers, raster and grid images.

Managing Data

InfoWorks WS Pro provides a flexible hierarchy for managing model data and contains all your model data and results.

Data structure
InfoWorks WS Pro includes comprehensive database management facilities, which let you organise your work logically and efficiently. Using these facilities, you can see the overall structure of the database, break it down into its components, and view any part of the data itself.

Information layers
You can load map layers on InfoWorks WS Pro's GeoPlan window, to display all types of geographical information such as roads and buildings, surveyed maps, or even aerial photographs. You may also choose to share your layer lists with other users.

Queries
InfoWorks WS Pro implements its own subset of SQL (Structured Query Language) for selecting and updating network objects using specified criteria. A SQL query consists of a number of clauses separated by semi-colons. Each clause can do one of the following:

- select objects

- deselect objects
- update fields in objects
- clear the selection

You can save SQL queries as stored queries within stored query groups.

Model Building Tools

Inference tool
Missing network values can be inferred from existing data, allowing you to fill in gaps in your data with reasonable values (data flags can be used on all model data, to mark inference source).

Trace
Tracing tools such as upstream/downstream, can help you identify, view, and modify network connectivity and hydraulic boundaries.

Data validation checks
Validation can be used to define a set of additional checks on network data to ensure that it is consistent with expected engineering values.

Engineering libraries
To speed up the data entry process, you can create libraries of element defaults, which are used to automatically populate data for the newly created elements.

Demand Management
Demands can be defined as averages, specific consumptions, directly through customer points or measured flows, imported from SCADA, or defined by Land-Use Polygons. Leakage demands can be separated and treated differently to standard demands.

You can automatically allocate demands from any geo-referenced seed point data (customer point). Demand allocation can also be based on user-defined rules, to ensure accurate modeling of demands.

Realistic pump modeling
InfoWorks WS Pro allows users to see all of the pump station operating points on the pump curve.

Realistic valve modeling
You can choose between 6 valve construction types and 9 types of valve controls to allow realistic modeling of valves and valve headlosses.

Flexible object controls
In addition to standard controls, 4 of which are provided for pumps and 9 for valves, and importing controls directly from SCADA, InfoWorks WS Pro controls scripts can be used to match any other control used in the network.

Powerful Hydraulic Simulation

Engine performance
InfoWorks WS Pro combines the power of cutting-edge technology to properly model pipes, valves, pumps using a unique hydraulic engine, widely respected for its stability and reliability, especially in handling large distribution networks.

Pressure dependent demands
Local service pressures have an influence on demands and losses in the network. Higher pressures lead to increased consumption and losses. This is particularly true for leakage losses. But a similar relationship could not be made for consumption, because many other factors are also relevant.

By default, InfoWorks WS Pro calculates demand without reference to the actual pressure at a node. To provide more accurate modelling of demand, InfoWorks WS Pro provides a pressure-related demand option.

Water quality and sedimentation modeling
With the water quality simulation users can model 5 tank mixing models, simultaneous multiple source analysis, extended period simulation, and cumulative sedimentation.

Built on top of EPANET MSX extension, InfoWorks WS Pro MSQ allows you to model complex reactions in a water distribution system within the advanced and user-friendly InfoWorks interface.

Fire flow modeling
Automated fire hydrant testing runs can be applied to any set of nodes to determine if the fire flow criteria for the residual pressures at the node, zone, or system is satisfied.

Leakage locator
Leakage locator simulations are used to identify the location of a suspected leak by comparing simulated and observed pressures at monitored locations in the area around the leak.

Generalised multi-run (GMR)
GMR simulations cause a standard simulation to run many times each time modifying one or two values to generate results which can help prioritize investment. Network and control

changes can be modified, and any object can be altered. With GMR and runs being tested on multi core, you will benefit from higher performance.

Critical link analysis (CLA)
CLA is a series of automated runs that will evaluate the effect of a pipe, valve, or pump station failure on the system saving time of doing this process manually.

Drain Down Analysis
Default modeling of a tank emptying has an immediate impact on customers downstream having no water. In reality, when a reservoir empties, there will still be water within the network (supply does not stop immediately). Drain down analysis enables a much more realistic simulation, giving you better analysis for engineering works as well as for incident and operational support.

Unidirectional flushing (UDF)
UDF can be used to assess what hydraulic effect a flushing schedule will have on a network to see if a schedule is hydraulically possible.

Automated optimization
InfoWorks WS Pro includes a Genetic Algorithm (GA) solver that can be used to minimize pump energy consumption and optimize valve openings based on reservoir level and node pressure constraints.

Results Interpretation

Themes
Understand your results fully with dynamic thematic displays using color, size, symbols, and labels. It can be particularly helpful to visualize patterns hidden in data. It is also possible to use themes and contours to highlight a results parameter during a replay of a simulation.

Results comparison
It is possible to compare results for multiple simulations and understand the hydraulic performance and impact of various simulations.

Graphs
There are several types of graph available for viewing simulation results and comparing results with recorded data:

- Summary report graphs, to produce summary graphs for the simulation.
- Simulation reports to produce graphs for the network as a whole or just a selection. This gives you the option of comparing observed data against the model.
- Graph data for a network object for graphing simulation results and observed data for a single network object.

- Graph-selected objects can be used for graphing simulation results and/or observed data for several selected network objects.
- Saved graphs provide a powerful method of saving and reusing graphs. They can also be used as templates for creating similar sets of graphs on different data.
- Time-varying graphical data. The familiar time-varying graph can be used to quickly show almost any aspect of the model's performance.

Long sections
Profiles or long sections enable you to visualize a cross-section through the length of a selected run of network objects.

Minimum Requirements

An WS Pro workgroup will consist of one or more Workgroup Clients, a Workgroup Data Server and, optionally, a number of Remote Agents. The requirements for these different components can vary significantly, depending on the intended usage of the software.

Desktop 64 bit: Windows 8.1, Windows 10
Server 64 bit: Windows Server 2012, Windows Server 2012 R2, Windows Server 2016

Compatible 64-bit OS: Windows Server 2008 R2, Windows Server 2012 R2, Windows 7/8/8.1/10 pro or above

Prerequisites: A full installation of the .NET Framework version 4.5.2 or later is required.

Hardware Requirements

CPU Speed: 2.2 GHz minimum or higher; hyper-threading (HHT) or multi-core recommended.

Processor: Intel Core i3, i5, i7 or Xeon Processors; SSE2 (or greater).

Memory/RAM: 4 GB minimum, at least 8GB recommended.

Screen Resolution: 1440 x 900 recommended or higher at Normal size (96dpi).

Disk Space: 720MB of free space to accommodate all installation files. Additional disk space needed for database and/or temporary working files. Keep at least 50GB of disk space available for results files. Virtual memory system needs additional free disk space when working on large models.

Video/Graphics Adapter: NVIDIA GeForce, Quadro, GRID and TESLA GPU cards. (Always use the very latest NVIDIA drivers).

Networking Hardware: Simple TCP/IP, Network Card or Microsoft Loopback Adapter is required for the Dongle License Manager and Remote Simulation/Meshing connections.

The minimum requirements for the remote agent are similar.

Virtual Machines

Although this document describes the recommended hardware to be used for WS Pro many users will choose to implement their Workgroup environment (or components of it) using Virtual Machine technologies. This approach is perfectly acceptable, provided that the underlying hardware is able provide the necessary performance required for its virtual machines to emulate the performance of the hardware described in the rest of this document. It is the responsibility of the implementer to ensure that this is the case.

It is important to consider the clock speed of the physical processors when specifying a host system for a virtual machine running WS Pro (see below for further comments on processor choices).

Recommended Requirements

Workgroup Client
The Workgroup Client is the most RAM intensive component of WS Pro. For the 1D models during the model build process, the user interface process alone will usually only require 500MB to 1GB of RAM (although using many complex GIS layers can increase this significantly).

Workgroup Client Recommendation:
1D models 4-8 GB RAM, 100GB disk space, i5 or i7 processors.

Remote Agents

If you are setting up a remote agent on a machine, then all the advice related to the local simulations applies, but with the additional requirement that the agent will want to run simulations in parallel from multiple clients. In this case, multiple processors and processor cores within the fastest available CPUs are the key.

Since the simulation results are not permanently stored on the agent machine, disk sizes do not need to increase greatly, but sufficient storage for the results of multiple in-process simulations is required.

Remote Agent Recommendation:
1D models 16-32 GB RAM, 100 GB disk space, XEON processors, 64-bit OS

ATTACHMENT C
City of Manteca
TM #1 – Water Modeling Software Evaluation
WaterGEMS Product Information

PRODUCT DATA SHEET

WaterGEMS

Water Distribution Modeling and Management

WaterGEMS is a hydraulic modeling application for water distribution systems with advanced interoperability, geospatial model building, optimization, and asset management tools. From fire flow and constituent concentration analyses, to energy consumption and capital cost management, WaterGEMS provides an easy-to-use environment for engineers to analyze, design, and optimize water distribution systems.

Superior Interoperability

WaterGEMS users enjoy the power and versatility afforded by working across CAD, GIS, and stand-alone platforms while accessing a single, shared, project data source. With WaterGEMS, utilities and consultants can choose to model from within four interoperable platforms:

- Windows stand-alone for ease of use, accessibility, and performance
- ArcGIS for GIS integration, thematic mapping, and publishing
- MicroStation for bridging geospatial planning and engineering design environments
- AutoCAD for CAD layout and drafting

Modeling teams can leverage the skills of engineers from different departments, and engineers can flatten learning curves by choosing the environment they already know and provide results that can be visualized on multiple platforms.

Streamlined Model Building

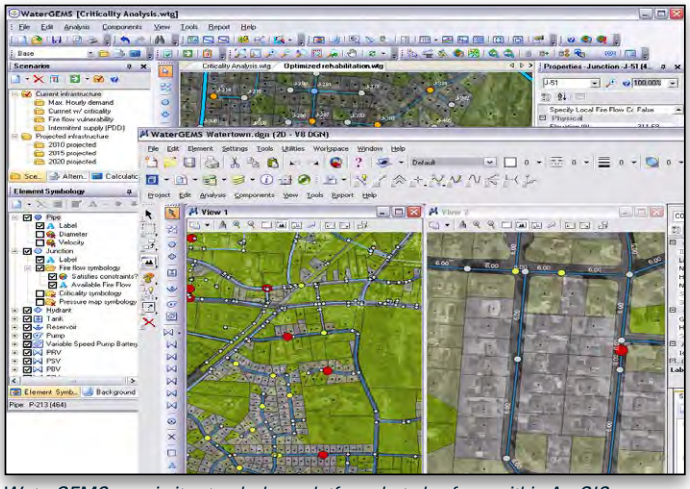
Engineers can leverage geospatial data, CAD drawings, databases, and spreadsheets to jumpstart the model building process. WaterGEMS provides synchronized database connections, geospatial links, and advanced model-building modules that connect with virtually any digital data format.

WaterGEMS includes LoadBuilder and TRex modules to help engineers allocate water demands and node elevations based on geospatial data found in shapefiles, geodatabases, various types of DEMs, and even CAD drawings. These modules help engineers avoid potential manual-input mistakes.

WaterGEMS also provides drawing and connectivity review tools to guarantee a hydraulically coherent model. Skelebrator automatically removes network complexity, while maintaining hydraulic equivalence, to efficiently tackle a wider range of modeling applications.

Optimized Model Calibration, Design, and Operations

WaterGEMS includes state-of-the-art genetic algorithm optimization engines for automated calibration, design and rehabilitation, and pump operations.



WaterGEMS runs in its stand-alone platform, but also from within ArcGIS, AutoCAD, and MicroStation.

Darwin Calibrator evaluates millions of possible solutions to let users quickly find a calibration hypothesis that best matches measured flows, pressures, and on/off status, empowering users to make reliable decisions based on accurate hydraulic simulation of the real world.

WaterGEMS' SCADAConnect module lets modelers automatically acquire supervisory control and data acquisition (SCADA) data, creating a real-time system simulator that accurately represents current system conditions. It also enables WaterGEMS model results to be published to a utility's existing SCADA control room screen(s), helping to forecast operating conditions and potential issues.

Darwin Designer automatically finds maximum benefit or minimum-cost designs and rehabilitation strategies, based on available budget, construction cost, and pressure and velocity constraints.

Engineers can also analyze energy consumption to identify the most energy efficient pump scheduling strategy. Darwin Scheduler optimizes the operations of fixed- and variable-speed pumps, and tank storage, to minimize energy usage or energy cost, based on pressure, velocity, pump start, and tank level constraints. Energy costs can be aggregated across pumping stations and factor in complex tariffs as well as non-model-related energy costs, to perform net present value analyses of their operating scenarios.

System Requirements

Refer to the 'Installation Requirements' section of WaterGEMS' ReadMe file:

www.bentley.com/WaterGEMS-Spec

Platform pre-requirements: WaterGEMS runs without platform restrictions as a stand-alone application.

It also runs from within ArcGIS, AutoCAD, and MicroStation. The requirements are also available in WaterGEMS' ReadMe file.

Find out about Bentley at: www.bentley.com

Contact Bentley
1-800-BENTLEY (1-800-236-8539)
Outside the US +1 610-458-5000

Global Office Listings
www.bentley.com/contact

WaterGEMS At-A-Glance

Interoperability, Interface, and Graphical Editing

- Runs from within four compatible platforms:
  - » Stand-alone Windows
  - » ArcGIS (ArcMap)
  - » MicroStation
  - » AutoCAD
- Unlimited undo and redo
- Element morphing, splitting, and reconnection
- Merge nodes in close proximity tool
- Automatic element labeling
- Scaled, schematic, and hybrid environments
- Element prototypes
- Aerial view and dynamic zooming
- Named views library
- Multiple background-layer support
- Image, CAD, and GIS background support

Hydraulics, Operations, and Water Quality

- Steady-state simulation
- Extended-period simulation
- Constituent-concentration analysis
- Multi-species water quality analysis
- Tank-mixing analysis
- Water-age analysis
- Water quality batch run
- Criticality analysis
- Fire-flow analysis
- Rule-based or logical controls
- Variable-speed pumping, with option to use APEX (Automatic Parameter Estimation eXtension)
- System head curves
- Leakage and sprinkler modeling
- Water loss analysis
- Pressure-dependent demands
- Scenario modeling-based unidirectional flushing
- Source tracing
- Valve modeling
- Air release valve element
- Top fill tank element
- Combination pump curves
- Carbon emission calculation
- Optimization of pipe renewal with Pipe Renewal Planner

Model Building and Data Connection

- DXF, spreadsheet, database, and ODBC connections
- Shapefile, Geodatabase*, Geometric Network*, and SDE* connections (*when running from within ArcMap)
- Oracle spatial support
- GIS-ID property to maintain associations between records in the data source / GIS and elements in the model
- SCADAConnect 25-signal pack for live data connections (to and from SCADA systems)
- Graphical SCADA element
- Customer Meter element
- Automatic demand allocation from geospatial data
- Geospatial demand allocation from customer meters
- Demand allocation from lump-sum geospatial data
- Geospatial-based water consumption projection
- Daily, weekly, monthly, and superimposed patterns
- Unaccounted for water and leakage estimation
- Composite demands global edition
- Area, count, discharge, and population-based loading
- Pipe-length-based demand loading
- Elevation extraction from DEM, TIN, and shapefiles
- Elevation extraction from CAD drawings and surfaces
- Series, parallel, branch-trimming, multi-criteria automated skeletonization of pipes
- Skeletonization support for isolation valves
- User-data extension, including formula based

Model Management

- Unlimited scenarios and alternatives
- Comprehensive scenario management
- Global attribute tabular edition
- Pressure zone management
- Automated model skeletonization
- Personalizable engineering libraries
- Sorting and persistent filtering on tabular reports
- Statistical analysis from tabular reports
- Dynamic and static selection sets
- Local and global engineering-units management
- Sub-model management
- Drawing review tools for connectivity consistency
- Automatic topology review
- Orphaned nodes and dead-end pipes queries
- ProjectWise/ProjectWise Geospatial Management support

Results Presentation

- Direct ArcMap visualization and mapping
- Thematic mapping
- Dynamic, multi-parameter, and multi-scenario graphing
- Scenario and element comparison
- Shapefile contouring
- Advance profiling
- Advanced tabular reporting with FlexTables
- Property-based annotation, color coding, and symbology
- Creation of Google Earth (KML) files
- Publishing of i-models in 2D or 3D, including to Bentley Map Mobile

Optimization (using Genetic Algorithm)

- Automated model calibration with Darwin Calibrator
- Optimized design and rehabilitation with Darwin Designer
- Optimized pump scheduling with Darwin Scheduler

Energy and Capital-cost Management

- Energy cost analysis
- Capital cost analysis

Bentley
Sustaining Infrastructure

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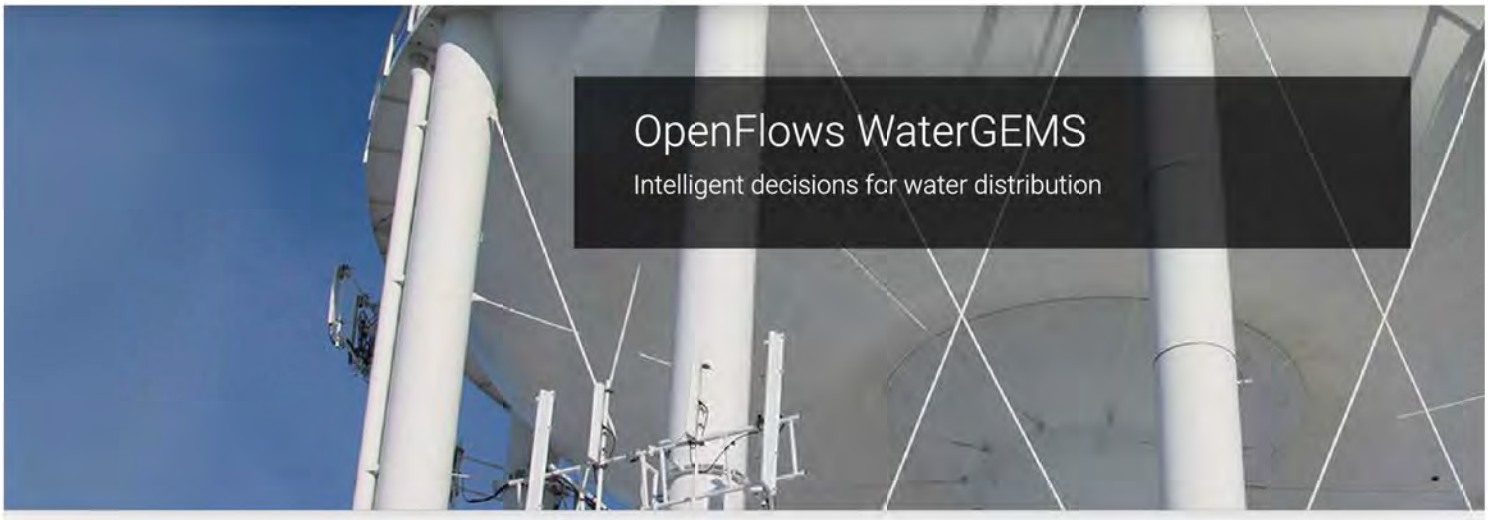
Bentley



Water Distribution Analysis and Design Software

OpenFlows WaterGEMS provides you with a comprehensive yet easy-to-use decision-support tool for water distribution networks. The software helps improve your knowledge of how infrastructure behaves as a system, how it reacts to operational strategies, and how it should grow as population and demands increase.

From fire flow and water quality simulations, to criticality and energy cost analysis, OpenFlows WaterGEMS has everything you need in a flexible multiplatform environment.

OpenFlows WaterGEMS provides numerous software capabilities for:

- **Intelligent planning for system reliability**: The capability of the water network to adequately serve its customers must be evaluated whenever system growth is anticipated. With OpenFlows WaterGEMS, effectively identify potential problem areas, accommodate service area growth, and plan capital improvements.
- **Optimized operations for system efficiency**: Realistically modeling the operation of complex water systems can be difficult. With OpenFlows WaterGEMS, model pumps accurately, optimize pumping strategies, and plan shutdowns and routine operations to minimize disruption.
- **Reliable asset renewal decision support for system sustainability**: When it comes time to renew or replace your water infrastructure, the amount of asset-related information you must consider can be overwhelming. OpenFlows WaterGEMS capabilities such as Pipe Renewal Planner makes the task much easier by analyzing and comparing a wide range of variables to prioritize renewal decisions.

OpenFlows WaterGEMS is a superset of OpenFlows WaterCAD.

CLOSE

WaterGEMS Overview

Buy OpenFlows WaterGEMS Now

Choose the licensing option that works best for you. You can take advantage of perpetual, term, or Bentley's new Virtuoso Subscription. A Virtuoso Subscription includes your software application bundled with expert services delivered by Virtuosity, a Bentley company.

BUY NOW

Virtual Series: ACCELERATE OpenFlows

Available On Demand
Experience the power of ACCELERATE working through a typical water

WaterGEMS Overview

distribution hydraulic modeling workflow.

ENROLL NOW

Request a Quote

Request a price quote for a new WaterGEMS license.

READ MORE

CAPABILITIES

Analyze pipe and valve criticality

Find the weak links in water distribution systems and assess the adequacy of isolation valves. Evaluate the ability to isolate portions of the system and serve customers using different valve locations. WaterCAD/WaterGEMS automatically generates network segments once the isolation valve data is supplied.

Assess fire flow capacity

Use a water distribution hydraulic model to access and identify where fire protection is inadequate. Design improvements such as the sizing and location of pipes, pumps, and tanks in order to meet fire-flow and protection requirements.

Build and manage hydraulic models

Jumpstart the model-building process and manage your model effectively so that you can focus on making the best engineering decisions. Leverage and import many well known external data formats, which maximizes ROI on geospatial and engineering data and automates input data generation.

Design water distribution systems

Use hydraulic model results to help optimize the design of complex water distribution systems and utilize built-in scenario management features to keep track of design alternatives. Alternatively, WaterGEMS users can optimize the design for you using the built-in Darwin Designer network optimization tool.

Develop flushing plans

Optimize flushing programs with multiple conventional and unidirectional flushing events in a single run. Increase velocity in mains to flush out solids and stale water, with the primary indicator of the success of flushing being the maximum velocity achieved in any pipe during the flushing operation.

Identify water loss

Conserve water and increase revenues by reducing water loss. Leverage flow and pressure data to find locations for detailed sonic leak detection (WaterGEMS only). Study the amount by which you can expect to reduce leakage by reducing pressure and see the impact on customer service.

Manage energy use

Model pumps accurately using hydraulic modeling, including complex pump combinations and variable speed pumps, to understand the impact that different pump operational strategies have on energy usage. Minimize energy related to pumping costs while maximizing system performance.

Prioritize pipe renewal

Identify the pipes that should be considered for replacement or repair. Pipe links are ranked based on several aspects, including property- and performance-based criteria. Benefits that result include improved asset planning, increased distribution capacity, and maximum returns on capital expenditures.

Simulate networks in real time

Connect your calibrated hydraulic model to your SCADA system so that the initial boundary conditions for the model are automatically updated with the latest real-time data. Use this real-time model to keep an eye on the system and help ensure it is operating effectively.

ATTACHMENT D
City of Manteca
TM #1 – Water Modeling Software Evaluation
Software Feature Comparison Table

	InfoWater	WaterGEMS (v8i and CONNECT)
General		
Programming Language	ArcObjects Geospatial Component Model	Primarily .NET and ArcObjects Geospatial Component model
Hydraulic Engine	Modified Hybrid/EPANET	Modified Hybrid
Portable	X	X
Platform	ArcGIS (ArcView)	ArcGIS, AutoCAD, MicroStation, and Standalone; flexibility to interchange between them
On-line Help	X	X
Documentation	X	X
Diagnostic Messages	X	X
Documented Messages	X	X
Extended-Period Simulation	X	X
Energy Cost Analysis	X	X
Advanced Water Quality Analysis	X	X
Leakage and Sprinkler Analysis	X	X
Pressure Dependent Demand Analysis (automatically calculate the percentage of demand supplied to each node - ratio of actual demand vs specified demand)	X	X
Unidirectional Flow Stepper (Flushing Sequence)	X- Separate purchase for UDF - Works within InfoWater/InfoWater Pro	X
Upgrades (free)	X	X
Toll Free Phone Support	X	X Available 24/7
Continuing Education Workshops	X	X No additional charges, Included in subscription and lease
Model Management		
Tree-Based Scenario Management	X	X
Scenario Manager Supports Inheritance	X	X
True Inheritance (Change a Value in the Parent and it Changes in the Child)	X - If the parent and child have the same dataset	X
Support Reverse Inheritance (Change a Value in the Child and it Automatically Changes in the Parent If so Desired)	X - Merge process	X
Alternatives	X	X
Alternatives Support Inheritance	X	X
Subsetting of Model	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Facility Management	X	X
Input Scenario Comparison	X	X
Output Scenario Comparison	X	X
Active Link Between Scenario Manager and Results	X	X
Use Relational Database to Store Model Data	X	X
Combined Input and Output Attribute Tables	X	X
Terminal Service and CITRIX Support	X	X
Water Quality Modeling Capabilities		
Track the Movement of a Non-Reactive Tracer Material (e.g., fluoride) Through the Network Over Time	X	X
Model the Movement and Fate of a Reactive Material as It Grows (e.g., a disinfection by-product) or Decays (e.g., chlorine residual) with Time	X	X
Calculate the Age of Water Throughout a Network	X	X
Compute the Average Residence Time for the System	X	X
Compute the Percent of Flow from a Given Node Reaching All Other Nodes Over Time	X	X
Perform Multiple (Simultaneous) Source Trace	X	
Analyze Kinetic Reactions Both in the Bulk Flow and at the Pipe Wall	X	X
Incorporate Nth Order Kinetics to Model Reactions in the Bulk Flow	X	X
Use Zero or First Order Kinetics to Model Reactions at the Pipe Wall	X	X
Employ Global Reaction Rate Coefficients that Can be Modified on a Pipe-by-Pipe Basis	X	X
Allow for Time-Varying Concentration or Mass Inputs at any Location in the Network	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Model Storage Tanks as Being Either Complete Mix, Plug Flow, or Two-Compartment Reactors	X	X
FireFlow Simulation		
Ability to Run Multiple Fire Flow Locations	X	X
Ability to Set Different Fire Flows in Single Simulation	X	X
Calculate Available Flow	X	X
Calculate Design Flow	X	X
Ability to Review Fire Flow Pipe and System Results for Each Fire Node	X	X
Ability to Subset the Searching Range of the Fire Flow Analysis	X	X
Ability to Run Extended Period Simulation with Single and/or Multi Fire Flow	X	X
Import/Export		
ODBC Support	Import/Export	X
Fully Compatible with Intergraph GeoMedia and GeoMedia Professional	Import/Export	Import/Export
EPANET v1 and v2	v2	X
Shapefiles	Import/Export	X
MID/MIF	Import/Export	
PostGIS Spatial Data Engine		
Direct ArcSDE Support	X	X
Enterprise and Personal Geodatabase Support	X	X
Model Compatability	ArcGIS 10.3-10.8/ArcGIS Pro/Excel	WaterCAD/WaterGEMS
Database Management		
32 Characters ID	X	X
Ability to Add New Attributes	X	X
Ability to Build/Update Models From Geodatabase and Geometric Network	X	X
Ability to Create SQL Statements to Calculate or Set Values	X	X
Ability to Graphically Query New Attributes	X	X
Copy - Paste	X	X
Create Special Query Sets	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Create/Update Database from Map	X	X
Create/Update Map from Database	X	X
Field Calculator	X	X
Find/Search	X	X
Group Editing	X	X
Save/Recall Dabatase Query Sets	X	X
Save/Recall Element Selection Sets	X	X
Set Default Values	X	X
Sort Ascending/Descending	X	X
Summary Statistics	X	X
Treat Pumps and Valves as Nodes	X	X
Graphical Editing		
Ability to Delete Selected Element	X	
Annotation and Labeling	X	
Automated Pipe Length Measurement	X	X
Redraw Existing Pipes	X	X
Can change facility type once it is created	No (delete from database, then recreate)	Yes (morph)
Reverse Node Order	X	X
Rubber Banding of Pipes When Nodes are Moved	X	X
Undo/Redo	X	X
QA/QC Drawing Tools		
Network Trace	X	X
Trace Upstream Network	X	X
Trace Downstream Network	X	X
Display Connectivity	X	X
Show Connected Links	X	X
Verify Link Direction	X	X
Fix Link Direction	X	X
Insert Nodes Based on Tolerance at Ends of Pipe Segments	X	X
Ability to Identify Nodes with Only One Pipe Connected	X	X
Identify and Fix Nodes in Close Proximity (Overlapping/Duplicate Nodes)	X	X
Locate and Fix Pipe-Split Candidates	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Check Hydraulic Data Prior to Analysis Run	X	X
Check Topology Data Prior to Analysis Run	X	X
Locate Parallel/Duplicate/Superimposed Pipes	X	X
Locate and Fix Crossing/Intersecting Pipes	X	X
Locate and Fix Orphan Pipes	X	X
Ability to Identify Disconnected Pipes and Nodes	X	X
Join Disconnected Nodes	X	X
Merge Nodes	X	X
Ability to Graphically View Disconnected Areas	X	X
Results Presentation		
Results Histogram	X	
Customizable Graphs and Reports	X	X
Multiple Elements Support	X	X
Animated HGL Profile	X	X
Elevation Profile	X	X
Pump Operation	X	X
Animated Graphs to Show Time-Varing Results	X	X
Display Multiple Graphs and Reports	X	X
Can show Link and Node Results Simultaneously		X
3D Graphing	X	X
Named Views	X	X
Save Graphs and Profiles	X	X
Attribute Selection	X	X
Full Results Query Capability	X	X
Min/Max/Avg Results	X	X
Dynamic Color-Coding	X	X
Contouring Ability	X	X
Dynamic Contour Labeling	X	X
Video Type Controls	X	X
Export All Pipe and Node Results as Shapefiles	X	X
Export Contours as Shapefiles	X	X
Demand Allocation		
Included	X	X
Customer Meter Data	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Assign Demands to Closest Junctions	X	X
Assign Demands to Closest Pipes	X	X
Assign Demands Based on Meter Summation within Each Service Area	X	X
Display Meter-Junction Allocation	X	X
Display Meter-Pipe Allocation	X	X
Area Based Water Use	X	X
Population or Land Use Based Water Use	X	X
Number of Land Use Categories	10	Unlimited
Future Demand Projection	X	X
Complete Demand Distribution	X	X
Automated Water Duty Determination	X	
Create New Demand Alternative for Each Allocation Process	X	X
Pressure vs Demand Curve	X	X
Create Thiessen Polygons	X	*(within ArcMap)
Create Service Areas	X	*(within ArcMap)
Create Pressure Zone Boundaries	X	*(within ArcMap)
Create/Edit/Move Polygons	X	*(within ArcMap)
Process Polygon Intersection	X	*(within ArcMap)
Process Polygon Summation	X	*(within ArcMap)
Stepwise Demand Pattern	X	X
Continuous Demand Pattern	X	X
Elevation Extraction		
Included	X	X
Use GRID or other DEM/DTM to Calculate Elevation Data	X	X
Compute Elevation Profile from Contour	X	X
Interpolate Between Contour Lines to Compute Elevation	X	X
Interpolate Elevation from Survey Points	X	X
Use Spatial Join to Extrapolate Elevation	X	X
Allocate Elevations to Pumps and Valves	X	X
Assign Elevations to All Modeled Nodes in One Process	X	X
Hydraulic and Water Quality Model Calibration		

	InfoWater	WaterGEMS (v8i and CONNECT)
Included	X	X
Genetic Algorithm	X	X
Multiple Scenarios Calibration	X	X
Multiple Fire Flow Tests Calibration/Import Multiple Datasets for comparison	X	X
Allow Any Combination of Field Test Data	X	X
Complete EPS Calibration	X	X
Adjust Pipe Roughness Coefficient	X	X
Use Any Selected Range of Multipliers to Adjust Pipe Roughness Coefficients	X	X
Adjust Pipe Status	X	X
Adjust Pump and Valve Status	X	X
Adjust Junction Demand	X	X
Total Mass Flow Conservation	X	X
Import Time-Series Data for comparison	X - Real time data can be connected and compared to model results	X
Calculate Pipe Wall Coefficient	X	
Water Quality		
Match Observed Junction Pressures	X	X
Match Observed Tank Levels	X	X
Match Observed Pipe Flows	X	X
Match Observed Valve Flows	X	X
Match Observed Pump Flows	X	X
Match Observed Chemical Concentrations	X	
Graphical Comparison	X	X
Produce Pressure, Flow and HGL Correlation Plots	X	X
Generate Pressure, Flow and HGL Correlation Statistics	X	X
Model Skeletonization		
Included	X	X
Manual Skeletonization Process Allowing to Preview Changes Before They Are Committed		X
Automatic Skeletonization	X	X
Pipe Removal Based on Attribute(s)	X	X
Dead-End Removal	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Series Pipe Merging	X	X
Protect Selected Elements from Skeletonization	X	X
Graphically Preview Skeletonization Candidates Individually Before Proceeding	X	X
Generate a Detailed Skeletonization History Element Report (Series and Parallel Pipe Merging and Dead-end/Branch Trimming)	X	X
Preserve Network Integrity	X	X
Prevent Network Disconnections	X	X
Re-allocate Junction Demands	X	X
Distance Weighted Allocation	X	X
Evenly Distributed Allocation	X	X
Demand Weighted Allocation (Proportional to Existing Demand)	X	X
Nearest Junction	X	X
Furthest Junction	X	X
Maintain Total System Demand	X	X
Perform Multiple Skeletonization Runs	X	X
Save Skeletonization Settings	X	X
SCADA Interface		
Included	X	X
Update Tank Water Level from SCADA	X	X
Update Pump Status & Speed Setting from SCADA	X	X
Update Valve Status & Setting from SCADA	X	X
Demand Adjustment from SCADA	X	(manual)
Velocity Alarm	X	X
Tank Level Alarm	X	X
Compare Junction Pressures	X	X
Compare Pipe Flows	X	X
Compare Pump Flows	X	X
Compare Valve Flows	X	X
Real-Time Data Connection	X	X
Miscellaneous		
Variable Speed Pump (VSP) Modeling	X	X
Model VSP Anywhere in the Network	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Model Any In-line Booster Stations as VSPs	X	X
VSPs Need NOT Be Connected to a Reservoir or Tank	X	X
Maintain Target Pressure/Head Anywhere (at Any Location) in the Network	X	X
Maintain Target Pressure/Head at the Discharge Node	X	X
VSP Can Work in Conjunction With Logical and Simple Controls	X	X
Model Vacuum Breaker Valves	X	X
Model Float Valves	X	X
Model General Purpose Valves	X	X
Model Motorized Throttled Valves (Percent Opening vs Loss Coefficient Valves)	X	X
Support Link Flow Control	X	X
Track Flow Reversal For Pipe Flushing	X	X
Determine Pipe Sequences for Unidirectional Flushing	X	X
Calculate Net Positive Suction Head Requirements and Cavitation Index	X	
Generate System Head Curves	X	X
Generate Fire Hydrant Rating Curves	X	X
Pipeline Costing Tool	X	X
Engineering Tables Provided	X	X
Flexible Units	X	X
Reference Formats	DGN, DWG, DXF, SHP, MI, AI Coverages, Tiffs, Geodatabases	DGN, DXF, SHP, BMP, JPG, TIFF, PNG, GIF, Geodatabases, Coverages, DWG
Ability to Thematically Map Reference Files	X	X
Model Coordinate Transformation	X	X
True GIS Layer Management	X	X
Load any Aerial Photographs	X	X
Display any Background Images (Unlimited Layers)	X	X
Automated Polyline Conversion	X	X
TIN overlay capability	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Event/Consequence Management	X	X
Vulnerability Assessment	X	X
Track Contaminants to Originating Sources	X	X
Compute Required Purging Volume	X	X
Determine All Critical Facilities that Will Result in the Distribution System Hydraulic Failure	X	X
Event Isolation	X	X
Breakdown Isolation	X	X
Generate Customer Notification Report	X	X
Pressure related demand	X	X
Well drawdown curve	X	X
Incremental pump and valve operation changes	X	X
Dry system modeling	X	
Demand calibration	X	X
Daily, weekly and monthly demand variation	X	X
Link criticality assessment	X	X
Genetic Algorithm Optimal Calibration		X
Genetic Algorithm for Optimal Pump Scheduling	X	X
Genetic Algorithm for Optimal Pipe Design and Rehabilitation	X	X
GIS Data Exchange Tool		
Seamless GIS to Hydraulic Model Data Exchange (Eliminate Need to Use 3rd Party Database or Spreadsheet Program as the "Middle-Man")	X	X
GIS Data Lives Inside Hydraulic Model - No Disconnect Between GIS and the Model	X	model builder file - maps fields, GIS IDs
Readily, Quickly and Easily Updatable Data Exchange Format Saves the User Significant Work Time	X	X
Bi-Directional Data Sharing with any GIS Shapefile	X	X

	InfoWater	WaterGEMS (v8i and CONNECT)
Results Easily Updateable Using Existing GIS Shapefiles	X	X
Opportunities for IMS-Integration	X	X
Costs		
Purchase Cost for 5,000 Links (July 2021)	InfoWater Basic Fixed license is $11,150	$20,968*
Annual Cost for 5,000 Links Maintenance (July 2021)	Annual maintenance (AM) for item above is $2,230	$5,033*
Cost for Additional Modules (July 2021)	Demand Allocator – this feature is included in InfoWater Suite	There are no additional modules
	Skeletonizer - this feature is included in InfoWater Suite	
	Protector - this feature is included in InfoWater Suite	
	InfoWater UDF – the UDF module upgrade is $2,240 plus $1,120 AM	
	InfoWater MSX – the MSX upgrade is $17,845 plus $3,569 AM	
Cost for 5,000 Links Including All Modules (July 2021)	InfoWater Suite Fixed license is $12,255 plus $2,696 AM	same as above
Cost for a Viewer (July 2021)	There is no viewer license for InfoWater	free viewer available**
Notes	Requires ArcMap Basic license.	14% of purchase cost, no purchase or subscription required

*pricing for WaterGEMS depends on arrangement, there is ability for both license purchase as well as consumption-based lease. A Bentley sales representative can help determine available pricing based on anticipated use. Note that WaterCAD can be purchased initially and later upgraded to WaterGEMS with no requirement for model conversion or migration - the two programs use the same file format and standalone interface and are interchangeable

** Bentley has a format called iModel which has a corresponding free viewer. WaterCAD and WaterGEMS can publish iModels, which give access to graphically viewable files on PCs and tablets that have individual asset inputs and results available.

APPENDIX B
City of Manteca
Water Master Plan
TM #2 Model Calibration Plan

Technical Memorandum

HydroScience
Strategic Water Solutions

Sacramento • Berkeley • San Jose • Concord

To: Elba Mijango, Project Manager, City of Manteca

From: Rachel Yenney, EIT
Jonathan Machorro, PE

Reviewed By: Angela Singer, PE

Subject: TM #2 – Model Calibration Plan
City of Manteca – Water Master Plan

Date: October 20, 2021

The City of Manteca (City) has retained HydroScience Engineers, Inc. (HydroScience) to develop the City's Water Master Plan (WMP). As part of that effort, HydroScience is building and calibrating a hydraulic model of the City's water distribution system.

This technical memorandum (TM) is intended to present a plan for field testing and calibration of the model complete with hydrant test locations and field-testing procedures. Results from the implementation of this plan will then serve as the basis for calibration of the hydraulic model.

Introduction and Objectives

The City does not have an existing water distribution system hydraulic model; thus, the hydraulic model built for this WMP will be developed from the City's existing GIS database as well as supplementary data from record drawings, site visits, etc.

Calibration is an integral part of developing an accurate hydraulic water model. By comparing actual field data/measurements to results generated by the hydraulic model, adjustments to model parameters can be made such that results predicted by the hydraulic model will accurately represent the actual water system conditions within an acceptable margin of error.

The objective is to use the hydraulic model to replicate actual operating conditions – preferably normal operating conditions – during the period of monitoring and testing. All conditions and modifications to the distribution system and water supply during this period will need to be identified and documented by the City. Provided below is a list of some noted conditions to manage during the period of monitoring and testing:

- If possible, avoid active construction projects that may affect the hydraulics of the distribution system, particularly in the areas in or around the selected calibration sites;
- Maintain consistency with water sources over the course of the monitoring period;
- Control and log the operational parameters, control set points, and logical controls used within the system to automate the various water system infrastructure (i.e. tanks, turnouts, pump stations, and pressure reducing valves) during the monitoring and testing period on an hourly basis; and
- Communicate with the fire department to request that they limit training activities and fire system flushing during the monitoring and testing period, if possible.

The following sections of this TM will present a description of the calibration plan including hydrant monitoring and testing locations, field-testing procedures, and the methodology that will be used to calibrate the hydraulic model using the field-test data. The conditions that will be captured and used for calibration include:

- Typical hydraulic conditions and asset operation over consecutive 24-hour periods;
- Diurnal water use and pressure conditions for extended period simulations (EPS);
- System conditions in response to hydrant flows; and
- Existing coefficient of friction (C-factor) for select pipeline diameter and material.

Hydraulic model calibration monitoring and testing will consist of the following three activities:

1. **System-wide pressure monitoring:** Pressure data loggers will be installed onto hydrants throughout the City distribution system to monitor and record system pressure in the days surrounding the hydrant testing;
2. **Hydrant testing**: A series of flow tests will be performed where a selected number of hydrants strategically located throughout the system will be flushed at measured flow rates in order to stress the system and record the system's pressure response;
3. **C-factor testing:** Pipes of a specific diameter and material will be isolated to measure pressure differential with specific unidirectional flows.

The following sections detail the three activities listed above including identification of the sites selected for hydrant testing and system pressure monitoring, a description of the strategy for each selection, and the proposed methodology that will be implemented to calibrate the hydraulic model.

All system operation and installation of data logging and flow testing equipment shall be performed by City personnel. HydroScience will provide onsite support during flow testing activities.

System-Wide Pressure Monitoring

It is important to establish a baseline understanding of the distribution system during typical operating conditions. To obtain this information, data loggers will be installed across the system to monitor and log pressure at defined intervals. The intent is to monitor system conditions in the days surrounding, as well as during, hydrant testing. Capturing system conditions outside of hydrant testing is intended to normalize any anomalies that may occur during a singular day of monitoring or testing. It also allows for the analysis of diurnal patterns for EPS calibration.

The City's distribution system operates on a single pressure zone. Six locations were selected for data logger placement with three alternate options in case any access limitations or installation difficulties are encountered. The six locations selected are distributed throughout the City to provide general coverage across the system, and they were strategically placed adjacent to the hydrant flow test sites identified in the following section to serve as residual pressure-monitoring hydrants during flow testing. This will provide continuous monitoring at the flow test sites and also provide system recovery information after flow testing is complete.

The proposed data logger sites are listed in **Table 1**. Individual site maps for each data logger site are provided in **Attachment A**.

Data Logging Equipment and Procedure

HydroScience owns six Monarch Instrument Track-It™ pressure and temperature data loggers which will be provided to the City for implementation of this calibration plan. All data loggers have been factory calibrated. Provided below is the general procedure for implementation. A detailed procedure for operating the data loggers and downloading the data is included as **Attachment B**.

1. Prior to installation, the City shall check the battery status of each data logger and confirm that it is 'GOOD' (see **Attachment B** for additional instructions) and confirm that each data logger is set to the correct local time.
2. In the state that they are provided, the recording interval will be set at six seconds to capture a period of approximately seven days with the understanding that each data logger can record up to 130,000 data points (per the manufacturer specifications) in order to avoid the need to adjust the time interval or download the data during the monitoring period.
3. Data loggers shall be installed prior to hydrant testing and shall remain in place for seven consecutive days in order to capture one day of hydrant testing and six days surrounding hydrant testing. They shall be installed at the hydrants listed in **Table 1** as "Data Logger Residual Hydrant ID" and adjacent to hydrants shown in **Figure 1**.

Hydrant Flow Testing

Hydrant flow testing is intended to provide calibration points representing flow and pressure under a controlled condition for comparison of modeled flows to an actual system response. The intent is to stress the system by drawing a measured flow from a hydrant and recording the residual pressure at an adjacent hydrant in response to the flow. Six sites have been selected for hydrant testing as well as three alternate sites to provide flexibility in the event that the City encounters any issues with the installation of the data loggers. The major considerations in choosing these locations include:

- **Pipeline diameter** – smaller diameter pipelines (8-inch or smaller) typically display a more measurable pressure drop in response to hydrant flow;
- **Land uses** – it is best to capture hydrants adjacent to as many different land uses as possible to capture the effects of land uses on the system;
- **Extremities of the system** – it is important to capture as many areas of the system as possible to ensure accurate representation in the hydraulic model; and
- **Adjacent hydrants** – it is ideal to have three hydrants in sequence without any branches or bends in between to allow for flushing at one hydrant and monitoring upstream and downstream of the flushing hydrant along the same stretch of pipeline.

The hydrants selected for flow testing for this study are listed in **Table 1** and displayed on **Figure 1**. Individual site maps for each testing site are provided in **Attachment A**. Testing can be implemented in any order and does not need to occur in numerical sequence.

Hydrant Testing Equipment and Procedure

The City will coordinate with the local fire department to perform the hydrant testing. It is assumed that the fire department has equipment available to accurately measure flow from the fire hydrant and that they have at least two pressure gauges that can measure live pressure. A form of communication will be needed (i.e. mobile phone or radio communication) so that staff can be stationed at both the flowing and residual hydrants and can communicate the status of the flushing hydrant and residual pressures, respectively, in real time.

Provided below is the general procedure for hydrant flow testing implementation. It is noted that this procedure does not detail the flushing hydrant set-up, tool requirements, or best management practices (BMPs) and discharge requirements. The flushing crew shall follow City/Fire Department standard operating procedures (SOPs) for flushing and discharge.

1. Designate staff (HydroScience staff will be available to provide support on the day of hydrant testing) to be stationed at the residual hydrant and flow hydrant for documenting pressure readings on real-time gauges.
2. Confirm that all timepieces for documentation are synced.
3. Install pressure gauges at the flowing hydrant and backup residual hydrant. Install associated equipment, discharge and otherwise, at the flow hydrant.
4. Prior to testing, confirm/record the respective hydrant number, time, and the static pressures at the flow hydrant and residual hydrant.
5. Begin flowing hydrant. When the hydrant is fully open with unrestricted flow and residual pressures have stabilized, record the flow, the residual pressure at the flow hydrant and residual hydrant, and the exact time (to reference against data loggers, SCADA, and other equipment operation data). Video can be used to capture change in pressure at the gauges.
6. Upon confirmation that all data has been captured by each staff stationed at residual hydrants, close hydrant, remove equipment, and store for transportation to the next site. Note that continued hydrant flushing may be required for water quality purposes prior to closing the hydrant.

Table 1: Hydrant Flow Testing Locations

Site No.	Pipe Diam. (in)	Flowing Hydrant ID	Data Logger Residual Hydrant ID	Backup Residual Hydrant ID	Street	Cross Street	Basis of Selection
1	8	180-074	180-073	180-075	Ash Renee Street	-	Low-density residential area, low traffic, covers south end of City
2	8	169-062	169-060		Perimeter Drive	Shops Lane/ Grove Ave	C-factor site, commercial area, near new development
3	4	022-013	022-019	022-020	Virginia Street/ Marion Street	-	Close to commercial and high-density residential area, low traffic, 4" pipe
4	8	033-013	033-021	033-014	Granite Lane	Interbitzin Way	Covers area east of Highway 99, low traffic
5	6	043-017	043-018	043-016	Pajaro Avenue	Range Court	Open space and residential area, low traffic, 6" pipe
6	8	126-050	126-049	126-051	Golden Pond Drive	-	Open space park area, covers north end of City
ALT1	8	170-103	170-102	170-104	Swallow Tail Lane		Low- and high-density residential area, low traffic
ALT2	6	037-031	037-032	037-030	Fallen Leaf Lane	Argonaut Street	Residential area, low traffic, 6” pipe
ALT3[3]	8	056-021	056-019		Nushake Way	Landreth Lane	C-factor site, low traffic, covers northwestern area of City, near City boundary

Notes:
1. Pipeline connects Shops Lane and Grove Avenue through the parking lot parallel to Perimeter Drive.
2. Pipeline runs parallel to and between Virginia Street and Marion Street. Flushing hydrant is located on Virginia Street while data logger hydrant is located on Marion Street.
3. If needed/selected as an alternate hydrant testing sites, this location will be monitored using a data logger; otherwise, it will be used for C-factor testing and will be monitored with a pressure gauge.

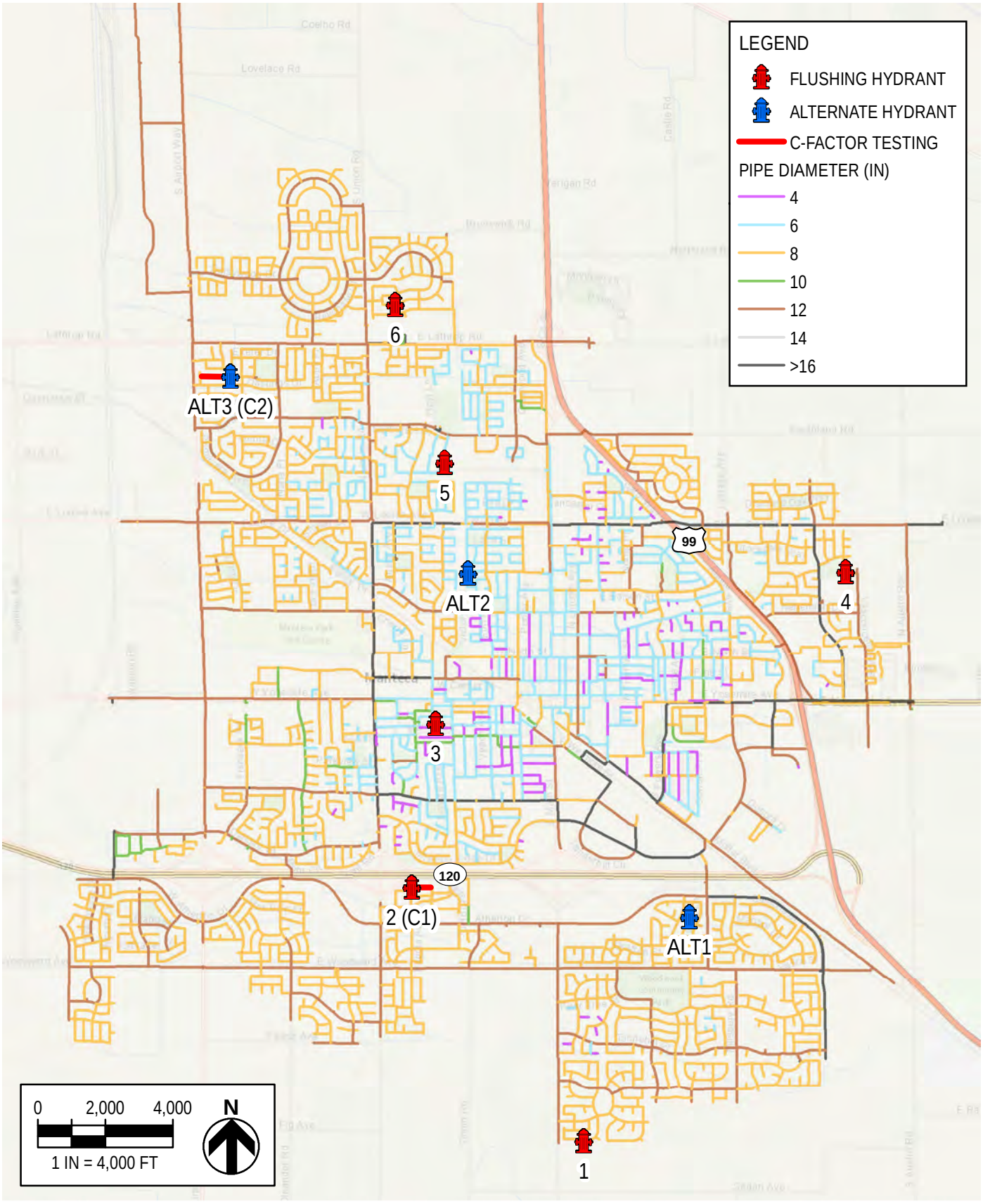


FIGURE 1
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT FLOW TESTING LOCATIONS

HydroScience

C-Factor Testing

The goal of C-factor testing is to estimate the current roughness of the pipes in the distribution system as this can have a significant impact on system-wide pressures and flows. Similar to unidirectional flushing, the goal is to channel water flow in one direction through a long stretch of pipeline of a specified diameter and material while measuring the pressure differential between each end of the pipe reach.

It is unreasonable to perform C-factor testing on every permutation of pipe size and diameter in the entire system, so typically, a representative pipe diameter and material are chosen to capture a majority of the system. The City's distribution system consists of 52% 8-inch diameter, 71% PVC material, and approximately 45% 8-inch PVC and thus, the proposed locations for C-factor testing are both 8-inch PVC pipe.

The two proposed C-factor testing locations are listed in **Table 2** and also identified on **Figure 1**. Individual site maps for each testing site are provided in **Attachment A**. C-factor testing will be conducted on the same day as hydrant testing since C-factor testing site C1 coincides with hydrant flushing site No. 2.

Table 2: C-Factor Testing Locations

Site No.	Flow Hydrant	Residual Hydrant	Isolation Valve ID	Pipe Diameter (in)	Pipe Material	Street	Approx. Length (ft)
C1	169-062	169-060	WVAL-0716	8	PVC	Perimeter Drive[1]	560
C2	056-021	056-019	WVAL-2630	8	PVC	Nushake Way	850

Notes:
1. Pipeline connects Shops Lane and Grove Avenue through the parking lot parallel to Perimeter Drive.

C-Factor Testing Equipment and Procedure

C-factor testing will also be performed in coordination with the City and the local fire department. As stated previously, it is assumed that the fire department has equipment available to accurately measure flow from the fire hydrant and that they have at least two pressure gauges that can measure live pressure. A form of communication will be needed (i.e. mobile phone or radio communication) so that staff can be stationed at both the flowing and residual hydrants and can communicate the status of the flushing hydrant and residual pressures, respectively, in real time.

Provided below is the general procedure for hydrant flow C-factor testing implementation. The flushing crew shall follow City/Fire Department SOPs for flushing and discharge.

1. Designate staff (HydroScience staff will be available to provide support on the day of hydrant testing) to be stationed at the residual hydrant and flow hydrant for documenting pressure readings on real-time gauges.
2. Confirm that all timepieces for documentation are synced.
3. Install pressure gauges at the respective hydrants. Install associated equipment, discharge and otherwise, at the flow hydrant.
4. Prior to testing, confirm/record the respective hydrant number, time, and the static pressure at both hydrants.

5. Close the isolation valve directly downstream of the flow hydrant along the pipeline being tested, if applicable.
6. Begin flowing hydrant. When the hydrant is fully open with unrestricted flow and residual pressures have stabilized, record the flow, the residual pressure at the flow hydrant and upstream hydrant, and the time. Video can be used to capture the change in pressure at the gauges.
7. Upon confirmation that all data has been captured by staff stationed at the upstream hydrant, close hydrant, open isolation valve, remove equipment, and store for transportation to the next site.

Model Calibration

Using the data recorded from each of the tests described herein, HydroScience will be able to calibrate the hydraulic model to real-time conditions. By comparing the flows and pressures represented by the model to those observed in the field, parameters can be adjusted such that the hydraulic model accurately represents actual water system conditions and operations within an acceptable margin of error.

There are two types of scenarios that are run in the calibration process: steady state and EPS. The calibration process is iterative; both scenarios will be run simultaneously, and parameters adjusted accordingly with the understanding that adjustment of one parameter in one scenario can affect other parameters throughout the system in each scenario. The calibration process for each of these scenarios is detailed below.

Steady State Calibration

To conduct the steady state calibration, a unique demand scenario will be developed to function as the representative demand condition during the hydrant-testing period. This will be referred to as the baseline calibration scenario. The objective for testing is to capture both irrigation demand and domestic demand such that the baseline scenario can be scaled to replicate a typical maximum day demand (MDD) to the extent practical. Actual conditions may vary. Total system demand and distribution of demand will be assessed based on the water demand analysis using customer billing data and flow data obtained at the turnouts as well as tank, pump station, and groundwater well operations during the seven-day testing timeframe. The baseline scenario will then serve as the parent scenario to the flow testing scenarios.

Six child scenarios will be developed to replicate each of the hydrant flow tests conducted in the field. Operating conditions of the system tanks and pump stations will be set in the baseline calibration scenario to represent active facilities, which will propagate to all child scenarios. Recorded flows from the flushing hydrants will be added as demands to their representative junctions in the hydraulic model. Residual pressures produced at model junctions will be compared to pressures measured at both the data logger hydrants and backup residual hydrants, as listed in **Table 1**. Hydraulic model parameters such as C-factors and facilities operating at the time of testing, will be iteratively adjusted such that residual pressures at each representative model junction accurately reproduce the six data logger residual pressure readings within a targeted margin of error of 10% for 90% of the field readings.

EPS Calibration

From SCADA data provided by the City representing the testing period, seven days of hourly data will be analyzed to develop a representative diurnal pattern and set of hourly operations of the water system supply sources over a 24-hour period. Using the baseline calibration scenario adjusted for the steady state calibration, a separate child scenario will be developed for EPS calibration. The representative diurnal pattern developed from SCADA data will be applied to this EPS calibration scenario within the model to represent hourly water system demands. Hourly operations for the wells, turnouts, tanks, and pump stations will be analyzed and incorporated into the hydraulic model to represent water supply and storage responses to water system demands.

Using pressure data captured by the data loggers outside of hydrant testing (to represent normal operating conditions), actual system pressures will be compared to model pressures over the 24-hour EPS simulation period at each of the data logger sites listed in **Table 1**. Like the steady state calibration, system operation controls will also be compared to those observed in the field, and iterative adjustments will be made to system parameters and operations to achieve system pressures within the targeted margin of error (10% for 90% of field readings).

Application

Upon completion of the calibration process described herein, these steady state and EPS calibrated scenarios will serve as the basis for developing additional modeling scenarios, including average day demand (ADD), minimum day demand (low seasonal), maximum day demand (MDD), and peak hour demand (PHD). The PHD scenario will reflect the peak hour observed and documented in the diurnal pattern. These scenarios will be used to conduct all future system analyses.

Next Steps

The following tasks will be completed next as part of the water master planning efforts:

1. HydroScience will ship the data loggers to the City, fully charged and programmed,
2. City will confirm internally and with the Fire department equipment availability, including:
    a. Two pressure gauges (minimum +/- 2 psi accuracy)
    b. Flow measuring equipment (i.e. pitot tube or other type of gauge)
    c. Threaded connection for data logger installation
3. HydroScience and the City will coordinate with the local fire department to schedule a day to perform hydrant testing and C-factor testing,
4. HydroScience will begin building the hydraulic model in the meantime, and
5. HydroScience will begin water demand analysis upon receipt of customer billing data.

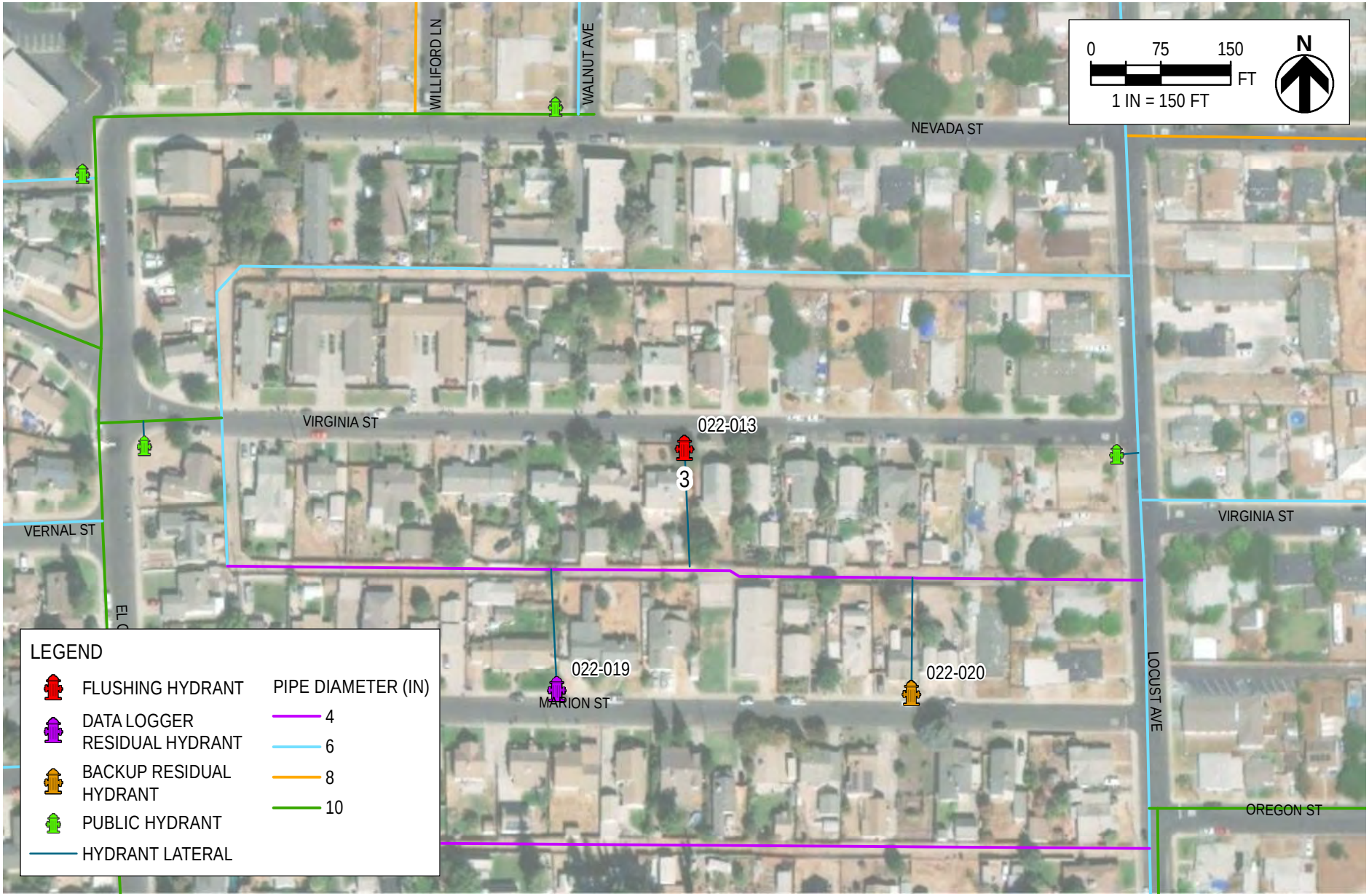
ATTACHMENT A
City of Manteca
TM #2 – Model Calibration Plan
Hydrant Testing Site Maps

HydroScience

SITE NO. 1
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

HydroScience

SITE NO. 2 (C-FACTOR SITE C1)
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS



HydroScience

SITE NO. 3
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

HydroScience

SITE NO. 4
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

HydroScience

SITE NO. 5
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

HydroScience

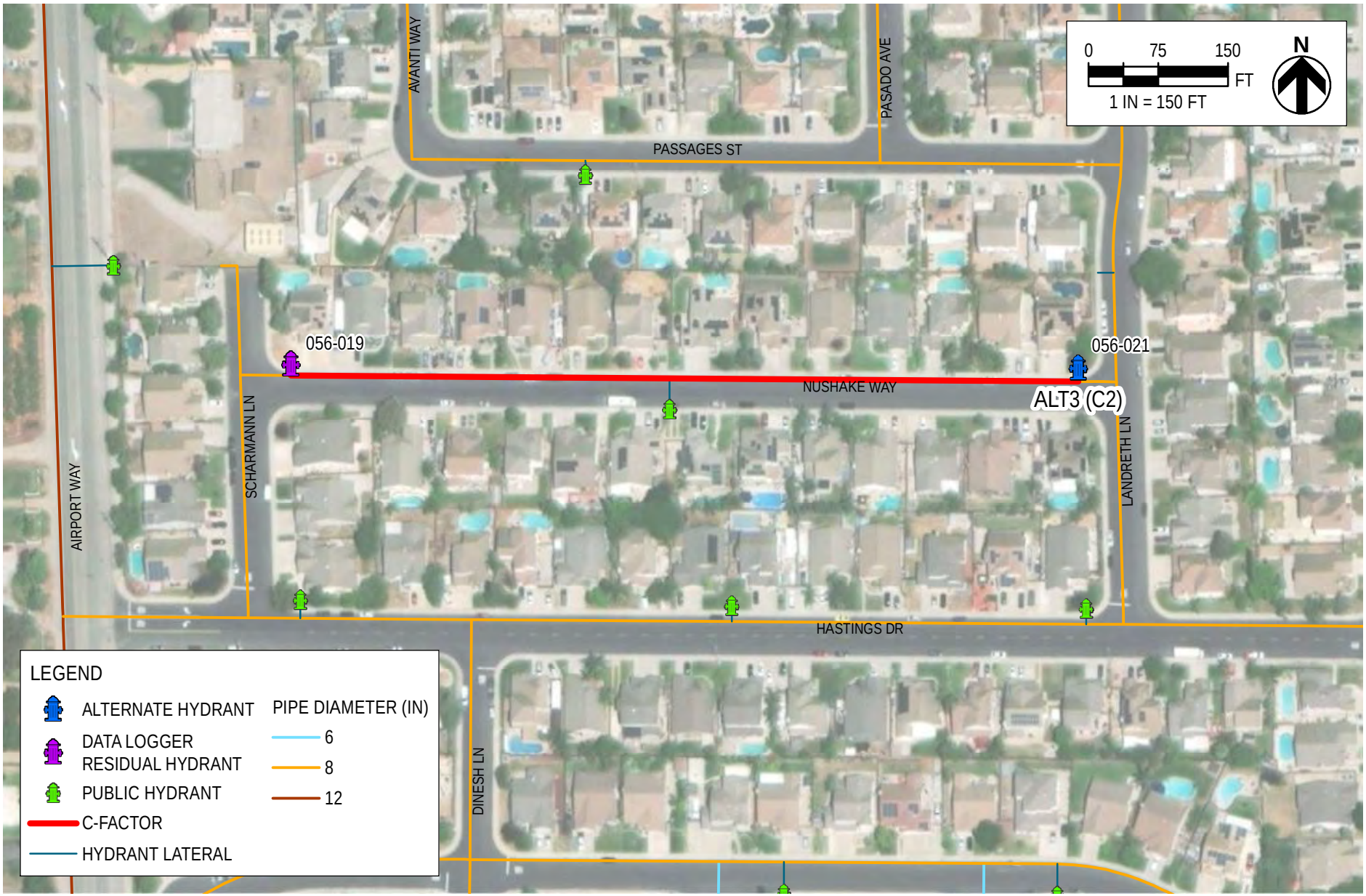
SITE NO. 6
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

HydroScience

SITE NO. ALT1
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

HydroScience

SITE NO. ALT2
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS



HydroScience

SITE NO. ALT3 (C-FACTOR SITE C2)
CITY OF MANTECA
WATER MASTER PLAN
HYDRANT TESTING SITE MAPS

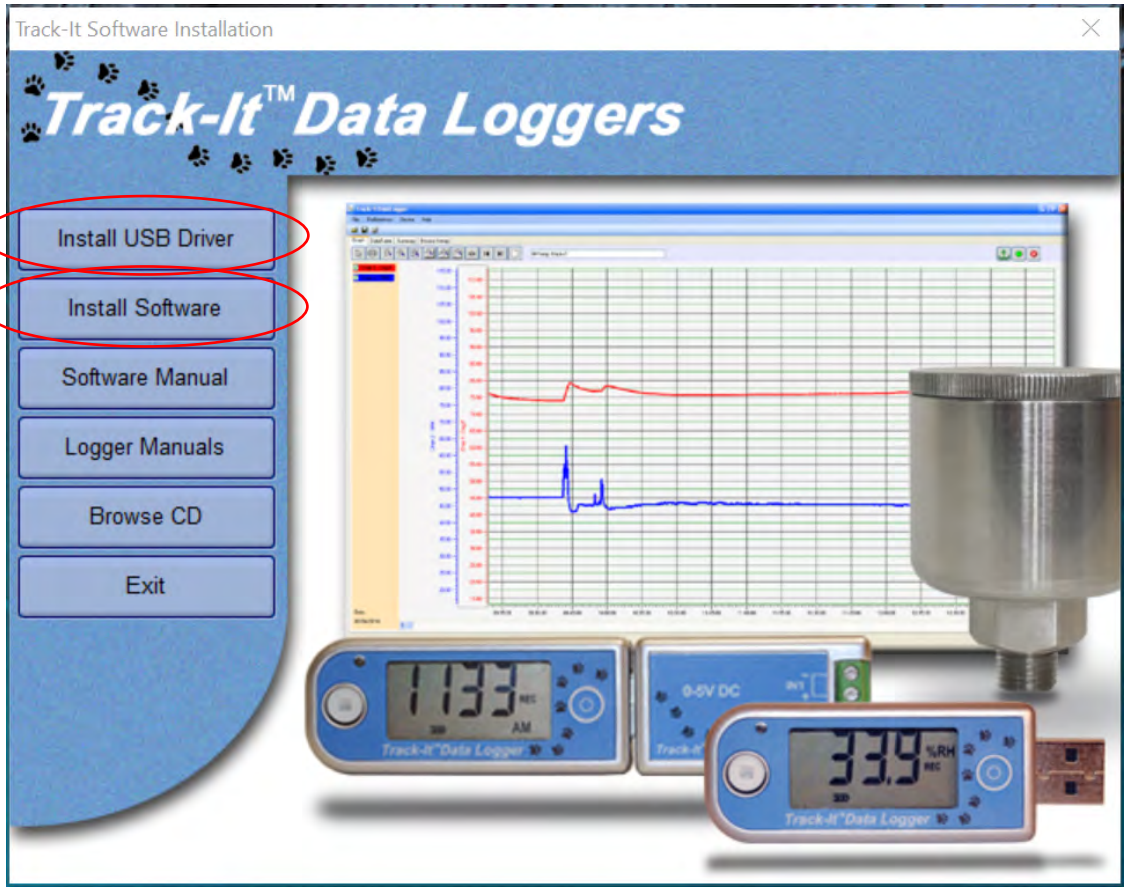
ATTACHMENT B
City of Manteca
TM #2 – Model Calibration Plan
Data Logger Instructions

Data Logger Instructions

**IMPORTANT: Do NOT plug the data logger into the USB port until AFTER the USB Drivers and Track-It Software have been installed (See instructions below).

Install USB Driver and Track-It™ Software

1. Download Track-It Data Logger Software from: http://www.monarchinstrument.com/Software/Track-It_Software.zip
2. Unzip the downloaded file to a local directory on your PC.
3. Open the unzipped files on your PC and double click the "CD_Start.exe". This will launch the Track-It Data Loggers Splash screen shown below.
4. Click "Install the USB Driver" and follow the prompts. Click "Continue Anyway" if you see a message about software installation.
5. Click "Install Software" and follow the instructions to complete the installation.

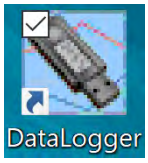


6. You can access Logger and Software manuals here as well. The Software is now installed and ready to use.
7. Exit the software installation.

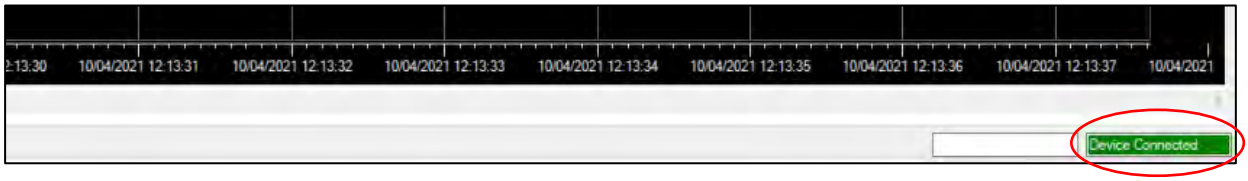
Connect Data Logger and Start Track-It™ Software

1. Unscrew the blue protective cap from the back of the datalogger.
2. Plug the provided cable into the data logger (see below) and into an available USB port on your PC.

3. If the "Found New Hardware" Wizard appears, follow the prompts to complete the installation and skip to Step 5. If it doesn't, proceed to Step 4.
4. Start the Track-It Software by double clicking the Track-It icon (shown below) on your PC or from the Start menu.

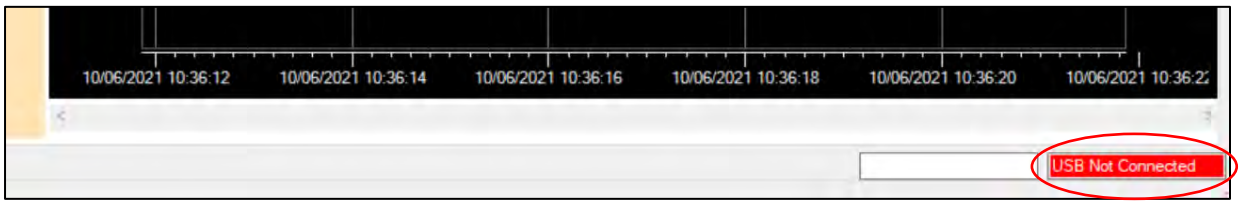


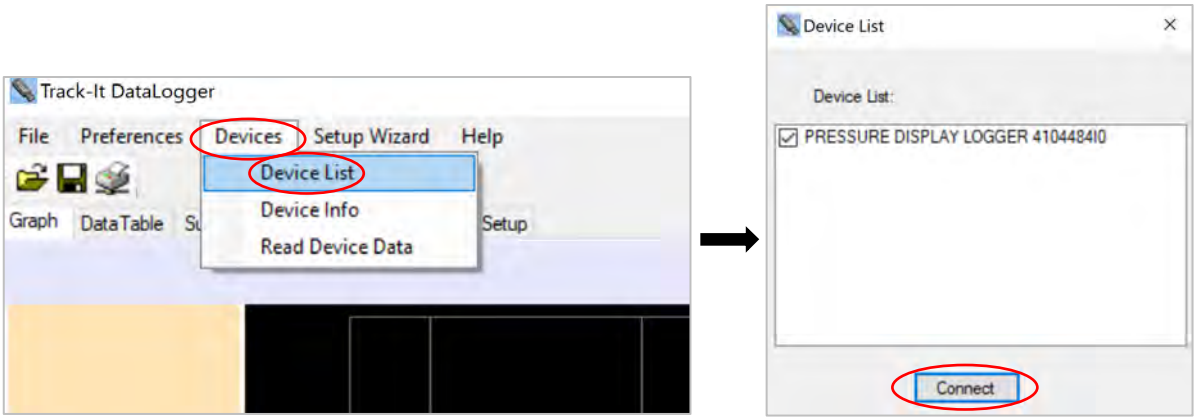
5. If the USB drivers were installed properly, you will see "Device Connected" displayed in the lower right hand corner of the Track-It Software window (see below).



If you see “USB Not Connected” in red (see below), follow these steps:

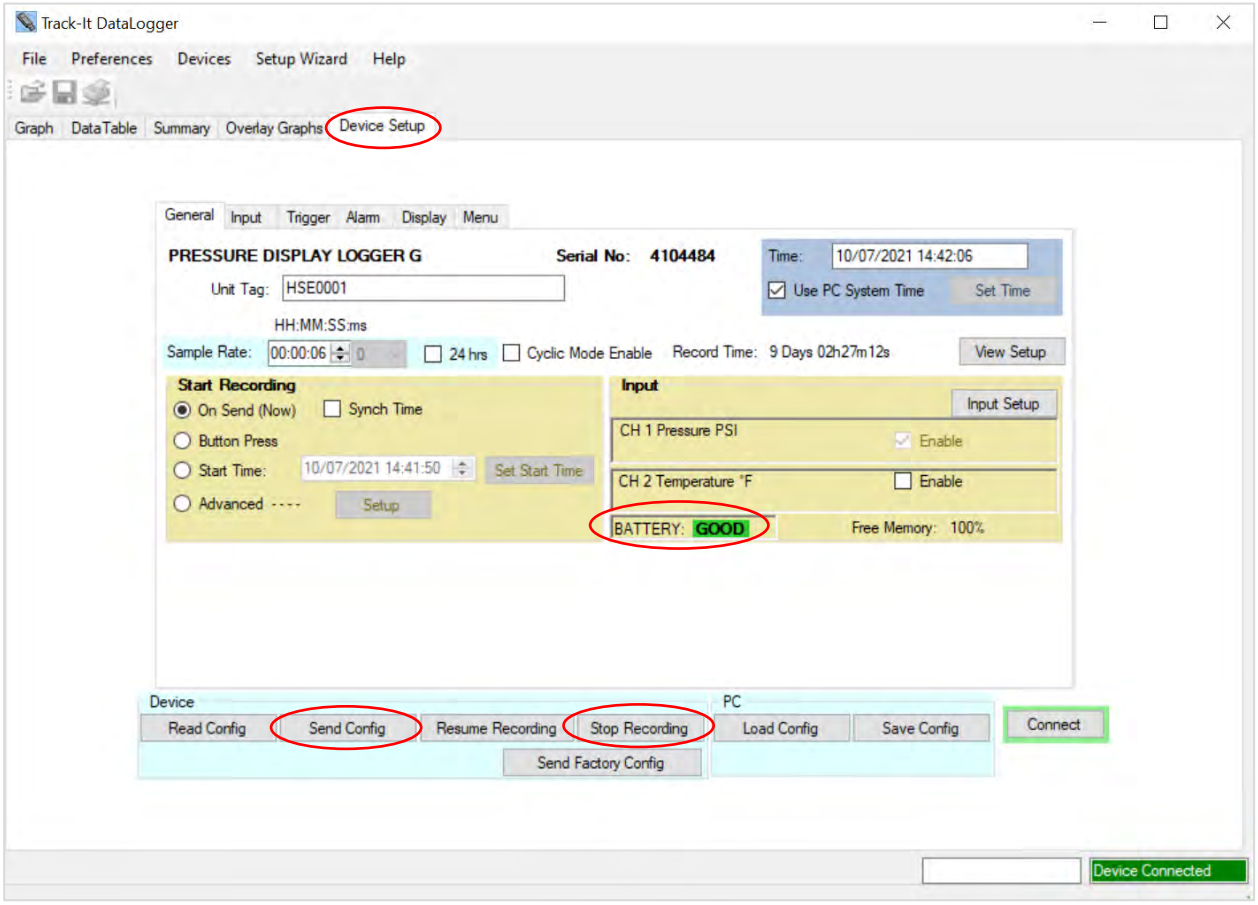
a. Check to make sure there are no loose cable connections from the data logger to the PC.
b. Click on the “Devices” menu and then select “Device List” (shown below). Make sure the data logger is checked and click “Connect”.
c. If the problem persists, unplug the data logger, uninstall the software and follow the instructions in the “Install USB Driver and Track-It™ Software” section.





Configure Data Logger and Log Data

1. Select the “Device Setup” tab as shown below. The software will automatically retrieve and display the data logger configuration.



2. Review the configuration settings-sample rate, triggers, alarms, etc. (HydroScience will set up all data loggers beforehand). Confirm the following settings:
    a. Time: Current date and time
    b. Unit Tag: Corresponds to ID affixed to datalogger (000#)
    c. Sample Rate: 00:00:06
    d. Record Time: 9 Days 02h27m12s
    e. In the **Start Recording** section, “On Send (Now)” is selected
    f. In the **Input** section, “CH 1 Pressure PSI” is enabled and “Ch 2 Temperature °F” is not enabled
    g. BATTERY: **GOOD**. (If the battery says anything other than “GOOD” then the battery should be replaced. Follow the instructions in the next section to replace the battery. If the BATTERY field does not display, close the software and reconnect the data logger.

3. Confirm that the data logger is not recording. When the data logger is recording, it will flash "REC" in the bottom left side of the display screen. See below for examples of when the data logger is not recording vs recording.

Not Recording

Recording

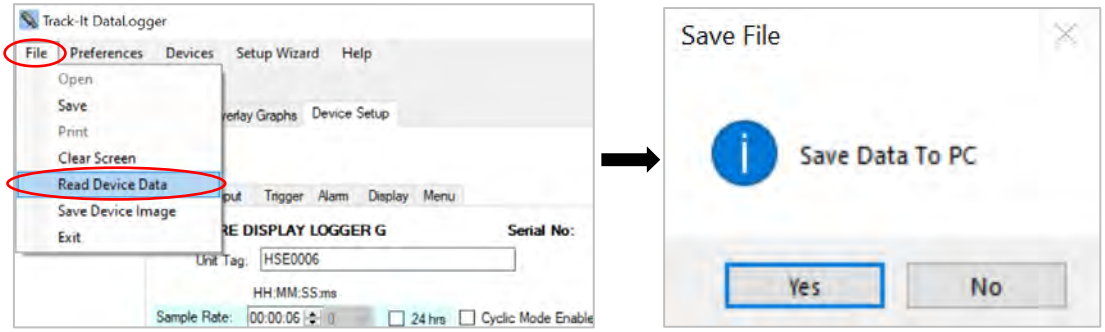
4. If the data logger is recording, press the "Stop Recording" button in the "Device Setup" tab. If the data logger is not recording, continue to step 5.
5. On the day that data loggers shall be installed, connect the data logger and navigate to the Device Setup Screen. Click the "Send Config" button under the Device Configuration section of the window (see image above) to start recording. The data logger will flash "REC" in the bottom left side of the display screen to indicate recording has started (see above). It is okay if there are some data points that are taken before the data logger is connected to a hydrant.
6. After the elapsed recording time, remove the data logger from the hydrant and plug it back into your PC. If the data logger is still recording, press the "Stop Recording" button (see image above).

Install Data Logger Battery (if required)

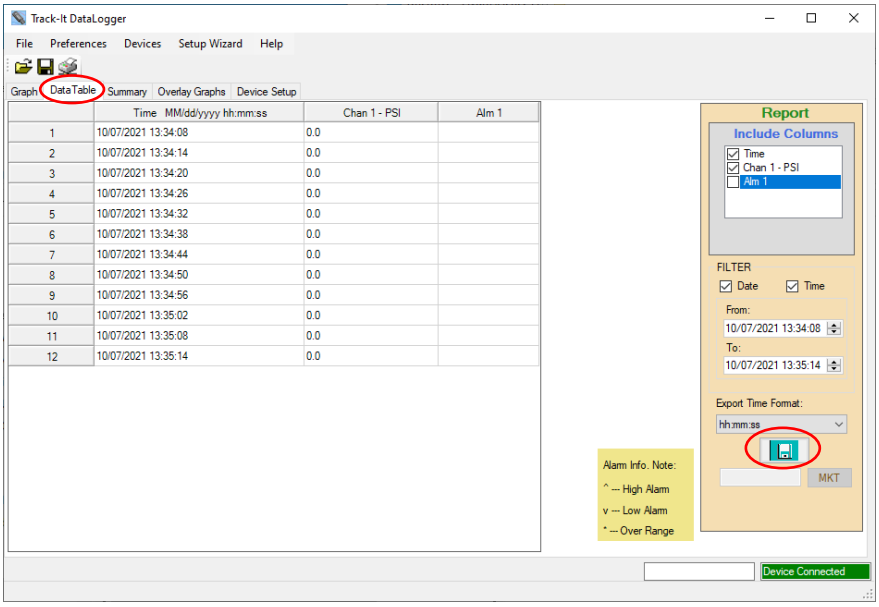
1. Each data logger has a preinstalled 3.6V 1/2AA lithium battery. If the battery level is low, remove the threaded bezel ring and circular cover on the back of the logger and insert the battery as shown below.

Export Data

1. Once the recording period ends, you will need to save and export the data. Click the “File” menu and select “Read Device Data” as shown below. When prompted, click yes to save the data. You will then be prompted to name the file and save as a .dat file to your PC.



2. Click the “Data Table” tab (shown below).



3. Under the REPORT column, ensure that the following are selected:
    a. TIME
    b. Chan 1 – PSI
    c. Date
    d. Time
4. The “From:” and “To:” dates/times should default to the first and last recorded data points.
5. Confirm that the “Export Time Format” selected is “hh:mm:ss”
6. Click the icon below “Export Time Format” to save the data to a .csv file (circled in the image above). You will be prompted to name the file and save it to your PC.

Data Logger Display

The data logger has three buttons. The left and right arrows toggle between the following screens:

Pressure Reading

Temperature Reading

Date (mm.dd, yyyy)

Time (hh:mm, AM/PM)

Percent Memory Used*

*The memory is an indication of memory used. Before starting this should display 0.00% (or a very small number). If the memory is greater than 2%, clear the memory by following the steps below:

1. Connect the data logger to your PC and navigate to the “Device Setup” tab.
2. Click “Send Config” and then immediately click “Stop Recording”. If prompted, do not save or view the previous data on the data logger. This will clear any data stored on the data logger.
3. Confirm that the “REC” indicator is not displayed on the data logger screen.

The center button toggles between the display settings and the following is for information only. To preserve memory and battery life, please make sure all settings are set to “OFF” prior to installation:

CYCLE: This is used to cycle the main display between pressure and temperature readings.

BAR: This setting will display a scale (seen in image to the right) on the main screen.

DECIMAL POINT: This is used to show a display of 0 or 1 decimal points for pressure and temperature readings.

BACKLIGHT: This is used to set either no backlight or auto backlight (seen in the image on the right). This can be turned on if the data loggers are checked at night.

APPENDIX C

City of Manteca
Water Master Plan
TM #4 Water Sustainability Study

2023

Water Sustainability Study

CITY OF MANTECA

THE SHIBATANI GROUP, INC. IN COLLABORATION WITH

HYDROSCIENCE ENGINEERS, INC,

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ABBREVIATIONS AND ACRONYMS

AFY	Acre Feet per Year
AFRP	Anadromous Fish Restoration Program
AGU	American Geophysical Union
AR	Atmospheric River, a long, narrow, and transient corridor of strong horizontal water vapor transport that is typically associated with a low-level jet stream ahead of the cold front of an extratropical cyclone. Up to 50% of California's annual precipitation can come from ARs and they are known to bring enough water to a region to effectively end a prolonged drought.
BCM	Basin Characteristics Model
cfs	cubic feet per second
CMIP5	Coupled Model Intercomparison Project Phase 5
COA	Coordinated Operations Agreement
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
D-1422	SWRCB Decision No. 1422, New Melones Project Water Rights Decision
D-1641	SWRCB Decision No. 1641, San Francisco Bay/Sacramento-San Joaquin Delta Estuary, Central Valley Project and the State Water Project in the Southern Delta Water Rights Decision
DO	Dissolved Oxygen
DWR	Department of Water Resources
ENSO	El Niño and the Southern Oscillation
ESA	Endangered Species Act
ESJWRM	Eastern San Joaquin Water Resources Model

ET	Evapotranspiration
GCM	Global Climate Model
GHG	Greenhouse Gas
GHM	Global hydrological models
gpm	gallons per minute
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plan
InSAR	Interferometric Synthetic Aperture Radar satellites for monitoring geodetic data
IPO	Interim Plan of Operations for the New Melones Reservoir
LAO	Legislative Analyst's Office, The California Legislature's Nonpartisan Fiscal and Policy Advisor
LSM	Land surface models
M&I	Municipal & Industrial
MAF	Million Acre Feet
MAR	Managed Aquifer Recharge
MGD	million gallons per day
MHWM	Mountain Hydrologic Watershed Model
NASA LIS	National Aeronautics and Space Administration Land Information System
NAO	North Atlantic Oscillation, an irregular fluctuation of atmospheric pressure over the North Atlantic Ocean
NEPA	National Environmental Policy Act
NMRPO	New Melones Revised Plan of Operation
NRCS	Natural Resource Conservation Service
OCAP	CVP Operations Criteria and Plan
OID	Oakdale Irrigation District
PDO	Pacific Decadal Oscillation, a long-lived El Niño-like pattern of Pacific climate variability
PMM	Pacific Meridional Mode, Climate mode in the North Pacific
RCM	Regional Climate Model
RCP	Representative Concentration Pathway (4.5 lower emission scenario, 8.5 high emission scenario)

RWH	Rainwater Harvesting
SCWSP	South County Water Supply Project
SDMP	Storm Drain Master Plan
SDWA	Safe Drinking Water Act
SEP	Scientific Evaluation Process
SGMA	Sustainable Groundwater Management Act
SRP	Stanislaus Stepped Release Plan
SSJID	South San Joaquin Irrigation District
SSP585	SSP5-8.5 represents the high end of the range of future emission pathways, corresponding to RCP8.5 and refers to an additional radiative forcing of 8.5W/m2 by the year 2100
SST	Sea-Surface Temperature
SWE	Snow Water Equivalent
SWP	State Water Project
SWT	Stanislaus Watershed Team
SWRCB	State Water Resources Control Board
TM	Technical Memorandum
USBR	U.S. Bureau of Reclamation
UWMP	Urban Water Management Plan
WES	Wind-Evaporation-Sea
WIF	Winter Instability Flow
WRF-Hydro	an open-source community model used for a range of projects, including flash flood prediction, regional hydroclimate impacts assessment, seasonal forecasting of water resources, and land-atmosphere coupling studies
WY	Water Year

EXECUTIVE SUMMARY

The purpose of this Technical Memorandum (TM) No. 4 ("Water Sustainability Study") is to examine the long-term reliability of the City of Manteca's (City's) water supply sources and delivery allocations and develop a water supply strategy that diversifies and strengthens the City's water supply and delivery reliability. Its companion TM No. 5 addresses various existing and potential regulatory constraints associated with the City water supply.

Water *reliability* generally speaks to the delivery capability of a water supply and is sometimes referred to as a measured firmness of supply. Alternatively, water *sustainability* has to do with the guaranteed protection of the resource so that it is not irreparably damaged or irretrievably depleted, such as groundwater safe yield.

ES.1 Background

This section acknowledges and introduces the many different forms of drought that may affect the City and its water operations. These drought types include:

- Meteorological drought
- Hydrological drought
- Infrastructural drought
- Operational drought
- Regulatory drought
- Institutional or administrative drought

This Water Sustainability Study is intended to identify the risks, such as drought, to the City's water resources so that proper strategies can be put in place to protect these resources. If there is a shortage between water supply and demand and the City is challenged to meet near- or intermediate-term water delivery obligations or, if the projected supplies are considered too uncertain, either further demand reduction or alternative water supply sources must be sought.

The first step in any future water resource or supply planning effort is to establish the baseline yield. In order to do that, it is important to properly identify the causes of any shortfalls that may inhibit supply; recognizing that not all water shortages are due to a lack of rainfall.

While baseline yield had always been established through a relatively straightforward process, rapidly changing hydroclimatic conditions make it necessary to now account for climatic changes. The water industry now accepts that natural hydrology is *non-stationary*. For water supply planning, this is a major shift.

ES.2 Hydrologic Sustainability and Climate Change

This section provides a discussion of climate change and specifically, climate change *hydrology*. It reviews contemporary climate change modeling, global climate models (GCMs), regional climate models (RCMs), as well as the various methodological and analytical processes required to make use of modeling data output. Climate modeling features such as bias correction, dynamical and statistical downscaling, spatial downscaling, and representative concentration pathways are briefly discussed.

Climate change water-related implications potentially affecting the City are presented. A brief description of the various City water supply facets that could be affected by rapidly changing hydroclimatic conditions include the following:

- Water supply delivery stipulations based on quantity agreement(s) between any and all wholesale/retail suppliers and the City for water supplies drawn from California rivers, streams, reservoirs, lakes, or managed embayments;
- Water supply delivery stipulations based on quantity agreement(s) between wholesale/retail suppliers relied upon by the City and federal/State water regulatory agencies for water supplies drawn from California rivers, streams, reservoirs, lakes, or managed embayments;
- Water supply delivery stipulations based on (timing) agreements(s) among and within these same parties; and
- Assumed safe yield (aka sustainable yield) volumes based on calculated and negotiated recharge of the Eastern San Joaquin Groundwater Basin through the ongoing Sustainable Groundwater Management Act (SGMA) process, the Groundwater Sustainability Plan (GSP), and ultimately the established pumping allowances afforded the City.

Assessment of the sustainability of the City's primary surface water supply, pre-1914 water rights water purchased under agreement with the South San Joaquin Irrigation District (SSJID), should take into account the effects of climate change.

The section concludes with a discussion of the established findings of how a continually shifting hydroclimatic environment is affecting California and, more specifically, the Sierra Nevada and southern Central Valley. In particular, changes are occurring through often diminishing snowpack, earlier springmelt, a corresponding temporal shift in the rainfall/runoff relationships, increasingly frequent extreme events (i.e. drought and flood), and potentially hotter temperatures. While the accumulating climate change data is vast, the results can be as diverse as there remains considerable uncertainties in the specifics of the various modeling platforms. Each study is site, time, and method specific.

ES.3 City of Manteca Hydrogeologic Context and Water Supplies

This section provides the hydrologic and hydrogeologic background setting of the City and surrounding regional water characteristics. The City's climate, underlying basin aquifer, regional areas of groundwater recharge, subbasin watersheds, surface drainage ways, and soil cover are described. Specifically, much of the City's corporate boundary lies within the Eastern San Joaquin Groundwater Subbasin's furthest southwest watershed, the Lone Tree Creek/San Joaquin River watershed, and a small western portion of the Lone Tree Creek watershed.

A discussion is included in this TM of SSJID's water supplies including its Nick C. DeGroot Water Treatment Plant, the South County Water Supply Project (SCWSP), and the City's Phases I and II allocations of 11,500 and 18,500 Acre-feet per year (AFY), respectively, under the Project Participant's Agreement. Treated water deliveries from SSJID to the City have increased from 6,107 AFY in 2016 to 9,416 AFY by 2020.

SSJID's notable 600,000 AFY pre-1914 water rights are discussed in this TM along with those of the Oakdale Irrigation District (OID) in the Stanislaus River basin and diverted at Goodwin Dam which are coordinated through a 1988 Stipulation and Agreement with the U.S. Bureau of Reclamation (USBR) for operations. The USBR's Tri-Dams and New Melones Reservoir system includes its downstream reservoir cascading reservoir system through Goodwin, Tulloch, and Woodward reservoirs.

Groundwater. Chronic groundwater depletion over the decades has made the Eastern San Joaquin Groundwater Subbasin one of the most stressed aquifer systems relied upon by multiple users across the U.S. Comprising some 707,000 Acres (1,105 square miles), it includes the major tributaries: San Joaquin River, Stanislaus River, Calaveras Rover, Mokelumne River, Mormon Slough, and Little Johns Creek.

The City owns and operates 15 active and two standby potable water wells along with 31 irrigation wells. Between 1990 and 2020, the City's groundwater use diminished from a high of 14,900 AFY in 2004 to 8,022 AFY in 2020. On an annual AFY per Acre (AFY/Ac) basis, the City pumped a high of about 1.4 AFY/Ac in 2004, but this has since decreased to about 0.5 AFY/Ac between 2014 and 2019. **Figure ES-1** presents a visual representation of the City's total water supplies and City area between 1990 and 2020 to display the fluctuations in groundwater pumping quantities relative to the City area.

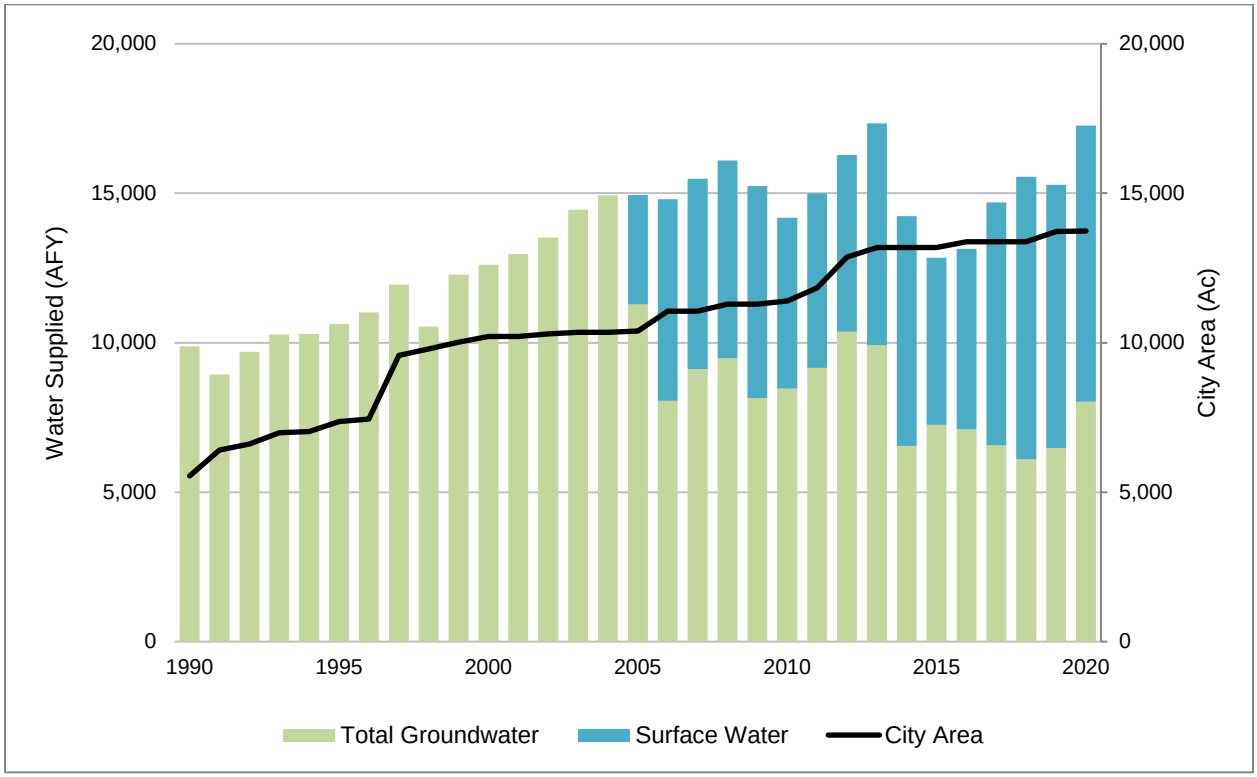

Figure ES-1: Historical City Groundwater Pumping and City Area
Source: Water supply data provided by the City.

This section also describes the City's participation in the various requirements set forth under the 2014 SGMA including the various objectives of required GSPs. The City has one Listed SGMA Project. Project #3 is the City's *Advanced Metering Infrastructure* water conservation project. The City has also identified Project #19, its "Recycled Water Transfer to Agriculture" project. The City's anticipated annual water savings from Project #3 is 272 AFY and for Project #19 it is 5,193 AFY.

The City's net effect on the regional groundwater aquifer based on the latest groundwater modeling is calculated at 20,310 AFY of depletion by 2040. This can be compared to the net groundwater balances of SSJID and OID which show a net gain of 57,800 AFY and 1,000 AFY, respectively, while the overall net groundwater balance for the entire Eastern San Joaquin Groundwater Subbasin shows a deficit of 363,480 AFY by 2040. While the City's net effect is offset by SSJID and OID net gains, regionally there is still a significant deficit.

Alternative Water Supply. There are potential water supply shortfalls for the City at some point in the future. Precisely when this would occur is uncertain but represents a focal point of this analysis. This section identifies the advantages of stormwater over all other supply sources and notes the following regarding stormwater:

- It is uncontrolled by the State or federal regulators;
- It has no effect on State water quality or endangered species;
- It has no effect on any other water purveyor's claimed water entitlements (there can be no injury claims made against it);
- It cannot be curtailed, even under the worst drought conditions;
- It is virtually guaranteed every year;
- It is a relatively clean water source;
- It requires no treatment for agricultural use;
- It directly helps City, County, and regional flood control efforts;
- Existing infrastructure required for conveyance/collection already exists to some degree; and
- It is a free resource.

Pursuing water resources that a water purveyor can maximize influence or control over is ideal to minimize risk. For water entities seeking to fill projected supply gaps, storm- or floodwater capture is a recommended resource to explore. For water purveyors facing a potential supply shortfall, identifying additional water resources and reducing demands even further from any already committed objective, or demand management have to be examined.

An effective, cheaper, and more ubiquitous new water supply alternative for the San Joaquin Valley is stormwater or floodwater. Stormwater capture, storage, and utilization is the most overlooked water supply asset in California water resources management today. From the perspective of year-to-year reliability, spatial representation, water quality, cost to capture, unentangled legal rights, and volume, there is no greater supplemental water supply source than this. The amount of time, resources, and personnel the State dedicates to flood management and damage control is testimony as to how widespread stormwater is across the State.

The integration of a traditional flood issue with a water supply interest is not a foreign concept. The State has long acknowledged the importance of linking flood risk strategies, with ecosystem health and water supply reliability to achieve short-term success as well as long-term sustainability. Average annual precipitation within the Eastern San Joaquin Groundwater Subbasin ranges from about 11 inches in the southeast to about 25 inches in the northeast. There is of course significant interannual variability as shifting hydroclimatic trends continue to force water managers to recalibrate assumptions on water yield based on these emerging and intensifying climatic patterns.

A 2014 Public Policy Institute of California study estimated that the State could generate an additional supply in excess of 600,000 AFY from stormwater in the Bay Area and southern California alone, a boost of 10% to their annualized water supplies. A 10% supply enhancement, if similarly applicable to the City would help, particularly in dry years and early years of any protracted drought.

While the City's 2015 UWMP acknowledges utilization of stormwater (floodwater) as a water supply source, it has not yet been studied in detail. According to the UWMP, however, the City owns existing infrastructure to store and treat stormwater runoff. Existing stormwater runoff is transmitted through the City's current system, into SSJID drains and laterals, and ultimately discharges into the San Joaquin River. This drainage infrastructure could serve as the vital backbone of any new stormwater retention or enhanced water supply program that the City might decide to pursue.

One of the biggest hurdles will be in restructuring the existing City/SSJID Master Drainage Agreement, or drafting a completely new agreement, that would address the many complexities involved in fully implementing a stormwater collection, storage, treatment, and distribution program. It is likely that existing capacity in any element of SSJID's stormwater drainage infrastructure do not currently accommodate the volumes of additional water necessary to meet the City's requirements should they decide to proceed with a significant stormwater collection and storage program.

Accordingly, under such a program, the City would have to build its own storage/retention basins, some options of which are illustrated in this Study. The extent to which additional conveyance facilities and necessary appurtenances would be required to integrate these new retention basins with SSJID's existing infrastructure would depend on the ultimate design plans for this new program.

ES.4 City Water Supply and Demand Balance

This section provides the water supply and demand comparisons typical in most water master planning exercises. Water supply and demand balance computations are based on a series of factors, including: raw data (measured and estimated), hydrologic assumptions, engineering system assumptions, use (consumption) and loss assumptions, as well as anticipated growth.

In 2020, total City water supplies, including distribution system water losses, were 17,266 AF. This was comprised of 9,244 AF of imported surface water from SSJID, 6,038 AF of potable groundwater, and 1,984 AF of groundwater for other non-potable uses. These quantities in 2020 were below the total right and safe yield quantities available to the City: 11,500 AFY of surface water contractually available from SSJID through the SCWSP and 13,737 AFY of groundwater (both potable and non-potable) available within the safe yield based on the City's area (13,737 Acres) and a sustainable pumping rate of 1 AFY/Ac.[1] Note that

[1] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants, page 6-2.

there are other known entities within the City pumping groundwater (Manteca Unified School District [MUSD] and Eckerts Cold Storage) whose groundwater pumping also factors into the City's safe yield.

The State-mandated Urban Water Management Plan (UWMP) guides suppliers through a Water Supply Reliability Assessment under normal years, single dry years, and multiple dry year sequences. Projected available water supplies are calculated and compared against anticipated future demands with differences (e.g., supply surpluses or shortfalls) identified.

During dry years, each of the City's supplies are assumed to be curtailed based on historical dry year curtailment records assuming that SSJID surface water is curtailed by 25% and groundwater is un-curtailed consistent with UWMP methodologies. **Table ES-1** presents the percentages of normal supply available during dry years for surface water and groundwater and the historical base hydrologic years – the same years and associated percentages used in SSJID's 2020 UWMP – used to develop these percentages using the prescribed DWR UWMP methodology.

Year Type	Base Year[1]	% of Normal Supply Available Surface Water[1]	% of Normal Supply Available Groundwater
Average Year	2010	100	100
Single-Dry Year	1977	75	100
Five Consecutive Dry Years 1st Year	2012	100	100
Five Consecutive Dry Years 2nd Year	2013	95.6	100
Five Consecutive Dry Years 3rd Year	2014	75	100
Five Consecutive Dry Years 4th Year	2015	75	100
Five Consecutive Dry Years 5th Year	2016	100	100

Notes:
1. Base years listed and percentages of average surface water supply available are based on SSJID 2020 UWMP.

Table ES-1: Historical Basis of WY Type

There are many assumptions in dry year analysis that may not account for potential supply limitations over sustained dry year conditions. The 2012-2016 drought period proved that as surface water supplies became increasingly strained, groundwater reliance increased to about 80% of the supply in the San Joaquin Valley. At that usage rate, it is conceivable that after successive years, for groundwater reserves to be impacted and potentially deplete. Therefore, it is prudent to assume a reduction in the current safe yield pumping rate of 1 AFY/Ac during a period of sequential drought years for two reasons: 1) to prepare for the possibility of a curtailment and 2) to plan for the management of the Subbasin's sustainable yield under drought conditions.

ES.5 Future Water-Related Threats to the City

This section addresses the future threats to the City's water supply that have the potential to induce a supply shortfall. Future potential threats to the City's water supplies can be grouped into the following categories: 1) Hydroclimatological Uncertainty, 2) Existing Surface Water Storage Capacity Limitations, 3) Regulatory Impositions, and 4) Declining Groundwater.

Hydroclimatological Uncertainty. Hydroclimatology is primarily intended to address the uncertainties associated with our rapidly shifting climates due to climate change. A thorough review of the most current scholarly research on California water resources affected by climate change and, specifically, for those regions that the City relies on for its water supplies from SSJID entitlements, namely, the central Sierra Nevada is provided. Overall trends for the San Joaquin Valley and the Stanislaus River watershed indicate an anticipated future increase in October-March runoff, mainly as a result of increasingly less snowfall and a more direct rainfall-runoff response. The high spring flows (runoff period April–July) that have become such a characteristic part of the Sierra Nevada hydrology are expected to continue to steadily decline with the onset occurring earlier and earlier.

Hydroclimatic uncertainties include those associated with variations between individual GCMs and RCMs. A common theme among these various studies/models is the extent of uncertainties associated with the various assumptions for climate change models used in the analyses. Such uncertainty can impart considerable influence on simulated changes in WY classification and hydrological droughts. The interannual range of expected precipitation in any given year in the San Joaquin Valley is large; it has ranged between 15 inches (1976-77) and 77 inches (1982-83) with an annual average of 40 inches. WY 2021-22 saw a total of 25.3 inches, significantly below average.

Existing Surface Water Storage Capacity Limitations. The ongoing surface water storage issue relates to the limitation in available reservoir storage capacity across the system relied upon by SSJID and the City. Since all reservoirs have a maximum storage capacity less than the unimpaired yield of the draining watersheds above it, careful management of storage volumes/water levels is necessary to ensure that all primary functions of the facility are adequately accommodated. These include flood control, water supply, hydropower generation, instream flow releases, and recreational flows. This operational balancing act is further challenged by the fact that these reservoirs are operating in a Mediterranean, semi-arid climate where the annual rainy season is limited to four or five winter and spring months. New Melones Reservoir operates under a rule curve, similar to that of Folsom Reservoir, shown in **Figure ES-2**.

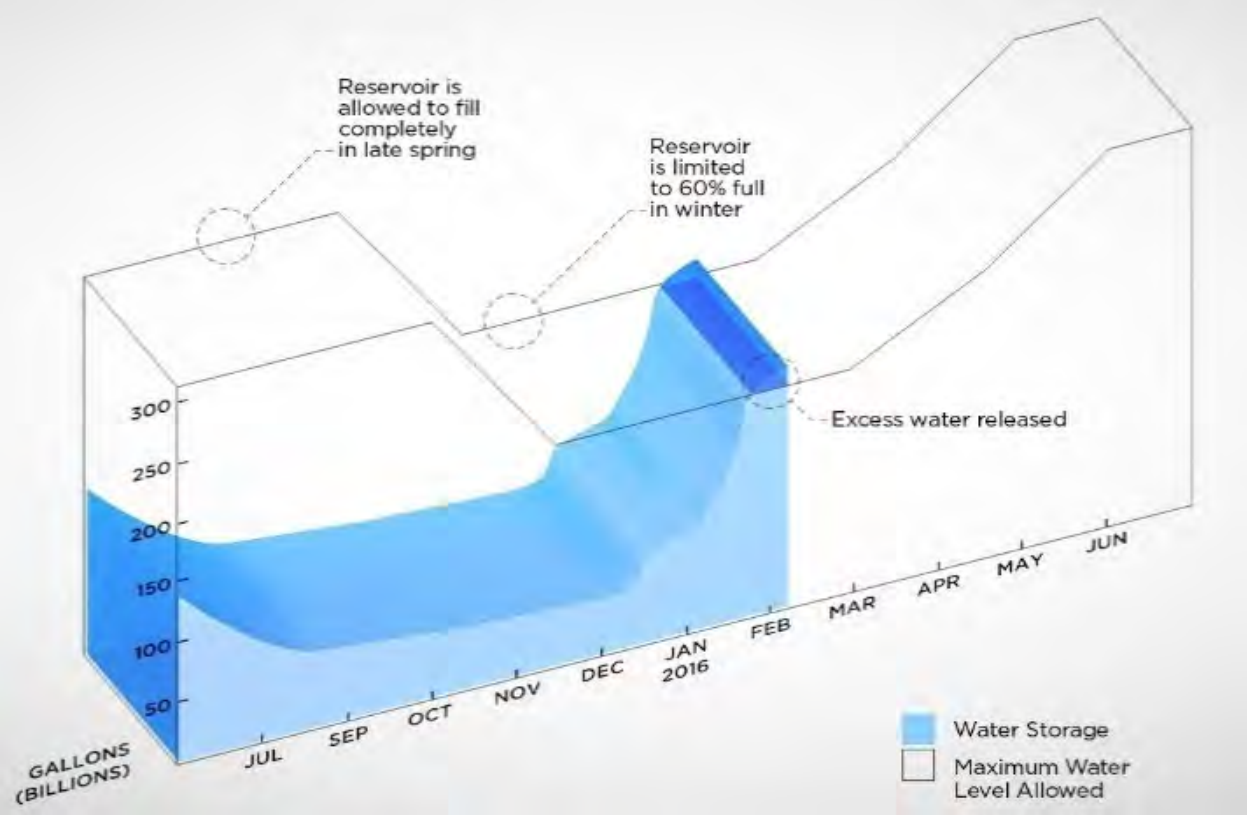

Figure ES-2: Schematic of Folsom Reservoir showing Operating Rule Curve and Seasonal Spill/Fill Thresholds
Source: U.S. Army Corps of Engineers

This illustrates the top of the variable seasonal rule curve and its periods of "spill" and "fill." It is designed specifically for its storage volume, upper catchment unimpaired runoff (e.g., basin yield), and planned reservoir operations. Terminal or "rim" reservoirs in the Sierra Nevada need to delicately balance anticipated annual/seasonal hydrology since the rainy/snowmelt season only lasts for a few months. Municipal and industrial (M&I) water diversions should be fairly consistent throughout the year, particularly for indoor water use. Diversions from reservoir carryover rely on full reservoirs or, at the very least, reservoirs that can provide a consistent allocation across all months of the year.

The hydrologic records and characterization of the Stanislaus River basin that were once known and from which the design of all current reservoirs were based must now be operated under a rapidly changing hydroclimate. All of the existing facilities, particularly, dams/reservoirs were designed based on assumptions that are now growing increasingly outdated.

The precarious nature of reservoir storage operations, including those of New Melones Reservoir, drive the need for two continual improvements: improved hydroclimatic forecasting (meaning more advanced hydrometric instrumentation) and additional reservoir storage (whether at existing reservoirs or new site locations).

Regulatory Impositions. Regulations, particularly as they relate to surface water operations of the primary water regulators in the State are of notable interest to the City. The City's surface water supplies are generated in the headwaters of the Stanislaus River in the central Sierra Nevada. Operationally, that

runoff is controlled by the USBR's Central Valley Project (CVP) through the Tri-Dams Project, New Melones Reservoir, and downstream at Tulloch, Goodwin, and Woodward reservoirs. Operations of the CVP must adhere to various regulatory requirements including the federal Endangered Species Act (ESA), the Central Valley Project Improvement Act (CVPIA), the Anadromous Fish Restoration Program (AFRP), Long-Term Operations of the CVP and SWP, CVP Operations Criteria and Plan (OCAP), and the Coordinated Operations Agreement (COA), to name a few.

Operations specific to the Stanislaus River must adhere to the New Melones Revised Plan of Operation (NMRPO), Stanislaus Stepped Release Plan (SRP) – WY 2022, and Operations Plan (January 2022 Flows) as well as the various SWRCB decisions pertaining to Bay-Delta water quality objectives, 1995 Bay-Delta Plan, Vernalis salinity objectives, and related water right permits/licenses, incidental take permits, etc.

The City's contracted surface water allotment with SSJID both now and in the future is dependent on the hydrology of the Stanislaus River system meeting the instream flow requirements of the river and, more importantly, meeting all of the flow, water quality/salinity, and flow/habitat requirements of the Bay-Delta. The federal agencies through the USBR, NOAA Fisheries, U.S. Fish & Wildlife Service, U.S. EPA can and do impose restrictions on diversions from the Stanislaus River system. State agencies, primarily the SWRCB, California Department of Water Resources (DWR), California Department of Fish & Wildlife (CDFW) can also impose restrictions on any water diversions hydrologically connected to the Bay-Delta; this includes the entire Stanislaus River watershed from which SSJID holds pre-1914 water rights.

Declining Groundwater. The groundwater challenges for the City are consistent with what the United States Geological Survey (USGS), the primary federal regulatory and management agency for groundwater, has identified and which form a foundational basis for many SGMA objectives. These groundwater challenges include:

- Recharge, discharge, and change in storage response to climate variability on interannual to multidecadal timescales and climate change from human activities in the principal aquifers of the United States.
- Identifying how much hydrologic response is caused by natural variability and how much is caused by human activities with respect to future climate change.
- Identifying potential need for time-varying groundwater management strategies, such as artificial storage and recovery efforts due to climate variability.
- Identifying whether certain principal aquifers are more or less susceptible to changes in storage caused by climate variability and change.
- Identifying whether trends in groundwater quality can be linked to climate variability and change.
- Identifying what strategic role groundwater storage will play in adapting to climate change.

According to the American Geophysical Union (AGU), California has a less than 1 in 5 chance of achieving groundwater overdraft recovery over the 20-year period following a drought based on the expectations of a drier climate in the immediate future. Given that drought frequencies in California are easily within 20-year timeframes, full groundwater recovery is unlikely.

Other Considerations. There are many factors that can affect the availability and reliability of water supply including:

- **Water Quality:** Water quality can affect the availability of a water supply where treatment is required or where treatment is cost prohibitive. The City's tap water is generally considered safe to drink as there are no active health-based violations of the Safe Drinking Water Act (SDWA).
- **Land Subsidence:** Reduced surface-water availability during 1976-77, 1986-92, 2007-09, and 2012-2015 caused groundwater pumping to increase across the San Joaquin Valley, thus exacerbating declines in groundwater-levels to near or beyond historic lows, resulting in renewed aquifer compaction. Intensified statewide subsidence monitoring efforts showed that land subsidence continues and that the San Joaquin Valley experienced the most subsidence in WY 2021, with a maximum of 1.1 feet of subsidence observed in the region.

Realities of Future Droughts. Water scarcity is a growing problem in California and water leaders are working to develop long lasting effective solutions. Key amongst these solutions is the identification and development of diversified, interconnected, flexible, and resilient water supply portfolios. Examples of actions water purveyors can take to address potential water supply shortfalls include various capital investment plan improvements (e.g., improving infrastructure sizing and efficiencies), water transfers, and a reverse cyclic program (e.g., allowing agencies to purchase State Water Project allotments, for banked security in future years).

ES.6 Recommendations

This final section identifies seven recommendations for the City to embrace, incorporate, or otherwise implement as a result of the observations stemming from this Water Sustainability Study. These include:

1 Use industry acknowledged shortage provisions

When forecasting future water supply versus demand projections, assume a worst-case delivery scenario for available water supplies.

2 Use climate-sensitized future hydrology projections

An uncertain future hydroclimate is and will continue to impart ambiguity and insecurity on both surface and groundwater supplies relied upon by the City. Its effects are broad ranging, from reduced surface water yield in the upper Stanislaus River basin to increased depletions from the Eastern San Joaquin Groundwater Subbasin groundwater reserves.

3 For planning purposes, assume maximum regulatory curtailments to SSJID's Pre-1914 Water Rights

Last year's Term 91 imposition is one of many already existing regulatory impositions used by regulators (in this case, the State) to curtail surface water diversions from Delta watershed water right entitlement holders. The degree to which these types of restrictions are amplified or made more frequent in the future is uncertain, but it is guaranteed that it won't become laxer.

4 Assume SWRCB will impose maximum curtailments in the interests of Delta assets during droughts

The SWRCB can claim severe/critical drought conditions and their authority over water use can be extensive. This possibility encourages development of an independent water supply.

5 Explore whether there are supply enhancement opportunities with SSJID, OID, or others

Identify if the City can renegotiate its existing SSJID Water Supply Agreement in terms of the Phase II allocations from the SCWSP and secure additional supply commitments.

6 Develop storm- and/or floodwater capture and retention program

Initiate an extensive storm- and/or floodwater capture and retention exploratory development plan. Make stormwater the third water supply source of the City. The City should explore developing its own supply source(s); one that is unencumbered by outside control – and stormwater represents just such a supply.

7 Develop an integrated MAR, recycled water, and stormwater program

Using recycled water, storm- and/or floodwater as a primary supply source for future City MAR programs.

1 INTRODUCTION

The purpose of this Technical Memorandum (TM) is to examine the long-term reliability of the City of Manteca's (City's) various water supply sources and delivery allocations and provide recommendations to develop a water supply strategy that diversifies and strengthens the City's water supply portfolio so that long-term water resource sustainability can be secured.

Under a separate TM No. 5, the various existing, ongoing, and anticipated future regulatory constraints and risks associated with maintaining current and projected future City water supplies are identified and discussed.

The duty to serve for today's water purveyors is based on the requisite need to meet both reliability and sustainability principles. And while it is often common for the water industry to use reliability and sustainability interchangeably, there are notable differences.

Water reliability generally speaks to the delivery capability of a water supply and thus, the trust or expectation with which one can assume or associate with that delivered allocation. It is sometimes referred to as a measured *firmness* of supply. *Water sustainability*, on the other hand has to do with the guaranteed protection of the resource so that it is not irreparably damaged or irretrievably depleted. In this context, groundwater safe yield immediately comes to mind. These are not hard and fast definitions but ones that can be used as general guidance by water purveyors.

The duty to serve based on both reliability and sustainability is set against an established demand threshold, usually cast into the distant future and often corresponding to General Plan buildout or *ultimate* buildout estimates. Here, the water purveyor has an identified target threshold from which to set all water delivery obligations. The manner with which target thresholds are achieved are set out in thoughtfully conceived water implementation strategies, such as Urban Water Management Plans (UWMPs).

An appropriate water supply "strategy" must take into account the various water constraints possible as well as an array of prioritized potential mitigative tactics designed to address these shortcomings. Any strategy must be flexible enough to withstand the uncertainties associated with varied water supply availability. Water supply variability results from traditional threats such as meteorological and hydrological drought, but also a number of other factors including water shortages imposed by various institutional, operational, infrastructural, and regulatory constraints (see **Section 2 Background**, below).

Throughout this TM references are made to the City's various water supplies; infrastructure; and past, present, and future agreements, etc. These agreements are incorporated herein by reference with brief introductory remarks and explanations.

2 BACKGROUND

Water reliability is contingent on the identification of the potential future water supply shortfalls. Traditional significant threats facing water purveyors today include those constraints affecting the ability to meet existing and planned delivery obligations. Constraints include both resource restrictions (water supply), population growth, and climate change. Today, it is recognized that there are many different forms of drought, including:

- Meteorological drought
- Hydrological drought
- Infrastructural drought
- Operational drought
- Regulatory drought
- Institutional or administrative drought

The most common is ***Meteorological*** drought. This is what is typically reported in the media and reflects climatological (or meteorological) conditions. When people talk of the *megadrought*,[2] this is typically what they are referring to.

Hydrological drought is the next step in the hydrological sequence. Hydrological drought depends on how much incident precipitation (e.g., rain, sleet, or snow) ended up as accessible reservoir carryover storage, river flows, or groundwater. Much depends on the antecedent moisture conditions of the watershed(s) relied upon by the water purveyor, for not all precipitation ends up as accessible water; the vast majority is lost to evaporation, transpiration, deep groundwater seepage, and out-of-basin losses.

Infrastructural drought refers to conditions where the water infrastructure needed to capture, store, convey, treat, and/or distribute water is limited by capacity and thus made unavailable to the purveyor. This could result from a lack of existing facilities; for example, lack of stormwater or rainwater collection facilities. The classic example occurs when there is ample rainfall, but a water purveyor simply does not have the collection and storage facilities to retain the necessary quantities of wet-season rainfall for later use.

Operational drought commonly refers to situations where the function of the infrastructure relied upon by a water purveyor is not dedicated solely for that purveyor's use. For example, if a portion of the water infrastructure of the State Water Project (SWP) or wholesale supplier to the purveyor is restricted in any way due to operational reasons (e.g., need to maintain empty space for flood storage). It can also occur where a component of a system must be placed off-line for any lengthy period of time due to planned or unplanned maintenance, disaster repairs, or retrofitting.

Regulatory drought is a challenge as interests of consumptive users such as municipal and industrial (M&I) and agricultural (Ag) conflict with potential environmental interests such as water quality, fisheries, and/or wildlife. Many of the provisions of the Bay-Delta Water Quality Control Plan, other stipulations of

[2] The searing "megadrought" that has gripped the southwest U.S. for more than two decades is the driest 22-year period in at least 1,200 years. The region hasn't seen a more severe drought since the start of the scientific record around the year 800. Williams, A.P., Cook, B.I. & Smerdon, J.E., (2022) "Rapid intensification of the emerging southwestern North American megadrought in 2020–2021", Nat. Clim. Chang. Vol.12, pp.232–234. https://doi.org/10.1038/s41558-022-01290-z

the Water Code, or any of the federal Biological Opinions under the federal Endangered Species legislation are cases where resulting curtailments in water allocations become examples of regulatory drought.

Institutional* or *administrative drought is the last category and can be described as situations where third-party agreements can affect the ability of the water utility to fully meet its delivery obligations during any specific water year (WY) due to contractual arrangements made with other parties for any portion of the water entitlement or infrastructural capacity.

Just as there exist many different types of drought, there are also many different indices water managers use and continue to rely on to gauge drought effects. These indices include the Palmer Drought Severity Index, the Standard Precipitation Index, the Aggregate Drought Index, the Standardized Runoff Index, the Standardized Precipitation-Evapotranspiration Index, the Multivariate Standardized Drought Index, and the Groundwater Drought Index.

This "Water Sustainability Study" is intended to identify the risks to the City's water resources so that proper strategies can ultimately be put in place to ensure that these resources are not irreparably damaged or irretrievably depleted. In order to do that, it is important to properly identify the causes of potential shortfalls; recognizing that not all water shortages are due to a lack of rainfall.

The first step in any future water resource or supply planning effort is to establish the correct baseline yield or the projected future water yield. For years, identifying this quantity involved a relatively straightforward process since the water industry always assumed *hydrologic stationarity* – meaning it always assumed that long-term hydrologic availability (e.g., projected rain and snowfall) would not change outside of its variable historic range. Future hydrologic baselines simply took the historic hydrograph(s) and projected them into the future, making necessary adjustments for anticipated demand depletions and changing regulatory allocations. No significant adjustments were made to the projected hydroclimatology to account for future variability. This is how virtually all water-related federal environmental assessments traditionally conducted their NEPA and Endangered Species Act-related future water availability analyses.

A changing hydroclimate and how it pertains to water resources has been known for a couple of decades but the Milly[3] paper in 2008 really established climate change as a vital new element in contemporary water resources planning. As a result, today, climate change is widely accepted as a requisite feature of water supply planning.

City water master planning or water sustainability effort should be undertaken with a thorough examination of anticipated future changes in water yield brought about by a rapidly shifting climate.

[3] P.C.D. Milly, Betancourt, J., Falkenmark, M., Hirsch, R.M., Kundzewicz, Z., Lettenmaier, D.P., and R.J. Stouffer, (2008) "*Stationarity Is Dead: Whither Water Management*?", SCIENCE, Vol.319, pp.573-574.

3 HYDROLOGICAL SUSTAINABILITY AND CLIMATE CHANGE

Everything a water purveyor/utility typically does, whether it's supply/demand planning, meeting current and future delivery obligations, operating multi-faceted systems, maintaining and ensuring infrastructure stability, safeguarding ongoing regulatory compliance, etc., is contingent on the future projected yield and knowing what that is. For California, climate change indicates a shift in projected water yield to water purveyors.

Ideally, the estimated projected future yield will incorporate changes in its spatial and temporal projected yield. In so doing, the fundamental future baseline will be generated from which all water management priorities can be derived. Specifically, projected water yield must be adjusted based on assumed climatic changes. The resulting hydrograph that is generated then represents the assumed new hydrologic response of the area in question. The manner with which to accomplish this is through climatic modeling[4] (see **Section 3.2 Climate Analysis – Modeling**).

The forcing shift is simplistically illustrated in **Figure 3-1**, a hypothetical depiction of an annual streamflow hydrograph. The x-axis represents month of the WY starting on October 1 (10th month) with the y-axis indicative of hypothetical streamflow or river runoff (in this case, illustrated as dimensionless). The three curves represent three different types of streamflow response based on changing precipitation patterns.

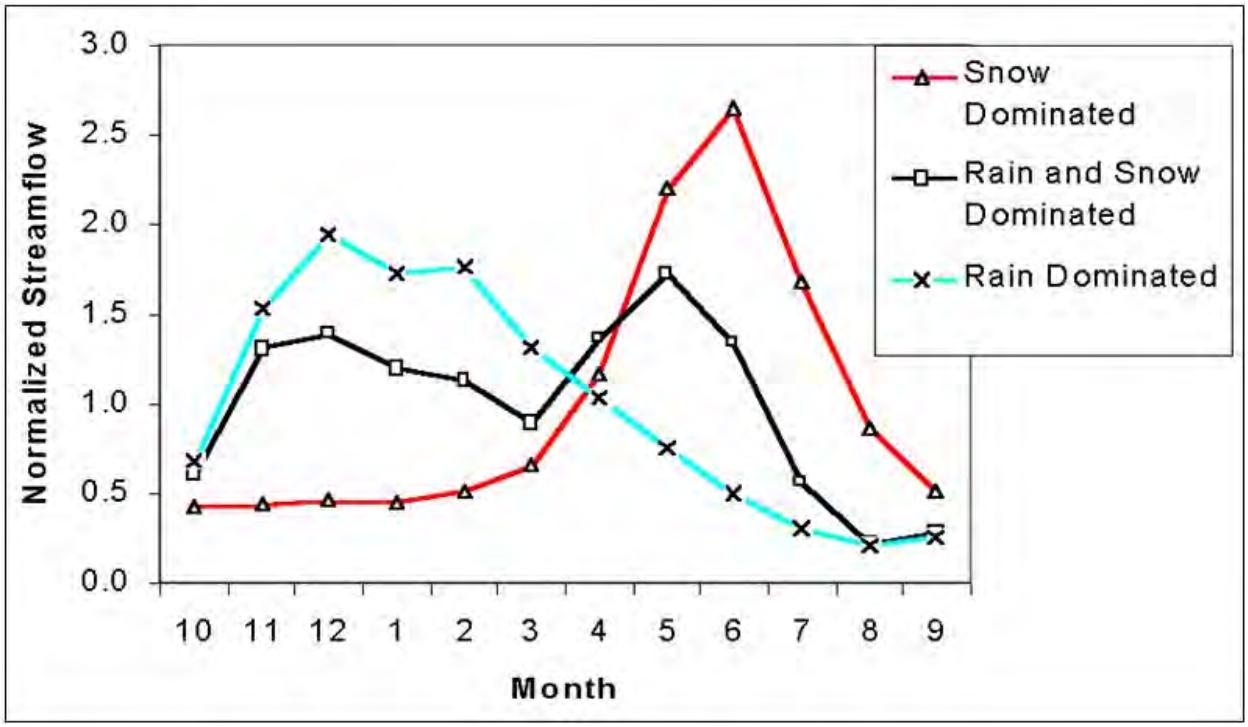

Figure 3-1: Typical "Forced" Hydrographs from Watersheds of Snow, Rain on Snow, and Rain
Source: D.P. Lettenmaier, J.C. Adam, and T.P. Barnett (2006) "Sensitivity of Snow-Dominated Hydrologic Regimes to Global Warming," European Geosciences Union, April, 6, 2006, Vienna, Austria.

[4] https://www.climate.gov/search?query=&section=maps&datasetgallery=1&sorting=relevance; https://climate.mit.edu/explainers/climate-models; https://ncar.ucar.edu/where-we-focus/climate.

The **red** curve represents a typical snowmelt response that peaks in June (6th month). This is the traditional delayed spring runoff characteristic of many snow-dominated regions like those found in the Sierra Nevada mountains of California. Under a "forced" climatic shift where winter precipitation increasingly falls as rain instead of snow, the river runoff response is more immediate as shown by the **blue** curve. Here, river runoff more closely matches the period when rainfall occurs – in this case, the winter wet season; note the disappearance of the springmelt peak. The **black** curve represents a hybrid or intermediary river runoff response under a combination of both rain and snow.

This pertains to the seasonal availability of runoff. Two salient conclusions arise relative to current or historic conditions:

- Peak runoff magnitude is significantly reduced under warmer conditions (reduced snowmelt), and
- A marked shift occurs in the hydrograph response to earlier in the season making less water available in the warmer summer months.

The projected future effects of a warming climate on regions such as California and, in particular, the Sierra Nevada and Central Valley regions has been established for years and is well supported in the scientific literature.[5] Many have simplified the likely result of a forced hydroclimate on Mediterranean climates such as those for California as merely, "…*more rain, less often*…." While there is some truth to this adage, it is a little more complicated.

3.1 Climate Change Water Implications to the City

Given these rapidly shifting hydroclimatic and hydrologic conditions, the hydrology that the City's existing agreements are based on must now be revisited. Any contractual agreement for which the City is currently party, should now be reviewed in light of the uncertain nature of the future water yield upon which it relies and the changing understanding of the basic hydrological facts that served as the basis for the various stipulations of the agreement(s) in the first place. The hydrology that is changing includes, but is not limited to, river flows, reservoir carryover storages, groundwater levels, raw water deliveries to water treatment plants (WTPs), natural groundwater recharge, etc., that the City assumed would exist at specific levels.

All agreements, whether made by the federal or State governments, local third-party purveyors, or other stakeholders, are contingent upon the projected yield assumed in the development of the agreements. Specifically, the agreements are contingent upon the assumptions that the hydrology remain both

[5] Miller, N.L., Bashford, K.E., and E. Strem (2007), "Potential Impacts of Climate Change on California Hydrology", Journal of the American Water Resources Association, https://doi.org/10.1111/j.1752-1688.2003.tb04404.x;

Dracup, J.A. and S. Vicuna (2005) "An Overview of Hydrology and Water Resources Studies on Climate Change: The California Experience", World Water and Environmental Resources Congress;

Maurer, E.P. (2007) "Uncertainty in hydrologic impacts of climate change in the Sierra Nevada, California, under two emissions scenarios", *Climatic Change* 82, 309–325 (2007). https://doi.org/10.1007/s10584-006-9180-9;

Maurer, E.P. and P.B. Duffy (2005) "Uncertainty in projections of streamflow changes due to climate change in California", Geophysical Research Letters, https://doi.org/10.1029/2004GL021462;

Dettinger, M.D., Cayan, D.R., Meyer, M.K. *et al.* (2004) "Simulated Hydrologic Responses to Climate Variations and Change in the Merced, Carson, and American River Basins, Sierra Nevada, California, 1900–2099", Climatic Change **62,** 283–317. https://doi.org/10.1023/B:CLIM.0000013683.13346.4f.

unchanged and known to the parties. Under a rapidly changing hydroclimate, such conditions unfortunately, are no longer the case.

Therefore, it is highly recommended that all applicable agreements should ideally be reviewed by City legal counsel together with its climate change engineering/hydrology team. A brief list of where changing hydroclimatic conditions could affect the City's existing water operations include the following:

- Water supply delivery stipulations based on quantity agreement(s) between any and all wholesale/retail suppliers and the City for water supplies drawn from California rivers, streams, reservoirs, lakes, or managed embayments;
- Water supply delivery stipulations based on quantity agreement(s) between wholesale/retail suppliers relied upon by the City and federal/State water regulatory agencies for water supplies drawn from California rivers, streams, reservoirs, lakes, or managed embayments;
- Water supply delivery stipulations based on (timing[6]) agreements(s) among and within these same parties; and
- Assumed safe yield (aka *sustainable yield*) volumes based on calculated and negotiated recharge of the Eastern San Joaquin Groundwater Subbasin as established through the ongoing *Sustainable Groundwater Management Act*[7] (SGMA) process.

In any assessment of the effects of climate change on the operations of a water purveyor, it is important to appreciate the interrelated nature of these changing climatic conditions on all water resources that are relied upon. It is essential to understand the *hydrologic trail*: where the supplier's water comes from and how these supplies are constrained or otherwise restricted by a changing climate.

While the City may not directly divert water from the upper reaches of the Sierra Nevada Mountains, their suppliers might. Should those water supplies be constrained or otherwise affected either naturally (e.g., by a shifting or changing hydroclimate, see **Figure 3-1**) or by man (e.g., through imposed regulation), such restrictions on water availability would have bearing on the City.

The constraints need not necessarily be obvious. For example, water purveyors in the Central Valley are regulated by water quality conditions and related standards associated with the Sacramento-San Joaquin River Delta (Delta). Should Delta water quality degrade into non-compliant conditions due to a lack of adequate freshwater flows discharging from headwater basins thus allowing upstream migration of the leading saline wedge into inner Delta environs, State regulations allow for mandated cessation of withdrawals (diversions) from the Delta and upstream systems. This includes the San Joaquin River and its tributaries (this is discussed more thoroughly in the companion TM No. 5, "Regulations Impacting City Water Operations").

[6] "Timing" agreement(s) pertain to the period or season of delivery. All water agreements have an authorized period of delivery; under climate change, such delivery periods can become increasingly tenuous, particularly in snow-dominated regions such as California where water yield is dependent on snowmelt timing. As annual hydrographs for California's Sierra Nevada rivers continue to shift temporally, the ability to meet the scheduled delivery obligations set out in the original agreements may become increasingly difficult.

[7] The Sustainable Groundwater Management Act (SGMA) is a three-bill package that passed the California state legislature and was signed into California state law by Governor Jerry Brown in September 2014. Its purpose is to ensure better local and regional management of groundwater use and it seeks to have a sustainable groundwater management in California by 2042. It emphasizes local management and formed groundwater sustainability agencies (GSAs) from local and regional authorities.

3.2 Climate Analysis – Modeling

Climate models are numerical representations of the climate system that furnish valuable tools for understanding climate and for anticipating future behavior changes. Numerical methods may vary from model to model depending on whether the emphasis is on the accuracy of the calculations or on their efficiency. Parameterizations are used to represent the transfers of water, energy and momentum, and other significant parameters and are often universal for a specific model.[8]

The complexity of a model is typically defined by the number of climate processes that are considered. The first climate models developed in the 1970s represented only the atmospheric component. The models evolved rapidly and were able to include additional components by the late 1990s. There are very simplified, one-dimensional models based on the terrestrial radiative balance, which simulate only the global average temperature, not regional disparities. On the other hand, the most complex models represent the entire carbon cycle, and allow the estimation of carbon exchanges between the different components. Between these various types, there exists a whole range of models of increasing complexity developed for specific applications.[9]

With increasing complexity, one also introduces more degrees of freedom into the system. This complicates their calibration and validation, sometimes at the expense of the robustness of the model. It is therefore important to determine whether added complexity provides a commensurate amount of added value to the model and its results.[10]

3.2.1 Climate Modeling for Water Purveyors

Climate change modeling for water purveyors follow traditional methods and procedures developed for climate change analysis. It starts with a projected simulation of forced global hydroclimatic changes identified through global climate models (GCMs). Such models are highly complex mathematical representations of the major climate system components (i.e., atmosphere, land surface, ocean, and sea ice) and their interactions with each other.

At their most basic level, climate change models use equations to represent the processes and interactions that drive Earth's climate. These cover the atmosphere, oceans, land, and ice-covered regions of the planet. The models are based on the same laws and equations that underpin scientists' understanding of the physical, chemical, and biological mechanisms going on in the Earth system. The model simulates all the dynamic processes in 3-dimensions many kilometers into the atmosphere (see **Figure 3-2**).

From **Figure 3-2**, the complexities of global climate modeling are evident. The ultimate objective(s) of the modeling exercise can focus on a wide range of specific issues and thus, can take many different forms. For future projected water yield, the fundamental analysis involves modeling or simulating the projected forcing mechanisms (e.g., temperature, precipitation) that affect the projected yield of those waterbodies relied upon by the water purveyor.

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[8] Magazù, S. and Caccamo, M.T., (2022) "Climate Change Dynamics and Modeling: Future Perspectives", Climate, 10(5) 65, https://doi.org/10.3390/cli10050065.

[9] Caccamo, M.T.; Magazù, S. (2019) "A physical-mathematical approach to climate change effects through stochastic resonance" Climate, 7, 21, https://doi.org/10.3390/cli7020021.

[10] Lea, D.J.; Allen, M.R.; Haine, T.W.N. (2000) "Sensitivity analysis of the climate of a chaotic system" Tellus A Dyn. Meteor. Ocean. 52, 523–532, https://doi.org/10.3402/tellusa.v52i5.12283.

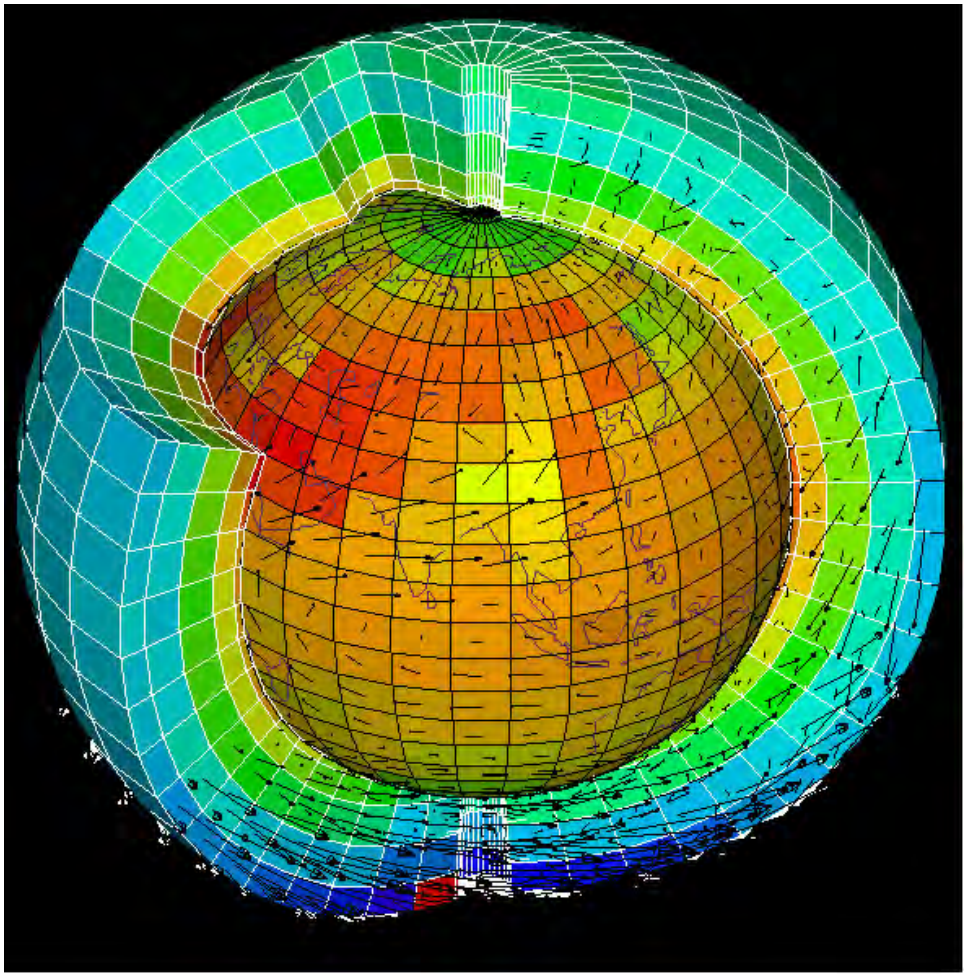


Figure 3-2: Generic Representation of a Global Climate Model showing 3D Coverage of Atmosphere and Land Surface Area
Source: Compiled from numerous sources.

Climate change modeling has significantly evolved over the decades as practitioners and hydrological experts refined their various analytical understandings and techniques. One of the first challenges followed the realization that global climate modeling could not provide the regional or local acuity necessary to effectively implement local area water resource prescriptions. Globally derived climate forecasts were simply too coarse (i.e., broad scale) to be directly applicable and thus needed to be reduced or "downscaled" to a more usable spatial orientation. Hence, the issue of "downscaling" emerged.

Downscaling brings the hydroclimatic forcing process down to a more manageable scale. It generates output data that can then be input into various hydrologic models depending on what output information is desired by a water purveyor. **Figure 3-3** illustrates the general downscaling process.

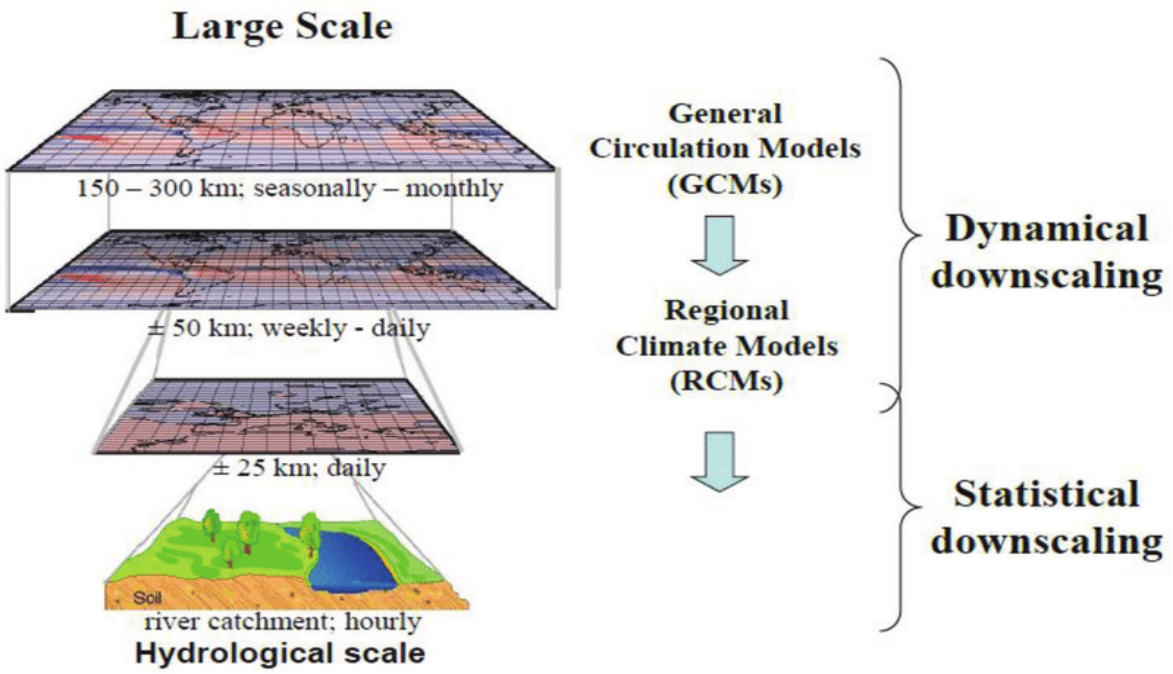


Figure 3-3: Step Process from Global Climate Modeling through Regional Downscaling to Impact Assessment through to Hydrological Modeling

Source: Adapted from Willems, P., 2011. Systems approach in water engineering, 2nd year Master of Water Resources Engineering, Course text, K.U. Leuven, Leuven, Belgium.

Currently, most GCM simulations are still performed at relatively coarse horizontal resolutions (~1°) due to the tremendous computational cost required for finer resolution simulations. Accordingly, modeling hydroclimatological characteristics, especially in mountain regions, at these coarser GCM resolutions is problematic as orographic features are heavily smoothed and inaccurately represented. The complex geographic characteristics of California, including the Central Valley and Sierra Nevada regions, necessitate finer-resolution climate simulations that can resolve important details in topography and land use coverage.[11]

As illustrated in **Figure 3-4**, the relationship between a GCM grid to areas of regional hydrologic models in California and to the Central Valley is depicted. Also shown are the various watersheds modeled in the regional model (in this case, the Mountain Hydrologic Watershed Model [MHWM] using the Basin Characteristics Model [BCM]) and the active model grid for the valley-wide Central Valley hydrologic model (CVHM) along with various diversion locations, selected precipitation and streamflow-gaging stations, and wells.

[11] Chin, H.-N. S., (2008) "Dynamical downscaling of GCM simulations: Toward the improvement of forecast bias over California," Lawrence Livermore National Laboratory Tech. Rep. LLNLTR-407576, 16 pp., https://e-reports-ext.llnl.gov/pdf/365755.pdf.

Pierce, D. W., Cayan, D.R., Das, T., Maurer, E.P., Miller, N.L., Bao, Y., Kanamitsu, M., Yoshimura, K., Snyder, M.A., Sloan, L.C., Franco, G. and M. Tyree (2013) "The key role of heavy precipitation events in climate model disagreements of future annual precipitation changes in California", Journal of Climate, **26**, 5879–5896, https://doi.org/10.1175/JCLI-D-12-00766.1.

Huang, X., A. M. Rhoades, P. A. Ullrich, and C. M. Zarzycki (2016), "An evaluation of the variable resolution-CESM for modeling California's climate", Journal of Advanced Modeling of Earth Systems, **8**, 345–369, https://doi.org/10.1002/2015MS000559.

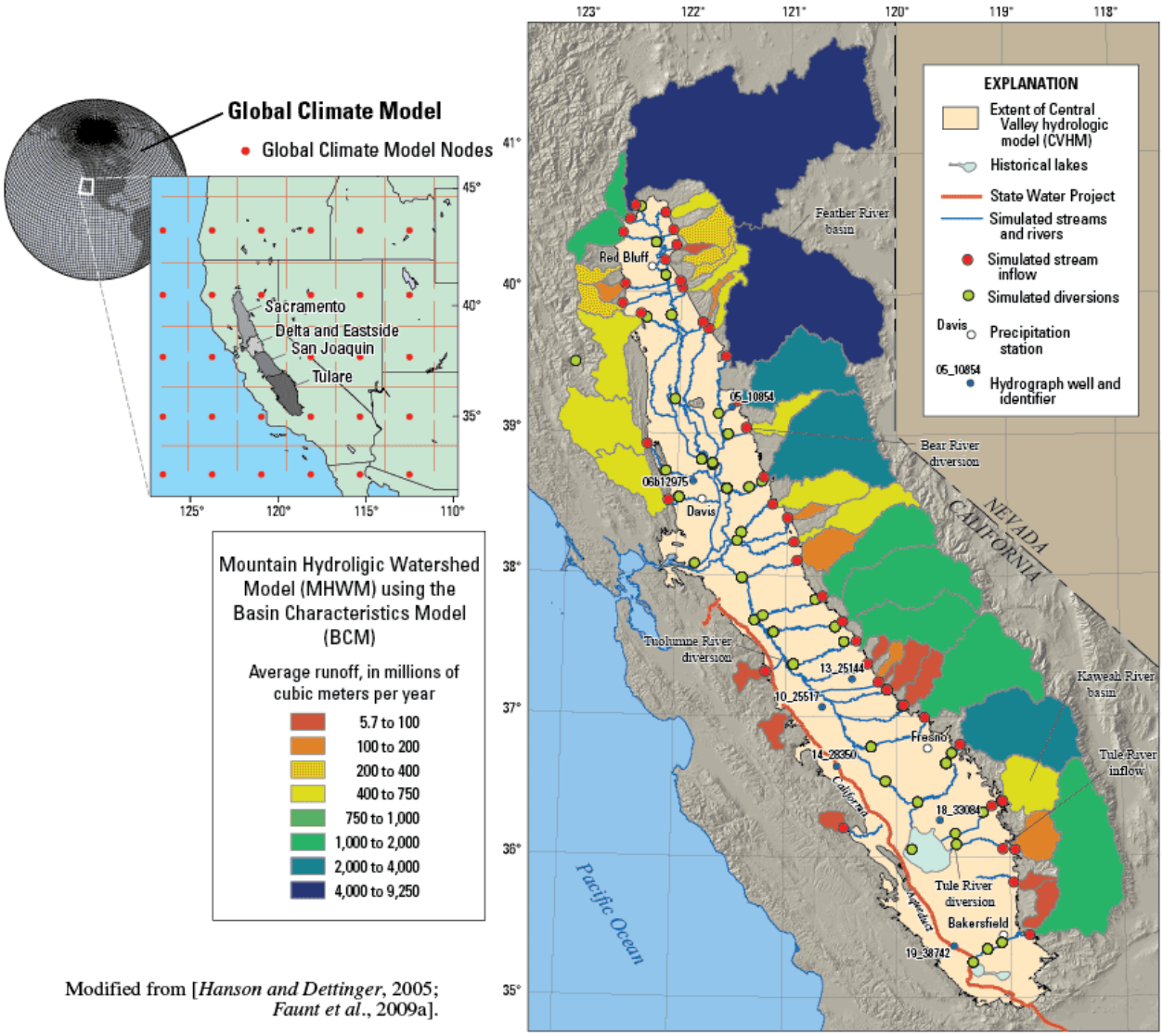


Figure 3-4: Watersheds Modeled in the Mountain Hydrologic Water Model by BCM Model
Source: USGS California Water Science Center, California's Central Valley, Conjunctive Use in Response to Potential Climate Changes in the Central Valley, California, Importance of Climate Change on Water Supply.

As with any modeling effort, it must be fully understood and appreciated that climate change modeling remains a highly assumptions-loaded process. It is not necessarily a "black box" exercise since we define the modeling structure and develop required coding, but no matter how sophisticated, it is a simple representation of reality. There is an anticipated amount of uncertainty associated with the future projection as there are limits to long term climate change projections.

Figure 3-5 below shows this future projection uncertainty dilemma graphically. It shows the projected increase in global temperature under a range of assumed future atmospheric greenhouse gas (GHG) loading scenarios. The x-axis is time from the year 1900 forward and the y-axis represents the relative change in temperature from the 1850-1900 baseline average (dimensionless axis).

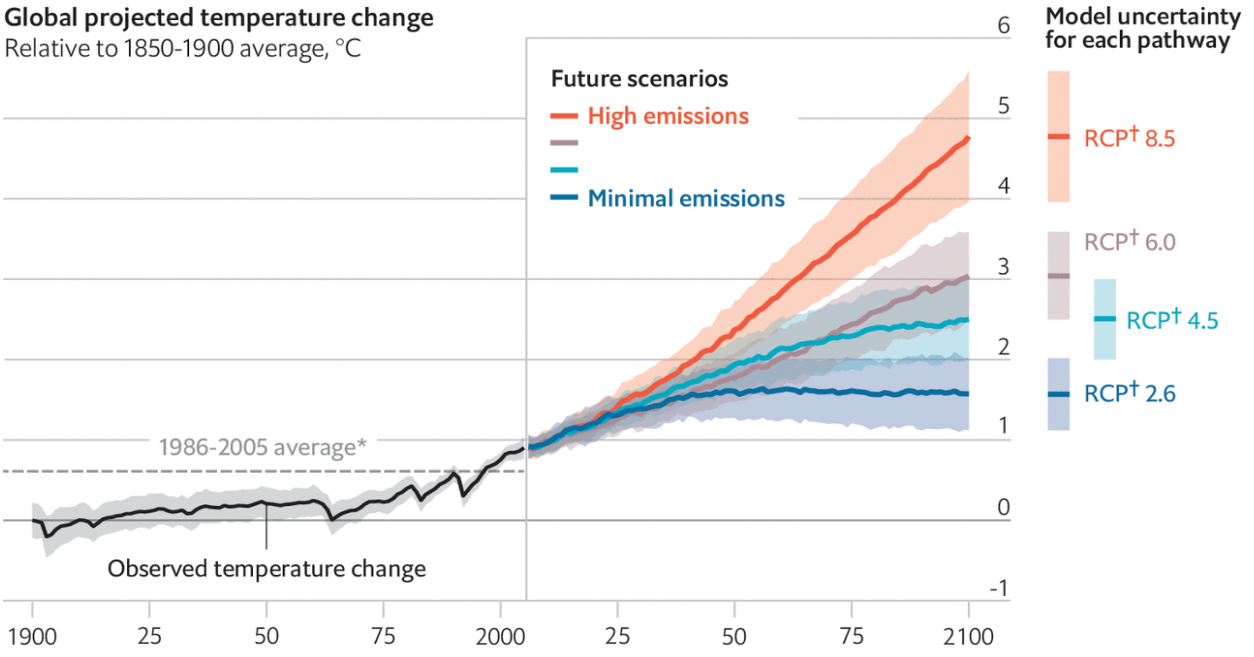


Figure 3-5: Anticipated Future Warming under Various Assumed GHG Loading Scenarios
Source: IPCC AR5

The graphical relationship illustrated in **Figure 3-5** can be transposed into virtually any hydrologic characteristic or metric. In other words, the depiction shown may equally apply to streamflow in any of the many rivers and streams tributary to the Californian Sierra Nevada. The salient point is that beyond present day, the future uncertainty range of how the hydroclimatic environment will respond expands as shown in the right-hand side of **Figure 3-5**. The breadth of that expansion is based solely on our assumptions of the future.[12] The RCP notations indicate the "Representative Concentration Pathway;" they depict the various ranges of GHG emissions that are assumed to affect, in this case, global temperature rise (e.g., the higher the assumed GHG emissions, the higher the resulting projection of air temperature increase).

Fortunately, technological advances are continuing, and California's water purveyors have an increasingly broader reference base from which to access every year. For example, the NASA Land Information System (LIS)/WRF-Hydro system is a coupled modeling framework that combines the modeling and data assimilation capabilities of the NASA LIS with the multi-scale surface hydrological modeling capabilities of the WRF-Hydro model, both of which are widely used in both operations and research. This new system has recently been used to demonstrate the impact of assimilating snow water equivalent, measured from an aircraft, on both the land surface and streamflow from the model in the Tuolumne River basin in Central California. Results show that assimilation of snow water equivalent into the coupled model corrects snow errors and improves the streamflow in both wet and dry years.[13]

[12] In this figure, the assumption is our estimate of future GHG loadings or concentration trajectory as depicted by the term RCP (Representative Concentration Pathway). The numerical identifiers (8.5, 6.0. 4.5 ad 2.6) are labelled as a possible range of radiative forcing values in the year 2100 representing assumed energy fluxes in W/m^2.

[13] Lahmers, T.M., Kumar, S.V., Rosen, D., Dugger, A., Gochis, D.J., Santanello, J.A., Gangodagamage, C. and R. Dunlap (2022), "Assimilation of NASA's Airborne Snow Observatory snow measurements for improved hydrological modeling: A case study enabled by the coupled LIS/WRF-Hydro system" Water Resources Research, 58(3), https://doi.org/10.1029/2021WR029867.

The second most significant processing issue in climate modeling has to do with *bias correction*. Climate modeling possesses inherent systemic errors (biases) in its generated outputs. These errors result from a number of factors including limited spatial resolution (e.g., large grid scale), simplified coding of complex thermodynamic processes in the atmosphere (e.g., effect of El Niño and the Southern Oscillation, also known as ENSO or North Atlantic Oscillation, also known as NAO), or omitted climatic processes (e.g., aerosol feedbacks). To overcome large biases in climate models, a number of bias correction methods have been developed and applied over the years. Despite many decades of improvements, GCMs continue to show negative bias, or underestimation.[14]

It is important to note that, at present, there is no "official" future GCM platform that is universally accepted by all governing authorities. For its part, California, through various jurisdictional agencies including the Department of Water Resources (DWR) maintains an expansive and constantly growing informational database including modeling results, supporting documentation, and program updates. These include many continually evolving State and federal agency programs.[15]

The inflection point begins at present day. Future uncertainty of whatever hydroclimatic variable we are considering (e.g., air temperature, rainfall, reservoir storage, spring river flows, etc.) will depend on our GCM, our downscaling and bias correction procedures, and our selected RCP. The spread of our projection, the farther into the future we look, only gets larger. This reemphasizes the importance of knowing precisely what processes are being used in the model, the rationale used to defend the selected process(es), and the validity of the assumptions relied upon.

[14] Frei, A., Mukundan, R., Chen, J., Gelda, R.K., Owens, E.M., Gass, J. and A. Ravindranath (2022) "A Cascading Bias Correction Method for Global Climate Model Simulated Multiyear Precipitation Variability" Journal of Hydrometeorology, https://doi.org/10.1175/JHM-D-21-0148.1

[15] https://water.ca.gov/programs/all-programs/climate-change-program; https://www.waterboards.ca.gov/climate/; https://wildlife.ca.gov/Science-Institute/Climate-Change; https://www.usbr.gov/climate/.

4 CITY OF MANTECA HYDROGEOLOGIC CONTEXT AND WATER SUPPLY AVAILABILITY

The City lies along the northern portion of the San Joaquin River valley floor and is located south of Stockton and east of Lathrop along Highway 99. The modern-day physiographic features are a direct result of the geologic history of the region. It is characterized by broad river flood plains, channels, and overflow lands; low alluvial plains and fluvial fans; and dissected uplands. The dissected uplands lie along the flanks of the valley between the Sierra Nevada to the east and the alluvial plains and fluvial fans to the west. Overflow lands of the valley trough tributary to the San Joaquin River define the area inundated by rivers when floods are highest under natural conditions.

The City's climate is warm and dry ranging from an average high in July of 91°F to an average low of approximately 57°F. Winters are cool and mild, with an average high of 59°F and a low of 38°F in January. The average temperatures range from December lows of 37.2°F to July highs of 91°F (see **Table 4-1** and **Figure 4-1**). The City's annual average precipitation of 12.2 inches is typical of the San Joaquin Valley floor. Precipitation occurs as rain most of which falls between the months of November through April, peaking in January. This will have particular relevance to the City's potential new future water supplies (see **Section 4.4**).

The City relies on two main water sources: surface water from the Stanislaus River supplied via an agreement with South San Joaquin Irrigation District (SSJID) and groundwater pumped by some 15 city-owned potable water wells (plus two standby) and 31 non-potable irrigation wells from the critically overdrafted Eastern San Joaquin Groundwater Subbasin,[16] a subbasin of the San Joaquin Valley Groundwater Basin. In 2021, the City had 25,872 unique water meters, with an average potable demand of just under 13 MGD.[17] Annually, the City distributes between 4.5 and 5.0 billion gallons of potable water; the majority of this water is surface water, supplemented with groundwater from the City's wells. The City has a 4.0 MG round level storage tank (Atherton Tank) with a booster pump station capable of pumping 12,000 gallons per minute (gpm).[18] As noted in its 2015 UWMP it is the City's stated goal to achieve a 53% to 47% annual balance of surface water to groundwater, respectively. To meet this proposed allocation target, a variety of differing water sources must be relied upon each with their own limitations, long-term challenges, and costs.

The City holds no surface water entitlements. The surface water furnished by SSJID as a wholesale seller is made through the South County Water Supply Project (SCWSP). To the extent the City is reliant on SSJID for its surface water supply, the water rights, storage, conveyance, and delivery infrastructure of SSJID and its partnering purveyors become an important consideration for the City's long-term water security.

The City began receiving treated surface water from the SCWSP in 2005 to augment groundwater supplies and will ultimately be allocated up to 18,500 Acre-feet per year (AFY) in Phase II of the Project. The City has historically used approximately 1,000 AFY of reclaimed wastewater as applied water to fodder crops on City-owned and leased lands though this use is expected to be eliminated by 2040 as the lands are developed.[19]

[16] DWR's Bulletin 118 – 80, Ground Water Basins in California classified the Eastern San Joaquin Groundwater Subbasin as a basin in a critical condition of overdraft.

[17] Water supply data provided by the City.

[18] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants.

[19] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants, page 6-11.

Month	Average Temperature		Average ETo (inches)	Average Rainfall (inches)
	Min (°F)	Max (°F)		
January	38.0	59.2	1.1	2.6
February	39.6	62.7	1.9	2.0
March	42.4	68.2	3.5	1.8
April	45.6	72.9	5.0	1.0
May	50.1	79.5	6.8	0.5
June	54.8	85.8	7.6	0.1
July	57.3	91.2	8.0	0.0
August	56.6	89.8	7.1	0.0
September	53.5	88.4	5.2	0.1
October	47.3	82.5	3.5	0.6
November	40.4	70.9	1.7	1.2
December	37.2	60.8	1.1	2.1
Annual	**46.9**	**76.0**	**52.6**	**12.2**

Table 4-1: City of Manteca Climate Characteristics
Source: California Irrigation Management Information System for Station 70-Manteca (January 1988 – December 2020).

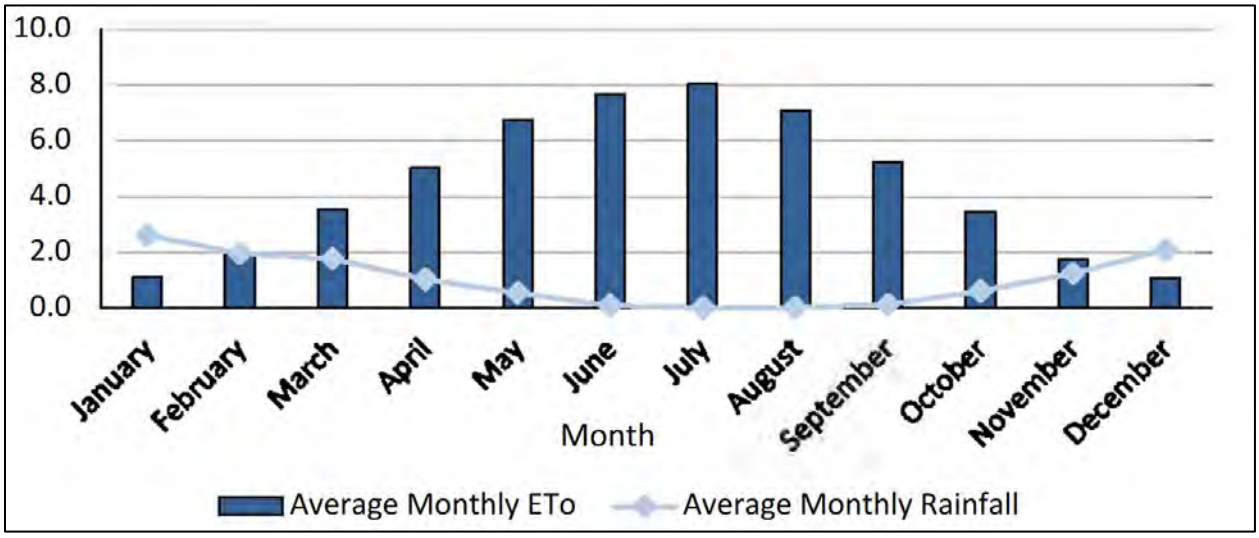


Figure 4-1: City of Manteca Average Monthly Climatic Conditions
Source: California Irrigation Management Information System for Station 70-Manteca (January 1988 – December 2020).

4.1 Local Hydrology

As discussed in the following subsection, waterways and storage reservoirs relied upon by SSJID (e.g., New Melones Reservoir, Goodwin Reservoir, Tri-Dams Project, and the lower Stanislaus River) have a direct effect on surface water availability to SSJID, and thus ultimately to the City. SSJID delivered an average of 8,484 acre-feet per year (AFY) to the City between 2016 and 2020. **Figure 4-2** shows the major hydrologic features of the Eastern San Joaquin Groundwater Subbasin.

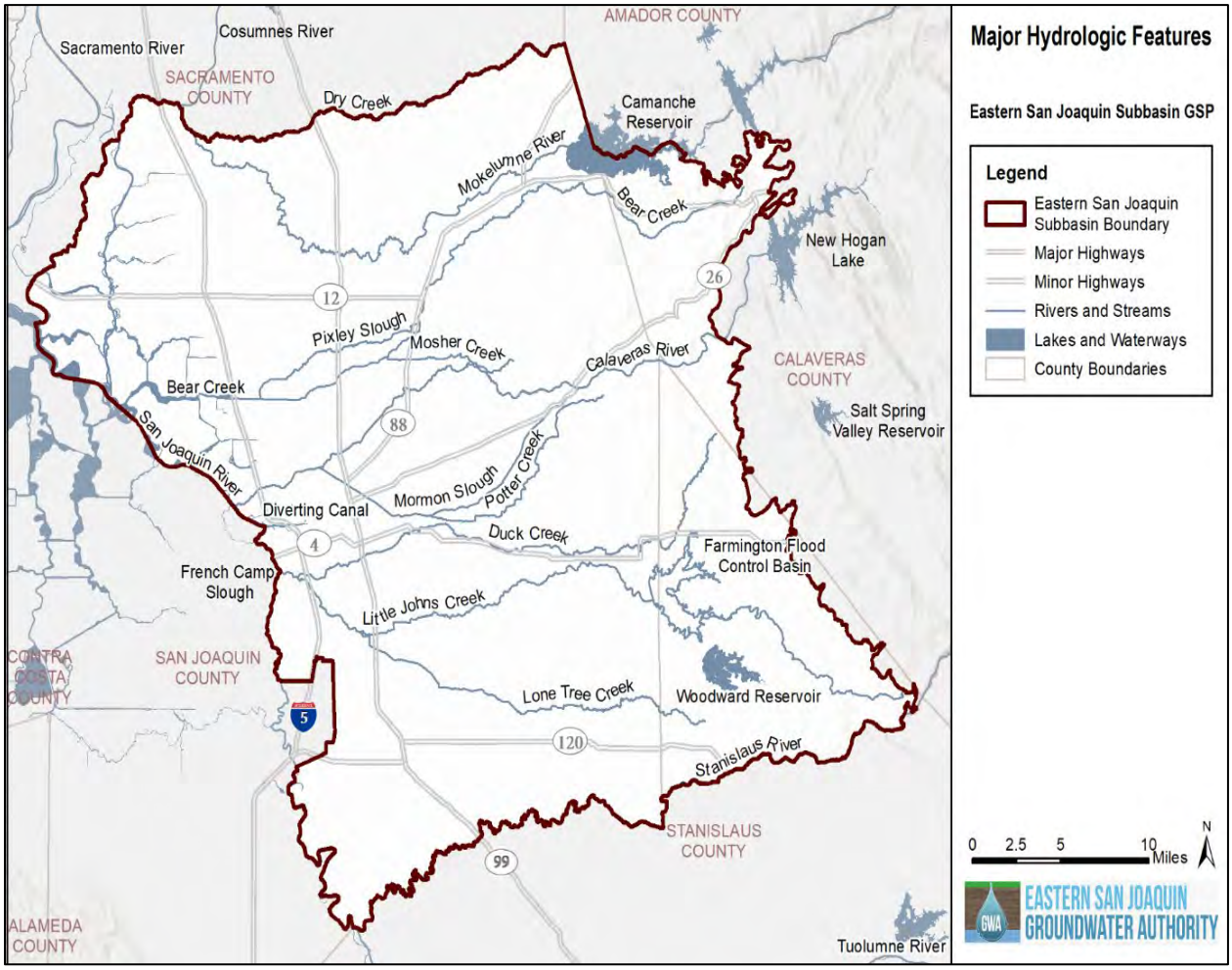


Figure 4-2: Major Hydrologic Features of the Eastern San Joaquin Groundwater Subbasin
Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," Figure 2-7, November 2019, page 2-11.

The two major westerly flowing tributaries to the San Joaquin River within the southern portion of the Eastern San Joaquin Groundwater Subbasin relevant to the City are the Stanislaus River and to a lesser extent, Lone Tree Creek. The flow in the Stanislaus River varies seasonally from less than 134 AF per day (AF/day) during the dry season in early fall to over 16,400 AF/day during the wet season in winter. These flows correlate to discharges that have varied from 68 to over 8,270 cubic feet per second (cfs) recorded

at the Orange Blossom Bridge gauging station approximately one mile east of Oakdale and eight miles west of the Subbasin boundary along the river.[20]

Much of the City's corporate boundary lies within the Eastern San Joaquin Groundwater Subbasin's furthest southwest watershed, the *Lone Tree Creek/San Joaquin River* watershed, and a small western portion of the *Lone Tree Creek* watershed (see **Figure 4-3**).

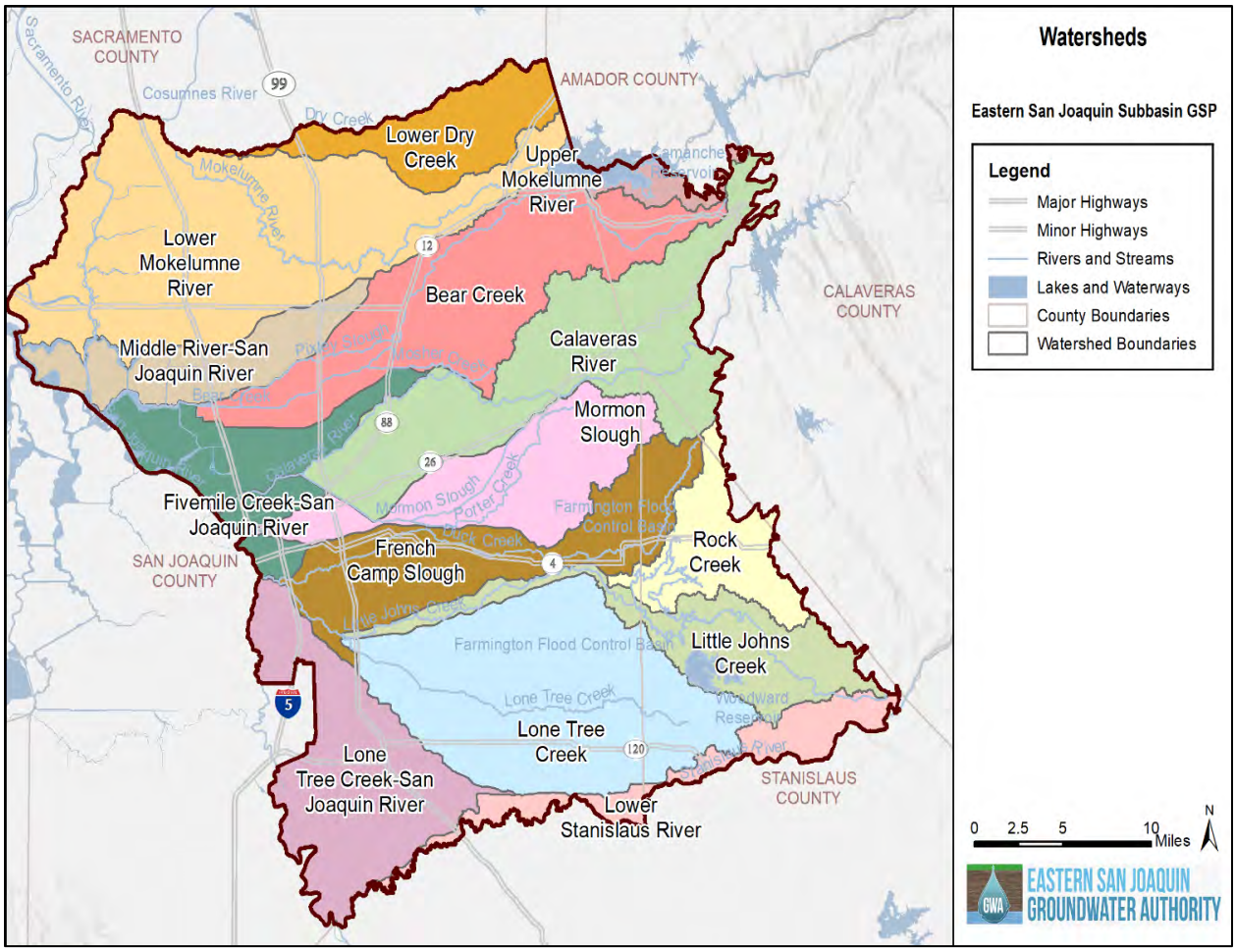


Figure 4-3: Eastern San Joaquin Groundwater Subbasin Watersheds
Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," Figure 2-8, November 2019, page 2-14.

Soils in the Eastern San Joaquin Groundwater Subbasin are one of the primary controlling factors on surface water percolation rates through the vadose zone, a key variable in the recharge process of the local groundwater table. Soils in the region can be grouped into five main categories:

- Alluvial fan and flood plain soils
- Organic basin soils

[20] Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," November 2019, page 2-12.

- Basin soils
- Lower terrace soils
- Higher terrace and upland soils

Alluvial fan and floodplain deposits are present in three areas of the Eastern San Joaquin Groundwater Subbasin bounding major east-west rivers: Mokelumne, Calaveras, and Stanislaus Rivers (see **Figure 4-4**). These are diagnostic pedologic characteristics of major river valley bottoms that have undergone long-term outwashing and sedimentation after orogenic development.

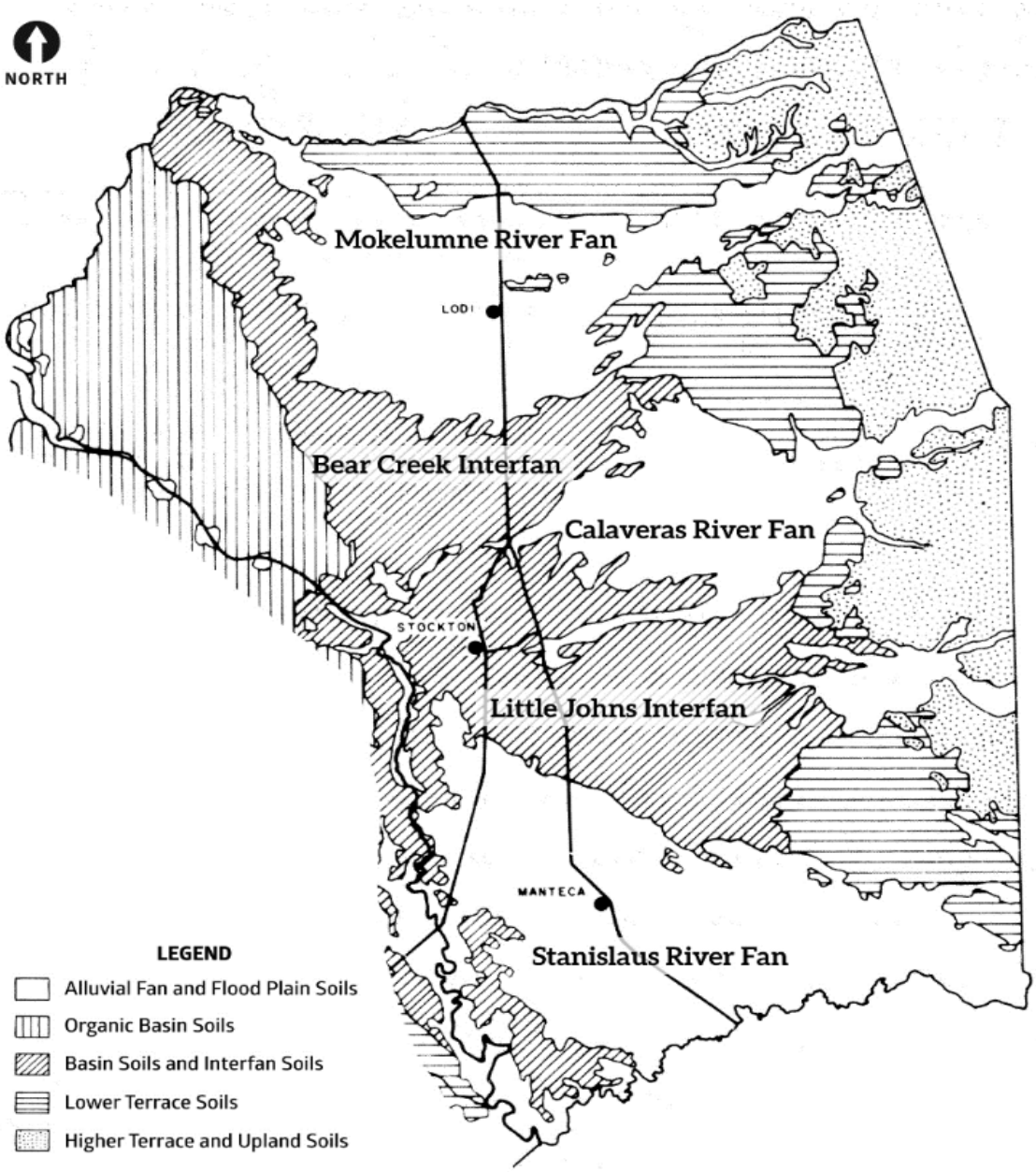


Figure 4-4: Soil Depositional Areas and Major Alluvial River Fans

Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," Figure 2-9, November 2019, page 2-15.

These Alluvial River Fan areas have the best infiltration rates, exclusive of the peat locales in the Delta (northwest portion adjacent to the Mokelumne River). Soils of the Stanislaus Alluvial River fans have young soil profiles of sandy loam to loam. Infiltration rates of the soils are predominantly between 0.6 and 2 inches per hour(in/hr). Areas of silt loam are also common especially in the floodplain and have a lower infiltration rate of less than 0.6 in/hr. Soils in the alluvial fans tend to coarsen toward the apex of the fan.

The Natural Resource Conservation Service (NRCS) categorizes soils by hydrologic soil groups. The hydrologic soil group is an estimation of the infiltration rate of the first five feet of soil based on depositional characteristics (mostly grain size and sorting) and secondary characteristics (compaction, lithification, and weathering).

Hydrologic soil groups for the Eastern San Joaquin Groundwater Subbasin and their relative infiltration rates are indicated by subjective descriptors shown in **Figure 4-5**: A (high), B (medium), C (slow) and D (very slow). The City, situated in the southwestern corner of the Eastern San Joaquin Groundwater Subbasin lies within the hydrologic soils group categorized as having a "high" infiltration rate. Groundwater recharge and discharge is driven by both natural and anthropogenic (human-influenced) factors, and a high infiltration rate increases the rate of aquifer recharge. Areas of potential groundwater recharge and discharge within the Eastern San Joaquin Groundwater Subbasin are described in greater detail in the Groundwater Sustainability Plan (GSP) (see, for example, GSP Section 2.3. 2.1.4.5.1 Description of Recharge Areas).[21]

The recharge potential of soils and formations encountered in the Eastern San Joaquin Groundwater Subbasin varies considerably and is dependent on primary and secondary geologic effects (see **Figure 4-6** below). In line with NRCS characterization, primary geologic patterns that influence permeability relate to grain size and sorting as a result of depositional characteristics. Secondary geologic effects that influence soil recharge characteristics are associated with post-depositional events such as consolidation, lithification, and weathering, including the development of hardpan soils. Additional information on geologic formations is provided in Section 2.1.5 of the GSP.[22]

[21] Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," Section 2.3. 2.1.4.5.1 Description of Recharge Areas, November 2019.

[22] Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," November 2019.

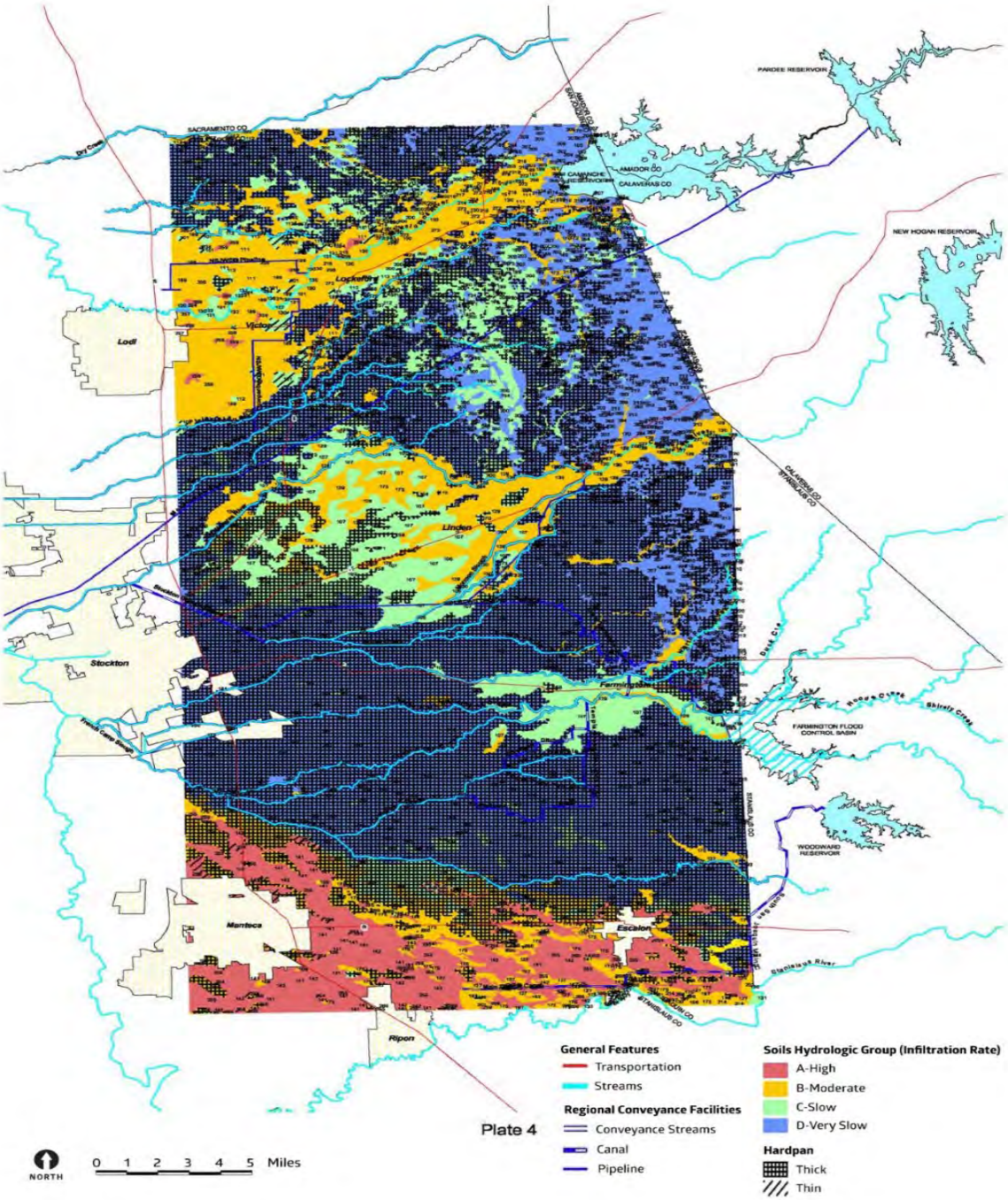


Figure 4-5: Existing Areas of Groundwater Recharge

Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan", Figure 2-13, page 2-22, November 2019.

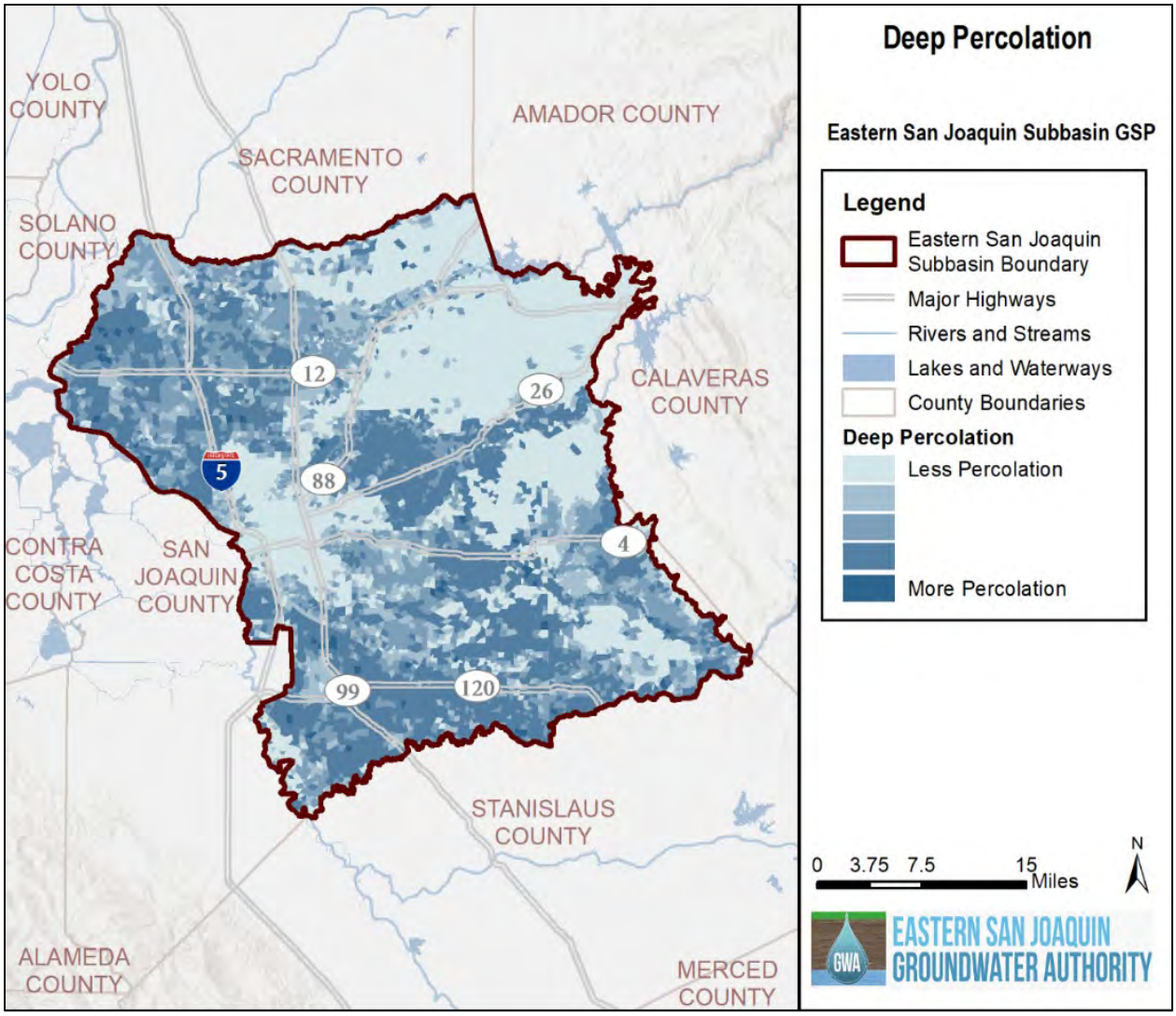


Figure 4-6: Existing Areas of Groundwater Recharge

Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan", Figure 2-13, page 2-22, November 2019.

4.2 South San Joaquin Irrigation District (SSJID)

The SSJID formed in 1909 under the predecessor to the Irrigation District Act and was established to provide a reliable and economical source of irrigation water for the agricultural areas surrounding the cities of Escalon, Ripon, and Manteca. Since then, SSJID has expanded providing domestic water service to several additional cities in South San Joaquin County. Water sales represent an important part of the SSJID revenue stream and provide them with the income necessary to pay for required O&M on their water delivery system and help keep water rates stabilized.

Figure 4-7: Nick C DeGroot WTP
Source: SSJID Strategic Plan 2017-2021, page 5.

A primary feature of SSJID's role as a domestic water service provider is the joint SCWSP; a regional effort between SSJID and the cities of Manteca, Escalon, Lathrop, and Tracy to furnish high quality drinking water for urban use. The SCWSP consists of an intake facility at Woodward Reservoir, a state-of-the-art membrane filtration water-treatment plant (WTP), and about 35 miles of pipe ending in the City of Tracy. The key infrastructure of the SCWSP is the Nick C DeGroot WTP (**Figure 4-7**) built in 2005 and water conveyance pipeline system jointly funded by the SCWSP participating agencies.

The WTP currently has a maximum sustained capacity of approximately 40 million gallons per day (MGD). The WTP includes pre-chlorination, coagulation, dissolved air flotation pretreatment for removal of solids and dissolved material, chemical stabilization to minimize internal pipe corrosion, membrane filtration, and chlorination for disinfection.[23]

[23] Information regarding City water supplies, demands, infrastructure, and supply availabilities have been described in prior TMs and UWMPs and are not detailed here:
City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants.
City of Manteca, "2005 Urban Water Management Plan," 2005.
City of Manteca, 2005 Water Master Plan, July, 2005, Kennedy/Jenks Consultants.
2020 Urban Water Management Plan for South San Joaquin Irrigation District, June 2021, EKI Environment & Water.
City of Manteca, General Plan 2023, Policy Document, October 6, 2003.

When constructing the WTP and conveyances, the goals of SSJID and the SCWSP agencies were to protect and enhance the economic health of the region by providing reliable and safe supplemental water to cities; use conserved surface water from SSJID; maximize deliveries to current agricultural customers to the extent possible; meet local needs by keeping adequate water in the region; and reduce the area's long-term reliance on groundwater.

Each city has an agreement with SSJID to receive treated water through December 2049. If SSJID and the cities do not agree to extend the contract past 2049, then SSJID, by agreement, agrees to transfer the project to a Joint Powers Authority composed of the four cities, which would run it at their cost.

The water supply from the SCWSP comes from SSJID's senior pre-1914 appropriative water rights to the Stanislaus River. As noted, treated water deliveries began in July 2005. SSJID is able to make this water available to the cities as a result of its existing firm water rights, numerous agricultural water conservation measures, and through the loss of irrigated agriculture to urban development.

Under the Initial Project Participant's Agreement[24] with SSJID, the City is currently allotted 11,500 AFY under Phase I and will be allotted a total of 18,500 AFY under Phase II (see **Table 4-2**).

Phase	City				Total
	Escalon	Lathrop	Manteca	Tracy	
Phase I Allotment (AFY)	2,015	6,887	11,500	11,120	**31,522**
Phase II Allotment (AFY)	2,799	10,671	18,500	11,120	**43,090**

Table 4-2: SCWSP Phase I and II Allotments by City
Source: Reproduced from Table 5-6, South San Joaquin Irrigation District, "2020 AGRICULTURAL WATER MANAGEMENT PLAN," Final Draft Adopted March 23, 2021, page 5-22.

SSJID delivered an average of 8,484 AFY to the City between 2016 and 2020,[25] well below the allotted Phase I allocation. **Table 4-3** documents the historic treated water deliveries (drinking water quality) from SSJID to the City from 2016 through 2020. Note that these data, from SSJID, are slightly higher than the data records of the City which could be attributed to water losses in the SSJID trunk mains or meter read errors on either SSJID's or the City's end.

	2016	2017	2018	2019	2020
Historic SSJID Drinking Water Delivery to City of Manteca (AFY)	6,107	8,249	9,537	9,120	9,416

Table 4-3: SSJID Historic Treated Water Deliveries to City
Source: Reproduced from Table 4-1 "Demands for Potable and Non-Potable Water, Actual (DWR Table 4-1)," 2020 Urban Water Management Plan for South San Joaquin Irrigation District, June 2021, EKI Environment & Water, page 28.

SSJID derives its water supply from three sources; these include surface water diverted from the Stanislaus River at Goodwin Dam, groundwater it pumps along with private landowners, and irrigation return flows. The main source of water is the Stanislaus River.

[24] The Water Supply Development and Operating Agreement (Water Supply Agreement) was updated on December 18, 2020, between the City and SSJID. This most current agreement extends the initial agreement made between the City and SSJUD on October 1, 1995. The term of this current Water Supply Agreement extension runs to 2049. An additional Project Participant, the City of Ripon, was added in this most recent Water Supply Agreement.

[25] Ibid, 16

A vital fact to the City is that SSJID has surface water rights to approximately 600,000 AFY jointly held with Oakdale Irrigation District (OID), and that the full allocation to SSJID and OID is subject to seasonal runoff availability from the Stanislaus River and other constraints per the 1988 Stipulation and Agreement with the U.S. Bureau of Reclamation (USBR). The USBR, who constructed and operates not only the expansive New Melones Reservoir (2.42 million AF [MAF] capacity) on the Stanislaus River, but also the Tri-Dams Project (230,400 AF capacity) and Goodwin Reservoir (68,400 AF capacity) has complete control over operations from and to these facilities.

The average annual unimpaired runoff in the Stanislaus River watershed is about 1.2 MAF.[26] The median historical unimpaired runoff is 1.1 MAF per year, with a range of between 0.2 and 3 MAF.[27]

Snowmelt contributes the largest portion of the flows in the Stanislaus River, with the highest runoff occurring in April, May, and June. For a watershed of this importance, the unimpaired runoff is not large, just 1.1 MAF; by comparison, the American River watershed has an average annual unimpaired runoff of 2.4 MAF, more than twice the Stanislaus River watershed. This limited yield of the Stanislaus River watershed has ramifications for the City as will be discussed later.

As noted previously, water for the SCWSP comes from SSJID's appropriative water rights on the Stanislaus River, specifically from the lower portion originating from releases made from New Melones Reservoir, a federal Central Valley Project (CVP) facility in the Sierra Nevada that is integrated with, though not part of, the Tri-Dams Project. New Melones Reservoir, Goodwin Reservoir, and the Tri-Dams Project (with Donnells,[28] Beardsley, and Tulloch reservoirs) are all operated by the USBR as part of their East Side Streams Division of the CVP (see **Figure 4-8**).

As shown in **Figure 4-8**, releases from Donnells and Beardsley dams affect inflows into New Melones Reservoir. Under contractual agreements between the USBR, OID, and SSJID, Tulloch Reservoir provides afterbay storage to re-regulate power releases from the New Melones Powerplant. The main water diversion point on the Stanislaus River is Goodwin Dam, approximately 1.9 miles downstream of Tulloch Dam.

Goodwin Dam, constructed by OID and SSJID in 1912, creates a re-regulating reservoir for releases from the Tulloch Powerplant and provides for diversions to canals north and south of the Stanislaus River for delivery to OID and SSJID and their applicable retail customers. Water impounded behind Goodwin Dam may also be pumped into the Goodwin Tunnel for deliveries to the Central San Joaquin Water Conservation District and the Stockton East Water District.[29]

[26] U.S. Bureau of Reclamation (2008) "Biological Assessment on the Continued Long-term Operations of the Central Valley Project and State Water Project", U.S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, California. August 2008.

[27] U.S. Fish and Wildlife Service (1995) "Working Paper on Restoration Needs: Habitat Restoration Actions to Double Natural Production of Anadromous Fish in the Central Valley of California", Volumes 1 to 3. Prepared for the U.S. Fish and Wildlife Services under the direction of the Anadromous Fish Restoration Program Core Group, Stockton, California.

[28] Donnells and Beardsley reservoirs providing 134,000 AF of storage and Tulloch Reservoir providing an additional 58,803 AF.

[29] U.S. Department of the Interior (2004) "Long-Term Central Valley Project Operations and Criteria and Plan CVP-OCAP", page 3-37, Bureau of Reclamation, Mid-Pacific Region, Sacramento, California, June 30, 2004.

Figure 4-8: SSJID and OID Relied Upon Reservoirs – Tri-Dam Project, New Melones, Goodwin and Woodward Reservoirs

Source: South San Joaquin Irrigation District and Oakdale Irrigation District
https://www.savethestan.org/about-sts/

The requirements for New Melones Reservoir operations involve many factors. The operating criteria for New Melones Reservoir are affected by water rights, instream fish and wildlife flow requirements (including the U.S. Department of the Interior's Central Valley Project Improvement Act [CVPIA] 3406 (b)(2) fishery management objectives), D-1641 Vernalis flow and water quality requirements, dissolved oxygen (DO) requirements, and CVP water service contract and flood control considerations. Water released from New Melones Dam and Powerplant is re-regulated at Tulloch Reservoir and is either diverted at Goodwin Dam or released from Goodwin Dam to the lower Stanislaus River.[30]

Flows in the lower Stanislaus River serve multiple purposes concurrently. The purposes include water supply for riparian water rights, fishery management objectives, and DO requirements per the State Water Resources Control Board (SWRCB) D-1422. Additionally, water from the Stanislaus River enters the San Joaquin River where it contributes to baseflow and helps improve water quality conditions at the one of the key State water monitoring stations on the San Joaquin River near the City of Vernalis.

D-1422, issued in 1973, provides the primary operational criteria for New Melones Reservoir and was the vehicle that helped the USBR ultimately utilize water from the Stanislaus River for irrigation and M&I purposes. D-1422 requires that the operation of New Melones Reservoir incorporate releases for existing

[30] U.S. Department of the Interior (2004) "Long-Term Central Valley Project Operations and Criteria and Plan CVP-OCAP", page 3-38, Bureau of Reclamation, Mid-Pacific Region, Sacramento, California, June 30, 2004.

water rights, fish and wildlife enhancement, and the maintenance of water quality standards on both the Stanislaus and San Joaquin rivers.

For its share, according to the 1988 Agreement, SSJID is entitled to 300,000 AFY from the Stanislaus River during "normal"[31] WYs; however, drought conditions and seasonal variations have the potential to reduce the SSJID allocation and those of the contracted cities it delivers water to, including the City.

In efforts to extend the use of SSJID's Phase I system, an investigation into modifying the existing infrastructure to increase the plant's current capacity is underway according to the SSJID 2020 Urban Water Management Plan (UWMP). Phase II includes a future plant expansion to increase the design capacity to approximately 60 MGD.

4.3 Groundwater

As noted previously, the City pumps groundwater from the Eastern San Joaquin Groundwater Subbasin. DWR's Bulletin 118 – 80, *Ground Water Basins in California* has long acknowledged the Eastern San Joaquin Groundwater Subbasin as a basin in a critical condition of overdraft. Therefore, the Eastern San Joaquin Groundwater Subbasin has been the focus of considerable interest and work towards achieving long-term sustainability.

As mentioned earlier, the City owns and operates 15 active potable water wells, two standby wells and 31 irrigation wells. While the trend has been to always assume that groundwater pumping by San Joaquin water purveyors/utilities has steadily and uniformly increased over time, not all trend lines are uniformly linear.

Between 1990 and 2020, the City's groundwater use diminished from a high of 14,900 AFY in 2004 to 8,022 AFY in 2020. On an annual AF/Ac basis, the City pumped a high of about 1.4 AFY per acre (AFY/Ac) in 2004, but this has since decreased to about 0.5 AFY/Ac between 2014 and 2019.

Details of groundwater use in the City are not readily apparent by **Table 4-4** alone since certain information are embedded in the date. With the new WTP commissioned in 2005, the City's reliance on groundwater began to decline concomitant with delivery of surface water. **Figure 4-9** presents a visual representation of the City's total water supplies and City area between 1990 and 2020 to display the fluctuations in groundwater pumping quantities relative to the City area.

	1990	2000	2010	2015	2020
Groundwater Pumped (AFY)	9,873	12,608	8,463	7,249	8,022
City Area (Ac)	5,543	10,204	11,399	13,189	13,737
AFY/Ac	**1.8**	**1.2**	**0.7**	**0.6**	**0.6**

Notes:
1. Includes both potable and non-potable groundwater pumped.

Table 4-4: Historical Groundwater Pumped within City
Source: Water supply data provided by the City.

[31] "Water Year" (WY) has many different definitions. The WY runs from October 1st to the following September 30th. Five types of WYs are based on the relative amount of precipitation received: very dry (or critically dry), dry, average (or normal), wet and very wet. "Wet" and "very wet" are commonly interchanged with "above normal" and "wet", respectively.

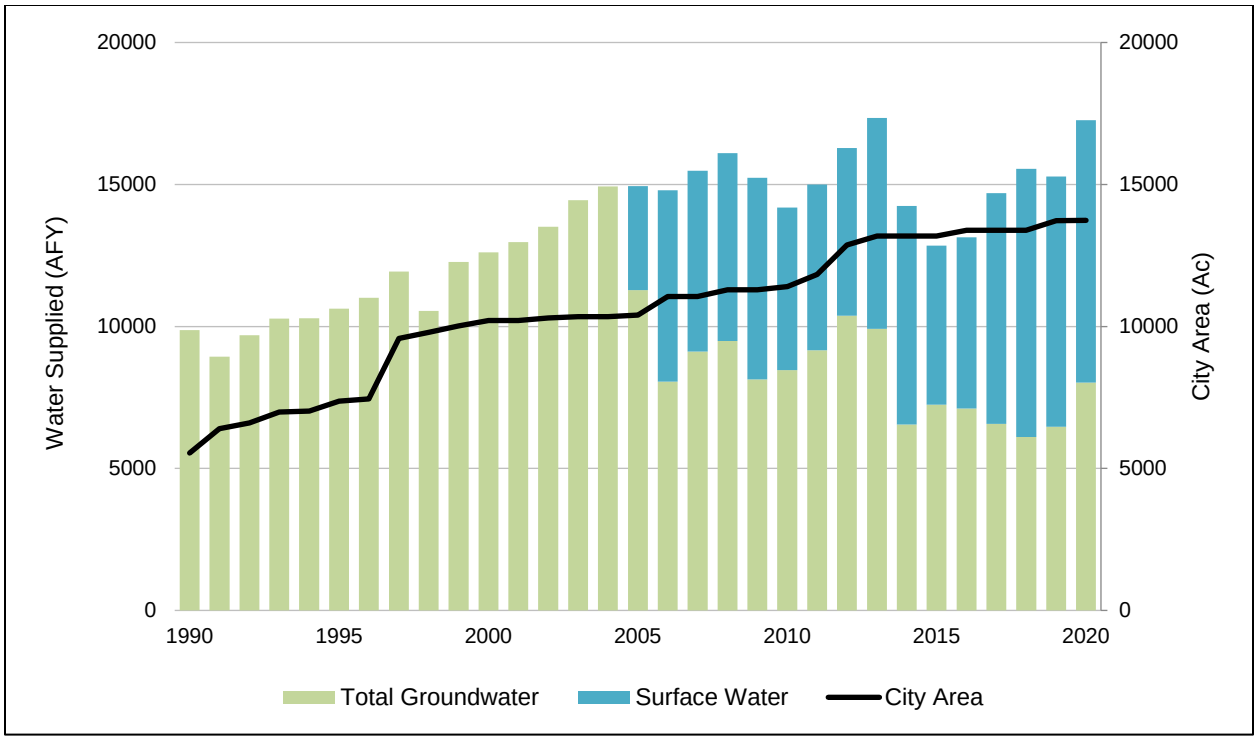


Figure 4-9: Historical City Groundwater Pumping and City Area
Source: Water supply data provided by the City.

Additionally, as noted in the City's 2015 UWMP, while all of its municipal wells were then metered, not all of the irrigation wells were metered until 2015. This led to large uncertainties in pumping estimates in all years prior to 2015.[32] Since that time, the City has been logging meter reads monthly. Meter reads are logged by hand, which may be prone to error.[33]

There are some undocumented wells and groundwater extractions occurring within the City's corporate boundaries for which there is little detail. Wells currently in operation not owned by the City include private domestic wells, agricultural wells, wells for school irrigation owned by the Manteca Unified School District (MUSD), and irrigation wells owned by SSJID, among others.[34]

Well completion reports obtained from DWR suggest that approximately 1,000 water wells have been constructed within the General Plan area since record keeping began in the 1960s; however, many may not have been registered as abandoned when they were discontinued. It is anticipated that many domestic wells are no longer in use, though further investigation is needed to corroborate the exact extent. Because there are potentially numerous wells not owned by the City that are drawing from the Eastern San Joaquin Groundwater Subbasin, this could affect the amount of groundwater available to the City within the groundwater basin safe yield – as detailed in the City's 2015 UWMP, the Eastern San Joaquin Groundwater Subbasin's safe yield is 1 AFY/Ac. Quantifying this effect, however, is impossible without a concerted effort to examine all wells and related records.

[32] Existing sources of uncertainty in historical irrigation pumping estimates include: six (6) wells with non-verifiable data and another four (4) without meter readings (pumping volumes are estimated).

[33] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants, page 6-3.

[34] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants, page 6-3.

4.3.1 Chronic Basin Groundwater Depletion

Chronic groundwater depletion over the decades has made the Eastern San Joaquin Groundwater Subbasin one of the most stressed aquifer systems relied upon by multiple users across the U.S. Comprising some 707,000 acres (1,105 square miles), it includes the major tributaries: San Joaquin River, Stanislaus River, Calaveras River, Mokelumne River, Mormon Slough, and Little Johns Creek.

Figure 4-10 shows, at a continental scale, the three primary aquifer-regions in the conterminous U.S. that experienced the highest groundwater storage losses over a recent 15-year period. Units are headloss in mm/yr for the April 2002 to June 2017 period. **Dark blue** to **black** coloration denote annual headloss values between 20-30 mm. Clearly shown are the cones of depression for the Ogallala Aquifer in northern Texas and northwestern Oklahoma, eastern Arizona along the Gila River, and in the San Joaquin River Valley Aquifer. The City is located very near the centroid of the Central Valley aquifer (e.g., Eastern San Joaquin Groundwater Subbasin) (**red** arrow).

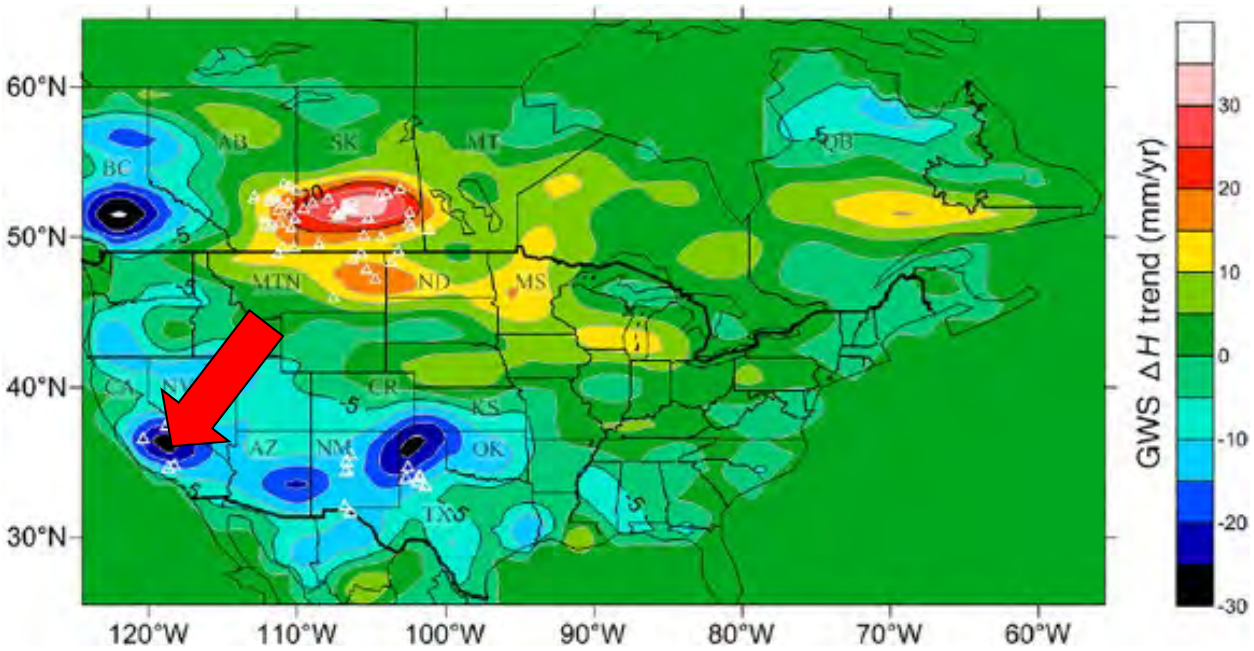


Figure 4-10: Groundwater Storage Trends in North America from April 2002 to June 2017
Source: Wang, H., Xiang, L., Steffen, H., Wu, P., Jiang, L., Shen, Q., Li, Z. and M. Hayashi (2022) "GRACE-based estimates of groundwater variations over North America from 2002 to 2017" Geodesy and Geodynamics, 13(1), pp. 11-23 https://doi.org/10.1016/j.geog.2021.10.003.

Water bearing strata of the Mehrten and Laguna Formations, along with flood plain deposits, and alluvium and Modesto/Riverbank formations of the Eastern San Joaquin Groundwater Subbasin have been well described in other documents.[35] The Mehrten Formation is considered the oldest freshwater bearing formation on the eastside of the basin, even though the older underlying Valley Springs Formation also produces minor quantities of groundwater. The groundwater aquifers underlying the City extend to depths greater than 600 feet and include four geologic formations. In increasing depth from the surface downwards, the identified aquifers are the Victor Formation, Laguna Formation, Mehrten Formation, and

[35] Eastern San Joaquin Groundwater Authority, Draft ESJWRM Version 2.0 Update, January 2022, Woodard & Curran, Inc., page 48.

Valley Springs Formation. The City's wells primarily withdraw water from the Laguna and Victor Formations.[36]

Based on current estimates, the Eastern San Joaquin Groundwater Subbasin storage decreased by 157,000 AF for WY 2021. This volume represents about 0.3% of the total fresh groundwater in storage, which was estimated to be more than 50 MAF in 2015. This loss, while notable, is less than the WY 2020 change in storage (-213,000 AF). This "reduced" annual loss has been attributed to statewide water use restrictions put in place in response to dry hydrologic conditions.[37] Storage losses of this magnitude are likely unsustainable in the long-term.

None of the subbasin's current and existing three groundwater recharge projects (e.g., Tracy Lake Groundwater Recharge Project, CalFED/Costa Recharge Project, or the Farmington Groundwater Recharge Project) are within the City's corporate boundary, or hydraulically upgradient.

4.3.2 Groundwater Sustainability Plan (under SGMA)

A major effort of the City together with San Joaquin Valley water users is the ultimate stabilization and long-term security of the groundwater aquifer which has been declining for decades. California has long recognized this need and passed the landmark SGMA in 2014. SGMA is well known and has been thoroughly defined in several readily accessible documents[38] and will not be discussed at length here, other than to highlight potential implications to the City insofar as the ability of SGMA to help the City meet its long-term water supply requirements. In short, implementing SGMA requires:

- *Local agencies and stakeholders to develop institutions, plans, and implementation strategies to manage their groundwater resources sustainably for the long run,*[39]
- *If local agencies fail to act, SGMA directs the state to intervene. The law defines sustainable management as the avoidance of six "significant and unreasonable" effects:*
    1. *Drawing down water levels too far,*
    2. *Depleting storage in the aquifer,*
    3. *Degrading water quality,*
    4. *Allowing seawater intrusion,*
    5. *Causing land to subside, or*
    6. *Using groundwater in ways that reduce other people's surface water or harm ecosystems.*
- *Local stakeholders are in charge of carrying out the key provisions of SGMA. New or existing agencies overlying important groundwater basins—those designated by the Department of Water Resources (DWR) as medium- and high-priority, and critically overdrafted—have established groundwater sustainability agencies (GSAs), which are tasked with formulating sustainability plans. Any local water*

[36] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants, page 6-4.

[37] Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan Water Year 2021 Annual Report, March 2022, page ES-3.

[38] San Joaquin County (2021), "Eastern San Joaquin Integrated Regional Water Management Plan 2020 Addendum" Greater San Joaquin County Regional Water Coordinating Committee, GEI Consultants and Woodard Curran, Inc., January 21, 2021.

[39] Kiparsky, M. (2016) "Unanswered questions for implementation of the Sustainable Groundwater Management Act," California Agriculture, 70(4), pp.165-168. https://doi.org/10.3733/ca2016a0020.

or land use agency in a basin can form a GSA, and there may be multiple GSAs in a basin, but they may not have overlapping boundaries. GSAs must engage local stakeholders and coordinate their planning to ensure that the entire basin is sustainably managed.

- *GSAs in critically overdrafted basins were required to develop plans by January 2020; those in other medium- and high-priority basins had two additional years to do so. With plans in place, GSAs have a 20-year horizon to manage their basins to achieve or maintain sustainability. Although the plans themselves are exempt from review under the California Environmental Quality Act (CEQA), projects that GSAs carry out to attain sustainability will generally require CEQA review.*
- *GSAs must annually provide DWR with data and a description of their progress toward plan implementation. They must evaluate whether their plans are meeting sustainability goals for the basin at least every five years. This provides an opportunity to adapt goals and plans to new information and changing conditions.*

The City (circle in red) as shown on **Figure 4-11** is located in the lower southwestern portion of the Eastern San Joaquin (ESJ) Groundwater Subbasin surrounded by SSJID to the north, south, and east; the City of Lathrop to the west; and South Delta Water Agency to the south.

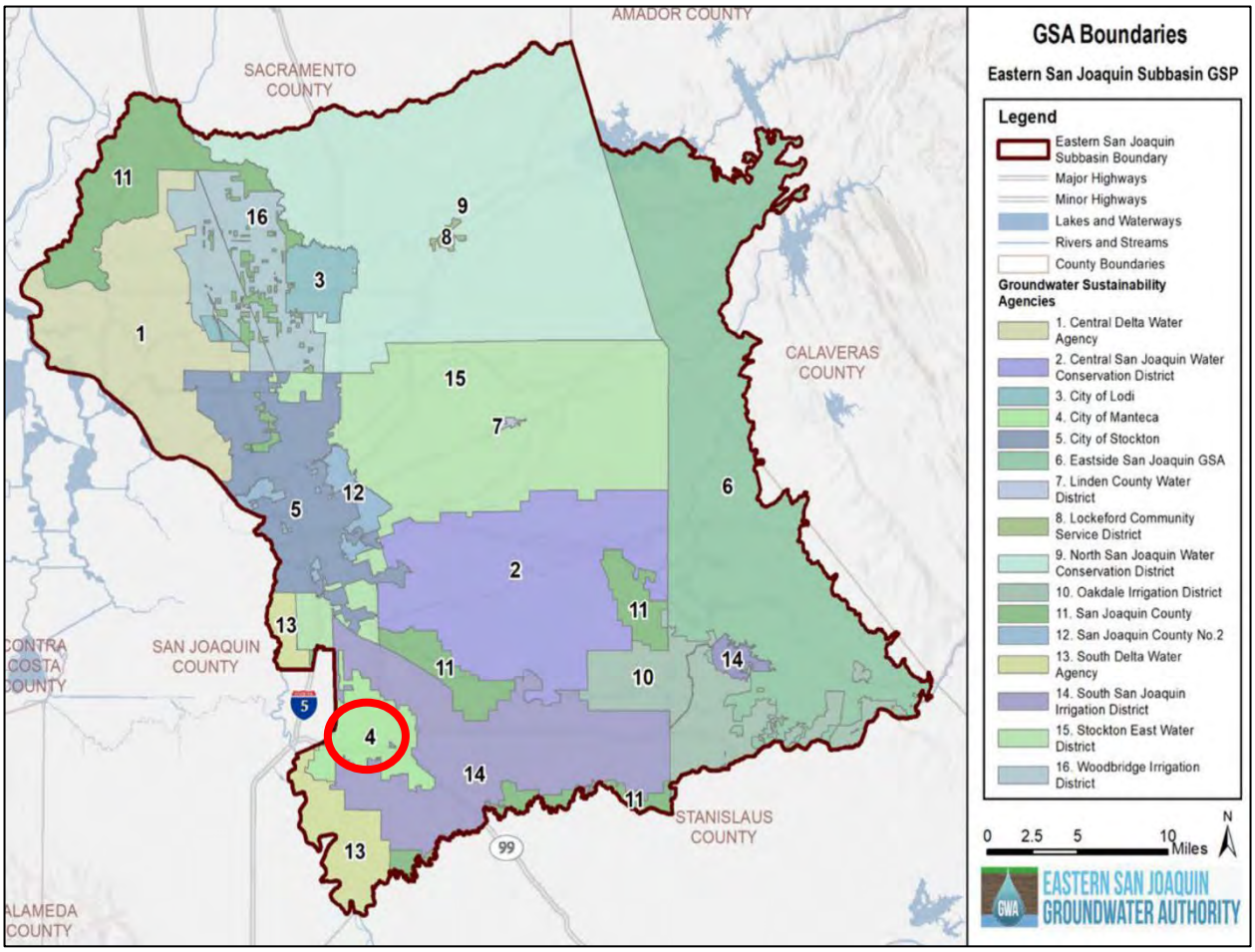


Figure 4-11: Eastern San Joaquin Subbasin GSAs

Source: Eastern San Joaquin County Groundwater Basin Annual Report 2021, Figure 1.

The State did not approve the initial Eastern San Joaquin (ESJ) Groundwater Subbasin proposed GSPs. However, as of March 2023, the ESJ GSP submitted in July 2022 was approved by DWR.

There are some 23 final possible SGMA Projects in the Eastern San Joaquin Groundwater Subbasin GSP ranging from direct and in-lieu recharge, intra-basin water transfers, demand conservation, water recycling, and stormwater reuse.

The City has one listed SGMA Project. **Project #3** is the City's *Advanced Metering Infrastructure* water conservation project. It was originally identified in the GSP as being implemented between 2019-2021 at a cost of $650,000, with an estimated annual O&M of $300,000 and an anticipated annual water savings of 272 AFY.

The City's project is one of eight Planned Projects of the GSP. These are considered immediate projects and are planned to be completed and be online prior to 2040. The projected supply, therefore, is considered as offsetting the projected 2040 supply imbalance.

There are several larger, Planned Projects with considerably higher anticipated groundwater reduction targets such as the South San Joaquin GSA's Stockton East Water District (SEWD) and Central San Joaquin Water Conservation District (CSJWCD) Long-Term Water Transfer Project. This is an in-lieu recharge effort targeting to save about 45,000 AFY.

Of the longer-term or Conceptual Projects, these are projects that could conceptually provide a benefit to the Eastern San Joaquin Groundwater Subbasin at some point in the future but are not on the immediate planning horizon. Accordingly, they would require further development. The City has identified **Project #19**, "*Recycled Water Transfer to Agriculture*" under this category. This project is currently in the planning phase with preliminary evaluation completed as part of the "Draft Reclaimed Water Facilities Master Plan." Anticipated groundwater offset savings from **Project #19** is 5,193 AFY. The project still requires NPDES Permit amendment, completed CEQA review, and SWRCB approval.

Figure 4-12 shows the location of the representative wells identified in the GSP monitoring network for the chronic lowering of groundwater levels. The City's Well 18 (Manteca 18) (red arrow) can be seen in the lower southwest portion of the Subbasin, in the northeast corner of the City.

On November 18, 2021, as a part of the review process DWR notified the GSAs in the Eastern San Joaquin Groundwater Subbasin that the GSP needed to address certain deficiencies in order to be approved. As of March 2023, the ESJ GSP submitted in July 2022 was approved by DWR.

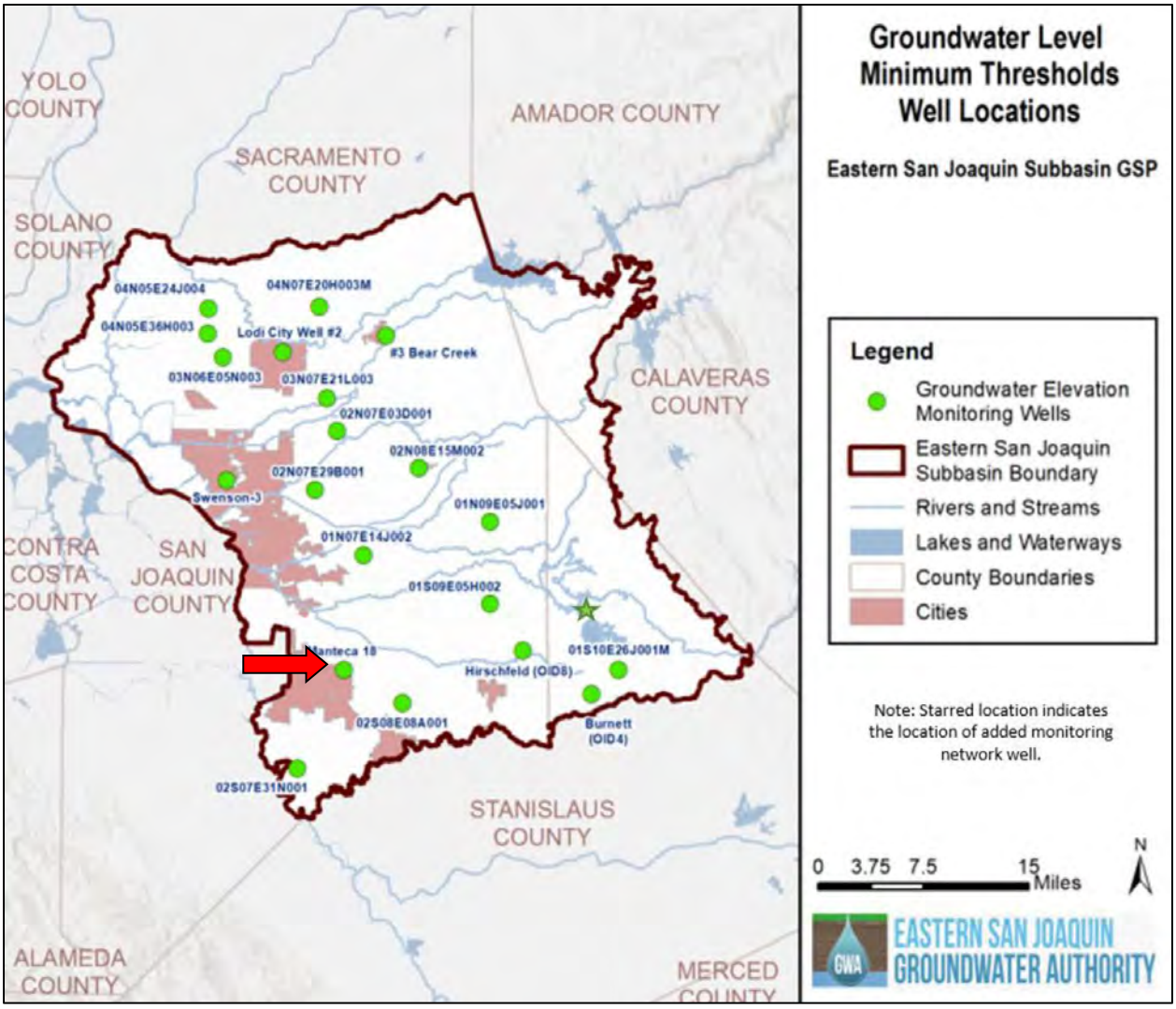


Figure 4-12: Groundwater Level Representative Monitoring Well Locations
Source: Eastern San Joaquin County Groundwater Subbasin, Water Year 2021 Annual Report, Fig 2, page 3-2, March 2022.

4.3.3 Groundwater Balance and Modeling Simulations

Since the ESJ Subbasin GSP was finalized in November 2019, the Eastern San Joaquin Water Resources Model (ESJWRM) has undergone three notable updates:

- Extension of Data from WY 2016 through WY 2019
- Extension of Data through WY 2020
- Full Model Update and Recalibration (resulting in ESJWRM Version 2.0)

ESJWRM original development is fully documented in a report, "Eastern San Joaquin Water Resources Model (ESJWRM) Final Report," published in August 2018 and available in Appendix 2-A to the GSP.

Various updates to the ESJWRM have been ongoing, the latest occurring in 2021 and resulting in the ESJWRM Version 2.0 Update. The major component updates are described in the WY 2021 Annual Report and are summarized as including: surface water diversion deliveries, groundwater pumping, population, land use, precipitation, streamflow, and boundary conditions.[40]

A comparison of water budgets between WY 2020 and 2021 is illustrated in **Table 4-5**.

Water Budget Element	WY 2020	WY 2021
Water Year Type	Dry	Critical
Deep Percolation	247,000	251,000
Other Recharge	155,000	154,000
Flow to/from Stream	99,000	125,000
Boundary Flow to/from Subbasin	114,000	122,000
Groundwater Pumping	-777,000	-809,000
Change in Storage	162,000	157,000

Table 4-5: Comparison of WY 2020 and WY 2021 Water Budget (in AF)
Source: Eastern San Joaquin County Groundwater Subbasin, Water Year 2021 Annual Report, March 2022, page 3-23.

Evaluation of WY 2021 in **Table 4-5** shows that the Eastern San Joaquin Groundwater Subbasin experienced, on an average and net basis, 652,000 AF of inflows and 809,000 AF of outflow, leading to an annual decrease of groundwater in storage of 157,000 AF. Deep percolation from the root zone is the largest contributor of groundwater inflow (251,000 AFY), followed by recharge from managed aquifer projects, unlined canals or reservoirs, and ungauged watersheds (154,000 AFY); boundary flows from surrounding groundwater subbasins (122,000 AFY); and recharge from streams (125,000 AFY). Groundwater production (809,000 AFY) accounts for the greatest outflow from the Eastern San Joaquin Groundwater Subbasin.

The SGMA regulations require that the annual water budget quantify three different temporal conditions:

- Historical,
- Current, and
- Projected.[41]

The hydrologic elements under these conditions are listed in **Table 4-6**, below.

[40] Eastern San Joaquin County Groundwater Subbasin, Water Year 2021 Annual Report, March 2022, page 3-22.

[41] As per the GSP, "current conditions" represent those of the most recent 50-years of hydrology, water supply, water demand and land use information. "Projected conditions" are those used to estimate baseline conditions of supply, demand and aquifer response to GSP implementation. The projected conditions, again consistent with the GSP, is to evaluate those conditions assuming a 2040 level of development but using the hydrology from WYs 1969-2018.

Component	Historical Calibration (AF/year)	Current Conditions (AF/year)	Projected Conditions (AF/year)
Hydrologic Period	**Water Years 1996-2015 (20-Year period)**	**Water Years 1969- 2018 (50-Year period)**	**Water Years 1969- 2018 (50-Year period)**
Inflows			
Deep Percolation[1]	218,000	272,000	266,000
Precipitation	61,000	68,000	66,000
Applied Surface Water – Agricultural	59,000	65,000	64,000
Applied Surface Water – Urban and Industrial	7,000	10,000	15,000
Applied Groundwater – Agricultural	82,000	119,000	102,000
Applied Groundwater – Urban and Industrial	9,000	10,000	18,000
Stream Seepage[2]	262,000	317,000	317,000
Dry Creek	12,000	14,000	14,000
Mokelumne River	114,000	124,000	122,000
Calaveras River	91,000	105,000	102,000
Stanislaus River	13,000	35,000	39,000
San Joaquin River	28,000	36,000	36,000
Local Tributaries[3]	3,000	3,000	2,000
Other Recharge[4]	160,000	158,000	164,000
Subsurface Inflow[5]	171,000	212,000	192,000
Cosumnes Subbasin	32,000	38,000	37,000
Sierra Nevada Mountains	55,000	58,000	59,000
Modesto Subbasin	25,000	41,000	33,000
South American Subbasin	4,000	4,000	3,000
Solano Subbasin	15,000	15,000	13,000
East Contra Costa Subbasin	6,000	7,000	7,000
Tracy Subbasin	35,000	48,000	41,000
Total Inflow[7]	***811,000***	***959,000***	***939,000***
Outflows			
Groundwater Outflow to Streams[2]	107,000	109,000	114,000
Dry Creek[8]	-	1,000	1,000
Mokelumne River	14,000	22,000	24,000
Calaveras River	14,000	15,000	16,000
Stanislaus River	41,000	31,000	29,000
San Joaquin River	29,000	30,000	30,000
Local Tributaries[3]	8,000	11,000	14,000
Groundwater Pumping[6]	692,000	851,000	801,000
Agricultural	624,000	788,000	680,000
Urban and Industrial	68,000	63,000	121,000
Subsurface Outflow[5]	53,000	47,000	58,000
Cosumnes Subbasin	18,000	15,000	18,000
Modesto Subbasin	19,000	18,000	25,000
South American Subbasin[8]	-	-	-
Solano Subbasin	4,000	4,000	4,000
East Contra Costa Subbasin	2,000	2,000	2,000
Tracy Subbasin	9,000	8,000	8,000
Total Outflow[7]	***852,000***	***1,007,000***	***973,000***
Change in Groundwater Storage (Inflows Minus Outflows)			
Change in Groundwater Storage[7]	***(41,000)***	***(48,000)***	***(34,000)***

Notes:

[1] Deep percolation is the amount of infiltrated water ultimately reaching the groundwater aquifer. The source of the water may be from precipitation, as well as either applied surface water or groundwater used for agricultural or urban and industrial purposes. Differences between scenarios are related to differences between these sources of water and differences in urban versus agricultural land use totals.

[2] Stream gain from groundwater and stream seepage represent the interaction of surface water and groundwater. Differences between the scenarios are related to differences in streamflows and long-term average groundwater elevations.

[3] Local Tributaries include Bear Creek and related streams, Little Johns Creek, Duck Creek, and Lone Tree Creek.

[4] Other Recharge includes unlined canals/reservoir seepage, local tributaries seepage, and MAR projects.

[5] The goal of projecting inter-basin flows is to maintain a reasonable balance between the neighboring groundwater subbasins. The resulting projected conditions scenario flows are within 10-15% of historical calibration flows, considered a reasonable range given the availability of projected land use, population, surface water delivery, and groundwater production data from areas outside of the Eastern San Joaquin Subbasin. Continuing inter-basin coordination may refine these numbers.

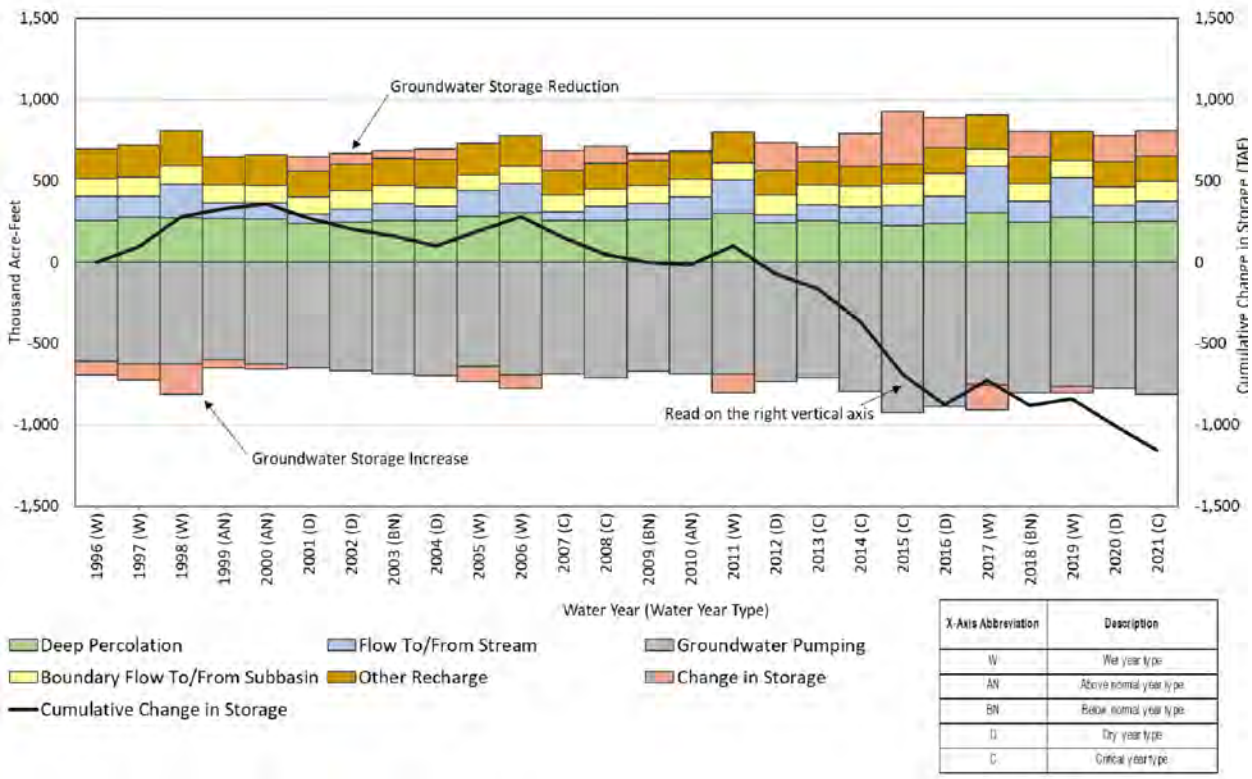
[6] Groundwater pumping is estimated by the ESJWRM based on the need for additional water to meet remaining demands after surface water deliveries occur. Differences in demand largely drive the amount of groundwater pumped.

[7] Summations in table may not match the numbers in the table. This is due to the rounding of model results.

[8] Values smaller than 500 AF/year are represented by a dash (-).

Table 4-6: Average Annual Water Budget – Groundwater System (AFY)

Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan," Table 2-15, November 2019, page 2-129.



Notes:

1. WY Types based on San Joaquin Valley WY Index. WY 2021 classification is Critical (C) based on the hydrologic conditions for that year.

Figure 4-13: Modeled Change in Annual Storage with Water Use and Year Type

Source: Eastern San Joaquin County Groundwater Basin, Water Year 2021 Annual Report, March 2022, page 3-6.

Shown graphically, **Figure 4-13** shows the annual and cumulative change in storage from WY 1996 to 2021 for the Eastern San Joaquin Groundwater Subbasin.

In WY 2021 (October 1, 2020 to September 30, 2021), the Eastern San Joaquin Groundwater Subbasin experienced a decrease of groundwater in storage of approximately 157,000 AF (see **Table 4-5**), reflecting the dry conditions of the year. **Figure 4-13** shows the declining "Cumulative Change in Storage," meaning that inflows consisting of deep percolation, recharge, flow from streams, and boundary inflows were less than outflows from 2019 onwards.

The cumulative change in storage is easy to track particularly when one follows the WY type classifications starting in 2012, the mid-decade 5-year drought sequence (e.g., megadrought). This decline in groundwater storage corresponds with an increase in groundwater pumping during this same period (see **Figure 4-14**).

The groundwater budgets generated by the modeling simulations represent a balance of the groundwater system based on all components of the land and water supply system that affect the hydrology and physical conditions of the groundwater system. The groundwater budgets shown above (**Figure 4-13**) are hydrologic groundwater budgets for the Eastern San Joaquin Groundwater Subbasin incorporating the historical calibration as well as current and projected future conditions baseline.

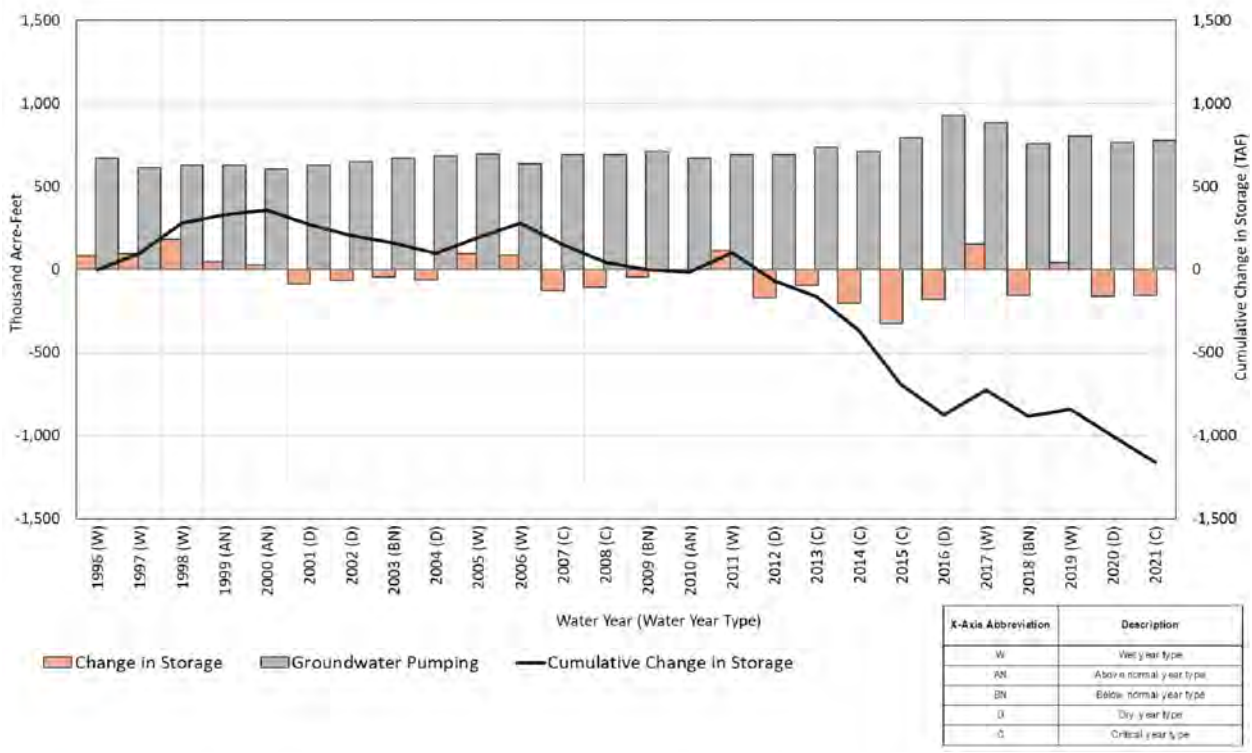


Figure 4-14: Modeled Change in Annual Storage with Groundwater Pumping and Year Type
Source: Eastern San Joaquin County Groundwater Basin, Water Year 2021 Annual Report, Figure 7, March 2022, page 3-8.

Operational water budget components include deep percolation from rainfall and applied water, recharge from conveyance and carriage losses, and any recharge as a result of managed aquifer recharge projects or storage reservoirs that are operated by an entity within the water budget region. These operational water budgets were calculated using annual averages of GSA hydrologic groundwater budget results; full details of the various modeling assumptions and variables are described in other documents incorporated herein by reference.

Insofar as the projections for the City are concerned, **Table 4-7** shows the projected annual groundwater budgets of the City, relative to the overall Eastern San Joaquin Groundwater Subbasin.

Two adjacent purveyors to the City, SSJID and OID, have also been added for comparative context. The table represents a simplified mass balance depiction of how the aquifer beneath the City would react to projected *accretions* (additions of water) and *depletions* (withdrawals or losses of water). For the City, the total annual projected accretions (through precipitation and applied water) are minimal (e.g., 290 AFY). Total depletions, however, are significantly higher (e.g., 20,600 AFY), resulting in a total groundwater storage deficit of 20,310 AFY. Overall, the Eastern San Joaquin Groundwater Subbasin projected an annual deficit of some 363,480 AF is assumed and calculated mass balancing of the contributing water purveyors. Projected annual losses or deficits are shown as **red** numbers in parentheses. By comparison, both SSJID and OID, with significantly higher anticipated accretions (92,700 AFY and 32,100 AFY, respectively), provide a net gain to the aquifer water balance (shown as **black** numbers).

Water Balance Element	City of Manteca	SSJID	OID	Eastern San Joaquin Groundwater Subbasin
Deep Percolation[1]	290	51,300	14,600	282,020
Precipitation	90	8,500	1,900	70,060
Applied Water	200	42,800	12,700	211,960
Other Recharge[2]	0	41,400	17,500	105,700
Carriage/Canal Recharge and Managed Aquifer Recharge[3]	0	25,400	17,500	89,700
Local Reservoir Seepage	0	16,000	0	16,000
Total Accretions (Water Added)	**290**	**92,700**	**32,100**	**387,720**
Groundwater Pumping	20,600	34,900	31,100	751,200
Total Depletions (Water Depleted)	**20,600**	**34,900**	**31,100**	**751,200**
Net Effect on Groundwater System (Aquifer Balance)	**(20,310)**	**57,800**	**1,000**	**(363,480)**

Notes:

1. Deep Percolation – includes percolation due to both precipitation and applied water (both surface and groundwater).
2. Other Recharge – includes canal seepage, reservoir seepage, aquifer recharge projects, and drainage from ungauged watersheds.
3. Carriage/Canal Recharge and Managed Aquifer Recharge – includes canal seepage and MAR projects attributed to each GSA. Also includes calculated 5% of total Camanche Reservoir releases for NSJWCD assumed to be Mokelumne River stream seepage.
4. Units in AFY.

Table 4-7: Operational Water Budget by Select GSA and for the ESJ Subbasin

Source: Adapted from Table 11, Eastern San Joaquin Groundwater Authority, Draft ESJWRM Version 2.0 Update, January 2022, Woodard & Curran, Inc., page 48.

4.4 Alternative Water Supply: Stormwater and/or Floodwater

In our multifaceted water industry, it is best to invest and pursue water resources that a water purveyor can maximize influence or control over. For water entities seeking to fill projected supply gaps, storm- or floodwater capture is a recommended resource to explore.

The salient and uncontested advantages of stormwater over all other supply sources include the following:

- It is uncontrolled by State or federal regulators;
- It has no effect on State water quality or endangered species;
- It has no effect on any other water purveyor's claimed water entitlements (there can be no injury claims made against it);
- It cannot be curtailed, even under the worst drought conditions;
- It is virtually guaranteed every year;
- It is a relatively clean water source;
- It requires no treatment for agricultural use;
- Controlling it directly helps City, County, and regional flood control efforts;
- Existing infrastructure required for conveyance/collection already exists to some degree; and
- It is a free resource.

4.4.1 Stormwater Capture

An effective, cheaper, and more ubiquitous new water supply alternative for California and the San Joaquin Valley is stormwater or floodwater. Stormwater capture, storage, and utilization is the most overlooked water supply asset in California water resources management today. From the perspective of year-to-year reliability, spatial representation, water quality, cost to capture, unentangled legal rights, and volume, there is no greater supplemental water supply source than this. The amount of time, resources, and personnel the State dedicates to flood management and damage control is testimony as to how widespread stormwater is across the State.

The integration of a traditional flood issue with a water supply interest is not a foreign concept. The State has long acknowledged the importance of linking flood risk strategies, with ecosystem health and water supply reliability to achieve short-term success as well as long-term sustainability.[42]

Average annual precipitation within the Eastern San Joaquin Groundwater Subbasin ranges from about 11 inches in the southeast to about 25 inches in the northeast. There is of course significant interannual variability as shifting hydroclimatic trends continue to force water managers to recalibrate assumptions on water yield based on these emerging and intensifying climatic patterns. But examples of storm- and floodwater capture and use are widespread across America and the globe.

Figure 4-15 shows the large cisterns to capture stormwater under the National Mall in Washington D.C. Stormwater is processed through microscreens and ultraviolet light disinfection (right photo). On-site stormwater use is attractive where rainfall is more uniform throughout the year.

Similarly, stormwater harvesting in Royal Park, Melbourne, Australia employs a cistern. The runoff passes through a sediment trap, wetlands, and open-water storage, followed by UV disinfection and holding in a 1.3 MG (5000 m^3) underground tank prior to use for irrigation. The water is applied through spray irrigation at night to minimize human health risks.[43]

[42] DWR and USACE (2013) "California's Flood Future: Recommendations for Managing the State's Flood Risk", Final, November 2013, FloodSAFE California.

[43] City of Melbourne (2013) "Royal Park Stormwater Harvesting Project", March 2013.

Figure 4-15: National Park Service – Large Cisterns under the National Mall
Source: Luthy, R.G., Sharvelle, S. and P. Dillon (2019) "Urban Stormwater to Enhance Water Supply", Environ. Sci. Technol. 53(10), pp.5534-5542 https://doi.org/10.1021/acs.est.8b05913

4.4.2 Dry Wells

Dry wells, also called vadose zone wells or leaky wells, are vertical pipe-like devices with coarse media and an open bottom and holes in the walls that percolate water to the surrounding soil. The only treatment may be a sediment trap to remove debris or a geotextile fabric to prevent clogging.[44] In California, dry wells are used with caution due to the concern that they provide a conduit for contaminants to enter the groundwater.[45] Dry wells in New Jersey are prohibited in industrial or other areas where toxic chemicals might be used, whereas in Pennsylvania dry wells are permitted in industrial areas with restrictions, but not along roadways. Some newer designs consist of three parts: a vegetated pretreatment feature, a structural pretreatment sedimentation well, and the dry well itself, which contains layers of sand or gravel. The goal of this design is to maximize the removal of particle-associated pollutants, reduce clogging of the dry well, and promote efficient infiltration.

[44] Hunters Council. *Vegetated Drainage Devices, Practice Note #5*; Environment Division, Hunters Councils Inc.: New South Wales, Australia, 2013.

[45] California Office of Environmental Health Hazard Assessment *Dry Wells: Uses, Regulations, and Guidelines in California and Elsewhere [Fact Sheet]*; September 25, 2014.

These types of designs are implemented in Los Angeles in the San Fernando Valley, as shown in **Figure 4-16** below.[46] However, data on actual water volume infiltrated and water quality in such dry wells are lacking. The system comprises three chambers—one for particle settling with the second and third chambers allowing percolation from the base into crushed rock or by an overflow pipe in the third chamber set into crushed rock.

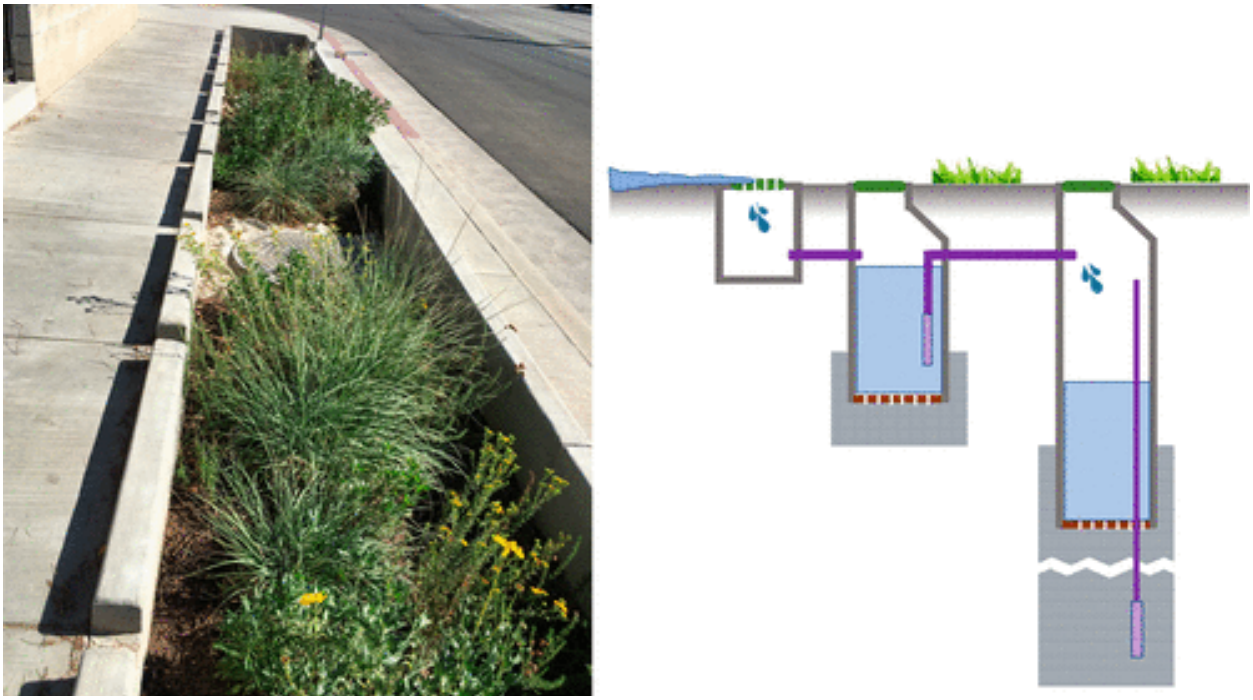


Figure 4-16: Curbside Dry Well Installation with Vegetation in Los Angeles
Source: Luthy, R.G., Sharvelle, S. and P. Dillon (2019) "Urban Stormwater to Enhance Water Supply", Environ. Sci. Technol. 53(10), pp.5534-5542 https://doi.org/10.1021/acs.est.8b05913

4.4.3 Wetland Parks

Some claim that in arid regions with Mediterranean climates, cisterns may be impractical owing to the asynchronous nature of rainfall and water demand, which requires storing large amounts of water for six to eight months until the dry season. In such situations, urban aquifers may be better suited to store stormwater by infiltration. In Los Angeles, for example, the Rory M. Shaw Wetlands Park in the Sun Valley neighborhood is being built to capture up to 900 AFY of urban runoff.[47] The collected stormwater is pumped to an adjacent infiltration system that takes advantage of the permeable media in this area. This neighborhood-scale project contributes to water supply while converting a blighted landscape into 46 acres of green space and recreation.

[46] Los Angeles Department of Water and Power *Branford Street Dry Well Details, Sun Valley EDA Public Improvements Project*; Los Angeles, CA, 2015.

[47] Hagekhalil, A.; Kharaghani, S.; Tam, W.; Haimann, R.; Susilo, K. Becoming the Green-Blue City. *Civil Engineering Magazine Archive* **2014**, *84* (11), 68– 91, DOI: 10.1061/ciegag.0000516.

Los Angeles County Flood Control District. *Sun Valley Watershed, Strathern Wetlands Park Project (Fact Sheet)*, Los Angeles, CA, 2012.

4.4.4 Stormwater as a Water Source 2013 Study

Storm- or floodwater has been considered as a potential additional water supply source for many years. A 23 city, seven region examination of rainwater harvesting potential across the U.S. was undertaken in 2013 where water-saving efficiency benefits were determined using a water-balance approach applied at a daily time step for a range of rainwater cistern sizes.[48]

The analysis was conducted for a standard residential parcel size and rooftop size using daily precipitation records and a daily water demand pattern developed for each city. Stormwater management benefits were quantified using USEPA SWMM to simulate the performance of an 11-hectare, 100-parcel residential neighborhood for precipitation patterns representing the seven regions.

Their results revealed a high potential for rainwater harvesting (RWH) to provide supplemental water supply and stormwater benefits across a diverse continental landscape. Water-saving efficiency benefits for regions with precipitation above 30 in were over 90% for modified (non-potable) indoor water use, such as the Southeast, East Coast, Midwest, and Pacific Northwest. For regions with less precipitation, the potential water-saving efficiency ranged from 20 to 50% for 80% rooftop water yield.

The ability of RWH to supply water is dependent on several factors including cistern size, water use pattern, and precipitation. The cistern size required to capture 80% or more of the average annual runoff from the residential rooftop ranged in size from 190 to 1,800 gal. Of interest was the potential for high rooftop yield capture from RWH in the semiarid cities, while accomplishing lower water-saving efficiency benefits in these regions.[49] They concluded that RWH has the potential for water supply benefits and stormwater management and that the actual potential is dependent on several factors including precipitation, cistern size, and water usage patterns. Regions with higher precipitation have a higher water-saving efficiency, with a lower stormwater management potential. Semiarid regions have modest stormwater management potential at the neighborhood scale.

A 2014 report by the Pacific Institute and NRDC titled "The Untapped Potential of California's Water Supply: Efficiency, Reuse, and Stormwater," spoke about the need to capitalize on the State's surplus seasonal hydrology, a fact that will get more extreme with each passing year. In 2014, they were estimating that the State could generate an additional supply in excess of 600,000 AFY from stormwater in the Bay Area and southern California alone, a boost of 10% to their annualized water supplies.

This 10% supply enhancement could easily cover the water supply/demand gap currently projected for many water purveyors, including the City, should the City decide to pursue its own storm- and/or floodwater capture, storage, and use program.

[48] Steffen, J., Jensen, M., Pomeroy, C.A., and S.J. Burian (2013) "Water Supply and Stormwater Management Benefits of Residential Rainwater Harvesting in U.S. Cities", Journal of the American Water Resources Association (JAWRA) 49(4): 810-824. DOI: 10.1111/jawr.12038.

[49] Ibid, 105

4.4.5 City Stormwater

In the City's 2015 UWMP, it acknowledges that utilization of stormwater (floodwater) as a water supply source had not yet been studied in detail. According to the UWMP, however, the City owns existing infrastructure to store and treat stormwater runoff.[50] Existing stormwater runoff is transmitted through the City's current system, into SSJID drains and laterals, and ultimately discharges into the San Joaquin River.

The City's current Storm Drain Master Plan (SDMP) dated March 2013 does not discuss the use of storm- or floodwater as a potential alternative water supply source. The SDMP aptly focused instead on the essential service of storm drainage control, disposal, and relevant regulatory compliance, discussing the need to assess the condition of existing drainage facilities and by identifying additional facilities needed to accommodate runoff from future development; all of which is made consistent with the requirements of the State of California and the U.S. EPA.[51]

SSJID owns a complex network of irrigation laterals and drains that run throughout the City's limits. These facilities deliver irrigation water to various farming operations and play an important role in conveying excess irrigation water and field runoff to downstream receiving waters, specifically the San Joaquin River. The City relies on these SSJID facilities to convey its stormwater runoff to the San Joaquin River, and fully intend to continue to do so.[52] This drainage infrastructure could serve as the vital backbone of any new stormwater retention or enhanced water supply program that the City might decide to pursue.

One of the biggest hurdles will be in restructuring the existing City/SSJID Master Drainage Agreement, or drafting a completely new agreement, that would address the many complexities involved in fully implementing a stormwater collection, storage, treatment, and distribution program. It is likely that existing capacity in any element of SSJID's stormwater drainage infrastructure do not currently accommodate the volumes of additional water necessary to meet the City's requirements should they decide to proceed with a significant stormwater collection and storage program.

Under such a program, the City would have to build its own storage/retention basins. The extent to which additional conveyance facilities and necessary appurtenances would be required to integrate these new retention basins with SSJID's existing infrastructure would depend on the ultimate design plans for this new program. The SDMP, however, already identifies several types of detention facilities intended to capture peak stormwater runoff: permanent detention basins, interim percolation basins, and permanent sole use percolation basins.

Detailed analysis would be necessary to determine the extent to which any existing detention basins could be used or otherwise be converted for use as water supply storage basins. Careful planning would be required to synchronize flood and water supply development since, although these two water uses may share the same facilities and infrastructure, their fundamental operational objectives are diametrically opposed.

As managed aquifer recharge gains increasing popularity, various water supply sources capable of providing the input necessary to initiate and perpetuate this process are being sought such as stormwater or excess floodwater. Factors affecting quantity and quality of recharge influence and are influenced by

[50] The City's Storm Drain System consists of approximately 170 miles of pipeline, 36 pump stations, and 35 detention basins.

[51] City of Manteca, Storm Drain Master Plan, March 2013.

[52] Ibid, 5

state/local land development policy, state/local groundwater policy, regulation and codes and climate change effects, as well as pretreatment requirements.

Site selection for possible managed aquifer recharge (MAR) projects will include hydrogeologic considerations, onsite footprint and construction factors as well as the need to match technology with hydrogeologic setting, state/local policy regarding the avoidance of hydraulic and pollutant effects, consideration during high water levels (flooding), representative groundwater monitoring, as well as life-cycle costing including vulnerable geology.[53]

Figure 4-17 shows a schematic of potential key flood infrastructure components as noted by the California Legislative Analyst's Office (LAO). Interestingly, the LAO recognize the use of detention basins, acknowledging that not all flood prone areas drain to controlled reservoir impoundments. This would apply to lands downstream from terminal or "rim" reservoirs, such as the entire City lands. Ultimately, if stormwater capture, storage, treatment and distribution emerges as an option the City intends to pursue, new institutional agreements will be necessary.

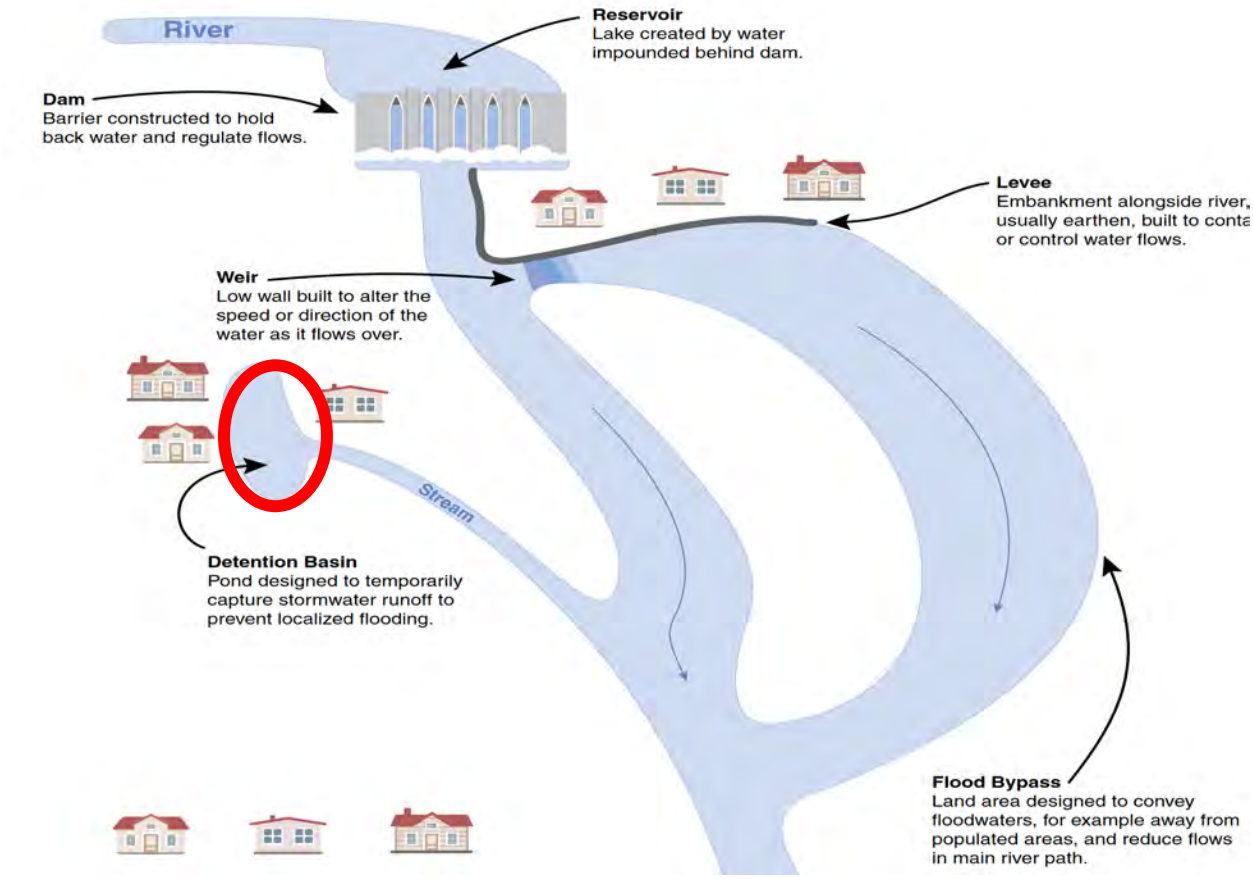


Figure 4-17: Illustration of Key Flood Infrastructure
Source: Adapted from Figure 5, LAO, "Managing Floods in California", page 13.

[53] Job, C. (2022) "A Review of Low-Impact Development Factors Affecting Managed Aquifer Recharge: Groundwater, https://doi.org/10.1111/gwat.13207.

One of the benefits of using stormwater for managed aquifer recharge is that it shifts water quantity and quality effects away from entitled surface waters. This can be a good or bad thing depending on which source supply is considered more fragile or "at-risk." It can be considered a good thing if traditional surface water supplies are constrained and there is little surplus to store. Using excess stormwater at no cost instead of contracted surface water could be viewed as a good thing. It might be viewed negatively, however, if the existing aquifer or immediate regions of the aquifer boundaries were pristine and injecting or percolating poorer quality stormwater would reduce the overall groundwater quality.

A changing hydroclimate primarily affects groundwater reservoirs through its influence on annual recharge. Here, timing is not so much an issue as is quantity. For, unlike surface water storage reservoirs, groundwater storage is dictated by the hydraulic conductivity of its overlying and surrounding matrix, none of which is homogeneous or easy to model.

5 CITY WATER SUPPLY AND DEMAND BALANCE

It is important to note that water supply and demand balance computations are based on a series of factors including: raw data (measured and estimated), hydrologic assumptions, engineering system assumptions, use (consumption) and loss assumptions, as well as anticipated growth. While these factors and assumptions may not be consistent among prior documents, it is important to acknowledge that the City is currently working on both the Water Master Plan and final 2020 UWMP to assure that consistency is maximized and that development does not outpace water resource supplies, infrastructure, and operations.

5.1 2020 Water Use

Table 5-1 presents the actual water use for 2020 alongside the total right or safe yield for each supply source utilized by the City. Note that the City also produces recycled water which is currently used to irrigate fodder crops near the wastewater treatment plant (WWTP), distributed at fill stations for dust control on construction sites, and used for irrigation at the Great Wolf Lodge.

Supply Source	Water Quality	Total Right or Safe Yield (AFY)	Quantity Supplied (AFY)
SSJID Surface Water	Potable	11,500	9,244
Groundwater	Potable	13,737 [1]	6,038
	Non-Potable		1,984
Total		**25,237**	**17,266**

Notes:

1. Based on the City's 2020 area (13,737 Acres) and a sustainable pumping rate of 1 AFY/Ac.[54] Note that there are other known entities within the City pumping groundwater (such as Manteca Unified School District [MUSD], and Eckerts Cold Storage) whose groundwater pumping also factors into the City's safe yield but are not considered herein.

Table 5-1: City Water Supplies 2020
Source: Water supply data provided by the City

5.2 Water Demand Projections

Table 5-2 presents the *potable* water demand projections, including water losses, through 2045 developed as part of the City's Water Master Plan (WMP).

Units	2025	2030	2035	2040	2045
MGD	15.2	18.1	20.3	22.9	25.8
AFY	17,029	20,242	22,786	25,649	28,872

Notes:

1. Note that these numbers do not include non-potable groundwater pumping for irrigation purposes as the WMP is specifically concerned with the potable water entering the City's distribution system; this is why the projected demand for 2025 listed in **Table 5-2** is less than the total supply for 2020 listed in **Table 5-1**.

Table 5-2: Potable Water Demand Projections
Source: "TM #3 – City Growth & Development Study," April 2023, HydroScience Engineers, Inc., page 26.

[54] City of Manteca "2015 Urban Water Management Plan," September 2016, Kennedy/Jenks Consultants, page 6-2.

5.3 Water Supply Projections

Table 5-3 below presents the projected total right or safe yield of City groundwater and surface water supplies during a historically normal year without any curtailments. As part of the City's 2015 UWMP future water supply reliability analysis, there was no anticipated change in the City's future available groundwater supply projections. For this analysis, however, it is assumed that the available groundwater supply within the safe yield will increase as lands are annexed into the City and the City limits are expanded. These City limits expansions were also developed as part of the City's ongoing WMP and are shown in **Figure 5-1**. [55]

Supply Source	2025	2030	2035	2040	2045
SSJID Surface Water	11,500	11,500	11,500	18,500	18,500
Groundwater[1]	14,074	14,411	16,057	17,704	19,350
Total	**27,599**	**27,941**	**29,592**	**38,244**	**39,895**

Notes:
1. Includes both potable and raw water groundwater pumping.

Table 5-3: Projected Un-Curtailed Total Available City Water Supplies (AFY)

As in **Table 5-1**, groundwater supply availability is based on City area and a sustainable pumping rate of 1 AFY/Ac, as presented in the City's 2015 UWMP. Additionally, there are other known entities within the City (such as Manteca Unified School District [MUSD] and Eckerts Cold Storage) whose groundwater pumping may impact the City's pumping rates relative to the safe yield but are not considered herein.

The projection horizons developed for the WMP are 2030 and 2045. While it is difficult to predict how the City will expand between those years, for planning purposes the groundwater safe yield quantities are linearly interpolated for the interim years (2025, 2035, and 2040).

According to SSJID's 2020 UWMP, it is assumed that Phase II of the SCWSP will be completed and online by 2040, an update from the 2015 UWMP which assumed 2025. Phase II will increase the City's un-curtailed allotment to 18,500 AFY.

One of DWR's noted UWMP requirements is the single- and multi-year drought analysis that compels water purveyors to evaluate a potentially depleting base supply (over several years) against future demand projections to determine whether adequate water supplies would exist under such conditions. The last single- and multi-year supply and demand analysis was undertaken as part of the 2015 UWMP effort; herein, an updated supply and demand analysis is presented using the UWMP-prescribed methodology and the updated projections presented in **Table 5-2** and **Table 5-3**.

[55] "TM #3 – City Growth & Development Study," December 2022, HydroScience Engineers, Inc., page 20.

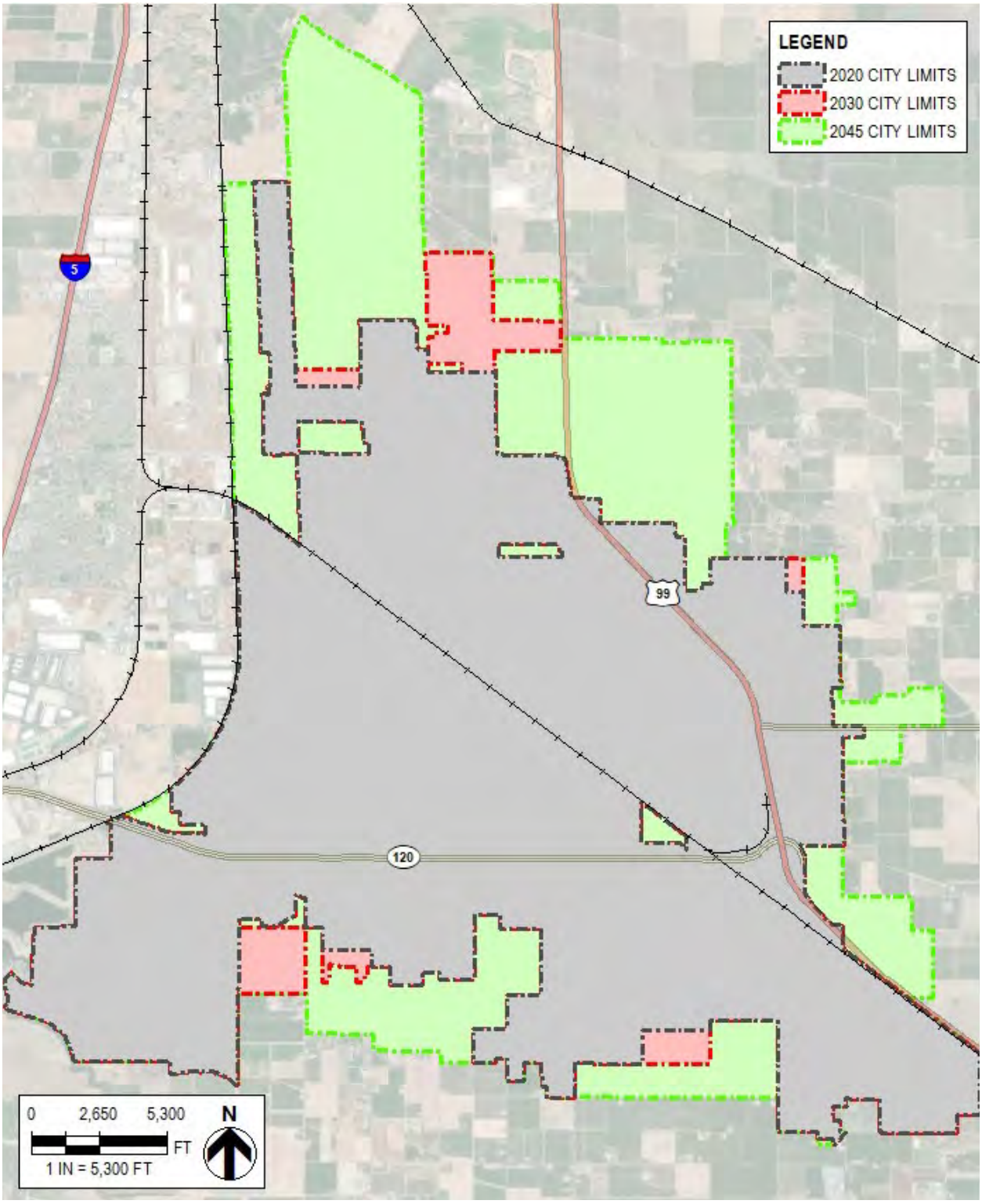


Figure 5-1: City Limits Expansion for 2030 and 2045 Projection Horizons

Source: Reproduced and altered from "TM #3 City Growth & Development," April 2023, HydroScience Engineers Inc., page 20.

5.4 Supply vs. Demand for Normal Water Year

The water supply estimate presented above is based on a current normal water year. This section will evaluate current normal year water supply versus demand as well as additional scenarios that consider potential reduction of supply in the event of drought and curtailment.

Table 5-4 presents a comparison of supply versus demand for a normal year given the supply and demand projections presented above and assuming no curtailments to the City's available surface water supply or available groundwater within the Easter San Joaquin Groundwater Subbasin safe yield. Though some additional irrigation wells may be built by the City, these projections assume that non-potable groundwater pumping for irrigation will stay relatively constant into the foreseeable future. Future parks are included in the potable water demand projections presented in **Table 5-2**. For the purposes of this analysis, we assume a constant non-potable groundwater pumping rate of 2,000 AFY. It is noted, again, that there are other known entities within the City, such as Manteca Unified School District [MUSD] and Eckerts Cold Storage, whose groundwater pumping may impact the City's pumping rates relative to the safe yield but are not considered herein.

Projected (AFY)	2025	2030	2035	2040	2045
Total Projected Supply (AFY)	27,599	27,941	29,592	38,244	39,895
Total Projected Demand (AFY)	19,029	22,242	24,786	27,649	30,872
Difference (AFY)	**8,570**	**5,699**	**4,806**	**10,595**	**9,023**

Table 5-4: Normal Year Supply versus Demand Comparison

Water purveyors completing UWMPs must identify their base "hydrologic" years that they intend to use for the dry-year evaluations. Because the City receives water from SSJID, it has in the past for the 2015 UWMP, used the same base years as SSJID for this analysis.

Table 5-5 presents the percentages of normal supply available during dry years for surface water and groundwater and the historical base hydrologic years – the same years and associated percentages used in SSJID's 2020 UWMP – used to develop these percentages using the prescribed DWR UWMP methodology.

Year Type	Base Year[1]	% of Normal Supply Available Surface Water[1]	% of Normal Supply Available Groundwater
Average Year	2010	100	100
Single-Dry Year	1977	75	100
Five Consecutive Dry Years 1st Year	2012	100	100
Five Consecutive Dry Years 2nd Year	2013	95.6	100
Five Consecutive Dry Years 3rd Year	2014	75	100
Five Consecutive Dry Years 4th Year	2015	75	100
Five Consecutive Dry Years 5th Year	2016	100	100

Notes:
1. Base years listed and percentages of average surface water supply available are based on SSJID 2020 UWMP.

Table 5-5: Historical Basis of WY Type

5.5 Supply vs. Demand Under Drought Conditions

In **Table 5-5**, the average supply assumptions under imposed curtailment percentages are not as conservative as the most recent restrictions seen in 2022. Whether such curtailments are hydroclimatologic (e.g., precipitation-based), runoff-based (e.g., precipitation, facility, or regulatory-based), or purely institutional, the percent reductions are less than would be expected, particularly, in the 5th consecutive year of a protracted drought. While this may have been the case in the 2012-2016 drought, it is overly optimistic to assume that a 5th consecutive year drought would not restrict or otherwise curtail the City's water supply. Selecting 1977 as the single-dry year is appropriate, however, limiting imported water shortages to only 75% is likely not conservative enough.

Original maximum CVP M&I contract shortage were 75% of normal and over the past several decades have been increased to 50% in extreme circumstances. Granted, SSJID is not a CVP or SWP contractor subject to the deep shortage provisions imposed by federal and State water contracting stipulations, however, 2022 has demonstrated how even standard curtailments have now been exceeded.

Additionally, only surface water deliveries from SSJID are curtailed and groundwater pumping is left completely unconstrained – an unlikely long-term outcome given the status of the Eastern San Joaquin Groundwater Subbasin. The 2012-2016 drought period proved that as surface water supplies became increasingly strained, groundwater reliance increased to about 80% of the supply in the San Joaquin Valley.[56] At that usage rate, it is conceivable that after successive years, for groundwater reserves to be impacted and potentially deplete. Therefore, it is prudent to assume a reduction in the current safe yield pumping rate of 1 AFY/Ac during a period of sequential drought years for two reasons: 1) to prepare for the possibility of a curtailment and 2) to plan for the management of the Subbasin's sustainable yield under drought conditions.

Based on the established water supply and demand projections, various assumptions, and base hydrologic years, **Table 5-6** presents the supply versus demand comparison for a single dry year with SSJID surface water curtailed by 75% and groundwater un-curtailed. It is noted that in reality, during drought years, the City will typically implement the necessary stage of its Water Shortage Contingency Plan (WSCP) which lays out actions the City plans to take to encourage City residents to conserve water. To be conservative and for consistency with UWMP methodology, demands are assumed to stay the same as presented in **Table 5-2** for the analysis presented herein.

	2025	2030	2035	2040	2045
Total Projected Supply (AFY)	22,699	23,036	24,682	31,579	33,225
Total Projected Demand (AFY)	19,029	22,242	24,786	27,649	30,872
Difference (AFY)	**3,670**	**794**	**-104**	**3,930**	**2,353**

Table 5-6: Single-Dry Year Supply versus Demand Comparison

Based on this analysis, there are shortages by 2035. Note, though, that if there is unaccounted for groundwater pumping by others, it could push shortages further in 2035 and as early as 2030.

[56] California's Fourth Climate Change Assessment, 2018, San Joaquin Valley Region Report, p. 17.

Given that the multiple-dry year analysis curtailments do not provide additional limitations as compared to the single-dry year analysis, **Table 5-6** presents the most extreme case for both the single- and multiple-dry year analyses. It is noted, however, that during a multi-year drought, there will likely be carryover storage shortages due to the occurrence of multiple consecutive dry years. Consistent with UWMP methodology, year-to-year storage effects are not considered here but would likely only exacerbate any deficits.

As shown in **Table 5-6**, the shortage between supply and demand is less than 1 percent by the year 2035. This shortage can be managed with the implementation of the City's WSCP. However, under prolonged drought conditions, the projected supply could be much lower than what is presented under single-dry year conditions if curtailments increase. With such a tight margin , a prolonged drought would likely cause a deeper deficit.

6 FUTURE WATER-RELATED THREATS TO THE CITY

The future threats to deliverable water supplies in the City for the foreseeable future (e.g., General Plan buildout) can be categorized into the following:

- **Hydroclimatological Uncertainty**. Uncertainties associated with a rapidly shifting climate due to forced anthropogenic global warming (e.g., climate change)
- **Existing Surface Water Storage Capacity Limitations**. Limitation in reservoir storage capacity across the system relied upon by SSJID and the City
- **Regulatory Impositions**. Regulatory impositions as they relate to surface water operations of the primary water regulators in the State.
- **Declining Groundwater.** Long-term aquifer declines have been chronic among water purveyors.

For a City totally reliant on another party for its surface water supply, future hydroclimatology is an important consideration. The megadrought, for example, received considerable attention in recent years and water providers have struggled to put this hydroclimatic anomaly into proper perspective. This has been made all the more challenging since no historic benchmark exists from which to draw comparisons or contrast similarities and dissimilarities.

6.1 Hydroclimate Change and Uncertainty

Climate change modeling is far from an exact science. New developments and various nuances emerge continuously as researchers contend with an extremely dynamic and volatile new discipline. However, it is clear that our climate is changing and affecting precipitation.

6.1.1 Climate Change

Global warming is changing the intensity distribution of daily precipitation, with an increased frequency of heavy precipitation and reduced frequency of light/moderate precipitation as expressed in GCM/RCM projections. While an increase in extreme hydrology, particularly, rainfall-runoff is now fully accepted as a result of warming global air temperatures and the manifestation of this effect during the winter months, the exact regional nuances are still largely undefined.[57]

Projected future Coupled Model Intercomparison Phase 5 (CMIP5)[58] GCM changes in regional daily precipitation distribution can be described by a combination of two idealized modes: a *frequency decrease* mode, representing a reduction in the frequency of precipitation at all rain rates, and a *frequency shift* mode, where the distribution shifts toward heavier rain rates. A decrease in daily precipitation frequency and an increase in intensity are projected in most regions, but the magnitude of change shows large regional variations.[59]

[57] Williams, A.I.L. and P.A. O'Gorman (2022) "Summer-Winter Contrast in the Response of Precipitation Extremes to Climate Change over Northern Hemisphere Land", Geophysical Research Letters, https://doi.org/10.1029/2021GL096531.

[58] Lawrence Livermore National Laboratory, https://pcmdi.llnl.gov/mips/cmip5/

[59] Chadwick, R., Pendergrass, A.G., Muniz Alves, L., and L., A. Moise (2022) in Journal of Climate, "How Do Regional Distributions of Daily Precipitation Change under Warming?", pp. 3243-3260, https://doi.org/10.1175/JCLI-D-20-0864.1.

In a recent DWR study, four important watersheds in the San Joaquin River region (Stanislaus River at New Melones, Tuolumne River at Don Pedro, Merced River at Lake McClure, and San Joaquin River at Millerton Lake) were selected for future hydrologic analysis. The sum of runoff from these four watersheds was used to represent the overall wetness of the region in practice.

The mean elevation of the four San Joaquin River watersheds is 2,345 meters with an average total annual runoff of 5.75 MAF. Runoff from the San Joaquin River watersheds is dominated by snowmelt, due to the relatively high watershed elevations (in comparison to their Sacramento River watershed counterparts further north). Snowmelt runoff, which is typically represented by runoff during the snowmelt season from April to July, accounts for two-thirds of the annual total runoff for San Joaquin Valley's four rivers.

California's Fourth Climate Change Assessment selected four GCMs for use in this analysis. These included a "cool/wet" model CNRM-CM5; an "average" model CanESM2; a "warm/dry" model HadGEM2-ES; and a "complement" model MIROC5 that "is most unlike the first three models for the best coverage of different possibilities." These were selected after a prioritization process that originally identified 32 GCMs that participated in the CMIP5 under two emission scenarios: Representative Concentration Pathways (RCP) 4.5 (lower emission scenario) and RCP 8.5 (high emission scenario). Details on the applied bias correction methods, study variables, and index metrics are not replicated here and can be found in the DWR study.[60]

From **Figure 6-1**, it is evident that total annual runoff is projected to increase across nearly all of the exceedance probabilities via the "cool/wet" model (CNRM-CM5) and the "average" model (CanESM2) (**Figure 6-1a**). The increases are generally larger for higher flows with lower exceedance probabilities. The "complement" model (MIROC5) and "warm/dry" model (HadGEM2-ES) projected similar annual runoff to the historical baseline.

The San Joaquin River region is expected to experience larger volumes of October-March runoff than the baseline in all of the projections (**Figure 6-1b**). The increases are larger for runoff volumes with lower exceedance probability, however, not all four models project decreases in the April-July runoff (**Figure 6-1c**). The "cool/wet" model projects increases under both of the emission scenarios for the San Joaquin River region. Finally, under the higher emission scenario, the "cool/wet" model projects higher October-March runoff and lower April-July runoff, while the "average" model predicts higher runoff across all three timescales.

[60] He, M., Anderson, J., Lynn, E. and W. Arnold (2021) in Climate, "Projected Changes in Water Year Types and Hydrological Drought in California's Central Valley in the 21st Century," 9(2), 26 https://doi.org/10.3390/cli9020026.

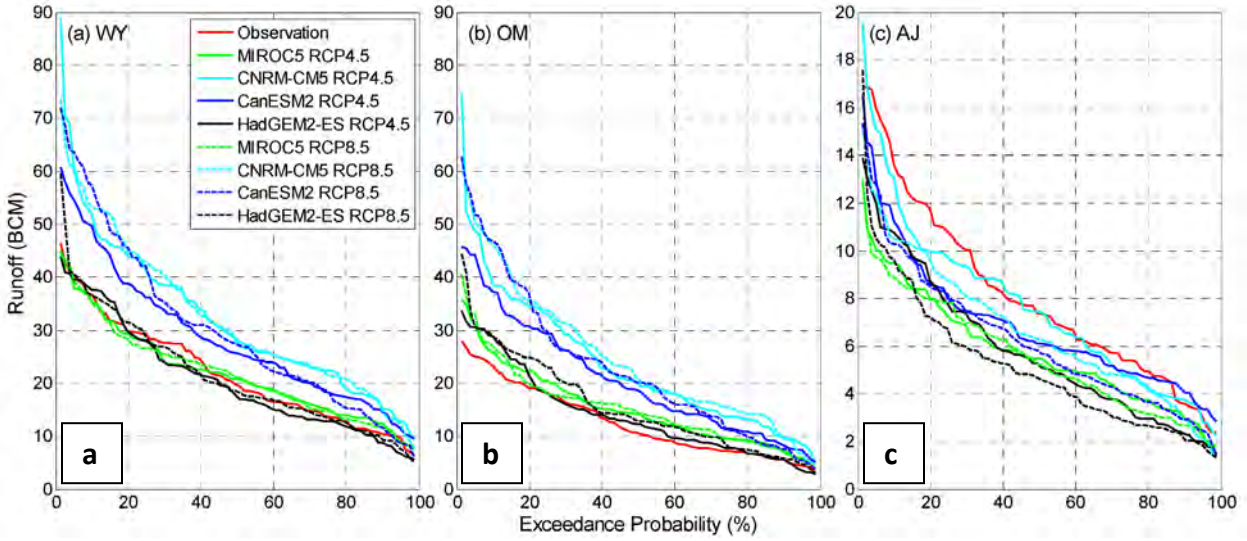


Figure 6-1: Simulated Future San Joaquin Watersheds – Runoff Exceedance Probabilities for the October-March and April-July Periods

Source: Figure 3 from He, M., Anderson, J., Lynn, E. and W. Arnold (2021) in Climate, "Projected Changes in Water Year Types and Hydrological Drought in California's Central Valley in the 21st Century," 9(2), 26, https://doi.org/10.3390/cli9020026.

As shown in **Table 6-1**, October-March precipitation is projected to increase in most models, with greater increases expected under the higher (versus lower) emission scenario. The compound effect of atmospheric warming, together with increases in precipitation, is to increase runoff during the October-March period, particularly under the higher emission scenario.

Model/Scenario	Representative Concentration Pathways (RCP)	October-March (mm)	April-July (mm)	Total WY (mm)
GCMs	Historical	869	166	1,060
MIROC5 (compliment)	RCP 4.5	838	130	998
	RCP 8.5	839	126	990
CNRM-CM5 (cool/wet)	RCP 4.5	1,127	151	1,317
	RCP 8.5	1,138	149	1,325
CanESM2 (average)	RCP 4.5	1,016	145	1,211
	RCP 8.5	1,157	142	1,364
HadGEM2-ES (warm/dry)	RCP 4.5	876	137	1,048
	RCP 8.5	879	142	1,054

Table 6-1: Historical (1920–1999) and Future Simulated (2020–2099) Precipitation at Seasonal and Total WY

Source: Recreated from Table 2. The mean of historical (1920–1999) and projected (2020–2099) precipitation and temperature data at annual and seasonal scales from He, M., Anderson, J., Lynn, E. and W. Arnold (2021) in Climate, "Projected Changes in Water Year Types and Hydrological Drought in California's Central Valley in the 21st Century," 9(2), 26 https://doi.org/10.3390/cli9020026.

April-July runoff largely comes from snowmelt, as April 1st is typically deemed as the date when the snowpack is at its maximum. The projected warming in the wet season will likely lead to earlier snowpack maximums and melting, resulting in a smaller-than-usual snowpack on April 1st and, thus, less April-July runoff. This is particularly the case under the higher (versus lower) emission scenario where higher

warming is assumed. The April-July precipitation also contributes to runoff during this period. On average, all four GCMs project non-stationary decreases in the April-July precipitation under both emission scenarios.

From a practical standpoint, the findings of this study can inform decision-makers in long-term water resources planning strategies, some of which may not have previously received much attention. For example, study results indicate that wet season runoff is projected to increase in the San Joaquin River region in each of the four representative models used, but that this runoff would skew to the October-March period. This indicates greater (than the historical) flooding risk during a period where flood control is already an operational priority throughout the San Joaquin River valley and source area catchments in the Sierra Nevada. In light of this increased flooding risk, it appears imperative that water managers increase the resilience of the current water system to large, rapidly developing floods, in some cases, larger and more quickly forming than ever before to deal with this potential excess surge in floodwater. An option to mitigate this increase in flood water is to divert it for recharge to groundwater. The potential benefits of groundwater recharge have already been discussed and include flood risk reduction, land subsidence mitigation, ecosystem enhancement, and drought preparedness, among others. Another option, one that has received little interest despite its hydrologic advantages, is to divert excess flood water to retention basins as managed storm- and floodwater storage for later consumptive use. This is detailed in **Section 4.4**.

A recent study of San Joaquin River valley watersheds demonstrated that the flow regimes downstream of hydropower facilities were likely to be increasingly altered by reservoir operations rather than by climate change. The observation of stepped and wider flow duration curves indicated an intermittent flow variation more conducive to managed reservoir operations.[61] In the complex hydro-water supply operations that define Tri-Dams, New Melones, Goodwin and Stanislaus River operations, such future alterations in baseline hydrology have particular relevance to SSJID and each of its retail customers like the City.

A common theme among these various studies is the extent of uncertainties associated with the various assumptions for climate change models used in the analyses. Such uncertainty can impart considerable influence on simulated changes in WY classification and hydrological droughts.

6.1.2 Hydroclimatic Uncertainties

Reviewing a range of hydroclimatic models with varying conditions and assumptions helps in understanding the possible effects of climate change on our water supply. The importance of selecting the appropriate climate models that represent state-of-the-art climate science in this type of analysis cannot be overstated. Models are continually being improved; the DWR study discussed in the previous section utilized four priority climate models that were recommended in California's Fourth Climate Change Assessment, which was based on CMIP5[62] projections. While next generation CMIP6[63] projections are now available at increasingly improved spatial scales, their use is largely limited to the research

[61] Maskey, M.L., Facincani Dourado, G., Rallings, A.M., Rheinheimer, D.E., Medellin-Azuara, J. and J.H. Viers (2022) in Front. Environ. Sci., "Assessing Hydrological Alteration Caused by Climate Change and Reservoir Operations in the San Joaquin River Basin, California" https://doi.org/10.3389/fenvs.2022.765426.

[62] Lawrence Livermore National Laboratory, Coupled Model Intercomparison Project Phase 5, https://pcmdi.llnl.gov/mips/cmip5/.

[63] Lawrence Livermore National Laboratory, Coupled Model Intercomparison Project Phase 6, https://pcmdi.llnl.gov/CMIP6/.

community. California's next (fifth) climate change assessment is in its scoping phase and is expected to downscale and tailor CMIP6 projections for planning and management practices across the State.

Precipitation. While air temperature and other climatic variables at many scales drive the generation of precipitation and are important considerations in overall climate change investigation, for practical water resource management planners and water purveyors, precipitation is the key metric of concern.

One of the most challenging aspects of precipitation is accurately defining its inherent variability. This challenge makes it extremely difficult for water planners to discern what observable changes in trends are the result of climatic volatility brought about by contemporary climate change or are embedded as part of natural variability. The current efforts at attribution science, for example, where actuaries attempt to assign a numerical percentage to specific causation often result in highly questionable results.

A recent study incorporated the role of sea level pressure in critical oceanic regions on California winter precipitation in observations and CMIP6 simulations. It showed projected wetter end-of-century northern and central-southern California regions (mean precipitation increased by 20% and 25%, respectively) with much lower uncertainty ranges. Results confirmed increased precipitation at the end of 21st century compared to precipitation observations of recent decades. This study estimated precipitation could increase by as much as 1.5 to 6.8 inches over central-southern California by the end of the century compared with present-day. They go on to state that up to 71% of their modeling projection uncertainties were reduced mainly due to the strong and consistent causal relationship between North American west coast sea level pressure and California precipitation in both observations and CMIP6 models.[64]

While such CMIP6-based investigations were presenting these rather precise and large estimates, the San Joaquin Region Report of California's Fourth Climate Change Assessment, 2018, showed a maximum change in average annual future precipitation of less than 0.5 inches for either Stanislaus or San Joaquin counties from now until the end of the century.[65] Accepting the significantly drier climate of San Joaquin County compared to many parts of southern California, this discussion is meant to show the high degree of uncertainty and variability that exists in hydroclimatic projections.

In another recent study in the southwestern U.S. using moisture budget analysis, results projected a decrease in spring precipitation but an increase in summer precipitation under a warming climate. The investigators noted that the spring dry period is caused by enhanced zonal drying advection and that, in contrast to the spring, the moisture gradient change and the wind convergence change both act to actually increase precipitation in summer.[66]

These types of variations and differences in study results are not uncommon. This reflects the complexity of modeling methodologies and reinforces the importance and influence of choosing between a wide range of simulation assumptions.

[64] Li, F., Zhu, Q., Riley, W.J., Yuan, K. Wu, H. and Z. Gui (2022) "Wetter California projected by CMIP6 models with observational constraints under a high GHG emission scenario", Earth's Future, https://doi.org/10.1029/2022EF002694.

[65] San Joaquin Region Report, California's Fourth Climate Change Assessment, Table 5, page 23, 2018.

[66] See W. Liang and M. Zhang (2022) "Increasing future precipitation in the southwestern US in the summer and its contrasting mechanism with decreasing precipitation in the spring" Geophysical Research Letters, https://doi.org/10.1029/2021GL096283.

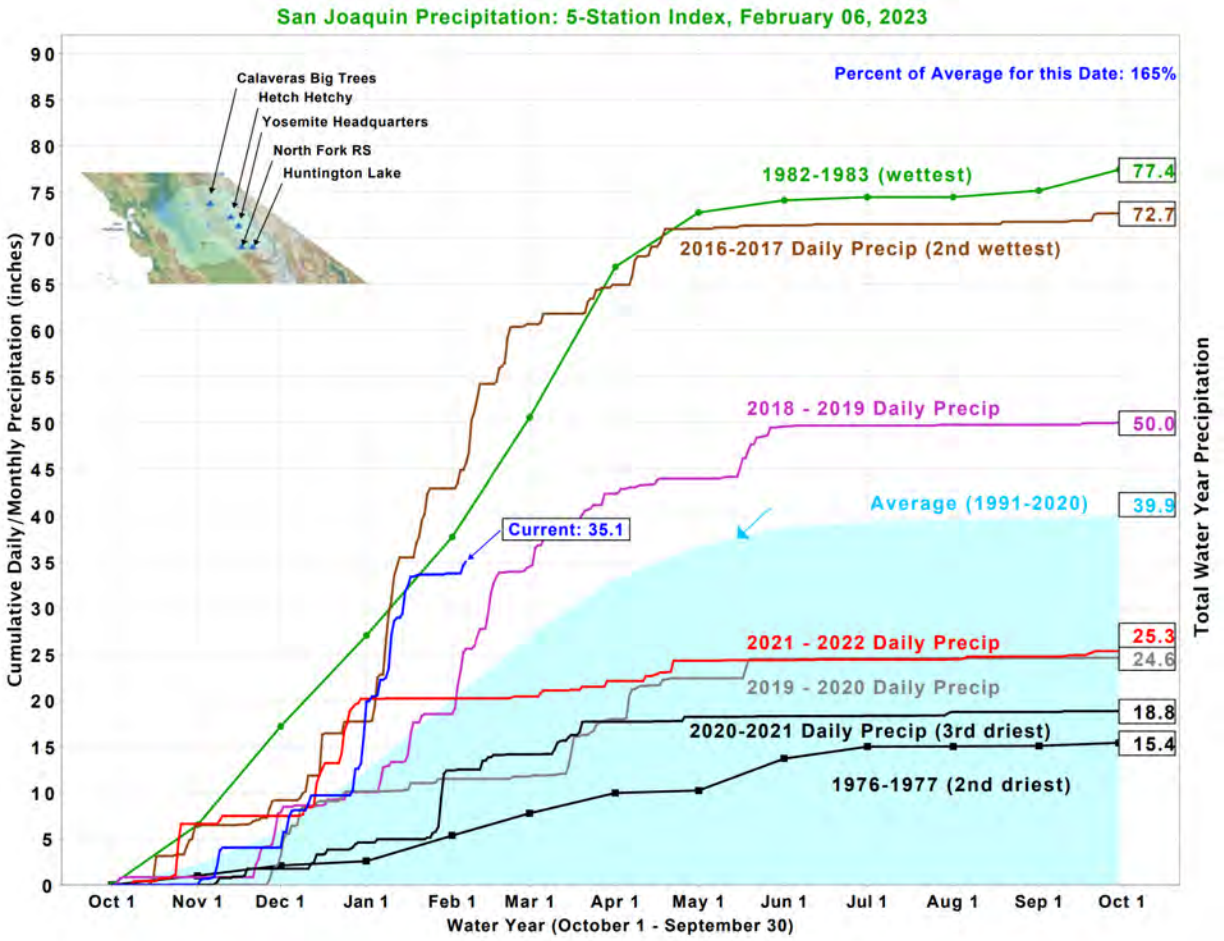


Figure 6-2: San Joaquin Precipitation: 5-Station Index for February 6, 2023
Source: California Department of Water Resources, Snow Surveys, Precipitation Indexes and Snow Course Summaries
http://cdec.water.ca.gov/reportapp/javareports?name=PLOT_FSI.pdf

Figure 6-2 shows the precipitation index for the San Joaquin source area watersheds in the Sierra Nevada to the Central Valley (this includes the source areas for the City). The index is a cumulative precipitation graphic showing the results for various past WYs (colored lines) and the historical average (**lightly shaded blue band**) representing the 1991-2020 average. The current year's ongoing cumulative trace is shown in **dark blue** and on the date that this figure was obtained, February 6, 2023, the current precipitation total was 35.1 inches, representing approximately 165% of average for this date.

From **Figure 6-2**, it is easy to see the wide scatter in annual precipitation totals for San Joaquin's five precipitation stations that make up this index. Annual precipitation ranges between 77.4 inches (in 1982-83), the wettest WY on record, and 15.4 inches (in 1976-77). The San Joaquin 5-Station Index indicates a below average precipitation year for WY 2021-22 with a total of 25.3 inches, among the driest on record.

Current research into projecting California's future precipitation continues in earnest. The State continues exploring a variety of hydrometric approaches including a number of blending approaches; using snowpack measurements from a wireless-sensor network, for example, in conjunction with gauge precipitation and atmospheric-moisture data to estimate mountain precipitation amount and phase. Analysis of 60 precipitation events in WYs 2014-2017 has shown that the approach provides estimates of precipitation and orographic enhancement that reduce uncertainty from apparent snow under-catch by

limited gauges. This approach also infers total precipitation based on snow measurements during rain-on-snow events.[67]

Snow. Actual snow measuring techniques are also improving. Recent studies have assessed historic snow patterns from extensive past records (1985- 2016) to reconstruct snow water equivalent (SWE) in order to better understand and help improve current simulations of snowfall and melt in the adjacent Sierra Nevada watersheds to the New Melones Reservoir source areas.[68]

Work continues to explore how snow depth patterns are influenced including examining snow accumulation, snowmelt, snow sublimation, snow density, and variations in results between coarse spatial scale (e.g., 6 km) and smaller such as 25 meters. Repeatable snow depth patterns have been identified in many regions between years with similar meteorological characteristics. This suggests that snow patterns from previous years could adjust snow deposition in model space as a substitution for unmodeled snow processes.[69]

The accuracy of existing Land Surface Model-based SWE outputs is limited and unclear by mixed factors such as uncertainties in the meteorological boundary conditions and the model physics. Results from a recent study show that the mean annual maximum Land Surface Model SWE can be considerably underestimated (e.g., by as much as 268 mm). The timing of peak SWE from these models can be as high as 36 days earlier than that of the observations. In one study, winter accumulated precipitation is underestimated and the model can generate different snowfall estimates by an average of well over 100 mm with the same source data and assumptions.[70]

6.1.3 Bias in Precipitation Forecasting

Precipitation bias in forecasting remains a real challenge and its implications can be significant if the projections are overestimated.

Pacific Meridional Mode. While there is ample evidence to show that the Pacific Meridional Mode (PMM) plays an important role in modulating the development of the El Niño-Southern Oscillation (ENSO), recent studies have examined the projected changes in the PMM and its impact on the ENSO under climatic shifting using the contemporary models of the CMIP6.

Modeling results confirm potential increases in both PMM amplitude and its impact on the ENSO under even conservative warming scenarios. Possible reasons for this strengthened relationship include the increased sensitivity to latent heat fluxes and wind speed under a warming climate as well as a slightly

[67] Cui,G., Rice, R., Avanzi, F., Hartsough, P. Guo, W., Anderson, M., Conklin, M. and R. Bales (2022) "Precipitation estimates and orographic gradients using snow, temperature, and humidity measurements from a wireless-sensor network" WRR, https://doi.org/10.1029/2021WR029954.

[68] Pflug, J.M., Margulis, S.A. and J.D. Lunquist (2022) "Inferring Watershed-scale Mean Snowfall Magnitude and Distribution Using Multidecadal Snow Reanalysis Patterns and Snow Pillow Observations", Hydrological Processes, https://doi.org/10.1002/hyp.14581.

[69] Pflug, J.M., Huges, M. and J.D. Lundquist (2021) "Downscaling Snow Deposition Using Historic Snow Depth Patterns: Diagnosing Limitations From Snowfall Biases, Winter Snow Losses, and Interannual Snow Pattern Repeatability", Water Resources Research", https://doi.org/10.1029/2021WR029999.

[70] Cho, E., Vuyovich, C. M., Kumar, S. V., Wrzesien, M. L., Kim, R. and Jacobs, J. M. (2022) "Precipitation Biases and Snow Physics Limitations Drive the Uncertainties in Macroscale Modeled Snow Water Equivalent", Hydrol. Earth Syst. Sci. Discuss. [preprint], https://doi.org/10.5194/hess-2022-136.

intensified response of atmospheric convection to sea surface temperature anomalies in the subtropical Pacific.

These models can properly reproduce the characteristics of PMM patterns but reveal discrepant PMM-ENSO relationships owing to different Wind-Evaporation-Sea-Surface Temperature (SST) (WES) feedback efficiency and different magnitude of atmospheric convection response to SST anomalies. Results show potential increases in both PMM amplitude and its impact on the ENSO under the SSP585[71] warming scenario with great inter-model consensus.

Diagnosis of the WES feedback indicates increasing sensitivity of latent heat flux to zonal wind speed in a warming climate, which seems to be the main reason for the projected strengthening PMM and its impact on the ENSO. In addition, a slightly intensified response of atmospheric convection to SST anomalies in the subtropical Pacific may partially contribute to a stronger PMM-ENSO relationship. The results from these kinds of studies highlight the increasing importance of the PMM for ENSO development, which calls for more attention to be paid to the PMM for ENSO prediction.[72]

Precipitation Variability. There also exists countervailing evidence precipitation in the U.S. has increased since 1990 with substantial seasonal and regional variation, although it is generally accepted that any such trends are highly variable in both space and time. For the western U.S., it is generally agreed that winter precipitation anomalies are strongly affected by the ENSO cycle and the PDO phase. In particular, the shift between dry and wet periods is tied to the phase change of the Interdecadal Pacific Oscillation, as has been observed in many studies.[73]

Overall, prediction capabilities have and continue to improve. Land surface models (LSMs) and global hydrological models (GHM) in simulating river discharge is strongly influenced by the model structure, input data and spatial resolution. Differences in evapotranspiration (ET) estimates from the different ET products may be attributed to model structure and the input data used in driving the models.[74] While machine learning techniques have not been fully explored for improving tropical cyclone movement and intensity changes, advanced machine learning techniques combined with routinely available information can be used to improve 24-hr tropical cyclone forecasts efficiently. In fact, new machine learning frameworks for tracking tropical cyclones throughout the north Atlantic and eastern Pacific basins, such

[71] SSP585 (more accurately, SSP5-8.5 represents the high end of the range of future emission pathways, corresponding to RCP8.5 – and refers to an additional radiative forcing of 8.5W/m^2 by the year 2100).

[72] Fan, H., Yang, S., Wang, C., Wu, Y. and G. Zhang (2022) "Strengthening amplitude and impact of the Pacific Meridional Mode on ENSO in the warming climate depicted by CMIP6 models", Journal of Climate, https://doi.org/10.1175/JCLI-D-21-0683.1.

[73] Melillo, J. M., Richmond, T. C., and Yohe, G. W.: Climate Change Impacts in the United States: The Third National Climate Assessment, US Global Change Research Program, Washington, DC, 841 pp., https://doi.org/10.7930/J0Z31WJ2, 2014.

Gutzler, D. S., Kann, D. M., and Thornbrugh, C.: Modulation of ENSO-based long-lead outlooks of southwestern US winter precipitation by the Pacific decadal oscillation, Weather Forecast., 17, 1163–1172, https://doi.org/10.1175/1520-0434(2002)017<1163:MOEBLL>2.0.CO;2, 2002. Dai, A.: The influence of the inter-decadal Pacific oscillation on US precipitation during 1923–2010, Clim. Dynam., 41, 633–646, https://doi.org/10.1007/s00382-012-1446-5, 2013. Deser, C., Phillips, A. S., and Hurrell, J. W.: Pacific interdecadal climate variability: Linkages between the tropics and the North Pacific during boreal winter since 1900, J. Climate, 17, 3109–3124, https://doi.org/10.1175/1520-0442(2004)017<3109:PICVLB>2.0.CO;2, 2004.

[74] Nkiaka, E., Bryant, R. G., Ntalja, J., and Biao, E. (2022) "How useful are gridded water resources reanalysis and evapotranspiration products for assessing water security in ungauged basins?" Hydrol. Earth Syst. Sci. Discuss. [preprint], https://doi.org/10.5194/hess-2022-185.

as the multi-modal "Hurricast"[75] show that they can achieve comparable mean absolute error and skill to current operational forecast models while computing in seconds.

The value of long-range forecasts, more commonly known as seasonal forecasts, as fundamental climatic information cannot be overemphasized. Such forecasts are invaluable in predicting monthly and seasonal anomalies or deviations from expected climatological conditions, rather than providing specific information on the daily weather patterns.[76] Their importance is often overlooked. For the City, knowing at least in general terms, the projected climatic risks involved in maintaining a firm SSJID surface water allocation in the highly sensitive central Sierra Nevada is prudent.

6.2 Surface Water Storage Dilemma

A close examination of **Figure 6-3** reveals a truism about California hydroclimatology, namely, that annual and inter-seasonal precipitation is highly variable.

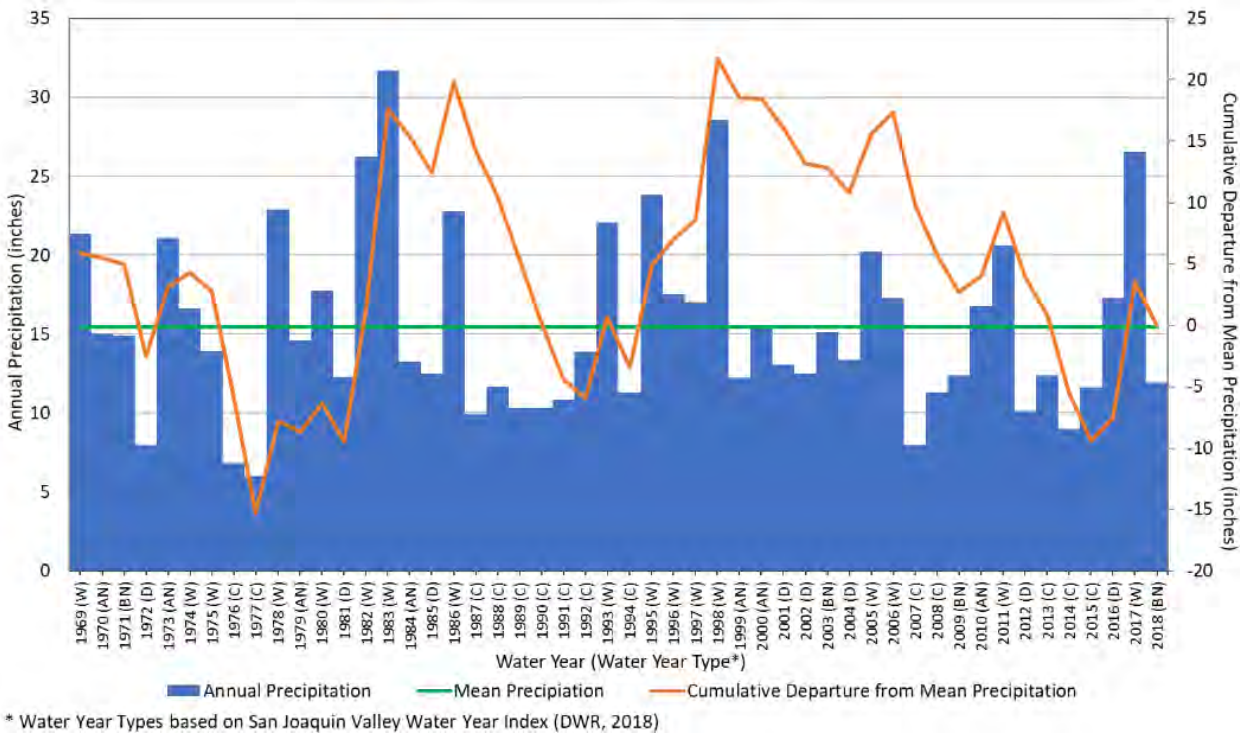


Figure 6-3: 50-Year Historical Precipitation and Cumulative Departure from Mean Precipitation for the San Joaquin Valley

Source: Eastern San Joaquin Groundwater Authority, Eastern San Joaquin Groundwater Subbasin, "Groundwater Sustainability Plan", Figure 2-77, November 2019, page 2-117.

[75] Boussioux, L., Zeng, C., Guénais, T. and D. Bertsimas (2022) "Hurricane Forecasting: A Novel Multimodal Machine Learning Framework", Weather and Forecasting, pp. 817-831, https://doi.org/10.1175/WAF-D-21-0091.1.

[76] Bojovic, D., Nicodemou, A., St.Clair, A.L. *et al.* Exploring the landscape of seasonal forecast provision by Global Producing Centres. *Climatic Change* **172,** 8 (2022), https://doi.org/10.1007/s10584-022-03350-x.

From a water resources management perspective, what this means is that, like any seasonal semi-arid region (e.g., Mediterranean climate), water operations must closely follow the seasons, but always operate several months ahead.

California water resource management must plan for the predicted climate changes ahead. For example, the Central Valley, coastal regions, and southlands regularly experience massive flooding during epic Atmospheric River events in the mid-winter rainy season, only to then increasingly ratchet back water use in the spring and summer as reservoir carryover storage continues to dwindle. In many cases, this evolves into not so much a drought reaction; but rather, simply *water mismanagement*.

But California is not water short. It has always been challenged by timely water storage and allocation; and for all intents and purposes, it does not have a precipitation problem. Water regulatory agencies at both the federal and State levels know this all too well. This issue and its implications to water resources management planning and strategies has been continually discussed in many forums across the country.[77]

Surface water storage in the Central Valley relies primarily on a series of terminal or "rim" reservoirs in the various flanking valleys of the western Sierra Nevada foothills. Many of the larger reservoirs within the State and along this "rim" make up both the federal (CVP) and State (SWP) water projects. As noted previously, New Melones Reservoir in the Stanislaus River catchment is the source water supply for SSJID and, by agreement, the City, through seasonal water releases to Tulloch, Goodwin, and Woodward reservoirs. New Melones as a primary federal facility and the 4th largest public reservoir in California is obligated under Section 7 of the federal Flood Control Act of 1944 to function under operational rule curves developed by the U.S. Army Corps of Engineers and implemented by the USBR.

Since all reservoirs have a maximum storage capacity less than the unimpaired yield of the draining watersheds above it, careful management of storage volumes/water levels is necessary to ensure that all primary functions of the facility are adequately accommodated. These include flood control, water supply, hydropower generation, instream flow releases, and recreational flows. This operational balancing act is further challenged by the fact that these reservoirs are operating in a Mediterranean, semi-arid climate where the annual rainy season is limited to four or five winter and spring months.

Figure 6-4 shows a schematic of one federal facility, Folsom Reservoir, illustrating the top of the variable seasonal rule curve and its periods of "spill" and "fill." New Melones Reservoir operates under a similar rule curve, designed specifically for its storage volume, upper catchment unimpaired runoff (e.g., basin yield), and planned reservoir operations. As we have discussed previously, terminal or "rim" reservoirs in the Sierra Nevada need to delicately balance anticipated annual/seasonal hydrology[78] since the rainy/snowmelt season only lasts for a few months.

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[77] Shibatani, R. (2013) "A Roadmap for Increasing Our Water and Hydropower Supplies: The Need for New and Expanded Multi-Purpose Surface Storage Facilities", Key Witness testimony to U.S. House Subcommittee on Water and Power, Oversight Hearing, Longworth House Office Building, D.C., October 29, 2013.

Shibatani, R. (2015) "California's Self-Imposed Drought: When Hydrology and Operations Clash", 30th California Water Law & Policy Conference, San Francisco, June 2015.

Shibatani, R. (2013) "Climate Change and Water: Ongoing Opportunities for Regulatory Discretion", 28th California Water Law & Policy Conference, San Francisco, April 2013.

[78] Patterson, N.K., Lane, B.A., Sandoval-Solis, S., Persad, G.G. and J.P. Ortiz-Partida (2022) "Projected effects of temperature and precipitation variability change on streamflow patterns using a functional flows approach", Earth's Future, https://doi.org/10.1029/2021EF002631.

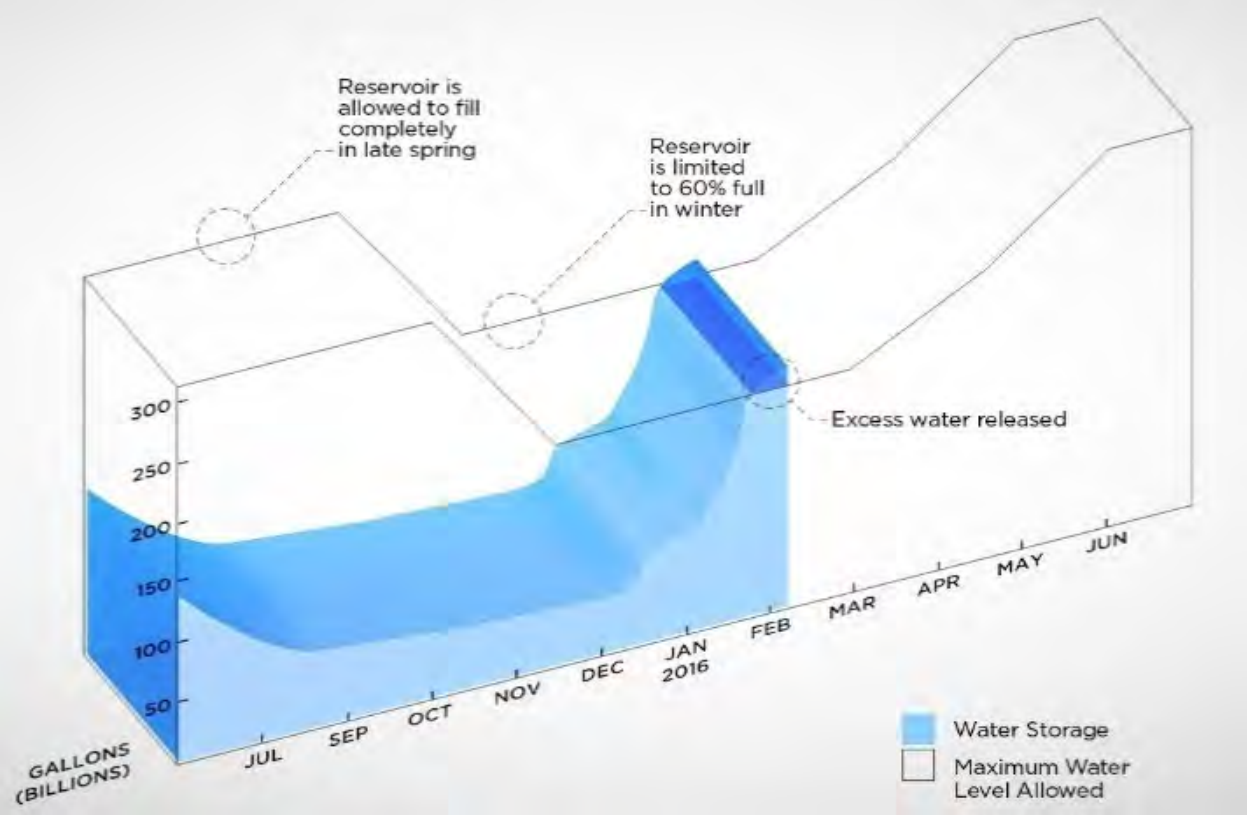

Figure 6-4: Schematic of Folsom Reservoir showing Operating Rule Curve and Seasonal Spill/Fill Thresholds

Source: U.S. Army Corps of Engineers

Under current operations, winter rainfall-runoff and spring snowmelt into Sierra Nevada reservoirs is generally held in storage except for minimum downstream flow requirements, Delta inflow and outflow requirements to meet water quality standards, and minimum flow specifications for endangered fish in federal Biological Opinions under federal endangered species legislation. If reservoir water levels rise above the operating level[79] for that time of year, the reservoir is said to be "encroached" (e.g., water levels are encroaching upon the flood reservation space or empty space reserved for that reservoir). When that occurs, reservoir operators "spill" water.

Normally, with careful operation, such spills are avoided and given California's water-sensitive environment, they are frowned upon, some considering them tantamount to water wastage. In some sense, such criticism has merit; for spilling or wasting water in winter only to then end up imposing water restrictions only a few months later is not prudent water management. While spills are not the norm, they do occur. In recent years, Folsom Reservoir spilled over 300,000 AF in one flood season, a surprising occurrence given that the quantity represented almost one-third of the entire reservoir's storage capacity and was more than the total annual water demands for a half dozen cities in the reservoir's supply-shed. In the 2021-2022 WY, we closely monitored all CVP/SWP reservoirs through the October 15 March 15 flood season. No appreciable "spills" were observed for any of the monitored reservoirs.

[79] Operating levels for CVP reservoirs are set by the U.S. Army Corps of Engineers under Section 7 requirements of the Flood Control Act of 1944 and implemented by U.S. Bureau of Reclamation operators.

Figure 6-5 below shows the WY 2015-2016 flows for the Stanislaus River. The **blue** line (natural events) are the unimpaired flows. Spring snowmelt (captured as natural flow) is retained as storage within New Melones Reservoir except for prescribed irrigation releases and salmon migration flows (**orange** line – reservoir releases to lower Stanislaus River).

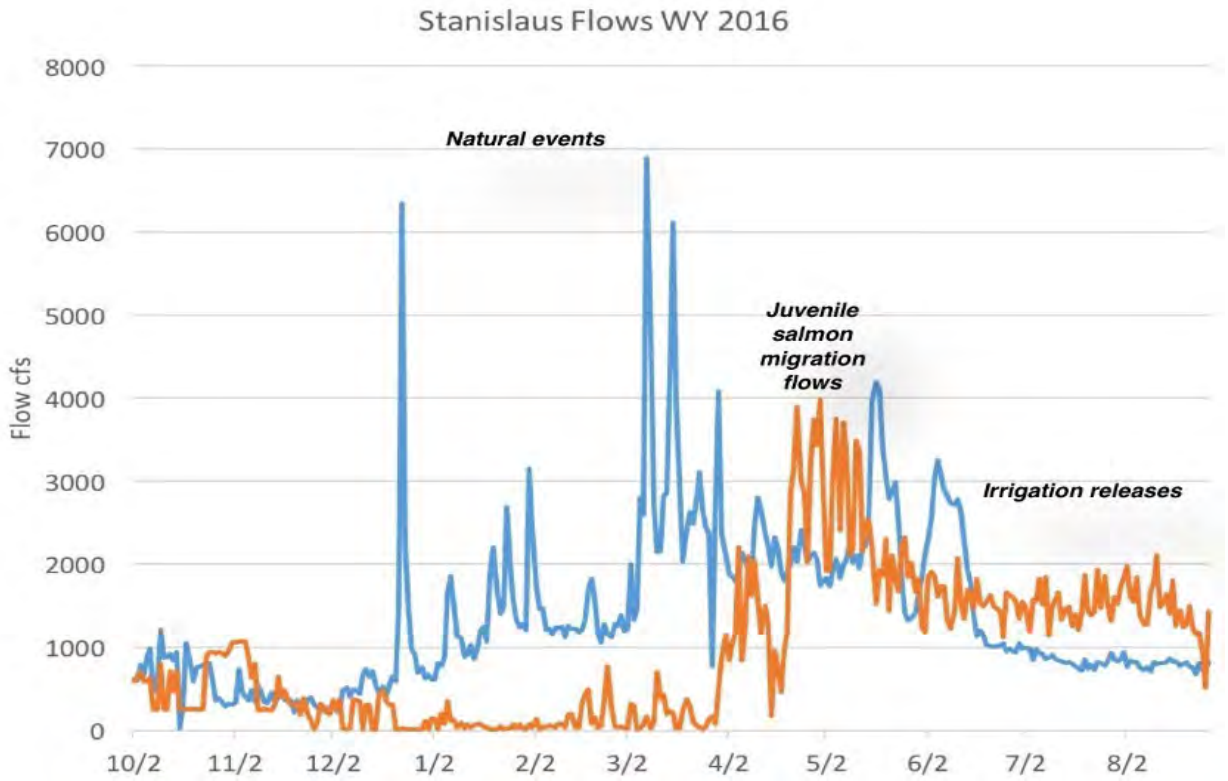

Figure 6-5: Stanislaus River Flows WY 2016 Natural Flow and Prescribed Releases
Source: DWR CDEC Unpublished Data

6.2.1 Reservoir Management

As a multi-purpose system, CVP reservoirs are intended to cater to several beneficial uses. During the flood control season, however, flood operations have top priority. This means that operators must not only consider current reservoir water levels and the forecasted rainstorms that may be approaching, but also the moisture conditions of the upper Stanislaus River watershed, the storage status of the Tri-Dam reservoirs, and the depth and SWE of the upper basin snowpack. Depending on all of that information, decisions are made to make releases from New Melones Reservoir (or not). Sometimes those decisions prove to be the right ones, sometimes they do not.

Should pre-emptive releases be made in anticipation of an approaching storm (or Atmospheric River[80] event) and the storm does not materialize, as has happened on numerous occasions, reservoir operators

[80] An Atmospheric River or AR is long, narrow, and transient corridor of strong horizontal water vapor transport that is typically associated with a low-level jet stream ahead of the cold front of an extratropical cyclone. They are 250 to 375 miles wide and can more than 1,000 miles long. Up to 50% of California's annual precipitation can come from ARs and they are known to bring enough water to a region to effectively end a prolonged drought. In 1861 for example, an AR hit central California on Christmas Eve and lasted some 43-days.

and their authorizing agencies often must endure considerable criticism for allegedly wasting valuable storage water. If, on the other hand, operators do not give such warnings due consideration, the results can be several times worse, with a breached dam.

Sometimes reservoir operators try and play a "hedging" game and wait until the very last minute to make a decision; this happens less often than it used to and because New Melones Reservoir is a major CVP facility, it is overseen and managed by the Central Valley Operations Center. Variances – allowable encroachments into a reservoir's flood reservation space during the flood season – are not taken lightly and the U.S. Army Corps of Engineers very grudgingly allows for these.

The precarious nature of reservoir storage operations, including those of New Melones Reservoir, drive the need for two continual improvements: improved hydroclimatic forecasting (meaning more advanced hydrometric instrumentation) and additional reservoir storage (whether at existing reservoirs or new site locations).

California Reservoir Volume

The answer lies in the history of the California's reservoir system and, in particular, the CVP and Tri-Dams Project. New Melones Reservoir is one of the newer federal facilities completed in 1979 even though an original New Melones pre-dated that by over half-a-century. In fact, the original New Melones was providing irrigation water to both SSJID and OID in the late 20s and 30s during the heart of the Great Depression.[81]

The original plans for all reservoirs, however, significantly pre-date their ultimate completion. The plans for the Tri-Dams Project for example were drawn up in the 1930s and took many years to complete. Donnells Reservoir wasn't completed until 1958.

It is no secret that California's entire reservoir system is outdated. They were conceived, sized, and designed with a 1920s-30s mindset. Our collective knowledge of Sierra Nevada hydrology may have been fine for that time, but the historical records were not extensive enough for proper trending and forecasting. At most, design engineers and hydrologists had 30 to 40-years of records, most of low quality, from which to properly size and design reservoirs that are now being asked to attend to challenges 100-years later.

6.2.2 Hydroclimate and Storage

Today we must face the reality of a forcibly changing hydroclimatic baseline. The hydrologic records and characterization of the Stanislaus River basin that we thought we understood and from which engineers based the design of current reservoirs; we now discover must operate under a *rapidly changing hydroclimate*. The existing facilities, particularly, the dams/reservoirs were designed based on assumptions that are now growing increasingly outdated.

One of the most challenging aspects of a rapidly shifting hydroclimate is the extent to which extremes are emerging. In fact, it's this "weather whiplash" that has become a diagnostic feature of California's weather. For example, while the State experienced extended drought period between 2012-2016 only to then be confronted by one of the wettest years on record in 2017 (e.g., accumulated precipitation in the

[81] Escalon Times, "Tri-Dams Project Delivers Water and Electricity", D. Wyatt, September 7, 2016.

northern part of the State was 200% of normal by the end of February). This transition between extremes has become an operational and planning ordeal for many San Joaquin Valley water users.

The State acknowledges that *"…when managed appropriately, floods can bring beneficial impacts, including enhanced ecosystems, increased future water supply, and improved water quality*." The problem is that at least insofar as water supply enhancement is concerned there has been little if any progress towards using storm- or floodwater as a legitimate long-term alternative water supply. This is an annually consistent, unregulated, clean and free water supply without any institutional or regulatory curtailment risks that the City can control if it so chose.

From a cost perspective, integrating flood control operations into water supply makes sense, particularly given the amount of money California has and continues to spend on strict flood control efforts. Estimates suggest that in the San Joaquin River region alone, some 540,000 Californians reside in flood prone (e.g., 500-year flood) areas, along with infrastructure and crops valued at $40 billion and $1.9 billion, respectively.[82] Combining flood control and water supply efforts would be both beneficial and cost effective.

6.3 Regulatory Impositions – Surface Water Operations

Contemporary challenges are not simply restricted to a lack of reservoir storage space. How that storage space is used, allocated, and ultimately depleted is just as important an issue. The storage pool in New Melones Reservoir is a very enticing water resource asset to the federal government and State regulators. In fact, as the third-largest federal reservoir in the CVP, at 2.42 MAF, and given its location in the San Joaquin River watershed, New Melones Reservoir is the largest facility that can provide substantive pulse flows to the San Joaquin River. Considerable attention has been focused on the Stanislaus River in this context.

It is important to note that while the City does not abut the Stanislaus River, make any direct diversions from the river, or hold entitlement to any rights on the river system, it remains reliant on surface water supplies from SSJID which is derived from the CVP Stanislaus River system; therefore, any foreseeable or realized changes to, or impingements to this water supply, for whatever regulatory reason, can and will affect the City.

Water-related projects involving the upper Stanislaus River (e.g., Tri-Dams watersheds), New Melones Reservoir, Tulloch or Goodwin reservoirs (all CVP facilities), or the downstream reaches of the Stanislaus River to the San Joaquin River, Vernalis, and Mossdale require approval from the USBR. Thus the inter-tied relationship between SSJID, OID, the City, and the USBR, must be considered in evaluating water supply sustainability.

6.3.1 Releases pertaining to Biological and Environmental Objectives

Federal endangered species legislation has not exempted any of the San Joaquin River mainstem tributaries from the many established regulatory commitments regardless of their relative annual yield contributions to the Delta. This obligation includes the hydrology of the Stanislaus River.

[82] LAO (2017) "Managing Floods in California", Figure 3, p. 8, March 22, 2017.

A multi-agency collaborative partnership was formed in 2019 to define a "vision of conservation success" (i.e., attainment of native salmonid population goals and objectives) for three of the Stanislaus River's native fish populations: fall-run Chinook salmon, spring-run Chinook salmon, and O. mykiss (both resident and migratory forms). It developed an approach called the Scientific Evaluation Process (SEP) to describe their vision of conservation success and articulate specific outcomes that are grounded in the best available science.[83]

In **Figure 6-6**, adult fall-run chinook salmon production in the Stanislaus River from 1952-2019 is shown. The 1992-2015 "fish doubling" period identified in the Anadromous Fish Restoration Program (AFRP) of the CVPIA was consistently below the AFRP target line of 22,000 adult salmon.

The Conservation Plan includes many details regarding biological objectives, migratory objectives, genetic objectives, diversity and productivity objectives, along with guidance on idealized river flow, temperature, sediment size, and dissolved oxygen objectives for various life-stages; these are not replicated here.[84]

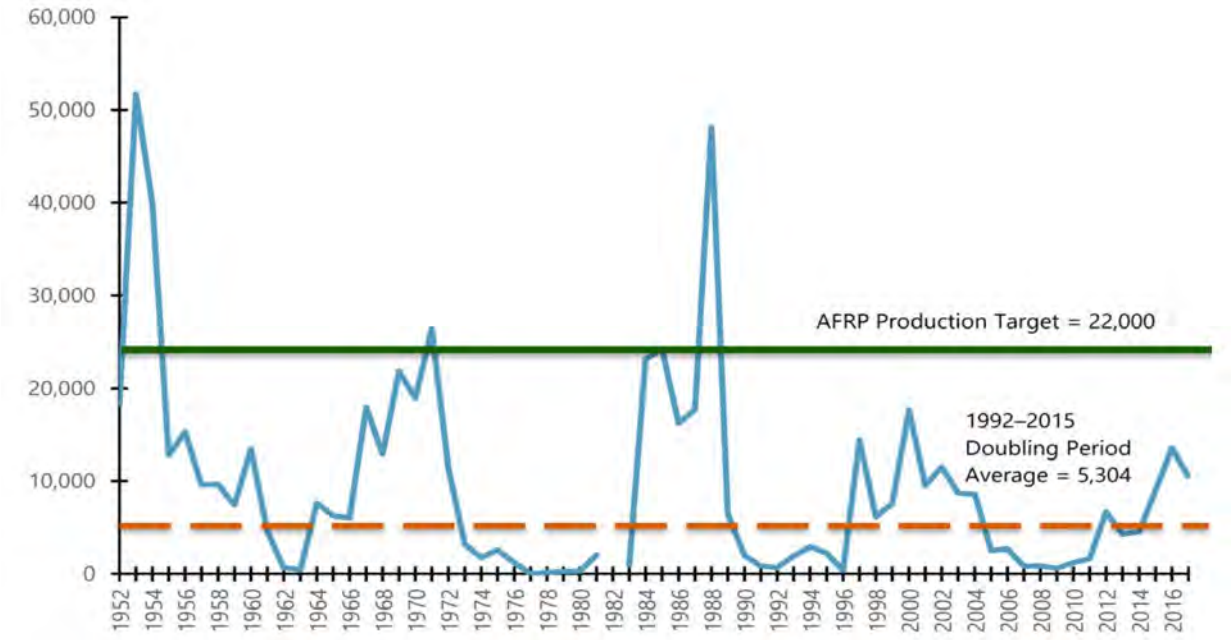

Figure 6-6: Estimated Yearly Natural Production of Adult Fall-Run Chinook Salmon in the Stanislaus River

Source: Conservation Planning Foundation for Restoring Chinook Salmon (Oncorhynchus Tshawytscha) and O. mykiss in the Stanislaus River, Anchor QEA, LLC, April 2019, page 4. Figure is modified from USFWS Chinook prod doubling goal graphs available at https://www.fws.gov/lodi/anadromous_fish_restoration/documents/Doubling_goal_graphs_063016.pdf

[83] Conservation Planning Foundation for Restoring Chinook Salmon (Oncorhynchus Tshawytscha) and O. mykiss in the Stanislaus River, Anchor QEA, LLC, April, 2019.

[84] Please see, Conservation Planning Foundation for Restoring Chinook Salmon (Oncorhynchus Tshawytscha) and O. mykiss in the Stanislaus River, Anchor QEA, LLC, page 4, April, 2019.

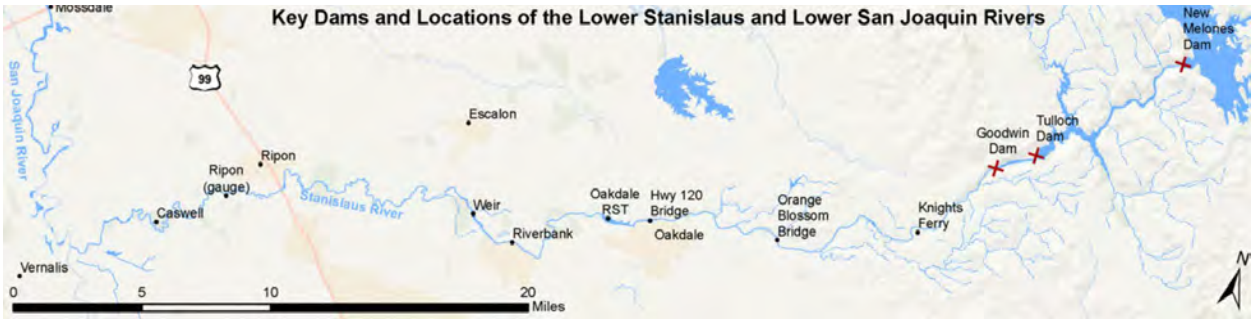

Figure 6-7: Key Dams Along the Stanislaus River
Source: Conservation Planning Foundation for Restoring Chinook Salmon (Oncorhynchus Tshawytscha) and O. mykiss in the Stanislaus River, April, 2019,Anchor QEA, LLC, page 11.

Figure 6-7 identifies the locations of key dams along the lower Stanislaus River having relevance to the various mitigation measures and fishery-actions proposed in the Conservation Plan.

Success metrics have been developed for various life stages for specific target locations along the Stanislaus River; whether it's egg survival to Caswell Dam, to Vernalis, to Chipps Island in the Delta, egg-fry survival at the Oakdale Rotary Screw Traps, or smolt out-migrant numbers from the Mossdale trawls.

The SEP Group established a logic chain for development of the Biological and Environmental Objectives for Chinook salmon and *O. mykiss* in the Stanislaus River and for identifying, ranking, and prioritizing stressors that prevent attainment of goals and objectives(see **Figure 6-8**).

The SEP Group process, while complex, is no more complicated or onerous than the federal Endangered Species Act consultative process (e.g., Biological Opinions, associated Reasonable and Prudent Alternatives and any Terms and Conditions tied to authorized Incidental Take Permits), SWRCB Bay-Delta water quality control objectives (D-1641), USBR's Long-term Operations of the CVP and SWP, their final CVP Operations Criteria and Plan (OCAP), as well as the various evolved operational plans for New Melones Reservoir.

In 2021, for example, an unseasonably dry March and lack of sufficient water supplies prohibited the districts from releasing "pulse flows" into the Stanislaus River for the benefit of outmigrating salmon, and also much needed water to downstream farms and communities in the San Joaquin Valley laboring under then increasingly onerous water short conditions. The plan would have sent up to 100,000 AF down the river.[85] Despite the SSJID and OID historic rights to water storage in New Melones Reservoir, the USBR did not allow the requested pulse flows.

[85] U.S. Bureau of Reclamation (2021), "Oakdale Irrigation District and South San Joaquin Irrigation District Reservoir Water Transfer", Draft Environmental Assessment, page 2-1 to 2-3, August 2021, California Great Basin - Interior Region 10 CGB-EA-2021-48.

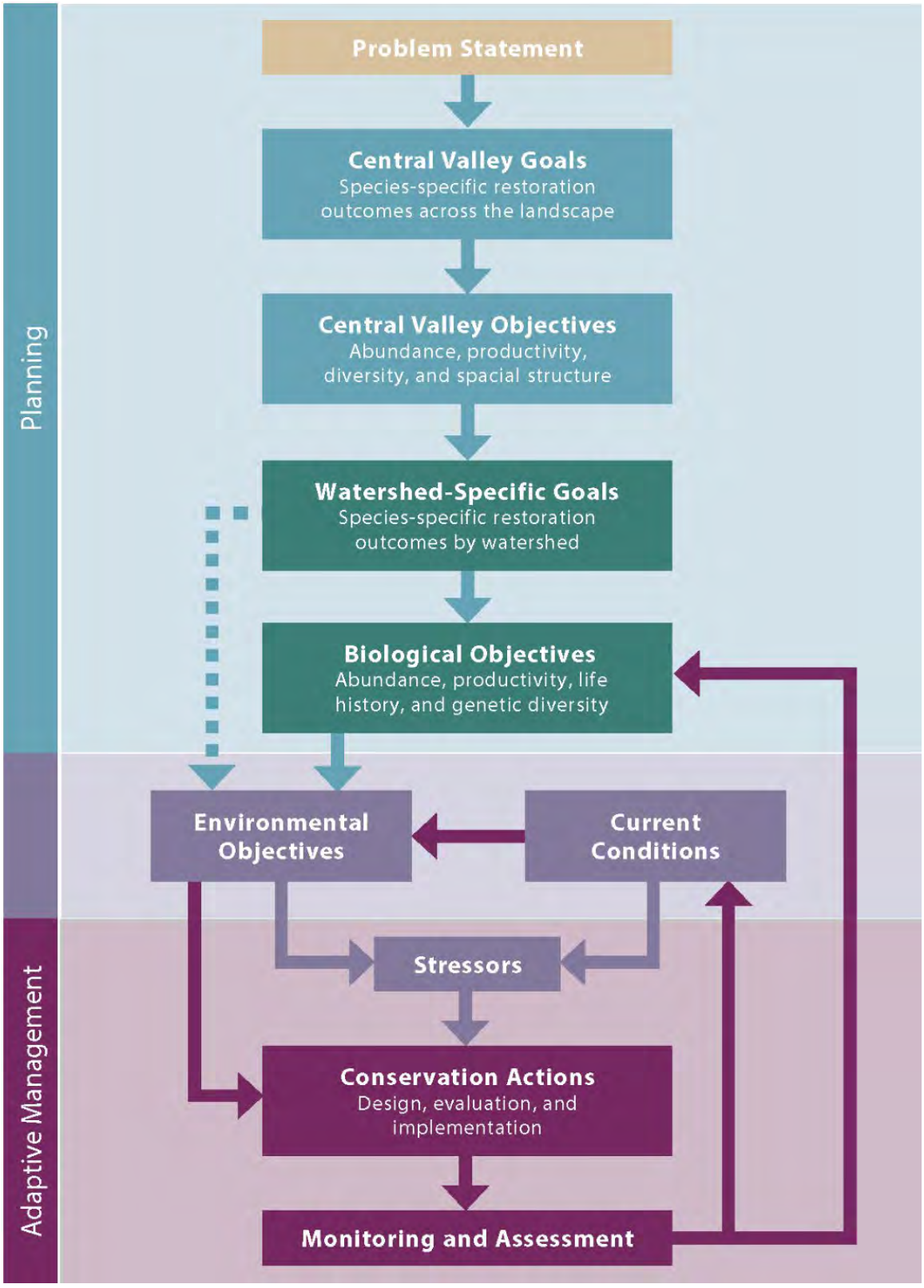

Figure 6-8: Endangered Fish Species Scientific Evaluation Process Chain for the Stanislaus River

Source: Conservation Planning Foundation for Restoring Chinook Salmon (Oncorhynchus Tshawytscha) and O. mykiss in the Stanislaus River, April 2019,Anchor QEA, LLC, page 14.

The Stanislaus Watershed Team (SWT) consists of multiple agency representatives and local stakeholders who discuss implementation of reasonable and prudent measures related to the Stanislaus River. The Team meets regularly, usually on a monthly basis, to share operational information and discuss implementation of the New Melones Stepped Release Plan. The SWT also provides input on shaping and timing of monthly or seasonal flow volumes to optimize benefits to salmon and steelhead.

This Stanislaus Stepped Release Plan (SRP) – WY 2022 Operations Plan (January 2022 Flows)[86] details the USBR's plan for operations to meet WY 2022 winter instability flow (WIF) requirements for January 2022. This Operations Plan (January 2022 Flows) incorporates feedback from the SWT who discussed a WY 2022 WIF proposal on January 19, 2022, and earlier on December 15, 2021. February 2022 WIF requirements were to be addressed in a separate Operations Plan.

6.3.2 New Melones Reservoir Operations and related Surface Water Transfers

The USBR has been revising the operating plan for New Melones Reservoir for many years. The New Melones Revised Plan of Operation (NMRPO) will replace the Interim Plan of Operations (IPO) and will redefine how New Melones Reservoir will ultimately be operated to meet regulatory commitments and demands for use of CVP water supplies from the Stanislaus River.

In addition to existing demands for CVP water supplies, ongoing and newly authorized projects and programs are underway that may change regulatory requirements of the CVP and resulting demands on New Melones Reservoir. The NMRPO process will consider actions, regulations, and decisions that may affect the operations of New Melones Reservoir, as well as incorporate the best available science with regard to water quality and fishery flow objectives.

The City needs to stay abreast of regional agency surface water transfers, particularly in water-short years like 2021 and 2022. To be sure, SSJID and OID already know of these potential threats as notable water right entitlement holders and active water wholesalers that rely on the operations of the New Melones Reservoir and Stanislaus River system, the third largest federal water storage facility in California.

The Warren Act of 1911 gives the USBR the federal "trigger" to invoke all federal laws and requirements on any water-related action involving federal facilities. This Act has prevented proposed water projects involving the use of federal facilities for many California water users along with other regulatory Acts such as the Endangered Species Act, Fish & Wildlife Coordination Act, Power Act, Flood Control Act, Reclamation Act, Clean Water Act, etc.

The most senior pre-1914 water right in the State has no legal means of circumventing the seemingly vast array of federal laws and regulations, if federal facilities are to be used by these water right holders.[87] Once a proposed action, a water transfer by third parties for example is requested, even if a proponent retains all legal rights to the water, the USBR as the federal lead agency has the authority to comply with all applicable federal legislation and thus impose all relevant environmental studies, permitting, negotiations, and regulatory compliance. These processes often take a considerable amount of time to complete and therefore can extensively delay or effectively deny proposed actions.

[86] U.S. Bureau of Reclamation (2022), "Stanislaus Stepped Release Plan – Water Year 2022 Winter Instability Flows Operations Plan (January 2022 Flows)", January 28, 2022.

[87] Usage of a federal water facility can mean storage of water (for 30-days or longer) or operational prescriptions requiring U.S. Bureau of Reclamation operators to make discretionary actions.

The reasons for focusing so extensively on the seemingly complex involvement between SSJID, OID, and the USBR is to illustrate the enormous control the federal government has on water system infrastructure whenever federal facilities (e.g., New Melones Reservoir) are involved. To the extent the City finds itself reliant, as a retail customer of SSJID on water supplies generated and managed in New Melones Reservoir, the many regulatory constraints imposed on SSJID possesses genuine relevance.

A complete discussion of the various legislative, regulatory, and policy changes that have and continue to affect the City's current and anticipated future water operations in contained in accompanying TM No. 5.

6.4 Groundwater Challenges for the City

One of the significant future water supply issues facing the City relates to groundwater due to the highly contested, yield limiting, and regulatory sensitive region where long-term aquifer declines have been chronic. This is a common issue among contemporary Valley water purveyors.

Specifically, in the future context, it may be unclear how groundwater will be affected by an uncertain and continually shifting landscape; hydrologically, regulatorily, and demographically. However, the effect of climate change is but only one of several complex issues the City must consider regarding its future water supply. And although climate change might seemingly appear removed from any groundwater concern, it is inexorably linked to groundwater. For groundwater can only be recharged (naturally or artificially) by water ultimately provided by our hydroclimate.

For most individual groundwater users in California and, specifically, in the San Joaquin Valley, whether a water agency, irrigation district, commercial agricultural conglomerate, or individual farmer, there are challenges to unifying on safe yield governance due to the complexity and the number of stakeholders involved. But it is recognized that groundwater use in the San Joaquin Valley is not going away anytime soon.

The reasons for these challenges are twofold and compelling: 1) an individual water user does not have unilateral control over an underlying aquifer and 2) the groundwater versus surface water storage principle will always favor surface water because it accumulates via gravity whereas groundwater can only accumulate under vertical hydraulic conductivity rates in zones of positive pore water pressure (at or below the piezometric surface). In other words, surface water storage for marketable extraction/abstraction is physically straightforward; all gradients are subject to atmospheric pressure and can be quickly projected. Groundwater, on the other hand, operates under piezometric pressure; therefore appropriate hydraulic gradients and potentiometric surfaces must be established before groundwater movement can be projected. And regional hydraulic gradients or potentiometric surfaces show no regard to surface topography.

According to the American Geophysical Union (AGU), under a best-case scenario where drought years are followed by consecutive wet years with above-average precipitation, there is a high probability it would take six to eight years to fully recover overdrafted water, which occurs when more groundwater is pumped out than is supplied through all sources like precipitation, irrigation and runoff. However, this best-case scenario where California has six to eight consecutive wet years is not likely because of the

state's increasingly hot and dry climate. Under a more likely, drier climate, there is less than a 20% chance of full overdraft recovery over a 20-year period following a drought.[88]

The AGU is saying that given the likely expectations of a drier climate in the immediate future, California has a less than 1 in 5 chance of achieving groundwater overdraft recovery over the 20-year period following a drought. This implies that full groundwater recovery is generally unlikely.

The following groundwater related issues have been identified by the USGS over a decade ago having specific relevance to climate change:[89]

- Recharge, discharge, and change in storage response to climate variability on interannual to multidecadal timescales and climate change from human activities in the principal aquifers of the United States.
- Identifying how much hydrologic response is caused by natural variability and how much is caused by human activities with respect to future climate change.
- Identifying potential need for time-varying groundwater management strategies, such as artificial storage and recovery efforts due to climate variability.
- Identifying whether certain principal aquifers are more or less susceptible to changes in storage caused by climate variability and change.
- Identifying whether trends in groundwater quality can be linked to climate variability and change.
- Identifying what strategic role groundwater storage will play in adapting to climate change.

Each of these issues is relevant to the City, some more so than others.

Issues related to climate change, valley-wide groundwater adjudication, and surface water-groundwater regulatory integration, are and will remain pertinent to the City for years to come. Ongoing monitoring of groundwater levels within the City's corporate boundary will continue to provide useful baseline data to further the City's involvement in SGMA.

The SGMA GSPs use groundwater level minimum thresholds, measurable objectives, and interim milestones to address groundwater sustainability indicators for representative groundwater monitoring wells. These indicators are generally acknowledged "undesirable effects" and include the following:

- Lowering groundwater levels
- Reduction of groundwater storage
- Seawater intrusion
- Degraded groundwater quality
- Land subsidence
- Depletion of connected surface water

[88] American Geophysical Union, "Groundwater in California's Central Valley may be unable to recover from past and future droughts," November 18, 2021.

[89] USGS Office of Global Change, Effects of Climate Variability and Change on Groundwater Resources of the United States, Fact Sheet 2009-3074, September 2009.

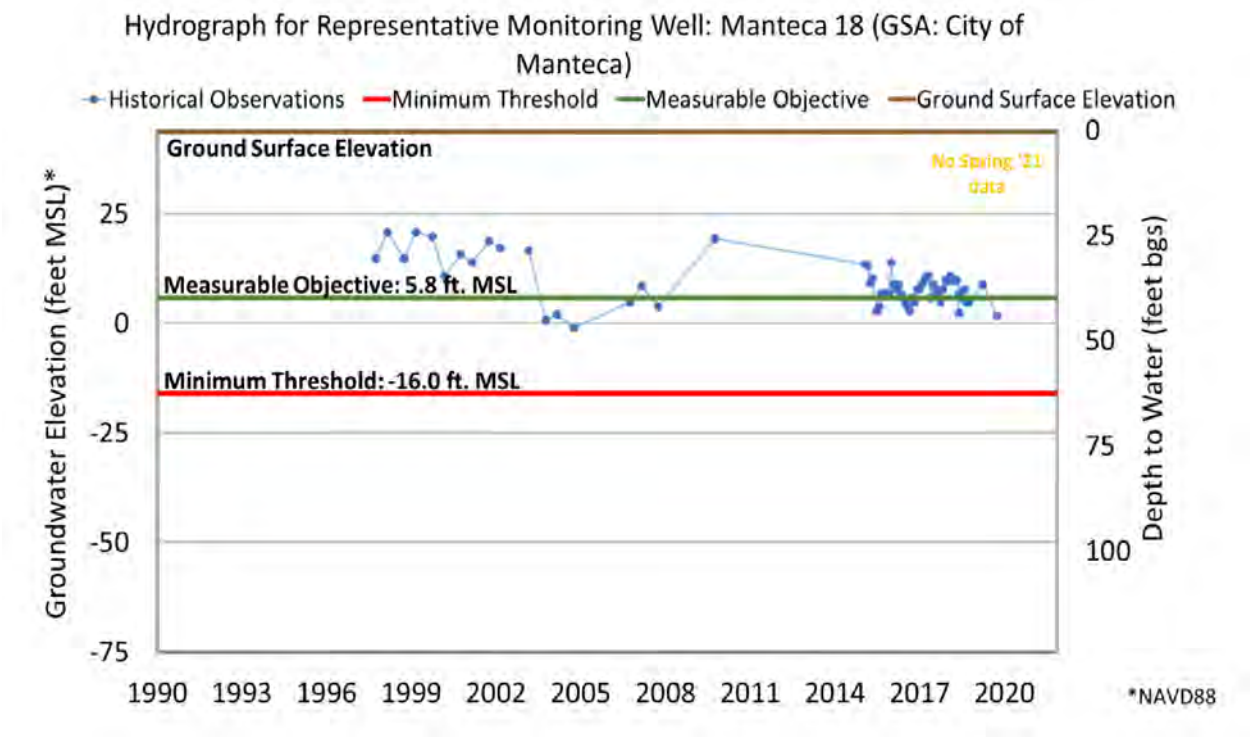

Figure 6-9: Hydrograph for Representative Monitoring Well – Manteca 18
Source: Eastern San Joaquin County Groundwater Subbasin, Water Year 2021 Annual Report, APPENDIX B – REPRESENTATIVE MONITORING NETWORK WELL HYDROGRAPHS, March 2022, page B-5.

Figure 6-9 shows the groundwater level hydrograph for the City Representative Monitoring Well (see **Figure 4-12** for location), known as "Manteca 18," from 1990 to present day.

The GSP uses groundwater level minimum thresholds, measurable objectives, and interim milestones as a proxy for the reduction in groundwater storage sustainability indicator.[90] Of the six sustainability indicators addressed in the Eastern San Joaquin Groundwater Subbasin, chronic lowering of groundwater levels is the driver for sustainable groundwater management. Measurable objectives, minimum thresholds, and interim milestones were developed for each of the identified representative wells. The method prescribed by SGMA to measure undesirable results and achieve the sustainability goal involves setting minimum thresholds and measurable objectives for a series of representative monitoring sites (e.g., "Manteca 18" as noted above). These representative sites are a subset of the monitoring network developed as part of the GSP.

A major challenge to not only the entire SGMA process but also to individual groundwater purveyor interests in the San Joaquin Valley has to do with groundwater "rights." At present, legal adjudication of all groundwater within the region is not being pursued. However, that decision by the State may need to be reconsidered to facilitate a more effective long-term groundwater solution.

[90] Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan, Water Year 2021 Annual Report, Groundwater Management Activities and Milestones, page 2-13, March 2022.

The SGMA process allows for the reliance on a "common pool" approach to non-allocated GSA groundwater yield. In other words, components of the hydrologic groundwater budget that are not used in the operational budget of a GSA are considered to be in a "common pool." Portions of the common pool account can be allocated to various entities within the basin based on a water accounting framework. Such frameworks are to be developed in a collaborative manner.

The common pool account includes those resources that may be shared across the larger region such as stream/river seepage, boundary inflow and outflow (from the foothills, neighboring subbasins, and/or the Delta). The common pool account also includes a portion of the carriage recharge that cannot be entirely claimed by actions taken by a GSA.

Common Pool Example. The concept of "common pool" groundwater resources is gaining interest in several jurisdictions. In semi-arid northeastern rural Brazil,[91] for example, water managers are seeking alternative means of governing a rapidly declining resource. The challenge is almost always the same regardless of locale; first, getting groundwater users to first realize that there is a problem (e.g., declining water tables); second, to acknowledge that rampant, uncontrolled, and unregulated abstractions (withdrawals) will have cumulative irreparable adverse impacts; and third, that short of any rigorous regulatory solution, a community understanding and willingness to commit to a local governance scheme based on trust and a common goal may represent the only workable and mutually advantageous solution.

The old farmer/rancher mindset of having the highest horsepower pump to simply out-pump your neighbor may becoming less and less popular. Some hydrogeologists of the past would refer to this as the "*battle of the cones.*"[92]

In the Brazilian example, the common pool scheme is intended to increase the perceived likelihood of collective well management and individual water conservation. Their initial findings have shown that such features (e.g., stakeholder engagement, social sanctions for overuse, rules and penalties, program payments, and the monitoring and dissemination of conditions to users) can serve as compliments or substitutes for rules.

Groundwater trading, in whatever form ultimately evolves in future years, could ease the economic disruption of probable pumping curtailments for individual groundwater users; growers who have less need for pumping could sell their allocation to others willing to pay for it, helping buyers keep their operations functional while compensating sellers.

6.5 Additional Considerations

As water supply comes under threat, water quality and land subsidence also become points of concern as described below.

[91] Copperman, A., McLarty, A.R. and B. Seim (2022) "Drivers of successful common-pool resource management: A conjoint experiment on groundwater management in Brazil" Global Environmental Change, https://doi.org/10.1016/j.gloenvcha.2022.102512Get rights and content.

[92]The 'battle of the cones" was a groundwater pumping fight between adjacent landowners where each would try and install a higher horsepower wellhead pump to create a larger localized drawdown zone or "cone of depression". The idea being that the flow path of subsurface water follows the potentiometric surface and will flow to the low point (i.e., the point of lowest elevational head or highest negative pressure head).

6.5.1 Water Quality

As a water purveyor, the City is required to comply with the Safe Drinking Water Act (SDWA). The SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water.

Compliance with groundwater quality standards is increasingly more challenging for water purveyors, particularly in the Central Valley, for two primary reasons: 1) As a result of continually declining water levels, poor quality water has been steadily migrating east along a 16-mile front on the east side of the Delta[93] and 2) The implementation of more stringent water quality requirements associated with new data and improved technology.

The City provides treatment for naturally occurring constituents that have been long known to cause adverse health effects, specifically arsenic[94], as well constituents that have emerged in more recent years due to contamination of the water supply aquifers, specifically 1,2,3,-Trichloropropane (1,2,3 - TCP). The City has spent, and continues to spend, millions of dollars on advanced treatment technologies to ensure that the City's drinking water supply is safe for the community.

Continued degradation of local drinking water aquifers and the regulation of new constituents that are threatening to impair water quality will continue to increase the cost to water purveyors to provide safe drinking water throughout the Central Valley, potentially reducing the availability of groundwater.

6.5.2 Land Subsidence

While there has not been a land subsidence study undertaken locally, there's been a plethora of evidence generated over the decades, some with dramatic photographs showing the extent to which land surfaces across the San Joaquin Valley have demonstrated subsidence, which occurs when groundwater levels decline and the land is compacted where water is displaced. Since the 1920s, excessive pumping of groundwater at thousands of wells has caused land to subside, or sink, by as much as 8.5 meters (28 feet) in some sections of the valley.[95] If groundwater levels continue to decrease, subsidence will continue to occur. As there is no data for the City directly, the regional data is presented below to understand the range of subsidence levels that are possibly occurring within the City.

Historical Regional Data. By 1970, land subsidence had occurred more than one foot across half of the San Joaquin Valley, or about 5,200 square miles, and locally, some areas had subsided by as much as 28 feet. Reduced surface-water availability during 1976-77, 1986-92, 2007-09, and 2012-2015 caused groundwater pumping to rise across the San Joaquin Valley, thus exacerbating declines in groundwater levels to near or beyond historic lows, and renewed aquifer compaction.[96] The resulting land subsidence

[93] California Department of Water Resources, (1967) "San Joaquin County Groundwater Investigation – Bulletin 146."

[94] The SWRCB hosts the Drinking Water Watch web portal to allow the public to view public water systems (PWS) location, facilities, sources, and samples. The data on the web portal is sourced from US EPA database Safe Drinking Water Information System (SDWIS) as well as the drinking water quality results submitted by laboratories. https://sdwis.waterboards.ca.gov/PDWW/

[95] NASA Earth Observatory, "San Joaquin Valley is Still Sinking", May 7, 2015 - September 10, 2016.

[96] Faunt, C.C., Sneed, M., Traum, J. *et al.* (2016) "Water availability and land subsidence in the Central Valley, California, USA" *Hydrogeol J* **24,** 675–684 (2016). https://doi.org/10.1007/s10040-015-1339-x.

has reduced the freeboard and flow capacity of the Delta-Mendota Canal as well as the California Aqueduct and other canals that convey floodwater and deliver irrigation water, thus requiring expensive repairs.[97] Studies on land subsidence, particularly with the ongoing work of SGMA, have continued.

Earlier this year for example, DWR released new satellite-based data that, together with its intensified statewide subsidence monitoring efforts showed that land subsidence continues and that the San Joaquin Valley experienced the most subsidence in WY 2021, with a maximum of 1.1 feet of subsidence observed in the region.

Data show that in WY 2021, land subsidence greater than 0.5 feet per year expanded to more areas than was observed in WY 2020. However, fewer areas experienced higher rates of subsidence than at the end of the last drought in 2016.

Available Data Sources. Although there has not been a subsidence study at the City scale, there is information available on a larger subbasin scale. The subsidence data can be found on the CNRA Open Data website[98] and DWR's California's Groundwater Live.[99] For additional information about DWR's available data and tools, visit the Data and Tools website.[100]

While our understanding of the recent subsidence has been hindered by the absence of a comprehensive monitoring network, water managers now have available geodetic data from Interferometric Synthetic Aperture Radar (InSAR) satellites. InSAR has been applied to create maps displaying subsidence in the San Joaquin Valley during several time windows between 2002 and present day; the resulting images of the sinking of land in the Valley are a compelling reminder of the urgent need for sustainable groundwater management.[101]

However, InSAR observations have two significant limitations: 1) they provide measurements of total subsidence but contain no direct information about the specific depth intervals over which compaction is occurring and 2) they provide no detailed information about subsidence outside of the relatively short periods for which high-quality data are available, which are the 2007-10 and 2015-present time periods.[102]

The first limitation is particularly important given the multi-layered aquifer system of the San Joaquin Valley. At most locations, it is comprised of an upper and lower aquifer separated by the regional confining unit known as the Corcoran Clay.[103] While extensometer data have shown that compaction primarily occurs in the lower aquifer, the extensometer network was abandoned in the 1980s and there are almost no extensometers active in the areas affected by recent subsidence. As a result, we have no direct monitoring of the depth at which compaction occurs, which is a key consideration in understanding the controlling mechanisms of land subsidence.[104]

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[97] USGS, "Land Subsidence in the San Joaquin Valley", October 17, 2018.

[98] https://data.cnra.ca.gov/dataset?q=InSAR

[99] https://sgma.water.ca.gov/CalGWLive/

[100] https://water.ca.gov/Programs/Groundwater-Management/Data-and-Tools

[101] Lees, M., Knight, R. and R. Smith (2022) "Development and Application of a 1D Compaction Model to Understand 65 Years of Subsidence in the San Joaquin Valley" Water Resources Research, https://doi.org/10.1029/2021WR031390.

[102] Ibid, 79

[103] Corcoran Clay represents a unique departure from the continental alluvial fan deposition of the Quaternary of the San Joaquin Valley. It is a massive, silty clay, highly diatomaceous, 50-120 feet thick, generally 200-800 feet beneath the surface, extending over an area greater than 4,000 square miles in the San Joaquin Valley.

[104] Ibid, 79

The second limitation has reduced our ability to assess the long-term features in the subsidence record and determine how groundwater extraction in the past has contributed to recent subsidence. Predictive modeling of decades to centuries of so-called deferred subsidence, which is subsidence that occurs due to past, but not current, groundwater extraction can only reveal so much. Several recent InSAR-based studies, however, have described *deferred subsidence* as lasting for only one-to-two years after the 2007-10 and 2012-15 droughts.[105]

This discrepancy likely stems from the short monitoring period provided by the InSAR satellites rather than a change in the nature of the compaction. A powerful approach to address these gaps in monitoring and understanding is to use physical models to simulate the subsurface compaction which causes the subsidence.

Conceptual Modeling. The aquitard-drainage conceptual model remains the current best theoretical description of how groundwater pumping triggers compaction and therefore subsidence. It describes how water pumped from the parts of the aquifer system dominated by coarse-grained materials (sand and gravel) causes a drop in the hydraulic head and corresponding increase in grain-to-grain stresses in those parts of the aquifer system. These increased stresses only cause limited compaction due to the low compressibility of sand and gravel. Over time, however, the hydraulic head drop spreads into adjacent clay interbeds and aquitards, triggering large compaction rates in those highly compressible parts of the aquifer system. This compaction is responsible for the majority of observed subsidence. The timescale over which a head drop propagates from the sands and gravels into a clay layer is related to the clay's hydraulic properties and thickness and is typically large. This is the cause of *deferred subsidence.*[106]

There occur temporary pauses in groundwater decline and even short-lived reversals, as happened after the heavy winter precipitation of 2017,[107] but groundwater decline and recovery is not a uniformly reversible process that reacts identically in the opposite direction. The relationship is hysteretic, controlled by the volumetric void space change between wet and drying substrate materials.

6.6 Realities of Future Droughts

Water scarcity is a growing problem in California and water leaders are working to develop long lasting effective solutions. Key amongst these solutions is the identification and development of diversified, interconnected, flexible, and resilient water supply portfolios.

In June 2022, California State officials imposed sweeping water curtailments stretching from Fresno to the Oregon state line, as cities and growers in the Sacramento-San Joaquin Delta watershed were ordered to stop pumping from rivers and streams along the San Joaquin River. The cutbacks, announced on June 8th by the SWRCB affected 4,571 water rights in the Sacramento-San Joaquin Delta watershed, more the 2,000 water right holders including 212 public water systems, that supply drinking water, among them San Francisco, as well as a list of large agricultural irrigation districts and hundreds of individual farmers.

[105] Ibid, 79

[106] Ibid, 79

[107] Murray, K.D and R.B. Lohman (2018) "Short-lived pause in Central California subsidence after heavy winter precipitation of 2017", Science Advances, 4(8) DOI: 10.1126/sciadv.aar8144.

A primary focus of the State is the San Joaquin River and its tributaries, where officials imposed significant cuts throughout the remainder of summer 2022. Water board staff called the cutbacks "unprecedented," although similar curtailments were imposed in the watershed in August 2021, much later in the year.

These kinds of restrictions and cutbacks have happened before, but under increasingly adverse climatic conditions, it is expected that such curtailments and other constraints will only increase in the future.

Existing water resources and system environmental research has identified the likelihood of critical transitions, also known as "tipping points," during which a system shifts from one state to another, induced by small perturbations.[108] As these systems approach a critical threshold, they slow down in a phenomenon also known as "critical slow down." Such systems can span the range of environmental resources: water or hydrological systems, forest and landscape systems, flora and faunal systems, climatic systems, geomorphological and topographical systems, etc.

Given the acknowledged concern over impending droughts in California, federal and State agencies have prioritized future actions.[109] These include the need to:

- Clarify how much water is available for recharge;
- Facilitate approvals for trading and banking projects; and,
- Modernize infrastructure operations.

And many local agencies have done the same by:

- Supporting solutions to the safe drinking water crisis;
- Mitigating dry wells;
- Coordinating water quality and quantity management; and,
- Implementing new technologies to manage pollutants, especially for dairies.

As noted recently in the State's 4th Climate Change Assessment, surface water curtailments during lengthy periods of drought (e.g., 2012-2016) put enormous and unsustainable pressure on groundwater reserves. Over 80% of the San Joaquin Valley water supplies were provided by groundwater during the 2012-2016 drought, which was a strain on regional aquifers including the Eastern San Joaquin Groundwater Subbasin. The Assessment also noted that within three decades, the San Joaquin Valley's annual average

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[108] Scheffer, M., Bascompte, J., Brock, W. A., Brovkin, V., Carpenter, S. R., and Dakos, V.: Early-warning signals for critical transitions, Nature, 461, 53–59, https://doi.org/10.1038/nature08227, 2009.

Lenton, T. M.: Environmental tipping points, Annu. Rev. Environ. Resour., 38, 1–29, https://doi.org/10.1146/annurev-environ-102511-084654, 2013.

Litt, B., Esteller, R., Echauz, J., D'Alessandro, M., Shor, R., Henry, T., Pennell, P., Epstein, C., Bakay, R., Dichter, M., and Vachtsevanos, G.: Epileptic seizures may begin hours in advance of clinical onset: a report of five patients, Neuron, 30, 51–64, https://doi.org/10.1016/S0896-6273(01)00262-8, 2001.

Van Nes, E. H. and Scheffer, M.: Slow recovery from perturbations as a generic indicator of a nearby catastrophic shift, Am. Nat., 169, 738–747, https://doi.org/10.1086/516845, 2007.

Venegas, J. G., Winkler, T., Musch, G., Melo, M. F. V., Layfield, D., Tgavalekos, N., Fischman, A. J., Callahan, R. J., Bellani, G., and Harris, R. S.: Self-organized patchiness in asthma as a prelude to catastrophic shifts, Nature, 434, 777–782, https://doi.org/10.1038/nature03490, 2005.

[109] PPIC (2019) "Water and the Future of the San Joaquin Valley."

temperature could increase by 4 degrees, worsening water quality and health hazards in many of the impoverished communities of the Valley agricultural heartland.

It is noted that these issues disproportionally affecting minority and disadvantaged communities who will continue to rely exclusively on domestic wells. Moving forward, the State must make concerted efforts to address the disparity that rural disadvantaged communities experience and emphasize the need for environmental equity and social justice policies.[110]

Drought vulnerability is certainly not a new topic for the San Joaquin Valley.[111] To best prepare for the inevitable drought-laden future, water utilities, irrigation districts, and other organizations will need to cooperate across scales to finance, build, and operate new shared water supply infrastructure.

Long-term viability of conveyance and groundwater banking investments are strongly shaped by partnership design choices (i.e., which water providers are participating, and how is the project's debt being distributed) and by extreme hydrologic conditions (i.e., floods and droughts).[112]

For the City, the overall question of how it wishes to ultimately proportion its allocation between surface and groundwater is still an open issue; particularly given this current year. It has previously stated that it desires a 53 to 47% split, between surface and groundwater, respectively. To the extent that the City's surface water supplies (less current and planned future recycled water) are wholly dependent on an independent party holding water rights hydraulically connected to the Bay-Delta, any curtailment of Delta-related water rights whether by State or federal agencies will significantly affect the City.

As brief background, California, through the SWRCB, maintains control over the water resources of the Sacramento-San Joaquin River Delta. It has a legal obligation to protect sensitive Bay-Delta water assets including water quality, endangered species, riparian habitats, and exports. Specifically, compliance with Bay-Delta water quality control objectives (D-1641), State Endangered Species Act, cooperative agreements with federal agencies on matters of federal/State water operations, Bay-Delta Endangered Species recovery, etc. is mandatory.

One such example of the State's obligation is Conditional Term 91 (Term 91), which has been included in permits and licenses, granted after 1965, for diversion and use of water in the Delta watershed. Term 91 requires that those holding such permits and licenses cease diverting water when the SWRCB's Division of Water Rights gives notice that water is not available for use under those permits and licenses. They were originally intended to curtail junior water rights holders and thus were applicable only on water rights made after 1965; SSJID's pre-1914 water rights would seemingly be exempt.

However, The SWRCB regulates by instituting curtailments to avoid "unbalanced" conditions. The Delta is referred to as in "balanced condition" when the Projects are being operated to meet water quality and flow requirements in the Delta. When the Delta is in such conditions, additional withdrawals from the upper catchments will result in "unbalanced" water quality conditions in the Delta.

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[110] California Natural Resources Agency (2021) "San Joaquin Valley Region Report", California's Fourth Climate Change Assessment, page 27.

[111] Greene, C. (n.d.) "Dams, Fish, and a Modern Dust Bowl: Narratives of Drought Vulnerability and Adaptation in California's San Joaquin Valley", CLIMAS Fellowship Final Report.

[112] Hamilton, A.L., Zeff, H.B., Characklis, G.W. and P.M. Reed (2022) "Resilient California water portfolios require infrastructure investment partnerships that are viable for all partners" Earth's Future, https://doi.org/10.1029/2021EF002573.

Term 91 Curtailment Notices

Year	Advance Notice	Curtailment Notice	Lifting Notice	Extension Notice
2022	5/25/22	06/03/22	12/07/22	
2021		04/29/21	10/26/21	
2020	05/15/20	06/05/20	12/24/20 09/28/20	10/09/20
2018	05/18/18	06/01/18	11/30/18 10/23/18	11/16/18
2017		No Curtailment		
2016	05/10/16	06/02/16	10/14/16	
2015	02/13/15	10/02/15	12/15/15	
2014	02/03/14	11/26/14		
		05/13/14		
		02/11/14		01/08/14
2013	04/17/13	10/24/13		11/15/13
		05/01/13	05/30/13	08/27/13
2012	05/10/12	07/24/12		

Table 6-2: Term 91 Curtailment Notices in the Delta Watershed
Source: SWRCB Term 91 Curtailment Information, Updated 12/07/22

In the last two years there were curtailments because of drought conditions as shown in **Table 6-2**, and it is likely that both drought and curtailments will happen in the future.

In 2022, the SWRCB expanded its requirements for curtailment status and updated its original notice determinations. The weekly SWRCB curtailment status update on May 24, 2022 went so far as to state:

> *"The following water rights are curtailed, effective May 25, 2022… A subset of three post-1914 appropriative water rights associated with the Central Valley Project in the San Joaquin River watershed, specifically the Upper San Joaquin River and Stanislaus River subwatersheds."* [Emphasis added]

The SWRCB has the authority to apply a wide range of increasing curtailments depending on how it determines the hydrologic condition of the State and the manner with which it foresees the remainder of the WY unfolding. When Term 91 is declared, it is a challenge to water right holder operations. The curtailments are based on real-time hydrology of the Bay-Delta and as such can have varying and dynamic periods of enforcement. In critically dry years, Term 91 can be imposed for lengthy periods of time, such as in 1992, when it was in effect from mid-May through mid-November. Typically, Term 91 curtailments are lifted once the wet season starts, normally during the winter months. As shown in **Table 6-2,** there was a curtailment issued on June 3, 2022. In winter of 2022-2023, the Delta was determined to be in Balanced Condition and the SWRCB issued a notice of lifting of curtailments of Term 91 water rights on December 7th, 2022.

For the City and SSJID, neither possess control over how or whether surface water diversion curtailments will be imposed in any given WY. For long-term water supply planning and sustainability efforts, this uncertainty becomes extremely challenging as conditions under a continually shifting climate mean that even with assumed legal assurances today, there is no guarantee for the future.

As shown in **Table 6-3** below, various CVP maximum contract quantities approved for allocation have varied over the past 10-years across all contract types. There is variability in allocations between contractor type, geographic location relative to the Delta, and year-to-year. What is demonstrated in **Table 6-3** is the extent to which M&I water service contracts (originally and typically the firmest of all federal water contracts) have been subject to significant reductions over the past 10 years. Look at the 6th row from the bottom (e.g., M&I CVP contractors South-of-Delta). Note how water allocations have ranged between 100% (full delivery) and 25%, a potential variation of 75% in any given year.

Originally, as discussed previously, federal CVP M&I water service contracts were limited to a maximum curtailment of 25% from full contract delivery. Over the years, however, particularly in the past 25 years, we have seen the gradual, but irretrievable decline in M&I deliveries. By contrast, agricultural deliveries were always more aggressively curtailed than M&I users; in fact, now they are regularly seeing reductions of 0% delivery.

Table 6-3 is intended to illustrate the high degree of allocation variability that exists even within one category of administrative water user. It is acknowledged that the City does not use a federal CVP M&I water supply, however, it is informative for the City to realize what is happening to the overall water supply allocation process for other water users in the San Joaquin Valley.

If M&I water service contractors must face contemporary swings of as much as a 75% delivery variation in any one year, other users may experience that variation as well. For example, a city that relies on a 20,000 AFY annual federal M&I water contract would be compelled to recalculate its firm yield for this entitlement to 5,000 AFY. Depending on the city's other water entitlements, such an assumed recalculation poses challenges to long-term water supply planning.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
North-of-Delta Users											
Agricultural	100%	75%	0%	0%	100%	100%	100%	100%	50%	0%	0%
M&I	100%	100%	50%	25%	100%	100%	100%	100%	75%	25%	25%
Settlement Contractors	100%	100%	75%	75%	100%	100%	100%	100%	100%	75%	75%
Refuges (Level 2)	100%	100%	75%	75%	100%	100%	100%	100%	100%	75%	75%
American River M&I	100%	75%	50%	25%	100%	100%	100%	100%	75%	75%	25%
In Delta- Contra Costa	100%	75%	50%	25%	100%	100%	100%	100%	75%	75%	25%
South-of-Delta Users											
Agricultural	40%	20%	0%	0%	5%	100%	50%	75%	20%	0%	0%
M&I	75%	70%	50%	25%	55%	100%	75%	100%	70%	25%	25%
Exchange Contractors	100%	100%	65%	75%	100%	100%	100%	100%	100%	75%	75%
Refuges (Level 2)	100%	100%	65%	75%	100%	100%	100%	100%	100%	75%	75%
Eastside Division	100%	100%	55%	0%	0%	100%	100%	100%	100%	100%	TBA
Friant Class 1	50%	62%	0%	0%	65%	100%	88%	100%	65%	20%	15%
Friant Class 2	0%	0%	0%	0%	13%	100%	9%	[a]	0%	0%	0%

Table 6-3: CVP Contractor Water Allocations by WY, 2012-2022 (Percentage of Maximum Contract Allocation Made Available)

Source: Congressional Research Service, Central Valley Project: Issues and Legislation, Updated March 8, 2022.

7 RECOMMENDATIONS FOR THE CITY

Given current hydroclimatic uncertainties together with the uncertain and precarious nature of the existing physical, regulatory, and institutional status of the City's other water supply sources, the City's long-term water supply is at risk. The following provide a series of recommendations based on findings and discussions contained in the preceding sections of this TM. Each of these recommendations are accompanied by a brief description that highlights their salient point(s). They are based on the overall objective of this "Water Sustainability Study," the purpose of which was intended to examine the long-term reliability of the City's various water supply sources and delivery allocations and develop a water supply strategy that diversifies and strengthens the City's water supply and delivery reliability so that long-term water resource sustainability can be secured.

1 Use industry acknowledged shortage provisions

When forecasting future water supply versus demand projections, assume a worst-case delivery scenario for available water supplies.

2 Use climate-sensitized future hydrology projections

An uncertain future hydroclimate is and will continue to impart ambiguity and insecurity on both surface and groundwater supplies relied upon by the City. Its effects are broad ranging, from reduced surface water yield in the upper Stanislaus River basin to increased depletions from the Eastern San Joaquin Groundwater Subbasin groundwater reserves.

3 For planning purposes, assume maximum regulatory curtailments to SSJID's Pre-1914 Water Rights

Last year's Term 91 imposition is one of many already existing regulatory impositions used by regulators (in this case, the State) to curtail surface water diversions from Delta watershed water right entitlement holders. The degree to which these types of restrictions are amplified or made more frequent in the future is uncertain, but it is guaranteed that it won't become laxer.

4 Assume SWRCB will impose maximum curtailments in the interests of Delta assets during droughts

The SWRCB can simply claim severe/critical drought conditions and their authority over water use can be extensive. This fact, perhaps above all others, encourages development of an independent water supply.

5 Explore whether there are supply enhancement opportunities with SSJID, OID, or others

Identify if the City can renegotiate its existing SSJID Water Supply Agreement in terms of the Phase II allocations from the SCWSP and secure additional supply commitments.

6 Develop storm- and/or floodwater capture and retention program

Initiate an extensive storm- and/or floodwater capture and retention exploratory development plan. Make stormwater the third water supply source of the City. The City should explore developing its own supply source(s); one that is unencumbered by outside control – and stormwater represents just such a supply.

7 Develop an integrated MAR, recycled water, and stormwater program

Using recycled water, storm- and/or floodwater as a primary supply source for future City MAR programs.

APPENDIX D

City of Manteca
Water Master Plan
TM #5 Regulations Potentially Affecting City Water Operations

2023

Regulations Potentially Affecting City Water Operations

CITY OF MANTECA

THE SHIBATANI GROUP, INC. IN COLLABORATION WITH

HYDROSCIENCE ENGINEERS, INC.

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1.0 INTRODUCTION

Integrated with Technical Memorandum (TM) No. 4 ("Water Sustainability Study"), this TM No. 5 ("Regulations Potentially Affecting City Water Operations") is intended to help define the regulatory constraints and related risks associated with maintaining current and projected future City of Manteca (City) water supplies and meeting contractual delivery obligations between the City and its suppliers. Many elements of the regulatory framework have been discussed previously in TM No. 4 where several salient regulatory constraints imposed on the City's water supplies were outlined. While the City is aware of its compliance obligations and the effects of existing regulations through its day-to-day operational practices, this TM is intended to address water planning and the potential effects of existing regulations and anticipated future regulations on their water assets and operations. The primary objectives of this TM are to:

- Identify existing and anticipated new regulatory and legislative restrictions (and/or constraints) that can be expected from federal, State, and local government regulators;
- Describe how those restrictions will individually or collectively affect the City; and
- Identify which restrictions potentially represent the greatest impact to the City's current and future water supplies.

City water operations in the context of this TM encapsulate its water entitlements (e.g., supplies), infrastructure (e.g., owned and shared facilities), and legal contractual obligations to any federal/State and local agencies and third parties. This includes all those assets and obligations currently in existence and considered applicable as well as those anticipated in the future.

With intensifying hydroclimatic conditions occurring across California and expected to continue, State water officials are acknowledging the uncertainty with which such conditions could remain. This extended state of progressively hotter and drier weather is of particular concern as most water utilities attempt to prepare for these conditions and how they will affect their water supply portfolios. As conditions worsen and become more extreme, the implications to all water purveyors including the City could be significant. This includes potential effects to both surface and groundwaters as recently iterated by State water leaders insofar as State groundwater resources are concerned. Both the California Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) have emphasized the importance of sustainable groundwater management to ensure resilience during periods of drought.

Whether regulated by the U.S. Bureau of Reclamation (USBR), SWRCB, DWR, or any of the other federal and/or State agencies having jurisdictional control over some aspect of California water resources, water resources management throughout the State of California is changing from the way these agencies have traditionally implemented regulatory oversight over the past decades. This is because the rapidly shifting climate is imparting unprecedented stresses on the State's water resources and infrastructure causing our regulatory agencies to impose restrictions in an ever more stringent manner. Examples of these stresses include megadrought conditions that, until recently, plagued storage reservoirs, natural rivers, lakes, and groundwater resources at near generational levels (e.g., Lake Mead, Lake Powell, Colorado River, Sacramento River, San Joaquin River, etc.). As a result, California is facing a changing regulatory environment greater than what many water agencies have grown accustomed to.

On March 28, 2022, Governor Newsom signed Executive Order (E.O.) N-7-22, included as **Appendix A**, in response to proclaimed states of emergency resulting from developing extreme and expanding drought conditions. At that time, California was entering its third consecutive year of dry conditions.

New Melones Reservoir, the Golden State's fourth-largest capacity reservoir, was storing less than 27% of capacity in mid-August 2022 — its lowest level in five years[1] — due to the unprecedented drought conditions as described by officials at the USBR. Federal authorities closed the lower boat ramp at Tuttletown Recreation Area in Tuolumne County in early August because of the lowering water levels. As of August 27, 2022, storage in New Melones was 650,000 acre-feet (AF) – approximately 51% of the reservoir's 15-year average. On this same date in 2021, storage was 918,000 AF illustrating the highly variable nature of reservoir carryover from year to year.

As discussed in TM No. 4, New Melones Reservoir, along with the other federal appurtenances represented by Tulloch Reservoir, Goodwin Diversion Dam, and Woodward Reservoir, are all part of Stanislaus River hydrology and rely on New Melones Reservoir carryover-based outflow. The City's water supply interests are appreciably tied to the hydrologic resiliency of the Stanislaus River and, specifically, the USBR operations at New Melones.

Aside from hydrology and direct water resource-related implications occurring throughout California, the Sierra Nevada, and the San Joaquin River Valley, industry-wide trends in what this recent drought has instigated are noteworthy for water managers. For one, illegal water withdrawals were on the rise; an example of this was a group of farmers and ranchers known as the Shasta Water Association near the Oregon state line were issued a cease-and-desist order by the SWRCB to stop diverting water from the Shasta River watershed, an area already wracked by extreme drought and a wildfire that killed tens of thousands of fish.[2]

The effect of the drought economically meant that California water prices were at an all-time high as a severe drought limited supplies to cities and farms across the State. The price of water on the Nasdaq Veles California Water Index touched $1,144.14/AF on June 27, 2022 — up 56% since the start of the year. The index tracks the average price of water-rights transactions in five markets in the State. In some pockets of California, water was even more costly — hovering around $2,000/AF in the Westlands region. Comprising more than 1,000 square miles of farmland in Central Valley, Westlands Water District is the largest agricultural water district in the U.S.[3] Like many other stakeholders across the State, the City can expect the cost of water and infrastructure to continue to increase over time, translating to higher rates for its customers.

[1] Union Democrat, "New Melones Reservoir dips to lowest level in 5 years, federal officials cite 'unprecedented drought'," August 1, 2022.

[2] The State Water Board takes enforcement action against Shasta River Water Association for illegal diversions, Statement issued by the State Water Resources Control Board, August 24, 2022.

[3] Bloomberg, U.S. Edition, "Worsening Drought Drives California Water Prices to All-Time High", August 2, 2022.

2.0 BACKGROUND

All California water purveyors, as defined under the Water Code, are subject to the various regulatory requirements applicable at all levels of government. This obligation extends to the City's water supply assets including water, sewer, and recycled water infrastructure.

Regulatory impacts to Central Valley water purveyors have always been a concern for regional and local water users of the mainstem rivers, tributaries, sloughs, interconnecting waterways, and groundwater resources of the region. These impacts are physical hydrometeorological constraints, as well as institutional laws and regulations.

Such constraints on instream flows may affect a host of beneficial uses including preservation of habitat for listed anadromous fish,[4] Delta water quality objectives, hydropower, water supply deliveries, and other authorized beneficial needs. State and federal regulators have control over the water resources legally entitled to municipalities, irrigators, corporate and family farms, local businesses, and other stakeholders, and thus, this has become an issue made more pressing by recent climatic progressions in concert with regulatory restrictions.

The current challenge with regulatory oversight of the water industry is how to contend with the growing uncertainty of diminishing water yield across their jurisdictions. Caught in the middle are water purveyors that are struggling to balance the water supply needs with limitations imposed by regulation.

As discussed in TM No. 4, the City's current and long-term water supply security and sustainability centers around two primary issues:

1. Curtailments to its purchased pre-1914 water rights allocation from the South San Joaquin Irrigation District (SSJID) as part of the two-Phase South County Water Supply Project (SCWSP); and
2. Any long-term constraints placed on the City's anticipated pumping quantities from the Eastern San Joaquin Groundwater Subbasin.

The City's third water supply, recycled water, while largely[5] unencumbered by State or federal oversight in terms of production curtailments compared to the City's surface water and groundwater supplies, is nevertheless thoroughly governed by regulation.

For conservative planning purposes, it is assumed that future groundwater pumping will continue to decline for several reasons. First, as the City's surface water supplies from SSJID transition into Phase II, it is anticipated that less groundwater may be necessary. Second, it is prudent to assume that groundwater levels may continue to decline. Third, due to the current "overdrafted" status of this Eastern San Joaquin Groundwater Subbasin, it is unlikely that graduated increases in pumping beyond the sustainable yield will be permitted by the ongoing Sustainable Groundwater Management Act (SGMA) process, which is discussed further in **Section 3.3**. Lastly, it is the mission of the City as a member

[4] Anadromous: (of a fish such as the salmon) migrating up rivers from the sea to spawn.

[5] Recycled water is guided by the State of California's Water Quality Control Policy for Recycled Water consistent with the provisions of Water Code section 13050(n).

groundwater agency (GWA) to the Easter San Joaquin Groundwater Authority, to implement projects that will continue to offset the use and impacts of groundwater pumping.

Two new water storage projects have advanced in the San Joaquin Valley.[6] These U.S. Army Corps of Engineers projects demonstrate the interest of both federal and State agencies in opportunities for water supply enhancement projects in the Central Valley and their priority. These projects also demonstrate that dams and improved appurtenances at existing dams are feasible.

The State recognizes the constraints placed on both surface and groundwater supplies as demonstrated by its increasing interest in stormwater capture and application on agricultural lands, which was also recently encouraged by the Governor in his Water Supply Strategy, August 2022.[7] Ultimately, the City has also recognized the value of stormwater capture and is evaluating opportunities to incorporate it into their water supply portfolio.

The concept of winter stormwater diversion is gaining traction in the San Joaquin Valley and is the premise of a current study DWR is launching in the Stanislaus River basin in concert with SSJID and Oakdale Irrigation District (OID). The objective is to take advantage of the permanent cropland acreage which includes orchards and vineyards to encourage groundwater recharge. The study will look at the hydrology and explore the potential for diverting runoff. Both irrigation districts have conveyance systems in place that move water from the Stanislaus River and thus can move excess storm runoff diverted from the river and direct it to orchards and vineyards most suitable for recharging groundwater. Part of SSJIDs storm conveyance system traverses the City, which may present an opportunity for the City to also utilize runoff within the City boundary.

Unlike building off-stream reservoirs to divert excess storm runoff for later use, groundwater recharging reduces the loss of water to evaporation. It also "stores" water in the location where it is needed. Not only could it represent a new opportunity to secure groundwater stability, but it could conceivably help restore groundwater back toward previous levels; a process that could enhance overall water supply reliability during periods of drought.

To better assist Californians in staying attuned to water conditions across the State and promote conservation, DWR has launched a new website, California Water Watch,[8] that provides easily accessible information on current local and statewide water conditions – down to their own region and even neighborhood. California Water Watch also includes precipitation forecast maps and links to other forecasting products, all from one web page. Regular hydroclimate summaries developed by California State Climatologist are posted to the California Water Watch website. These summaries describe what current water conditions look like in California and their impacts on the water supply reservoirs and groundwater wells across the State. The City may consider sharing this information with their customer base to maintain general awareness around regional and local water supply conditions and to encourage continued implementation of conservation measures.

[6] SJV Water, "Central Valley's two major dam projects moving forward," July 27, 2022.

[7] California Natural Resources Agency (2022) "CALIFORNIA'S WATER SUPPLY STRATEGY Adapting to a Hotter, Drier Future," August, 2022.

[8] For more information, or to access the California Water Watch website today, visit: https://cww.water.ca.gov. For information about other DWR and State drought response efforts and funding programs, visit: drought.ca.gov/.

One of the more notable and recognized issues is the diminishing snowpack related to increasing temperatures. The western reliance on the snowpack can have potential consequences to some of the largest and most populous cities in the west including San Francisco, San Jose, Los Angeles, Las Vegas, Phoenix, and Salt Lake City. Among these cities at risk of being impacted by climate change and dwindling snowpack, central and southern California cities are most vulnerable to extended heat waves.

To mitigate the effects of climate change and protect the Sacramento-San Joaquin Delta from natural disaster, DWR is proposing the Delta Conveyance Project. The intent is to improve the infrastructure within the Delta to reliably move water as part of the State Water Project (SWP). There is both support and opposition to the project with leaders and politicians working to protect the interests of their constituents. The project is wholly designed as an infrastructure project and is not purported to affect existing water rights. Thus, there would be no direct impact to the City except to manage and divert floodwaters from the San Joaquin River during heavy rainfall and high flows.

The State and its water supply challenges with respect to climate change are being recognized nationally and efforts to address outdated and inadequate water infrastructure, obsolete federal and State water project operational parameters, and a water rights system that has not been adjusted to accommodate 21st century water needs are beginning to be addressed as part of the Bipartisan Infrastructure Law and the Inflation Reduction Act. The Inflation Reduction Act is expected to include $4 billion for water management and conservation efforts across the west.

3.0 STATE OF CALIFORNIA REGULATIONS AND IMPLICATIONS TO THE CITY

This section addresses implications of State regulations, policy, and legislative actions that will or have the potential to impact the City in terms of water supply, water use, and water quality.

3.1 "California's Water Supply Strategy – Adapting to a Hotter, Drier Future"

For planning purposes, it is recommended that the City, along with other water utilities, irrigation districts, and county water agencies consider a minimum of 10% reduction by 2040 in raw water supplies in their Raw Water Master Plans, Urban Water Management Plans, and long-term water supply planning calculations. These decreases are now anticipated statewide and documented by the Executive Office of the State.

In August 2022, Governor Newsom reiterated his vision for California's future water supply strategy considering current and ongoing climatic threats. The Governor released a plan titled "California's Water Supply Strategy – Adapting to a Hotter, Drier Future." The strategy includes capturing and storing more water, recycling more wastewater, and desalinating seawater and salty groundwater. The objective is to prepare the State for an estimated 10% decrease in California's water supply by 2040 due to higher temperatures and decreased runoff. The plan focuses on accelerating infrastructure projects, boosting conservation and upgrading the State's water system to keep up with the increasing pace of climate change.

The Governor noted that the strategy capitalizes on existing resources, including expanding storage to capture more water that would otherwise flow out to sea during large storms. The strategy calls for expanding the capacities of 120 reservoirs throughout the State. Additionally, it acknowledges the importance of underground water storage and the need to replenish depleted groundwater supplies,

particularly in the San Joaquin Valley, where groundwater pumping has resulted in widespread land subsidence. The strategy also calls for eliminating water waste in urban areas and modernizing water management and forecasting plans, including reforming water rights.

In summary, the Governor's water supply strategy[9] calls for:

1. Creating up to 4 million AF of above- or below-ground storage to capitalize on storm events when they occur to store water for dry periods;
2. Recycling up to 800,000 AF of wastewater per year;
3. Saving 500,000 AF of water per year through conservation practices; and
4. Capturing more stormwater and desalinating seawater and salty ground water.

While all strategies are relevant to the City, the first and fourth strategies relating to storm water capture and storage relate specifically to TM Nos. 4 and 5 and opportunities to capitalize on an untapped resource.

This plan goes beyond State Urban Water Management Planning as required by DWR, which is designed to prompt water utilities to consider these issues and their effect on the available water supply and to plan for both short-term and long-term water emergencies. The City is actively working to plan for and address system deficiencies and assure an available water supply thru the development of the Water Master Plan, continued involvement with SGMA, and compliance with the UWMP requirements.

3.2 Groundwater Regulation and Sustainable Groundwater Management Act

In 2016, the City of Manteca became a Groundwater Sustainability Agency (GSA), and in 2017, the City along with 15 other GSAs, formed the Eastern San Joaquin Groundwater Authority. Their mission was to ensure initial and ongoing SGMA compliance within the basin. Its purpose is to:

- Provide coordination among its 17 GSA members;
- Carry out SGMA purposes in a cooperative manner;
- Develop, adopt, and implement a legally sufficient Groundwater Sustainability Plan (GSP) that covers portions of the subbasin within the jurisdictional boundaries; and
- Satisfy SGMA's requirements for coordination among the GSAs.

The City's continued participation as a GSA and implementation of proposed projects will contribute to the long term sustainability of the groundwater basin.

The State is in a delicate position since it cannot openly institute statewide broad, all-encompassing groundwater adjudication. The passage of SGMA almost ten years ago was a way for the State to maneuver its way around full groundwater adjudication and provide a framework at the local level for managing and ultimately reversing the effects of extensive groundwater pumping on the State's aquifers, where adjudication would otherwise be the most effective means of accomplishing this. Adjudication is

[9] California Natural Resources Agency (2022) "CALIFORNIA'S WATER SUPPLY STRATEGY Adapting to a Hotter, Drier Future," August, 2022.

an issue that has been passionately opposed by agricultural interests and homestead dwellers for decades across the Central Valley.

As noted in TM No. 4, the SGMA aimed to ensure that all water being pulled out of the ground would be replaced and set a date of 2040 to return California's water basins to this "natural balance" (i.e. recharge greater than or equal to groundwater pumping). However, the groundwater act did not limit the construction of new groundwater wells going in. Recent research by the Community Alliance with Family Farmers, Clean Water Action, CivicWell, and others revealed that while water scarcity threatens agriculture more generally, the impact is far greater for small and underrepresented farmers. In times of drought, it's the shallow wells that come up dry first. Deepening a private well is not a feasible solution when costs can start at $60,000 and rapidly increase. During the drought, many private community wells went dry as new wells came online. According to the San Joaquin County Office of Emergency Services,[10] residents affected by drought might qualify for emergency bottled water, a water tank, a well assessment, and water quality testing.

The State of California Drought Executive Order N-7-22 (see **Appendix A**) issued on March 28, 2022, is meant to protect Californians who rely on groundwater for their water supply. This order requires local well-drilling permits to align with GSPs under SGMA before being approved. Local groundwater agencies now must review each permit and determine how a new well would affect nearby wells and the GSP for that basin.

Under the Executive Order, Action 9, local well permitting agencies must take the following steps during the well permitting process for wells intending to extract groundwater:

1. Consultation with the GSA – If the proposed well would be in a high or medium priority groundwater basin, the well permitting agency must consult with the GSA and receive written verification from the GSA that the proposed well location is generally consistent (not inconsistent) with the applicable GSP and will not decrease the likelihood of achieving the sustainability goals that the GSAs have developed under SGMA. [Emphasis added]
2. Permit Evaluation – For every well permit application, the local well permitting agency must determine before issuing a well permit that extraction of groundwater from the proposed well is not likely to interfere with the production and functioning of existing nearby wells and is not likely to cause subsidence that would adversely impact or damage nearby infrastructure. [Emphasis added]

The wording has left aspects of the Executive Order open to interpretation and flexibility in compliance. First, there can be a wide range of potential obligations imposed on regulated parties such as the City. For example, the stipulation that any new groundwater well permittee demonstrate that its new facility will not "*decrease the likelihood*" of achieving established sustainability goals means that some assessment or comparison of likely effects against a future groundwater baseline must occur. And that means a critical evaluation of the baseline conditions and anticipated groundwater withdrawal effects. Second, without State issued guidance and definitional thresholds of terms such as "*not likely,*" "*generally consistent,*" and "*production and functioning,*" there is no guaranteed consistency applied across California's aquifers, particularly in the San Joaquin Valley where numerous GSAs operate.

[10] https://sjready.org/

While the Executive Order is only a temporary solution, there is, however, a permanent solution to provide more specific guidance and protect the water California's families need: Assembly Bill (AB) 2201.[11]

3.2.1 Assembly Bill 2201

The passing of AB 2201 will require San Joaquin County to forward groundwater well permit applications within the City's jurisdiction for the City to review for conformity with the GSP. Assembly member Steve Bennett (D-Ventura) introduced AB 2201, the Community Drinking Water Protection Act, to ensure that new wells can be permitted only after proof is provided that they will not harm drinking water or otherwise obstruct sustainable groundwater management. AB 2201 passed the State Senate on August 30, 2022.

With the passing of AB 2201, GSAs, such as the City, are required to confirm that all well-drilling permit applications align with the GSP for their respective basin. Applicants for permits must provide a report demonstrating that their wells will not harm communities before they are approved. Permits for new wells are determined by county governments, which, until passing AB 2201, were not required to consider groundwater sustainability when granting them. This is why more than 6,200 new agricultural wells have been drilled throughout California since 2014, the year SGMA became law. This law requires a county to forward permit requests to the appropriate GSA before permit approval for the construction of new groundwater wells, the enlarging of existing groundwater wells, and the reactivation of abandoned groundwater wells. The law also allows communities to learn about proposed wells more easily through required public postings, and residents could influence permitting decisions during the 30-day public posting period.

In May of 2022, a draft white paper[12] was issued by the California Water Commission outlining the State's continued progress towards institutionalizing and strengthening groundwater trading provisions. The Commission's white paper proposes that the State take an iterative, multi-pronged approach to enabling and incentivizing well-managed groundwater trading where local entities and users decide to adopt it. Suggested next steps for State engagement start with the development of a workplan for implementation of Action 3.6 of the Water Resilience Portfolio,[13] Governor Newsom's blueprint for California's water policy, followed by convening stakeholders to share information and to support vulnerable users and GSAs, of which the City is a member. Other near-term proposed next steps include creating digital resources and cataloging available trading information, developing best management practices, and incentivizing well-managed groundwater trading.

[11] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2201

[12] California Water Commission, "A State Role in Supporting Groundwater Trading with Safeguards for Vulnerable Users: Findings and Next Steps," Draft White Paper, May 2022.

https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2022/01_January/January2022_Item_10_Attach_1_DraftWhitePaper_Final.pdf

[13] California Water Resilience Portfolio 2020 Action 3.6: *"Create flexibility for groundwater sustainability agencies to trade water within basins by enabling and incentivizing transactional approaches, including groundwater markets, with rules that safeguard natural resources, small- and medium-size farms, and water supply and quality for disadvantaged communities."*

3.3 Bay Delta-Related Curtailments

In 2022, the Stanislaus River system was affected by curtailments imposed by the State with numerous water right entitlement holders facing unprecedented curtailments. SSJID, the City's primary surface water retail water purveyor was curtailed of their 1921 priority appropriative right (A002524). Curtailments to SSJID have direct effects on the City's water supply. Any curtailments imposed upon SSJID are propagated down, directly affecting water retailers, including the City. In order to manage the water supply during periods of drought, the City has in place a water shortage contingency plan designed to address various levels of shortage. This allows the City to prioritize water needs and engage the community in water conservation.

Other local water purveyors also suffered during the protracted drought – PG&E's various appropriative water rights with priority dates spanning from 1851-1909 were curtailed as well as the OID for several of their appropriative water rights with priority dates of 1913, 1922, and 1927. Other water purveyors reliant on Stanislaus River water included both the Calaveras County Water District and the City of Ripon with 1949 water right priority dates that were curtailed last year. For status of curtailments and lists of active curtailed water right holders, see: https://www.waterboards.ca.gov/drought/delta/curtailment-compliance-and-responses.html.

In recent water years (WYs), the curtailments imposed by the State on water right holders have increased dramatically. Altogether, there are 6,600 right holders in the Sacramento-San Joaquin Delta. In August 2021, following the emergency curtailment regulation adopted by the SWRCB on August 3 in response to acute water shortages, the SWRCB issued curtailment orders to approximately 4,500 right holders to protect drinking water supplies, prevent salinity intrusion and minimize impacts to fisheries and the environment.

Without enforcement of unauthorized water diversions in the Bay-Delta, the drinking water supply for 25 million Californians and irrigation for over three million acres of farmland was at risk. During the most severe periods of drought, the Division of Water Rights emphasized the importance of compliance to assure a fair and equitable approach to curtailments, acknowledging that it has an impact on livelihoods and economies.[14]

The number of right holders that are directed to cease all diversions may be adjusted from year to year and season to season as water supply in the Bay-Delta fluctuates and weather conditions change. For instance, the SWRCB projected that about 1,500 fewer right holders needed to be curtailed in September 2022 due to increased water supply in the Sacramento River watershed from annual rice field drainage. Curtailments give the SWRCB the tools needed to prevent diverters from taking water when water levels are low. The SWRCB requires right holders to confirm their compliance with curtailment orders or to indicate if they will seek an exemption for any of the reasons allowed under the regulation, such as supplying water for human health and safety needs. Those diverting more than 5,000 AFY must provide additional information about their previous diversions and projected use to improve the SWRCB's supply and demand forecasting.

The SWRCB meets regularly to discuss significant environmental impacts, reasonable alternatives, and mitigation measures to implement lower San Joaquin River flows and southern Delta salinity objectives in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta Plan).

[14] Statement by Erik Ekdahl, Deputy Director of the Division of Water Rights, August 20, 2021.

SWRCB curtailments or Bay-Delta issues more broadly affect many Central Valley water suppliers and their water supply interests, even those utilities that are not directly diverting from the Delta. The Bay-Delta has far-reaching effects having to do with the fact that the Bay-Delta (also referred to as the Sacramento-San Joaquin Delta) system is fully integrated, both physically (e.g., hydrologically) and legally (e.g., regulatorily and institutionally).

Physically, the hydrology of the Bay-Delta watershed is defined by the Sacramento and San Joaquin rivers representing the two opposite flowing mainstem rivers with tributaries that flank the eastern slopes of the coastal ranges and the western slopes of the Sierra Nevada providing inflow to the mainstem rivers. The Bay-Delta is the focal point, sometimes referred colloquially as the Central Valley water "switchyard" given its function to "export" water. The headwaters of the remotest catchment tributary to the Bay-Delta are sometimes considered Bay-Delta jurisdiction. If the headwaters are hydrologically connected to the Bay-Delta, then it is subject to any, and all, SWRCB actions pertaining to Bay-Delta health.

SWRCB's legal authority to manage the Bay-Delta and impose restrictions on water rights is established by the Public Trust Doctrine. The Public Trust Doctrine is based on the principle that certain resources (such as navigable waters) are too valuable to be privately owned and must remain available for public use. In *National Audubon Society v. Superior Court*,[15] the court held that the Public Trust Doctrine restricts the amount of water that can be withdrawn from navigable waterways. Here, the California Supreme Court had clarified the applicability of the Public Trust Doctrine to California water rights. The public trust protects non-consumptive instream uses such as navigation, fishing, recreation, ecology, and aesthetics adding; the State, as the public trustee, retains supervisory control over the State's waters and has the power to reconsider its past allocation decisions in light of current knowledge.

The second relevant precedent-setting case was *United States v. State Water Resources Control Board* (1986) 182 Cal.App.3d 82, commonly referred to as the "Racanelli Decision" (Racanelli). This case confirmed the SWRCB's authority to condition and amend the water rights permits of the CVP and SWP, and it is significant for its clear statement that the Public Trust Doctrine applies in water rights proceedings and permits the SWRCB to impose conditions on existing appropriative permits for the protection of fish and wildlife.

One of the noteworthy findings from Racanelli was that the Court held that the Public Trust Doctrine, as enunciated in *National Audubon Society*, permits the SWRCB to reconsider past water allocation decisions and amend any water rights if necessary to protect fish and wildlife. This effectively opens the door to curtailments.

Accordingly, the SWRCB's first task in any public trust context is to identify the trust resources at issue and determine the water needed to preserve those trust uses for the benefit of the people of the State into the future. The SWRCB's second step is to turn to the question of whether it is "feasible" to provide the water resources necessary to protect the trust values at issue, or whether accepting harm to those resources rises to the level of "practical necessity." The SWRCB clearly acknowledges its obligation in dealing with public trust issues to first isolate the water needs of the rivers, estuary, instream fisheries, and water quality at issue. For the Bay-Delta, these needs are well known and documented.

[15] National Audubon Society v. Superior Court (Supreme Court of California, 1983, 33 Cal.3d 419) was a key case in California highlighting the conflict between the public trust doctrine and appropriative water rights.

For any water user within the defined Bay-Delta watershed, therefore, the SWRCB regulates the hydrologic balance within the sensitive Bay-Delta aquatic environs and thus, will impose restrictions across the broader watershed; they have established legal precedent to do so.

Pursuant to numerous SWRCB decisions (e.g., D-1485, D-1641, Order 2001-05), the City's reliance on surface water supplies from SSJID and thus, the CVP directly (e.g., through the operation of New Melones Reservoir) and SWP indirectly (e.g., through the integrated facilities and operations of the joint federal/State water systems) is affected by SWRCB decisions.

3.4 Monitoring State Water Right Petitions

An important monitoring priority for water utilities diverting from the larger Bay-Delta watershed involves the water right permit actions of others. As discussed earlier, the Bay-Delta, as a collective river system, is dependent on the cumulative hydrology of the basin. If Bay-Delta inflows are reduced, then the demands placed on others to meet existing Bay-Delta water quality thresholds becomes that much more important. As such, water purveyors typically monitor the water right petition activities of other water utilities. It is recommended that either the City, SSJID, or OID monitor all SWRCB water right petitions and, where appropriate, file notice or reserve the right to protest. Even if an actual protest does not materialize, it is always prudent to preserve that right to protest if necessary.

On December 23, 2020, El Dorado Irrigation District filed a petition for extension of time for water right Permit 21112 (Application 5645B) with the SWRCB, Division of Water Rights. Permit 21112 and the change requested with the petition requests that a combined maximum diversion of 32,931 AFY be diverted to storage at Silver Lake, Caples Lake, and Lake Aloha, in the Sierra Nevada within El Dorado County with a maximum storage of: 1) 6,000 AFY at Silver Lake; 2) 21,581 AFY at Caples Lake; and 3) 5,350 AFY at Lake Aloha.

There are two primary concerns that are pertinent to the City and other water rights holders within the Bay-Delta:

- First is the issue of whether the original water right permit was based on accurate hydrology. At the time the water rights were granted, any analysis conducted by the SWRCB did not likely include a thorough climate-sensitized hydrologic analysis under a variety of potential future scenarios that would have captured the more recent hydrology and conditions that have been experienced in recent years. In other words, it is unknown if the hydrological effects originally identified when this water right was granted are still applicable or accurate.
- Second, if these water rights permits are not reassessed based on recent hydrological conditions and are allowed to be exercised, it makes the year-to-year water allocations to other water right holders (e.g., SSJID) increasingly prone to cutbacks since Bay-Delta yield is diminished.

While simple renewal of an already existing water right permit might seem a moot point to the casual observer, this is an example that has the potential to trigger adverse hydrologic effects to the affected watersheds and inadvertently affect other water rights holders.

3.5 State Bay-Delta and Water Quality Flow Objectives

The SWRCB is responsible for adopting and updating the Bay-Delta Plan which establishes water quality control measures and flow requirements needed to provide reasonable protection of beneficial uses in the watershed. The new flow objectives under the Bay-Delta Plan will affect the future reliability of water supplies, significantly reducing the volume of water available for diversion by SSJID and OID in dry and critically dry years and reducing the water supply available to growers.[16] Impacts to SSJID diversions will directly impact the City.

On December 12, 2018, the SWRCB adopted an update to the Bay-Delta Plan which established Lower San Joaquin River flow objectives and revised southern Delta salinity objectives. These initial amendments to the Plan ("Phase 1") apply to three tributaries to the San Joaquin River: the Merced, Tuolumne, and Stanislaus Rivers. The new flow objectives for the tributary rivers would require the release of 40% of the unimpaired flows from February 1 through June 30 for anadromous fish and salinity control in the Delta.

Currently, the San Joaquin River is operated by the USBR per the requirements of the 2019 Biological Opinion, developed in consultation with U.S. Fish and Wildlife Service. The impacts of Phase 1 of the Bay-Delta Plan on SSJID and OID and its growers could be significant in some years. Water available for diversion for farmland irrigation may see impacts in dry and critically dry years, with little to no impacts in wetter years.

In adopting the amendments to the Bay-Delta Plan, the SWRCB has agreed to support efforts by the California Natural Resources Agency to negotiate a Delta watershed-wide settlement agreement. On the Stanislaus River, the Voluntary Settlement Agreement (VSA) process would grant some relief from the unimpaired flow requirements of the Bay-Delta Plan by offsetting that flow requirement through implementation of non-flow measures by SSJID, OID, and others. Throughout 2019 and 2020, SSJID and OID staff were in discussions with various State agencies regarding alternative measures that could be incorporated into a VSA.

3.6 Water Use

Late in 2021, DWR and the SWRCB submitted a report to the Legislature recommending that urban water suppliers achieve an indoor water use efficiency standard of 55 gallons per capita per day (gpcd) by 2023, declining to 47 gpcd by 2025, and 42 gpcd by 2030 and beyond. If adopted by the Legislature, the standards recommended by DWR and the SWRCB would be implemented at the water supplier level and would not apply to individual customers. Thus, the City would be responsible for achieving compliance with these standards.

To estimate and achieve the indoor water use standards, the City will need to calculate their urban water use objective (UWUO), assess whether actual water use met the UWUO, and report the outcome and supporting information in the Annual Water Use Report by January 1 of each year, starting in 2024. The

[16] Oakdale Irrigation District, 2020 Agricultural Water Management Plan, Prepared by Davids Engineering, Inc., March, 2021, page 5-31.

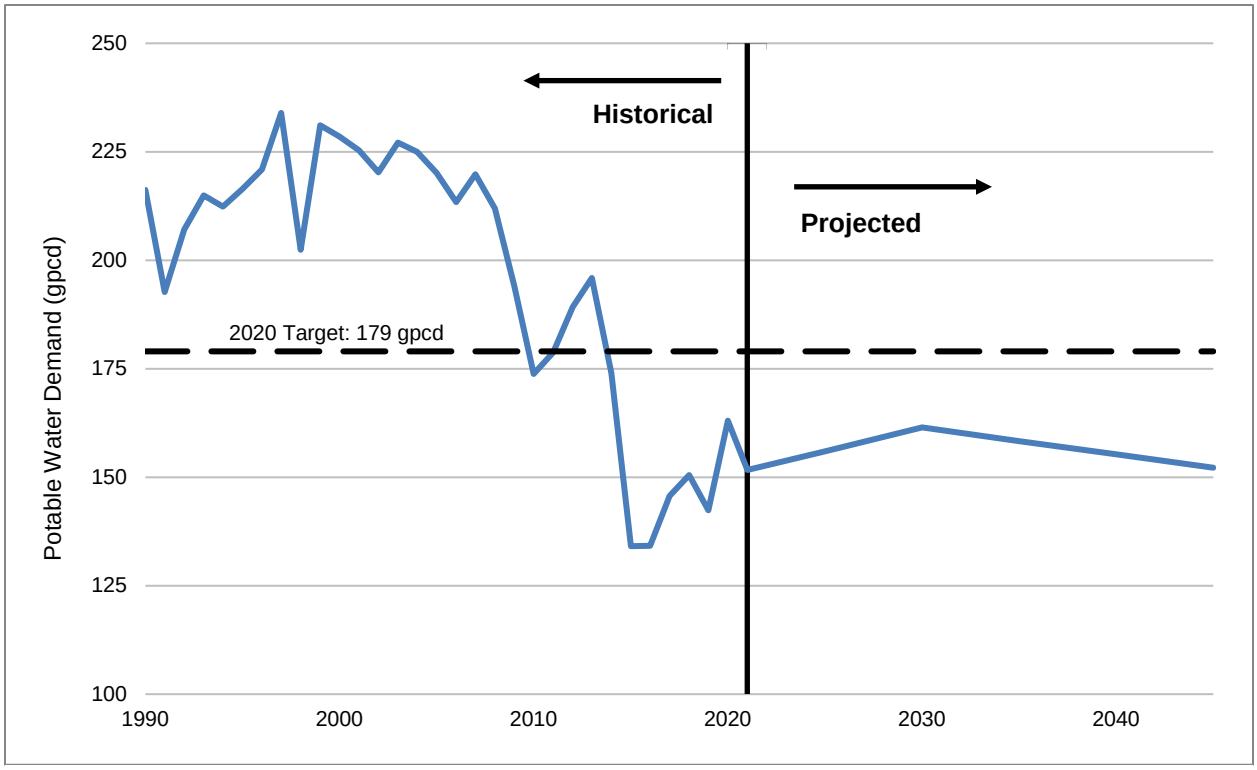


Figure 1: Historical, Current, and Projected Per Capita Water Demands
Source: TM #3 – City Growth & Development Study

City would use the landscape area measurements provided by DWR in partnership with Eagle Aerial Solutions to estimate outdoor water use and determine indoor water use.[17]

At this time, the City has met and is exceeding their SBX7-7 2020 target of 179 gpcd established in the UWMP, which combines indoor and outdoor use. As shown in **Figure 1**, future per capita use is projected to remain below the target closer to 150 gpcd. With the recommended indoor water use efficiency, DWR's objective is to satisfy Water Code 10609.2(d) to achieve a statewide aggregate urban water use that is less than the SB X7-7 statewide 2020 target of 159 gpcd.

The report, required under the water conservation legislation enacted in 2018 (AB 1668 and Senate Bill 606), is intended to inform the Legislature as it considers next steps to advance progressive and achievable indoor residential water use standards. The report notes that the current statewide median indoor residential water use is 48 gpcd, and that a quarter of California households already use less than 42 gpcd.

The recommendation follows the release of the Indoor Residential Water Use Study,[18] authored by DWR, which corroborates those numbers. Indoor residential water use is expected to decline even in the absence of legislation lowering the residential indoor standard due to plumbing code requirements and more efficient appliances and fixtures being used in existing and new homes.

[17] https://water.ca.gov/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation/Urban-Water-Use-Efficiency-Standards-Variances-and-Performance-Measures

[18] https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation/Performance-Measures/NEW_Results-of-the-Indoor-Residential-Water-Use-Study.pdf

On July 29, 2022, the Governor convened local water leaders to call for their continued action to drive down urban water use and help Californians make permanent changes to adapt to a hotter and drier future. At the meeting, the Governor again urged leaders of the State's largest urban water suppliers to continue local efforts to cut back water usage in the face of limited supplies due to extreme heat and dry weather. He also underscored the urgency of reporting monthly water use data as quickly as possible so the State can more effectively monitor progress in real time.

The SWRCB's most recent conservation emergency regulation, which went into effect on June 10, 2022, bans irrigation of decorative grass on commercial, industrial, and institutional premises and requires suppliers to implement the water-saving actions that they included in Level 2 of their water shortage contingency plans. The ban is estimated to save between 156,000 AF and 260,000 AF annually, the equivalent of water used by 780,000 households in a year.

The stricter water rules that were adopted for Manteca residents and businesses are as follows:[19]

- *No irrigation is allowed during or within 48 hours following measurable rainfall as defined by storms that generate run-off or puddles.*
- *No watering is allowed on Monday or any day between noon and 6 p.m. Watering for even addresses is on Tuesday, Thursday, and Saturday while odd addresses can water on Wednesday, Friday, and Sunday.*
- *No water will be allowed on any day at any time for washing off sidewalks, driveways, patios, parking lots, or other exterior non-landscaped areas without a permit obtained from the Manteca Public Works Department office at the Civic Center.*
- *No water will be allowed to flow into a gutter or other drainage area for longer than 5 minutes. All water leaks or malfunctions in plumbing or irrigation systems must be fixed within 24 hours.*

Penalties include a written notice on the first violation, a $100 fine with applicable fees on the second violation that may be waived by attending a water conservation workshop, a $200 fine with applicable fees on the third violation, and $500 fines for each and every subsequent violation plus applicable fees.

3.7 Salt and Nitrate Control Program (CV Salts)

In January 2020, certain Basin Plan Amendments to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley became effective. Reduction in urban water use standards, as described in **Section 3.6** above, has the adverse effect of increasing salt and nitrate concentrations in wastewater by reducing the volume of water available for dilution. Further reduction in water use may exacerbate this condition and impact the City's Wastewater Quality Control Facility (WQCF) and its ability to meet its discharge limits.

In the Central Valley, the Bay-Delta Plan contains numeric water quality objectives for certain specified water bodies for electrical conductivity, total dissolved solids, sulfate, and chloride. The Bay-Delta Plan includes water quality objectives for electrical conductivity for the South Delta in the vicinity of the City's discharge. The United States Environmental Protection Agency (USEPA) National Recommended Water Quality Criteria for chloride recommends acute and chronic criteria for the protection of aquatic life.

[19] Manteca/Ripon, The Bulletin, April 6, 2022.

There are no USEPA water quality criteria for the protection of aquatic life for electrical conductivity, total dissolved solids, and sulfate. The Bay-Delta Plan includes numeric water quality criteria for the protection of agricultural and municipal beneficial uses. Water quality objectives previously identified in the City's permit were struck down in the subsequent, more recent writing of the permit on the basis that water quality objectives provided in the Bay-Delta Plan were not lawfully applied in the discharge permit. The updated water quality objectives have not been approved by USEPA so were not applicable to the City at the time the permit was issued. However, this is not to say that the City will not be held to those objectives in the future.

For land application, the City implements best practical treatment or control (BPTC) in accordance with the Antidegradation Policy to ensure groundwater salinity concentrations do not increase significantly over current levels.

The SWRCB already found that the City's discharge has the reasonable potential to cause or contribute to an in-stream excursion above the nitrate standard. The City is also challenged by recent groundwater limitations for nitrate and has been provided an extended time schedule for compliance with nitrate until April 2026.

Reduction in water use through conservation and how it affects the loading rates to the WQCF is currently being considered as part of the WQCF Phase IV project.

3.8 Drinking Water Quality

The SWRCB – Division of Drinking Water (DDW) regulates the City's public water system (System No. CA3910005) under the *Safe Drinking Water Act* (SDWA). The City monitors the water quality for all constituents regulated by *Title 22 of the California Code of Regulations* (CCR) and the USEPA in addition to other non-regulated constituents. SWRCB adopted regulations are typically more stringent than the USEPA regulations for public drinking water. In the event SWRCB has not adopted separate standards, at minimum, public water systems must comply with federal standards established by USEPA.

Water quality constituents are regulated as either primary or secondary drinking water standards under Title 22. Primary standards protect public health by limiting the levels of contaminants in drinking water. Secondary standards may have cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color issues) in drinking water. Both primary and secondary standards are legally enforceable standards.

Constituents are grouped as bacteriological, inorganic chemicals (IOCs), volatile organic chemicals (VOCs), non-volatile synthetic organic chemicals (SOCs), radionuclides, lead and copper, disinfection byproducts (DBPs), and secondary constituents (general mineral/general physical).

Water quality monitoring is critical in ensuring the delivery of safe drinking water to the public. The City is required to monitor water quality in the distribution system and at the source for regulatory compliance purposes to ensure the public is provided with safe drinking water as well as the highest quality of water available from the City.

The following subsections detail the regulatory standards associated with applicable source water and distribution system constituent monitoring that are relevant to the City.

3.8.1 Groundwater Rule – Bacteriological Monitoring

The federal Groundwater Rule (GWR) has been in effect since December 1, 2009. The purpose of the rule is to provide increased protection against microbial pathogens originating from a groundwater source. The GWR requires that each system comply with the following four elements:

- Conduct periodic sanitary surveys for all groundwater systems;
- Implement corrective action when a significant deficiency is identified or when a groundwater source is identified as the source of fecal contamination;
- Conduct triggered source water monitoring in the event of a Total Coliform Rule (TCR) positive at a compliance sampling station; and
- Conduct monitoring to ensure treatment achieves 4-log treatment using inactivation or removal of viruses (in lieu of performing triggered source monitoring).

Systems with multiple groundwater sources are required to sample all "active" sources unless DDW has approved a plan identifying representative sources. If a TCR positive occurs while the City has active and/or standby sources in use, sampling would be triggered at all well locations actively in use.

3.8.2 Primary Drinking Water Standards

Inorganic Chemicals (IOCs): IOCs are regulated under the primary drinking water standards. Title 22 Section 64432 outlines the requirements for sampling.

Volatile and Non-Volatile Synthetic Organic Chemicals (VOCs and SOCs): Organic chemicals are regulated under the primary drinking water standards. Title 22 Sections 64444 and 64445 outline the requirements for sampling of organic chemicals which consist of VOCs and non-volatile SOCs. The City does not provide surface water treatment and is therefore only required to sample at the groundwater wells.

The maximum contaminant level (MCL) for 1,2,3-Trichloropropane (1,2,3-TCP) became effective on December 14, 2017, which has resulted in detections at a few City wells, necessitating the implementation of treatment at those wells.

Radioactivity: Radioactivity is regulated under the primary drinking water standards. Title 22 Sections 64442 and 64443 outline the requirements for sampling of radionuclides. The frequency of monitoring of gross alpha particle activity, radium-226, radium-228, and uranium is determined based on the results from the most recent compliance period, review by DDW, and vulnerability of the water source to the radionuclide.

3.8.3 Secondary Constituents (General Mineral/General Physical [GM/GP])

Secondary parameters are associated with the aesthetic quality of water. Title 22 Section 64449 outlines the requirements for sampling of secondary constituents. Secondary maximum contaminant level (SMCL) ranges are for those constituents where no fixed consumer acceptance contaminant level has been established. While the "Upper" and "Short Term" levels are acceptable on a necessary or temporary basis, respectively, maintaining levels below the recommended level is preferred.

Active wells are required to comply with SMCLs. Standby wells are not required to comply with SMCLs; however, the City is required to monitor for them. In the event the City converts a standby well status to "active," the City would be required to comply with SMCL standards, which may require treatment.

3.8.4 Standby Sources

Standby sources are defined as those sources that are only used for short-term emergency purposes. Two of the City's groundwater wells are standby sources and are subject to reduced monitoring per Section 64414 of Title 22. The City must notify DDW within three days of activating a standby source. The notification must describe the reason for well activation as well as the duration of use.

Prior to activation, it is noted that in accordance with Section 64583, any well that has not been in operation for more than three months must be sampled for bacteriological quality prior to use. If the well sample is positive for coliform bacteria, it must be disinfected in accordance with the American Water Works Association (AWWA) C654-03 and resampled for bacteriological quality. Prior to activation, the results must be submitted to DDW for review and approval.

3.8.5 Bacteriological Quality

Bacteriological quality is regulated under the primary drinking water standards under the Revised Total Coliform Rule (rTCR). California's rTCR was approved on May 28, 2021 and became effective on July 1, 2021. The rTCR updates the CCR to include the regulatory requirements of the Federal rTCR, which has been in effect since April 1, 2016. Between April 1, 2016 and July 1, 2021, public water systems were required to comply with both the California TCR and the Federal rTCR, concurrently. The rTCR revisions to the CCR include the new Coliform Treatment Technique requirement replacing the total coliform MCL, and a new *Escherichia coli (E. coli)* MCL regulatory limit. The rTCR establishes a "find-and-fix" approach for investigating and correcting causes of coliform problems within water distribution systems.

3.8.6 Disinfection Byproducts (DBPs)

Monitoring for disinfection byproducts (DBPs) is required for all types of water systems. DBPs include total trihalomethanes (TTHMs), haloacetic acids five (HAA5), chlorite, and bromate. Title 22 Section 64534.2 outlines the requirements for sampling of DBPs. For systems serving more than 10,000 people, it is required that eight dual sample sets be collected quarterly. The disinfectant used by the water wholesaler SSJID is chlorine, therefore, bromate and chlorite analyses are not required. For the City, Stage 2 TTHM and HAA5 compliance began on October 1, 2012.

3.8.7 Lead and Copper

In 1991, the USEPA published the Lead and Copper Rule (LCR) to control lead and copper in drinking water. On January 15, 2021, the USEPA published the Lead and Coper Rule Revisions (LCRR) to update the LCR, which became effective on December 16, 2021. Notable changes in the LCRR include requiring lead testing in drinking water for 20% of both child-care facilities and schools annually (excluding facilities built

after January 1, 2014) and requiring an inventory of water service lines, regardless of ownership. Compliance with the following elements is required by October 16, 2024:

- A public inventory of lead water service lines and fittings, regardless of ownership, from water main to building inlet. Prior California regulation required inventory from the water main to the meter only. The LCRR will require water systems to also inventory the privately-owned portion from the water meter to the building inlet;
- An inventory of all schools within the service area; and
- An inventory of all child-care centers within the service area.

Monitoring for lead and copper is required for all types of water systems. Title 22 Section 64675 outlines the requirements for tap sampling for lead and copper. The trigger level (TL), action level (AL), detection limit for reporting (DLR), and public health goal (PHG) for lead and copper are provided in **Table 1**.

Contaminant	Trigger Level (mg/L)	Action Level (mg/L)	DLR[1] (mg/L)	PHG[2] (mg/L)
Lead	0.010	0.015	0.005	0.002
Copper	NA	1.3	0.05	0.3

Notes:
1. DLR = Detection Limit for Reporting
2. PHG = Public Health Goal
3. Data from Title 22 Section 64678, Table 64678-A.

Table 1: Action Levels – Lead and Copper
Source: Compiled from Various USBR WY CVPIA 3406 (b)(2) Water Operations and Accounting Data

The TL and AL are based on the 90th percentile of the total number of samples collected. The sample results are listed in ascending order and numbered from one to the total number of samples collected. The result that corresponds to 90% of the total samples collected is the 90th percentile used to determine compliance with the TL and AL. The City is in compliance with both TLs and ALs for lead and copper based on 2021 monitoring results.

For systems serving from 10,001 up to 100,000 people, the standard number of tap samples is 60 and the reduced number of tap samples is 30. Frequency is reduced from once per year to once every three years if the 90th percentile levels do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper. If results exceed the TL while still remaining below the AL, standard tap sampling is required annually. The City currently meets the regulatory criteria for reduced monitoring to 30 sites every three years.

The lead service line, child care facility, and school inventories will necessitate that the City dedicate the appropriate resources to conduct a data review and develop the inventories by the October 16, 2024 deadline.

3.8.8 Unregulated Contaminant Monitoring Rule (UCMR)

The USEPA uses the Unregulated Contaminant Monitoring (UCM) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the SDWA. Every five years USEPA reviews a list of contaminants, largely based on the Contaminant

Candidate List (CCL). The CCL is a list of contaminants that USEPA publishes periodically for the purpose of determining which contaminants to regulate. The SDWA Amendments of 1996 provide for:

- Monitoring no more than 30 contaminants every five years;
- Monitoring only a representative sample of public water systems serving less than 10,000 people; and
- Storing analytical results in a National Contaminant Occurrence Database.

The City, as a large public water system (PWS serving more than 10,000 people), is subject to the UCMR and is generally required to participate in the monitoring cycles. USEPA does not require systems to monitor standby sources. The number, types, and locations of samples are dictated by the UCMR cycle. Any active sources including turnouts and wells are generally subject to the UCMR.

The fifth UCMR (UCMR 5) was published on December 27, 2021. PWSs will collect samples for 29 per- and polyfluoroalkyl substances (PFAS) and lithium, during a 12-month period from January 2023 through December 2025.

The City will need to dedicate resources to conducting the monitoring and lab analyses.

3.8.9 Unregulated Constituents – Notification Levels

DDW has established health-based advisory levels for constituents that are not currently regulated. These levels are referred to as notification levels (NLs). These NLs are advisory in nature and are not enforceable standards, as such, monitoring for these constituents is not required. However, public notification is required in the event that any of these constituents is detected at or above the NLs. The list is continuously evolving and is posted to the SWRCB website.[20]

3.8.10 Recent and Upcoming Regulations

This section summarizes upcoming regulations that could affect monitoring requirements in the future. The substances undergoing review and their related regulations are described below.

- **Perchlorate:** DDW intends to review the perchlorate MCL; as part of the review process, their recommendation was to first establish a lower DLR to gather additional occurrence data and revise the MCL if the new data support development of a new standard. The DLR for perchlorate is reduced to 0.002 mg/L (from 0.004 mg/L) as of July 1, 2021 and will be further reduced to 0.001 mg/L on January 1, 2024. There have been no reportable detections at the City's wells in recent history, and thus no anticipated effect on the City's operations.
- **Per- and polyfluoroalkyl substances (PFAS):** In September 2020, DDW sent orders to select public water systems located near military facilities throughout California, excluding the City, requiring monitoring for PFAS under the authority of AB 756. Although the City is currently not required to monitor for PFAS, in the future, new understanding of the risks of PFAS in drinking water could

[20] The current list of unregulated constituents with NLs can be found at: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.html

result in more stringent drinking water standards and increased regulation concerning PFAS monitoring.

- **Hexavalent Chromium (Chromium-VI):** On May 31, 2017, the Superior Court of Sacramento County issued a judgment invalidating the hexavalent chromium MCL for drinking water. The court ordered the SWRCB to take the necessary actions to delete the hexavalent chromium MCL from the CCR, which became effective on September 11, 2017. Thus, as of September 11, 2017, the MCL for hexavalent chromium is no longer in effect. However, the MCL for total chromium of 50 ppb remains in place. The SWRCB is actively working to establish a new MCL of 10 micrograms per liter (µg/L) and has identified this as one of its priorities in 2023. Historically, the City has been in compliance with the proposed MCL and thus there is no anticipated effect on the City's operations.
- **Manganese:** On February 16, 2023, DDW proposed revised NLs and response levels for manganese of 20 parts per billion (ppb) and 200 ppb, respectively. Manganese has been detected in the City's treated water consistently at levels below the proposed NL. There is no anticipated effect on the City's operations.
- **Arsenic:** California's revised arsenic MCL of 0.010 mg/L (or 10 µg/L) became effective on November 28, 2008. The DDW is currently investigating the technological and economic feasibility of lowering the MCL below the current State and federal MCL and closer to the PHG of 0.004 µg/L. DDW has identified this as one of its priorities in 2023.

  The MCL is currently 2,500 times the PHG. While the City's drinking water is treated to meet the current arsenic MCL, this has the potential to significantly impact the City and its operations as current levels are above the PHG. This MCL change can have the effect of potentially reducing the availability of groundwater in the City that is compliant with the new MCL and increase the City's reliance on surface water.
- **New MCLs:** Three constituents currently unregulated with NLs (see **Table 3-21**) have been identified as priorities in 2023 including:
  - Perfluoro-octanoic acid (PFOA);
  - Perfluoro-octane sulfonic acid (PFOS); and
  - N-nitroso-dimethylamine (NDMA).

  MCLs for these constituents may be forthcoming. The potential effect on the City is currently unknown.
- **MCL review and considered for revision:** In 2017, the following three constituent MCLs were reviewed and at that time were not considered for revision in 2018.
  - Cadmium;
  - Mercury; and
  - Styrene.

  However, DDW has listed these as a priority in 2023 and thus changes may be forthcoming. There have been no reportable detections at the City's wells in recent history and thus there is no anticipated effect on the City's operations.

- **Disinfection Byproducts (DBPs):** This has been identified by DDW as a priority for 2023. DBPs are currently regulated under Title 22, specifically for TTHMs and HAA5; however, the USEPA has been evaluating DBPs. During UCMR 4, expanded DBP monitoring beyond HAA5 was required including for HAA6Br and HAA9. The USEPA has also identified DBPs in the CCL 5 issued on November 14, 2022. It is conceivable that the USEPA may implement more stringent limits on existing DBPs or limits on other DBPs not currently regulated. The potential effect on the City is currently unknown.

4.0 FEDERAL PROTECTION OF FISH AND WILDLIFE

The protection of endangered species drives reservoir releases to downstream rivers during dry and critically dry periods in order to maintain flow for anadromous fish species. These releases can affect available storage and flow for water rights holders including SSJID and the City.

It is noted that from the perspective of some water purveyors, certain Bay-Delta watershed tributary rivers are already providing instream flows for the benefit of aquatic species through the Central Valley Project Improvement Act (CVPIA) 3406(b) provisions. Section 3406 (b)(2) of the CVPIA, Publ. L. No. 102-575, Title XXXIV under the heading, "Fish, Wildlife, Improved Water Management & Conservation" states:

> *"Upon enactment of this title dedicate and manage annually 800,000 acre-feet of Central Valley Project yield for the primary purpose of implementing the fish, wildlife, and habitat restoration purposes and measures authorized by this title, to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help meet such obligations as may be legally imposed upon the Central Valley Project under state or federal law following the date of enactment of this title, including but not limited to additional obligations under the federal Endangered Species Act…"*
>
> *"For the purposes of this section, the term 'Central Valley Project yield' means the delivery capability of the Central Valley Project during the 1928-1934 drought period after fishery, water quality, and other flow and operational requirements imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing at the time of enactment of this title have been met."*

Stanislaus River releases are conducted in accordance with the CVPIA mandate to "provide flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish..." even in a critically dry year. **Figure 2** is an example of these water actions. It shows the (b)(2) water actions on the hydrology of the Stanislaus River for WY 2013-2014 and the 2014 irrigation season under critically dry conditions. Releases from Goodwin Dam attained 2,500 cubic feet per second (cfs) for the latter half of April and approximately 2,100 cfs for the early half of May. Flows out of Goodwin Reservoir typically would be around 700 cfs.

Table 1 provides a summary of the CVPIA water allocation from 2015 to 2020. Between 2015 and 2020, the CVPIA Section 3406(b)(2) allocations provided by the Stanislaus River peaked at 178,300 AF in 2018, after a low of only 9,000 AF the year before.

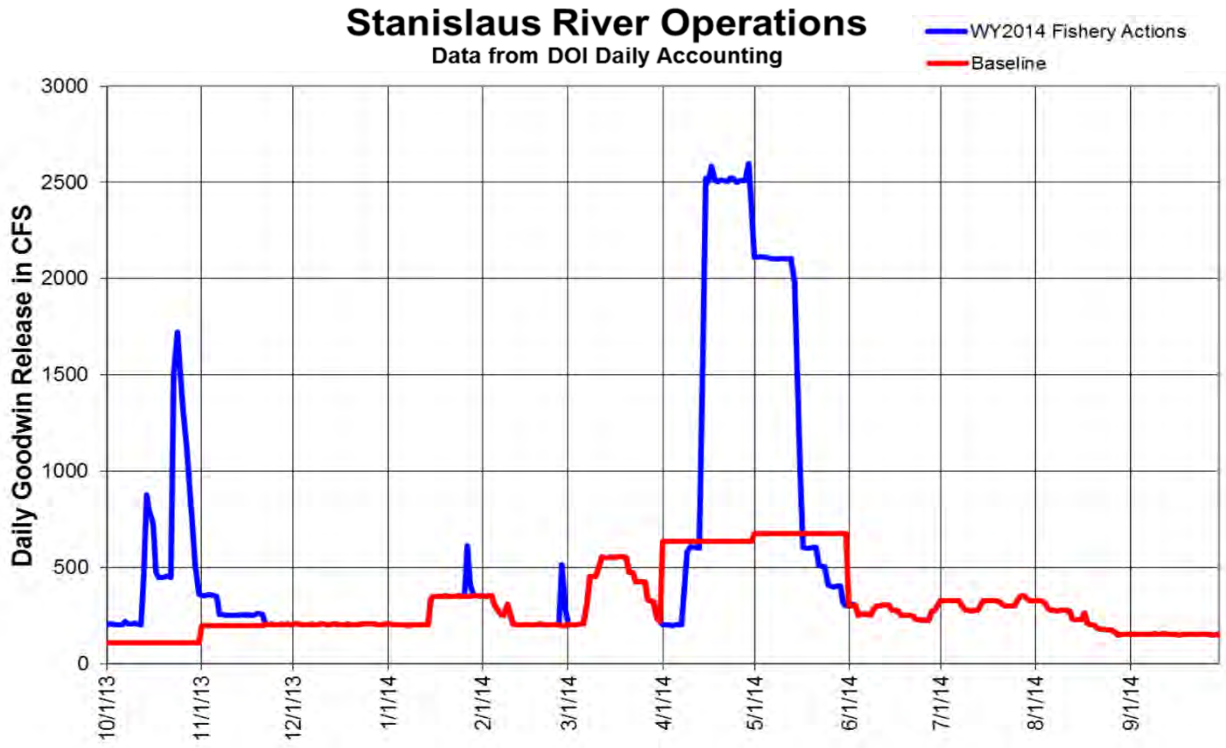


Figure 2: Stanislaus River Fishery Action Releases under CVPIA Relative to Baseline Conditions (Critically Dry)

Source: WY 2014 CVPIA Section 3406(b)(2) Operations and Accounting, CalFED Operations Group, January 2015

WY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
2020	12.1	2.6		3.3	35.0	29.0	15.9	8.1					**106.0**
2019					13.7							6.0	**19.7**
2018						2.1	61.2	68.9	36.1	5.0	5.0		**178.3**
2017				0.4	0.5								**0.9**
2016	5.5			4.6	4.3	2.6	16.5	38.5	12.9				**84.9**
2015	19.1	9.1		0.5		16.2	0.7						**45.6**

Table 2: Final WY CVPIA 3406 (b)(2) Water Allocation (Total AF)

Source: Compiled from Various USBR WY CVPIA 3406 (b)(2) Water Operations and Accounting Data

Total (b)(2) reservoir releases in WY 2014 were 136,600 AF from Goodwin Reservoir and ultimately from New Melones Reservoir upstream. During the irrigation season of April-May, total (b)(2) water allocation was about 103,000 AF. This can be seen as the blue flow peak during April-May above the red baseline flow. This was water released to support fishery actions. As shown in **Figure 3**, under wet conditions, the (b)(2) water obligations changes markedly. See how little to no water is used for WY 2011 (b)(2) fishery action purposes.

From the outset of WY 2021-22, the USBR and other federal water agencies recognized the precarious nature of the continuing drought, particularly, in the water-short Central Valley of California. Water curtailment and shortage warnings became more restrictive as the true nature of the hydrologic situation unfolded. Even as early as February 2022, the USBR was putting south-of-Delta Contractors on notice that:

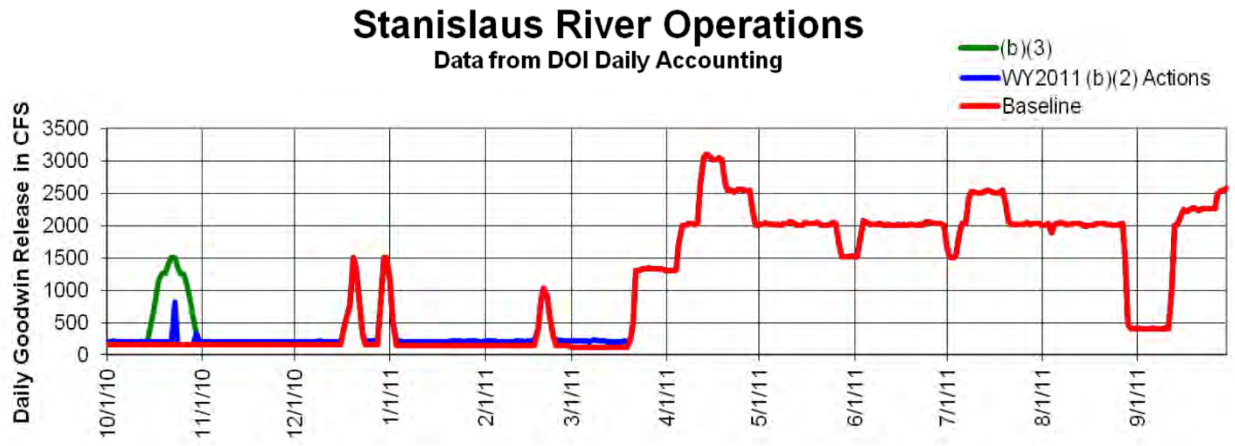


Figure 3: Stanislaus River Fishery Action Releases under CVPIA Relative to Baseline Conditions (Wet)

Source: WY 2012 CVPIA §3406(b)(2) Operations and Accounting, CalFED Operations Group, January 2013

- Irrigation water service and repayment contractors south-of-Delta are allocated 0% of their contract total.
- Municipal and industrial water service and repayment contractors south-of-Delta are allocated 25% of their historical use.
- For San Joaquin River Exchange Contractors and San Joaquin Settlement Contractors, the 2022 WY is designated as a critical year, as defined in their contracts.

Apart from Bay-Delta related supply curtailments, the federal agencies under the Department of the Interior began re-consultations under the federal Endangered Species Act on 2019 Biological Opinions for water deliveries from both the CVP and SWP. This has been aggressively protested by political interests in the Central Valley.

On August 8, 2022, Congressman David G. Valadao (CA-21), Congresswoman Connie Conway (CA-22), and House Republican Leader Kevin McCarthy (CA-23) led the entire California Republican delegation and Western Caucus Chairman Dan Newhouse (WA-04) in a letter to Secretary of the Interior Deb Haaland expressing concerns with the Department of the Interior's re-consultation process on the 2019 Biological Opinions for water deliveries from the CVP and SWP. The overarching concern was that re-consultations will result in less water for Central Valley farmers and communities.

The announcement from the USBR regarding re-consultations was addressed to three irrigation districts in the farming communities along the Oregon-California border. It marks the end of available water that can be diverted from Upper Klamath Lake, the large body of water that feeds farms and several National Wildlife Refuges along the State line.

APPENDIX A

EXECUTIVE DEPARTMENT STATE OF CALIFORNIA

EXECUTIVE ORDER N-7-22

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-7-22

WHEREAS on April 12, 2021, May 10, 2021, July 8, 2021, and October 19, 2021, I proclaimed states of emergency that continue today and exist across all the counties of California, due to extreme and expanding drought conditions; and

WHEREAS climate change continues to intensify the impacts of droughts on our communities, environment, and economy, and California is in a third consecutive year of dry conditions, resulting in continuing drought in all parts of the State; and

WHEREAS the 21st century to date has been characterized by record warmth and predominantly dry conditions, and the 2021 meteorological summer in California and the rest of the western United States was the hottest on record; and

WHEREAS since my October 19, 2021 Proclamation, early rains in October and December 2021 gave way to the driest January and February in recorded history for the watersheds that provide much of California's water supply; and

WHEREAS the ongoing drought will have significant, immediate impacts on communities with vulnerable water supplies, farms that rely on irrigation to grow food and fiber, and fish and wildlife that rely on stream flows and cool water; and

WHEREAS the two largest reservoirs of the Central Valley Project, which supplies water to farms and communities in the Central Valley and the Santa Clara Valley and provides critical cold-water habitat for salmon and other anadromous fish, have water storage levels that are approximately 1.1 million acre-feet below last year's low levels on this date; and

WHEREAS the record-breaking dry period in January and February and the absence of significant rains in March have required the Department of Water Resources to reduce anticipated deliveries from the State Water Project to 5 percent of requested supplies; and

WHEREAS delivery of water by bottle or truck is necessary to protect human safety and public health in those places where water supplies are disrupted; and

WHEREAS groundwater use accounts for 41 percent of the State's total water supply on an average annual basis but as much as 58 percent in a critically dry year, and approximately 85 percent of public water systems rely on groundwater as their primary supply; and

WHEREAS coordination between local entities that approve permits for new groundwater wells and local groundwater sustainability agencies is important to achieving sustainable levels of groundwater in critically overdrafted basins; and

WHEREAS the duration of the drought, especially following a multiyear drought that abated only five years ago, underscores the need for California to redouble near-, medium-, and long-term efforts to adapt its water management and delivery systems to a changing climate, shifting precipitation patterns, and water scarcity; and

WHEREAS the most consequential, immediate action Californians can take to extend available supplies is to voluntarily reduce their water use by 15 percent from their 2020 levels by implementing the commonsense measures identified in operative paragraph 1 of Executive Order N-10-21 (July 8, 2021); and

WHEREAS to protect public health and safety, it is critical the State take certain immediate actions without undue delay to prepare for and mitigate the effects of the drought conditions, and under Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Proclamation would prevent, hinder, or delay the mitigation of the effects of the drought conditions.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code sections 8567, 8571, and 8627, do hereby issue the following Order to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. The orders and provisions contained in my April 21, 2021, May 10, 2021, July 8, 2021, and October 19, 2021 Proclamations remain in full force and effect, except as modified by those Proclamations and herein. State agencies shall continue to implement all directions from those Proclamations and accelerate implementation where feasible.

2. To help the State achieve its conservation goals and ensure sufficient water for essential indoor and outdoor use, I call on all Californians to strive to limit summertime water use and to use water more efficiently indoors and out. The statewide Save Our Water conservation campaign at SaveOurWater.com provides simple ways for Californians to reduce water use in their everyday lives. Furthermore, I encourage Californians to understand and track the amount of water they use and measure their progress toward their conservation goals.

3. By May 25, 2022, the State Water Resources Control Board (Water Board) shall consider adopting emergency regulations that include all of the following:

    a. A requirement that each urban water supplier, as defined in section 10617 of the Water Code, shall submit to the Department of Water Resources a preliminary annual water supply and demand assessment consistent with section 10632.1 of the Water Code no later than June 1, 2022, and submit a final annual water

supply and demand assessment to the Department of Water Resources no later than the deadline set by section 10632.1 of the Water Code;

b. A requirement that each urban water supplier that has submitted a water shortage contingency plan to the Department of Water Resources implement, at a minimum, the shortage response actions adopted under section 10632 of the Water Code for a shortage level of up to twenty percent (Level 2), by a date to be set by the Water Board; and

c. A requirement that each urban water supplier that has not submitted a water shortage contingency plan to the Department of Water Resources implement, at a minimum, shortage response actions established by the Water Board, which shall take into consideration model actions that the Department of Water Resources shall develop for urban water supplier water shortage contingency planning for Level 2, by a date to be set by the Water Board.

To further conserve water and improve drought resiliency if the drought lasts beyond this year, I encourage urban water suppliers to conserve more than required by the emergency regulations described in this paragraph and to voluntarily activate more stringent local requirements based on a shortage level of up to thirty percent (Level 3).

4. To promote water conservation, the Department of Water Resources shall consult with leaders in the commercial, industrial, and institutional sectors to develop strategies for improving water conservation, including direct technical assistance, financial assistance, and other approaches. By May 25, 2022, the Water Board shall consider adopting emergency regulations defining "non-functional turf" (that is, a definition of turf that is ornamental and not otherwise used for human recreation purposes such as school fields, sports fields, and parks) and banning irrigation of non-functional turf in the commercial, industrial, and institutional sectors except as it may be required to ensure the health of trees and other perennial non-turf plantings.

5. In order to maximize the efficient use of water and to preserve water supplies critical to human health and safety and the environment, Public Resources Code, Division 13 (commencing with section 21000) and regulations adopted pursuant to that Division are hereby suspended, with respect to the directives in paragraphs 3 and 4 of this Order and any other projects and activities for the purpose of water conservation to the extent necessary to address the impacts of the drought, and any permits necessary to carry out such projects or activities. Entities that desire to conduct activities under this suspension, other than the directives in paragraphs 3 and 4 of this Order, shall first request that the Secretary of the Natural Resources Agency make a determination that the proposed activities are eligible to be conducted under this suspension. The Secretary shall use sound discretion in applying this Executive Order to ensure that the suspension serves the purpose of accelerating conservation projects that are necessary to address impacts of the drought, while at the same time

protecting public health and the environment. The entities implementing these directives or conducting activities under this suspension shall maintain on their websites a list of all activities or approvals for which these provisions are suspended.

6. To support voluntary approaches to improve fish habitat that would require change petitions under Water Code section 1707 and either Water Code sections 1425 through 1432 or Water Code sections 1725 through 1732, and where the primary purpose is to improve conditions for fish, the Water Board shall expeditiously consider petitions that add a fish and wildlife beneficial use or point of diversion and place of storage to improve conditions for anadromous fish. California Code of Regulations, title 23, section 1064, subdivisions (a)(1)(A)(i)-(ii) are suspended with respect to any petition that is subject to this paragraph.

7. To facilitate the hauling of water for domestic use by local communities and domestic water users threatened with the loss of water supply or degraded water quality resulting from drought, any ordinance, regulation, prohibition, policy, or requirement of any kind adopted by a public agency that prohibits the hauling of water out of the water's basin of origin or a public agency's jurisdiction is hereby suspended. The suspension authorized pursuant to this paragraph shall be limited to the hauling of water by truck or bottle to be used for human consumption, cooking, or sanitation in communities or residences threatened with the loss of affordable safe drinking water. Nothing in this paragraph limits any public health or safety requirement to ensure the safety of hauled water.

8. The Water Board shall expand inspections to determine whether illegal diversions or wasteful or unreasonable use of water are occurring and bring enforcement actions against illegal diverters and those engaging in the wasteful and unreasonable use of water. When access is not granted by a property owner, the Water Board may obtain an inspection warrant pursuant to the procedures set forth in Title 13 (commencing with section 1822.50) of Part 3 of the Code of Civil Procedure for the purposes of conducting an inspection pursuant to this directive.

9. To protect health, safety, and the environment during this drought emergency, a county, city, or other public agency shall not:

    a. Approve a permit for a new groundwater well or for alteration of an existing well in a basin subject to the Sustainable Groundwater Management Act and classified as medium- or high-priority without first obtaining written verification from a Groundwater Sustainability Agency managing the basin or area of the basin where the well is proposed to be located that groundwater extraction by the proposed well would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan adopted by that Groundwater Sustainability

Agency and would not decrease the likelihood of achieving a sustainability goal for the basin covered by such a plan; or

b. Issue a permit for a new groundwater well or for alteration of an existing well without first determining that extraction of groundwater from the proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.

This paragraph shall not apply to permits for wells that will provide less than two acre-feet per year of groundwater for individual domestic users, or that will exclusively provide groundwater to public water supply systems as defined in section 116275 of the Health and Safety Code.

10. To address household or small community drinking water shortages dependent upon groundwater wells that have failed due to drought conditions, the Department of Water Resources shall work with other state agencies to investigate expedited regulatory pathways to modify, repair, or reconstruct failed household or small community or public supply wells, while recognizing the need to ensure the sustainability of such wells as provided for in paragraph 9.

11. State agencies shall collaborate with tribes and federal, regional, and local agencies on actions related to promoting groundwater recharge and increasing storage.

12. To help advance groundwater recharge projects, and to demonstrate the feasibility of projects that can use available high water flows to recharge local groundwater while minimizing flood risks, the Water Board and Regional Water Quality Control Boards shall prioritize water right permits, water quality certifications, waste discharge requirements, and conditional waivers of waste discharge requirements to accelerate approvals for projects that enhance the ability of a local or state agency to capture high precipitation events for local storage or recharge, consistent with water right priorities and protections for fish and wildlife. For the purposes of carrying out this paragraph, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division, and Chapter 3 (commencing with section 85225) of Part 3 of Division 35 of the Water Code and regulations adopted pursuant thereto are hereby suspended to the extent necessary to address the impacts of the drought. This suspension applies to (a) any actions taken by state agencies, (b) any actions taken by local agencies where the state agency with primary responsibility for the implementation of the directives concurs that local action is required, and (c) permits necessary to carry out actions under (a) or (b). The entities implementing these directives shall maintain on their websites a list of all activities or approvals for which these provisions are suspended.

13. With respect to recharge projects under either Flood-Managed Aquifer Recharge or the Department of Water Resources Sustainable

Groundwater Management Grant Program occurring on open and working lands to replenish and store water in groundwater basins that will help mitigate groundwater conditions impacted by drought, for any (a) actions taken by state agencies, (b) actions taken by a local agency where the Department of Water Resources concurs that local action is required, and (c) permits necessary to carry out actions under (a) or (b), Public Resources Code, Division 13 (commencing with section 21000) and regulations adopted pursuant to that Division are hereby suspended to the extent necessary to address the impacts of the drought. The entities implementing these directives shall maintain on their websites a list of all activities or approvals for which these provisions are suspended.

14. To increase resilience of state water supplies during prolonged drought conditions, the Department of Water Resources shall prepare for the potential creation and implementation of a multi-year transfer program pilot project for the purpose of acquiring water from willing partners and storing and conveying water to areas of need.

15. By April 15, 2022, state agencies shall submit to the Department of Finance for my consideration proposals to mitigate the worsening effects of severe drought, including emergency assistance to communities and households and others facing water shortages as a result of the drought, facilitation of groundwater recharge and wastewater recycling, improvements in water use efficiency, protection of fish and wildlife, mitigation of drought-related economic or water-supply disruption, and other potential investments to support short- and long-term drought response.

IT IS FURTHER ORDERED that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 28th day of March 2022.

GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, PH.D.
Secretary of State

APPENDIX E
City of Manteca
Water Master Plan
SCADA Data

Table A-1: Facility Set Points for October 27, 2021

Well No.	Target	Target Blend %
Well 12	51 psi	50%
Well 14	55 psi	-
Well 15	54 psi	53%
Well 16	56 psi	35%
Well 17	48 psi	-
Well 18	Offline	
Well 20	Offline	
Well 22	48 psi	45%
Well 23	57 psi	50%
Well 24	1,000 gpm	33% @ Atherton Tank
Well 25	56 psi	80%
Well 27	53 psi	50%
Well 28	53 psi	-
Well 29	53 psi	75%
CATF (Wells 13, 19, & 21)	49 psi	30 – 55%
Atherton Tank	49 psi	33%
LAPS 16”	46 psi	-

APPENDIX F
City of Manteca
Water Master Plan
Near-Term Development Tables

FINISHED, ENTITLED, AND PENDING LOTS/UNITS

MAY 1, 2022

FINALIZED SUBDIVISION LOTS (Approved Final Map, Pending Plot Plan Approval)

Application Date	Latest Final Map	Expiration Date	Project Name	Total Lots	Remaining Lots*
4/3/2013	3/21/2016	N/A	ATHERTON HOMES AT WOODWARD PARK I	101	2
3/24/2015	9/21/2018	N/A	ATHERTON HOMES AT WOODWARD PARK II	38	4
3/24/2015	5/29/2019	N/A	ATHERTON HOMES AT WOODWARD PARK IV	66	2
3/24/2015	11/14/2019	N/A	ATHERTON HOMES AT WOODWARD PARK V	81	6
2/8/2016	2/2/2021	N/A	CERRI UNIT 1	21	17
2/8/2016	2/2/2021	N/A	CERRI UNIT 2	262	61
2/8/2016	8/23/2021	N/A	CERRI UNIT 3	102	58
2/8/2016	8/17/2021	N/A	CERRI UNIT 4	138	108
2/8/2016	12/20/2021	N/A	CERRI UNIT 5	132	132
5/28/2015	2/15/2018	N/A	DEJONG ESTATES UNIT 2	130	1
5/28/2015	12/17/2018	N/A	DEJONG ESTATES UNIT 3	72	7
5/28/2015	12/27/2018	N/A	DEJONG ESTATES UNIT 5	78	18
10/3/2017	6/11/2021	N/A	GRIFFIN PARK UNIT 1	100	45
10/3/2017	6/11/2021	N/A	GRIFFIN PARK UNIT 2	56	17
10/3/2017	6/11/2021	N/A	GRIFFIN PARK UNIT 3	100	54
10/3/2017	9/3/2021	N/A	GRIFFIN PARK UNIT 4	57	20
6/28/2017	9/3/2021	N/A	NORTH MAIN COMMONS	154	57
4/19/2005	12/11/2018	N/A	OLEANDER ESTATES UNIT 4	135	1
6/18/2004	5/28/2019	3/2/2024	SHADOWBROOK NEIGHBORHOOD 1	115	5
6/18/2004	1/31/2022	3/2/2024	SHADOWBROOK NEIGHBORHOOD 2	103	80
6/18/2004	5/28/2019	3/2/2024	SHADOWBROOK NEIGHBORHOOD 3	84	4
6/18/2004	12/29/2021	3/2/2024	SHADOWBROOK NEIGHBORHOOD 4	76	50
12/22/2004	7/16/2018	N/A	SUNDANCE UNIT 3	134	26
12/22/2004	3/20/2020	10/18/2023	SUNDANCE UNIT 5	129	9
4/20/2015	5/25/2018	N/A	TERRA RANCH UNIT 2	58	5
4/20/2015	5/25/2018	N/A	TERRA RANCH UNIT 3	52	9
4/20/2015	8/20/2019	N/A	TERRA RANCH UNIT 4	52	3
4/20/2015	8/20/2019	N/A	TERRA RANCH UNIT 5	50	9
1/8/2020	7/23/2021	N/A	VINTAGE II	68	22
6/21/2018	6/23/2021	N/A	WACKERLY	60	27
10/1/2018	3/23/2022	N/A	YOSEMITE GREENS	99	81

*Remaining lots are awaiting plot plan approval

FINALIZED APARTMENT UNITS (Approved Site Plan, Ready for Building Permits)

Application Date	Approval Date	Expiration Date	Project Name	Total Units
10/18/2017	12/12/2017	12/12/2019	CYRUS LANE APARTMENTS	9
5/27/2020	9/1/2020	09/01/2023	DIAMOND VILLAS	43
10/7/2016	11/27/2018	11/27/2020	LUXURY APARTMENTS	132
	2/25/2020	2/25/2022	MADAN DAS APARTMENTS	9
10/31/2017	9/25/2018	9/25/2020	STEWART STREET APARTMENTS	12
12/20/2018	5/28/2019	5/28/2021	VALENCIA PLACE PHASE II	192

ENTITLED SUBDIVISIONS (Approved Tentative Map, Pending Final Map)

Application Date	Tentative Map	Expiration Date	Project Name	Total Lots
12/14/2015	6/5/2020	6/5/2023	DENALI	315
10/3/2017	4/9/2019	4/9/2021	GRIFFIN PARK	1219
10/31/2013	12/15/2015	12/15/2017	OAKWOOD TRAILS	676
3/25/2009	2/15/2011	4/3/2025	TRAILS AT MANTECA	1055
7/14/2014	7/21/2015	1/6/2026	VILLA TICINO WEST	760

UNDER APPLICATION (Subdivisions and Apartments)

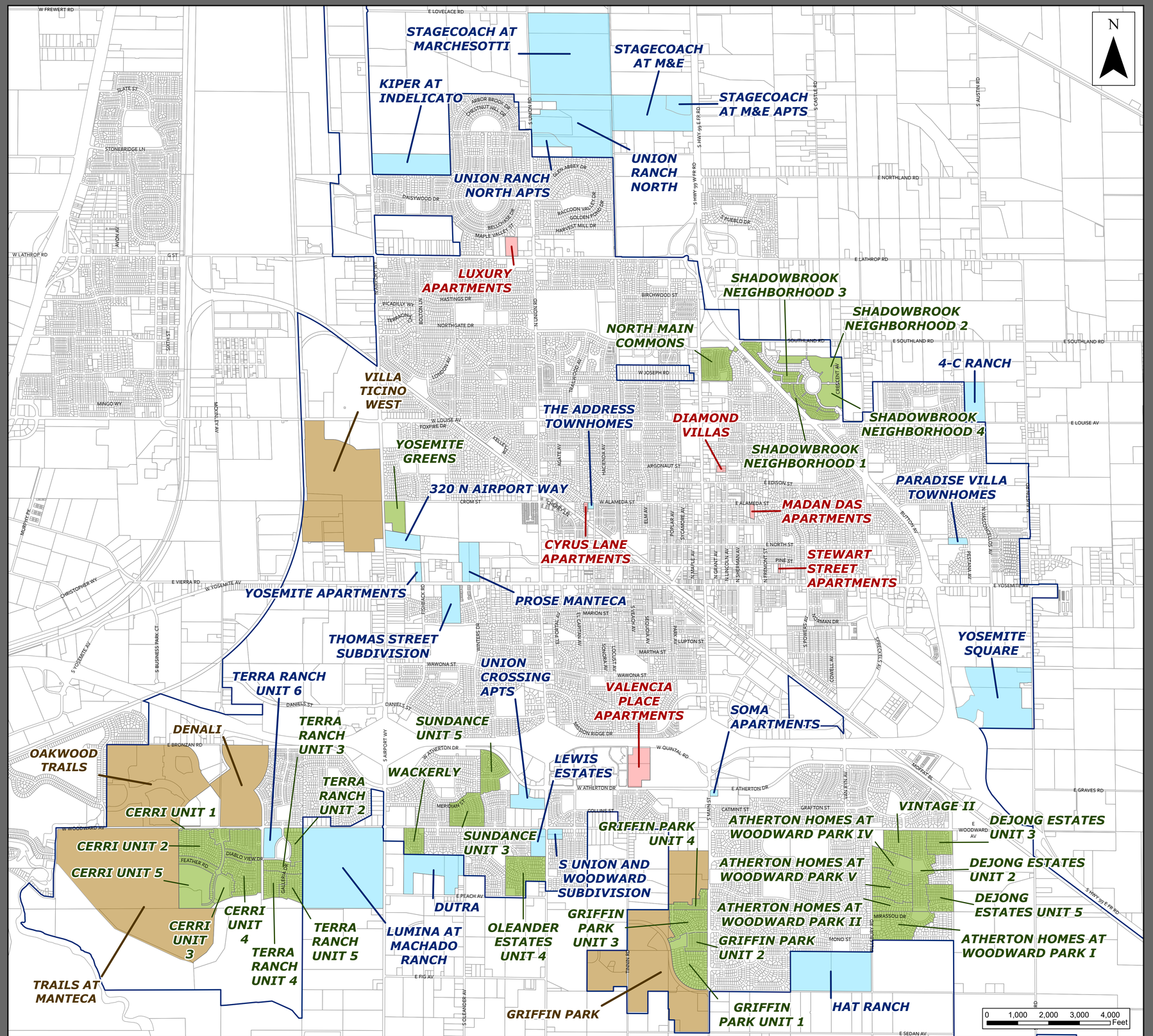
Application Date	Type	Status	Project Name	Total Lots/Units
	SUBDIVISION	Preliminary Review	320 N AIRPORT WAY	123
3/31/2021	SUBDIVISION	Preliminary Review	4-C RANCH	81
5/17/2021	SUBDIVISION	Preliminary Review	DUTRA	197
9/3/2019	SUBDIVISION	Preliminary Review	HAT RANCH	740
	SUBDIVISION	Preliminary Review	KIPER AT INDELICATO	185
	SUBDIVISION	Preliminary Review	LEWIS ESTATES	53
5/26/2020	SUBDIVISION	Preliminary Review	LUMINA AT MACHADO RANCH	827
	SUBDIVISION	Preliminary Review	PARADISE VILLAS TOWNHOMES	53
	APARTMENTS	Preliminary Review	PROSE MANTECA	420
6/20/2019	SUBDIVISION	Preliminary Review	S UNION AND WOODWARD SUBDIVISION	11
	APARTMENTS	Preliminary Review	SOMA APARTMENTS	210
11/24/2020	SUBDIVISION	Preliminary Review	STAGECOACH AT M&E	240
11/24/2020	APARTMENTS	Preliminary Review	STAGECOACH AT M&E APTS	250
11/24/2020	SUBDIVISION	Preliminary Review	STAGECOACH AT MARCHESOTTI	560
	SUBDIVISION	Preliminary Review	TERRA RANCH UNIT 6	60
	APARTMENTS	Preliminary Review	THE ADDRESS TOWNHOMES	13
1/15/2020	SUBDIVISION	Preliminary Review	THOMAS STREET SUBDIVISION	50
2/22/2021	APARTMENTS	Preliminary Review	UNION CROSSING APTS	300
4/12/2021	SUBDIVISION	Preliminary Review	UNION RANCH NORTH	417
4/12/2021	APARTMENTS	Preliminary Review	UNION RANCH NORTH APTS	200
	APARTMENTS	Preliminary Review	YOSEMITE APARTMENTS	64
6/8/2021	SUBDIVISION	Preliminary Review	YOSEMITE SQUARE	486

TOTALS

FINALIZED SUBDIVISION LOTS (TOTAL)	2,903
FINALIZED SUBDIVISION LOTS (REMAINING)	940
FINALIZED APARTMENT UNITS	397
ENTITLED SUBDIVISION LOTS	4,025
UNDER APPLICATION SUBDIVISION LOTS	4,083
UNDER APPLICATION APARTMENT UNITS	1,457
TOTAL FINALIZED LOTS AND UNITS*	1,337
TOTAL UNDER APPLICATION LOTS AND UNITS	5,540
TOTAL FINALIZED AND ENTITLED SUBDIVISION LOTS*	4,965
TOTAL FINALIZED AND UNDER APPLICATION APARTMENT UNITS	1,854
GRAND TOTAL OF ALL UNITS AND LOTS*	10,902

*Remaining Subdivision Lots (awaiting plot plan approval) used for calculation instead of Total Subdivision Lots.

Data on this map is intended for general use and informational purposes only. The City of Manteca does not warrant the accuracy, quality, or completeness of data or suitability for any particular purpose. Information on this map is not intended to replace engineering, survey, or other primary research methods.



CITY OF MANTECA COMMERCIAL DEVELOPMENT PIPELINE REPORT

Status as of Juy 1, 2022

UNDER CONSTRUCTION / READY TO BUILD

Name	Project #	Description	Location	Developer/Builder
BBVA - ATM Install	MPM-21-141	Add new ATM	201 N Main St	KESA / James Spix
Austin Self Storage	SPC-20-094	New 50,820 sqft storage with 1420 sqft office	183 S. Austin Rd	John Pinedo
7 ELEVEN	SPC-20-31	Convenience store and fuel pumps	1110 N MAIN ST	JM Stitt Construction
TRU HOTEL	SPC-19-045	4 story hotel with 78 rooms	180 Northwoods Ave	SPJ Construction
STAYBRIDGE SUITES	SPC-18-126	4 story hotel with 101 rooms	1878 Daniels St	SPJ Construction
NUR AL-HUDA ACADEMY	SPC-18-054	29,420 sqft building classrooms only	1085 S Union	Nur Al-Huda Academy Corp
Manteca Medical Building	LLA-22-002	Lot line adjustment	2077 W Yosemite Ave	MPVCA Manteca LLC/Indrajit Obeysekere
Manteca Assisted Living	SPC-18-092	Assisted living facility, 88 beds	1852 W Yosemite Ave	Sandip Patel

ENTITLED/NOT YET UNDER CONSTRUCTION

Name	Project #	Description	Location	Developer/Builder
U-Haul Storage	UPJ-21-090	Conversion of K-Mart to U-Haul moving and storage	255 Northgate Dr	U-Haul / Chris Trudell
CenterPoint DA	DDA-16-151	Consider amendment to the CenterPoint Agreement	S Roth Rd and W Airport Way	William Lu/CenterPoint Properties Trust
Pinkberry	SPC-21-084	Drive-thru yogurt store	603 E Yosemite Ave	Magallon Construction co / Manuel Magallon

Name	Project #	Description	Location	Developer/Builder
Rotten Robbie	SPC-19-109	4800 sqft convenience store and fuel station	1014 S. Airport Way	Dave Mordic & Project Manager, John Hicks
Woodbridge West Retail	SPC-20-080	Commercial shopping center	Lathrop Rd	Rod Alonzo & Art Nunes
Chevron/Extra Mile	SPC-20-129	Fueling station w/ convenience store and car wash	1495 S. Union Rd	Philip King
CenterPoint South	SPC-19-155	Two concrete tilt-up wall warehouse buildings	2205 N. Airport Way	MCR Engineering/Shawn Samaniego
B.E.S.T. Office Building	SPC-21-021	9660 sqft office building w/ 1800 sqft storage	398 W Lathrop Rd	Jeff Sales
Container Yard 2 Revision	SPN-19-162	Modification to previously approved site plan	2205 N. Airport Way	MCR Engineering/Shawn Samaniego
Raymus Development Office Building SPC	SPC-21-074	Warehouse/office building	617 W Yosemite Ave	Jag Construction
Funsten Fence	MPM-22-017	Fence construction border of property	105 Industrial Park Dr	Gary Burkert
E Wetmore Office and Warehouse	SPC-21-127	Office and warehouse	470 E Wetmore St	Ken Fong
Kaiser Emergency Dept. Ext. Canopy	MPM-21-069	Emergency room canopy	1777 W Yosemite Ave	Teter, LLP
ST ANTHONY'S CHURCH PARKING EXPANSION	MPM-20-054	Parking lot expansion	427 & 443 E North St	St Anthony's Church
ARCO EXPANSION	SPC-20-003	17 new storage bldgs	1654 n Main St	Krystina Uribes
Warehouse Remodel & Conversion	MPM-21-62	Remodel existing storage warehouse.	400 Industrial Park	Zacharia Chemanooru
Sunny Valley Meats Expansion	SPC-21-061	87,071 sqft meat products processing facility	2427 W Yosemite Ave	Sunny Valley Meats
147 & 165 Commerce Ave	SPC-21-162	Retail strip building	147 & 165 Commerce Ave	Kunba Enterprise LLC

Name	Project #	Description	Location	Developer/Builder
Loma Brewing	SPC-22-009	Beer garden and brewery	1077 Milo Candini Dr	Loma Brewing / Kevin Youkilis

IN APPLICATION / UNDER REVIEW				
Name	**Project #**	**Description**	**Location**	**Developer/Builder**
Daniels Center	SPC-21-101 UPN-21-102	QSR store, car wash, gas station, and convenience store	212 S Daniels St	Jaspal Kamboj
Yosemite Retail	SPC-21-149	Proposed quick serve restaurant, 200 sqft with car wash and fueling station	1901 E Yosemite Ave	Major Singh
226-100-20 Annexation	ANX-21-172	Annex existing home site parcel into the City	7189 E Sedan Ave	NorthStar Engineering Group
AT&T Cell Tower CVL00841	UPJ-22-003	Install new cell tower	815 W Lathrop Rd	New Cingular Wireless / Carl Jones
Crossroads Plaza	GPA-22-004	Convenience store w/ fuel pumps	2064 N Union Rd	Merced 18, LLC
SR120/McKinley Interchange LLA	LLA-21-038	Lot line adjustment	2819 & 2881 Bronzan Rd	City of Manteca
36&48 Lot Line Dilip Dr (Griffin Park)	LLA-22-001	Lot line adjustment	2392 Dilip Drive	Griffin Park Development Co/Toni Raymus
Griffin Park Unit 2 LLA	LLA-22-010	Lot line adjustment	1374 Oleander & 1450 S Airport	Pillsbury Road Partners
Griffin Park Phase D Lots 19 & 20	LLA-22-026	Lot line adjustment	2565 & 2559 Tinnin Rd	Demitri Filios
Warehouse Remodel & Conversion	MPM-20-090	Remodel existing storage warehouse	221 Oak St	Zacharia Chemanooru
American Modular Systems	MPM-21-158	3963 sqft office expansion	787 Spreckles Ave	Loren Aiton
Prologis/Spreckels Distribution Center	SPC-17-011	305,000 sqft dist center	407 Spreckels Av	Amanda Criscione

Name	Project #	Description	Location	Developer/Builder
Maverik Service Station SPC	SPC-21-064	6130 sqft convenience store w/ 15 fuel pumps	1527 S Airport Way	Maverik, Inc.
Lathrop Diesel Fueling Canopy	SPC-21-120	Diesel fuel canopy	2064 Crestwood Ave	ASP Petroleum Inc/ Sarvjit Singh
GBX at CenterPoint	SPC-21-136	Construct 280,983 sqft dist warehouse	2205 N Airport Way	Lone Oak / Pehr Peterson
AT&T Cell Tower CVL00836	UPJ-21-166	Install new cell tower	1125 N Union Rd	New Cingular Wireless / Carl Jones
Manteca Marriott Courtyard	PCD-22-019	117 guestroom hotel	2303 W Atherton Dr	Atherton Hospitality
Walmart Expnsion Store #1840	MPM-22-028	2843 sqft expansionfor grocery pickup	1205 S Main St	WD Partners
Market Place at Main (Savemart)	SPC-21-153	110,000 SF retail center	Southwest corner of Atherton and Main	Cal Gold
Standard Plumbing Supply	MPM-22-038	4560 sq ft warehouse addition	105 Northgate	Skarphol/Frank Associates
Spreckles Retail	SPC-22-039	7560sf single story commercial building	130 Spreckles Ave	Ashley Investments, LLC
Cabral-Jeep Dealershop Renovation	PST-22-040	Renovate existing dealership building.	1115 W Yosemite Ave	Cabral Chrysler Dodge
Deaf Puppy Comedy Club	UPJ-22-043	Renovate 4,000 sf existing space for a comedy club	127 N Main Street	Chris Teicheira
Airport Business Centre (North)	SPC-22-045	360,000sf distribution building	3045,3123 & 3157 N Airport Way	Greenlaw Development, LLC
Harris Lot Line Adjustment	LLA-22-55	Proposed Lot Line adjustment between Harris property and Thiara property	2303 W Atherton Dr	Burrell Consulting Group
Storage Building	MPM-22-56	Building a 45x30ft steel storage building for golf carts and parts	842 W Yosemite Ave	Erick Mendoza Bravo
Valley Medical	SPC-22-59	Three Medical Buildings at 25,039 SF	1132 Norman Dr	DME, LLC

APPENDIX G
City of Manteca
Water Master Plan
Pipeline Rating Figures

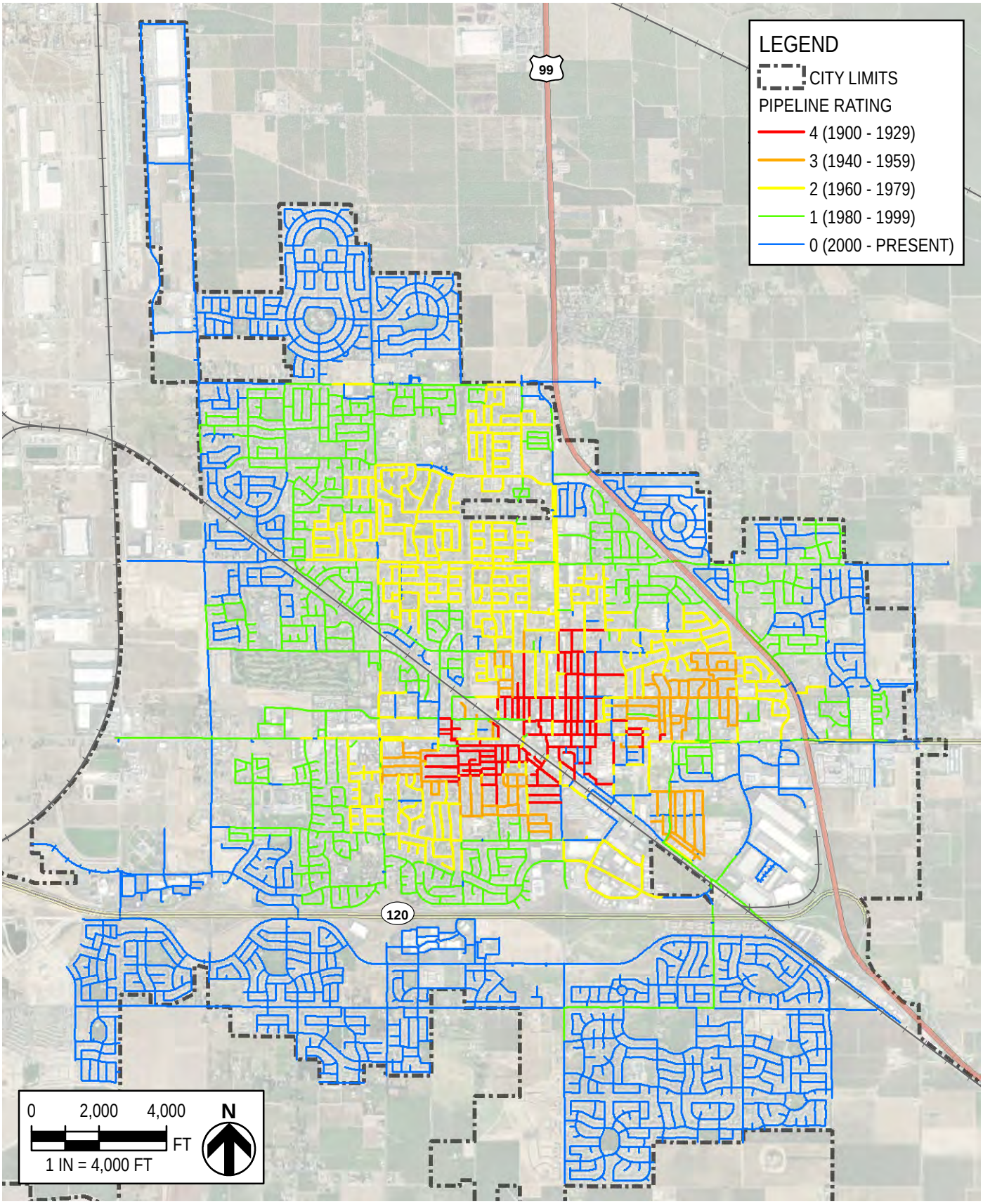


FIGURE G-1
CITY OF MANTECA
WATER MASTER PLAN
PIPELINE RATINGS - PIPELINE AGE

HydroScience

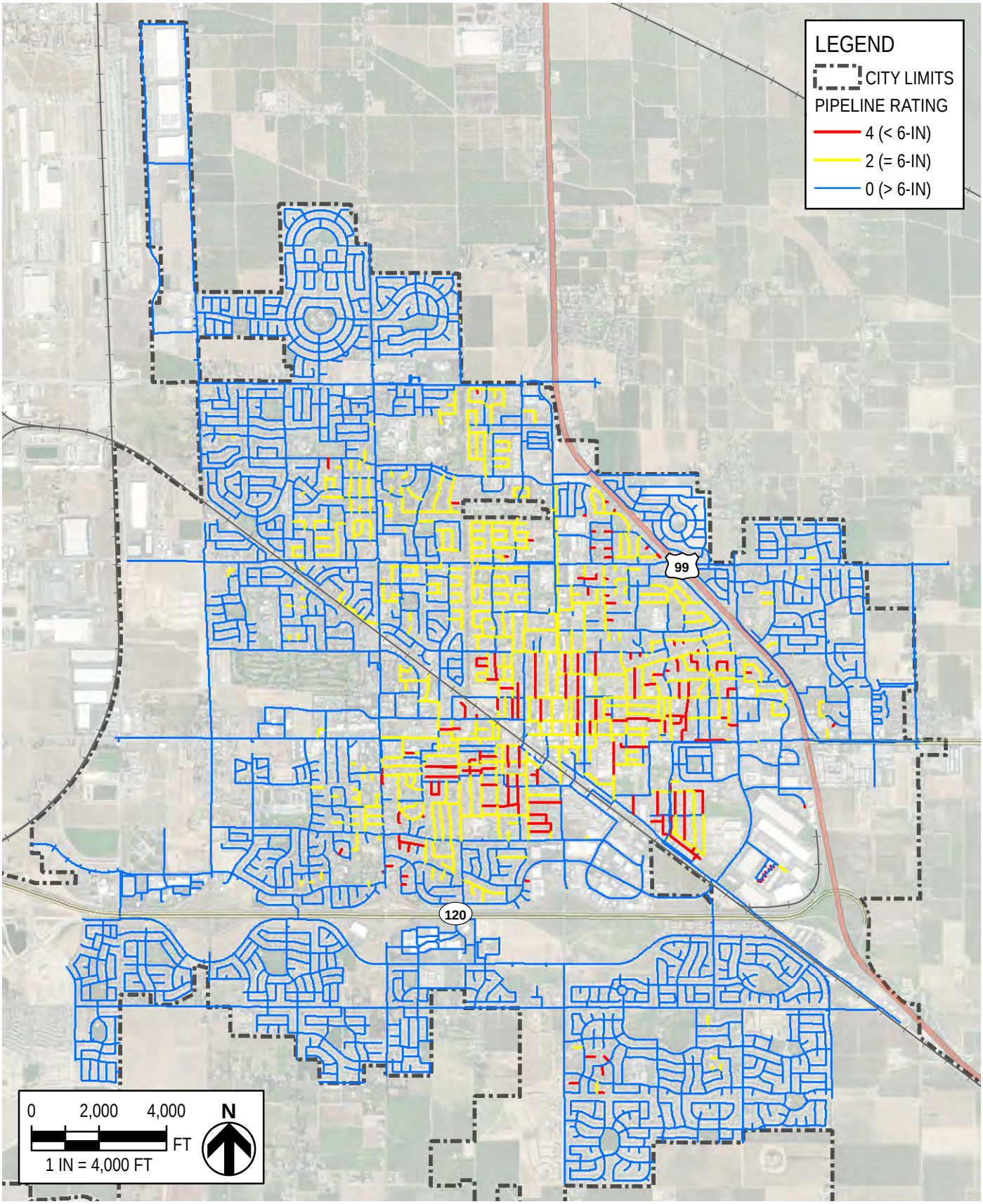


FIGURE G-2
CITY OF MANTECA
WATER MASTER PLAN
PIPELINE RATINGS - PIPELINE DIAMETER

HydroScience

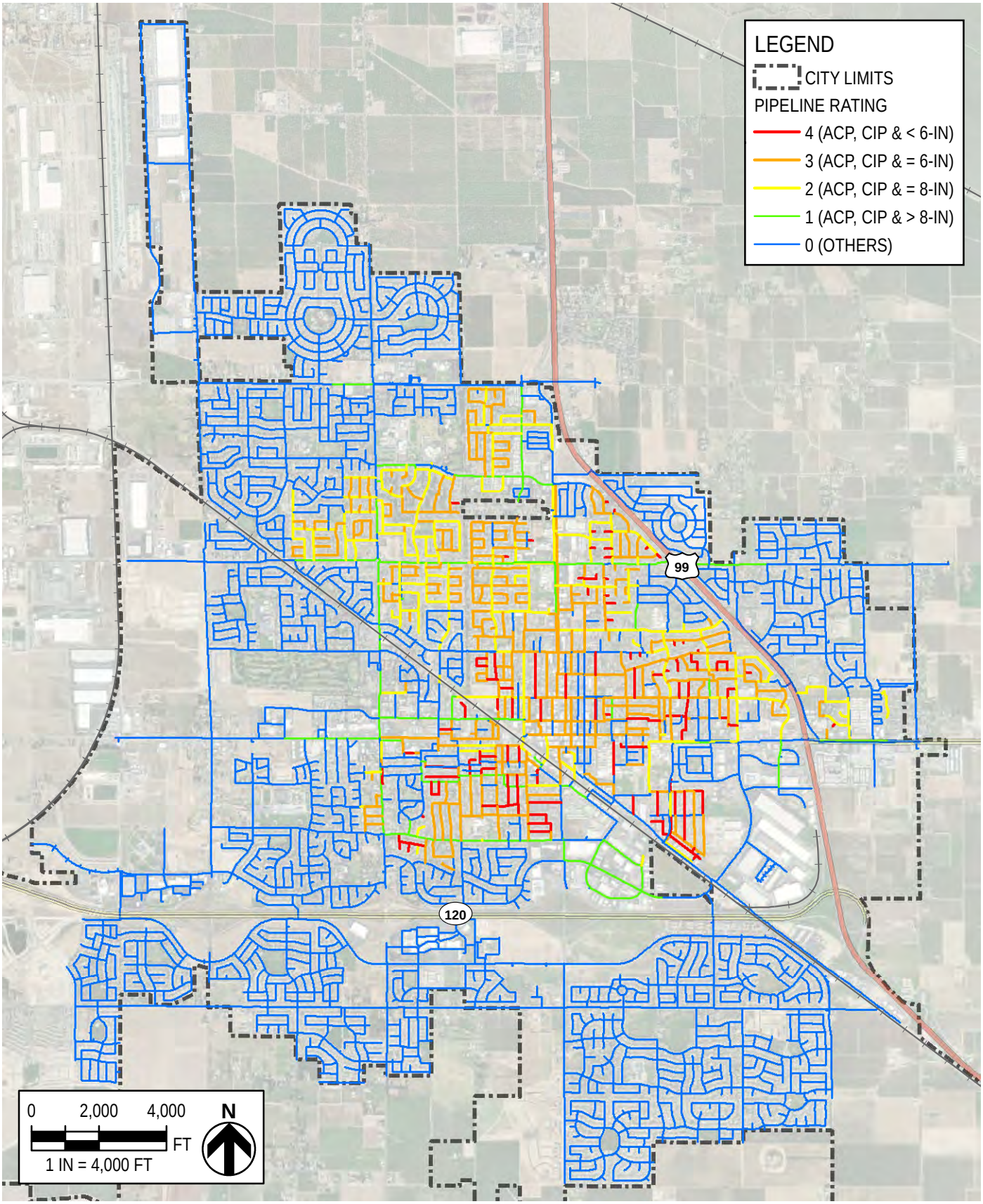


FIGURE G-3
CITY OF MANTECA
WATER MASTER PLAN
PIPELINE RATINGS - SOIL TYPE

HydroScience

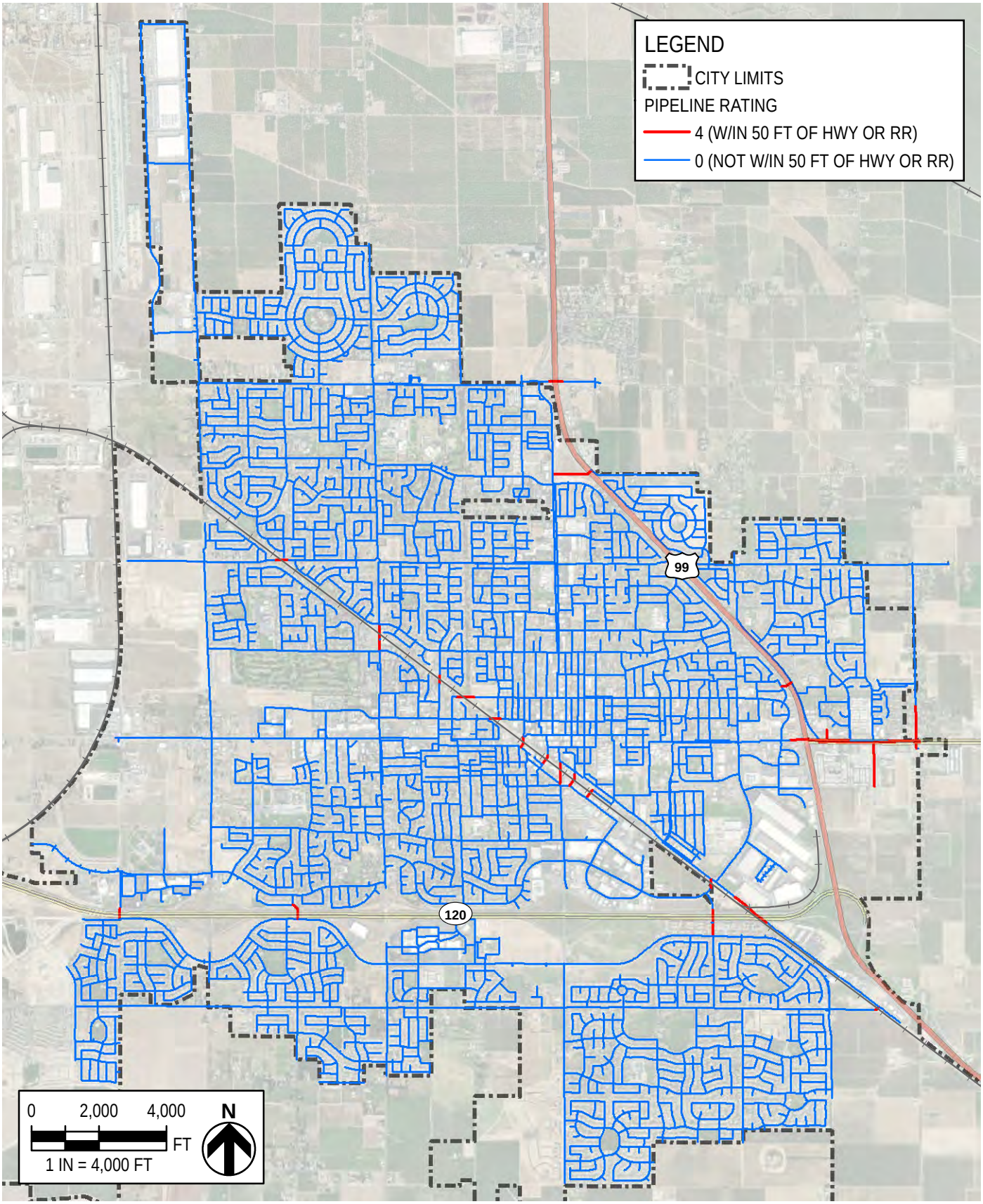
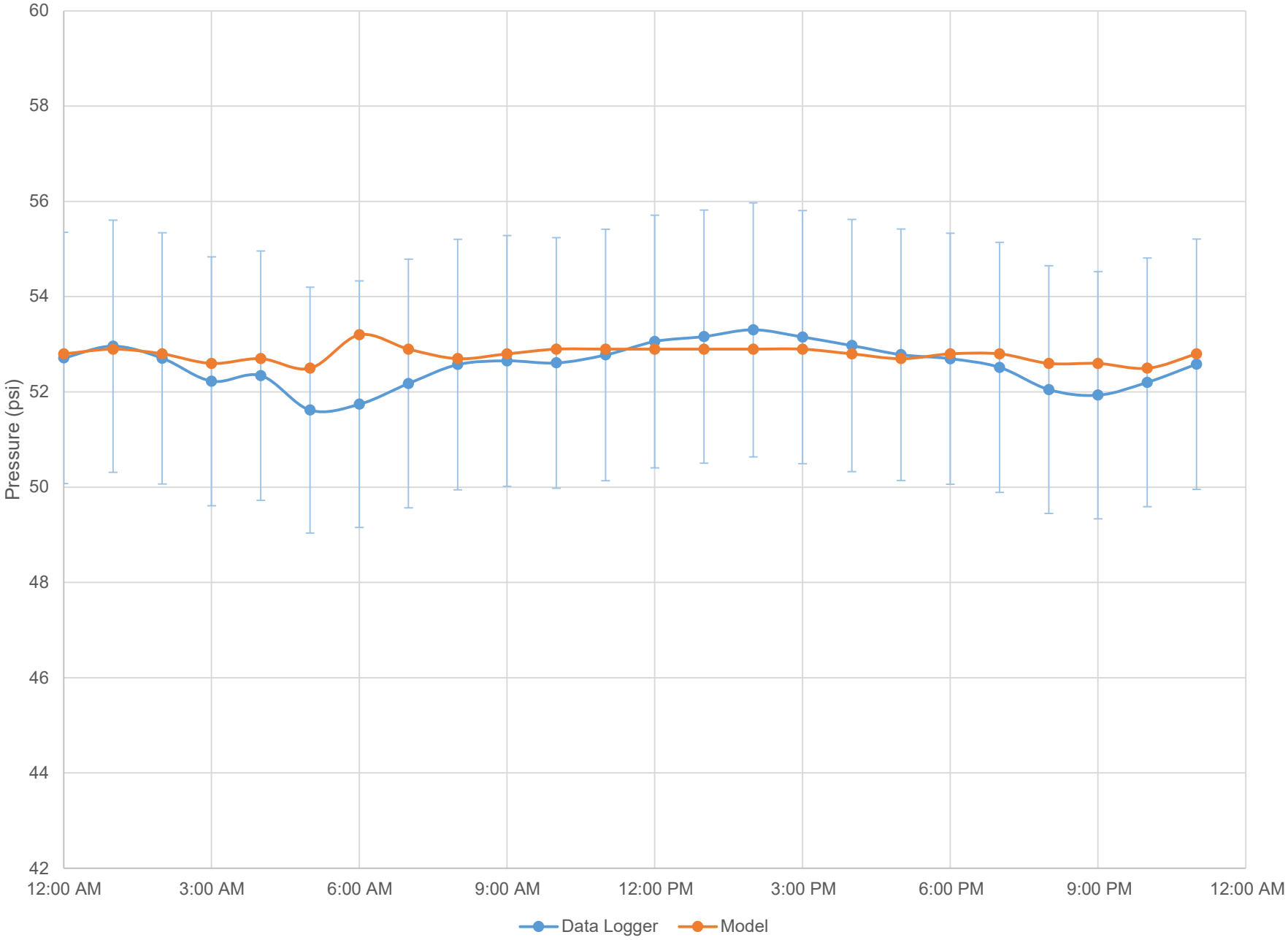


FIGURE G-4
CITY OF MANTECA
WATER MASTER PLAN
PIPELINE RATINGS - PROXIMITY TO MAJOR TRANSPORTATION CORRIDORS

HydroScience

APPENDIX H
City of Manteca
Water Master Plan
EPS Calibration Results

Site 1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Pressure (psi)
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3:00 AM
6:00 AM
9:00 AM
12:00 PM
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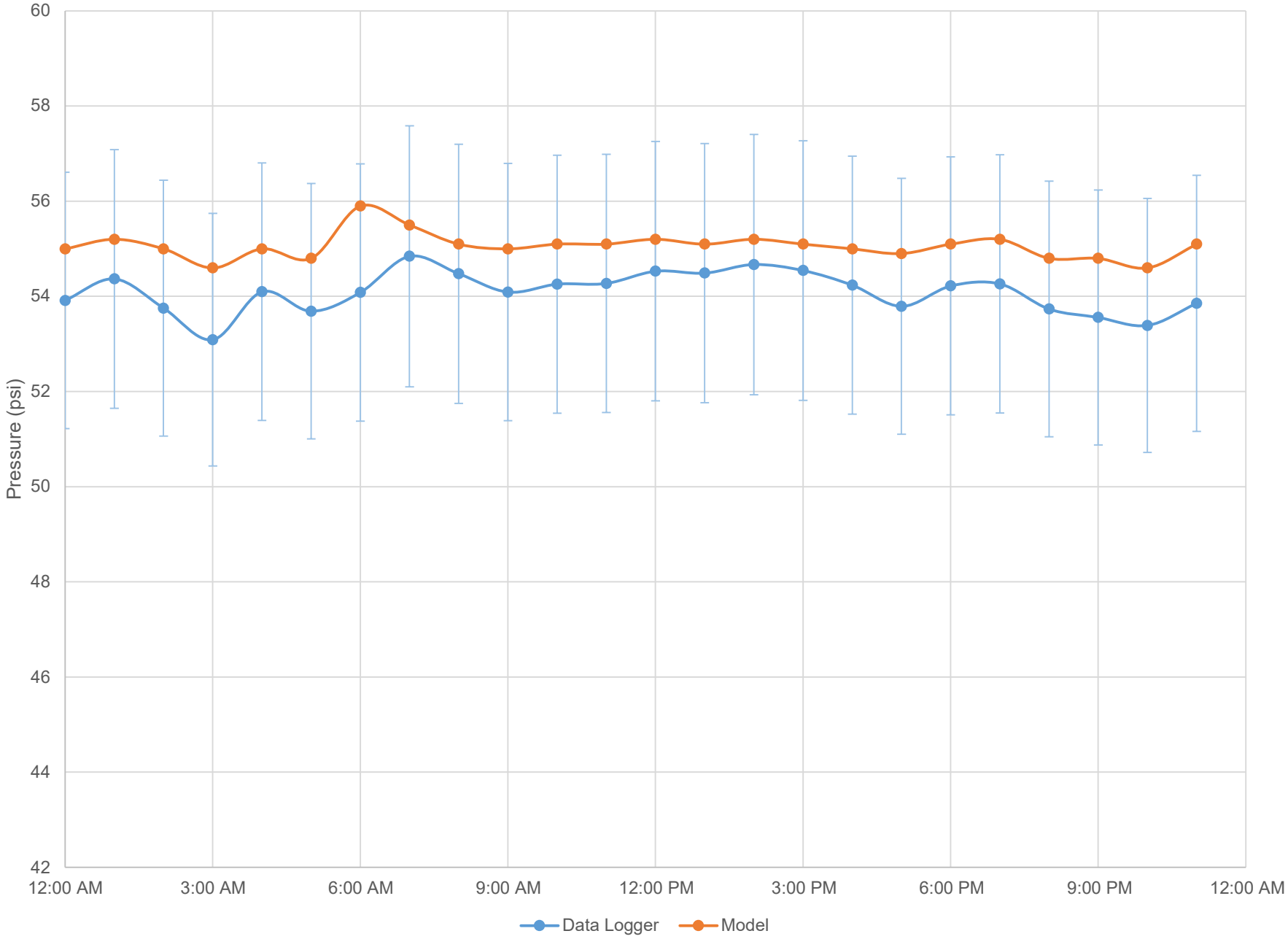
9:00 PM
12:00 AM
Data Logger
Model

Site 2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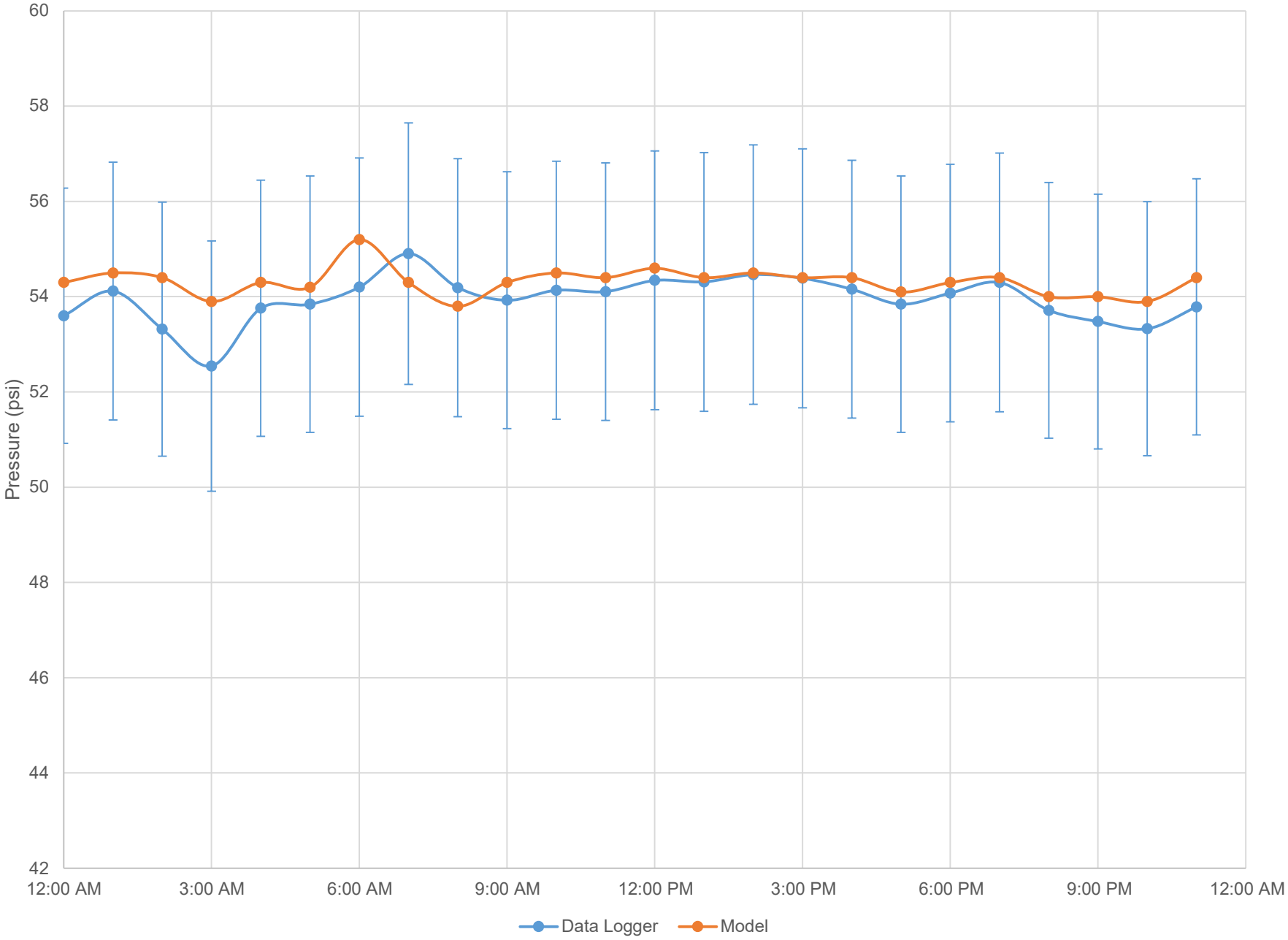
Data Logger
Model

Site 3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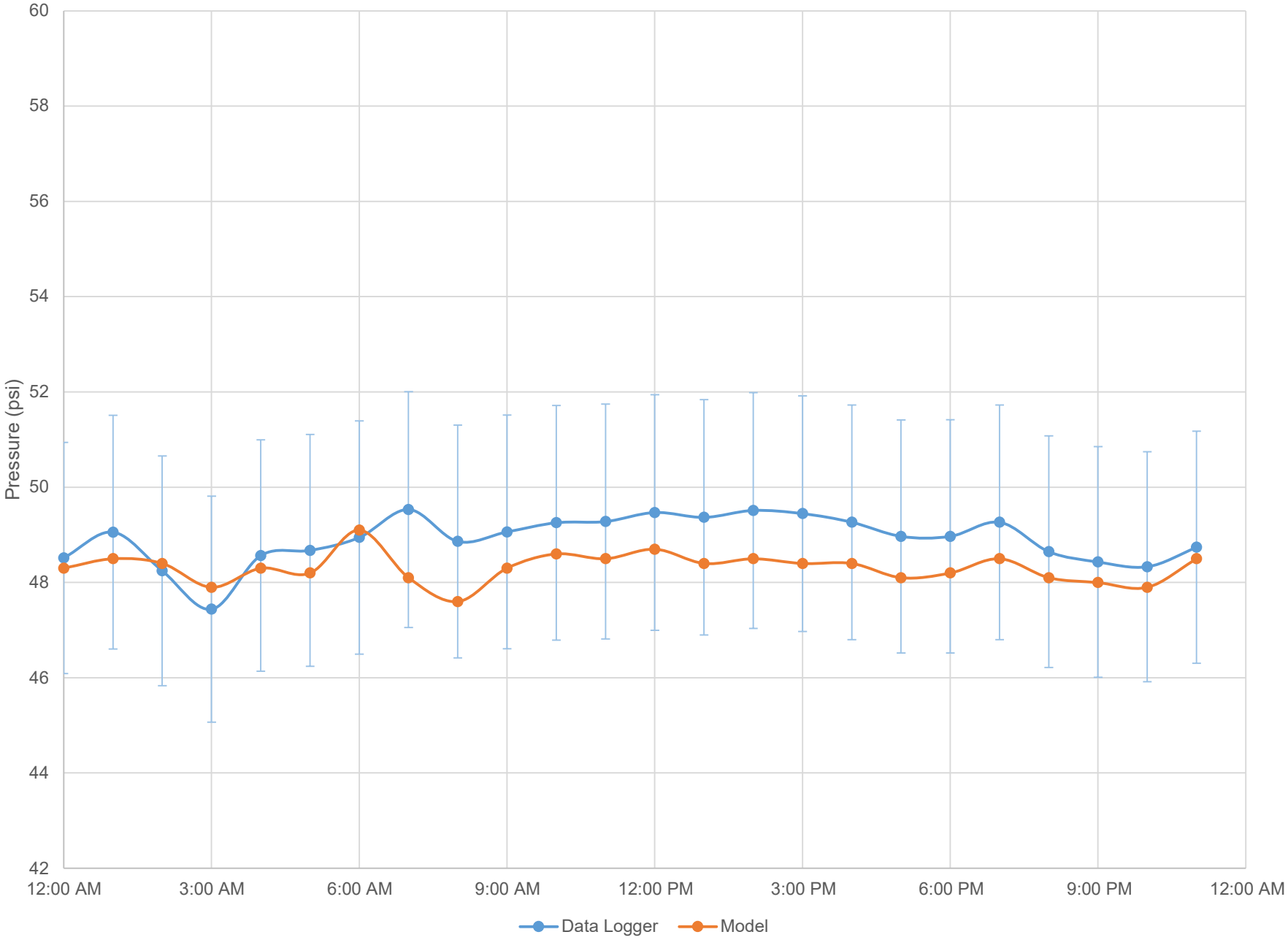
Data Logger
Model

Site 4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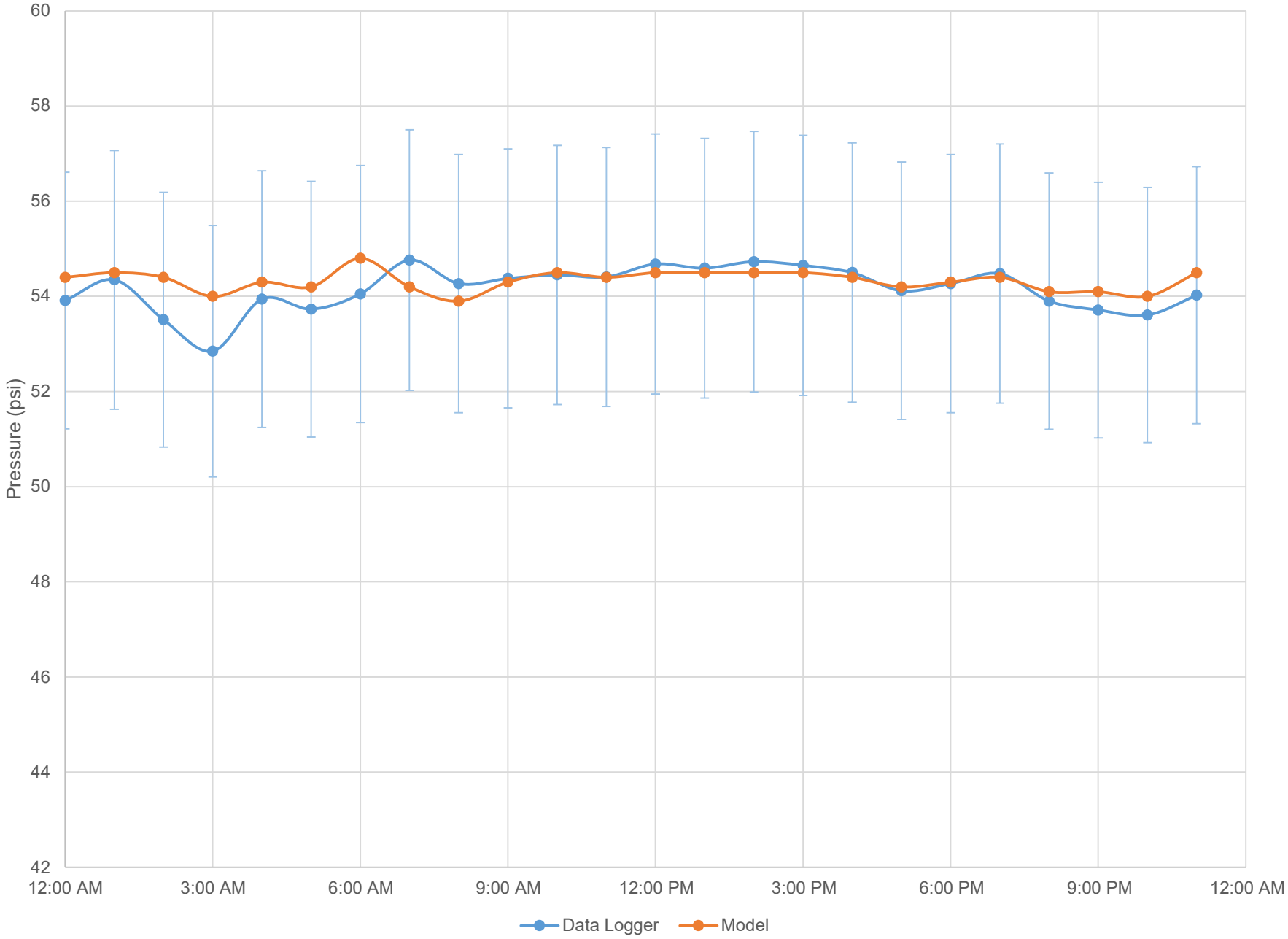
Data Logger
Model

Site 5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Pressure (psi)
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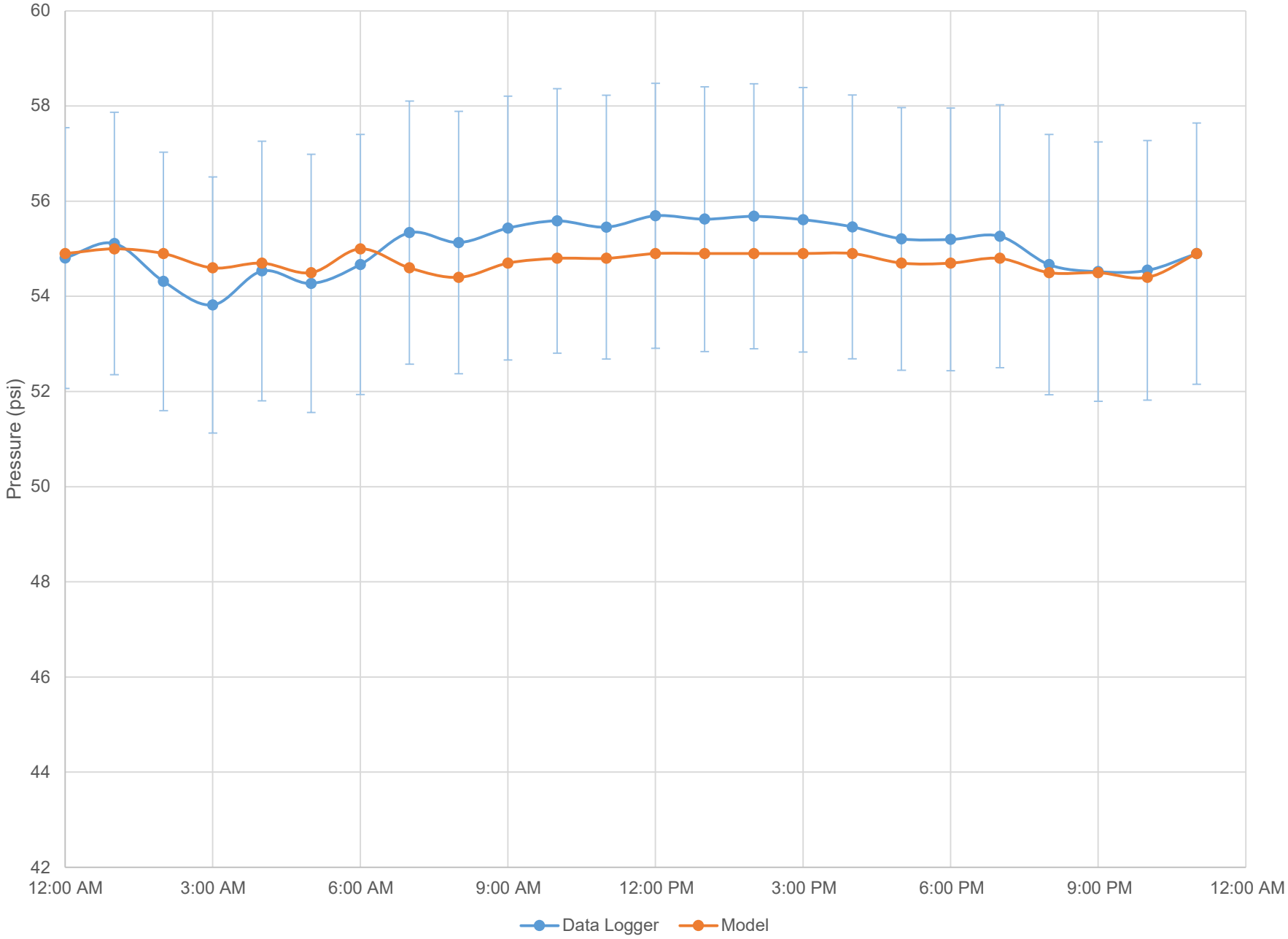
Data Logger
Model

Site 6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Pressure (psi)
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12:00 PM
3:00 PM
6:00 PM
9:00 PM
12:00 AM
Data Logger
Model

APPENDIX I
City of Manteca
Water Master Plan
Model Results Tables

Appendix I - Model Results Tables

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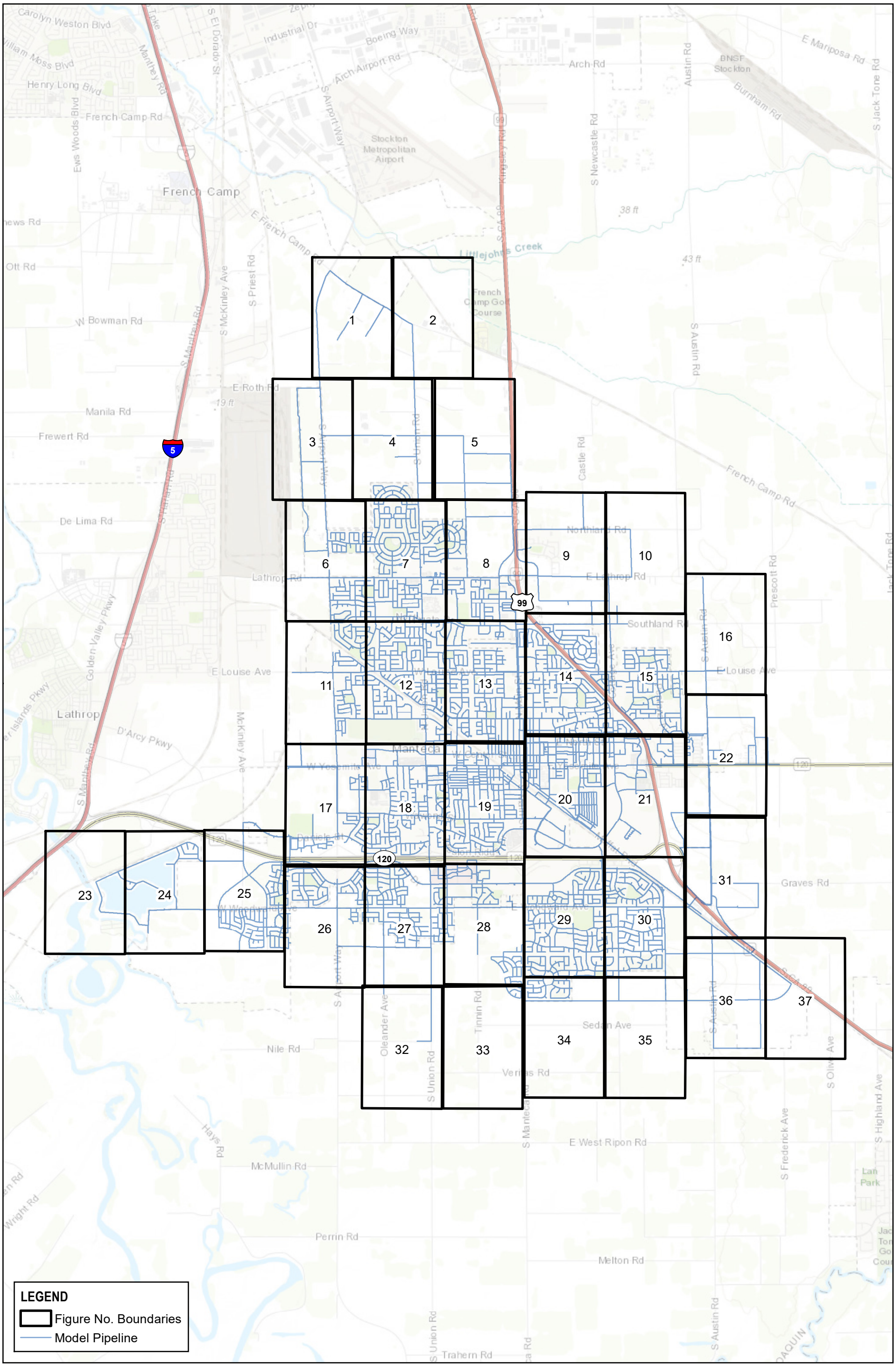

FIGURE 1
CITY OF MANTECA
WATER MASTER PLAN
MODEL MAP LEGEND

HydroScience

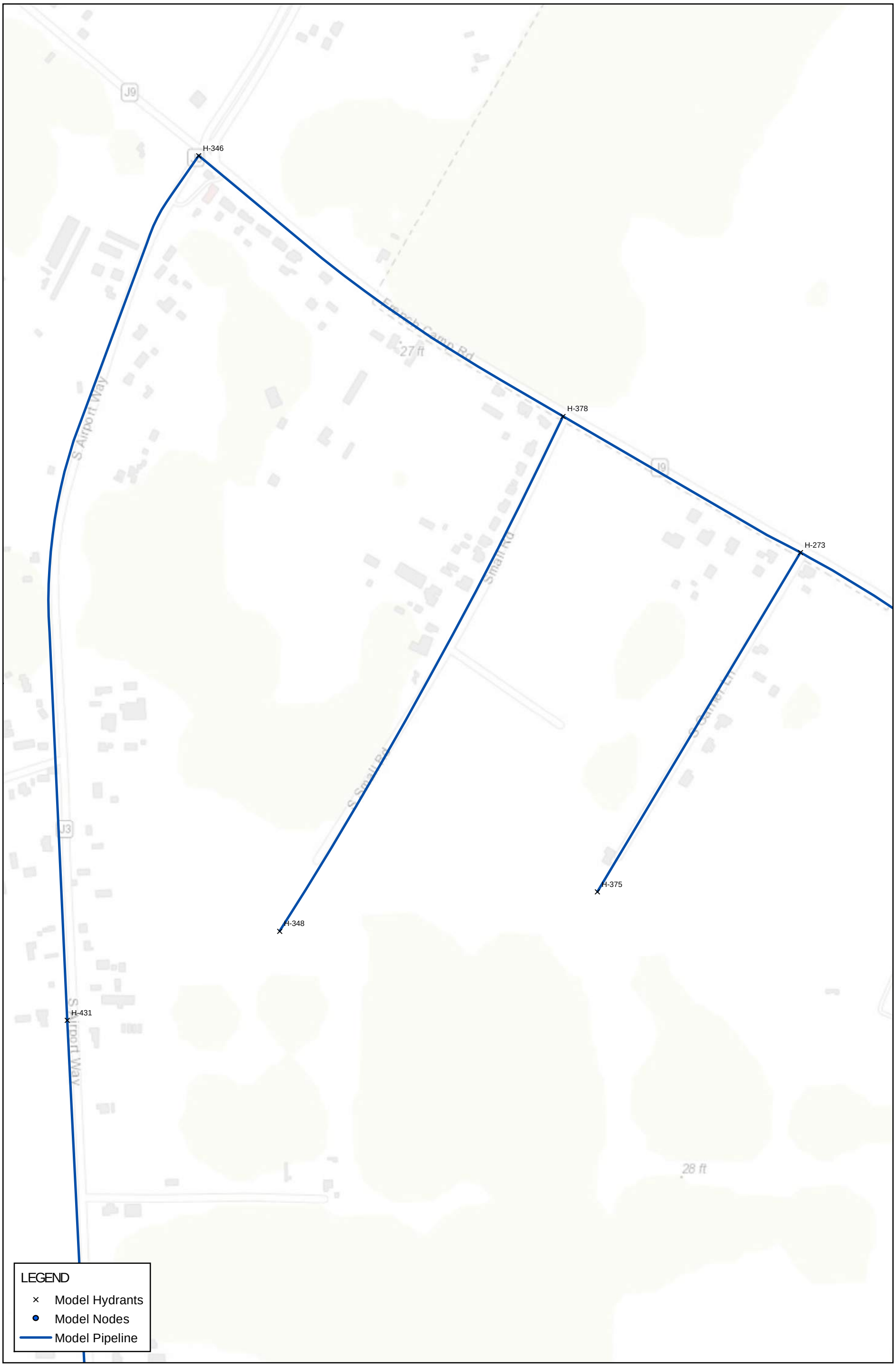

FIGURE 1B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

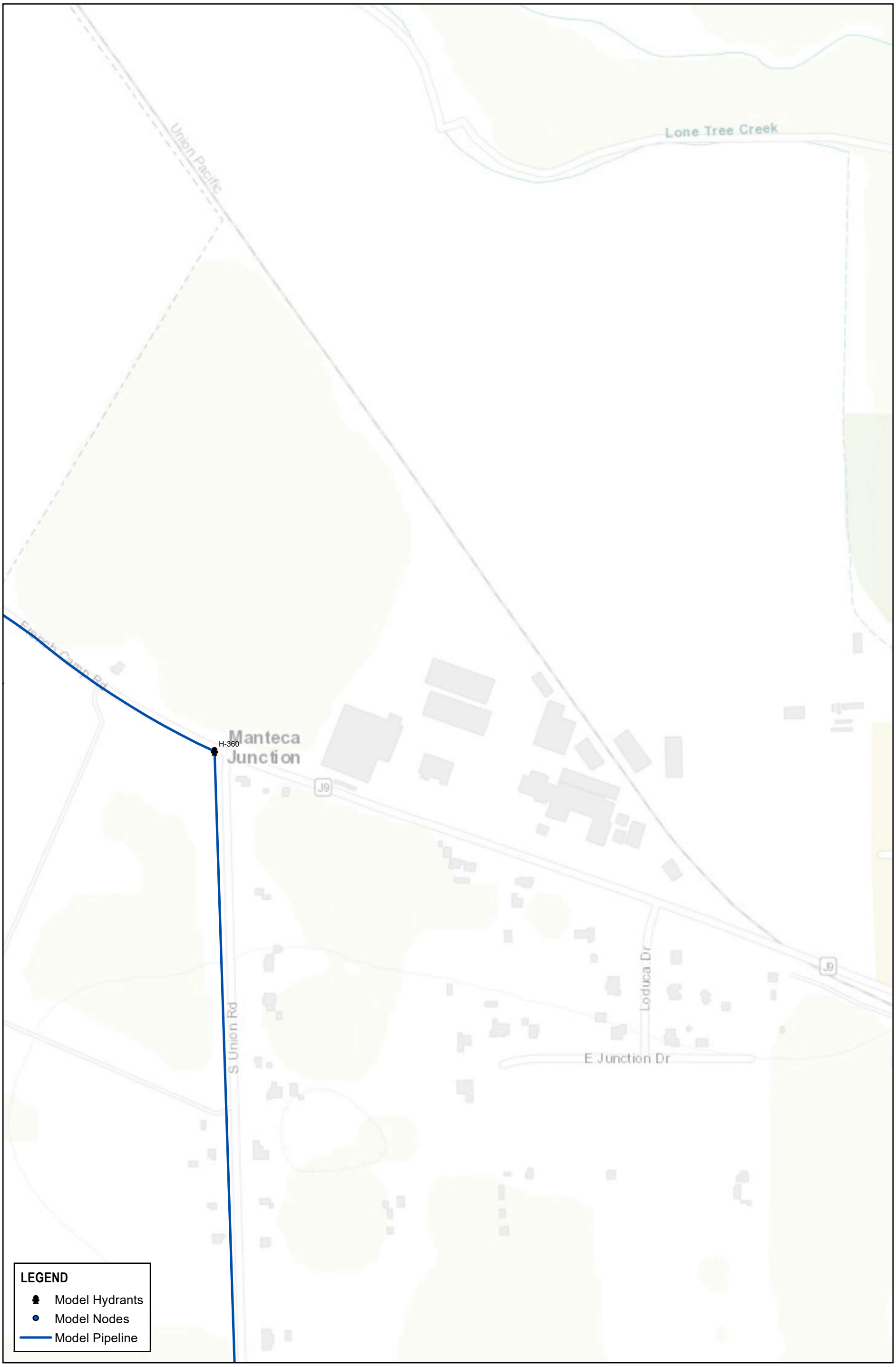

FIGURE 2B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

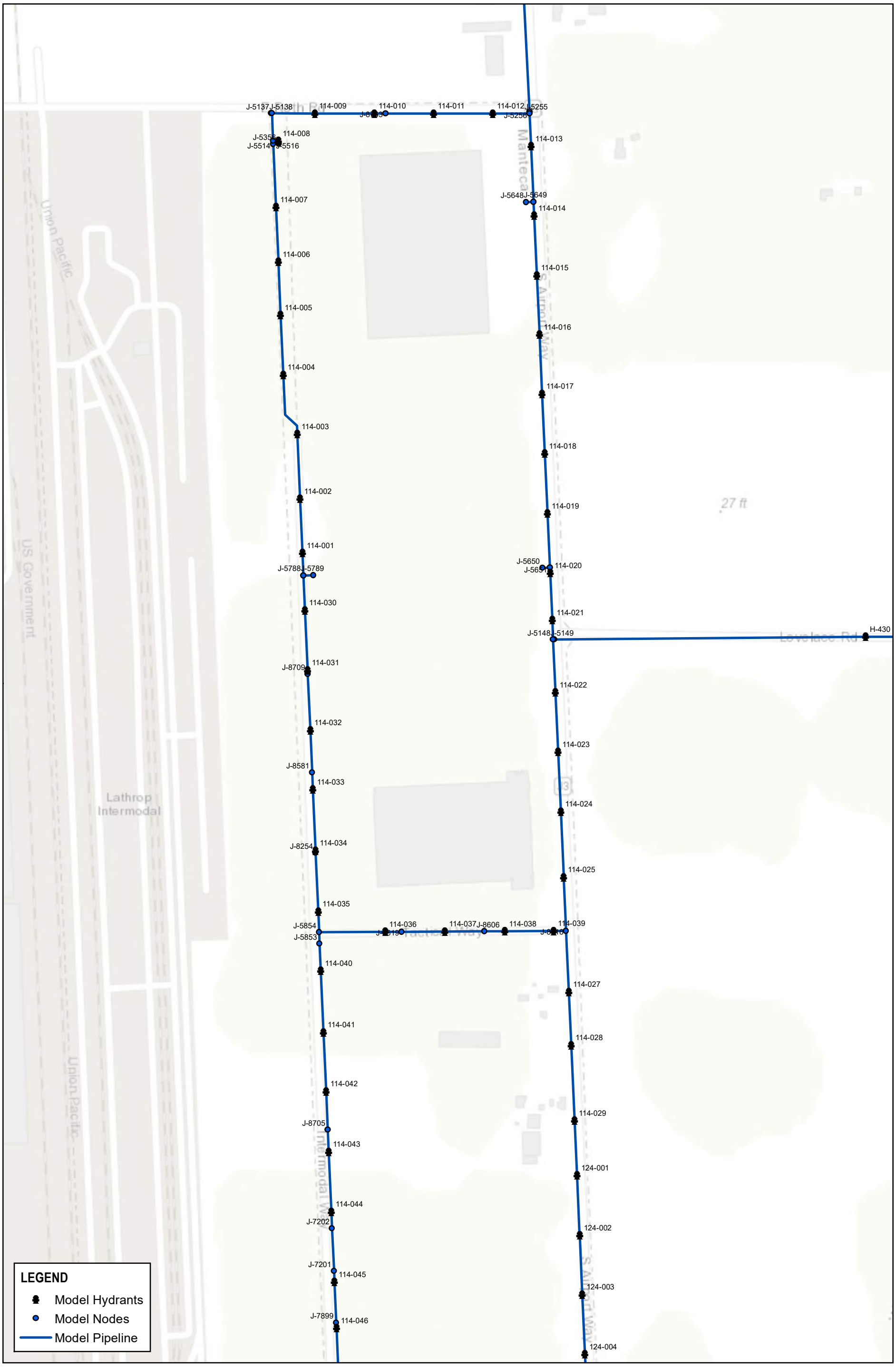

FIGURE 3B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

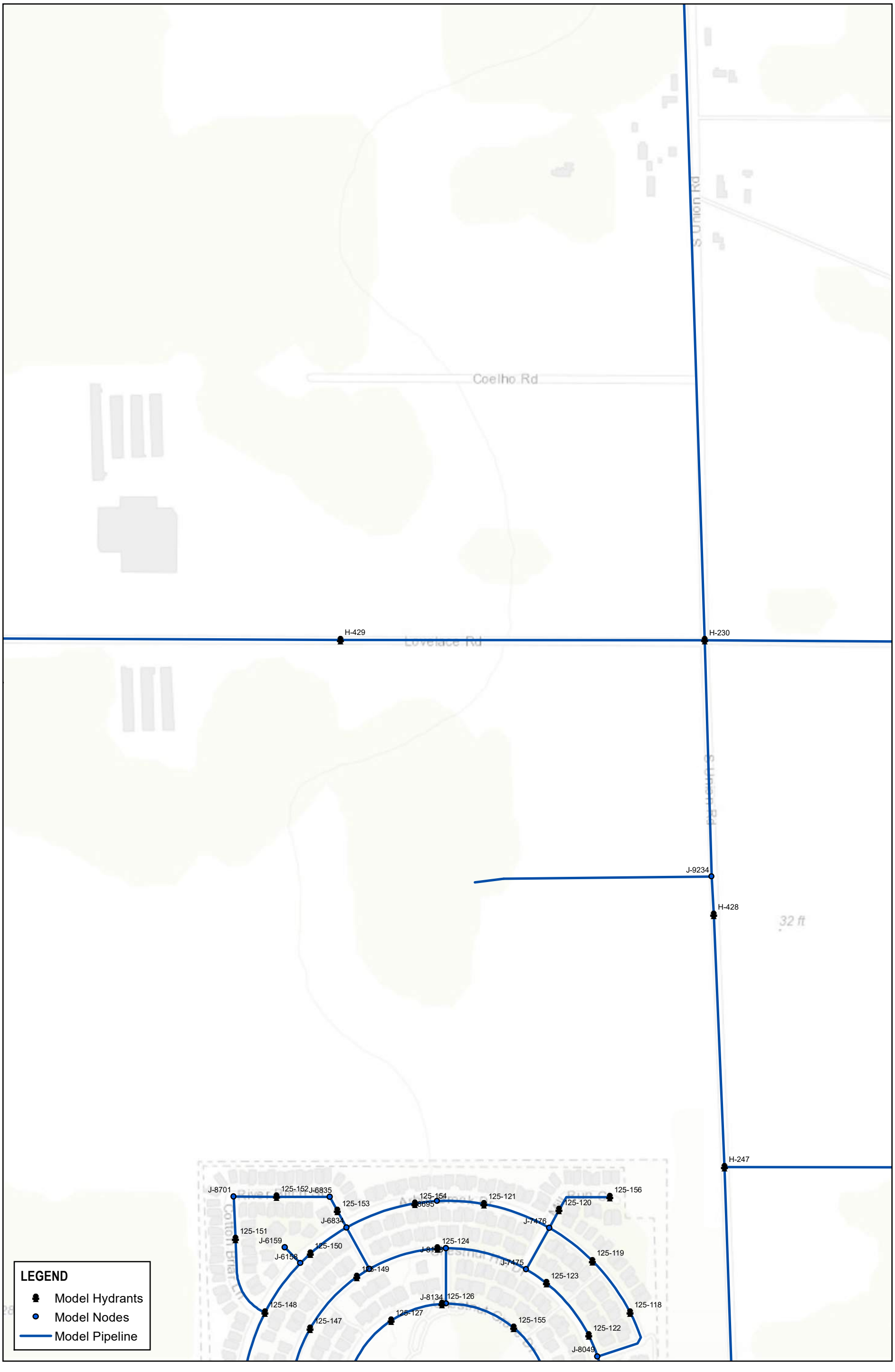

FIGURE 4B
CITY OF MANTECA
WATER MASTER PLAN
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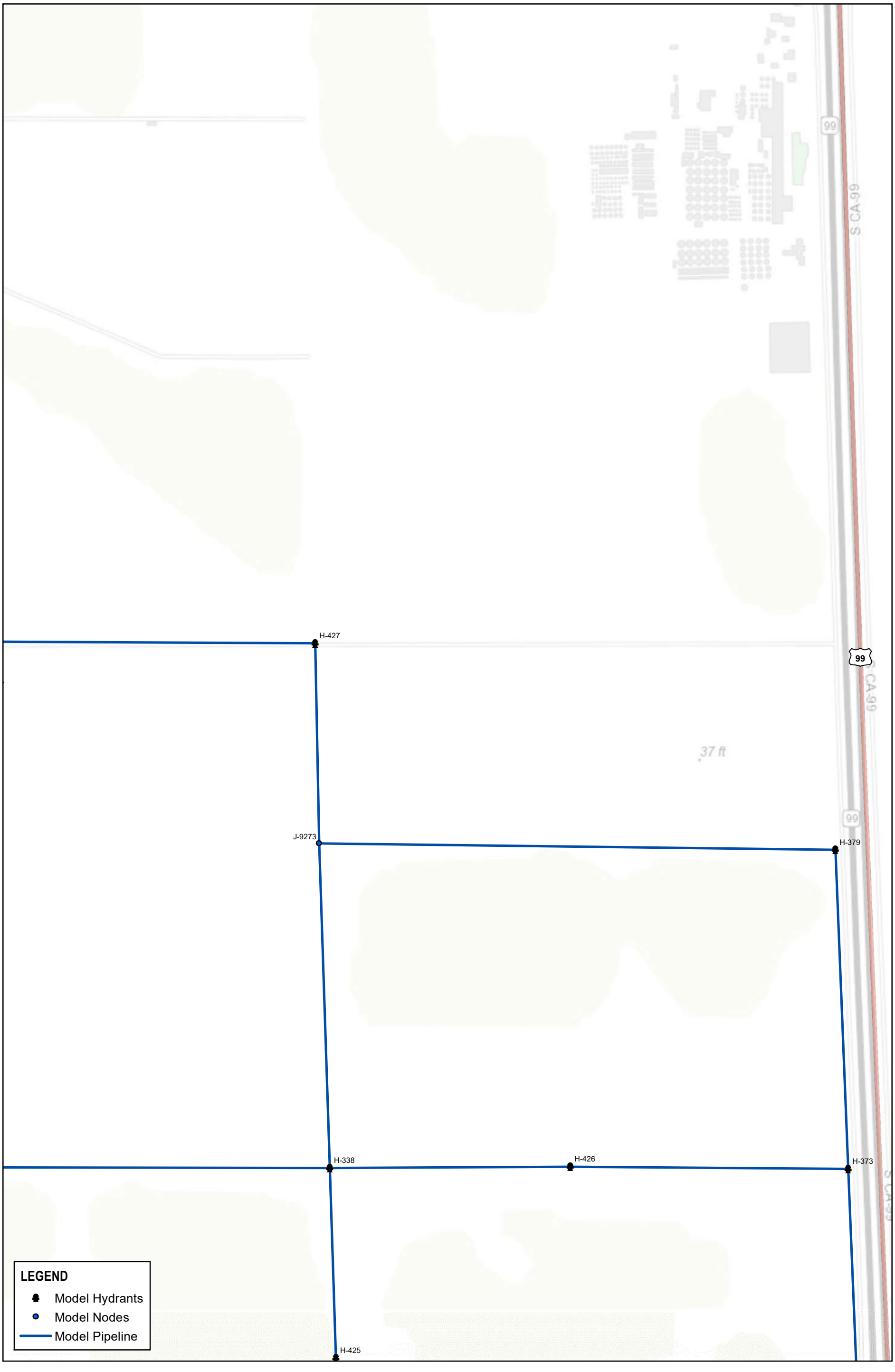

FIGURE 5B
CITY OF MANTECA
WATER MASTER PLAN
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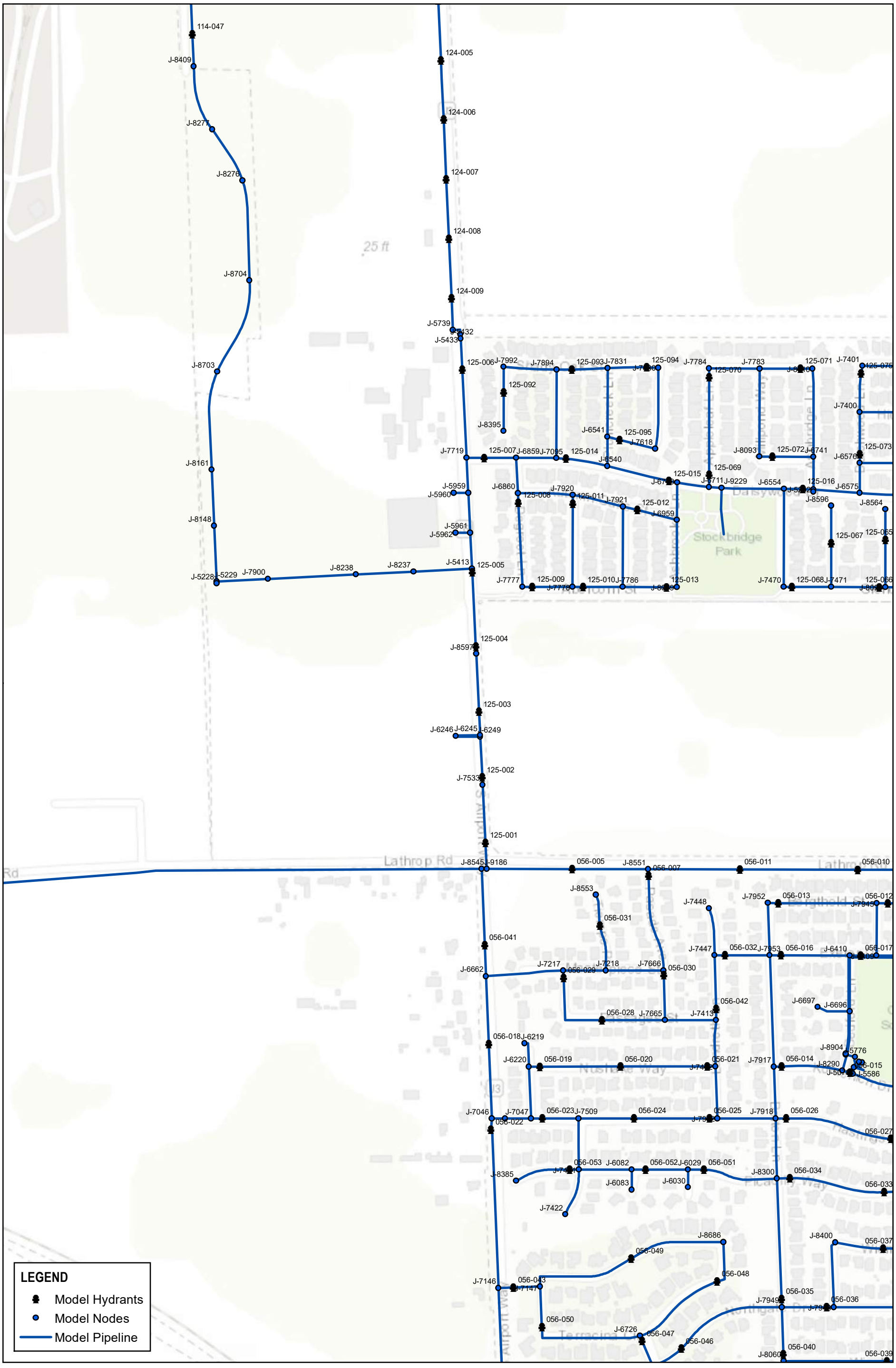

FIGURE 6B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

HydroScience

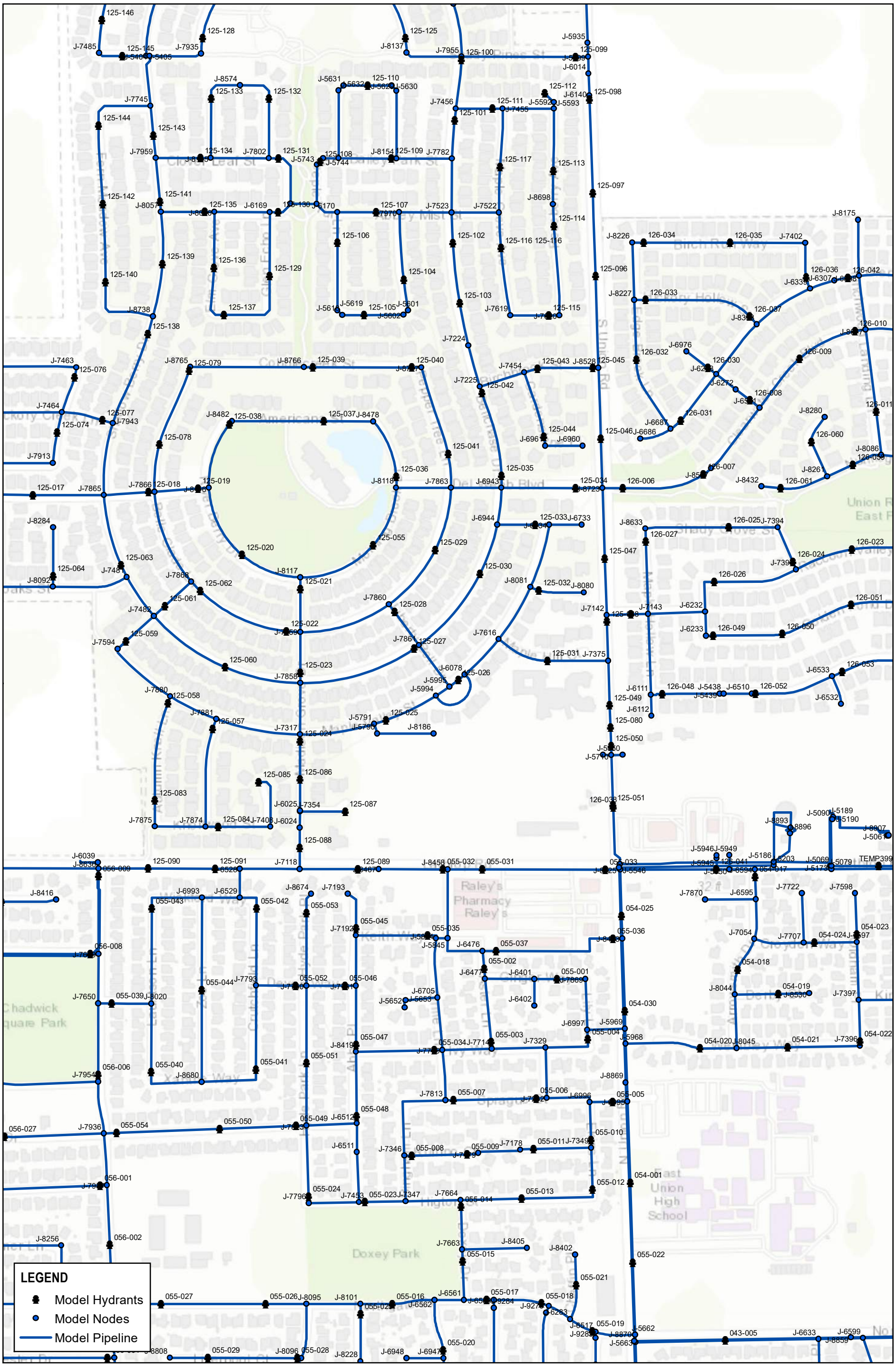

FIGURE 7B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

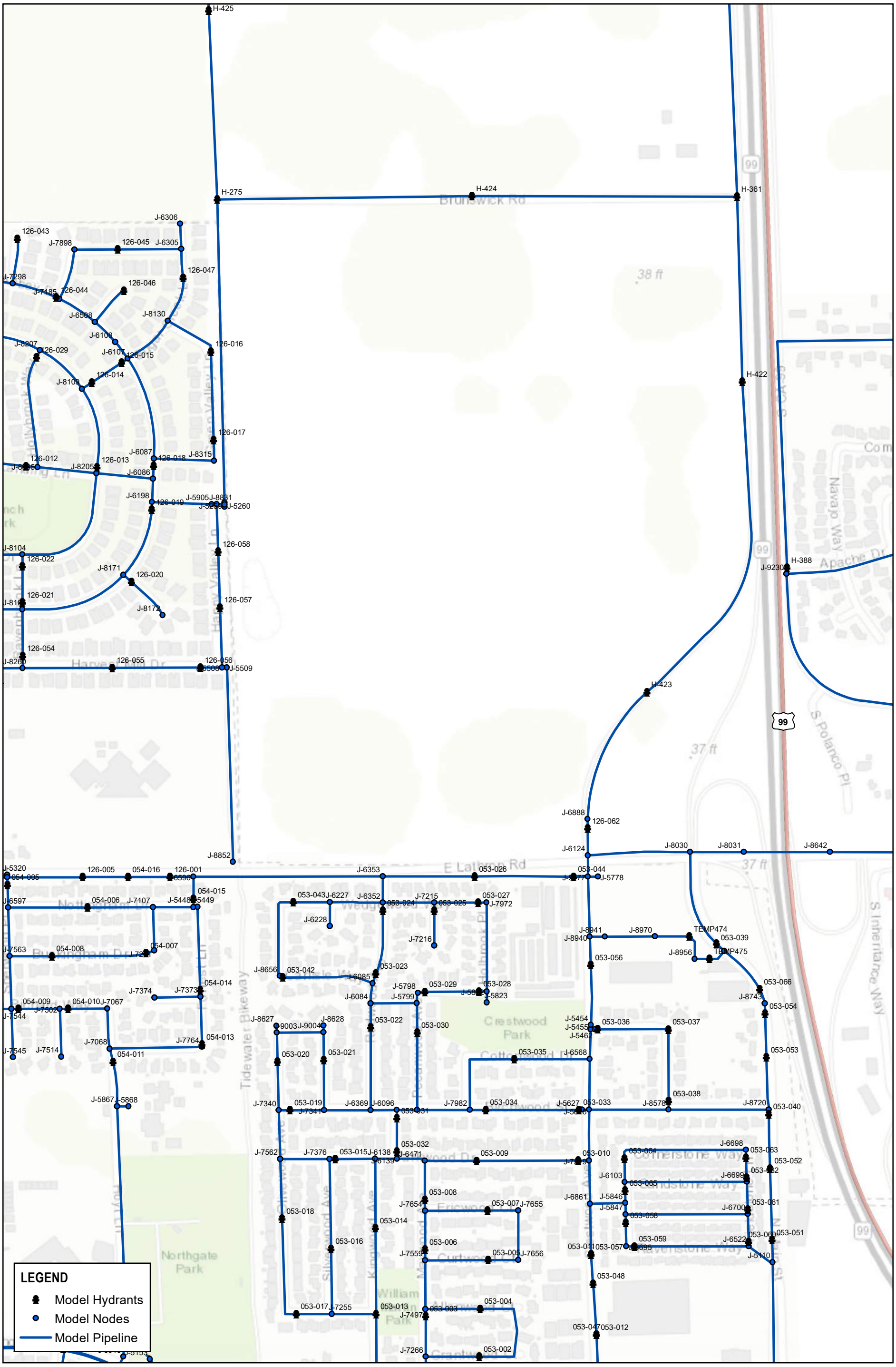

FIGURE 8B
CITY OF MANTECA
WATER MASTER PLAN
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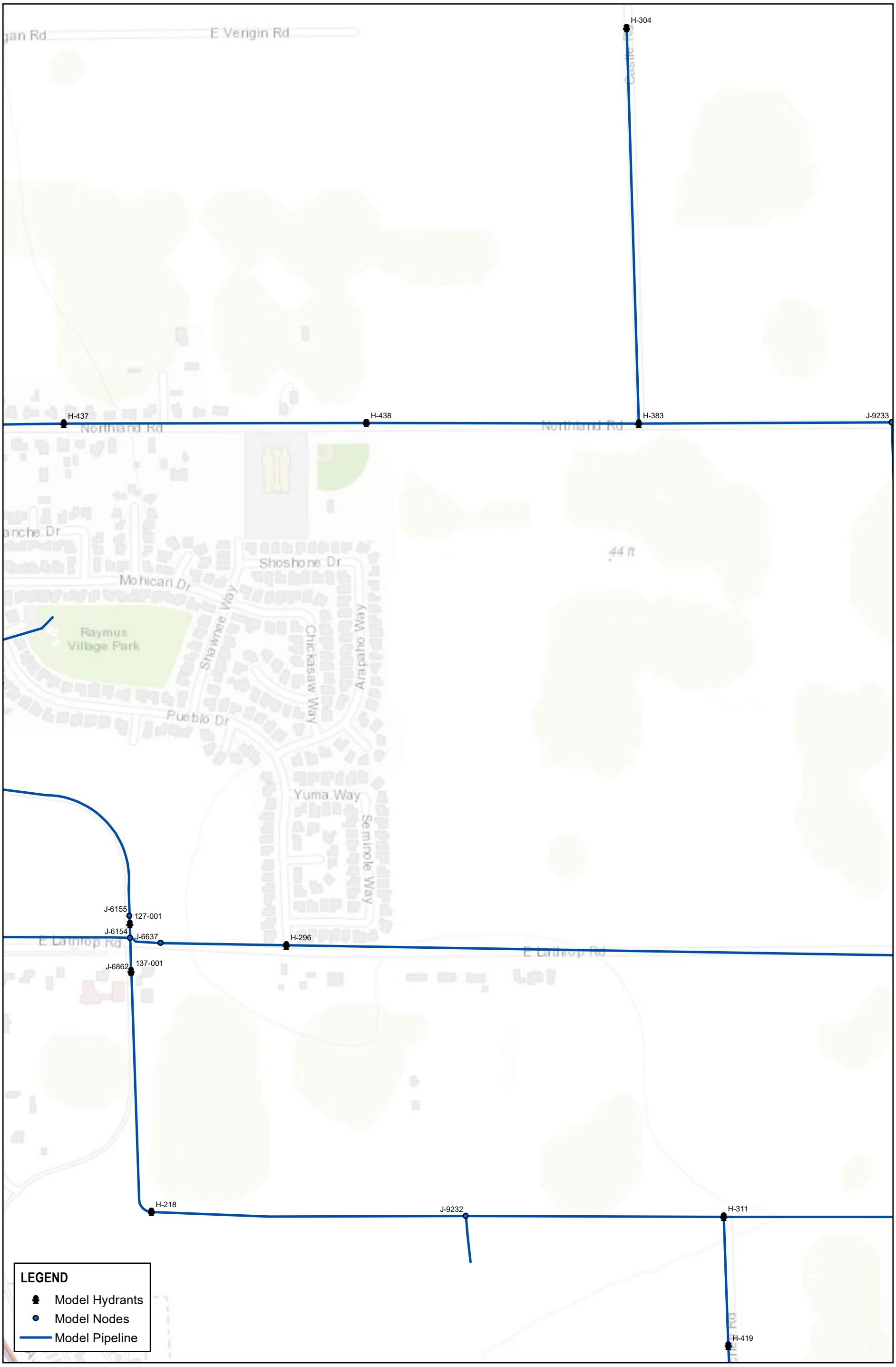

FIGURE 9B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

FIGURE 10B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

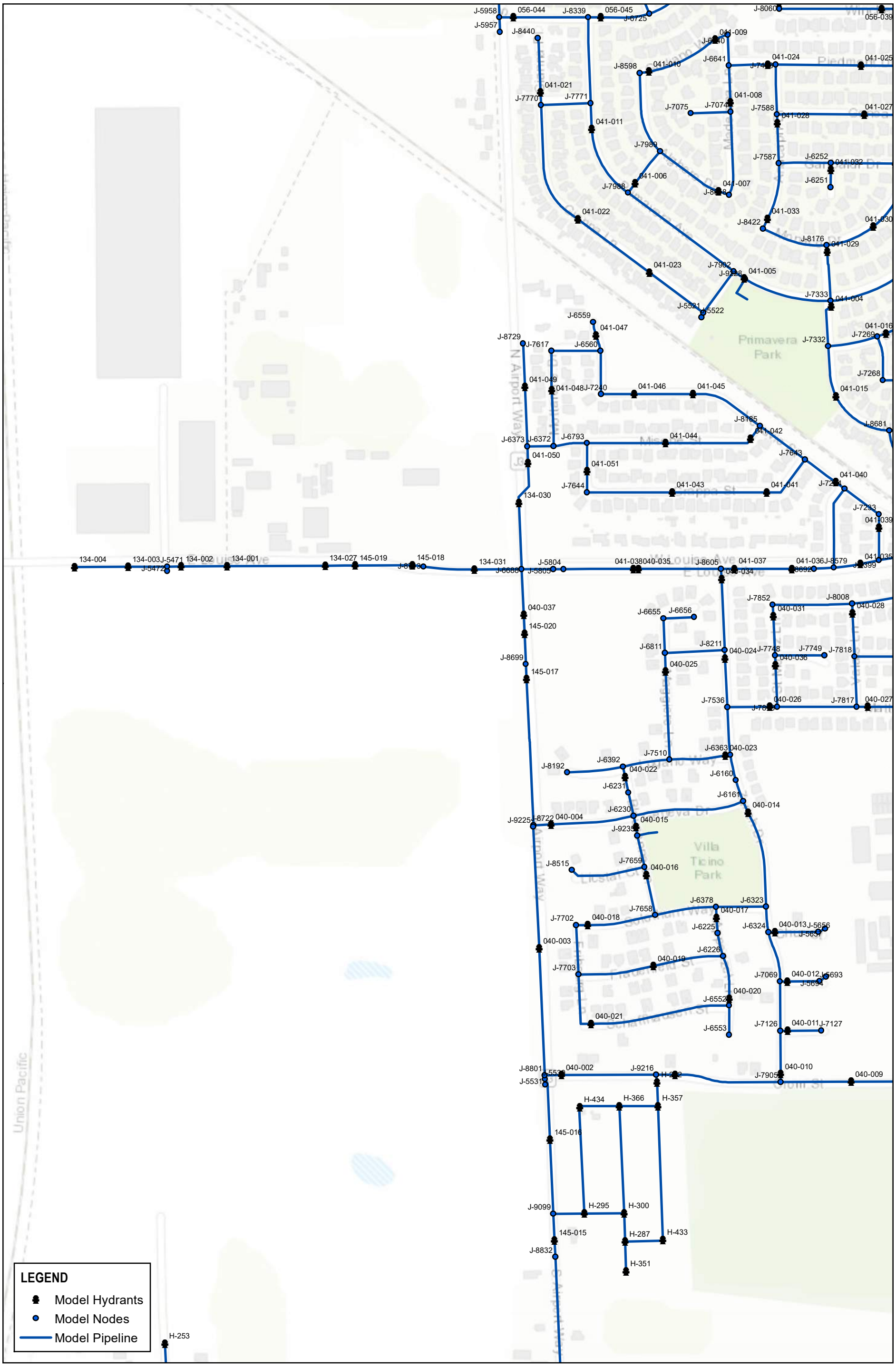

FIGURE 11B
CITY OF MANTECA
WATER MASTER PLAN
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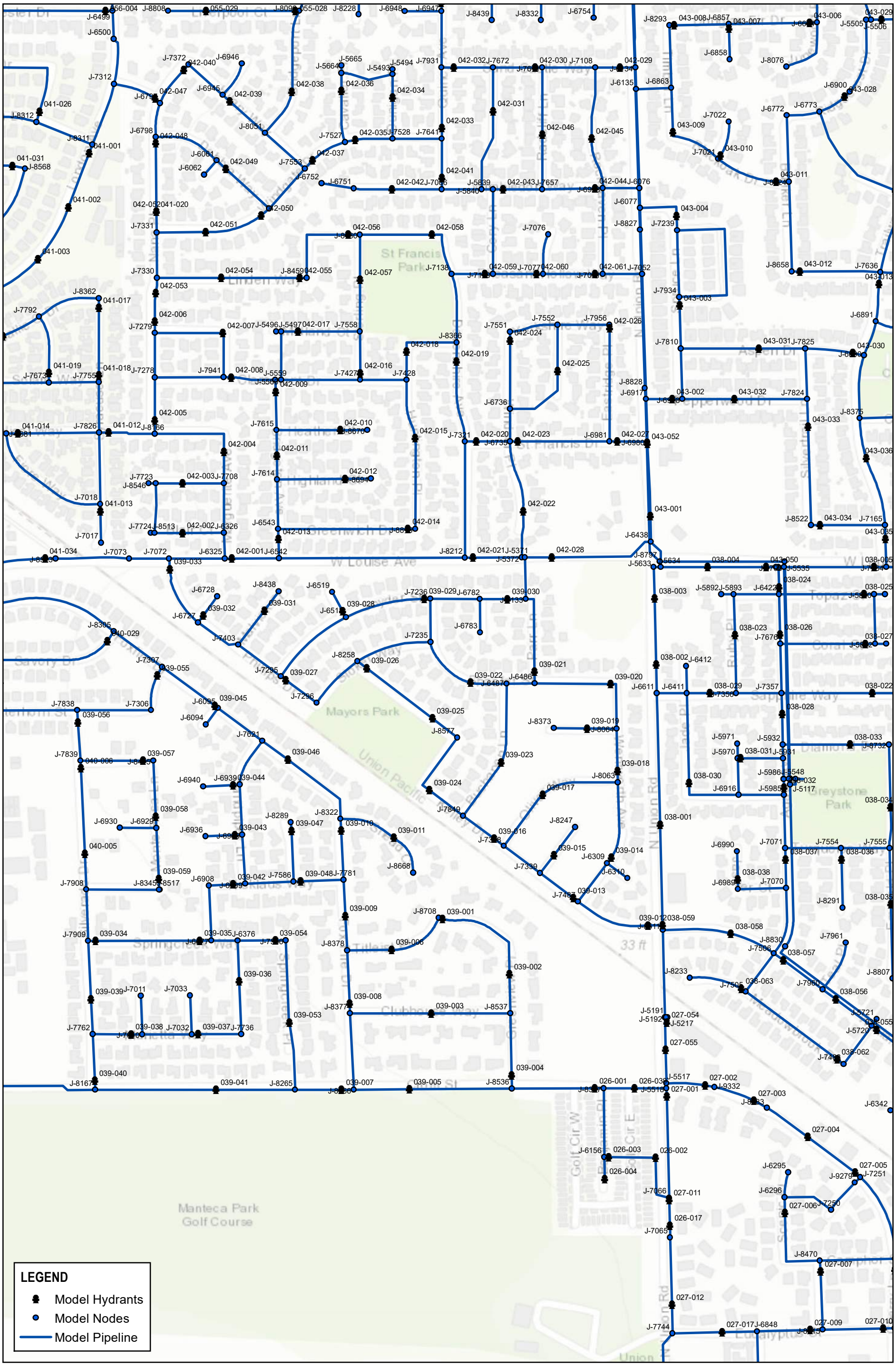

FIGURE 12B
CITY OF MANTECA
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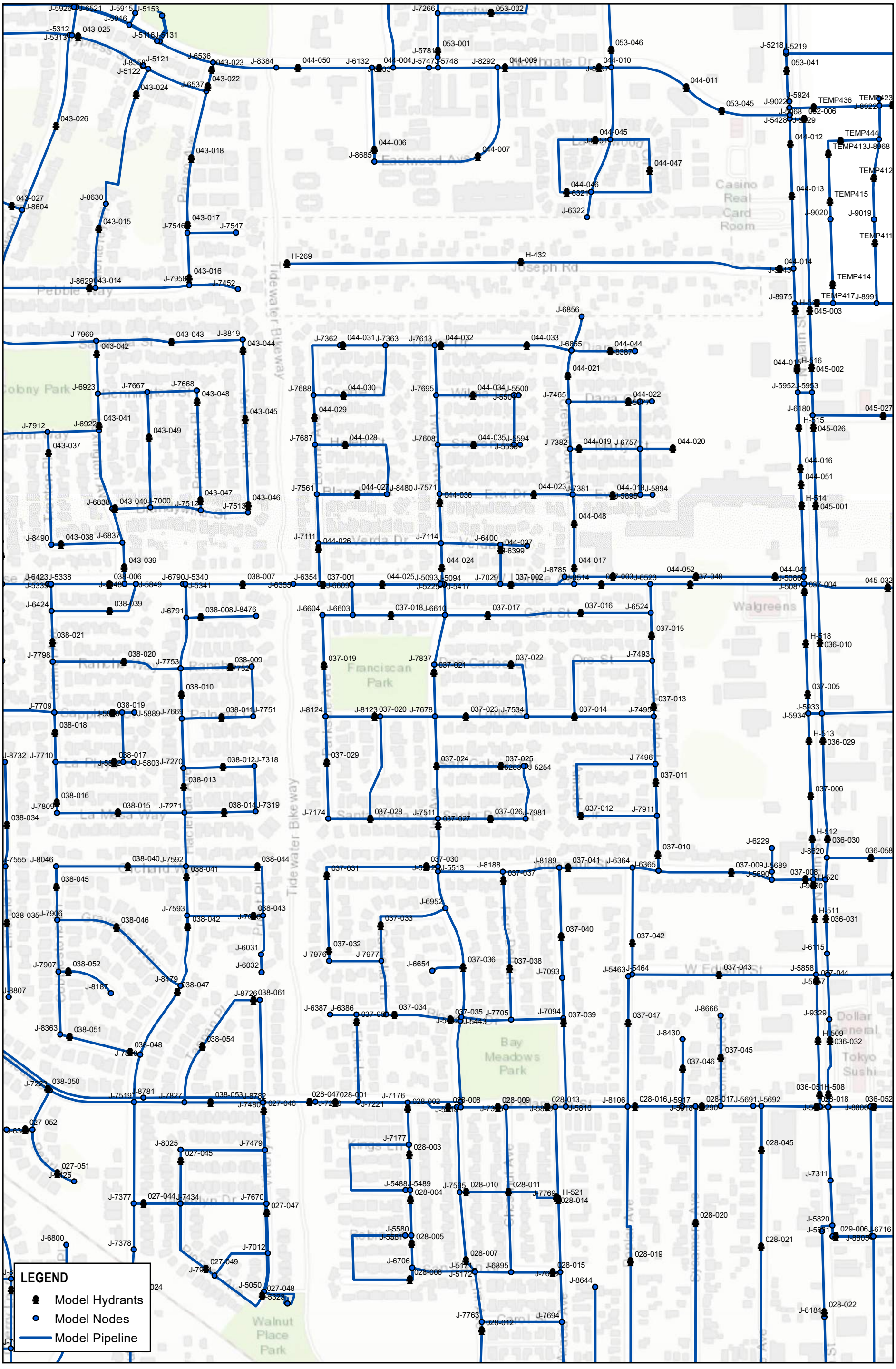

FIGURE 13B
CITY OF MANTECA
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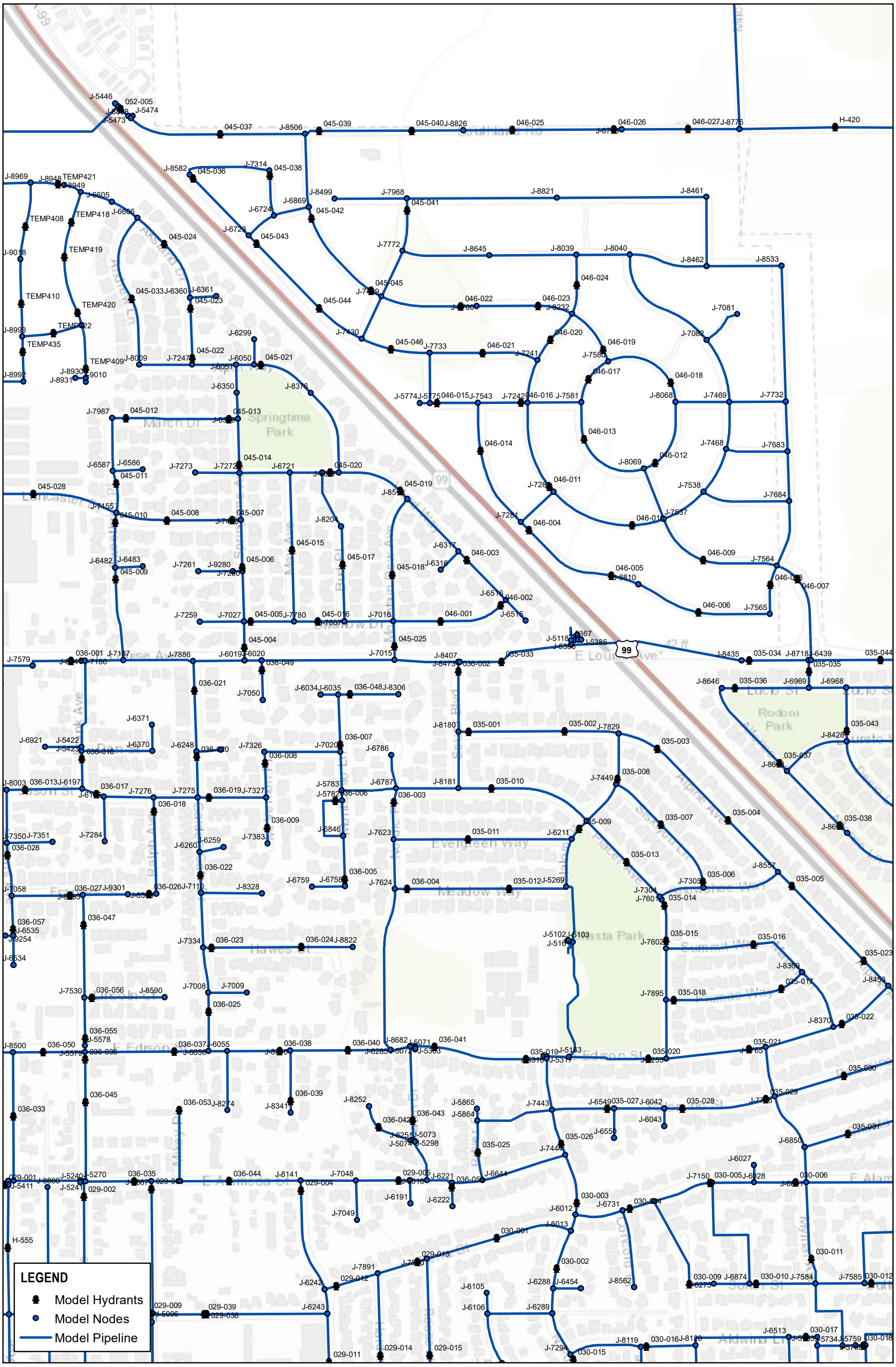

FIGURE 14B
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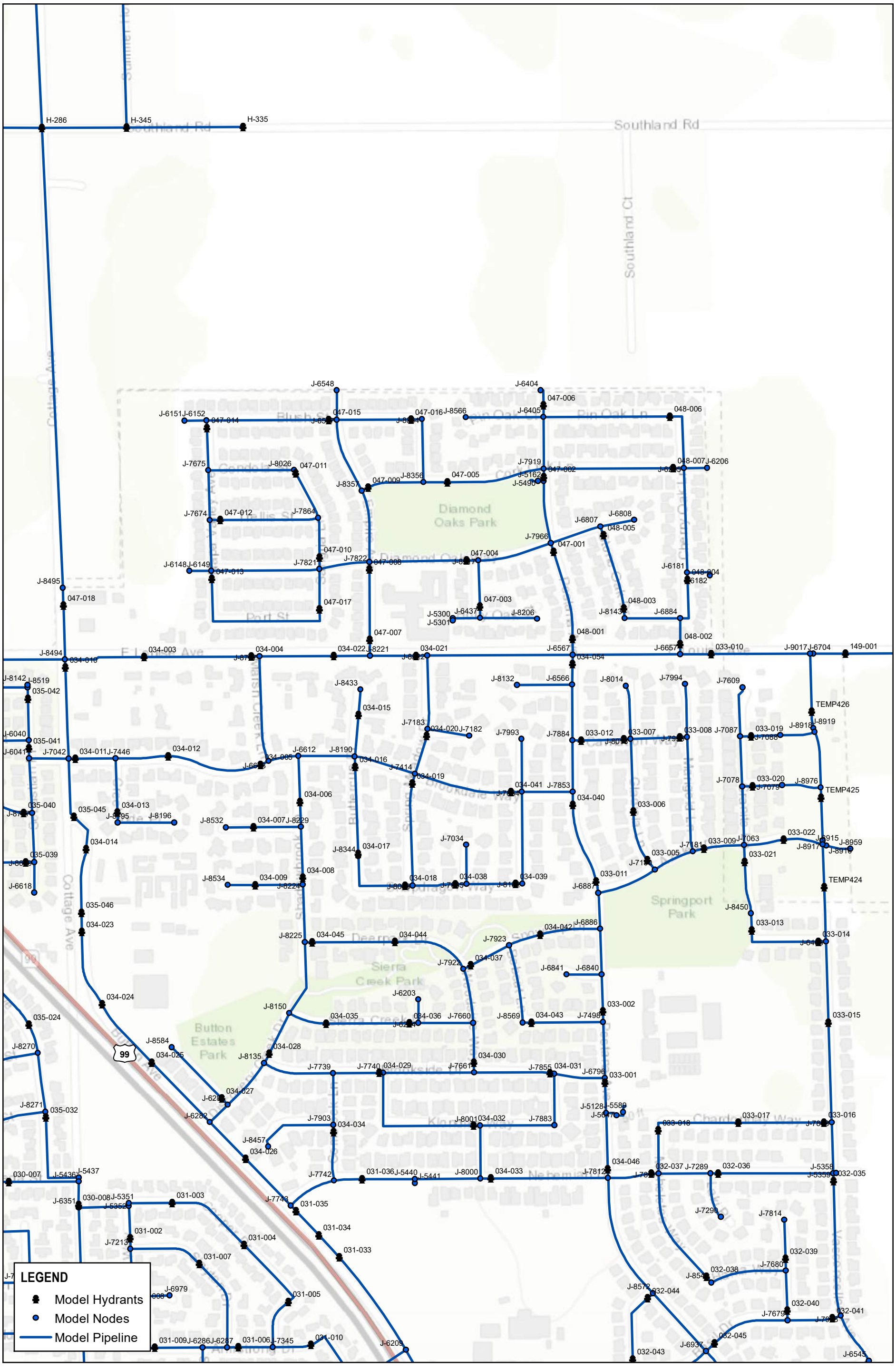

FIGURE 15B
CITY OF MANTECA
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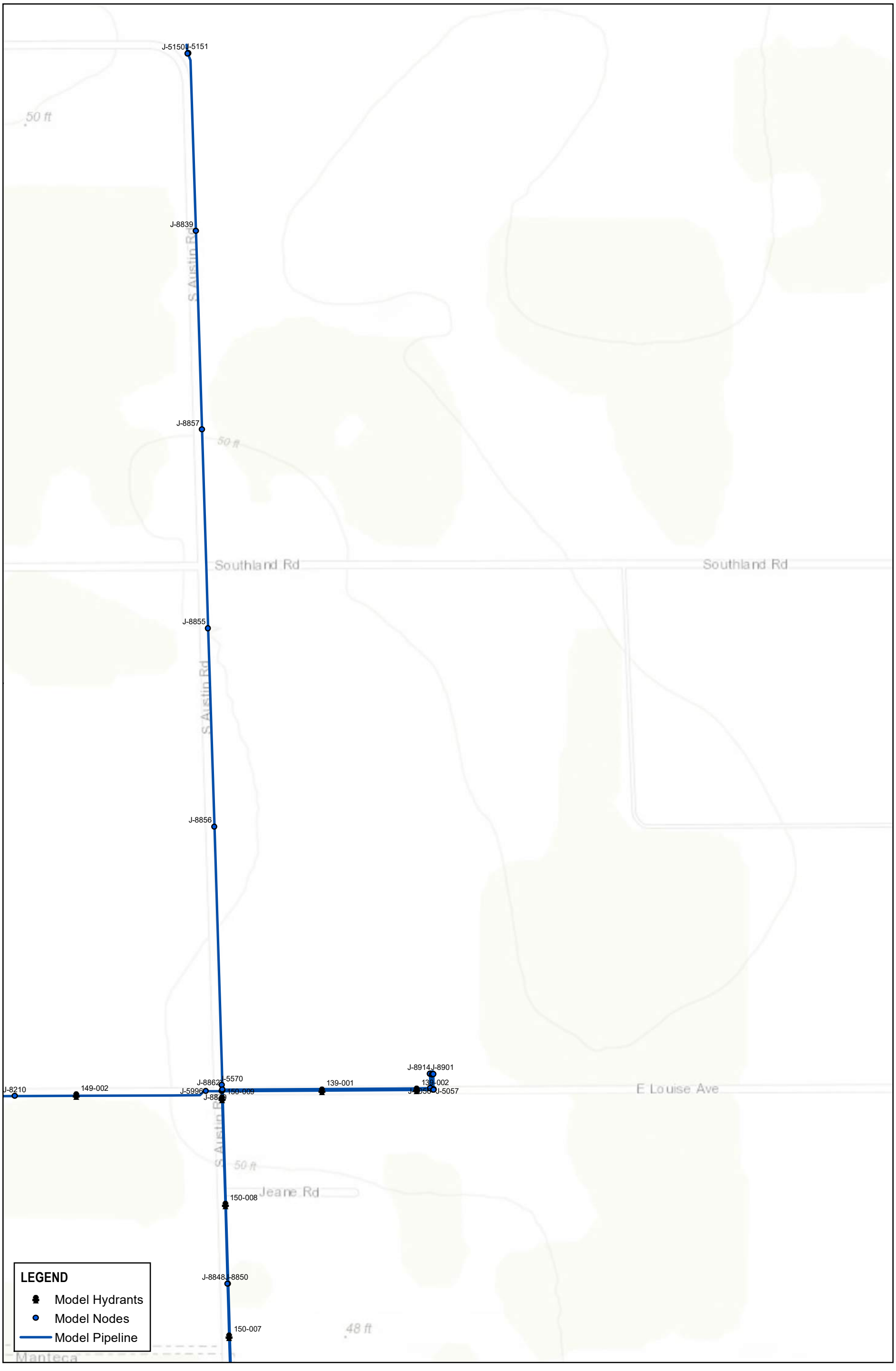

FIGURE 16B
CITY OF MANTECA
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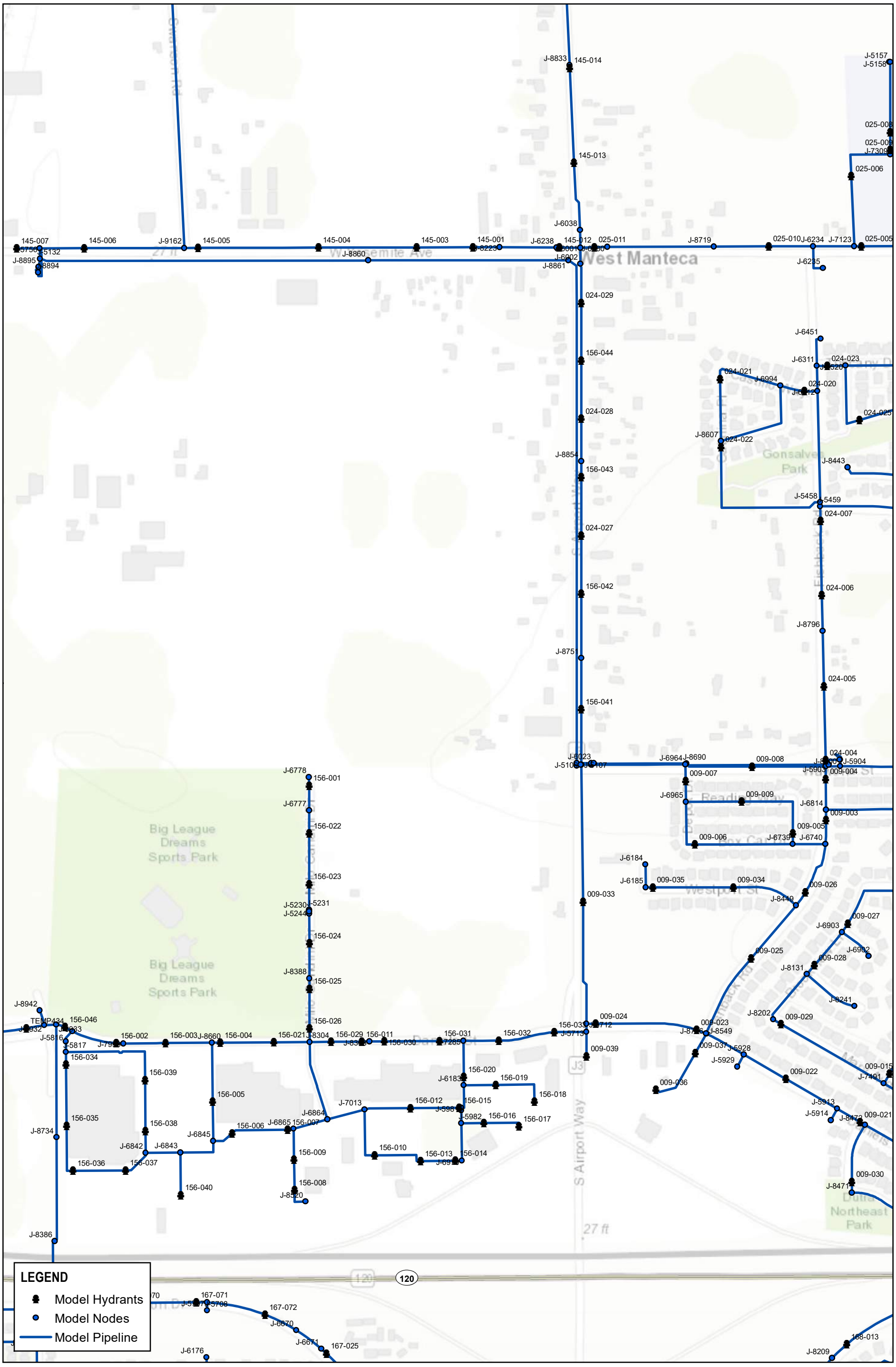

FIGURE 17B
CITY OF MANTECA
WATER MASTER PLAN
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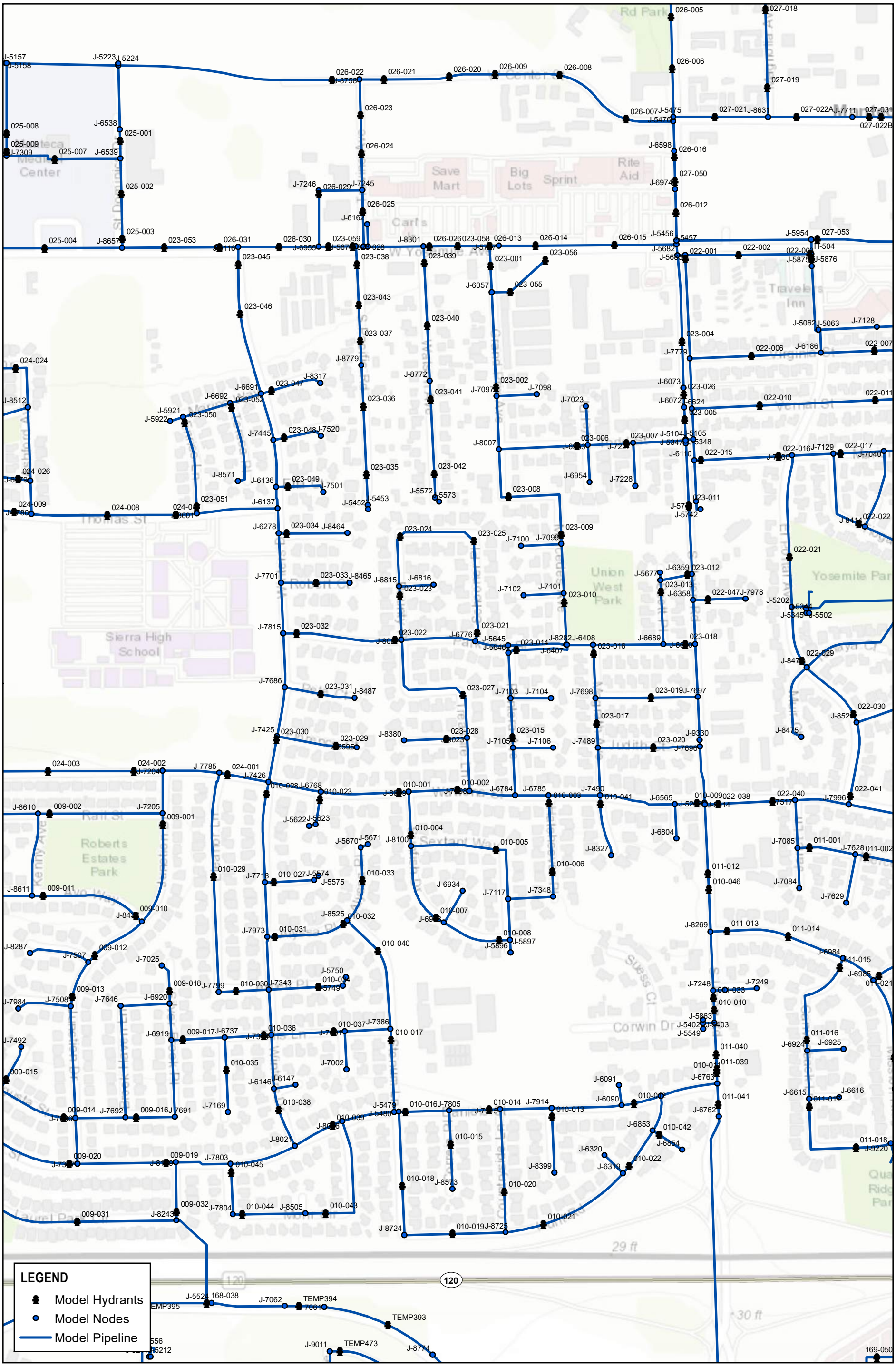

FIGURE 18B
CITY OF MANTECA
WATER MASTER PLAN
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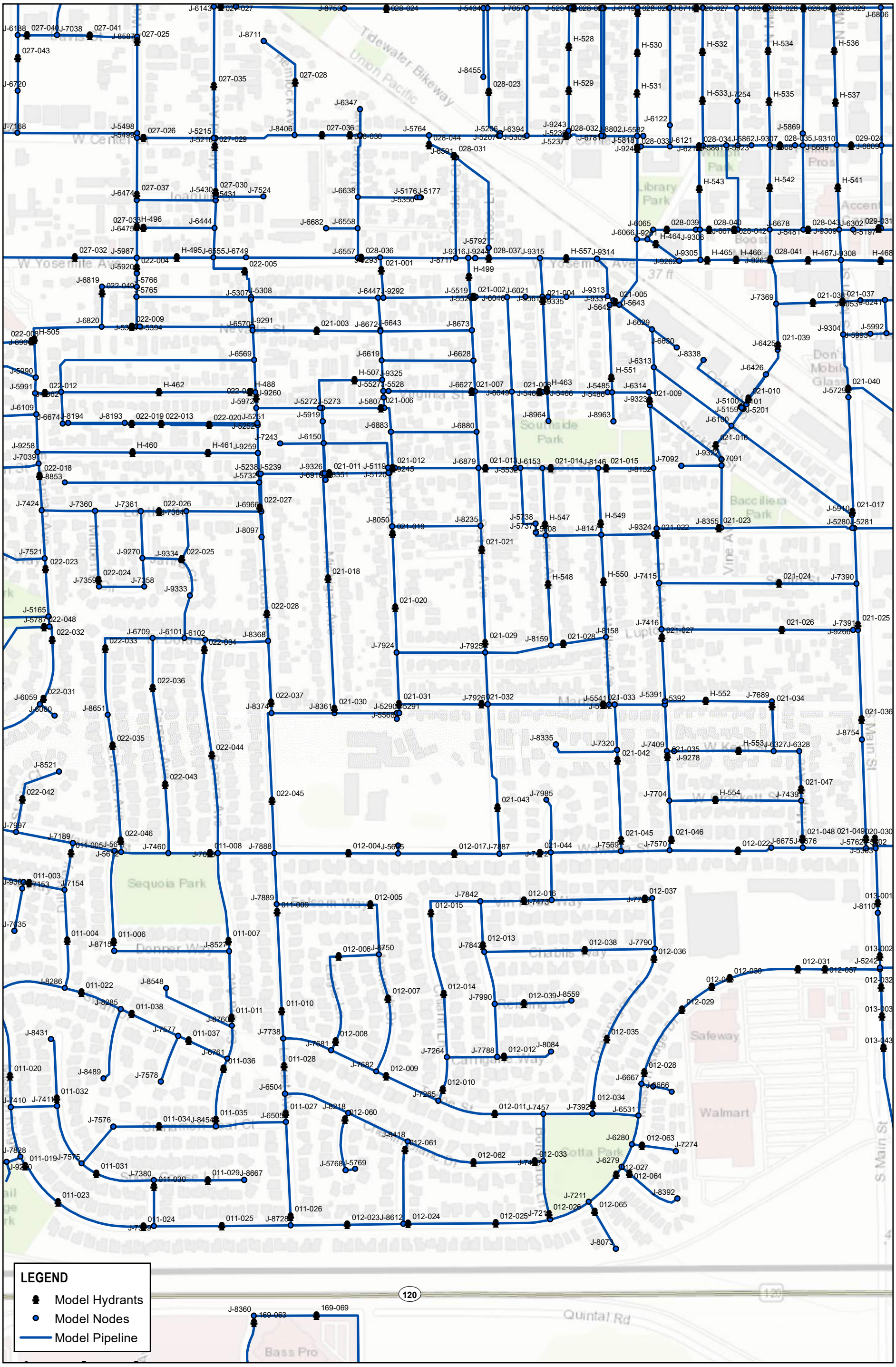

FIGURE 19B
CITY OF MANTECA
WATER MASTER PLAN
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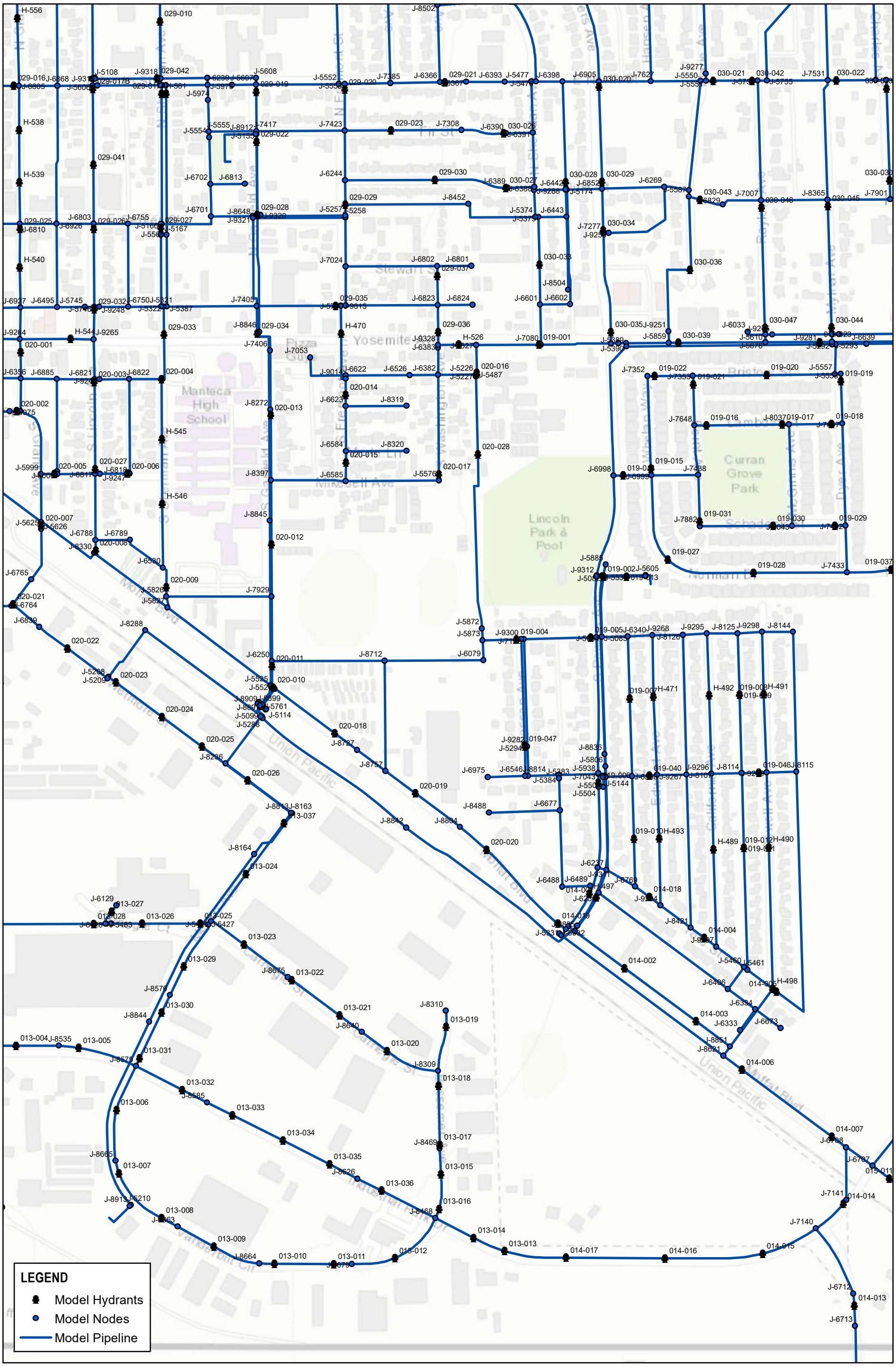

FIGURE 20B
CITY OF MANTECA
WATER MASTER PLAN
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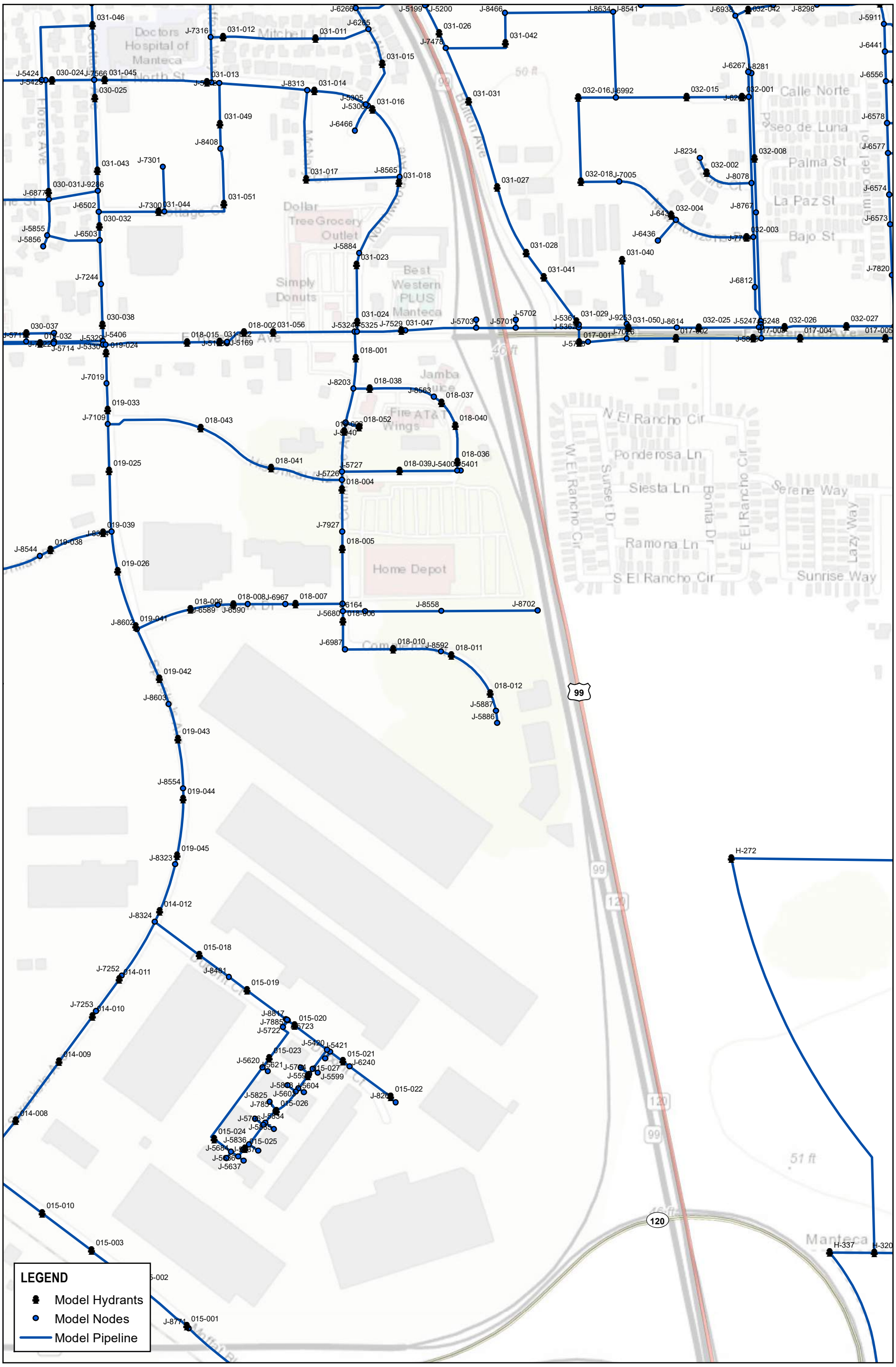

FIGURE 21B
CITY OF MANTECA
WATER MASTER PLAN
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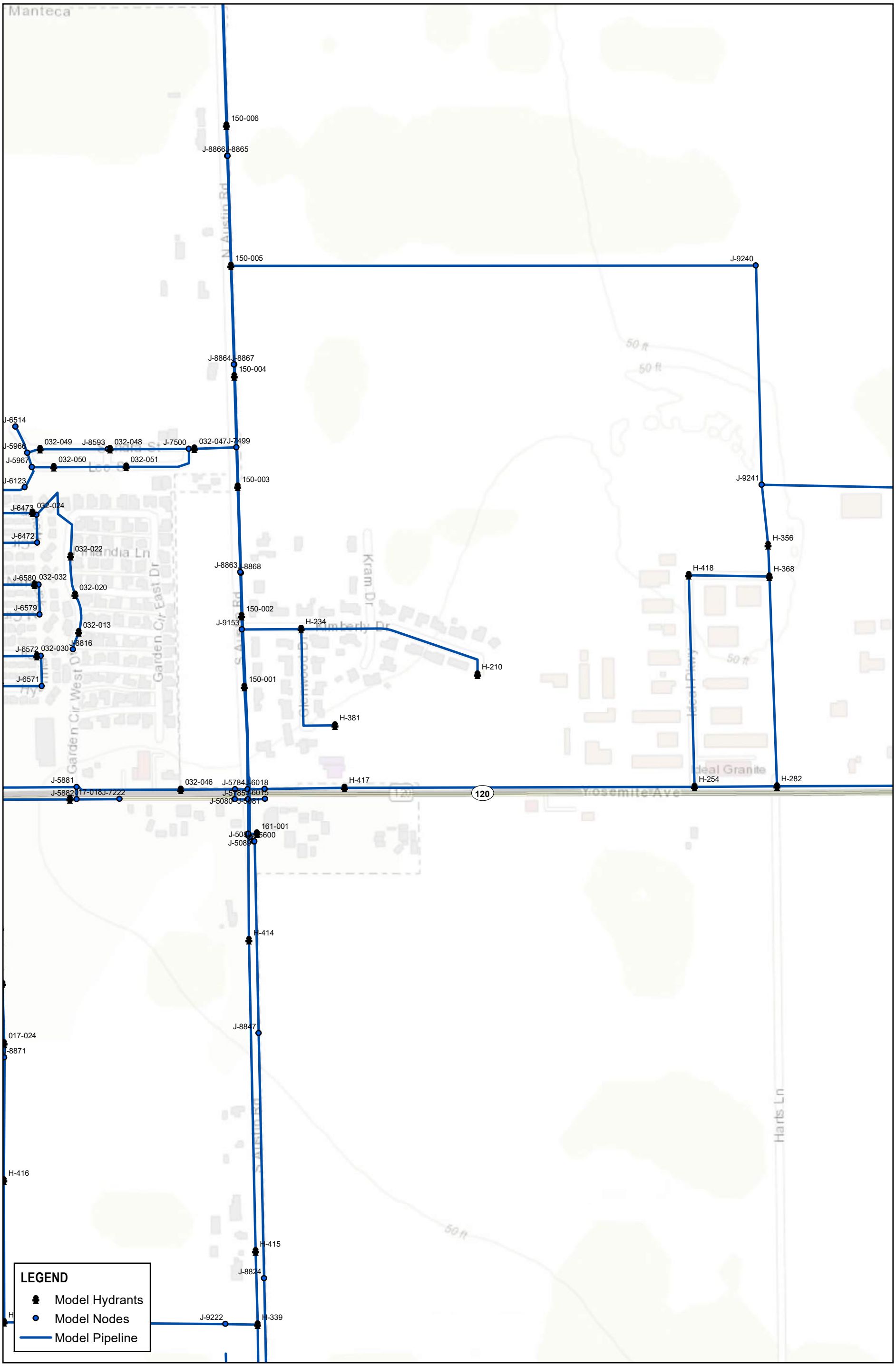

FIGURE 22B
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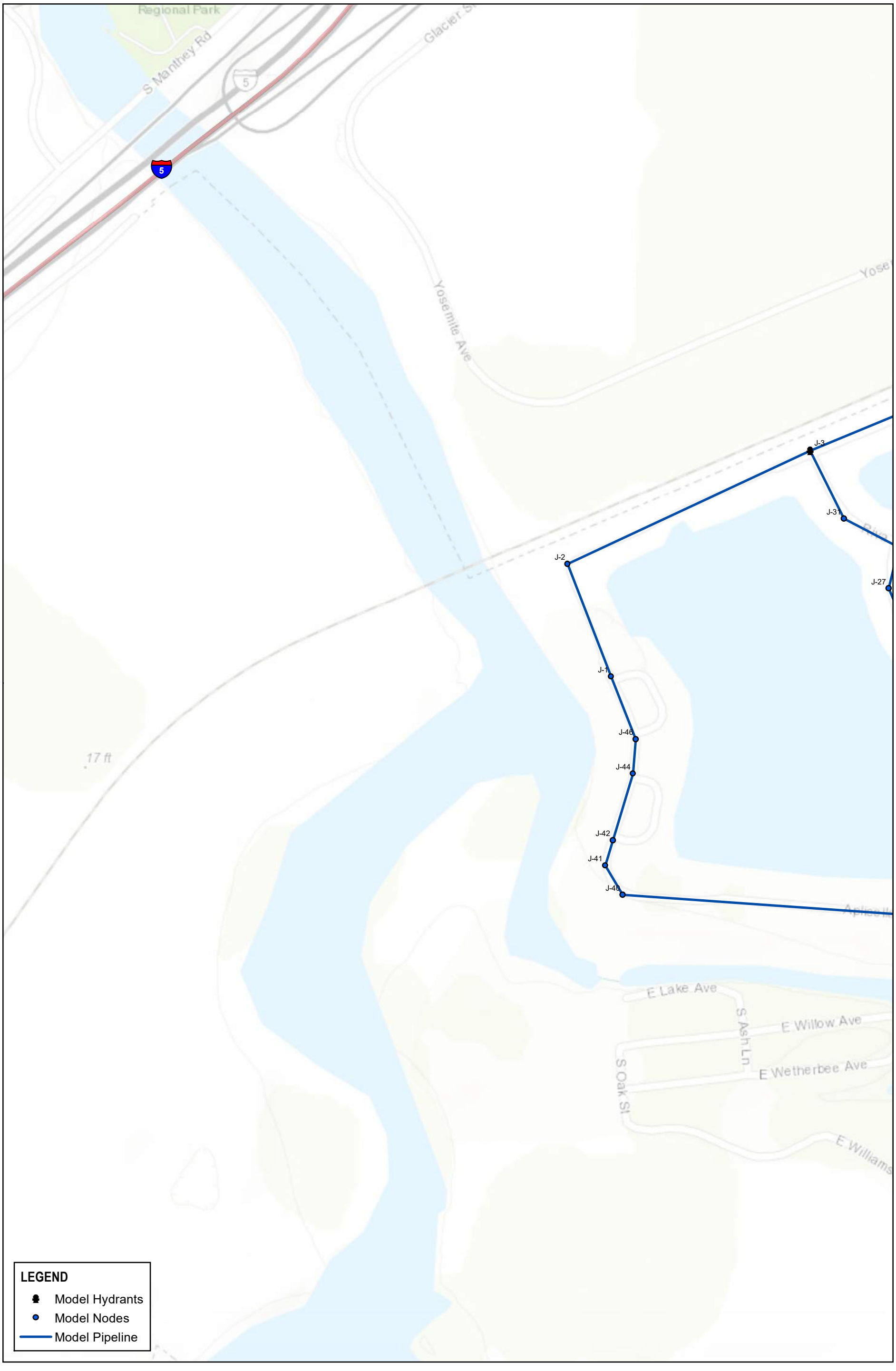

FIGURE 23B
CITY OF MANTECA
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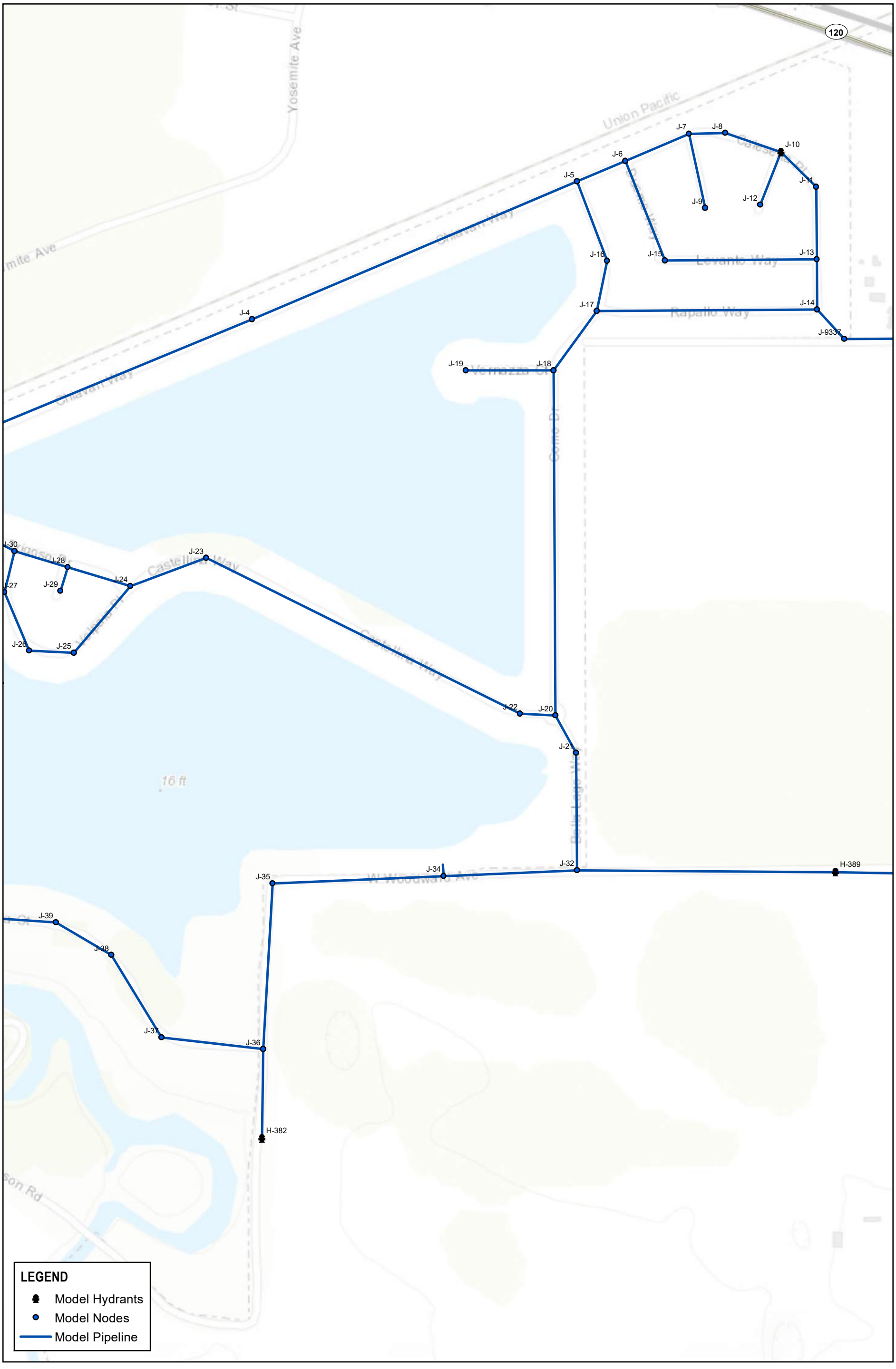

FIGURE 24B
CITY OF MANTECA
WATER MASTER PLAN
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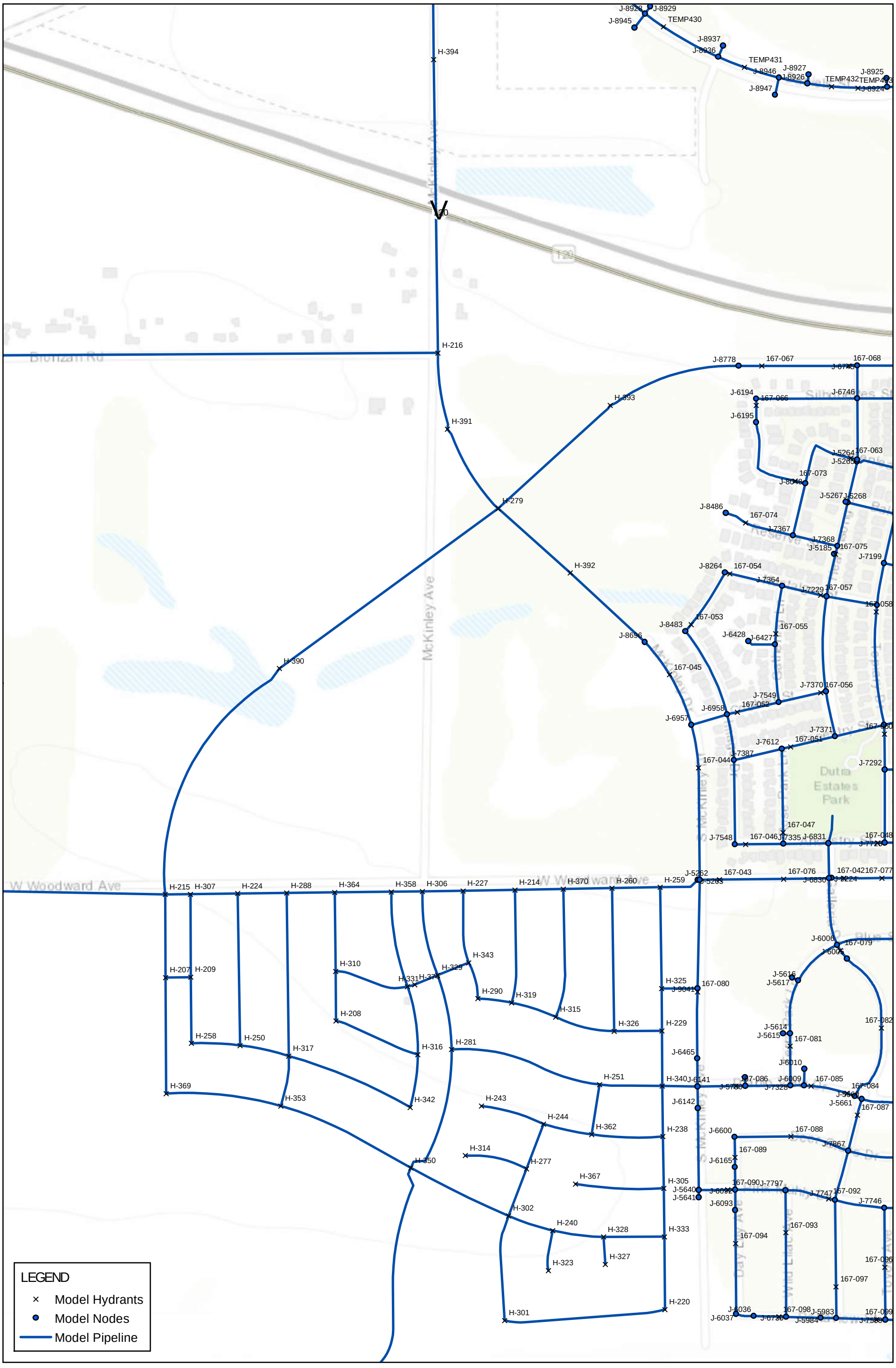

FIGURE 25B
CITY OF MANTECA
WATER MASTER PLAN
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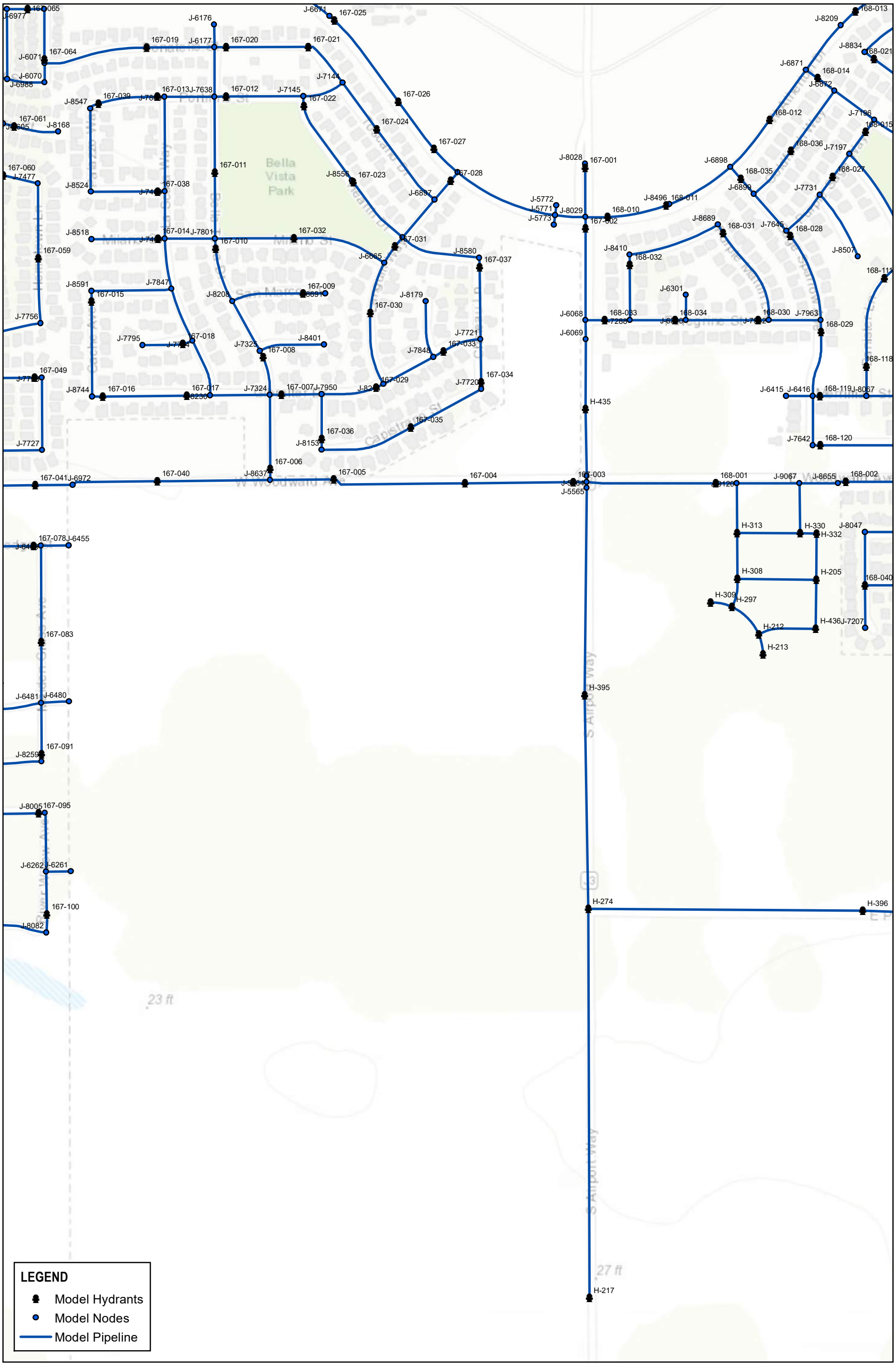
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168-034
168-030
J-7963
J-7756
J-6069
168-029
J-7795
167-018
J-7325
J-8401
J-7721
167-033
J-7848
167-008
167-049
167-034
J-8744
167-016
167-017
J-7324
167-007
J-7950
167-029
J-7720
168-118
J-6415
J-6416
168-119
J-8067
H-435
167-035
J-7727
167-036
J-8153
J-7642
168-120
167-006
167-041
J-6972
167-040
J-8637
167-005
167-004
167-003
J-5564
J-5565
168-001
J-9067
J-8655
168-002
H-313
H-330
J-8047
H-332
167-078
J-6455
H-308
H-205
168-040
H-309
H-297
H-436
J-7207
H-212
H-213
167-083
H-395
J-6481
J-6480
167-091
J-8259
J-8005
167-095
J-6262
J-6261
167-100
J-8082
H-274
H-396
23 ft
27 ft
H-217
Bella Vista Park
Pioneer Park
Manteca Transit Center
Woodward Park
Library
Civic Center
Senior Center
Police Station
Fire Station
Manteca Fire Station
Manteca Police Station
Manteca Library
Manteca Senior Center
Manteca Civic Center
Manteca Transit Center
Pioneer Park
Bella Vista Park

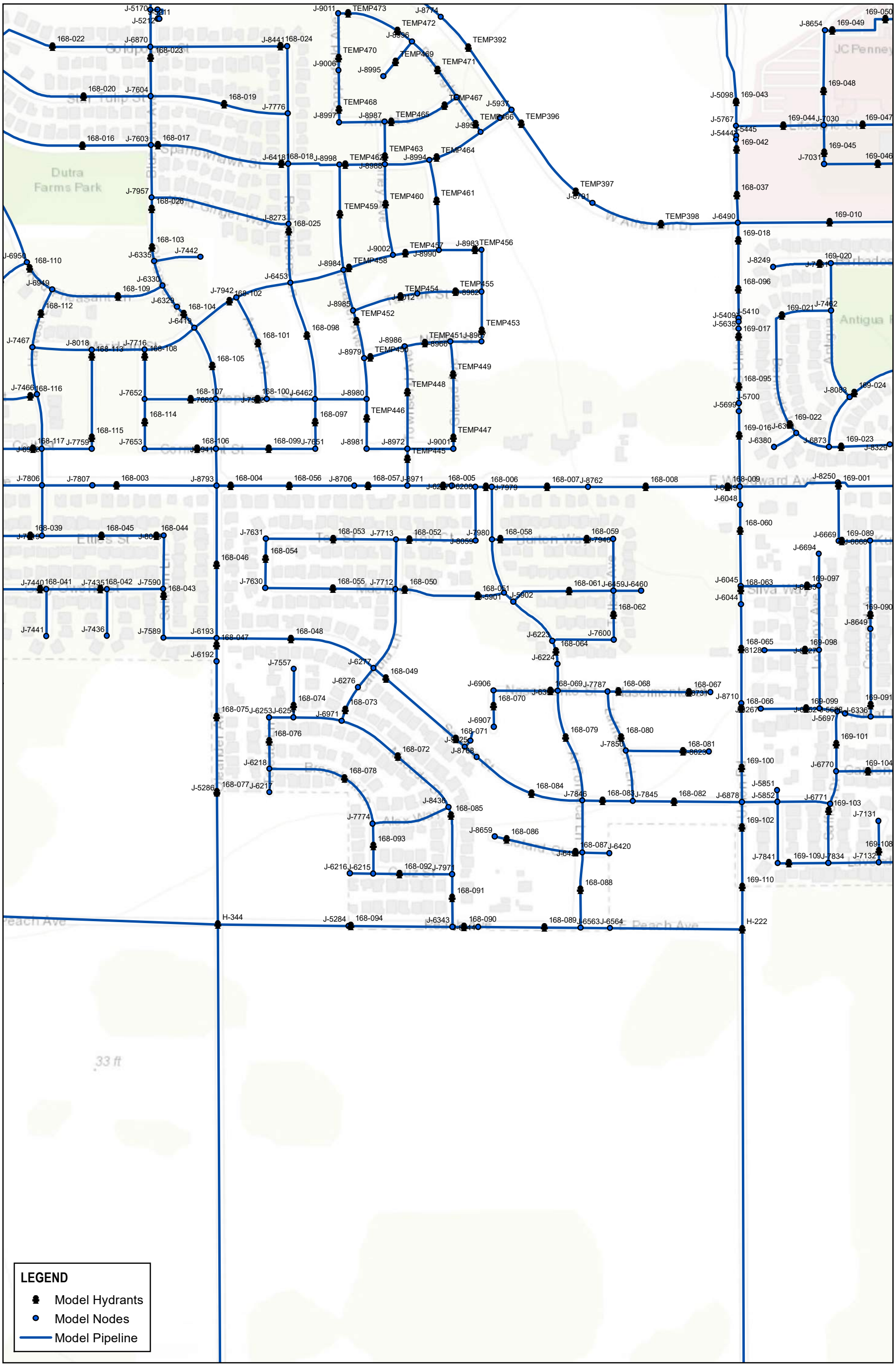


FIGURE 27B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

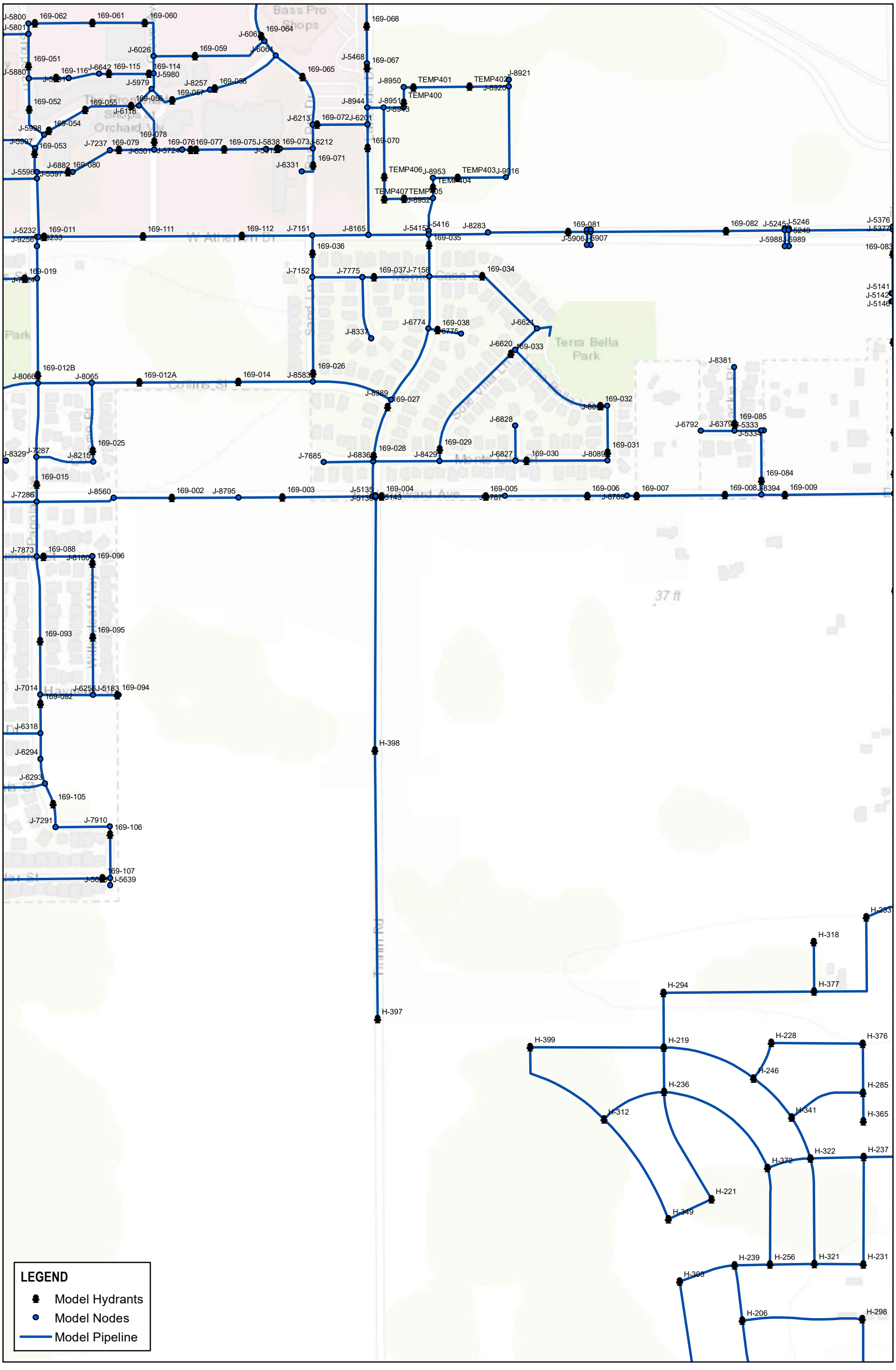


FIGURE 28B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

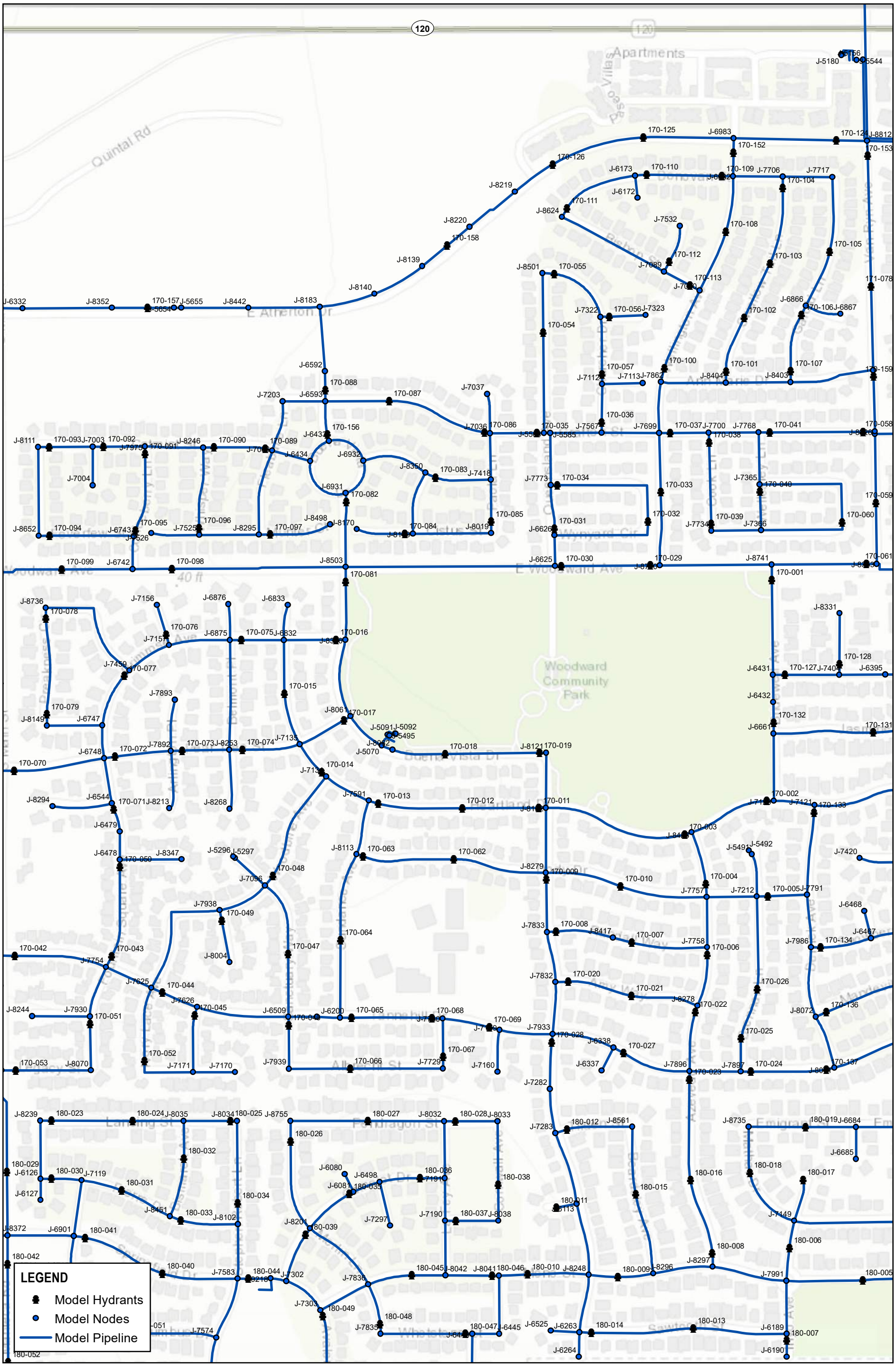


FIGURE 29B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

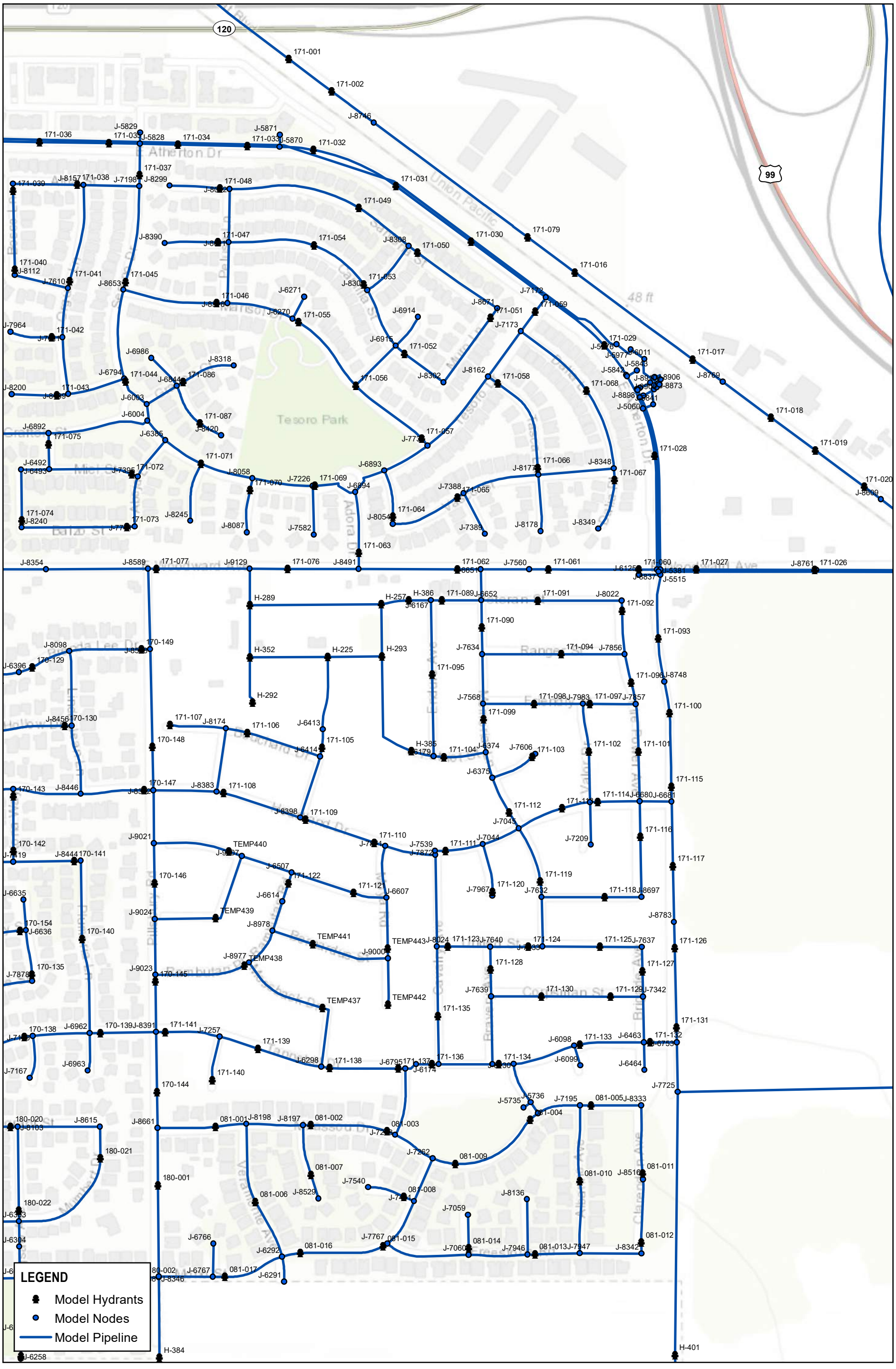


FIGURE 30B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

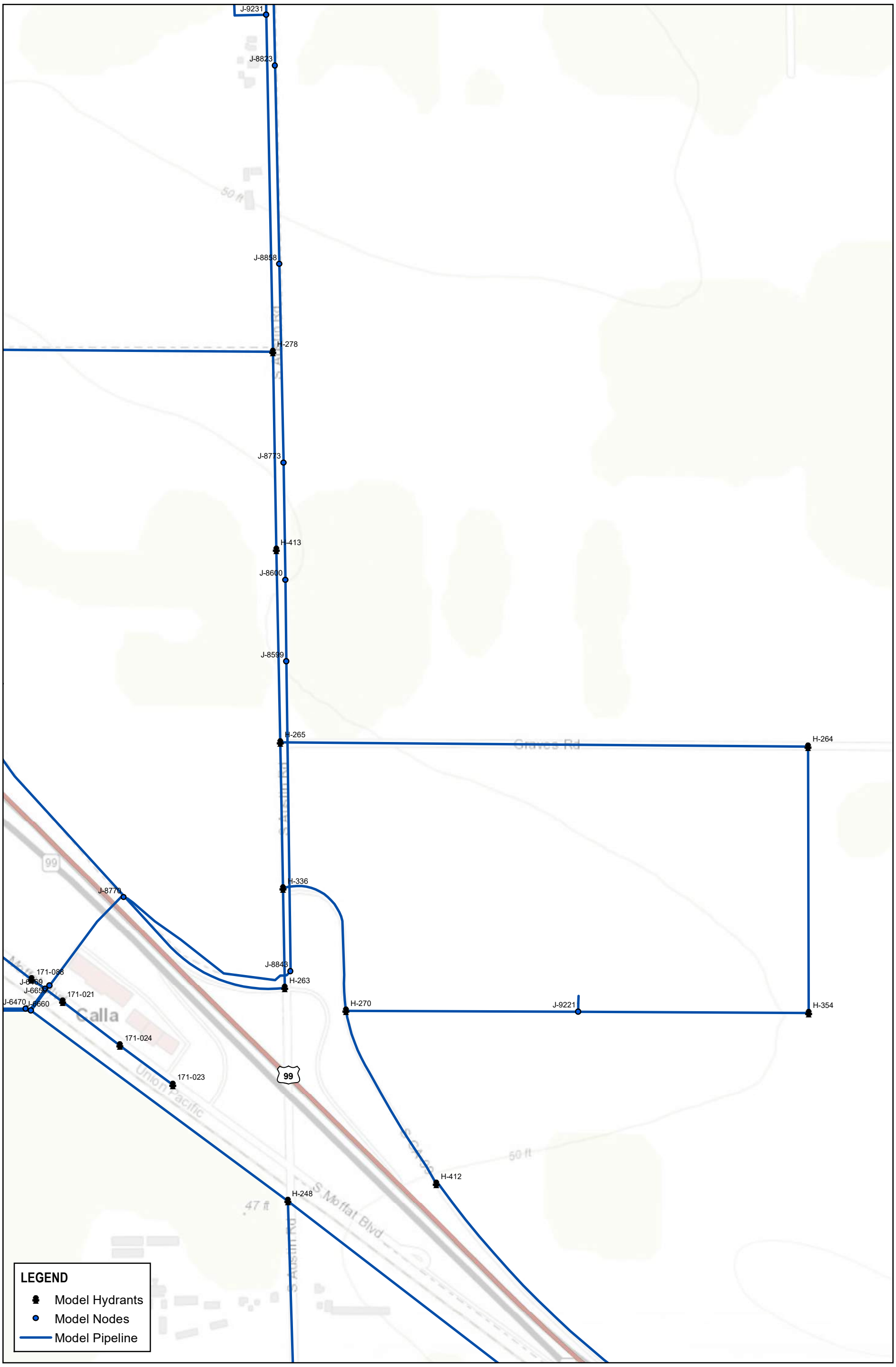


FIGURE 31B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

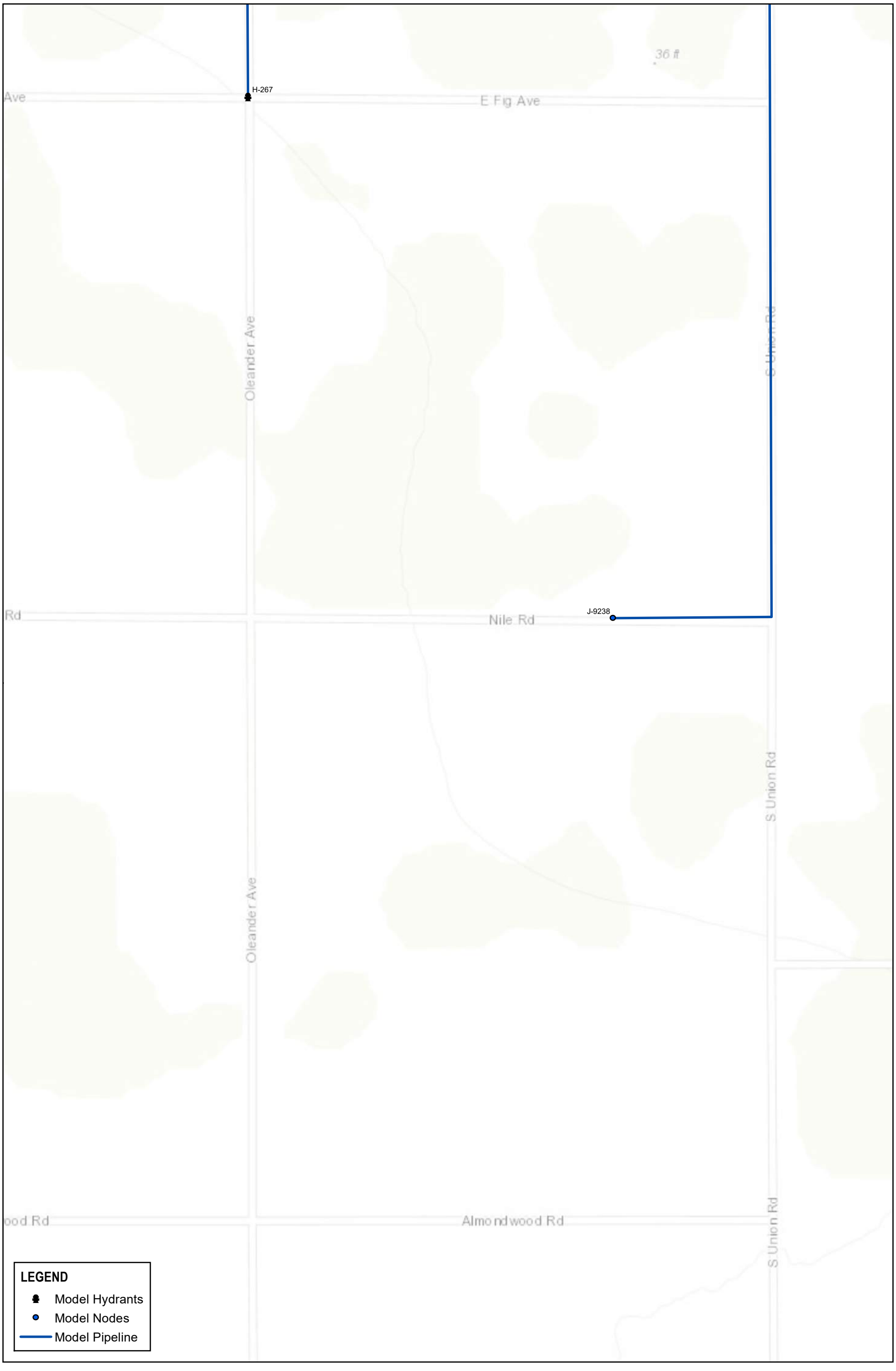


FIGURE 32B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

HydroScience

FIGURE 33B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

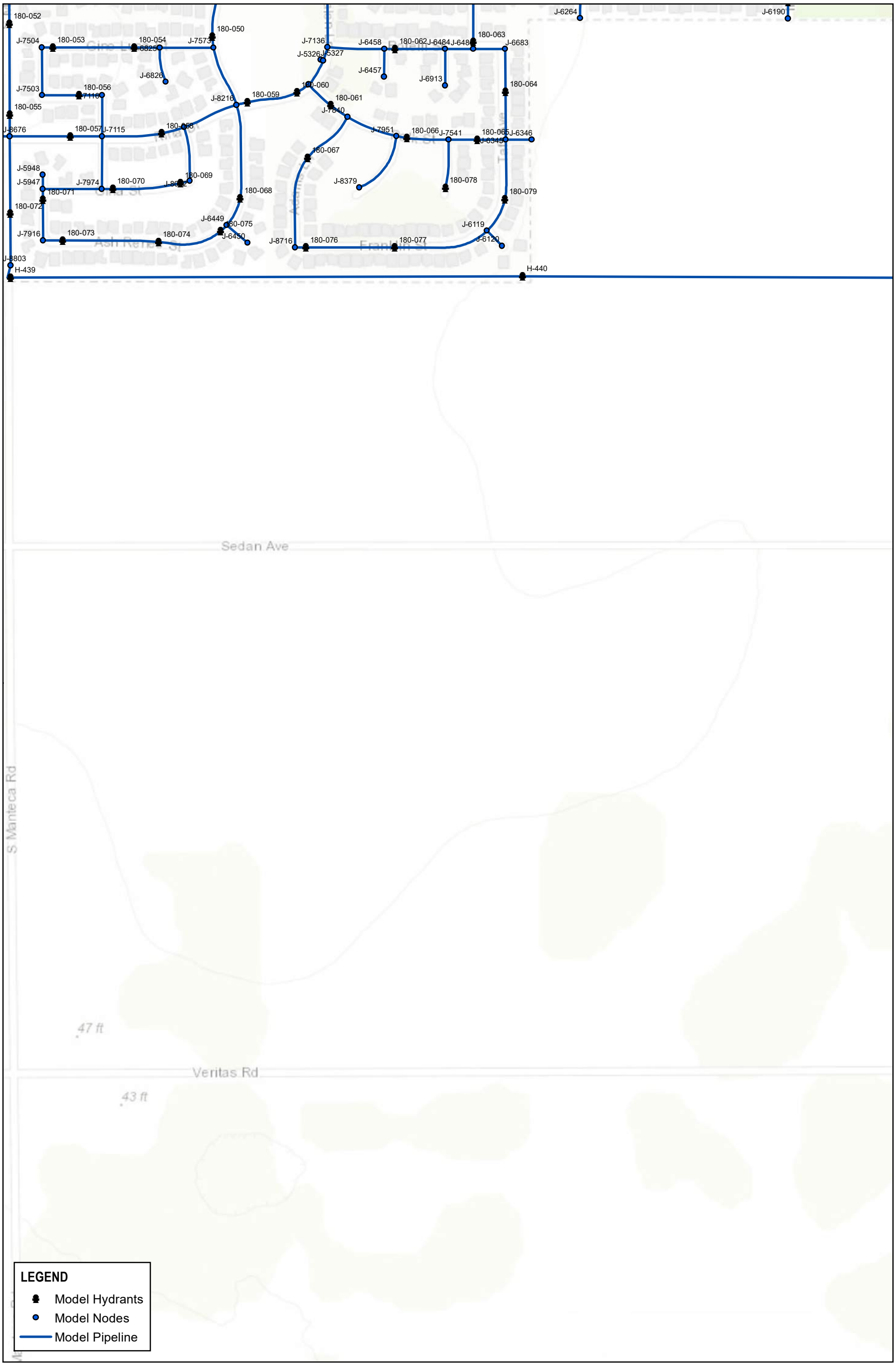


FIGURE 34B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

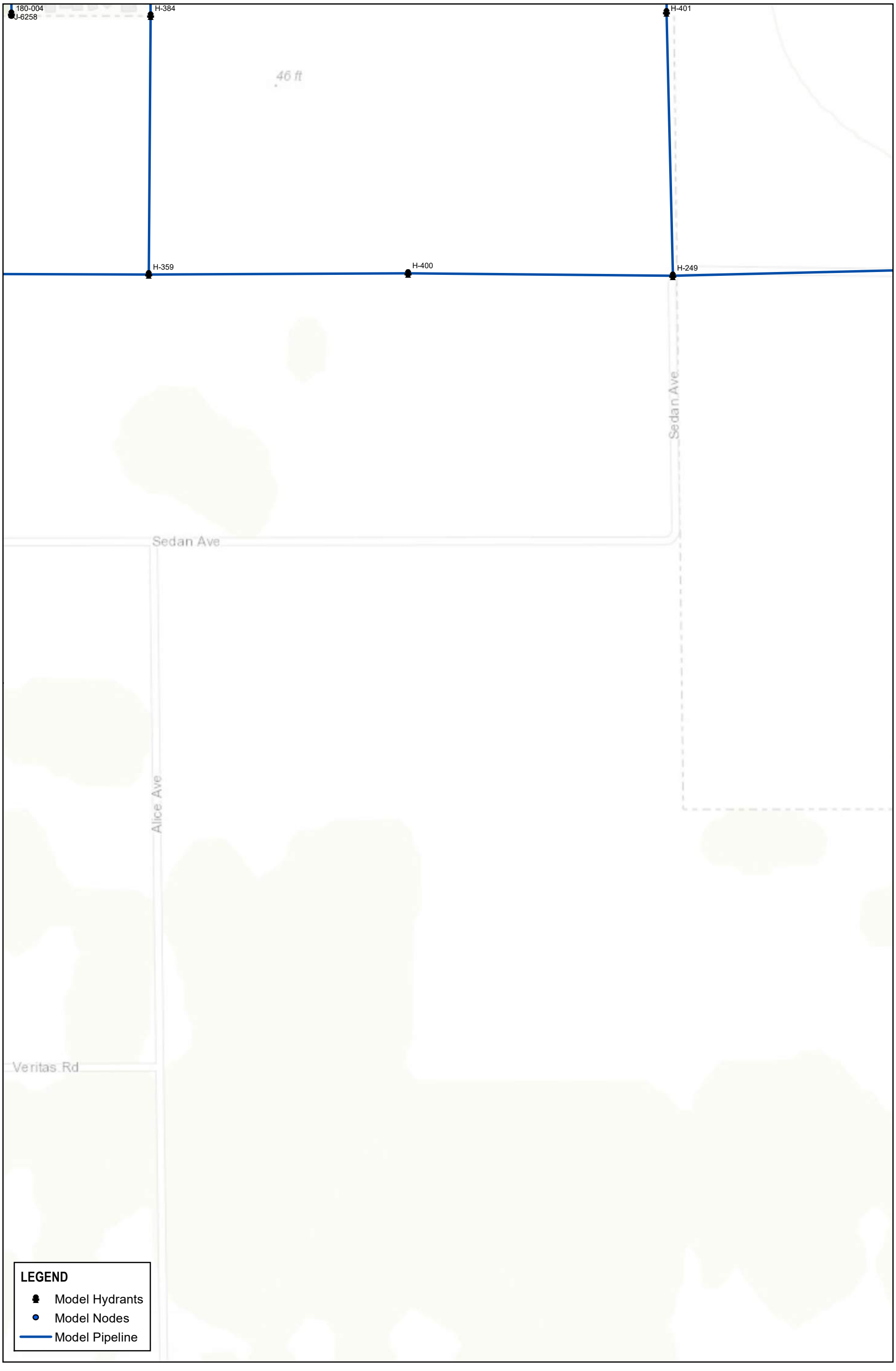


FIGURE 35B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

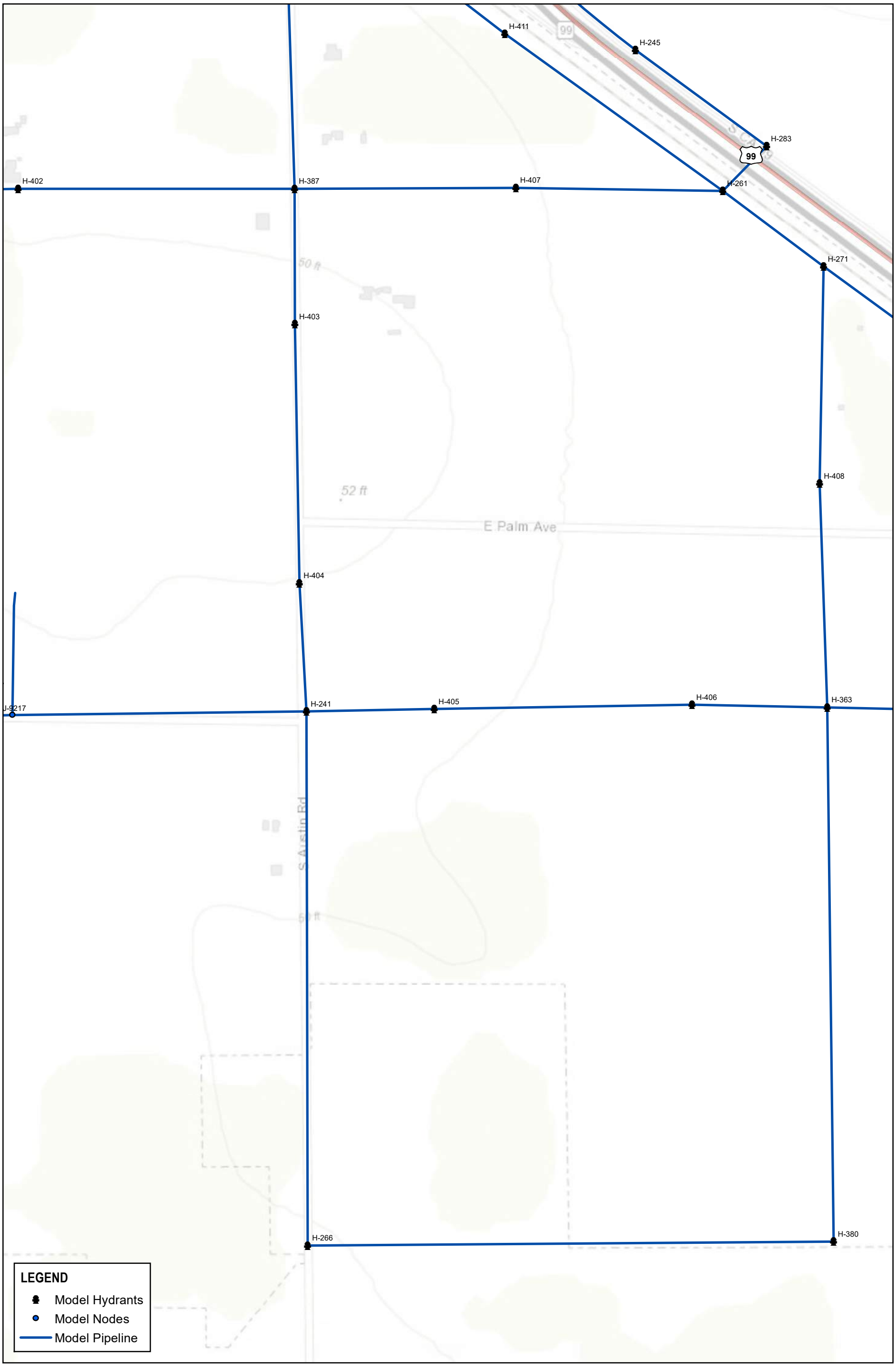


FIGURE 36B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

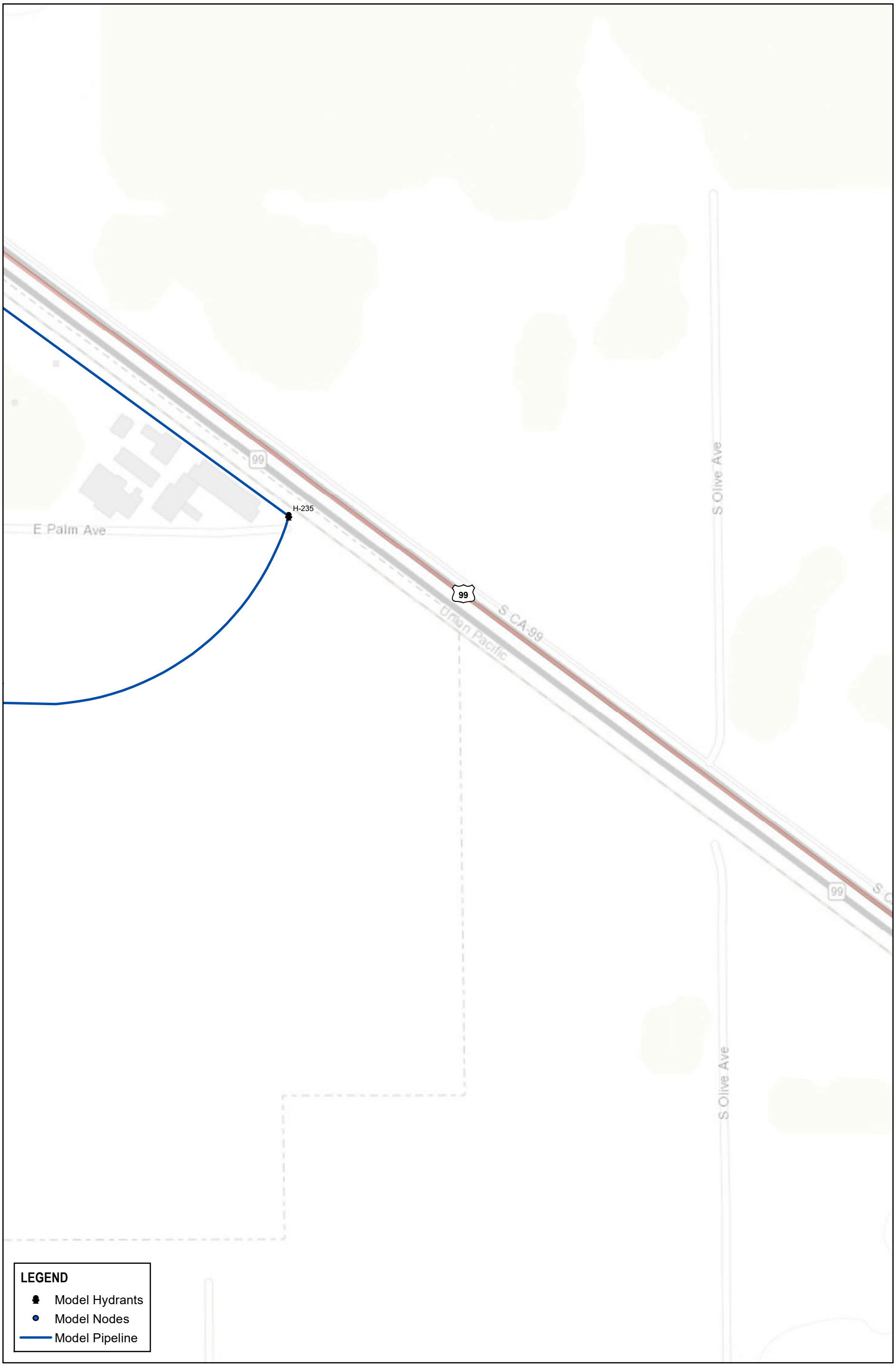


FIGURE 37B
CITY OF MANTECA
WATER MASTER PLAN
MODEL NODE IDS

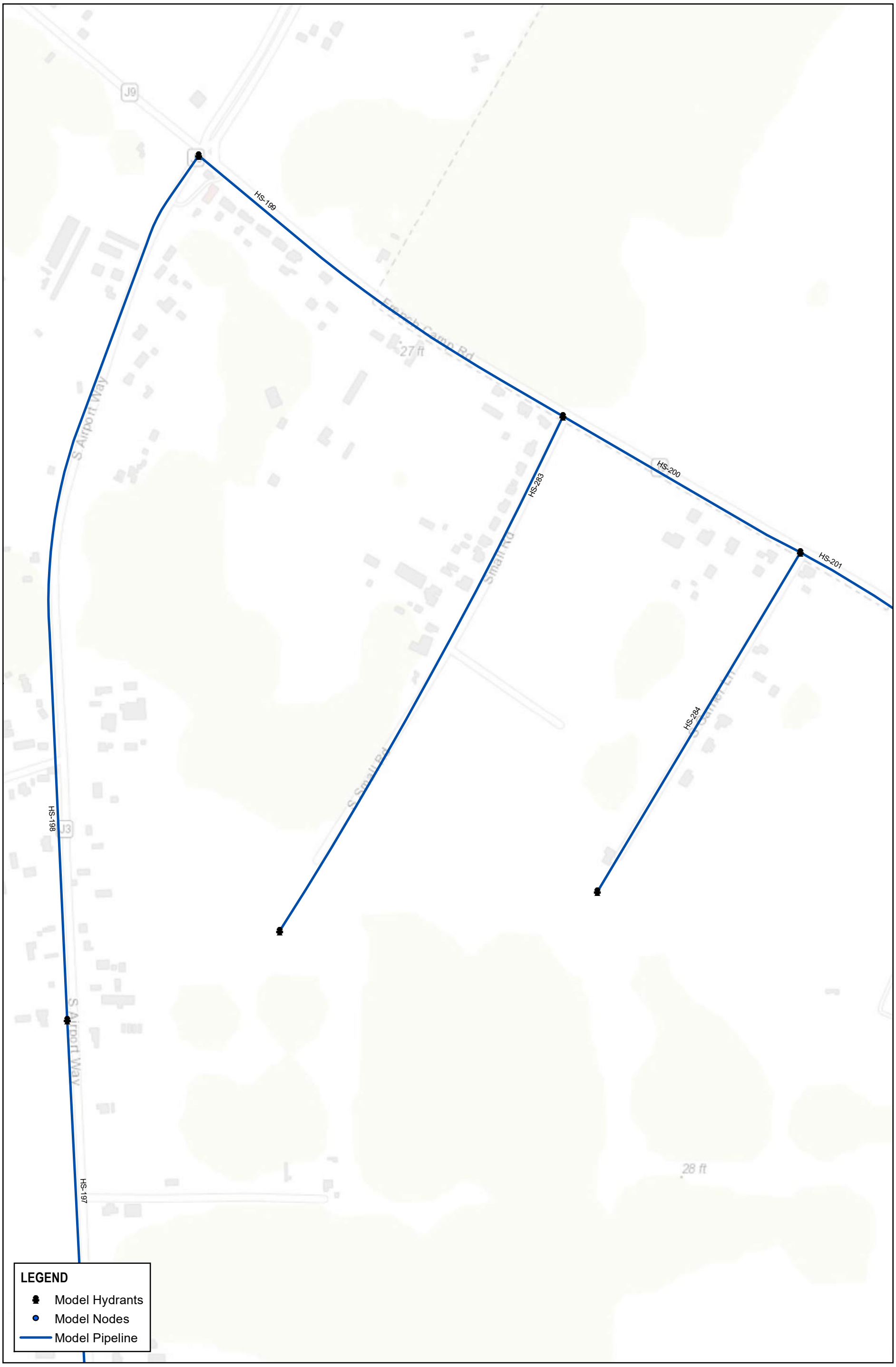


FIGURE 1A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

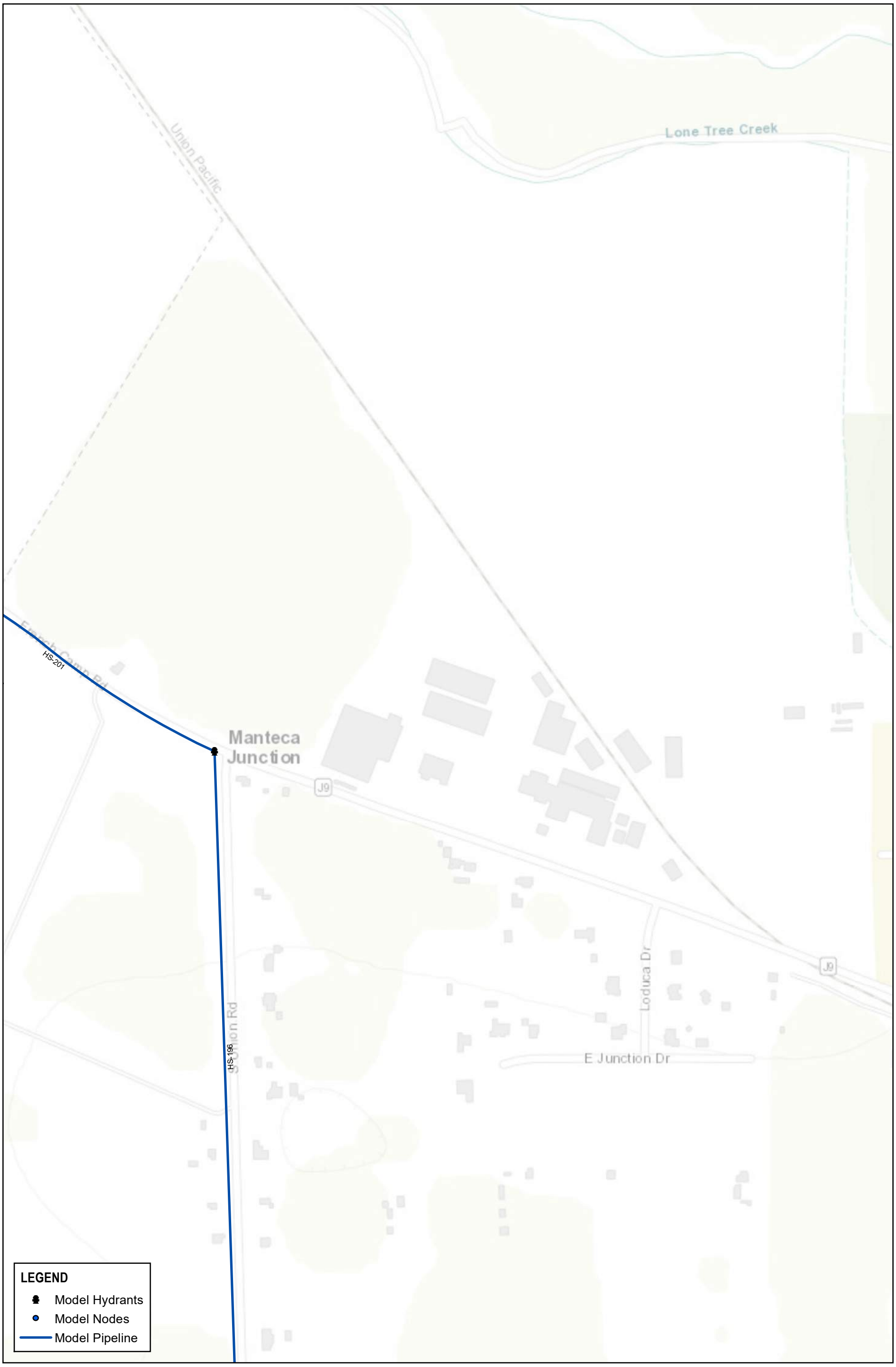


FIGURE 2A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

HydroScience

FIGURE 3A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

FIGURE 4A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

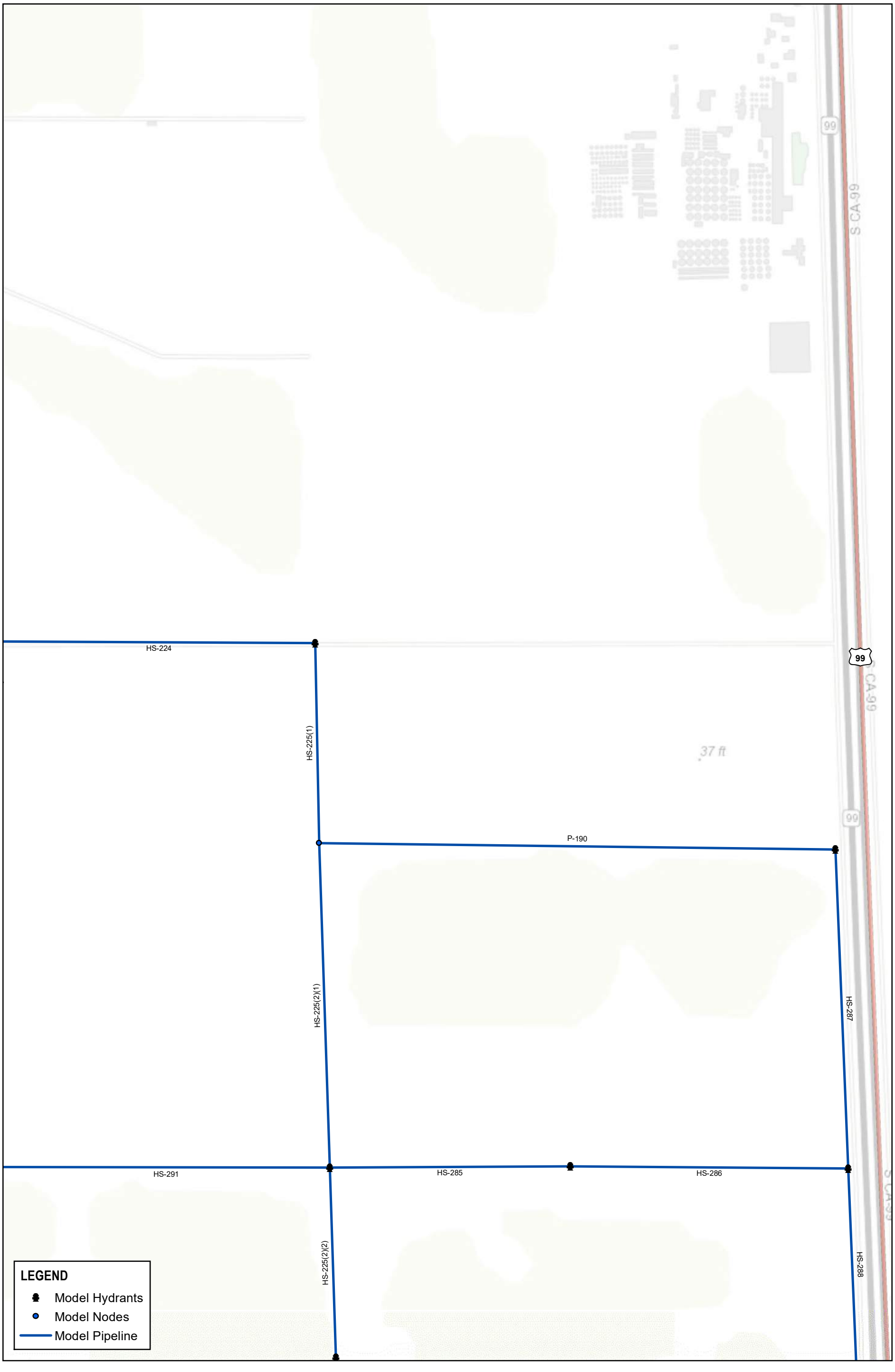


FIGURE 5A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

HydroScience

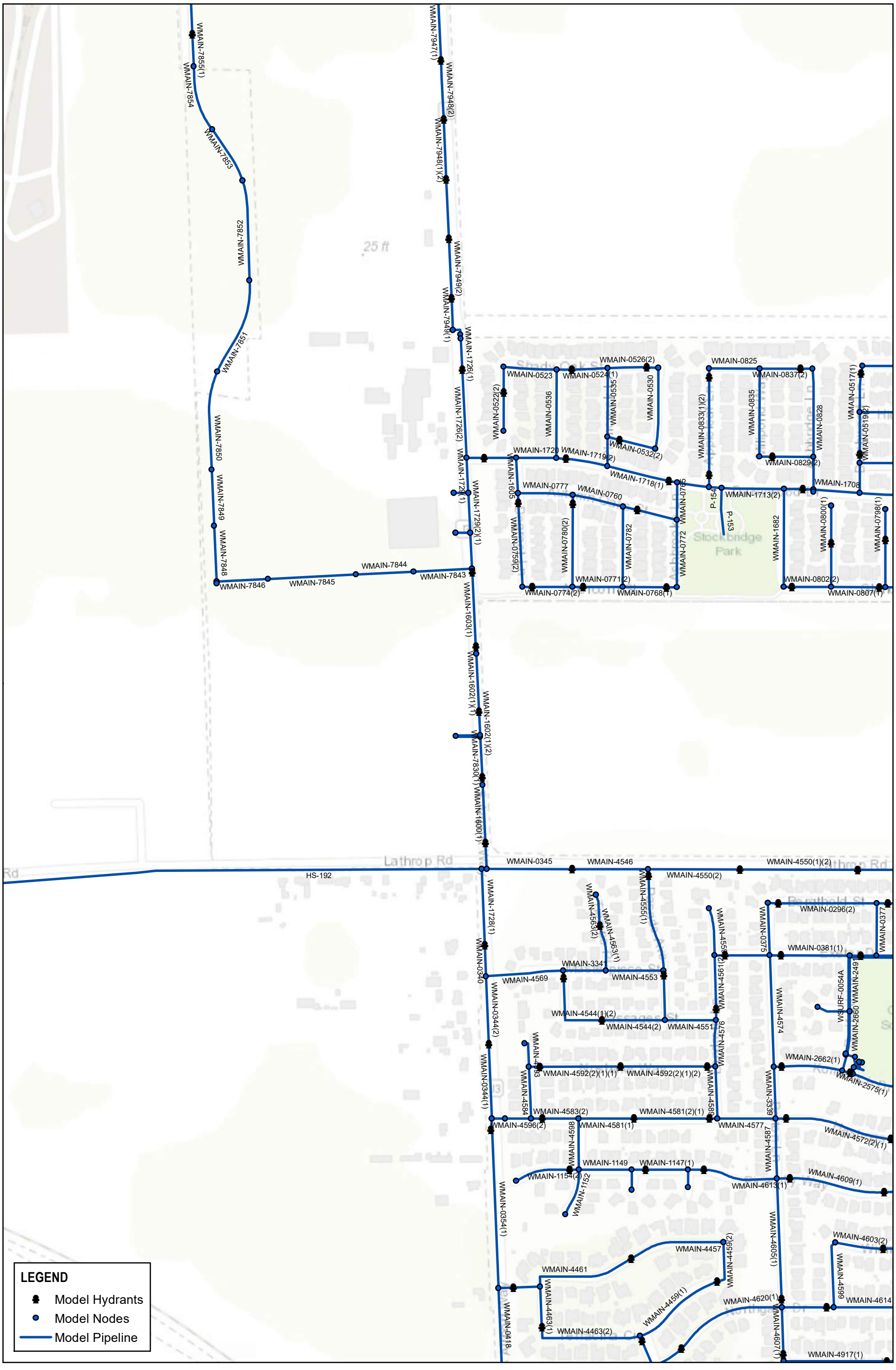


FIGURE 6A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

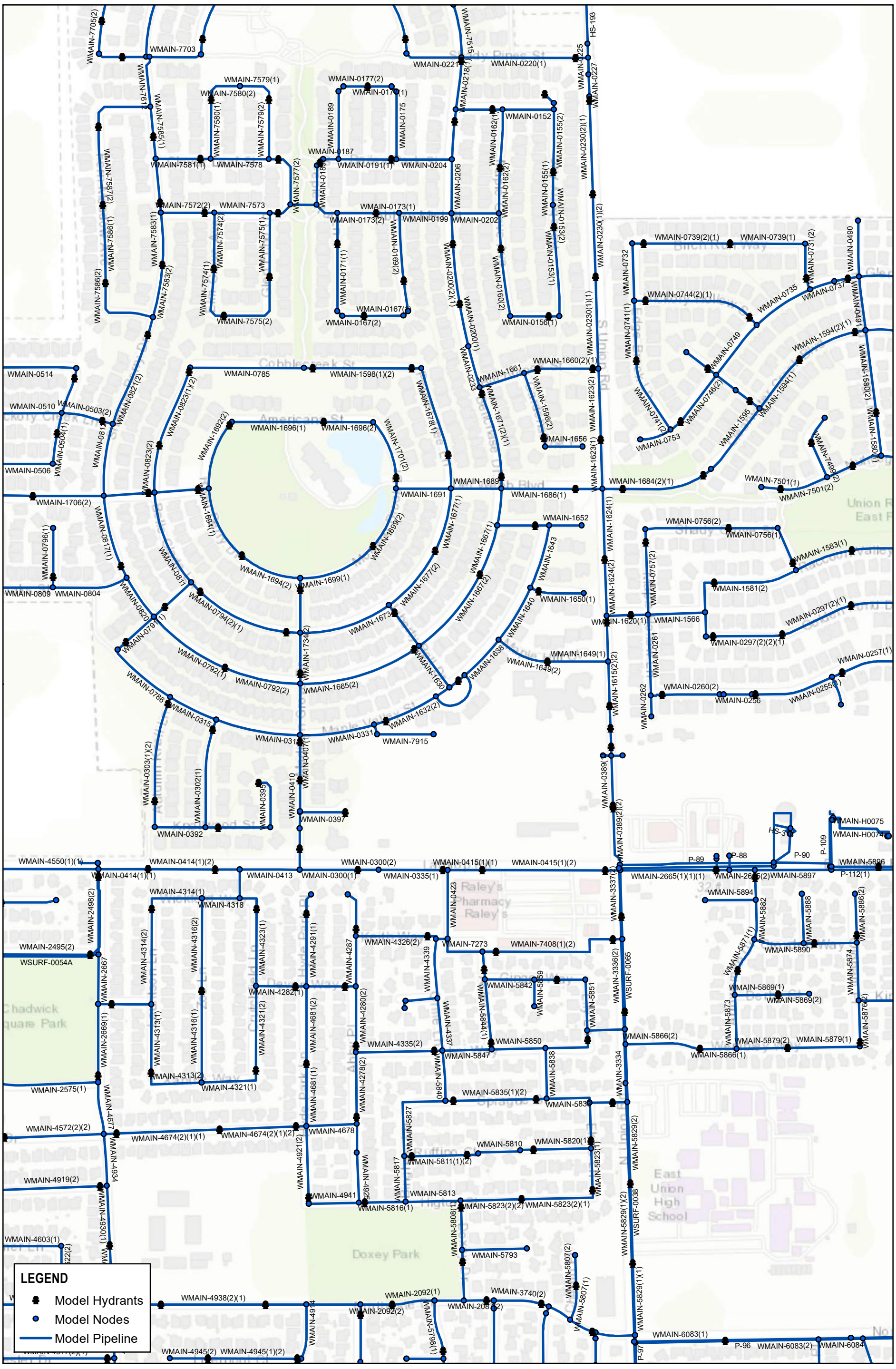


FIGURE 7A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

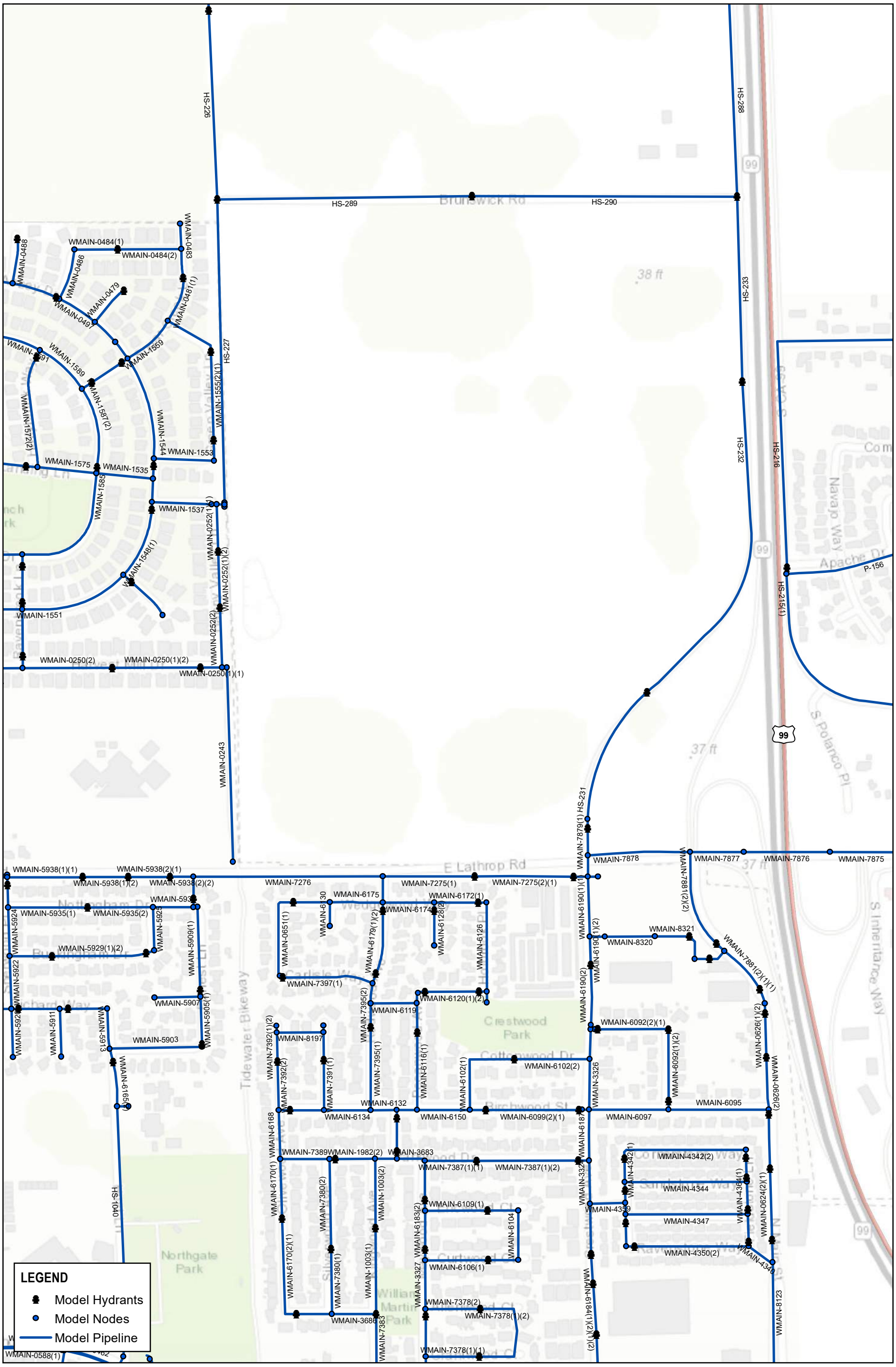


FIGURE 8A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

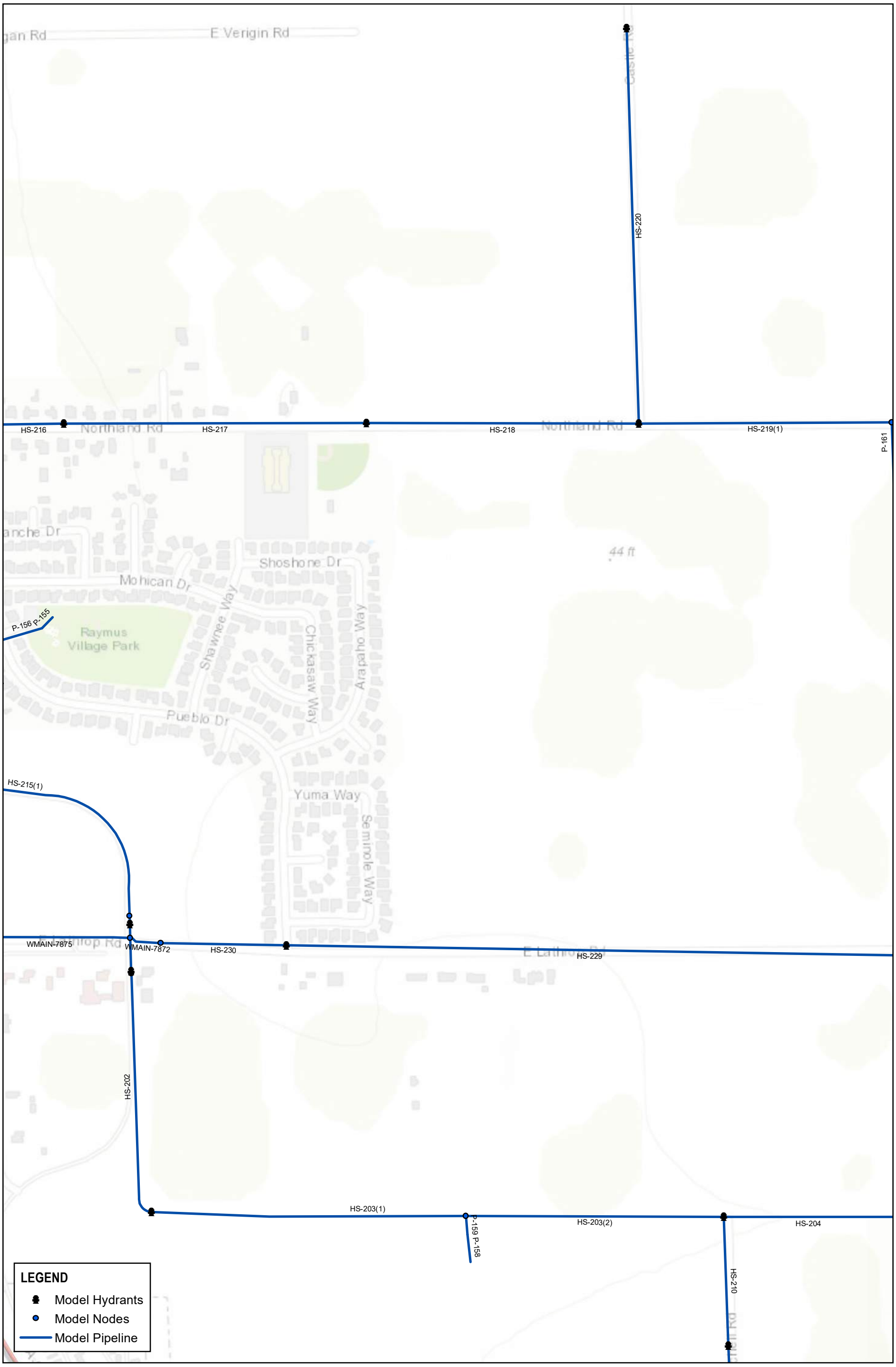


FIGURE 9A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

FIGURE 10A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

HydroScience

FIGURE 11A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

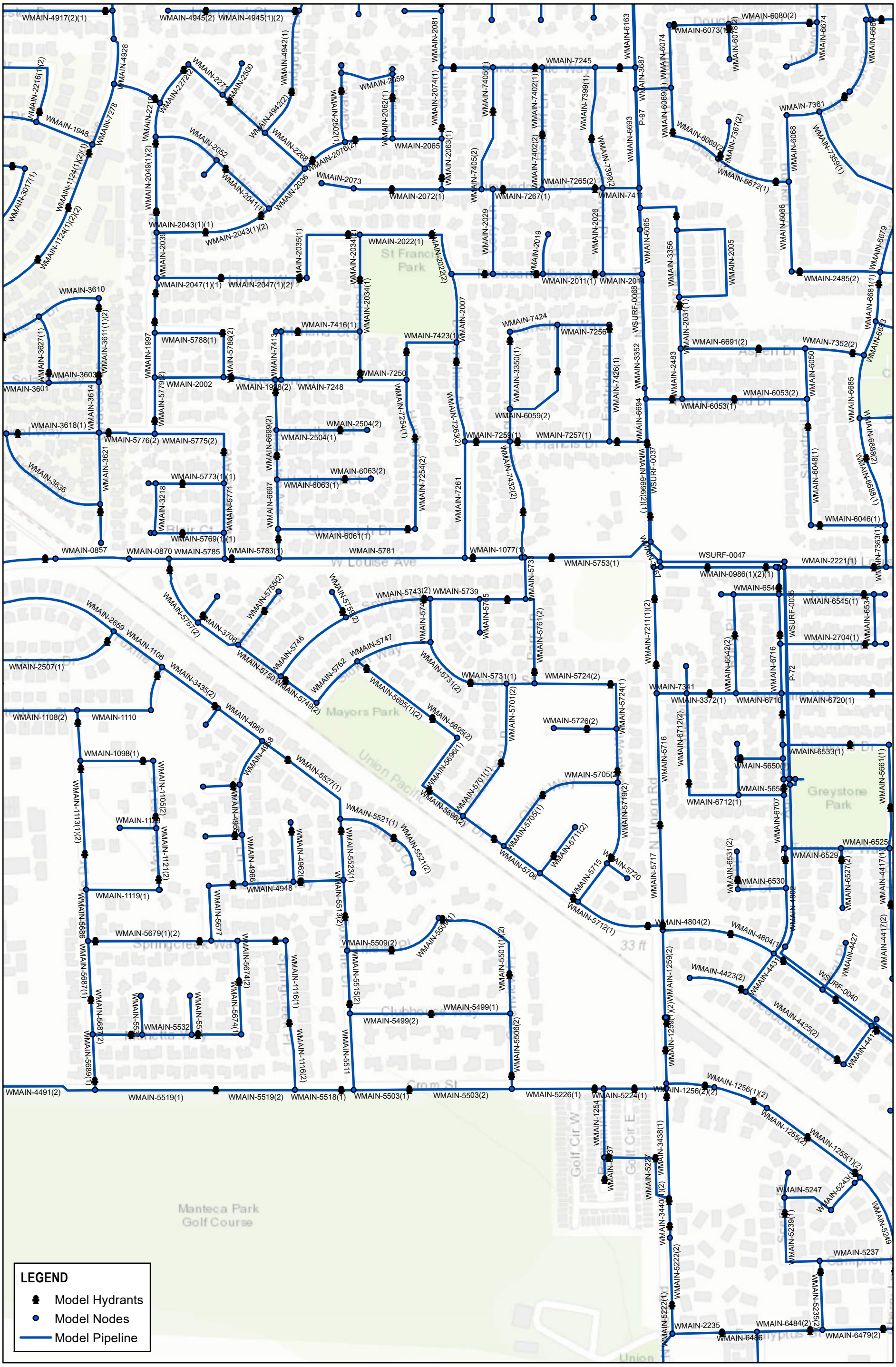


FIGURE 12A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

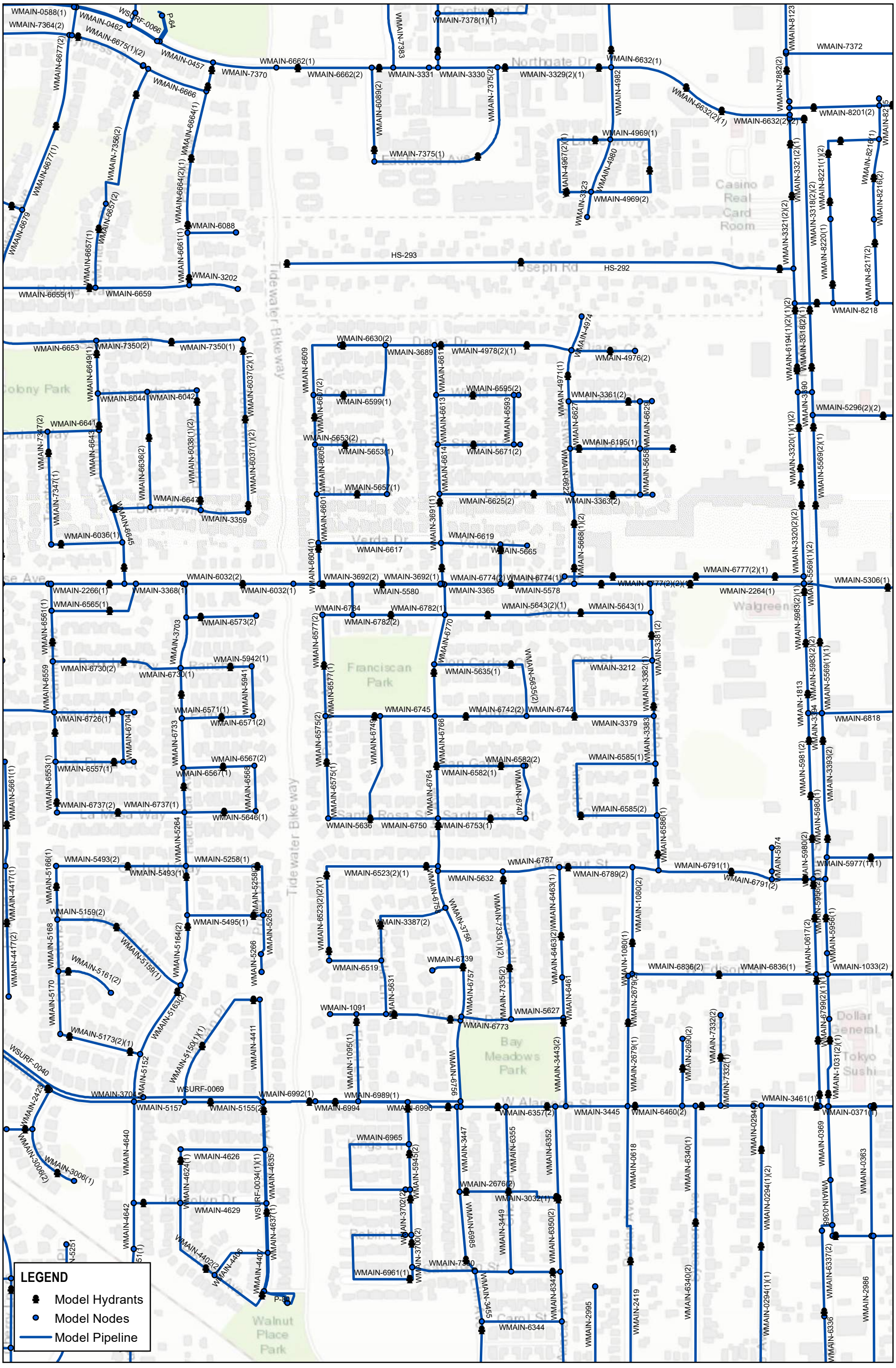


FIGURE 13A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

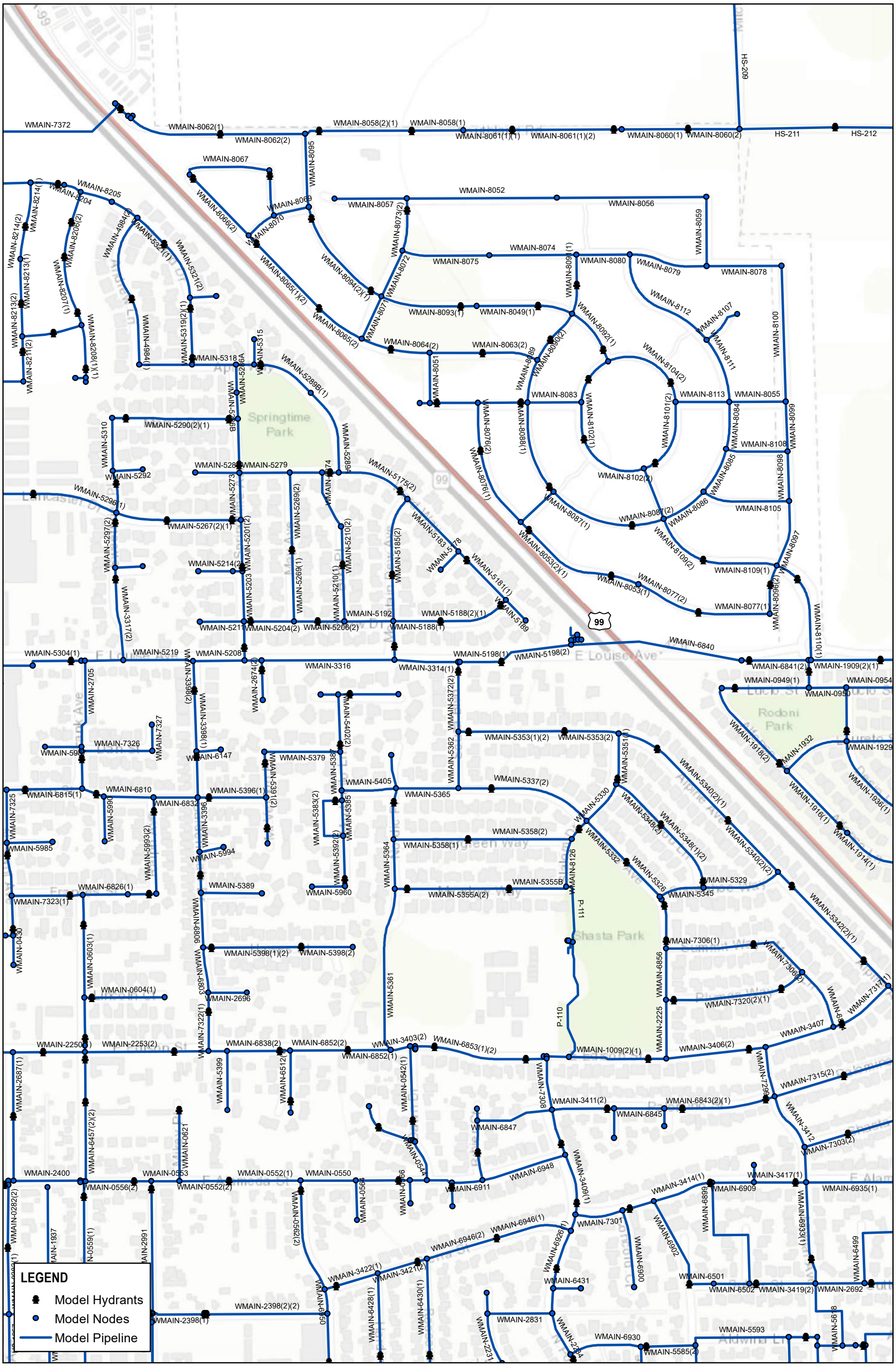


FIGURE 14A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

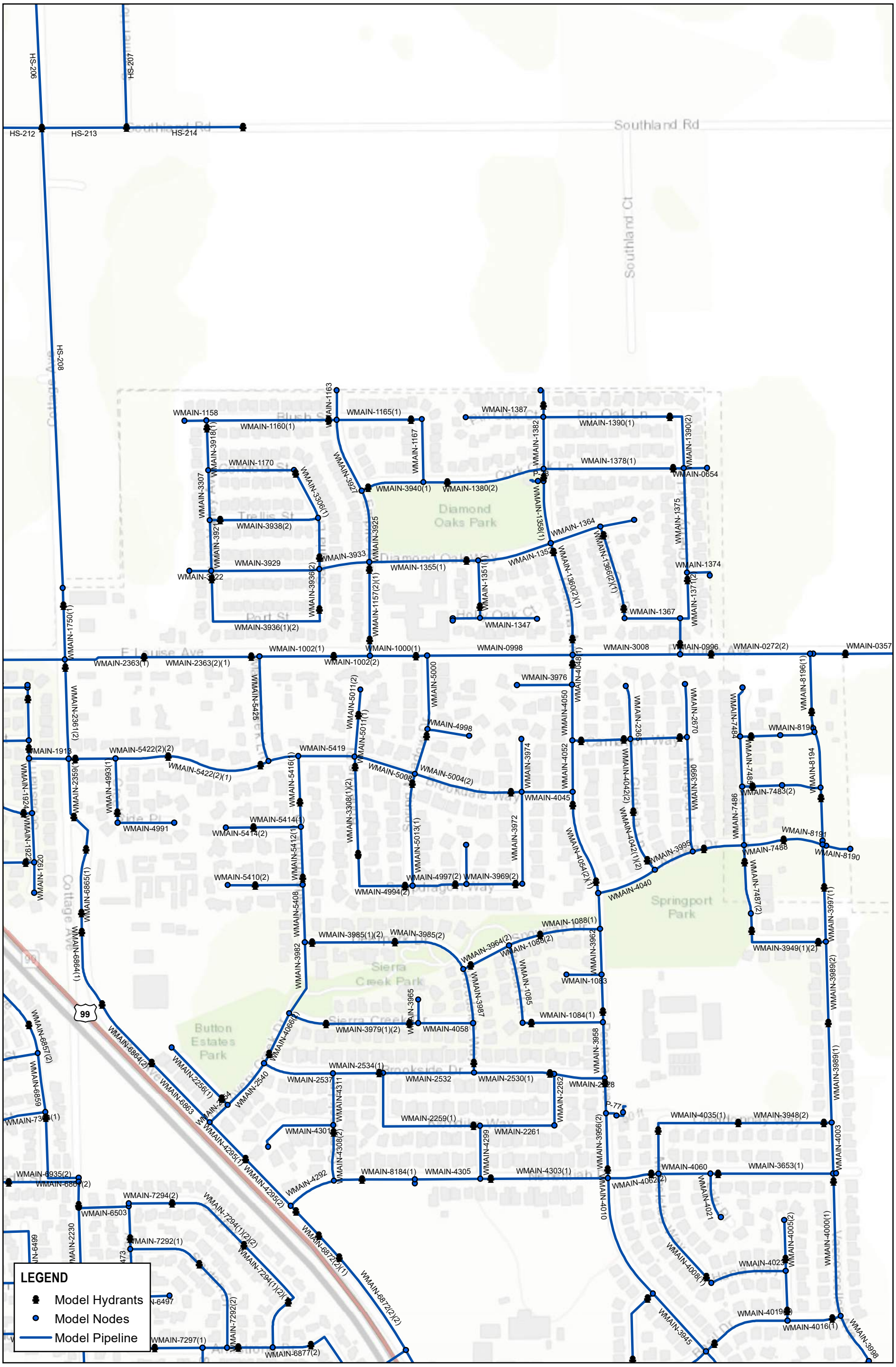


FIGURE 15A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

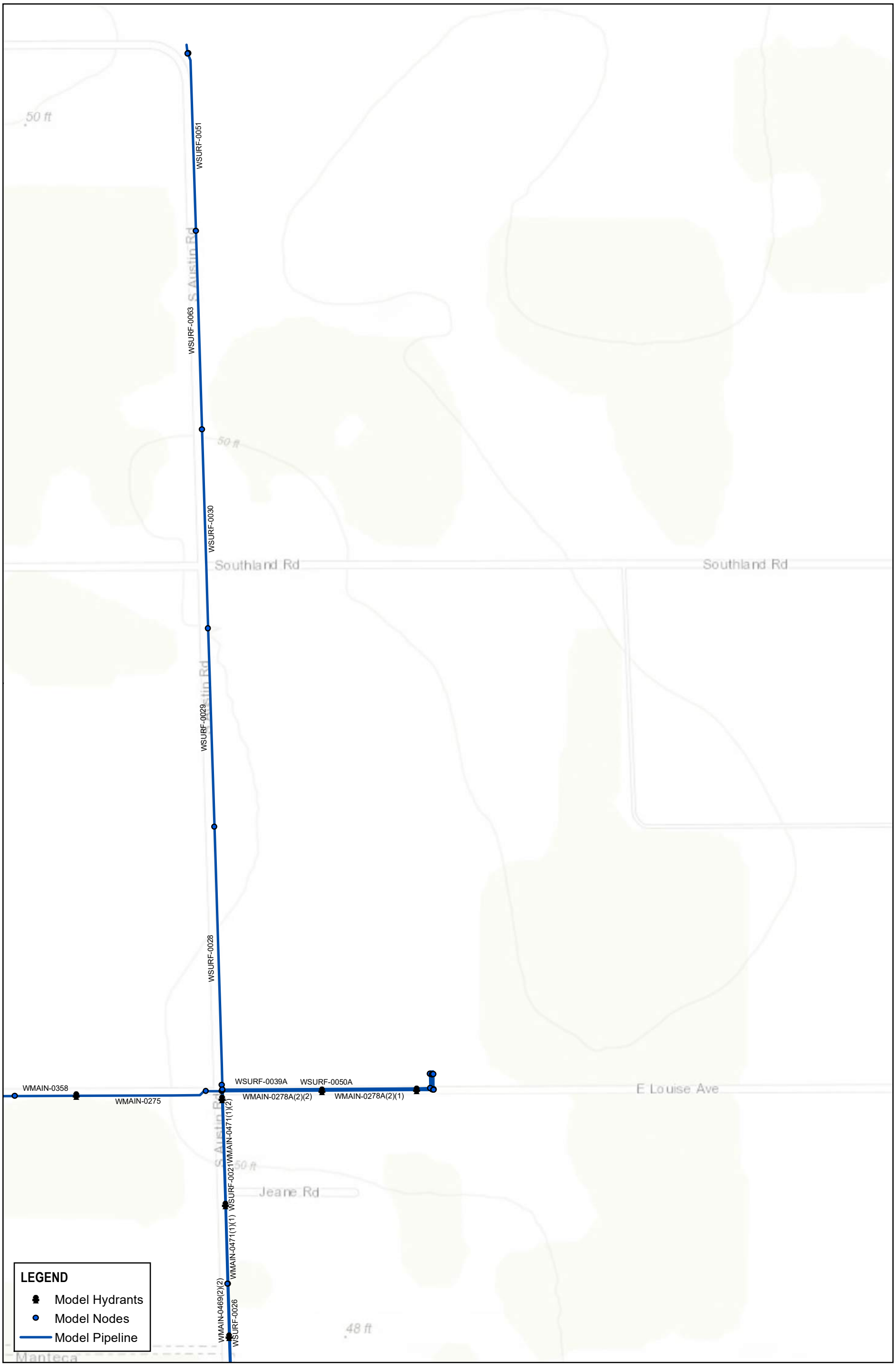


FIGURE 16A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

HydroScience

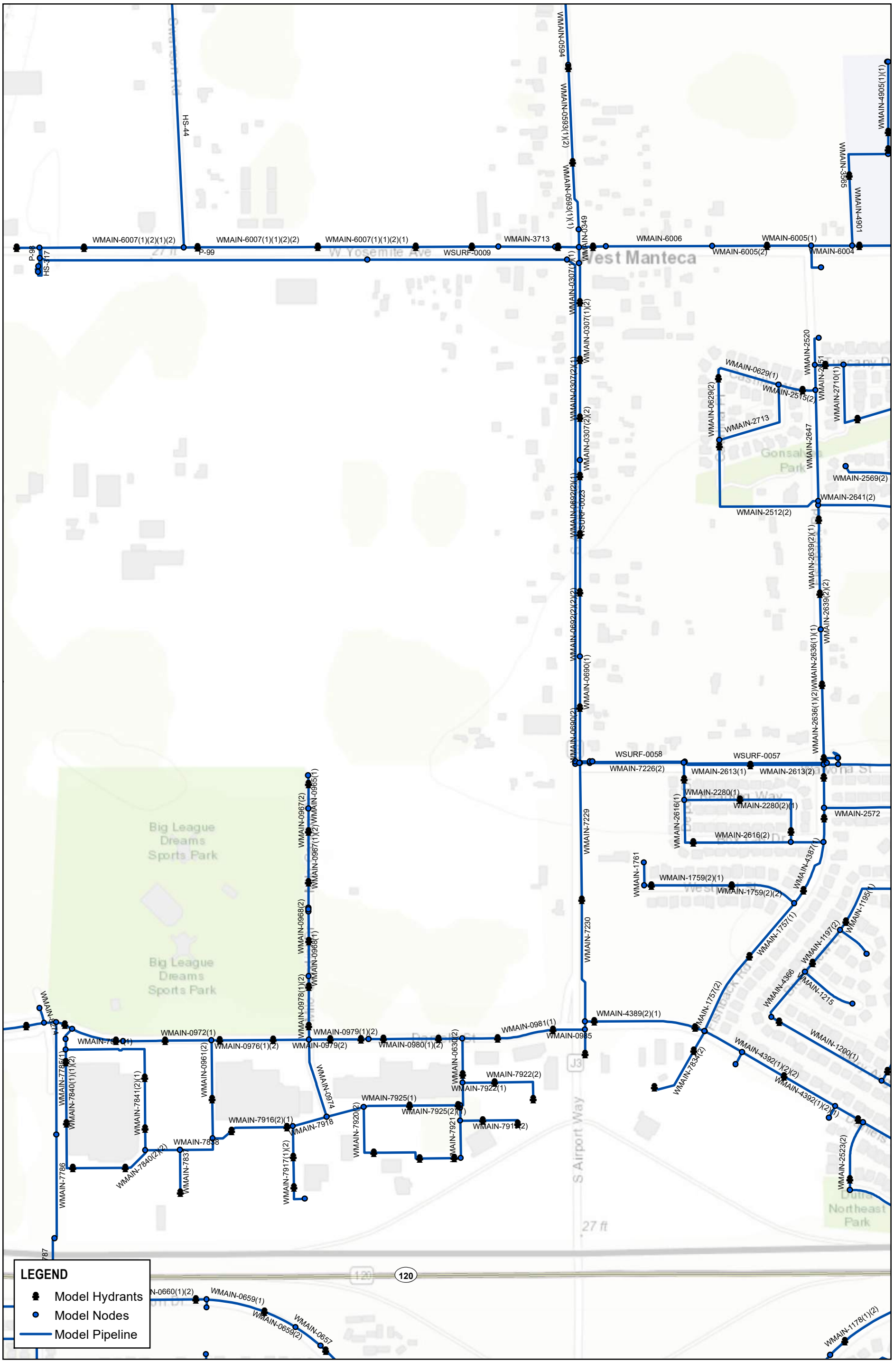


FIGURE 17A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

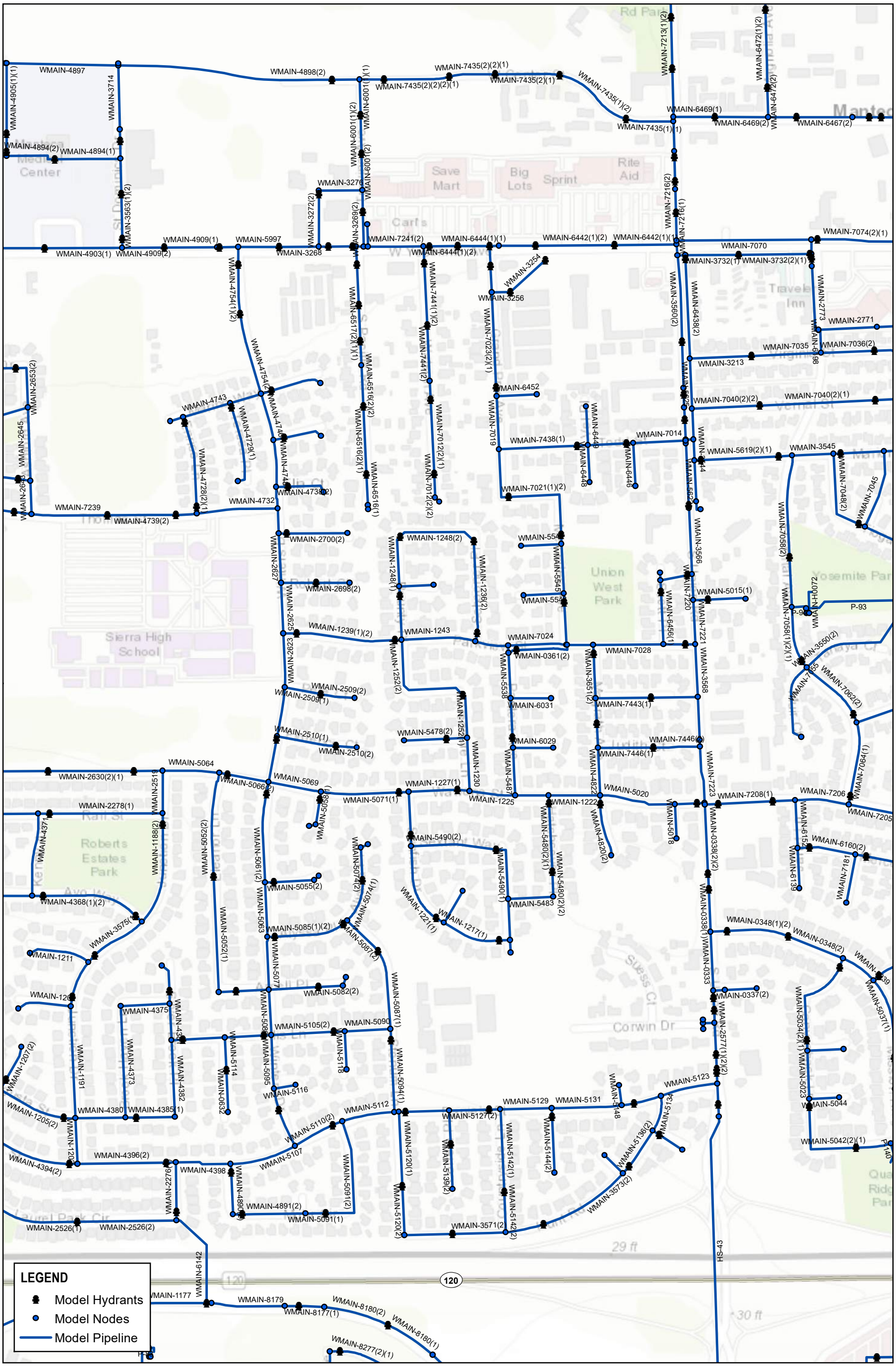


FIGURE 18A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

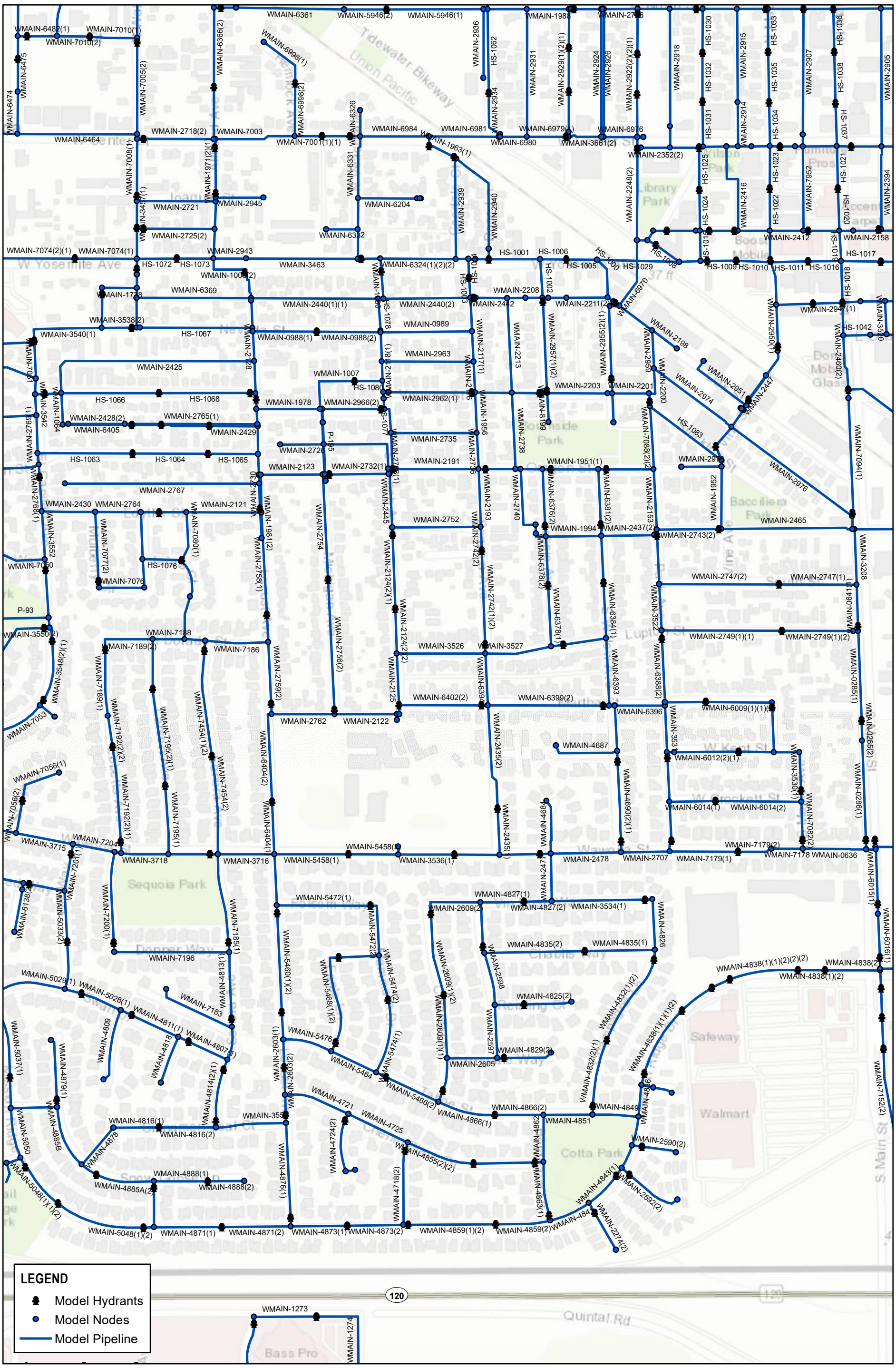


FIGURE 19A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

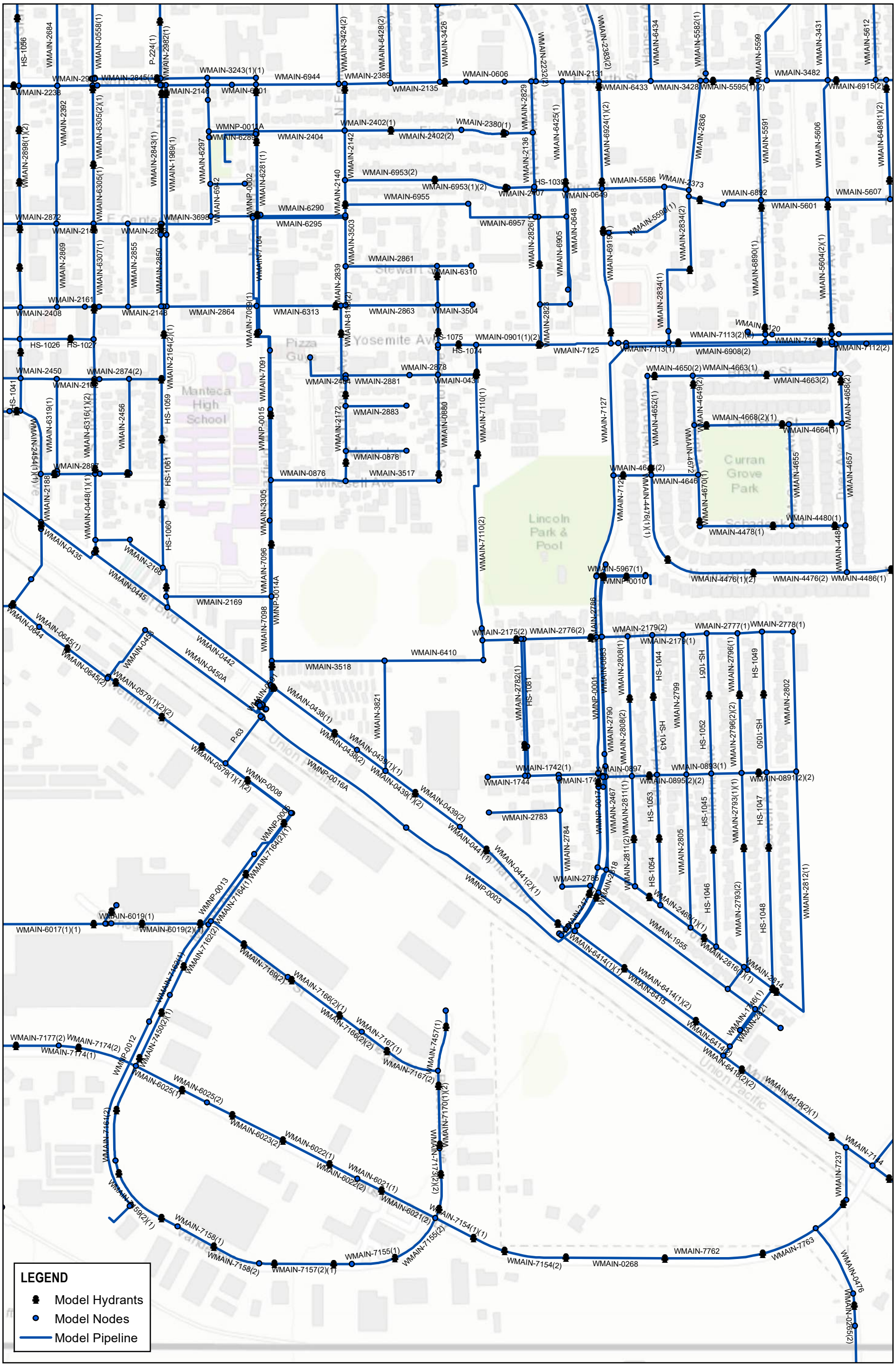


FIGURE 20A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

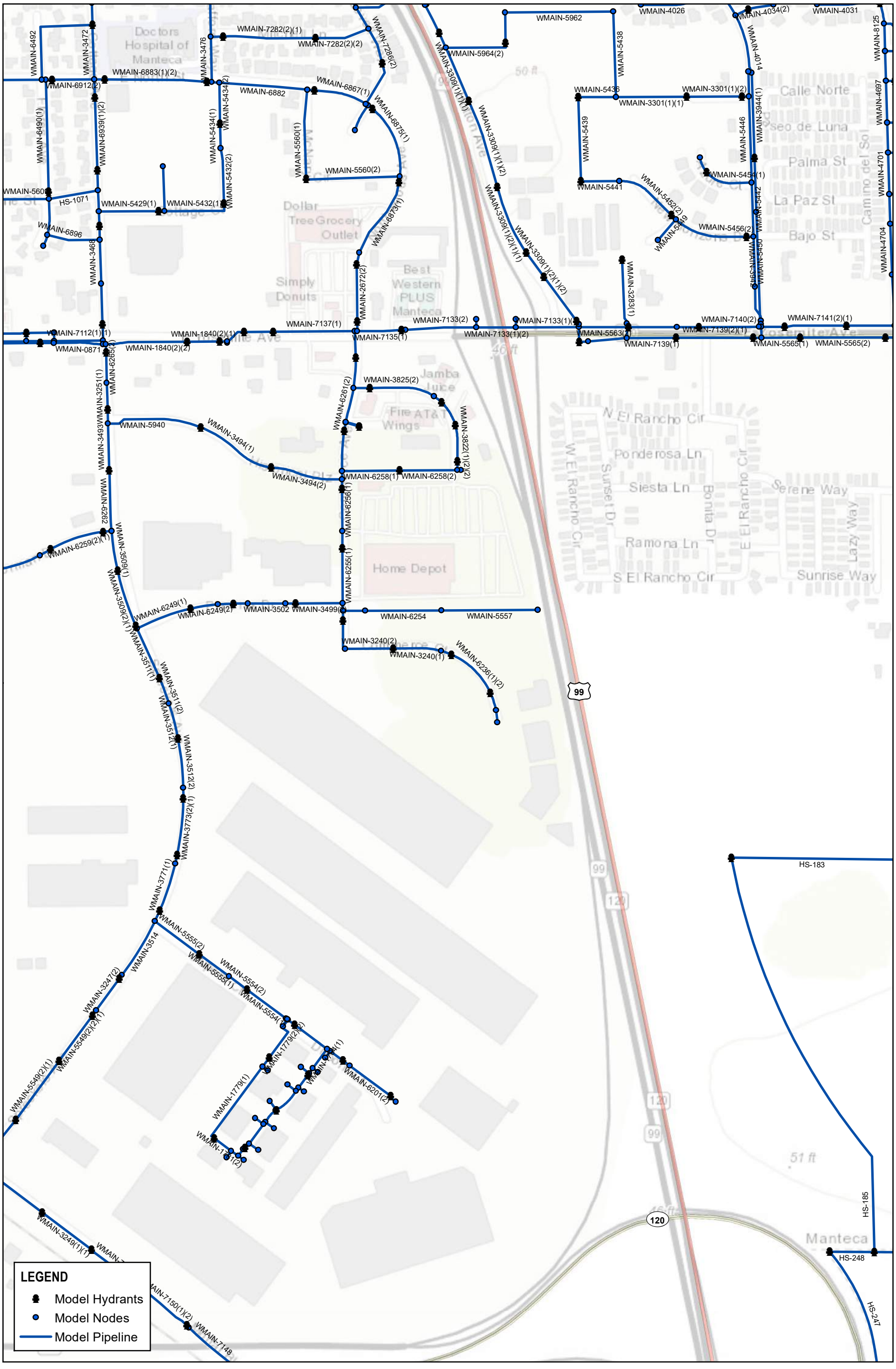


FIGURE 21A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

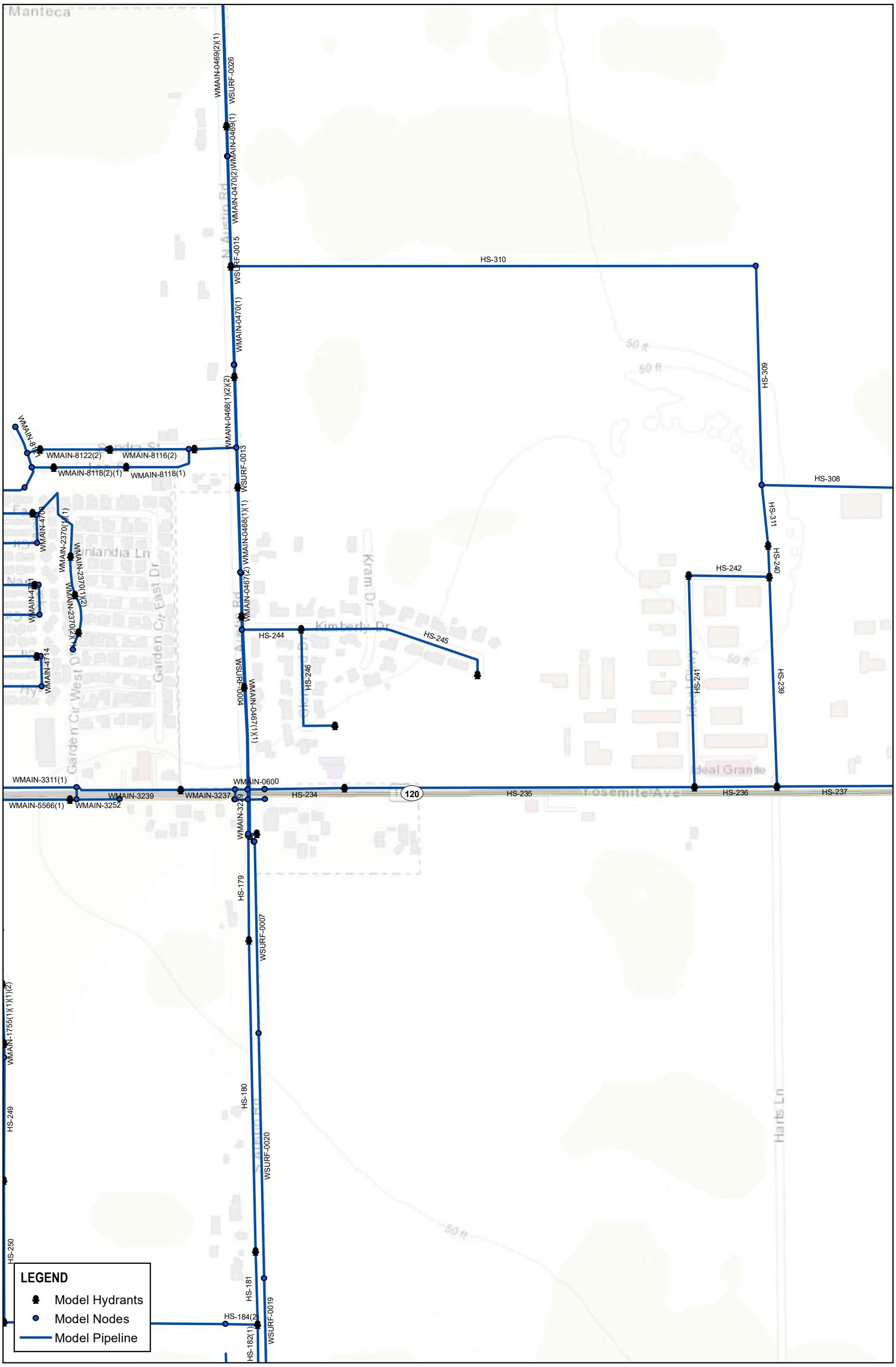


FIGURE 22A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

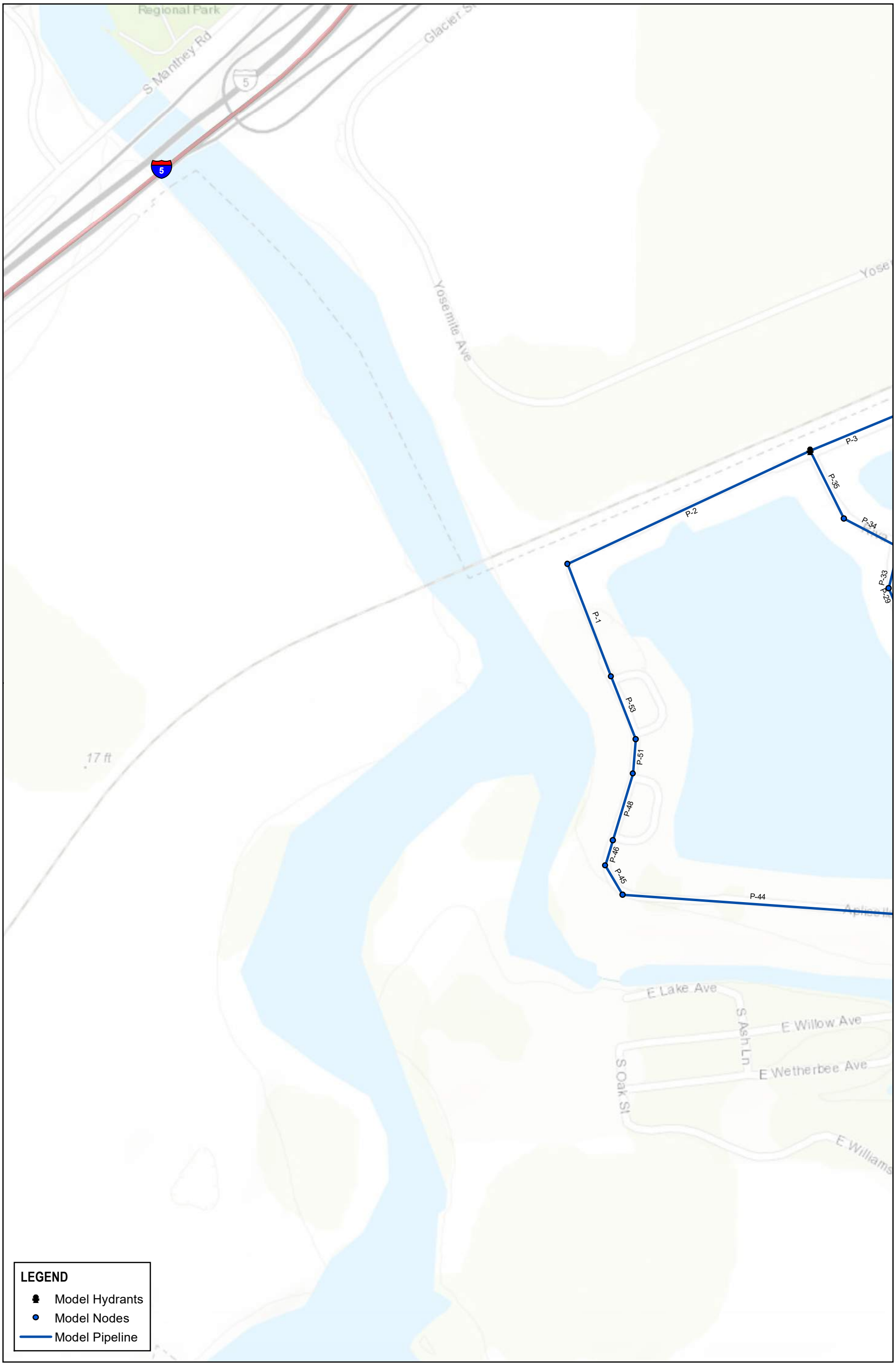


FIGURE 23A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

HydroScience

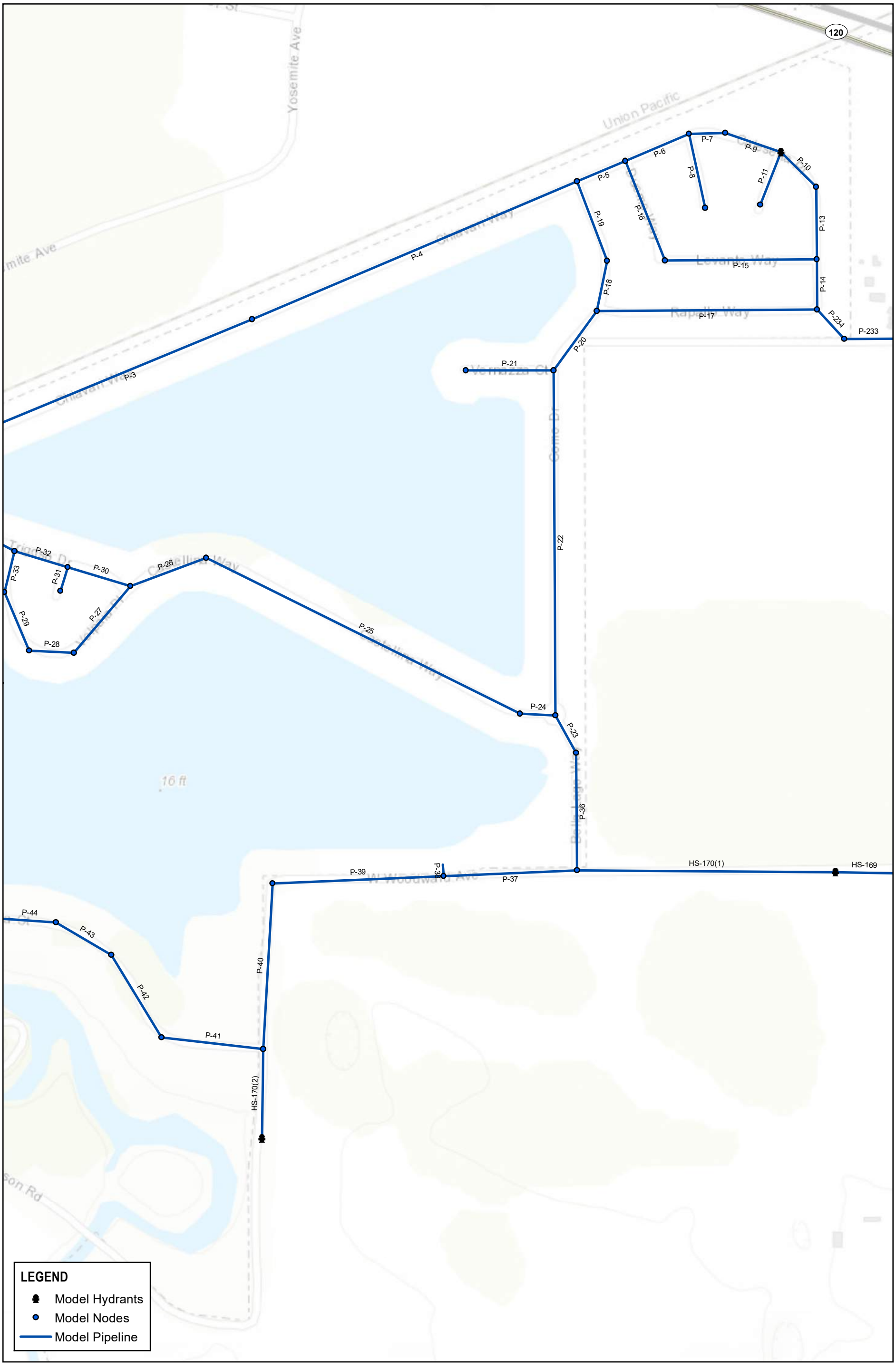


FIGURE 24A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

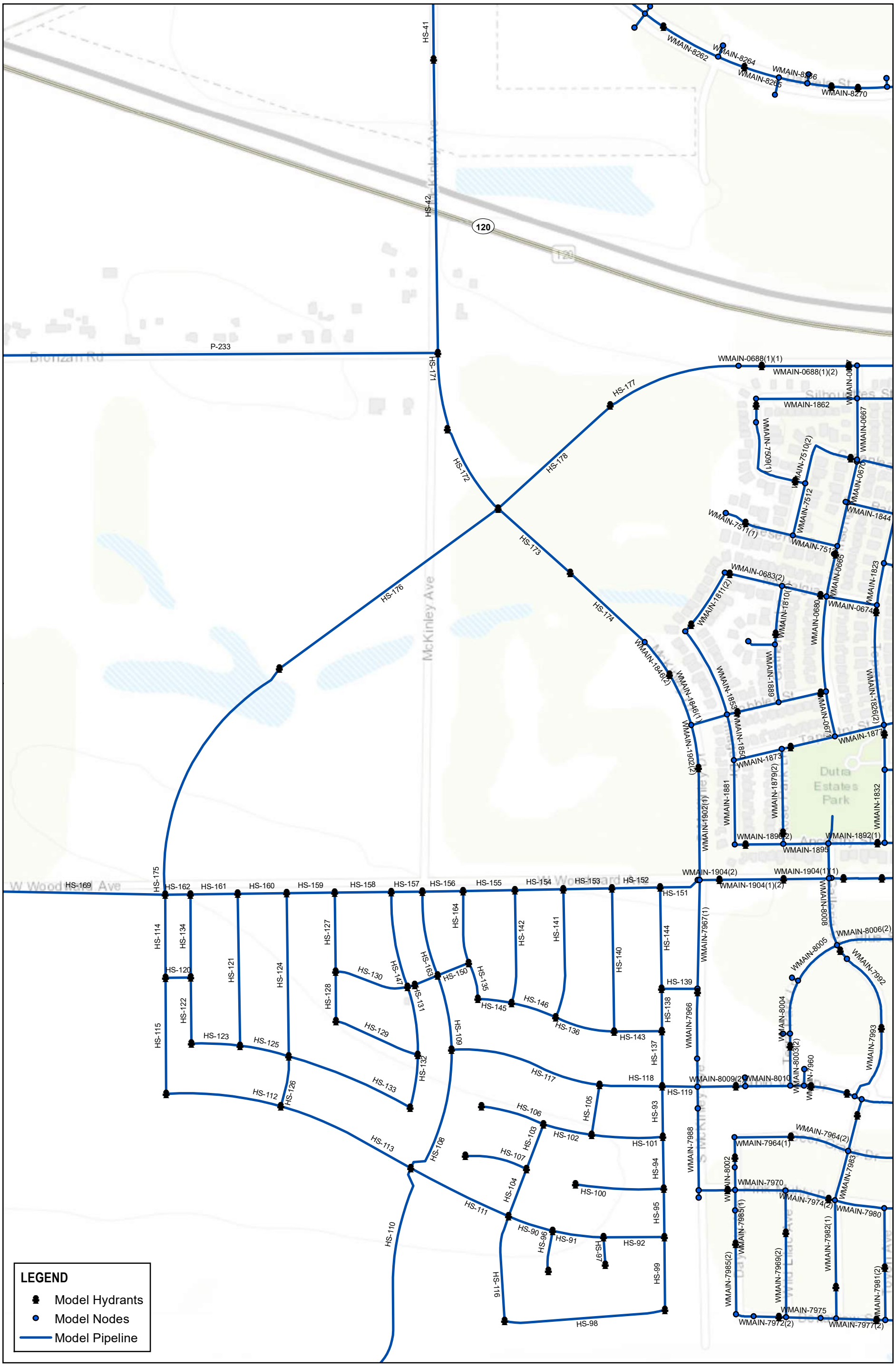


FIGURE 25A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

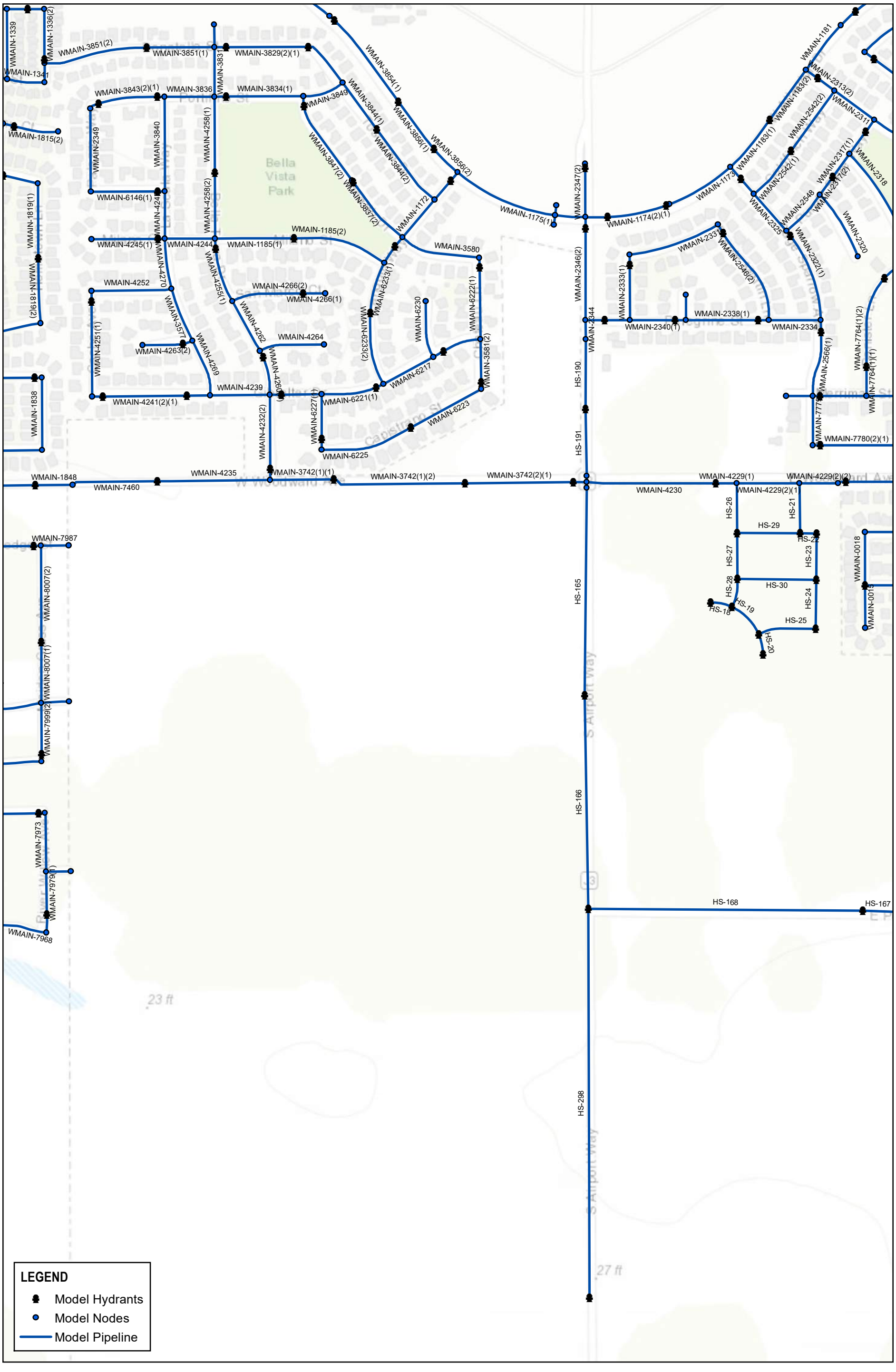


FIGURE 26A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

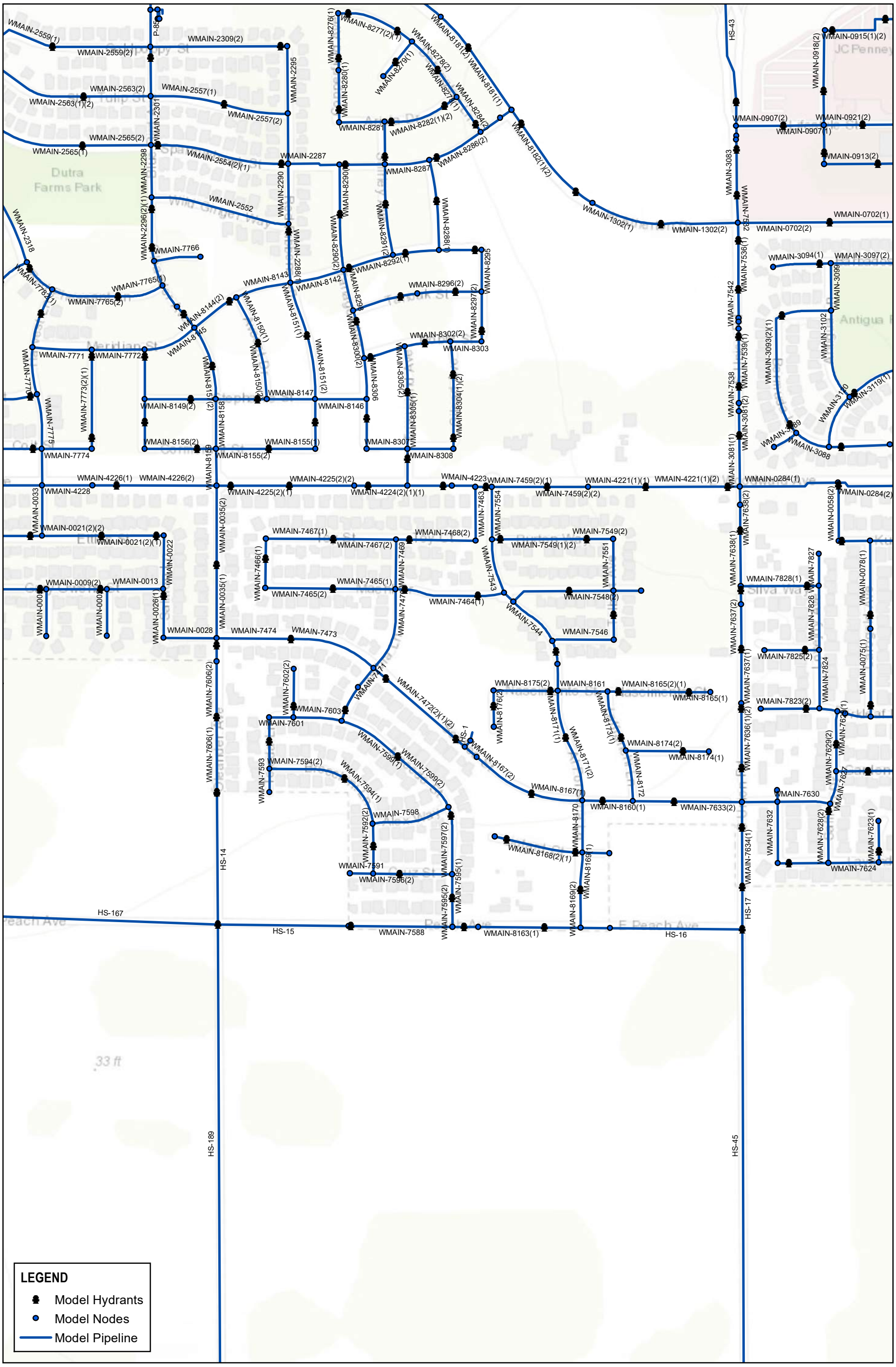


FIGURE 27A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

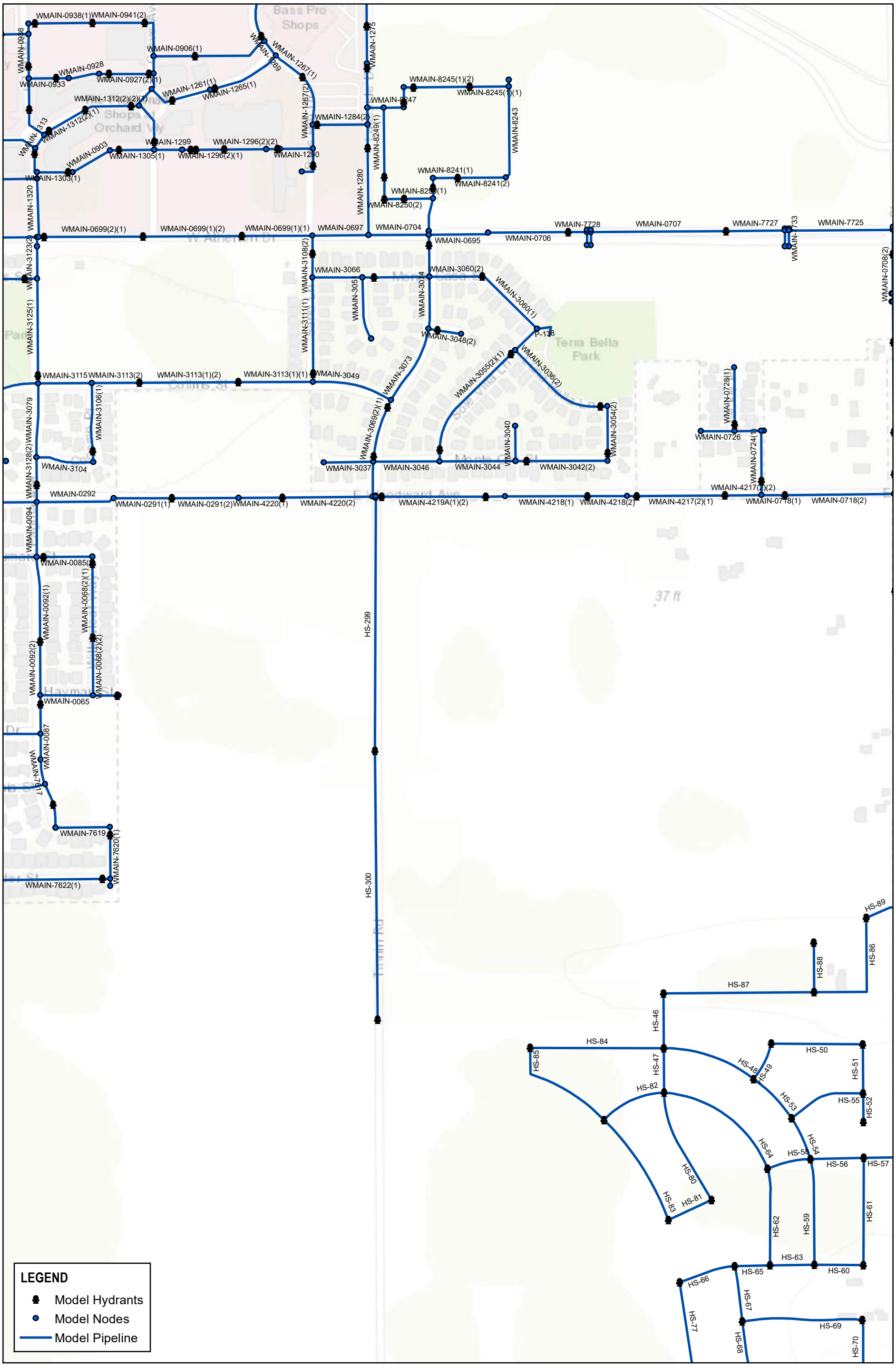


FIGURE 28A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

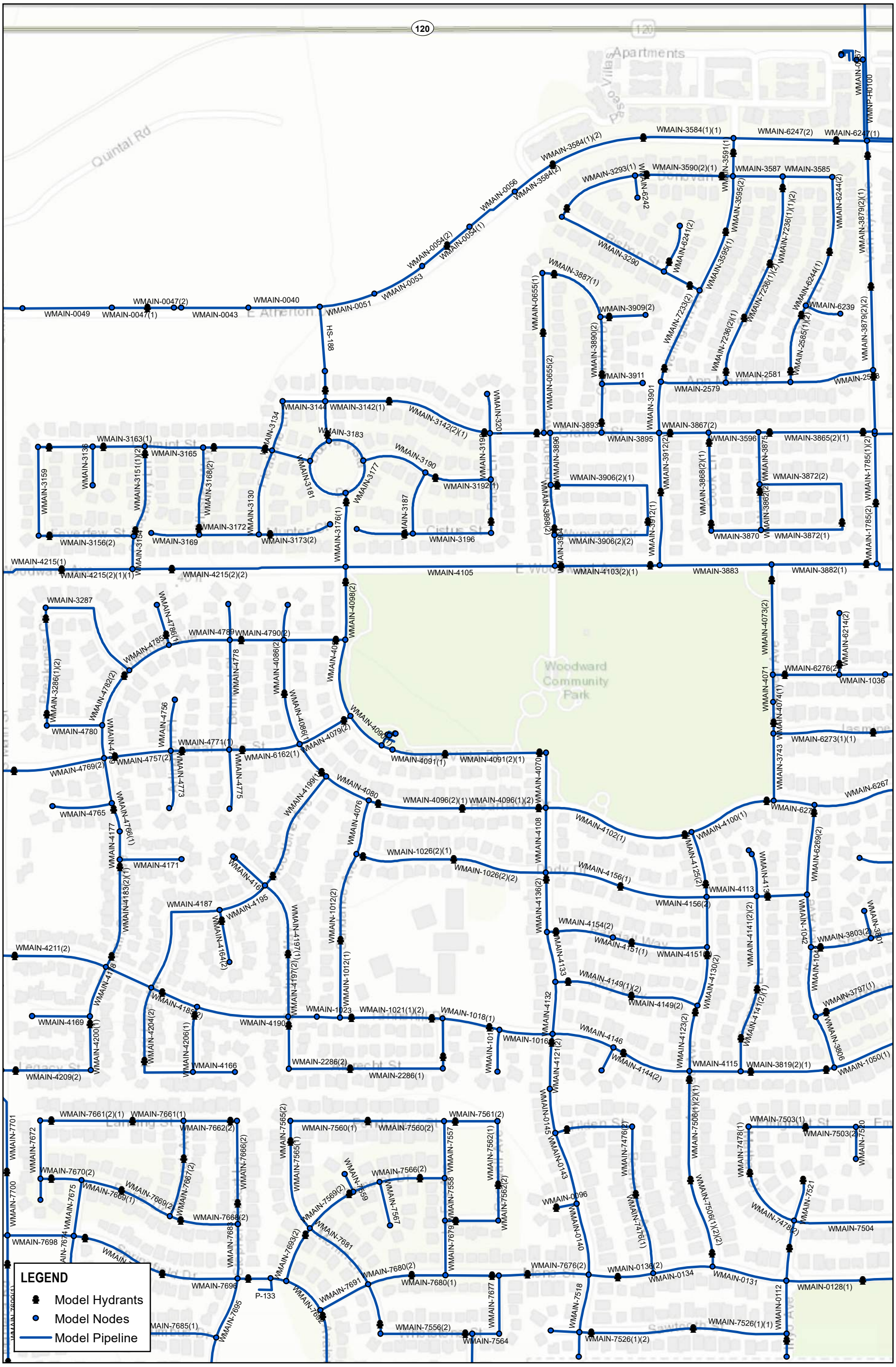


FIGURE 29A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

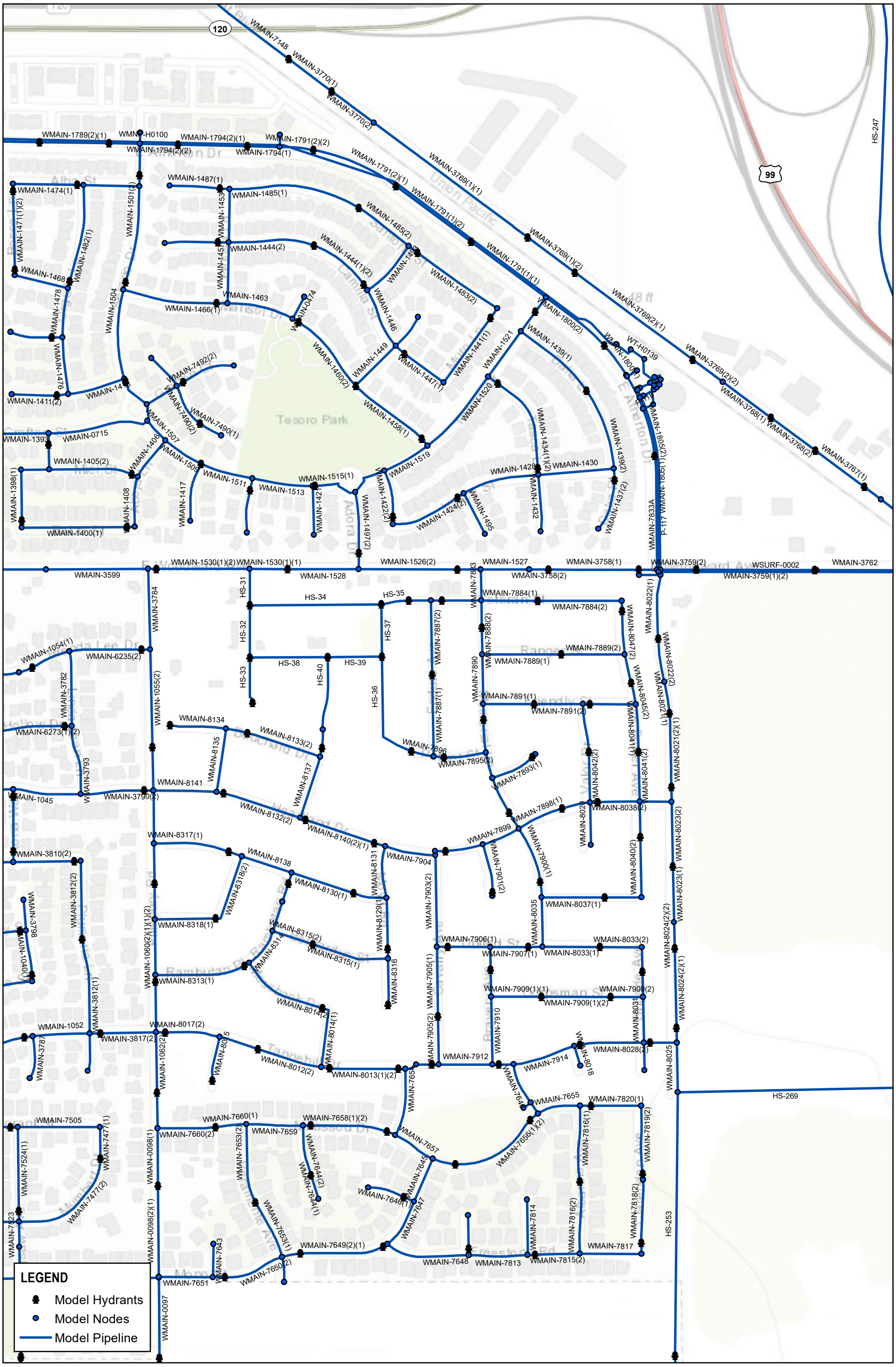


FIGURE 30A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

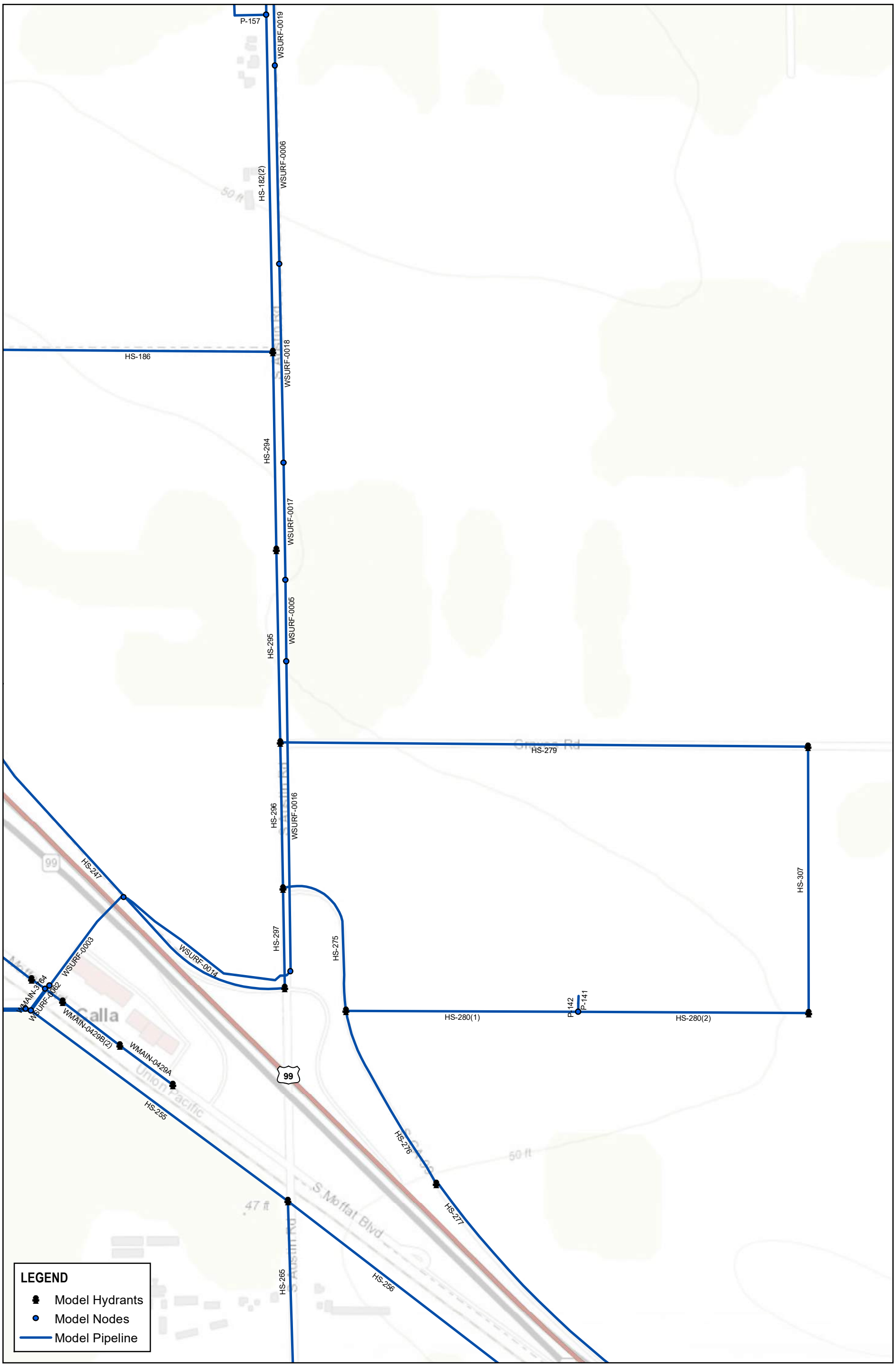


FIGURE 31A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

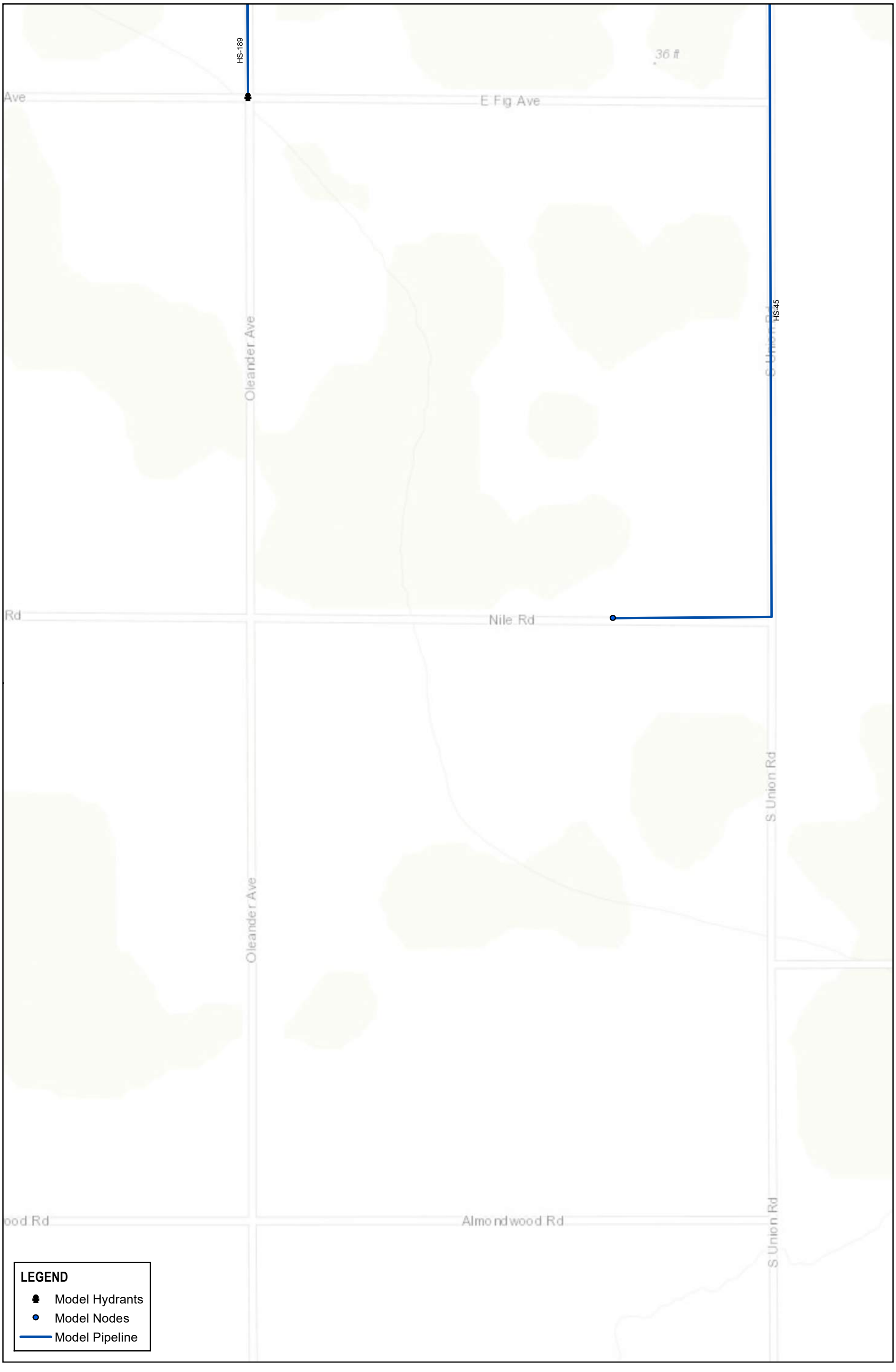


FIGURE 32A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

FIGURE 33A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

HydroScience

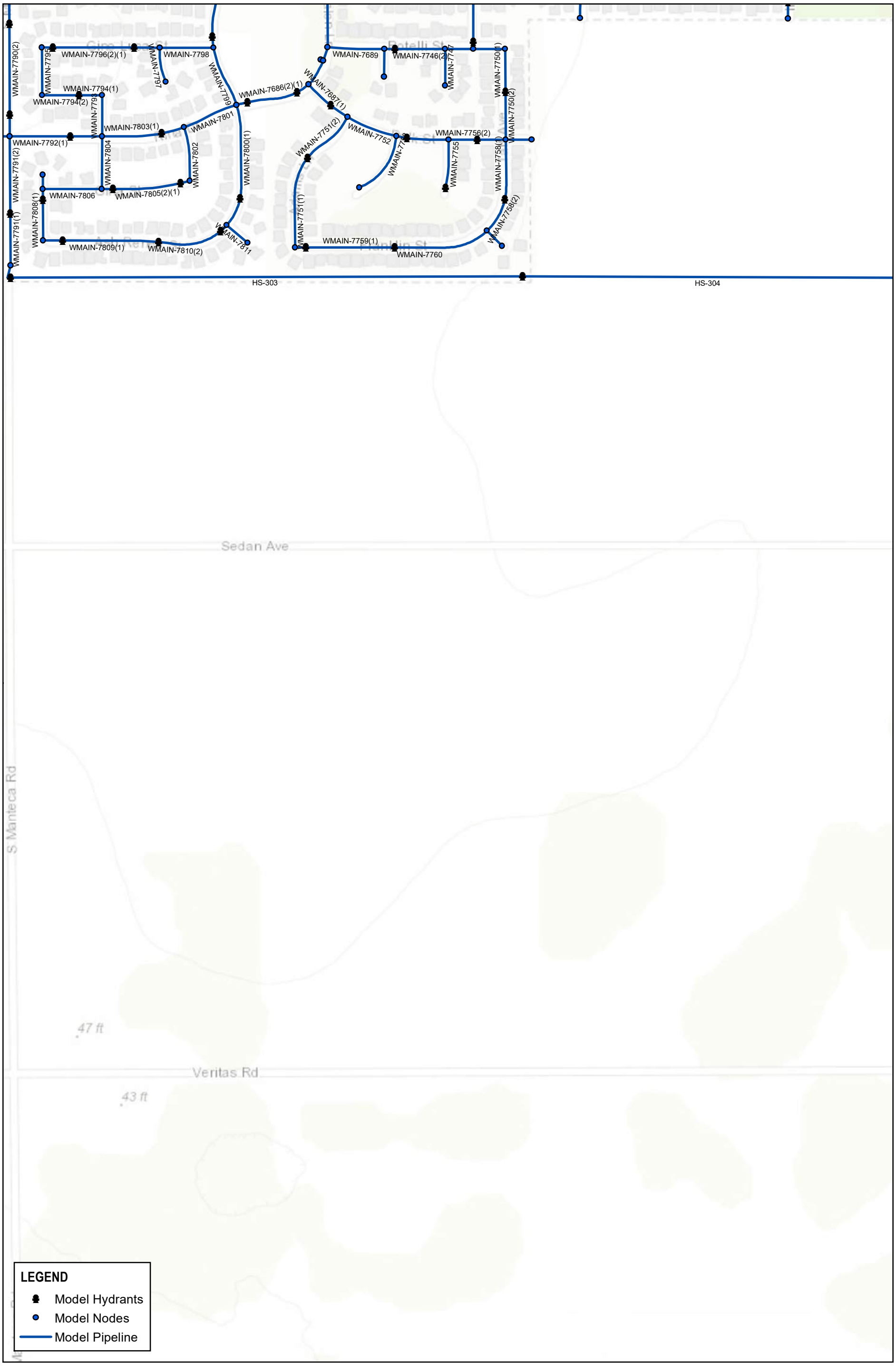


FIGURE 34A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

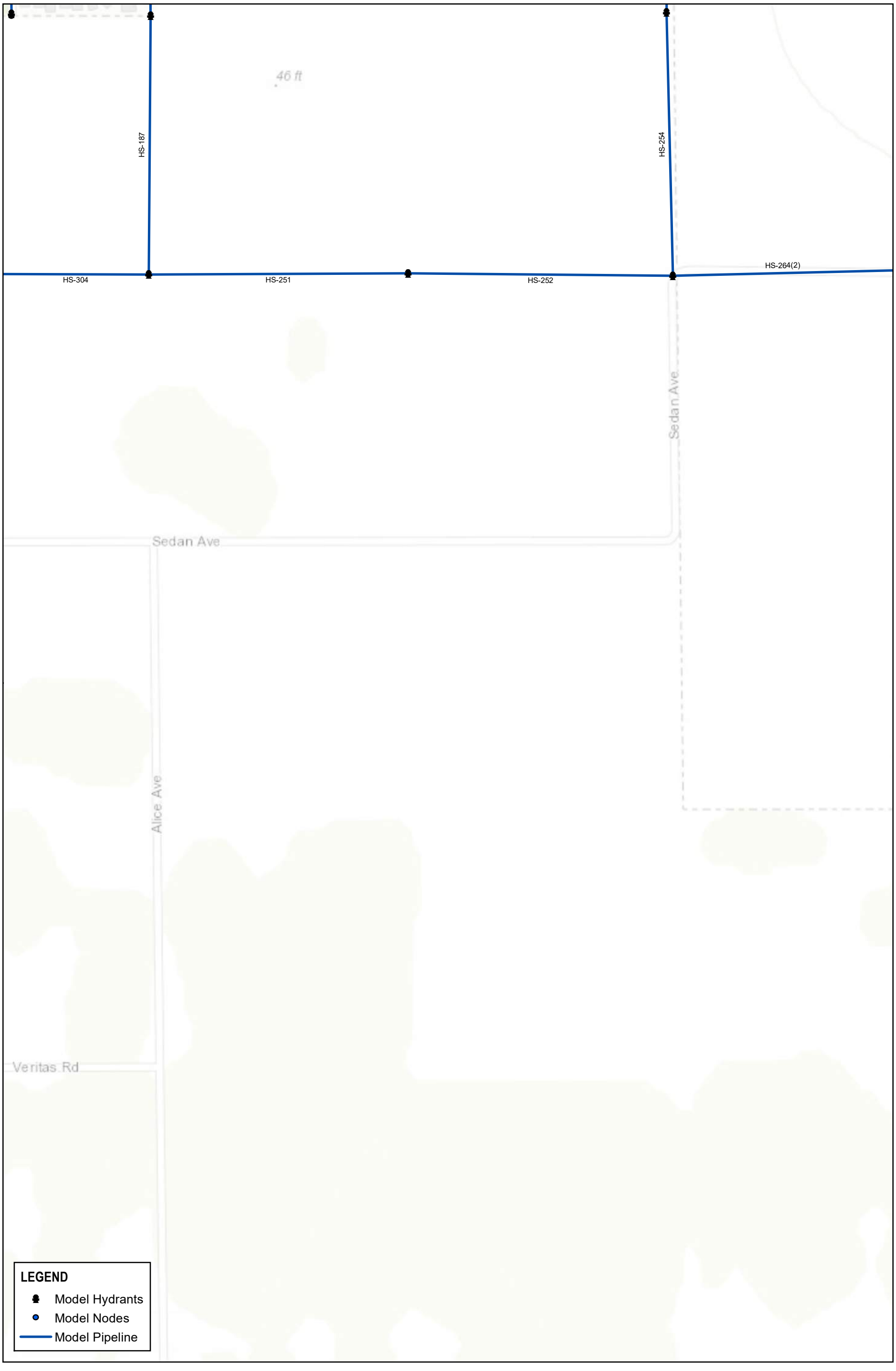


FIGURE 35A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

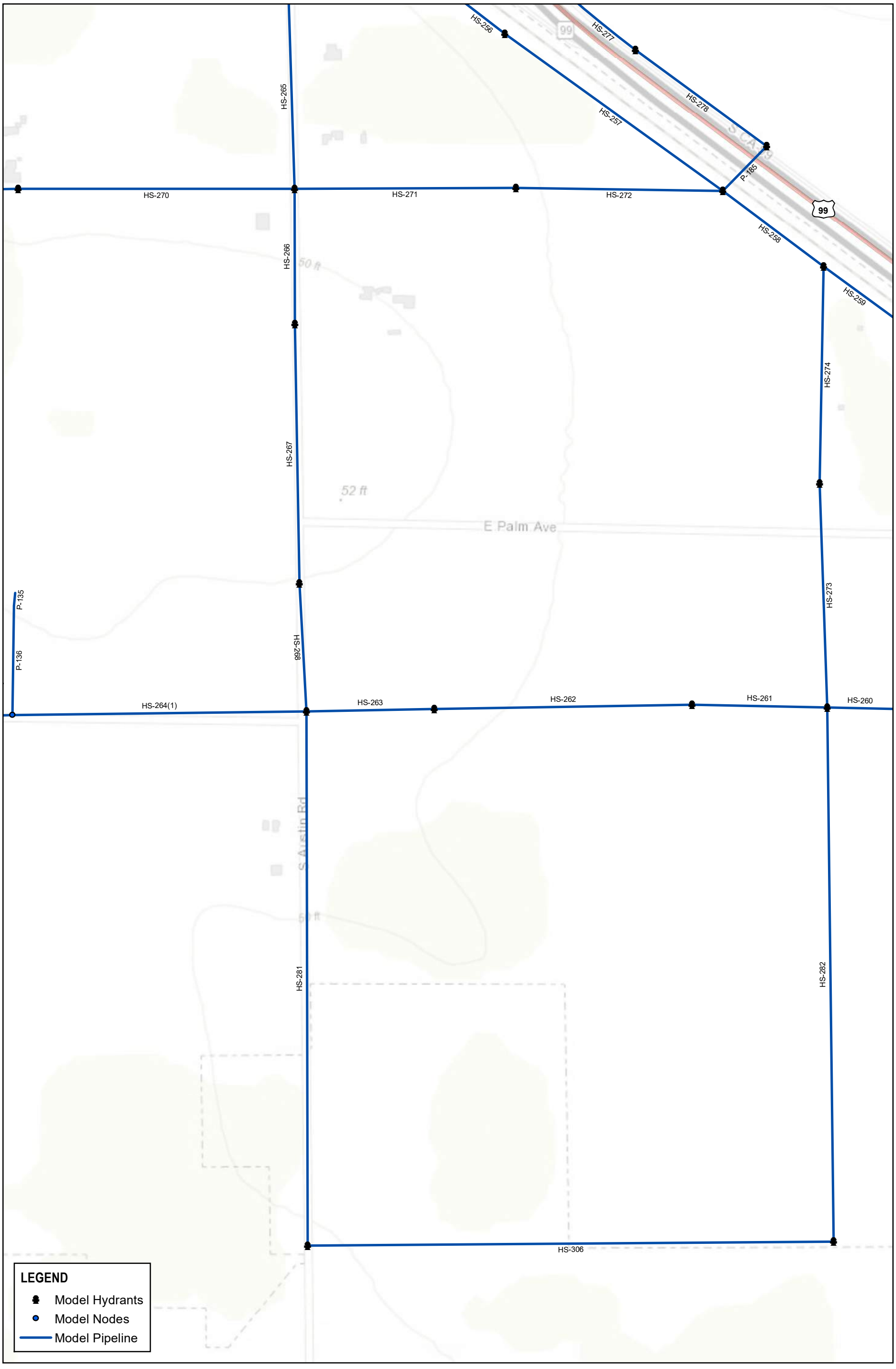


FIGURE 36A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

FIGURE 37A
CITY OF MANTECA
WATER MASTER PLAN
MODEL PIPE IDS

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5047	47.3	0	0	49.2	49.2	0	49.2
J-5049	47.3	0	0	48.3	48.8	0	48.3
J-5050	37.2	11.2	5.4	48.9	54.6	11.2	48.9
J-5053	47.3	0	0	48.3	48.8	0	48.3
J-5055	38.2	0	0	49.1	51	0	49.1
J-5056	52.1	0	0	51.4	54.2	0	52.8
J-5057	52.1	0	0	51.4	54.2	0	52.8
J-5058	38.9	0.7	0.3	48.2	50.4	0.7	48.2
J-5059	38.9	0	0	48.2	50.4	0	48.2
J-5060	46.9	0	0	48.5	49	0	48.5
J-5062	31.4	1.7	0.8	51.1	53.5	1.7	51.1
J-5063	31.4	6.9	3.3	51.1	53.5	6.9	51.1
J-5068	36.4	0	0	49.2	51.3	0	49.2
J-5069	32.5	0	0	53.8	54	0	53.8
J-5070	38.7	0	0	49.8	51.7	0	49.8
J-5071	40.8	0	0	47.4	49.6	0	47.4
J-5072	40.8	0	0	47.4	49.6	0	47.4
J-5073	41.8	0	0	47	49.1	0	47
J-5074	41.8	0	0	47	49.1	0	47
J-5075	38.9	0	0	48.2	50.4	0	48.2
J-5076	38.9	0	0	48.2	50.4	0	48.2
J-5078	27.9	5	2.4	52.1	54.9	5	52.1
J-5079	32.5	0	0	53.8	53.9	0	53.8
J-5080	50.4	0	0	43.8	45.6	0	43.8
J-5081	50.4	0	0	43.8	45.6	0	43.8
J-5082	41.1	0	0	47.7	49.6	0	47.7
J-5084	41.2	1	0.5	47.6	49.6	1	47.6
J-5085	41.1	3.2	1.5	47.7	49.6	3.2	47.7
J-5086	36	0.8	0.4	49.3	51.5	0.8	49.3
J-5087	36	0.4	0.2	49.3	51.5	0.4	49.3
J-5093	33.4	0	0	50.1	52.5	0	50.1
J-5094	33.4	2.4	1.1	50.1	52.5	2.4	50.1
J-5095	39	0	0	48.1	50.4	0	48.1
J-5096	39	18.2	8.7	48.1	50.4	18.2	48.1
J-5098	32.8	0	0	51.2	53.7	0	51.2
J-5100	37	0	0	49	51.3	0	49
J-5101	37	0.3	0.1	49	51.3	0.3	49
J-5104	32.1	1.8	0.9	50.7	53.2	1.8	50.8
J-5105	32.1	0.4	0.2	50.7	53.2	0.4	50.8
J-5106	32.7	0	0	50.9	53.3	0	50.9
J-5107	32.7	0.1	0.1	50.9	53.3	0.1	50.9
J-5108	37.9	0	0	48.6	50.8	0	48.6
J-5109	37.9	0	0	48.6	50.8	0	48.6
J-5110	37.4	1.8	0.9	48.8	50.8	1.8	48.8
J-5112	37.4	0.1	0	48.7	51	0.1	48.7
J-5113	37.4	2	1	48.7	51	2	48.7
J-5116	32.4	2.6	1.2	51	52.8	2.6	51
J-5118	40.5	0	0	47.8	49.7	0	47.8
J-5119	32.5	1.4	0.7	50.7	53.1	1.4	50.7
J-5120	32.5	2	1	50.7	53.1	2	50.7
J-5121	32.3	0	0	50.8	52.8	0	50.8
J-5122	32.3	0	0	50.8	52.8	0	50.8
J-5123	38.9	0	0	48.2	50.4	0	48.2
J-5124	38.9	1.6	0.8	48.2	50.4	1.6	48.2
J-5125	33.1	0	0	50.6	52.6	0	50.6
J-5126	47.1	0	0	49.2	49.3	0	49.2
J-5128	48.7	0	0	44.6	46.3	0	44.6
J-5129	37.5	0.6	0.3	48.8	51	0.6	48.8
J-5133	37.9	0.4	0.2	48.6	50.9	0.4	48.6
J-5134	37.9	0	0	48.6	50.9	0	48.6
J-5135	33	0	0	51.4	53.7	0	51.4
J-5136	33	0	0	51.4	53.7	0	51.4
J-5137	24.7	0	0	52.6	55.8	0	52.6
J-5138	24.7	0	0	52.6	55.8	0	52.6
J-5139	22.8	0	0	55.1	57.6	0	55.1
J-5140	22.8	0	0	55.1	57.6	0	55.1
J-5141	37.3	0	0	50.2	52.2	0	50.2
J-5142	37.3	0	0	50.2	52.2	0	50.2
J-5143	32.9	0	0	51.4	53.7	0	51.4
J-5144	40.5	0	0	48	49.9	0	48
J-5145	40.5	0	0	48	49.9	0	48
J-5146	37.3	0	0	50.1	52.1	0	50.1
J-5147	37.3	0	0	50.1	52.1	0	50.1
J-5148	27.3	0	0	51.5	54.7	0	51.5
J-5149	27.3	0	0	51.5	54.7	0	51.5
J-5157	27.7	8.5	4.1	52.6	55.1	8.5	52.6
J-5158	27.7	0	0	52.6	55.1	0	52.6
J-5159	36.9	0	0	49.1	51.3	0	49.1
J-5161	41.4	0	0	47.3	49.4	0	47.3
J-5162	42.8	1.5	0.7	47.1	48.8	1.5	47.1
J-5163	41.7	0	0	47.1	49.3	0	47.1
J-5165	35.2	2.3	1.1	49.8	51.9	2.3	49.8
J-5166	37.9	0.4	0.2	48.7	50.9	0.4	48.7
J-5167	37.9	4.3	2.1	48.7	50.9	4.3	48.7
J-5168	43.7	5.3	2.6	46.5	48.5	5.3	46.5
J-5169	43.7	0	0	46.5	48.5	0	46.5
J-5170	27.4	0	0	54	56.4	0	54
J-5171	37.4	1.5	0.7	48.4	51	1.5	48.4
J-5172	37.4	1.8	0.9	48.4	51	1.8	48.4
J-5173	32.5	0	0	53.8	54	0	53.8
J-5174	41.1	3.7	1.8	47.4	49.5	3.7	47.4
J-5175	41.1	0.2	0.1	47.4	49.5	0.2	47.4
J-5176	36.2	0	0	48.9	51.5	0	48.9
J-5177	36.2	1.5	0.7	48.9	51.5	1.5	48.9
J-5178	37.4	3.8	1.8	48.4	51	3.8	48.4
J-5179	37.4	3.3	1.6	48.4	51	3.3	48.4
J-5183	30.9	0	0	52	54.5	0	52
J-5185	18.8	0	0	56.8	59.3	0	56.8
J-5191	32.4	0	0	50.4	53	0	50.4
J-5192	32.4	0.5	0.2	50.4	53	0.5	50.4
J-5195	37.6	10.5	5.1	48.8	51	10.5	48.8
J-5196	37.6	0	0	48.8	51	0	48.8
J-5197	37.8	1.5	0.7	48.6	50.9	1.5	48.6
J-5199	47.4	0	0	45	46.9	0	45
J-5200	47.4	0	0	45	46.9	0	45
J-5201	37	0	0	49	51.3	0	49
J-5202	34.2	0	0	50.3	52.3	0	50.4
J-5205	32.7	1.6	0.8	50.9	53.4	1.6	50.9
J-5206	37.4	0.4	0.2	48.4	51	0.4	48.4
J-5207	37.4	0.6	0.3	48.4	51	0.6	48.4
J-5208	37.5	0	0	49.3	51.2	0	49.3
J-5209	37.5	0	0	49.3	51.2	0	49.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5213	32.1	0	0	50.9	53.3	0	50.9
J-5214	32.1	1.8	0.9	50.9	53.3	1.8	50.9
J-5215	32.6	7.6	3.6	50.5	53	7.6	50.5
J-5216	32.6	0.8	0.4	50.5	53	0.8	50.5
J-5217	32.5	0	0	50.4	53	0	50.4
J-5218	36.7	2.4	1.2	49.1	51.2	2.4	49.1
J-5219	36.7	2.3	1.1	49.1	51.2	2.3	49.1
J-5220	37.4	4.4	2.1	48.4	51	4.4	48.4
J-5221	51.1	17.2	8.3	43.5	45.3	17.2	43.5
J-5222	51.1	0.7	0.4	43.5	45.3	0.7	43.5
J-5223	27.8	0	0	52.6	55.1	0	52.6
J-5224	27.8	2.9	1.4	52.6	55.1	2.9	52.6
J-5225	33.4	0.8	0.4	50.1	52.5	0.8	50.1
J-5226	40.2	0.8	0.4	47.9	50	0.8	47.9
J-5227	40.2	20.7	10	47.9	50	20.7	47.9
J-5228	22.5	0	0	53.6	56.8	0	53.6
J-5229	22.5	0	0	53.6	56.8	0	53.6
J-5230	22.2	0	0	55.4	57.9	0	55.4
J-5231	22.2	0	0	55.4	57.9	0	55.4
J-5232	31.9	0	0	51.6	54.1	0	51.6
J-5233	31.9	0.5	0.2	51.6	54.1	0.5	51.6
J-5234	37.4	1.3	0.6	48.4	51	1.3	48.4
J-5235	37.4	1.2	0.6	48.4	51	1.2	48.4
J-5236	37.4	0.5	0.2	48.4	51	0.5	48.4
J-5237	37.4	0	0	48.4	51	0	48.4
J-5238	33.1	1.8	0.9	50.4	52.8	1.8	50.4
J-5239	33.1	0	0	50.4	52.8	0	50.4
J-5240	37.7	0	0	48.7	50.9	0	48.7
J-5241	37.7	2	1	48.7	50.9	2	48.7
J-5242	38.4	0	0	48.6	50.8	0	48.6
J-5243	38.4	5.2	2.5	48.6	50.8	5.2	48.6
J-5244	22.2	0	0	55.4	57.9	0	55.4
J-5245	37.2	0	0	50	52.1	0	50
J-5246	37.3	0	0	50	52.1	0	50
J-5247	47	0	0	45.2	47	0	45.2
J-5248	47	0	0	45.2	47	0	45.2
J-5249	37.2	0	0	50	52.1	0	50
J-5250	37.3	0	0	50	52.1	0	50
J-5251	32.3	3.6	1.7	50.7	53.2	3.6	50.7
J-5252	32.3	1.4	0.7	50.7	53.2	1.4	50.7
J-5253	36.1	1.7	0.8	48.9	51.4	1.7	48.9
J-5254	36.1	2.2	1.1	48.9	51.4	2.2	48.9
J-5255	26.6	0	0	51.8	55	0	51.8
J-5256	26.6	0	0	51.8	55	0	51.8
J-5257	37.9	0.7	0.3	48.6	50.8	0.7	48.6
J-5258	37.9	1.9	0.9	48.6	50.8	1.9	48.6
J-5259	33.5	0	0	48.8	52	0	48.8
J-5260	33.5	0	0	48.8	52	0	48.8
J-5261	33.5	0	0	48.8	52	0	48.8
J-5262	19.6	0	0	56.5	59	0	56.5
J-5263	19.6	0	0	56.5	59	0	56.5
J-5264	20.1	6.2	3	56.3	58.8	6.2	56.3
J-5265	20.1	2.6	1.2	56.2	58.8	2.6	56.2
J-5266	33.2	0	0	50.6	52.6	0	50.6
J-5267	20.2	0.7	0.4	56.2	58.7	0.7	56.2
J-5268	19.3	5	2.4	56.6	59.1	5	56.6
J-5269	41	2.8	1.4	47.5	49.6	2.8	47.5
J-5270	37.7	0	0	48.7	50.9	0	48.7
J-5271	37.7	0	0	48.7	50.9	0	48.7
J-5272	32.3	3.3	1.6	50.7	53.2	3.3	50.7
J-5273	32.3	0	0	50.7	53.2	0	50.7
J-5274	34.3	0	0	51	53.2	0	51
J-5275	34.3	0	0	51	53.2	0	51
J-5276	34.2	0	0	51	53.3	0	51
J-5277	34.2	0	0	51	53.3	0	51
J-5280	36.8	3.9	1.9	49.2	51.4	3.9	49.2
J-5281	36.8	0.7	0.3	49.2	51.4	0.7	49.2
J-5282	26.3	0.7	0.4	51.9	55.1	0.7	51.9
J-5283	26.3	1	0.5	51.9	55.1	1	51.9
J-5284	31.7	0	0	51.5	54	0	51.5
J-5286	28.5	0	0	52.9	55.4	0	52.9
J-5289	38.9	3.1	1.5	48.2	50.4	3.1	48.2
J-5290	37.4	0	0	48.6	51	0	48.6
J-5291	37.4	0.8	0.4	48.6	51	0.8	48.6
J-5292	42	0	0	47.2	49.2	0	47.2
J-5293	42	6.8	3.2	47.2	49.2	6.8	47.2
J-5294	39.7	0.7	0.4	48.3	50.3	0.7	48.3
J-5296	38	2.2	1.1	50.1	52	2.2	50.1
J-5297	38	1.5	0.7	50.1	52	1.5	50.1
J-5298	41.7	0.9	0.4	47	49.2	0.9	47
J-5299	41.7	2.3	1.1	47	49.2	2.3	47
J-5300	41.9	0.7	0.4	47.4	49.2	0.7	47.4
J-5301	41.9	7.7	3.7	47.4	49.2	7.7	47.4
J-5302	37.7	0.3	0.2	48.8	51	0.3	48.8
J-5303	37.7	5.6	2.7	48.8	51	5.6	48.8
J-5305	46.1	8	3.8	45.4	47.4	8	45.4
J-5306	46.1	0	0	45.4	47.4	0	45.4
J-5307	33.4	0	0	50.2	52.7	0	50.2
J-5308	33.5	12.7	6.1	50.2	52.6	12.7	50.2
J-5309	37.4	0	0	48.4	51	0	48.4
J-5312	32.4	1.4	0.7	50.7	52.8	1.4	50.7
J-5313	32.5	0	0	50.7	52.8	0	50.7
J-5315	32.7	0	0	51.3	53.7	0	51.3
J-5316	41.5	17.7	8.5	47.2	49.3	17.7	47.2
J-5317	41.5	0	0	47.2	49.3	0	47.2
J-5318	40.5	2.7	1.3	48	49.9	2.7	48
J-5319	32.8	16.8	8.1	53.5	53.7	16.8	53.5
J-5320	32.8	0.7	0.4	53.5	53.7	0.7	53.5
J-5321	38.2	1.4	0.7	48.5	50.7	1.4	48.5
J-5322	38.2	0	0	48.5	50.7	0	48.5
J-5324	44.7	2	1	46.1	48	2	46.1
J-5325	44.7	7	3.4	46.1	48	7	46.1
J-5326	38	0.6	0.3	50	52	0.6	50
J-5327	38	0	0	50	52	0	50
J-5328	37.8	2	1	48.6	50.9	2	48.6
J-5329	43	0	0	46.8	48.8	0	46.8
J-5330	43	1	0.5	46.8	48.8	1	46.8
J-5331	39.3	0	0	48.6	50.5	0	48.6
J-5332	39.3	0	0	48.6	50.5	0	48.6
J-5333	38.1	1.1	0.5	49.7	51.7	1.1	49.7
J-5334	38.1	0.7	0.4	49.7	51.7	0.7	49.7
J-5335	47	0	0	45.2	47	0	45.2

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5336	32.4	0	0	50.5	52.9	0	50.5
J-5337	32.4	0	0	50.5	52.9	0	50.5
J-5338	33.1	1	0.5	50.2	52.6	1	50.2
J-5339	33.1	0.2	0.1	50.2	52.6	0.2	50.2
J-5340	32.7	0.5	0.2	50.4	52.8	0.5	50.4
J-5341	32.7	0.2	0.1	50.4	52.8	0.2	50.4
J-5343	32.3	3.1	1.5	50.8	53.2	3.1	50.8
J-5347	32.2	0	0	50.7	53.2	0	50.7
J-5348	32.1	0	0	50.7	53.2	0	50.8
J-5349	41.4	0	0	47.2	49.4	0	47.2
J-5350	36.3	3.6	1.7	48.9	51.4	3.6	48.9
J-5351	43.3	0	0	46.5	48.6	0	46.5
J-5352	43.2	2.1	1	46.6	48.6	2.1	46.6
J-5356	24.8	0	0	52.6	55.8	0	52.6
J-5357	47.1	0	0	49.2	49.3	0	49.2
J-5358	47.5	0	0	45.1	46.8	0	45.1
J-5359	47.5	5.7	2.7	45.1	46.8	5.7	45.1
J-5361	46.3	0	0	45.5	47.4	0	45.5
J-5362	46.3	0	0	45.5	47.4	0	45.5
J-5363	40.8	0	0	47.4	49.6	0	47.4
J-5364	40.8	0	0	47.4	49.6	0	47.4
J-5365	32.9	0.3	0.1	51.4	53.7	0.3	51.4
J-5371	32.4	0.7	0.3	50.2	52.9	0.7	50.2
J-5372	32.4	5.9	2.9	50.2	52.9	5.9	50.2
J-5374	40.9	6.9	3.3	47.4	49.6	6.9	47.4
J-5375	40.9	1.9	0.9	47.4	49.6	1.9	47.4
J-5376	37.4	0	0	50.1	52.1	0	50.1
J-5377	37.4	0	0	50.1	52.1	0	50.1
J-5381	44.5	0	0	50.2	50.3	0	50.2
J-5382	44.4	0	0	50.2	50.3	0	50.2
J-5383	39.7	0.9	0.5	48.3	50.2	0.9	48.3
J-5384	39.8	0.8	0.4	48.3	50.2	0.8	48.3
J-5387	38.2	2.9	1.4	48.5	50.7	2.9	48.5
J-5389	41.2	1.1	0.5	47.6	49.5	1.1	47.6
J-5390	41.2	0	0	47.6	49.5	0	47.6
J-5391	36.3	7.6	3.7	49.2	51.5	7.6	49.2
J-5392	36.3	2.7	1.3	49.2	51.5	2.7	49.2
J-5393	32.2	0.7	0.4	50.7	53.2	0.7	50.8
J-5394	32.2	1.5	0.7	50.8	53.2	1.5	50.8
J-5395	47	0.6	0.3	45.2	47	0.6	45.2
J-5398	36.8	1.4	0.7	48.6	51.2	1.4	48.6
J-5399	37	0	0	48.5	51.1	0	48.5
J-5400	44.6	0	0	46.1	48.1	0	46.1
J-5401	44.6	3.2	1.5	46.1	48.1	3.2	46.1
J-5402	37.8	2.2	1.1	48.4	50.8	2.2	48.4
J-5403	37.8	0	0	48.4	50.8	0	48.4
J-5404	29.4	3	1.5	50.5	53.8	3	50.5
J-5405	29.4	0	0	50.5	53.8	0	50.5
J-5406	43	0	0	46.8	48.8	0	46.8
J-5408	42	0.9	0.4	47.2	49.2	0.9	47.2
J-5409	31.4	0	0	51.7	54.2	0	51.7
J-5410	31.6	0	0	51.7	54.1	0	51.7
J-5411	37.6	0	0	48.6	50.9	0	48.6
J-5412	37.6	0	0	48.6	50.9	0	48.6
J-5413	24.7	0	0	52.7	55.8	0	52.7
J-5415	32.5	0	0	51.5	53.9	0	51.5
J-5416	32.5	0	0	51.5	53.9	0	51.5
J-5417	33.5	0.4	0.2	50.1	52.5	0.4	50.1
J-5418	37.5	0	0	48.3	51	0	48.3
J-5419	37.5	4.1	2	48.3	51.1	4.1	48.3
J-5420	43	23.9	11.5	46.8	48.8	23.9	46.8
J-5421	43.1	0	0	46.8	48.8	0	46.8
J-5422	37.5	4.3	2.1	48.7	50.9	4.3	48.7
J-5423	37.5	2.9	1.4	48.6	50.9	2.9	48.6
J-5424	43	5.4	2.6	46.7	48.7	5.4	46.7
J-5425	43	5	2.4	46.7	48.7	5	46.7
J-5426	37.4	2.1	1	49.2	51.3	2.1	49.2
J-5427	37.4	0	0	49.2	51.3	0	49.2
J-5428	36.3	0	0	49.3	51.4	0	49.3
J-5429	36.2	2.5	1.2	49.3	51.4	2.5	49.3
J-5430	34	3.4	1.6	49.8	52.4	3.4	49.8
J-5431	34.1	1.7	0.8	49.8	52.4	1.7	49.8
J-5432	25.2	0.7	0.3	52.4	55.6	0.7	52.4
J-5433	25.2	0	0	52.4	55.6	0	52.4
J-5434	37.4	9.2	4.4	48.4	51	9.2	48.4
J-5435	37.4	1	0.5	48.4	51	1	48.4
J-5436	43.2	0.4	0.2	46.5	48.6	0.4	46.5
J-5437	43.2	0	0	46.5	48.6	0	46.5
J-5438	31.8	1.4	0.7	49.6	52.8	1.4	49.6
J-5439	31.7	0.7	0.4	49.6	52.8	0.7	49.6
J-5440	46.7	5.3	2.6	45.3	47.1	5.3	45.3
J-5441	46.7	0	0	45.3	47.1	0	45.3
J-5442	37.4	1.9	0.9	48.3	51	1.9	48.3
J-5443	37.5	5.2	2.5	48.3	51	5.2	48.3
J-5444	32.4	0	0	51.4	53.8	0	51.4
J-5445	32.5	0	0	51.4	53.8	0	51.4
J-5446	37.8	17.1	8.2	48.7	50.7	17.1	48.7
J-5447	37.8	0	0	48.7	50.7	0	48.7
J-5448	33.4	0.8	0.4	52.3	53.2	0.8	52.3
J-5449	33.4	4.5	2.1	52.3	53.2	4.5	52.3
J-5450	39.5	0	0	48.5	50.4	0	48.5
J-5451	39.5	0.6	0.3	48.5	50.4	0.6	48.5
J-5452	31.3	1.5	0.7	51.1	53.6	1.5	51.1
J-5453	31.3	7.2	3.5	51.1	53.6	7.2	51.1
J-5454	35.5	0	0	49.6	51.6	0	49.6
J-5455	35.5	0	0	49.6	51.6	0	49.6
J-5456	30.4	4.2	2	51.4	54	4.2	51.4
J-5457	30.4	9	4.3	51.4	54	9	51.4
J-5458	31.3	0.6	0.3	51.3	53.7	0.6	51.3
J-5459	31.4	0.3	0.1	51.3	53.7	0.3	51.3
J-5460	41.6	0.6	0.3	47.5	49.5	0.6	47.5
J-5461	41.6	0.6	0.3	47.5	49.5	0.6	47.5
J-5462	35.5	0	0	49.6	51.6	0	49.6
J-5463	37.4	0.7	0.4	48.4	50.9	0.7	48.4
J-5464	37.4	3.8	1.9	48.4	50.9	3.8	48.4
J-5465	33.4	0	0	50.3	52.7	0	50.3
J-5466	33.5	5.6	2.7	50.3	52.7	5.6	50.3
J-5468	32.5	0	0	51.5	53.9	0	51.5
J-5470	37.5	1	0.5	48.8	51	1	48.8
J-5471	24	4.9	2.4	53.7	56.5	4.9	53.7
J-5472	24	0	0	53.7	56.5	0	53.7
J-5473	37.8	0	0	48.7	50.7	0	48.7

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5474	37.8	0	0	48.7	50.7	0	48.7
J-5475	30	1.3	0.6	51.6	54.1	1.3	51.6
J-5476	30.1	35.9	17.3	51.5	54.1	35.9	51.5
J-5477	40.9	1	0.5	47.4	49.6	1	47.4
J-5478	40.9	0.4	0.2	47.4	49.6	0.4	47.4
J-5479	28.7	5.5	2.6	52.5	54.8	5.5	52.5
J-5480	28.7	3.2	1.6	52.5	54.8	3.2	52.5
J-5481	37.4	1.3	0.6	48.8	51.1	1.3	48.8
J-5483	37.6	0	0	49	51.1	0	49
J-5484	37.6	6.8	3.3	49	51.1	6.8	49
J-5485	34.6	1.5	0.7	49.8	52.2	1.5	49.8
J-5486	34.5	3	1.4	49.8	52.3	3	49.8
J-5487	40.2	0.3	0.1	47.9	50	0.3	47.9
J-5488	37.4	1.7	0.8	48.3	51.1	1.7	48.3
J-5489	37.4	10.1	4.9	48.3	51.1	10.1	48.3
J-5491	41.5	2.6	1.3	48.8	50.6	2.6	48.8
J-5492	41.5	1.5	0.7	48.8	50.6	1.5	48.8
J-5493	30.1	1.6	0.8	50.9	53.7	1.6	50.9
J-5494	30.1	2.2	1.1	50.9	53.7	2.2	50.9
J-5496	31.6	1.3	0.6	50.4	53.1	1.3	50.4
J-5497	31.6	2.2	1.1	50.4	53.1	2.2	50.4
J-5498	32.5	2.6	1.3	50.5	53.1	2.6	50.5
J-5499	32.6	5.3	2.5	50.4	53	5.3	50.4
J-5500	32.5	1.6	0.8	50.4	52.9	1.6	50.4
J-5501	32.5	2.2	1.1	50.4	52.9	2.2	50.4
J-5502	34.4	0	0	50.3	52.3	0	50.3
J-5503	40.4	0	0	48	50	0	48
J-5504	40.3	0	0	48.1	50	0	48.1
J-5505	32.4	3.3	1.6	50.5	52.8	3.3	50.5
J-5506	32.4	2.3	1.1	50.5	52.8	2.3	50.5
J-5507	41.1	6.7	3.2	47.7	49.6	6.7	47.7
J-5508	32.5	8.7	4.2	49.2	52.4	8.7	49.2
J-5509	32.6	1.2	0.6	49.2	52.4	1.2	49.2
J-5511	33	1	0.5	50.2	52.8	1	50.2
J-5512	37.3	3.2	1.6	48.4	51	3.2	48.4
J-5513	37.3	11.4	5.5	48.4	51	11.4	48.4
J-5514	24.7	0	0	52.6	55.8	0	52.6
J-5515	44.5	0	0	50.2	50.3	0	50.2
J-5516	24.7	0	0	52.6	55.8	0	52.6
J-5517	32	1.1	0.5	50.6	53.2	1.1	50.6
J-5518	32	0	0	50.6	53.2	0	50.6
J-5519	35	3.3	1.6	49.6	52	3.3	49.6
J-5520	35.1	3	1.5	49.5	52	3	49.5
J-5521	27.2	10.3	4.9	52	54.8	10.3	52
J-5522	27.2	0.7	0.4	52	54.8	0.7	52
J-5524	27.8	0	0	53.2	55.6	0	53.2
J-5525	38.4	1	0.5	49	50.9	1	49
J-5526	38.4	2.9	1.4	49	50.9	2.9	49
J-5527	32.3	0	0	50.7	53.2	0	50.7
J-5528	32.3	3.1	1.5	50.7	53.2	3.1	50.7
J-5530	23.9	0	0	53.9	56.6	0	53.9
J-5531	23.8	0	0	53.9	56.6	0	53.9
J-5532	32.3	2.8	1.3	50.8	53.2	2.8	50.8
J-5533	32.3	3.1	1.5	50.8	53.2	3.1	50.8
J-5534	32.4	0	0	50.5	52.9	0	50.5
J-5535	32.4	5.2	2.5	50.5	52.9	5.2	50.5
J-5536	37.6	3	1.4	48.6	50.9	3	48.6
J-5537	37.5	3.2	1.5	48.3	51.1	3.2	48.3
J-5538	37.3	0	0	48.9	51.2	0	48.9
J-5540	41.1	0	0	47.7	49.6	0	47.7
J-5541	36.7	8.1	3.9	49	51.4	8.1	49
J-5542	36.6	2.4	1.1	49	51.4	2.4	49
J-5546	31.3	0	0	50.4	53.2	0	50.4
J-5547	31.3	0.4	0.2	50.4	53.2	0.4	50.4
J-5549	37.7	0.7	0.4	48.5	50.9	0.7	48.5
J-5550	42.2	4.8	2.3	47	49.1	4.8	47
J-5551	42.2	1.1	0.5	47	49	1.1	47
J-5552	37.9	2.3	1.1	48.6	50.8	2.3	48.6
J-5553	38	1.3	0.6	48.6	50.8	1.3	48.6
J-5554	37.5	3.2	1.5	48.8	51	3.2	48.8
J-5555	37.5	1.3	0.6	48.8	51	1.3	48.8
J-5557	42	0.6	0.3	47.2	49.2	0.6	47.2
J-5558	42.1	2.5	1.2	47.2	49.2	2.5	47.2
J-5559	31.2	0	0	50.5	53.3	0	50.5
J-5560	31.3	4.2	2	50.5	53.2	4.2	50.5
J-5561	35.9	0	0	49.2	51.6	0	49.2
J-5562	36	2.3	1.1	49.1	51.6	2.3	49.1
J-5563	25.1	0	0	54.2	56.8	0	54.2
J-5564	25.1	0	0	54.2	56.7	0	54.2
J-5565	25.1	0	0	54.2	56.7	0	54.2
J-5566	37.9	2.1	1	48.6	50.9	2.1	48.7
J-5567	37.9	0	0	48.6	50.9	0	48.6
J-5568	37.4	0	0	48.6	51	0	48.6
J-5569	52.5	0	0	44.3	44.8	0	44.3
J-5570	52.5	0	0	44.3	44.8	0	44.3
J-5572	31.9	0.7	0.4	50.8	53.3	0.7	50.8
J-5573	31.9	0.7	0.4	50.8	53.3	0.7	50.8
J-5574	32.2	0.7	0.4	51	53.3	0.7	51
J-5575	32.3	1.5	0.7	50.9	53.3	1.5	50.9
J-5576	39.9	3.6	1.7	47.8	50	3.6	47.8
J-5578	38.4	0	0	48.3	50.6	0	48.3
J-5579	38.3	11	5.3	48.3	50.6	11	48.3
J-5580	37.4	0.9	0.4	48.3	51.1	0.9	48.3
J-5581	37.4	10.3	5	48.3	51.1	10.3	48.3
J-5582	37.5	0	0	48.4	50.9	0	48.4
J-5583	37.4	0.4	0.2	48.4	51	0.4	48.4
J-5584	46.6	0	0	46.5	48.3	0	46.5
J-5585	47	2.7	1.3	46.3	48.1	2.7	46.3
J-5587	41.7	0	0	47.2	49.3	0	47.2
J-5588	41.8	4.2	2	47.2	49.3	4.2	47.2
J-5591	32.3	0	0	50.7	53.2	0	50.7
J-5592	32.3	1.6	0.8	49.3	52.5	1.6	49.3
J-5593	32.3	4.4	2.1	49.3	52.5	4.4	49.3
J-5594	32.6	1.4	0.7	50.4	52.9	1.4	50.4
J-5595	32.6	2.2	1.1	50.4	52.9	2.2	50.4
J-5596	33.3	0	0	51	53.5	0	51
J-5597	33.2	0	0	51.1	53.5	0	51.1
J-5598	43	0	0	46.8	48.8	0	46.8
J-5599	43.1	0.7	0.3	46.8	48.8	0.7	46.8
J-5601	29.8	7.4	3.6	50.4	53.6	7.4	50.4
J-5602	29.7	4.3	2.1	50.4	53.6	4.3	50.4
J-5603	43	0	0	46.9	48.8	0	46.9

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5604	43	0.6	0.3	46.8	48.8	0.6	46.8
J-5606	37.8	0.6	0.3	48.7	50.9	0.6	48.7
J-5607	37.6	1.6	0.8	48.8	51	1.6	48.8
J-5608	37.6	14.2	6.8	48.8	51	14.2	48.8
J-5610	41.8	0	0	47.3	49.3	0	47.3
J-5611	36.9	3.1	1.5	48.8	51.2	3.1	48.8
J-5612	36.9	7	3.4	48.8	51.2	7	48.8
J-5613	36.1	6.7	3.2	49.2	51.5	6.7	49.2
J-5614	23.6	0	0	54.7	57.3	0	54.7
J-5615	24.7	0	0	54.3	56.8	0	54.3
J-5616	21	0	0	55.9	58.4	0	55.9
J-5617	20.9	0	0	55.9	58.4	0	55.9
J-5618	29.1	1.2	0.6	50.6	53.9	1.2	50.6
J-5619	29.2	6.6	3.2	50.6	53.9	6.6	50.6
J-5620	42.7	15	7.2	47	49	15	47
J-5621	42.7	0.7	0.3	47	49	0.7	47
J-5622	32.7	1.5	0.7	50.7	53	1.5	50.7
J-5623	33	2.2	1.1	50.6	52.9	2.2	50.6
J-5625	37.4	0	0	49	51.1	0	49
J-5626	37.4	0.7	0.4	49	51.2	0.7	49
J-5627	36.9	0	0	49	51	0	49
J-5628	36.9	3.6	1.7	49	51	3.6	49
J-5629	31	2.8	1.3	49.9	53.1	2.8	49.9
J-5630	30.9	2.9	1.4	49.9	53.1	2.9	49.9
J-5631	30.5	1.1	0.5	50.1	53.3	1.1	50.1
J-5632	30.5	3.2	1.5	50.1	53.3	3.2	50.1
J-5633	32.4	0	0	50.4	52.9	0	50.4
J-5634	32.4	1.3	0.6	50.4	52.9	1.3	50.4
J-5635	31.3	0	0	51.8	54.3	0	51.8
J-5636	44.2	0	0	46.3	48.3	0	46.3
J-5637	44.3	1	0.5	46.3	48.3	1	46.3
J-5638	32.5	0.7	0.4	51.2	53.7	0.7	51.2
J-5639	32.5	0.7	0.3	51.3	53.8	0.7	51.3
J-5640	20.3	0	0	56.2	58.7	0	56.2
J-5641	20.4	0	0	56.2	58.7	0	56.2
J-5642	36.8	2.9	1.4	48.8	51.3	2.9	48.8
J-5643	36.9	1.2	0.6	48.8	51.2	1.2	48.8
J-5645	31.8	2.5	1.2	51	53.4	2.5	51
J-5646	31.8	2.5	1.2	51	53.4	2.5	51
J-5648	26.9	0	0	51.7	54.9	0	51.7
J-5649	26.9	0	0	51.7	54.9	0	51.7
J-5650	27.2	0	0	51.6	54.8	0	51.6
J-5651	27.2	0	0	51.5	54.7	0	51.5
J-5652	32.3	1.5	0.7	49.9	52.7	1.5	49.9
J-5653	32.4	2.1	1	49.9	52.6	2.1	49.9
J-5654	37.9	0	0	50	51.9	0	50
J-5655	38	0	0	50	51.9	0	50
J-5656	28	0.7	0.4	52	54.8	0.7	52
J-5657	28	2.2	1.1	52	54.8	2.2	52
J-5658	41.1	0.9	0.5	47.6	49.6	0.9	47.6
J-5659	41.2	0	0	47.6	49.6	0	47.6
J-5660	21.4	1.1	0.5	55.7	58.2	1.1	55.7
J-5661	21.3	2	1	55.7	58.2	2	55.7
J-5662	32.3	0.7	0.3	50.1	52.7	0.7	50.1
J-5663	32.3	5.8	2.8	50.2	52.8	5.8	50.2
J-5664	29.9	1.4	0.7	51	53.8	1.4	51
J-5665	29.8	2.2	1.1	51.1	53.8	2.2	51.1
J-5667	37.8	8.9	4.3	48.7	50.9	8.9	48.7
J-5668	37.7	0	0	48.6	50.9	0	48.6
J-5669	37.7	1.2	0.6	48.6	50.9	1.2	48.6
J-5670	33.4	1.5	0.7	50.4	52.8	1.5	50.4
J-5671	33.5	1.5	0.7	50.4	52.8	1.5	50.4
J-5672	43.5	4.3	2.1	46.5	48.5	4.3	46.5
J-5673	43.5	3.9	1.9	46.5	48.5	3.9	46.5
J-5674	29.3	0	0	51.9	54.4	0	51.9
J-5675	29.4	0	0	51.9	54.4	0	51.9
J-5676	41.8	0	0	47.3	49.3	0	47.3
J-5677	33.2	0	0	50.3	52.8	0	50.3
J-5678	33.3	2.2	1.1	50.3	52.8	2.2	50.3
J-5679	42	0.6	0.3	47.2	49.2	0.6	47.2
J-5680	42.7	0	0	47	48.9	0	47
J-5681	42.7	0.4	0.2	46.9	48.9	0.4	46.9
J-5682	30.5	0	0	51.4	53.9	0	51.4
J-5683	30.5	3.8	1.8	51.4	53.9	3.8	51.4
J-5684	44.2	0.5	0.2	46.3	48.3	0.5	46.3
J-5685	44.6	0	0	46.1	48.1	0	46.1
J-5687	32.1	0.9	0.4	50.7	53.2	0.9	50.7
J-5688	37.4	0	0	48.6	51	0	48.6
J-5689	38	0.8	0.4	48.3	50.7	0.8	48.3
J-5690	38	0.8	0.4	48.2	50.7	0.8	48.2
J-5691	37.6	1.4	0.7	48.5	50.9	1.4	48.5
J-5692	37.6	3.1	1.5	48.5	50.9	3.1	48.5
J-5693	27.7	0.7	0.4	52.2	54.9	0.7	52.2
J-5694	27.8	2.2	1.1	52.1	54.9	2.2	52.1
J-5695	37.2	2.6	1.3	48.7	51.1	2.6	48.7
J-5696	37.2	29.6	14.2	48.7	51.1	29.6	48.7
J-5697	30.7	1.5	0.7	52.1	54.5	1.5	52.1
J-5698	30.7	0.7	0.4	52	54.5	0.7	52
J-5699	32.8	0	0	51.2	53.6	0	51.2
J-5700	32.7	0	0	51.2	53.7	0	51.2
J-5701	46.1	0	0	45.5	47.4	0	45.5
J-5702	46.1	0	0	45.5	47.4	0	45.5
J-5703	45.9	5.8	2.8	45.6	47.5	5.8	45.6
J-5704	46	0	0	45.5	47.5	0	45.6
J-5706	28	4.1	2	53.1	55.7	4.1	53.1
J-5707	23	0	0	55.1	57.5	0	55.1
J-5708	23.1	0	0	55	57.5	0	55
J-5709	39.7	0	0	48.4	50.3	0	48.4
J-5710	31	2.3	1.1	50.2	53.2	2.3	50.2
J-5711	31	0	0	50.3	53.2	0	50.3
J-5712	27.1	0.1	0	53.3	55.8	0.1	53.3
J-5713	27.4	0	0	53.2	55.6	0	53.2
J-5714	42.7	0	0	46.9	48.9	0	46.9
J-5715	42.8	3.9	1.9	46.9	48.9	3.9	46.9
J-5717	42.6	0	0	47	48.9	0	47
J-5719	43.1	0	0	46.8	48.8	0	46.8
J-5720	34.4	3.7	1.8	49.6	52.3	3.7	49.6
J-5721	34.4	2.2	1.1	49.6	52.3	2.2	49.6
J-5722	42.5	0	0	47.1	49.1	0	47.1
J-5723	42.5	0	0	47.1	49.1	0	47.1
J-5724	33.1	0	0	51.1	53.6	0	51.1
J-5726	43.5	0	0	46.6	48.6	0	46.6

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5727	43.6	3.2	1.6	46.6	48.5	3.2	46.6
J-5729	37.4	1.4	0.7	49	51.2	1.4	49
J-5730	20.7	1.2	0.6	56	58.5	1.2	56
J-5731	21.3	0	0	55.8	58.3	0	55.8
J-5732	33.3	9.3	4.5	50.4	52.8	9.3	50.4
J-5733	42.8	0	0	46.8	48.8	0	46.8
J-5734	42.8	3.4	1.6	46.8	48.8	3.4	46.8
J-5735	47.8	0	0	47.1	48.3	0	47.1
J-5736	47.8	0	0	47.1	48.3	0	47.1
J-5737	32.9	0.6	0.3	50.6	52.9	0.6	50.6
J-5738	32.6	3	1.4	50.7	53.1	3	50.7
J-5739	25.2	0	0	52.4	55.6	0	52.4
J-5741	33.3	1.4	0.7	50.4	52.7	1.4	50.4
J-5742	33.6	2.5	1.2	50.2	52.6	2.5	50.2
J-5743	30	0.3	0.2	50.3	53.5	0.3	50.3
J-5744	30.1	0.9	0.4	50.3	53.5	0.9	50.3
J-5745	38.2	1.2	0.6	48.6	50.8	1.2	48.6
J-5746	38.2	0.6	0.3	48.6	50.8	0.6	48.6
J-5747	32.4	3.5	1.7	50.9	52.9	3.5	50.9
J-5748	32.4	5.6	2.7	51	52.9	5.6	51
J-5749	32.4	0.7	0.4	50.9	53.3	0.7	50.9
J-5750	32.3	2.2	1.1	50.9	53.3	2.2	50.9
J-5751	22.7	0	0	55.1	57.6	0	55.1
J-5753	46.2	4.4	2.1	45.5	47.4	4.4	45.5
J-5754	42.5	3.4	1.6	46.9	49	3.4	46.9
J-5755	42.5	5.6	2.7	46.9	48.9	5.6	46.9
J-5756	29.7	0	0	51.7	54.3	0	51.7
J-5757	29.8	0	0	51.7	54.2	0	51.7
J-5759	42.8	0.6	0.3	46.7	48.8	0.6	46.8
J-5760	42.8	8.6	4.2	46.7	48.8	8.6	46.8
J-5762	37.8	2.7	1.3	48.8	51	2.7	48.8
J-5764	37.4	2	1	48.4	51	2	48.4
J-5765	32.5	6	2.9	50.6	53.1	6	50.6
J-5766	32.7	0.3	0.2	50.5	53	0.3	50.5
J-5767	32.7	0	0	51.3	53.7	0	51.3
J-5768	38.1	1	0.5	48.3	50.7	1	48.3
J-5769	38.1	1.9	0.9	48.3	50.7	1.9	48.3
J-5771	23.2	0	0	55	57.5	0	55
J-5772	23.3	0	0	55	57.5	0	55
J-5773	23.2	0	0	55	57.5	0	55
J-5774	37.5	0	0	49	51	0	49
J-5775	37.6	0	0	49	50.9	0	49
J-5777	35.6	0.2	0.1	49.6	51.6	0.2	49.6
J-5778	35.7	0	0	49.6	51.6	0	49.6
J-5780	38.9	3.2	1.5	48.2	50.4	3.2	48.2
J-5781	32.3	1.4	0.7	51	52.9	1.4	51
J-5782	39.1	2.3	1.1	48.2	50.3	2.3	48.2
J-5783	39.1	1.1	0.6	48.2	50.3	1.1	48.2
J-5784	50.3	2.4	1.1	43.8	45.6	2.4	43.8
J-5785	50.5	0	0	43.7	45.5	0	43.7
J-5786	50.2	0	0	43.9	45.6	0	43.9
J-5787	35.2	5	2.4	49.8	51.9	5	49.8
J-5788	24.1	0	0	52.9	56.1	0	52.9
J-5789	24.2	60	28.9	52.8	56	60	52.8
J-5790	29.8	0	0	50.5	53.6	0	50.5
J-5791	29.7	3.5	1.7	50.6	53.7	3.5	50.6
J-5792	36.2	7.8	3.8	48.9	51.5	7.8	48.9
J-5794	43	0	0	46.9	48.8	0	46.9
J-5795	42.9	0	0	46.9	48.9	0	46.9
J-5796	43.2	0	0	46.8	48.7	0	46.8
J-5797	43.1	0.9	0.4	46.8	48.8	0.9	46.8
J-5798	34.6	0.7	0.4	50.1	52	0.7	50.1
J-5799	34.7	1.7	0.8	50.1	52	1.7	50.1
J-5800	30.9	0	0	52.1	54.5	0	52.1
J-5801	31.1	0	0	52	54.4	0	52
J-5802	34.4	2.4	1.1	49.6	52.1	2.4	49.6
J-5803	34.5	3.5	1.7	49.6	52.1	3.5	49.6
J-5804	27.1	0	0	52.4	55.1	0	52.4
J-5805	27	0	0	52.4	55.2	0	52.4
J-5806	40.5	3.5	1.7	48	49.9	3.5	48
J-5807	32.3	3.1	1.5	50.7	53.2	3.1	50.7
J-5808	32.9	2.8	1.3	50.6	53	2.8	50.6
J-5809	37.9	4.1	2	48.1	50.8	4.1	48.1
J-5810	37.9	3.2	1.5	48.1	50.8	3.2	48.1
J-5811	42.7	4.5	2.2	46.8	48.9	4.5	46.8
J-5812	42.7	4.9	2.4	46.8	48.8	4.9	46.8
J-5813	43	0.3	0.1	46.9	48.9	0.3	46.9
J-5814	42.9	0.5	0.3	46.9	48.9	0.5	46.9
J-5815	47	5.3	2.6	45.2	47.1	5.3	45.2
J-5816	22.3	0	0	55.3	57.8	0	55.3
J-5817	22.2	1.3	0.6	55.4	57.9	1.3	55.4
J-5818	37.4	3.1	1.5	48.5	51	3.1	48.5
J-5820	38.6	0.4	0.2	48.2	50.5	0.4	48.2
J-5821	38.4	0.3	0.2	48.2	50.6	0.3	48.2
J-5822	34.9	5.7	2.7	50	51.9	5.7	50
J-5823	34.9	0.3	0.1	50	51.9	0.3	50
J-5825	43	0.9	0.4	46.8	48.8	0.9	46.8
J-5826	38	0	0	48.9	50.9	0	48.9
J-5827	38	3.3	1.6	48.9	50.9	3.3	48.9
J-5828	46.1	22.1	10.6	47.3	48.7	22.1	47.3
J-5829	46.2	0	0	47.3	48.7	0	47.3
J-5830	33.1	2.3	1.1	50.2	52.6	2.3	50.2
J-5831	33.2	0.7	0.4	50.2	52.6	0.7	50.2
J-5832	33.1	2.4	1.2	50.2	52.6	2.4	50.2
J-5833	33.2	3.4	1.7	50.1	52.6	3.4	50.1
J-5834	43.2	0	0	46.8	48.8	0	46.8
J-5835	43.3	7.3	3.5	46.7	48.7	7.3	46.7
J-5836	43.7	0	0	46.6	48.6	0	46.6
J-5837	43.8	0.8	0.4	46.5	48.5	0.8	46.5
J-5838	32.8	0	0	51.3	53.7	0	51.3
J-5839	31.7	4.6	2.2	50.4	53	4.6	50.4
J-5840	31.7	1	0.5	50.4	53	1	50.4
J-5841	47.1	0	0	48.4	48.9	0	48.4
J-5842	47.2	0	0	48.3	48.8	0	48.3
J-5843	47.3	0	0	48.2	48.8	0	48.2
J-5844	32.6	4.1	2	49.8	52.6	4.1	49.8
J-5845	32.5	1.4	0.7	49.8	52.6	1.4	49.8
J-5846	37.6	0	0	48.7	50.7	0	48.7
J-5847	37.6	7.2	3.5	48.7	50.7	7.2	48.7
J-5848	33	0.9	0.4	50.2	52.7	0.9	50.2
J-5849	33	0.3	0.1	50.3	52.7	0.3	50.3
J-5850	31.1	0	0	50.2	53.2	0	50.2

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5851	31.4	0.7	0.4	51.7	54.2	0.7	51.7
J-5852	31.5	2.8	1.4	51.7	54.2	2.8	51.7
J-5853	27	0	0	51.6	54.8	0	51.7
J-5854	27.1	0	0	51.6	54.8	0	51.6
J-5855	42.3	2.2	1.1	47	49	2.2	47
J-5856	42.3	1.9	0.9	47	49	1.9	47
J-5857	37.9	0	0	48.4	50.7	0	48.4
J-5858	37.9	8.3	4	48.4	50.7	8.3	48.4
J-5859	41.4	0	0	47.5	49.5	0	47.5
J-5861	37.4	1.8	0.9	48.6	51	1.8	48.6
J-5862	37.4	0.5	0.3	48.6	51	0.5	48.6
J-5863	38	0.2	0.1	48.3	50.7	0.2	48.3
J-5864	41.8	3.3	1.6	47	49.2	3.3	47
J-5865	41.6	3.4	1.6	47.1	49.2	3.4	47.1
J-5866	38.5	0.2	0.1	48.2	50.5	0.2	48.2
J-5867	33.3	0	0	52.1	53.1	0	52.1
J-5868	33.4	11.8	5.7	52.1	53.1	11.8	52.1
J-5869	37.8	4.3	2.1	48.5	50.9	4.3	48.5
J-5870	47	25	12	47.2	48.5	25	47.2
J-5871	47.1	0	0	47.2	48.4	0	47.2
J-5872	39.9	0	0	48.2	50.2	0	48.2
J-5873	39.8	0	0	48.2	50.2	0	48.2
J-5874	22.3	0	0	55.3	57.8	0	55.3
J-5875	31.3	4.2	2	51.1	53.6	4.2	51.1
J-5876	31.3	0	0	51	53.6	0	51
J-5877	36.2	2.6	1.2	48.8	51.3	2.6	48.8
J-5878	35.8	6	2.9	49	51.5	6	49
J-5880	32.3	0	0	51.5	53.9	0	51.5
J-5881	50.9	3.6	1.7	43.5	45.4	3.6	43.6
J-5882	51.6	0	0	43.3	45.1	0	43.3
J-5884	45.3	11.5	5.5	45.8	47.8	11.5	45.8
J-5885	41.1	0	0	47.7	49.6	0	47.7
J-5886	44.9	58.9	28.3	45.9	47.9	58.9	45.9
J-5887	44.8	1	0.5	46	48	1	46
J-5888	34	2.6	1.3	49.8	52.2	2.6	49.8
J-5889	34.1	2.6	1.3	49.7	52.2	2.6	49.7
J-5891	32.3	3.5	1.7	51.5	53.9	3.5	51.5
J-5892	32.5	1.5	0.7	50.4	52.9	1.5	50.4
J-5893	32.4	6.5	3.1	50.5	52.9	6.5	50.5
J-5894	35.9	3	1.4	49	51.5	3	49
J-5895	35.6	5.4	2.6	49.1	51.6	5.4	49.1
J-5896	36.6	38.9	18.7	48.9	51.3	38.9	48.9
J-5897	36.8	1.2	0.6	48.8	51.2	1.2	48.8
J-5899	32.6	0	0	49.2	52.4	0	49.2
J-5901	27.7	0.7	0.3	53.3	55.8	0.7	53.3
J-5902	27.5	5.9	2.8	53.4	55.9	5.9	53.4
J-5905	33.3	0.8	0.4	48.9	52.1	0.8	48.9
J-5906	34.3	0	0	51	53.2	0	51
J-5907	34.4	0	0	51	53.2	0	51
J-5908	42.8	4	1.9	46.7	48.8	4	46.7
J-5909	47.8	8.4	4.1	47.1	48.2	8.4	47.1
J-5910	36.9	7.3	3.5	49.2	51.4	7.3	49.2
J-5911	47.5	1.1	0.5	45.1	46.8	1.1	45.1
J-5912	47.5	2	0.9	45.1	46.8	2	45.1
J-5913	27.1	3.3	1.6	53.4	55.8	3.3	53.4
J-5914	27.2	0.7	0.4	53.3	55.7	0.7	53.3
J-5915	32.6	0	0	50.9	52.7	0	50.9
J-5916	32.5	2.2	1	50.9	52.8	2.2	50.9
J-5917	37.9	2	1	48.2	50.7	2	48.2
J-5918	37.9	13.9	6.7	48.3	50.8	13.9	48.3
J-5919	32.3	1	0.5	50.7	53.2	1	50.7
J-5920	32.8	0	0	50.4	52.9	0	50.4
J-5921	30.2	17.7	8.5	51.6	54.1	17.7	51.6
J-5922	30.2	0.1	0.1	51.6	54.1	0.1	51.6
J-5923	37.4	0.8	0.4	48.6	51	0.8	48.6
J-5924	36.4	0	0	49.2	51.3	0	49.3
J-5926	32.6	2	1	50.6	52.7	2	50.6
J-5927	32.7	0	0	50.6	52.7	0	50.6
J-5928	27.2	0.9	0.4	53.3	55.7	0.9	53.3
J-5929	27.3	0	0	53.3	55.7	0	53.3
J-5931	32.7	1.7	0.8	50.3	52.8	1.7	50.3
J-5932	32.6	12.3	5.9	50.4	52.9	12.3	50.4
J-5933	36.8	3.6	1.7	48.9	51.2	3.6	48.9
J-5934	36.8	13.2	6.3	48.9	51.2	13.2	48.9
J-5935	32.6	0	0	49.2	52.4	0	49.2
J-5936	30.8	0	0	52	54.4	0	52
J-5937	31	0	0	51.9	54.3	0	51.9
J-5938	40.4	3	1.4	48	50	3	48
J-5939	44	0	0	46.4	48.3	0	46.4
J-5940	44	0	0	46.4	48.3	0	46.4
J-5941	44	0	0	46.4	48.3	0	46.4
J-5943	36.1	5.8	2.8	49.3	51.4	5.8	49.3
J-5945	32.2	0.2	0.1	51.4	53.2	0.2	51.4
J-5946	32.2	1.8	0.9	51.4	53.2	1.8	51.4
J-5947	37.8	1.8	0.9	50.1	52	1.8	50.1
J-5948	38.3	1.7	0.8	49.9	51.8	1.7	49.9
J-5949	32.2	30.2	14.5	51.6	53.3	30.2	51.6
J-5950	32.3	0.9	0.5	51.6	53.3	0.9	51.6
J-5952	37.4	3.6	1.7	48.7	50.9	3.6	48.7
J-5953	37.4	2.4	1.2	48.7	50.9	2.4	48.7
J-5954	31.4	5.9	2.8	51	53.5	5.9	51
J-5955	42.3	1.5	0.7	47	49	1.5	47
J-5956	42.3	1.3	0.6	46.9	49	1.3	47
J-5957	26.6	90.4	43.5	52.2	55.1	90.4	52.2
J-5958	26.5	0	0	52.2	55.1	0	52.2
J-5959	24.3	0	0	52.8	56	0	52.8
J-5960	23.9	0	0	53	56.2	0	53
J-5961	24.2	0	0	52.8	56	0	52.9
J-5962	23.9	171.9	82.7	53	56.2	171.9	53
J-5963	29.2	0.8	0.4	52.7	55.1	0.8	52.7
J-5964	29.2	27.6	13.3	52.7	55.1	27.6	52.7
J-5966	47.5	5	2.4	45.1	46.8	5	45.1
J-5967	47.5	0.9	0.4	45.1	46.8	0.9	45.1
J-5968	31.5	0.9	0.4	50.4	53.1	0.9	50.4
J-5969	31.5	8.1	3.9	50.4	53.1	8.1	50.4
J-5970	33.2	1.9	0.9	50.1	52.6	1.9	50.1
J-5971	33	3.3	1.6	50.2	52.7	3.3	50.2
J-5972	32.2	3.9	1.9	50.8	53.2	3.9	50.8
J-5974	37.6	1.4	0.7	48.8	51	1.4	48.8
J-5975	37.6	1.2	0.6	48.8	51	1.2	48.8
J-5978	30.2	4.1	2	50.2	53.4	4.1	50.2
J-5979	32.7	0	0	51.3	53.7	0	51.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5980	32.4	0	0	51.5	53.9	0	51.5
J-5981	26.6	0	0	53.5	56	0	53.5
J-5982	27.6	1.2	0.6	53	55.5	1.2	53
J-5983	21.2	0	0	55.8	58.3	0	55.8
J-5984	21.1	0	0	55.8	58.3	0	55.8
J-5985	33.6	2.1	1	49.9	52.5	2.1	49.9
J-5986	33.2	0.6	0.3	50.1	52.6	0.6	50.1
J-5987	33	10.1	4.9	50.3	52.8	10.1	50.3
J-5988	37	0	0	50.1	52.2	0	50.1
J-5989	37.1	0	0	50.1	52.2	0	50.1
J-5990	32	2.5	1.2	50.8	53.3	2.5	50.8
J-5991	32.1	0.5	0.2	50.8	53.2	0.5	50.8
J-5992	37.4	2	1	49	51.1	2	49
J-5993	37.4	0	0	49	51.1	0	49
J-5994	29.9	4.1	2	50.4	53.6	4.1	50.4
J-5995	29.9	1.9	0.9	50.5	53.6	1.9	50.5
J-5996	52.4	0	0	44.3	44.8	0	44.3
J-5997	33.1	0.8	0.4	51.1	53.6	0.8	51.1
J-5998	33	2.4	1.1	51.2	53.6	2.4	51.2
J-5999	37.4	0.2	0.1	49	51.2	0.2	49
J-6000	37.5	0.8	0.4	49	51.1	0.8	49
J-6001	28	0	0	52.5	55	0	52.5
J-6002	28.1	7.9	3.8	52.4	55	7.9	52.4
J-6003	45.5	0.7	0.3	47.6	49	0.7	47.6
J-6004	45.4	2.1	1	47.6	49	2.1	47.6
J-6005	21.2	1.3	0.6	55.8	58.3	1.3	55.8
J-6006	21.2	0	0	55.8	58.3	0	55.8
J-6007	37.4	2	1	48.8	50.9	2	48.8
J-6008	37.3	1.9	0.9	48.8	51	1.9	48.8
J-6009	20.9	0.7	0.4	55.9	58.4	0.7	55.9
J-6010	20.9	0	0	55.9	58.4	0	55.9
J-6012	42.4	1	0.5	46.8	48.9	1	46.8
J-6013	42.4	7.5	3.6	46.8	48.9	7.5	46.8
J-6014	32.5	0.6	0.3	49.2	52.4	0.6	49.2
J-6015	50.7	0	0	43.7	45.5	0	43.7
J-6016	42.2	1.5	0.7	46.8	49	1.5	46.8
J-6017	41.7	2.1	1	47	49.2	2.1	47
J-6018	50.5	0	0	43.8	45.5	0	43.8
J-6019	37.8	2.4	1.2	48.6	50.8	2.4	48.6
J-6020	37.8	1.7	0.8	48.6	50.8	1.7	48.6
J-6021	35.7	1.4	0.7	49.3	51.7	1.4	49.3
J-6024	32.1	0.6	0.3	49.7	52.7	0.6	49.7
J-6025	31.5	0.2	0.1	49.9	52.9	0.2	49.9
J-6026	31.8	7.5	3.6	51.7	54.1	7.5	51.7
J-6027	42.4	3	1.4	46.8	48.9	3	46.8
J-6028	42.3	3.2	1.6	46.8	49	3.2	46.8
J-6029	26.9	2.6	1.2	52.1	55	2.6	52.1
J-6030	26.9	2.2	1.1	52.1	55	2.2	52.1
J-6031	37.2	2.6	1.2	48.4	51	2.6	48.4
J-6032	37.2	3.1	1.5	48.4	51	3.1	48.4
J-6033	41.7	1.7	0.8	47.3	49.3	1.7	47.3
J-6034	38.2	1.8	0.8	48.5	50.6	1.8	48.5
J-6035	38.3	2	1	48.5	50.6	2	48.5
J-6036	20.7	0	0	56	58.5	0	56
J-6037	20.6	0	0	56.1	58.6	0	56.1
J-6038	27.6	5.4	2.6	52.6	55.2	5.4	52.6
J-6040	41.8	2.5	1.2	47.3	49.2	2.5	47.3
J-6041	42	2.5	1.2	47.2	49.1	2.5	47.2
J-6042	42.4	2.2	1	46.8	48.9	2.2	46.8
J-6043	42.3	2.2	1.1	46.8	49	2.2	46.8
J-6044	30	0	0	52.3	54.8	0	52.3
J-6045	30.4	1.4	0.7	52.2	54.7	1.4	52.2
J-6046	35.5	7	3.4	49.4	51.8	7	49.4
J-6048	32.6	0	0	51.2	53.7	0	51.2
J-6049	32.8	1	0.5	51.1	53.6	1	51.1
J-6050	36.8	0.2	0.1	49	51.2	0.2	49
J-6051	36.8	2.1	1	49	51.2	2.1	49
J-6052	30.6	1.4	0.7	52.1	54.6	1.4	52.1
J-6053	37.4	0.8	0.4	48.9	51.1	0.8	48.9
J-6055	38.9	2.5	1.2	48.1	50.3	2.5	48.1
J-6056	38.8	8.9	4.3	48.1	50.4	8.9	48.1
J-6057	30.3	2.9	1.4	51.5	54	2.9	51.5
J-6059	35.6	6.9	3.3	49.5	51.7	6.9	49.5
J-6060	35.8	3	1.4	49.4	51.6	3	49.4
J-6061	30.9	3	1.5	50.5	53.3	3	50.5
J-6062	30.8	1.5	0.7	50.5	53.3	1.5	50.6
J-6063	31.8	3.6	1.7	51.7	54.1	3.6	51.7
J-6064	32.3	2.5	1.2	51.5	53.9	2.5	51.5
J-6065	37.4	0	0	48.6	51	0	48.6
J-6066	37.4	0.2	0.1	48.6	51	0.2	48.6
J-6068	24.1	0.6	0.3	54.7	57.2	0.6	54.7
J-6069	24.2	0.7	0.4	54.6	57.1	0.7	54.6
J-6070	22.1	3.6	1.7	55.4	57.9	3.6	55.4
J-6071	22.2	4.8	2.3	55.4	57.9	4.8	55.4
J-6072	31.9	4.3	2.1	50.9	53.3	4.3	50.9
J-6073	31.6	2.1	1	50.9	53.4	2.1	51
J-6075	37.4	0	0	49	51.2	0	49
J-6076	31.7	2.5	1.2	50.5	53.1	2.5	50.5
J-6077	31.8	2	1	50.5	53	2	50.5
J-6078	30	7.8	3.8	50.4	53.6	7.8	50.4
J-6079	39.7	1.5	0.7	48.3	50.2	1.5	48.3
J-6080	37.2	1.5	0.7	50.4	52.3	1.5	50.4
J-6081	37	2.5	1.2	50.5	52.4	2.5	50.5
J-6082	26.7	2.6	1.2	52.2	55	2.6	52.2
J-6083	26.8	2.2	1.1	52.2	55	2.2	52.2
J-6084	34.5	1.7	0.8	50.2	52.1	1.7	50.2
J-6085	34.5	7.4	3.5	50.2	52.1	7.4	50.2
J-6086	33.1	2.1	1	49	52.2	2.1	49
J-6087	33.3	6.6	3.2	48.9	52.1	6.6	48.9
J-6088	42.4	2.1	1	46.9	49	2.1	46.9
J-6089	42.3	2.3	1.1	46.9	49	2.3	46.9
J-6090	32.6	2.9	1.4	50.7	53.1	2.9	50.7
J-6091	33.3	5.9	2.9	50.4	52.8	5.9	50.4
J-6092	20.5	0	0	56.1	58.6	0	56.1
J-6093	20.5	0	0	56.1	58.6	0	56.1
J-6094	31.8	1.5	0.7	50.4	53.2	1.5	50.4
J-6095	32.1	4.2	2	50.3	53	4.2	50.3
J-6096	34.4	1.8	0.9	50.1	52.1	1.8	50.1
J-6097	34.6	6.4	3.1	50	52	6.4	50
J-6098	47.2	0	0	47.6	48.6	0	47.6
J-6099	47.3	0	0	47.6	48.6	0	47.6
J-6100	36.4	9.5	4.6	49.3	51.6	9.5	49.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6101	36.1	1.2	0.6	49.2	51.6	1.2	49.2
J-6102	36.2	14.2	6.8	49.1	51.5	14.2	49.1
J-6103	37.7	14.9	7.2	48.7	50.7	14.9	48.7
J-6105	40.9	3.3	1.6	47.4	49.6	3.3	47.4
J-6106	40.3	4.7	2.3	47.6	49.8	4.7	47.6
J-6107	34.6	6.6	3.2	48.3	51.5	6.6	48.3
J-6108	34.9	1.5	0.7	48.2	51.4	1.5	48.2
J-6109	32.3	12.5	6	50.7	53.2	12.5	50.7
J-6110	32.3	1.1	0.5	50.8	53.2	1.1	50.8
J-6111	31	6.5	3.1	49.9	53.1	6.5	49.9
J-6112	31.1	0.7	0.3	49.9	53.1	0.7	49.9
J-6113	41.2	8.6	4.1	48.8	50.7	8.6	48.8
J-6115	38	0.7	0.3	48.4	50.7	0.7	48.4
J-6116	29.1	9.9	4.8	52	54.5	9.9	52
J-6117	29.1	0.5	0.2	52	54.5	0.5	52
J-6118	32.9	0.2	0.1	51.2	53.6	0.2	51.2
J-6119	39.8	4.2	2	49.3	51.2	4.2	49.3
J-6120	39.9	1.5	0.7	49.2	51.2	1.5	49.2
J-6121	37.5	0	0	48.5	51	0	48.5
J-6122	37.4	6	2.9	48.5	51	6	48.5
J-6123	47.5	1.7	0.8	45.1	46.8	1.7	45.1
J-6124	35.7	0	0	49.6	51.6	0	49.6
J-6125	44.3	0	0	50.2	50.4	0	50.2
J-6126	37.3	3.6	1.7	50.3	52.3	3.6	50.3
J-6127	37.2	1.9	0.9	50.4	52.3	1.9	50.4
J-6128	37.6	0	0	49	51.1	0	49
J-6129	37.4	0	0	49.1	51.2	0	49.1
J-6130	47.3	0.5	0.2	47.3	48.5	0.5	47.3
J-6131	47.4	1.7	0.8	47.3	48.4	1.7	47.3
J-6132	32.4	0.3	0.1	51	52.9	0.3	51
J-6133	32.4	3.8	1.8	51	52.9	3.8	51
J-6134	32.3	3.6	1.7	50.2	52.8	3.6	50.2
J-6135	32.3	3.3	1.6	50.2	52.8	3.3	50.2
J-6136	30.7	3.2	1.5	51.4	53.9	3.2	51.4
J-6137	30.8	0.7	0.3	51.4	53.8	0.7	51.4
J-6138	34.2	0.3	0.1	50.2	52.2	0.3	50.2
J-6139	34.4	1	0.5	50.1	52.1	1	50.1
J-6140	32.6	0.9	0.4	49.2	52.4	0.9	49.2
J-6141	21	0	0	55.9	58.4	0	55.9
J-6142	20.5	0	0	56.1	58.6	0	56.1
J-6143	36.3	0.7	0.4	48.9	51.4	0.7	48.9
J-6144	42.6	2.4	1.2	46.9	48.9	2.4	46.9
J-6146	29.8	4.1	2	52.1	54.4	4.1	52.1
J-6147	29.7	2.9	1.4	52.1	54.4	2.9	52.1
J-6148	41.4	0.4	0.2	47.6	49.4	0.4	47.6
J-6149	41.4	17.9	8.6	47.6	49.4	17.9	47.6
J-6150	32.3	5.5	2.6	50.7	53.2	5.5	50.7
J-6151	41.2	1.1	0.5	47.7	49.5	1.1	47.7
J-6152	41.3	9.4	4.5	47.7	49.5	9.4	47.7
J-6153	32.3	0	0	50.8	53.2	0	50.8
J-6154	37.4	0	0	48.8	50.8	0	48.8
J-6155	37.6	0	0	48.7	50.7	0	48.7
J-6156	30.9	36.1	17.3	51.1	53.7	36.1	51.1
J-6158	29.2	2.3	1.1	50.6	53.9	2.3	50.6
J-6159	29	3	1.4	50.7	53.9	3	50.7
J-6160	27.3	2.3	1.1	52.3	55.1	2.3	52.3
J-6161	27.3	3.3	1.6	52.3	55.1	3.3	52.3
J-6162	29.2	0.3	0.1	52	54.5	0.3	52
J-6163	29.4	2.3	1.1	51.9	54.4	2.3	51.9
J-6164	43	0	0	46.8	48.7	0	46.8
J-6165	20.5	0	0	56.1	58.6	0	56.1
J-6167	45.7	1.5	0.7	48.6	49.4	1.5	48.6
J-6168	29.5	0.5	0.2	50.5	53.7	0.5	50.5
J-6169	29.3	7.7	3.7	50.6	53.8	7.7	50.6
J-6170	29.9	1	0.5	50.3	53.6	1	50.3
J-6171	29.8	0.9	0.4	50.4	53.6	0.9	50.4
J-6172	43.3	2.2	1.1	48.1	49.8	2.2	48.1
J-6173	43.2	3.3	1.6	48.1	49.8	3.3	48.1
J-6174	47.4	0.7	0.4	47.2	48.4	0.7	47.2
J-6175	47.4	0.7	0.3	47.1	48.4	0.7	47.1
J-6176	23.5	0.4	0.2	54.8	57.4	0.4	54.8
J-6177	23.5	9.4	4.5	54.8	57.4	9.4	54.8
J-6179	45.6	2.4	1.2	48.6	49.4	2.4	48.6
J-6180	37.4	0	0	48.7	50.9	0	48.7
J-6181	44.1	8.8	4.3	46.5	48.3	8.8	46.5
J-6182	44.4	0.8	0.4	46.4	48.1	0.8	46.4
J-6183	23.8	2.3	1.1	54.7	57.2	2.3	54.7
J-6184	29.1	3.4	1.7	52.6	55	3.4	52.6
J-6185	28.1	8.8	4.2	53	55.4	8.8	53
J-6186	31.5	3.2	1.5	51	53.5	3.2	51
J-6188	32.5	0.6	0.3	50.4	53.1	0.6	50.5
J-6189	43.1	10.8	5.2	48.1	49.9	10.8	48.1
J-6190	43.1	0	0	48.1	49.9	0	48.1
J-6191	41.7	2.2	1.1	47	49.2	2.2	47
J-6192	28.4	0.4	0.2	52.9	55.5	0.4	52.9
J-6193	28.4	9.9	4.7	52.9	55.5	9.9	52.9
J-6194	19.6	10	4.8	56.5	59	10	56.5
J-6195	18.9	5.8	2.8	56.8	59.3	5.8	56.8
J-6196	37.8	4.8	2.3	48.5	50.7	4.8	48.5
J-6197	37.7	3.5	1.7	48.6	50.8	3.5	48.6
J-6198	32.8	1.1	0.5	49.1	52.3	1.1	49.1
J-6199	42.7	1.5	0.7	48.1	50	1.5	48.1
J-6200	42.8	10.1	4.9	48	49.9	10.1	48
J-6201	32.7	0	0	51.4	53.8	0	51.4
J-6203	45.3	2.2	1.1	45.9	47.8	2.2	45.9
J-6204	45.6	8.9	4.3	45.8	47.6	8.9	45.8
J-6205	44.5	5.7	2.7	46.3	48.1	5.7	46.3
J-6206	44.8	0.9	0.4	46.2	48	0.9	46.2
J-6207	27.4	0.8	0.4	53.4	55.9	0.8	53.4
J-6208	27.3	0.8	0.4	53.4	55.9	0.8	53.4
J-6209	47.1	0.4	0.2	45.1	47	0.4	45.1
J-6210	40.8	1.8	0.9	47.5	49.6	1.8	47.5
J-6211	40.8	0.4	0.2	47.5	49.6	0.4	47.5
J-6212	32.7	0	0	51.4	53.8	0	51.4
J-6213	32.7	0	0	51.4	53.8	0	51.4
J-6214	37.4	0	0	48.5	51	0	48.5
J-6215	30.9	2.3	1.1	51.9	54.4	2.3	51.9
J-6216	30.9	1.1	0.5	51.9	54.4	1.1	51.9
J-6217	29.3	1.1	0.5	52.6	55.1	1.1	52.6
J-6218	29	3.2	1.6	52.7	55.2	3.2	52.7
J-6219	22.9	2.2	1	53.8	56.7	2.2	53.8
J-6220	24.1	2.4	1.2	53.3	56.2	2.4	53.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6221	42.3	1.7	0.8	46.7	48.9	1.7	46.7
J-6222	42.2	0	0	46.8	49	0	46.8
J-6223	27.5	4.9	2.3	53.4	55.9	4.9	53.4
J-6224	27.5	0.9	0.5	53.4	55.9	0.9	53.4
J-6225	27.8	1.3	0.6	52.1	54.9	1.3	52.1
J-6226	27.8	3.4	1.6	52.1	54.9	3.4	52.1
J-6227	34.1	2.3	1.1	50.5	52.3	2.3	50.5
J-6228	34.1	2.8	1.3	50.4	52.3	2.8	50.4
J-6229	37.9	1	0.5	48.3	50.7	1	48.3
J-6230	27.3	2.9	1.4	52.3	55.1	2.9	52.3
J-6231	27.2	1.4	0.7	52.3	55.1	1.4	52.3
J-6232	30.8	7.3	3.5	50	53.2	7.3	50
J-6233	31.2	2	1	49.8	53	2	49.8
J-6234	28.1	0	0	52.4	55	0	52.4
J-6235	28.4	0	0	52.3	54.8	0	52.3
J-6236	40.2	6.7	3.2	48.2	50.1	6.7	48.2
J-6237	40.3	1.8	0.9	48.1	50	1.8	48.1
J-6238	28	1.6	0.8	52.5	55	1.6	52.5
J-6239	37.6	0.5	0.3	48.8	51	0.5	48.8
J-6240	43.5	0	0	46.7	48.6	0	46.7
J-6241	37.4	1.1	0.5	48.9	51.1	1.1	49
J-6242	37.7	0.7	0.4	48.7	50.9	0.7	48.7
J-6243	37.9	9.8	4.7	48.6	50.8	9.8	48.6
J-6244	37.5	3.4	1.7	48.8	51	3.4	48.8
J-6245	27.4	0	0	51.6	54.7	0	51.6
J-6246	27.4	0	0	51.7	54.7	0	51.7
J-6247	38.2	3.4	1.7	48.4	50.6	3.4	48.4
J-6248	38.2	5.8	2.8	48.4	50.6	5.8	48.4
J-6249	27.4	0	0	51.6	54.7	0	51.6
J-6250	38.5	0.6	0.3	48.9	50.8	0.6	48.9
J-6251	27.4	3	1.4	51.9	54.8	3	51.9
J-6252	27.5	5.8	2.8	51.9	54.7	5.8	51.9
J-6253	28.8	0.5	0.2	52.8	55.3	0.5	52.8
J-6254	28.8	3.6	1.7	52.8	55.3	3.6	52.8
J-6256	30.8	0.6	0.3	52	54.5	0.6	52
J-6257	44.1	0.7	0.3	47.8	49.5	0.7	47.8
J-6258	44.7	0	0	47.5	49.2	0	47.5
J-6259	38.7	3	1.4	48.1	50.4	3	48.1
J-6260	38.6	2.9	1.4	48.2	50.4	2.9	48.2
J-6261	22.3	0	0	55.3	57.8	0	55.3
J-6262	21.9	0	0	55.5	58	0	55.5
J-6263	39.9	1.4	0.7	49.4	51.2	1.4	49.4
J-6264	39.9	0.5	0.2	49.4	51.2	0.5	49.4
J-6265	45.9	0.2	0.1	45.5	47.5	0.2	45.5
J-6266	45.3	5.9	2.8	45.8	47.7	5.9	45.8
J-6267	47.1	0.6	0.3	45.1	47	0.6	45.1
J-6268	47.2	2.5	1.2	45	46.9	2.5	45
J-6269	41.6	5.7	2.8	47.2	49.3	5.7	47.2
J-6270	47.2	3.9	1.9	47	48.3	3.9	47
J-6271	47.3	3	1.4	46.9	48.3	3	46.9
J-6272	28.1	1.2	0.6	51.1	54.3	1.2	51.1
J-6273	28.1	2.7	1.3	51.1	54.3	2.7	51.1
J-6275	42.5	2.6	1.3	46.8	48.9	2.6	46.8
J-6276	27.8	0.4	0.2	53.2	55.7	0.4	53.2
J-6277	27.5	4.8	2.3	53.3	55.9	4.8	53.3
J-6278	31	2.8	1.4	51.3	53.8	2.8	51.3
J-6279	45.7	3.9	1.9	45	47.4	3.9	45
J-6280	44.1	1.2	0.6	45.7	48.1	1.2	45.7
J-6281	44.6	1.9	0.9	46.2	48.1	1.9	46.2
J-6282	44.4	3.7	1.8	46.3	48.1	3.7	46.3
J-6283	31.6	3.2	1.5	50.4	53.1	3.2	50.4
J-6284	31.2	3.9	1.9	50.5	53.2	3.9	50.5
J-6285	40.5	6.1	2.9	47.5	49.7	6.1	47.5
J-6286	42.3	5.4	2.6	47	49	5.4	47
J-6287	42.3	2.3	1.1	47	49	2.3	47
J-6288	41.9	1.1	0.5	47	49.1	1.1	47
J-6289	41.7	4.1	2	47.1	49.2	4.1	47.1
J-6290	37.7	3.1	1.5	48.4	50.9	3.1	48.4
J-6291	47.5	0.4	0.2	46.7	48.2	0.4	46.7
J-6292	47.4	9.6	4.6	46.8	48.2	9.6	46.8
J-6293	31.4	3.6	1.8	51.7	54.2	3.6	51.7
J-6294	31.2	0.5	0.2	51.8	54.3	0.5	51.8
J-6295	32.8	5.2	2.5	50.3	52.9	5.2	50.3
J-6296	32.6	5	2.4	50.4	53	5	50.4
J-6298	47.1	4.2	2	47	48.4	4.2	47
J-6299	36.9	3	1.4	49	51.2	3	49
J-6300	25.8	4.1	2	53.9	56.4	4.1	53.9
J-6301	25.7	3	1.4	54	56.5	3	54
J-6302	37.7	0.2	0.1	48.7	51	0.2	48.7
J-6303	46.9	5.8	2.8	46.5	48.2	5.8	46.5
J-6304	42.9	1.8	0.9	48.2	50	1.8	48.2
J-6305	35.7	1.3	0.6	47.9	51.1	1.3	47.9
J-6306	35.8	0.9	0.5	47.8	51	0.9	47.8
J-6307	33.4	1.4	0.7	48.9	52.1	1.4	48.9
J-6308	34.3	3.4	1.6	48.5	51.7	3.4	48.5
J-6309	32.6	5.6	2.7	50.1	52.8	5.6	50.1
J-6310	32.8	2.8	1.3	50	52.7	2.8	50
J-6311	29.5	0.8	0.4	52.1	54.5	0.8	52.1
J-6312	29.9	1	0.5	51.9	54.3	1	52
J-6313	36.3	1.1	0.5	49.1	51.5	1.1	49.1
J-6314	35.5	2.3	1.1	49.4	51.8	2.3	49.4
J-6315	47.3	0	0	48.4	48.9	0	48.4
J-6316	38.2	3	1.4	48.5	50.6	3	48.5
J-6317	38.4	3.5	1.7	48.4	50.5	3.5	48.4
J-6318	31	1.3	0.6	51.9	54.4	1.3	51.9
J-6319	28.5	1.7	0.8	52.5	54.9	1.7	52.5
J-6320	29.7	2.2	1.1	52	54.4	2.2	52
J-6321	33.8	11.7	5.6	50.4	52.4	11.7	50.4
J-6322	33.7	1	0.5	50.4	52.4	1	50.4
J-6323	27.8	0.6	0.3	52.1	54.9	0.6	52.1
J-6324	27.9	3.8	1.8	52.1	54.8	3.8	52.1
J-6325	30.2	0.4	0.2	51	53.8	0.4	51
J-6326	30.2	4.8	2.3	51	53.8	4.8	51
J-6327	36.6	1.4	0.7	49.1	51.4	1.4	49.1
J-6328	36.6	4.5	2.2	49.1	51.4	4.5	49.1
J-6329	27	1.1	0.5	53.5	56.1	1.1	53.5
J-6330	26.9	4.1	2	53.6	56.1	4.1	53.6
J-6331	32.6	6.5	3.1	51.4	53.8	6.5	51.4
J-6332	37.4	1.4	0.7	50.1	52.1	1.4	50.1
J-6333	42.1	1	0.5	47.3	49.2	1	47.3
J-6334	42	0.6	0.3	47.3	49.3	0.6	47.3
J-6335	26.8	1.8	0.8	53.6	56.1	1.8	53.6

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6336	30.8	2.4	1.1	52	54.5	2.4	52
J-6337	42.7	3	1.4	48.2	50	3	48.2
J-6338	42.7	5.8	2.8	48.2	50	5.8	48.2
J-6339	32.7	4.2	2	49.2	52.4	4.2	49.2
J-6340	41.5	4.1	2	47.5	49.5	4.1	47.5
J-6341	34.6	1.8	0.8	49.5	52.3	1.8	49.5
J-6342	34.3	0.7	0.4	49.6	52.4	0.7	49.6
J-6343	31.8	2.2	1	51.5	54	2.2	51.5
J-6344	31.9	0.4	0.2	51.4	54	0.4	51.4
J-6345	39.6	5.6	2.7	49.3	51.3	5.6	49.3
J-6346	39.8	0.4	0.2	49.2	51.2	0.4	49.2
J-6347	37	3.7	1.8	48.5	51.1	3.7	48.5
J-6348	36.6	4.6	2.2	48.7	51.3	4.6	48.7
J-6349	36.8	0	0	49	51.2	0	49
J-6350	36.8	0.5	0.2	49	51.2	0.5	49
J-6351	42.9	5	2.4	46.7	48.7	5	46.7
J-6352	34.3	3.4	1.6	50.4	52.2	3.4	50.4
J-6353	34.3	2.3	1.1	50.5	52.3	2.3	50.5
J-6354	32.6	1	0.5	50.4	52.9	1	50.4
J-6355	32.6	4.2	2	50.4	52.9	4.2	50.4
J-6356	37.4	1.9	0.9	48.9	51.1	1.9	48.9
J-6358	33.4	1.8	0.9	50.2	52.7	1.8	50.2
J-6359	33.5	1.5	0.7	50.2	52.6	1.5	50.2
J-6360	36.8	2.6	1.2	49	51.1	2.6	49
J-6361	36.9	3	1.4	49	51.1	3	49
J-6362	32.2	14.7	7	50.7	53.2	14.7	50.8
J-6363	27.4	3.1	1.5	52.2	55	3.1	52.2
J-6364	37.4	0	0	48.4	50.9	0	48.4
J-6365	37.5	6.7	3.2	48.4	50.9	6.7	48.4
J-6366	39.7	4.7	2.3	47.9	50.1	4.7	47.9
J-6367	40.3	3.6	1.7	47.6	49.8	3.6	47.6
J-6368	40.8	4.3	2.1	47.8	49.8	4.3	47.8
J-6369	34.3	6.3	3	50.2	52.2	6.3	50.2
J-6370	37.9	5.8	2.8	48.5	50.7	5.8	48.5
J-6371	37.8	2.9	1.4	48.5	50.7	2.9	48.5
J-6372	26.5	0.4	0.2	52.6	55.4	0.4	52.6
J-6373	26.4	0	0	52.7	55.4	0	52.7
J-6374	45.7	0.7	0.4	48.5	49.3	0.7	48.5
J-6375	45.7	6.3	3	48.5	49.3	6.3	48.5
J-6376	30.1	1	0.5	51.2	53.9	1	51.2
J-6377	29.9	6.5	3.1	51.2	54	6.5	51.3
J-6378	27.6	22.8	10.9	52.2	54.9	22.8	52.2
J-6379	38	1.7	0.8	49.7	51.8	1.7	49.7
J-6380	32.9	2.7	1.3	51.2	53.6	2.7	51.2
J-6381	32.7	12.1	5.8	51.3	53.7	12.1	51.3
J-6382	39.9	3.7	1.8	47.8	50	3.7	47.8
J-6383	40	0.5	0.2	47.8	50	0.5	47.8
J-6385	45.4	1.1	0.5	47.6	49	1.1	47.6
J-6386	37.3	1.5	0.7	48.4	51.1	1.5	48.4
J-6387	37.4	3.2	1.5	48.4	51.1	3.2	48.4
J-6388	40.9	1.4	0.7	47.4	49.6	1.4	47.4
J-6389	40.8	4.9	2.4	47.4	49.6	4.9	47.4
J-6390	40.7	0.9	0.4	47.5	49.7	0.9	47.5
J-6391	40.9	2	1	47.4	49.6	2	47.4
J-6392	27.2	3.9	1.9	52.3	55.1	3.9	52.3
J-6393	40.6	4.2	2	47.5	49.7	4.2	47.5
J-6394	37.4	8.1	3.9	48.4	51	8.1	48.4
J-6395	42.8	3.8	1.8	48.5	50.1	3.8	48.5
J-6396	43	1.5	0.7	48.4	50	1.5	48.4
J-6397	27.5	8.7	4.2	53.4	55.9	8.7	53.4
J-6398	41.2	6	2.9	47.3	49.5	6	47.3
J-6399	33.8	3.7	1.8	49.9	52.4	3.7	49.9
J-6400	33.6	4.7	2.3	50	52.5	4.7	50
J-6401	31.9	0.7	0.3	50.1	52.9	0.7	50.1
J-6402	32	2.2	1.1	50.1	52.8	2.2	50.1
J-6404	43.3	0.9	0.4	46.8	48.6	0.9	46.8
J-6405	43.2	14	6.7	46.9	48.7	14	46.9
J-6406	41.8	6.4	3.1	47.4	49.4	6.4	47.4
J-6407	32.3	1.2	0.6	50.8	53.2	1.2	50.8
J-6408	32.4	3.1	1.5	50.7	53.2	3.1	50.7
J-6409	28	1.5	0.7	51.7	54.5	1.5	51.7
J-6410	28.1	4.6	2.2	51.7	54.5	4.6	51.7
J-6411	32.8	1.8	0.9	50.3	52.8	1.8	50.3
J-6412	32.7	2.1	1	50.3	52.8	2.1	50.3
J-6413	45.1	0.5	0.2	47.8	49.2	0.5	47.8
J-6414	45.1	5.8	2.8	47.8	49.2	5.8	47.8
J-6415	27.4	1.7	0.8	53.3	55.9	1.7	53.4
J-6416	27.4	4.7	2.2	53.3	55.9	4.7	53.4
J-6418	27.8	3.2	1.6	53.3	55.8	3.2	53.3
J-6419	27.2	0	0	53.4	56	0	53.5
J-6420	30.7	0.5	0.2	51.9	54.5	0.5	52
J-6421	30.6	6.7	3.2	52	54.5	6.7	52
J-6422	32.4	5	2.4	50.5	52.9	5	50.5
J-6423	33.1	0	0	50.2	52.6	0	50.2
J-6424	33.3	8.8	4.2	50.1	52.5	8.8	50.1
J-6425	37.4	0	0	48.9	51.1	0	48.9
J-6426	37.4	0.3	0.2	48.9	51.1	0.3	48.9
J-6427	19.5	4	1.9	56.5	59	4	56.5
J-6428	19.4	3.1	1.5	56.5	59.1	3.1	56.5
J-6430	27.9	0.7	0.3	52.5	55	0.7	52.5
J-6431	42.3	2.2	1.1	48.6	50.3	2.2	48.6
J-6432	42.1	0.5	0.2	48.7	50.4	0.5	48.7
J-6433	42	1.2	0.6	48.4	50.2	1.2	48.4
J-6434	42	2.2	1.1	48.4	50.3	2.2	48.4
J-6435	47.5	3.7	1.8	44.9	46.8	3.7	44.9
J-6436	47.3	5.9	2.8	45	46.9	5.9	45
J-6437	42.1	4.2	2	47.4	49.1	4.2	47.4
J-6438	32.4	4.4	2.1	50.3	52.9	4.4	50.3
J-6439	41.3	0.3	0.2	47.5	49.4	0.3	47.5
J-6441	47.5	0	0	45.1	46.8	0	45.1
J-6442	41.1	0.5	0.2	47.4	49.5	0.5	47.4
J-6443	41	2.6	1.2	47.4	49.5	2.6	47.4
J-6444	34.1	0.9	0.5	49.8	52.4	0.9	49.8
J-6445	38	3.1	1.5	50.1	52	3.1	50.1
J-6446	37.9	4.9	2.3	50.1	52	4.9	50.1
J-6447	34.1	4.5	2.2	49.9	52.4	4.5	49.9
J-6449	37.4	0.7	0.4	50.3	52.3	0.7	50.3
J-6450	37.7	2.2	1.1	50.2	52.1	2.2	50.2
J-6451	29.1	0.4	0.2	52.3	54.7	0.4	52.3
J-6453	27.2	9.6	4.6	53.5	56	9.6	53.5
J-6454	42.1	2.2	1.1	46.9	49.1	2.2	46.9
J-6455	22.6	0	0	55.2	57.7	0	55.2

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6456	21.9	0.7	0.3	55.5	58	0.7	55.5
J-6457	38.3	3	1.4	49.9	51.9	3	49.9
J-6458	38	4.9	2.3	50	52	4.9	50
J-6459	29.1	3.6	1.7	52.7	55.2	3.6	52.7
J-6460	29.5	1.6	0.8	52.5	55	1.6	52.5
J-6462	27.7	2.2	1.1	53.3	55.8	2.2	53.3
J-6463	47.9	0	0	47.5	48.4	0	47.5
J-6464	48.2	0	0	47.4	48.3	0	47.4
J-6465	22.4	0	0	55.3	57.8	0	55.3
J-6466	45.9	4.1	2	45.5	47.5	4.1	45.5
J-6467	42.3	2.1	1	48.5	50.3	2.1	48.5
J-6468	42.1	2.2	1.1	48.6	50.3	2.2	48.6
J-6469	47.4	0.9	0.4	48.1	48.7	0.9	48.1
J-6470	47.4	0	0	48.2	48.7	0	48.2
J-6471	34.7	10	4.8	50	52	10	50
J-6472	47.5	2.7	1.3	45	46.8	2.7	45
J-6473	47.5	14.7	7.1	45	46.8	14.7	45
J-6474	33.3	8.1	3.9	50.2	52.7	8.1	50.2
J-6475	33.3	3.5	1.7	50.2	52.7	3.5	50.2
J-6476	32.4	0.9	0.4	49.9	52.7	0.9	49.9
J-6477	32.3	3.6	1.7	49.9	52.7	3.6	49.9
J-6478	38.3	3.1	1.5	49.9	51.8	3.1	49.9
J-6479	38.1	2.6	1.3	50	51.9	2.6	50
J-6480	22.7	0.5	0.2	55.2	57.7	0.5	55.2
J-6481	21.9	4.8	2.3	55.5	58	4.8	55.5
J-6482	37	5.5	2.7	48.9	51.1	5.5	48.9
J-6483	37.1	2.2	1	48.9	51.1	2.2	48.9
J-6484	38	1.4	0.7	50	52	1.4	50
J-6485	38.2	2.4	1.2	50	51.9	2.4	50
J-6486	32.3	4.4	2.1	50.2	52.9	4.4	50.2
J-6487	32.1	5	2.4	50.3	53	5	50.3
J-6488	39.1	3.8	1.8	48.2	50.4	3.8	48.2
J-6489	39.9	0	0	47.8	50.1	0	47.8
J-6490	31.3	0	0	51.8	54.3	0	51.8
J-6492	44.4	0.6	0.3	48	49.4	0.6	48
J-6493	44.2	2.7	1.3	48	49.5	2.7	48
J-6494	37.9	6.3	3	48.6	50.8	6.3	48.6
J-6495	38.1	3.1	1.5	48.6	50.8	3.1	48.6
J-6496	47.8	1.5	0.7	45	46.7	1.5	45
J-6498	36.9	1.5	0.7	50.5	52.5	1.5	50.5
J-6499	28.4	3.2	1.5	51.5	54.4	3.2	51.5
J-6500	28.5	4.1	2	51.5	54.3	4.1	51.5
J-6501	33.2	0	0	51.1	53.5	0	51.1
J-6502	42.8	1.5	0.7	46.8	48.8	1.5	46.8
J-6503	42.7	0.9	0.5	46.8	48.9	0.9	46.8
J-6504	40.2	2	1	47.4	49.8	2	47.4
J-6505	39.6	7.6	3.7	47.6	50	7.6	47.6
J-6507	45.5	5.2	2.5	47.6	49.1	5.2	47.6
J-6508	35.4	3.2	1.5	48	51.2	3.2	48
J-6509	42.7	5.3	2.6	48.1	50	5.3	48.1
J-6510	32	1.5	0.7	49.5	52.6	1.5	49.5
J-6511	27.9	4.1	2	51.8	54.6	4.1	51.8
J-6512	28.6	6	2.9	51.5	54.3	6	51.5
J-6513	42.7	8.8	4.2	46.8	48.8	8.8	46.8
J-6514	47.6	1.9	0.9	45.1	46.8	1.9	45.1
J-6515	39.5	1.8	0.9	47.9	50	1.8	47.9
J-6516	39.1	4.1	2	48.1	50.2	4.1	48.1
J-6517	32	0.9	0.5	50.2	52.9	0.9	50.3
J-6518	31.3	4.5	2.2	50.6	53.3	4.5	50.6
J-6519	31.4	2.2	1.1	50.6	53.3	2.2	50.6
J-6520	29.5	11.2	5.4	52.1	54.5	11.2	52.1
J-6521	32.6	1	0.5	50.6	52.7	1	50.6
J-6522	37.4	0.8	0.4	48.8	50.8	0.8	48.8
J-6523	35.1	2.2	1	49.4	51.9	2.2	49.4
J-6524	35.2	9.3	4.5	49.3	51.8	9.3	49.3
J-6525	38.9	2.9	1.4	49.8	51.7	2.9	49.8
J-6526	39.7	4	1.9	47.9	50.1	4	47.9
J-6528	30.5	1.3	0.6	50.5	53.4	1.3	50.5
J-6529	29.6	2.4	1.2	50.9	53.8	2.4	50.9
J-6530	38	0	0	48.9	51	0	48.9
J-6531	41.6	2	1	46.8	49.2	2	46.8
J-6532	32.5	2.1	1	49.3	52.4	2.1	49.3
J-6533	32.4	4.1	2	49.3	52.5	4.1	49.3
J-6534	38.4	0	0	48.2	50.5	0	48.2
J-6535	38.3	0	0	48.3	50.6	0	48.3
J-6536	32.3	4.4	2.1	51	52.9	4.4	51
J-6537	32.3	15	7.2	50.8	52.8	15	50.8
J-6538	28.3	0	0	52.4	54.9	0	52.4
J-6539	28.4	5.5	2.6	52.3	54.8	5.5	52.3
J-6540	25.9	0.7	0.4	52.1	55.3	0.7	52.1
J-6541	26	4.8	2.3	52	55.2	4.8	52
J-6542	30.6	5.8	2.8	50.8	53.6	5.8	50.8
J-6543	30.6	4.8	2.3	50.8	53.6	4.8	50.8
J-6544	38	3.1	1.5	50	52	3.1	50
J-6545	47.5	3.3	1.6	45.1	46.8	3.3	45.1
J-6546	39.4	0.5	0.2	48.5	50.4	0.5	48.5
J-6547	41.7	6.6	3.2	47.5	49.3	6.6	47.5
J-6548	41.7	0.9	0.4	47.5	49.3	0.9	47.5
J-6549	41.9	5.4	2.6	47	49.1	5.4	47
J-6550	41.9	3.5	1.7	47	49.1	3.5	47
J-6551	37.3	2	0.9	48.4	51.1	2	48.4
J-6552	27.3	1.1	0.5	52.3	55.1	1.1	52.3
J-6553	26.8	3.4	1.6	52.5	55.3	3.4	52.5
J-6554	26.3	3.2	1.5	51.9	55.1	3.2	52
J-6555	33.8	0.8	0.4	50	52.5	0.8	50
J-6556	47.5	2.5	1.2	45	46.8	2.5	45
J-6557	34.6	2.9	1.4	49.6	52.2	2.9	49.6
J-6558	35.2	1.7	0.8	49.3	51.9	1.7	49.3
J-6559	27	1.3	0.6	52.4	55.2	1.3	52.4
J-6560	26.8	1.4	0.7	52.5	55.2	1.4	52.5
J-6561	29.5	1.5	0.7	51.2	53.9	1.5	51.2
J-6562	28.8	2.5	1.2	51.5	54.2	2.5	51.5
J-6563	31.9	0	0	51.4	53.9	0	51.4
J-6564	32.1	0	0	51.4	53.9	0	51.4
J-6565	32.2	4.3	2.1	50.8	53.2	4.3	50.8
J-6566	42.6	3.2	1.5	47.2	48.9	3.2	47.2
J-6567	42.5	7.4	3.5	47.2	48.9	7.4	47.2
J-6568	35.8	1.5	0.7	49.5	51.5	1.5	49.5
J-6569	32.4	14.3	6.9	50.7	53.1	14.3	50.7
J-6570	33	7.2	3.5	50.4	52.9	7.2	50.4
J-6571	47.6	5.2	2.5	45	46.8	5.2	45
J-6572	47.5	5.6	2.7	45	46.8	5.6	45

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6573	47.6	2.5	1.2	45	46.8	2.5	45
J-6574	47.5	0	0	45	46.8	0	45
J-6575	26.3	6.2	3	51.9	55.1	6.2	51.9
J-6576	26.4	4.7	2.2	51.9	55.1	4.7	51.9
J-6577	47.5	2.5	1.2	45	46.8	2.5	45
J-6578	47.5	0	0	45	46.8	0	45
J-6579	47.5	3	1.4	45	46.8	3	45
J-6580	47.6	5.6	2.7	45	46.8	5.6	45
J-6581	28	10.1	4.9	51.2	54.4	10.1	51.2
J-6584	39.2	4	1.9	48.1	50.3	4	48.1
J-6585	39.2	7	3.4	48.1	50.3	7	48.1
J-6586	36.6	2.9	1.4	49.1	51.3	2.9	49.1
J-6587	36.6	3.6	1.7	49.1	51.3	3.6	49.1
J-6588	30.1	2.6	1.3	51	53.7	2.6	51
J-6589	42.3	0	0	47.1	49.1	0	47.1
J-6590	42.3	0	0	47.1	49.1	0	47.1
J-6591	37.3	6.9	3.3	48.4	51	6.9	48.4
J-6592	41	0.9	0.4	48.8	50.7	0.9	48.8
J-6593	41.6	8.5	4.1	48.6	50.4	8.5	48.6
J-6594	32.4	3.4	1.6	52	53.4	3.4	52
J-6595	32.4	2.2	1	51.9	53.3	2.2	51.9
J-6596	33.3	2.4	1.1	52.3	53.2	2.4	52.3
J-6597	32.9	5.4	2.6	52.9	53.5	5.4	52.9
J-6598	30.1	0	0	51.5	54.1	0	51.5
J-6599	32.5	31	14.9	50.5	52.7	31	50.5
J-6600	20.5	4.3	2.1	56.1	58.6	4.3	56.1
J-6601	40.7	1	0.5	47.6	49.7	1	47.6
J-6602	40.9	3.7	1.8	47.5	49.6	3.7	47.5
J-6603	33.1	1.3	0.6	50.2	52.7	1.3	50.2
J-6604	33	0.9	0.4	50.3	52.7	0.9	50.3
J-6605	37.3	0	0	48.8	50.9	0	48.8
J-6606	37.3	3.1	1.5	48.8	50.9	3.1	48.8
J-6607	46.1	2.2	1	47.4	48.8	2.2	47.4
J-6609	32.6	3.7	1.8	50.4	52.9	3.7	50.4
J-6610	33.8	3.1	1.5	49.9	52.4	3.1	49.9
J-6611	32.8	7.2	3.4	50.2	52.8	7.2	50.3
J-6612	42.6	3.2	1.5	47.1	48.9	3.2	47.1
J-6613	42.5	8.9	4.3	47.1	48.9	8.9	47.1
J-6614	45.5	0	0	47.6	49.1	0	47.6
J-6615	37.5	10.9	5.2	48.5	50.9	10.9	48.5
J-6616	37.6	4.1	1.9	48.5	50.9	4.1	48.5
J-6618	42.3	3.5	1.7	47.1	48.9	3.5	47.1
J-6619	32.6	2.5	1.2	50.6	53	2.5	50.6
J-6620	32.9	7.4	3.5	51.4	53.7	7.4	51.4
J-6621	33.2	7.5	3.6	51.2	53.6	7.5	51.2
J-6622	39.2	4.3	2.1	48.1	50.3	4.3	48.1
J-6623	39.2	3.6	1.7	48.1	50.3	3.6	48.1
J-6624	31.9	1.1	0.5	50.9	53.3	1.1	50.9
J-6625	43.8	1.6	0.8	47.7	49.5	1.6	47.7
J-6626	44.6	3	1.4	47.4	49.2	3	47.4
J-6627	32.8	1.3	0.6	50.5	53	1.3	50.5
J-6628	33.4	3.5	1.7	50.2	52.7	3.5	50.2
J-6629	37.1	0.9	0.4	48.7	51.1	0.9	48.7
J-6630	37.2	0	0	48.6	51.1	0	48.6
J-6631	37.6	13	6.2	48.5	50.9	13	48.5
J-6632	37.6	4.5	2.2	48.4	50.9	4.5	48.5
J-6633	32.4	91.3	43.9	50.4	52.7	91.3	50.4
J-6634	32.4	4.4	2.1	50.4	52.8	4.4	50.4
J-6635	42.4	3	1.4	48.5	50.2	3	48.5
J-6636	42.6	3.2	1.5	48.4	50.1	3.2	48.4
J-6637	38.3	0	0	48.5	50.4	0	48.5
J-6638	35.7	5.6	2.7	49.1	51.7	5.6	49.1
J-6639	42.2	0	0	47.1	49.1	0	47.1
J-6640	27.3	6.5	3.1	52	54.8	6.5	52
J-6641	27.3	3.7	1.8	51.9	54.8	3.7	51.9
J-6642	32.2	5.4	2.6	51.5	53.9	5.4	51.5
J-6643	33.3	0.3	0.2	50.3	52.7	0.3	50.3
J-6644	42.4	7.3	3.5	46.7	48.9	7.3	46.7
J-6646	44	0	0	46.4	48.4	0	46.4
J-6648	42.6	3.4	1.6	48.4	50.1	3.4	48.4
J-6649	33.2	10.3	4.9	50.4	52.8	10.3	50.4
J-6651	45.7	1.1	0.5	48.6	49.4	1.1	48.6
J-6652	45.7	1.3	0.6	48.6	49.4	1.3	48.6
J-6654	37.3	2.5	1.2	48.4	51	2.5	48.4
J-6655	27.8	3	1.5	52.1	54.9	3	52.1
J-6656	27.9	1.5	0.7	52	54.8	1.5	52
J-6657	43.7	2.5	1.2	46.8	48.5	2.5	46.8
J-6661	41.8	9.1	4.4	48.8	50.5	9.1	48.8
J-6662	26.1	2.5	1.2	52.4	55.3	2.5	52.4
J-6664	21.5	4	1.9	55.7	58.2	4	55.7
J-6665	21.2	5.6	2.7	55.8	58.3	5.6	55.8
J-6666	38.1	3.3	1.6	48.3	50.7	3.3	48.3
J-6667	37.8	15.6	7.5	48.5	50.9	15.6	48.5
J-6668	31.2	6.1	2.9	51.9	54.3	6.1	51.9
J-6669	31.6	0	0	51.7	54.1	0	51.7
J-6670	24.1	0	0	54.6	57.1	0	54.6
J-6671	24.3	0	0	54.5	57	0	54.5
J-6673	42.1	2.5	1.2	47.3	49.2	2.5	47.3
J-6674	32.4	4	1.9	50.7	53.1	4	50.7
J-6675	37.9	2	0.9	48.7	50.9	2	48.7
J-6676	37.9	10	4.8	48.7	50.9	10	48.7
J-6677	39.6	5.4	2.6	48	50.2	5.4	48
J-6678	37.4	1.2	0.6	48.8	51.1	1.2	48.8
J-6679	37.4	1.4	0.7	48.6	51	1.4	48.6
J-6680	44.9	4	1.9	49	49.8	4	49
J-6681	45	0	0	49.3	49.8	0	49.3
J-6682	34.9	0.4	0.2	49.5	52	0.4	49.5
J-6683	38.4	4.3	2.1	49.8	51.8	4.3	49.8
J-6684	45.4	2.6	1.2	47.1	48.9	2.6	47.1
J-6685	45.9	2.8	1.3	46.9	48.7	2.8	46.9
J-6686	29.5	3.4	1.6	50.5	53.7	3.4	50.6
J-6687	29	3.7	1.8	50.8	54	3.7	50.8
J-6688	26.6	0	0	52.6	55.3	0	52.6
J-6689	32.8	4.5	2.2	50.5	52.9	4.5	50.5
J-6690	33.1	4.8	2.3	50.4	52.8	4.8	50.4
J-6691	30.2	1.2	0.6	51.6	54.1	1.2	51.6
J-6692	30.2	6.7	3.2	51.6	54.1	6.7	51.6
J-6693	30.6	3	1.4	52.1	54.6	3	52.1
J-6694	31.5	1.9	0.9	51.7	54.2	1.9	51.7
J-6695	37.2	8.3	4	48.9	50.9	8.3	48.9
J-6696	28.1	1.8	0.9	51.8	54.6	1.8	51.8
J-6697	28.1	3.1	1.5	51.8	54.6	3.1	51.8

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6698	37.2	1.2	0.6	48.9	50.9	1.2	48.9
J-6699	37.4	6.7	3.2	48.8	50.8	6.7	48.8
J-6700	37.4	6.7	3.2	48.8	50.8	6.7	48.8
J-6701	37.5	2.8	1.3	48.8	51	2.8	48.8
J-6702	37.5	2.8	1.3	48.8	51	2.8	48.8
J-6704	45.6	0	0	46.2	47.6	0	46.2
J-6705	32.5	4	1.9	49.8	52.6	4	49.8
J-6706	37.4	2.3	1.1	48.3	51.1	2.3	48.3
J-6707	43.2	24.2	11.6	47.2	49	24.2	47.2
J-6708	42.9	0	0	47.2	49.1	0	47.2
J-6709	35.9	1.2	0.6	49.2	51.6	1.2	49.3
J-6710	26.1	0.8	0.4	52	55.2	0.8	52
J-6711	26.2	1.2	0.6	52	55.2	1.2	52
J-6712	44.1	0	0	47	48.8	0	47
J-6713	43.8	0	0	47.3	49.1	0	47.3
J-6714	37.6	1.3	0.6	50.2	52.1	1.3	50.2
J-6715	37.2	1.2	0.6	50.4	52.3	1.2	50.4
J-6716	38.6	7.7	3.7	48.2	50.5	7.7	48.2
J-6717	38.7	5.1	2.4	48.2	50.5	5.1	48.2
J-6718	37.4	7.3	3.5	48.4	51	7.3	48.4
J-6719	37.4	3.8	1.8	48.4	51	3.8	48.4
J-6720	32.2	4.3	2.1	50.6	53.2	4.3	50.6
J-6721	37.2	14.4	6.9	48.9	51	14.4	48.9
J-6722	38.8	8	3.9	48.2	50.4	8	48.2
J-6723	37.6	1.4	0.7	48.9	50.9	1.4	48.9
J-6724	37.8	0	0	48.8	50.8	0	48.8
J-6725	26.8	2.1	1	52.2	55	2.1	52.2
J-6726	26.7	4.6	2.2	52.2	55	4.6	52.2
J-6727	32.1	0.9	0.4	50.2	52.9	0.9	50.2
J-6728	31.1	1.5	0.7	50.7	53.4	1.5	50.7
J-6730	21	0	0	55.9	58.4	0	55.9
J-6731	42.4	4.8	2.3	46.8	48.9	4.8	46.8
J-6732	42.2	5.2	2.5	46.9	49	5.2	46.9
J-6733	30	0.4	0.2	50.4	53.5	0.4	50.4
J-6734	30	3.4	1.6	50.4	53.5	3.4	50.4
J-6735	32.1	1.1	0.5	50.3	52.9	1.1	50.3
J-6736	32.3	3.8	1.8	50.2	52.9	3.8	50.2
J-6737	31.7	2.8	1.4	51.2	53.6	2.8	51.2
J-6739	28.1	1.6	0.8	53.1	55.5	1.6	53.1
J-6740	27.8	2.8	1.4	53.2	55.6	2.8	53.2
J-6741	26.4	3.8	1.8	51.9	55.1	3.8	51.9
J-6742	39.4	0	0	49.4	51.3	0	49.4
J-6743	39.3	2.2	1	49.4	51.4	2.2	49.4
J-6744	37.6	1.4	0.7	48.4	50.9	1.4	48.4
J-6745	22	0.6	0.3	55.4	57.9	0.6	55.4
J-6746	21.4	12.5	6	55.7	58.2	12.5	55.7
J-6747	37.9	1.4	0.7	50.1	52	1.4	50.1
J-6748	37.8	2.6	1.3	50.1	52	2.6	50.1
J-6749	34	1.3	0.6	49.9	52.4	1.3	49.9
J-6750	38.3	6.1	2.9	48.5	50.7	6.1	48.5
J-6751	32.1	2.2	1.1	50.1	52.8	2.2	50.1
J-6752	32.3	3	1.4	50.1	52.8	3	50.1
J-6753	49.7	0	0	46.9	47.7	0	46.9
J-6754	31.6	1.5	0.7	50.4	53.1	1.5	50.4
J-6755	38	4.8	2.3	48.6	50.8	4.8	48.6
J-6757	36.1	9.5	4.6	48.9	51.4	9.5	48.9
J-6758	39.5	3.5	1.7	48	50.1	3.5	48
J-6759	39.4	3.2	1.6	48	50.1	3.2	48
J-6760	39.6	2.4	1.1	47.6	50.1	2.4	47.6
J-6761	39.8	4.3	2.1	47.5	50	4.3	47.5
J-6762	36.1	1.9	0.9	49.2	51.6	1.9	49.2
J-6763	37.6	4.2	2	48.5	50.9	4.2	48.5
J-6764	37.2	0	0	49.1	51.2	0	49.1
J-6765	37.5	0	0	49	51.1	0	49
J-6766	47.2	2.6	1.2	46.7	48.2	2.6	46.7
J-6767	47.5	1.4	0.7	46.6	48.1	1.4	46.6
J-6768	32.7	5.5	2.6	50.7	53.1	5.5	50.7
J-6769	40.9	0	0	47.8	49.8	0	47.8
J-6770	31.3	1.7	0.8	51.8	54.3	1.7	51.8
J-6771	31.5	4.2	2	51.7	54.2	4.2	51.7
J-6772	32.1	5	2.4	50.6	52.9	5	50.6
J-6773	32.1	5.4	2.6	50.6	52.9	5.4	50.6
J-6774	31.9	5.2	2.5	51.8	54.1	5.2	51.8
J-6775	32	3	1.4	51.7	54.1	3	51.7
J-6776	31.7	8.3	4	51	53.4	8.3	51
J-6777	28.2	0	0	52.8	55.3	0	52.8
J-6778	28	0	0	52.9	55.4	0	52.9
J-6779	30.9	5.7	2.7	51.5	53.9	5.7	51.5
J-6780	31.2	2.8	1.4	51.4	53.8	2.8	51.4
J-6781	37.4	3	1.5	48.4	51	3	48.4
J-6782	32.2	2.5	1.2	50.2	52.9	2.5	50.2
J-6783	32.1	3.3	1.6	50.3	53	3.3	50.3
J-6784	36.8	4.1	2	48.8	51.2	4.1	48.8
J-6785	36	6.4	3.1	49.2	51.6	6.4	49.2
J-6786	39	3.5	1.7	48.3	50.3	3.5	48.3
J-6787	39.2	4.2	2	48.1	50.2	4.2	48.1
J-6788	37.6	1.9	0.9	48.9	51.1	1.9	48.9
J-6789	37.7	1.8	0.8	49	51.1	1.8	49
J-6790	32.7	0	0	50.4	52.8	0	50.4
J-6791	33	4.3	2.1	50.2	52.7	4.3	50.2
J-6792	37.8	1.3	0.6	49.8	51.9	1.3	49.8
J-6793	26.7	1.1	0.5	52.5	55.3	1.1	52.5
J-6794	45.3	4.6	2.2	47.6	49.1	4.6	47.6
J-6795	47.4	1.7	0.8	47.1	48.4	1.7	47.1
J-6796	47.2	3	1.4	45.2	47	3	45.2
J-6797	29.2	2.5	1.2	51.2	54	2.5	51.2
J-6798	29.5	3.5	1.7	51.1	53.9	3.5	51.1
J-6799	34.7	10.8	5.2	49.5	52.1	10.8	49.5
J-6800	34.8	4	1.9	49.4	52	4	49.4
J-6801	40.6	2.4	1.2	47.5	49.7	2.4	47.5
J-6802	40.2	2.2	1.1	47.6	49.9	2.2	47.7
J-6803	38	1.5	0.7	48.6	50.8	1.5	48.6
J-6804	36.1	2.2	1	49.1	51.5	2.2	49.1
J-6805	37.5	2.6	1.2	48.8	51	2.6	48.8
J-6806	37.5	10	4.8	48.7	51	10	48.7
J-6807	43.2	8.3	4	46.9	48.7	8.3	46.9
J-6808	43.7	4.4	2.1	46.7	48.4	4.4	46.7
J-6809	38	6	2.9	48.5	50.8	6	48.5
J-6810	38.1	0.2	0.1	48.5	50.8	0.2	48.5
J-6811	27.8	3	1.4	52.1	54.9	3	52.1
J-6812	47.2	2.9	1.4	45.1	47	2.9	45.1
J-6813	37.6	1.2	0.6	48.8	51	1.2	48.8

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6814	27.3	5.4	2.6	53.4	55.8	5.4	53.4
J-6815	31.4	6.2	3	51.2	53.6	6.2	51.2
J-6816	31.6	3.3	1.6	51.1	53.5	3.3	51.1
J-6817	37.5	3.2	1.6	49	51.1	3.2	49
J-6818	37.4	8	3.8	49	51.1	8	49
J-6819	32.4	1.8	0.9	50.6	53.1	1.8	50.6
J-6820	32.1	1.4	0.7	50.8	53.3	1.4	50.8
J-6821	37.7	0.8	0.4	48.8	51	0.8	48.8
J-6822	37.8	6.4	3.1	48.8	50.9	6.4	48.8
J-6823	40.1	4.7	2.3	47.7	49.9	4.7	47.7
J-6824	40.3	1.8	0.9	47.6	49.8	1.8	47.6
J-6825	38.8	2.4	1.2	49.7	51.6	2.4	49.7
J-6826	38.5	2.7	1.3	49.8	51.8	2.7	49.8
J-6827	34.5	8.3	4	50.6	53	8.3	50.6
J-6828	34	3.2	1.6	50.9	53.2	3.2	50.9
J-6829	41.8	1.3	0.6	47.2	49.2	1.3	47.2
J-6830	22	0.3	0.1	55.5	58	0.3	55.5
J-6831	20.9	2.3	1.1	55.9	58.4	2.3	55.9
J-6832	39.7	0.5	0.3	49.4	51.3	0.5	49.4
J-6833	40.4	3.2	1.5	49.1	51	3.2	49.1
J-6834	29.1	3	1.4	50.7	53.9	3	50.7
J-6835	28.5	8.1	3.9	50.9	54.2	8.1	50.9
J-6836	32.7	3.8	1.8	51.4	53.8	3.8	51.4
J-6837	32.7	3.4	1.6	50.3	52.8	3.4	50.3
J-6838	32.4	5.6	2.7	50.5	52.9	5.6	50.5
J-6839	37.3	0	0	49.1	51.2	0	49.1
J-6840	46.4	1.3	0.6	45.6	47.3	1.3	45.6
J-6841	45.9	2.2	1	45.7	47.5	2.2	45.7
J-6842	22	0	0	55.5	58	0	55.5
J-6843	22.1	0	0	55.4	57.9	0	55.4
J-6844	45.8	2.9	1.4	47.4	48.9	2.9	47.4
J-6845	22.1	0	0	55.4	57.9	0	55.4
J-6846	39.3	0.8	0.4	48.1	50.2	0.8	48.1
J-6847	22.4	0	0	55.3	57.8	0	55.3
J-6848	31.8	11.1	5.3	50.7	53.3	11.1	50.7
J-6850	42.8	2.3	1.1	46.7	48.8	2.3	46.7
J-6851	42.4	11.4	5.5	46.8	48.9	11.4	46.8
J-6852	41.3	3	1.5	47.4	49.5	3	47.4
J-6853	32.7	1.4	0.7	50.7	53.1	1.4	50.7
J-6854	32.8	0	0	50.6	53	0	50.6
J-6855	33	2.2	1.1	50.2	52.7	2.2	50.2
J-6856	33.5	1.6	0.8	50	52.5	1.6	50
J-6857	32.2	1.4	0.6	50.4	52.8	1.4	50.4
J-6858	32.1	2.2	1.1	50.4	52.9	2.2	50.4
J-6859	25.2	1.5	0.7	52.4	55.6	1.5	52.4
J-6860	25.1	7.3	3.5	52.5	55.6	7.3	52.5
J-6861	37.4	23.5	11.3	48.8	50.8	23.5	48.8
J-6862	37.3	0	0	48.9	50.9	0	48.9
J-6863	32	5.2	2.5	50.4	52.9	5.2	50.4
J-6864	23.2	0	0	55	57.4	0	55
J-6865	22.3	5.5	2.6	55.3	57.8	5.5	55.3
J-6866	44.1	9.4	4.5	47.8	49.4	9.4	47.8
J-6867	44.2	2.9	1.4	47.7	49.4	2.9	47.7
J-6868	37.6	15.5	7.4	48.7	51	15.5	48.7
J-6869	38	0	0	48.7	50.7	0	48.7
J-6870	27.6	0.7	0.4	53.6	56.1	0.7	53.6
J-6871	26.3	0.3	0.2	53.8	56.3	0.3	53.8
J-6872	26.4	2.3	1.1	53.8	56.2	2.3	53.8
J-6873	32.6	2.6	1.3	51.3	53.7	2.6	51.3
J-6874	42.5	8.5	4.1	46.8	48.9	8.5	46.8
J-6875	39	7.1	3.4	49.6	51.6	7.1	49.6
J-6876	39.6	2.8	1.4	49.4	51.3	2.8	49.4
J-6877	42.3	1.8	0.9	47	49	1.8	47
J-6878	31.2	0.3	0.1	51.8	54.3	0.3	51.8
J-6879	32.4	5.1	2.4	50.8	53.2	5.1	50.8
J-6880	32.3	5.1	2.5	50.8	53.2	5.1	50.8
J-6881	34.7	4.3	2.1	49.8	52.2	4.3	49.8
J-6882	33.3	0	0	51	53.5	0	51
J-6883	32.3	4.7	2.2	50.8	53.2	4.7	50.8
J-6884	43.9	2.1	1	46.7	48.4	2.1	46.7
J-6885	37.5	3.1	1.5	48.9	51.1	3.1	48.9
J-6886	45.9	3	1.5	45.7	47.5	3	45.7
J-6887	45	4.8	2.3	46.2	47.9	4.8	46.2
J-6888	35.8	0	0	49.5	51.5	0	49.5
J-6889	42.3	4.1	2	46.9	49	4.1	46.9
J-6890	32.4	2.8	1.4	50.4	52.9	2.8	50.4
J-6891	32.3	3.6	1.7	50.5	52.9	3.6	50.5
J-6892	44.6	3.5	1.7	47.9	49.3	3.5	47.9
J-6893	46.1	0.5	0.3	47.8	48.9	0.5	47.8
J-6894	46	0.5	0.2	47.8	49	0.5	47.8
J-6895	37.4	6.8	3.3	48.4	51	6.8	48.4
J-6896	22.9	0.6	0.3	55.1	57.6	0.6	55.1
J-6897	22.4	2.4	1.2	55.3	57.8	2.4	55.3
J-6898	25.5	0.6	0.3	54.2	56.6	0.6	54.2
J-6899	25.7	7.2	3.5	54.1	56.6	7.2	54.1
J-6900	32.2	19.5	9.4	50.6	52.9	19.5	50.6
J-6901	36.8	4.7	2.3	50.6	52.5	4.7	50.6
J-6902	31.6	3.5	1.7	51.4	53.8	3.5	51.4
J-6903	31.3	0.2	0.1	51.5	53.9	0.2	51.5
J-6904	31.9	1.2	0.6	50.9	53.3	1.2	50.9
J-6905	41.5	4.3	2.1	47.2	49.3	4.3	47.2
J-6906	27.5	0.7	0.4	53.4	55.9	0.7	53.4
J-6907	27.6	1.5	0.7	53.3	55.8	1.5	53.3
J-6908	30.4	3.4	1.6	51	53.8	3.4	51
J-6909	30.6	2.7	1.3	50.9	53.7	2.7	50.9
J-6910	33	0.3	0.1	50.4	52.9	0.3	50.4
J-6912	27.6	7.8	3.8	53.3	55.8	7.8	53.3
J-6913	38.5	3.9	1.9	49.8	51.8	3.9	49.8
J-6914	47.4	3.8	1.8	46.9	48.2	3.8	46.9
J-6915	47.3	4.2	2	46.9	48.3	4.2	46.9
J-6916	33.8	8.5	4.1	49.9	52.4	8.5	49.9
J-6917	32.4	6.5	3.1	50.3	52.8	6.5	50.3
J-6918	32.3	7.7	3.7	50.3	52.8	7.7	50.3
J-6919	32.2	4.6	2.2	51.1	53.4	4.6	51.1
J-6920	32.5	4.3	2.1	50.9	53.3	4.3	50.9
J-6921	37.3	3.4	1.6	48.7	51	3.4	48.7
J-6922	32.3	5.2	2.5	50.5	52.9	5.2	50.5
J-6923	32.3	2.3	1.1	50.5	52.9	2.3	50.5
J-6924	37.8	7.5	3.6	48.4	50.8	7.5	48.4
J-6925	37.4	3.7	1.8	48.6	51	3.7	48.6
J-6926	38.1	6.3	3	48.6	50.8	6.3	48.6
J-6927	37.9	1.3	0.6	48.6	50.9	1.3	48.6

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6928	31.6	5.4	2.6	50.5	53.1	5.4	50.5
J-6929	30.5	4	1.9	50.9	53.7	4	50.9
J-6930	30.1	3.4	1.6	51.1	53.9	3.4	51.1
J-6931	42.5	2.2	1	48.2	50.1	2.2	48.2
J-6932	42.7	8	3.8	48.1	50	8	48.1
J-6933	35	3	1.5	49.6	52	3	49.6
J-6934	35.9	3.2	1.6	49.2	51.6	3.2	49.2
J-6935	31.1	3.4	1.7	50.7	53.5	3.4	50.7
J-6936	30.7	1.5	0.7	50.9	53.6	1.5	50.9
J-6937	46.8	7.7	3.7	45.3	47.1	7.7	45.3
J-6938	46.8	1.7	0.8	45.3	47.1	1.7	45.3
J-6939	31.5	3.4	1.6	50.5	53.3	3.4	50.5
J-6940	31.2	1.5	0.7	50.7	53.4	1.5	50.7
J-6941	28.1	1.8	0.9	53.1	55.6	1.8	53.1
J-6943	28.5	1.4	0.7	51	54.2	1.4	51
J-6944	29.7	10.1	4.9	50.5	53.7	10.1	50.5
J-6945	29.8	1.9	0.9	51	53.8	1.9	51
J-6946	29.3	3.5	1.7	51.2	54	3.5	51.2
J-6947	29.8	2.8	1.4	51.1	53.8	2.8	51.1
J-6948	29.1	3.7	1.8	51.4	54.1	3.7	51.4
J-6949	26.7	0.4	0.2	53.6	56.1	0.4	53.6
J-6950	26.6	2	1	53.7	56.2	2	53.7
J-6952	37.4	3.7	1.8	48.4	51	3.7	48.4
J-6953	32	2.4	1.1	50.8	53.3	2.4	50.8
J-6954	32.4	3.1	1.5	50.6	53.1	3.1	50.6
J-6955	29.2	0	0	51.9	54.5	0	51.9
J-6956	47.2	0	0	48.3	48.8	0	48.3
J-6957	19.1	0.3	0.1	56.7	59.2	0.3	56.7
J-6958	18.3	8.7	4.2	57.1	59.6	8.7	57.1
J-6959	26.2	1.8	0.9	52	55.2	1.8	52
J-6960	28.3	2.4	1.1	51.1	54.3	2.4	51.1
J-6961	30.1	4.8	2.3	50.3	53.5	4.8	50.3
J-6962	44	11.5	5.6	48	49.6	11.5	48
J-6963	44.6	3.9	1.9	47.7	49.3	3.9	47.7
J-6964	32.6	3.9	1.9	51.1	53.5	3.9	51.1
J-6965	31.4	14.3	6.9	51.6	54	14.3	51.6
J-6966	33.7	8.8	4.2	50.2	52.5	8.8	50.2
J-6967	42.3	2.3	1.1	47.1	49.1	2.3	47.1
J-6968	41.3	4.8	2.3	47.5	49.4	4.8	47.5
J-6969	41.4	2.1	1	47.5	49.3	2.1	47.5
J-6970	27.6	1.4	0.7	53.1	55.5	1.4	53.1
J-6971	28.4	9.5	4.6	53	55.5	9.5	53
J-6972	21.1	0	0	55.8	58.4	0	55.9
J-6974	30.2	0	0	51.5	54	0	51.5
J-6975	38.9	0.4	0.2	48.7	50.6	0.4	48.7
J-6976	27.9	2.2	1.1	51.2	54.4	2.2	51.2
J-6977	21.7	9.4	4.5	55.6	58.1	9.4	55.6
J-6978	22.6	0.7	0.4	55.2	57.7	0.7	55.2
J-6979	42.5	3.4	1.6	46.9	48.9	3.4	46.9
J-6980	32.3	4	1.9	50.3	52.9	4	50.3
J-6981	32.3	9.2	4.4	50.3	52.9	9.2	50.3
J-6982	43.4	5.2	2.5	48	49.7	5.2	48
J-6983	43	18.9	9.1	48.2	49.9	18.9	48.2
J-6984	37	1.1	0.5	48.7	51.2	1.1	48.7
J-6985	37	5.8	2.8	48.7	51.1	5.8	48.7
J-6986	45.6	3.3	1.6	47.5	48.9	3.3	47.5
J-6987	42.8	0	0	46.9	48.8	0	46.9
J-6988	21.2	9.2	4.4	55.8	58.3	9.2	55.8
J-6989	32.9	3.9	1.9	50.2	52.8	3.9	50.2
J-6990	32.5	2.2	1.1	50.4	53	2.2	50.4
J-6992	47.6	51.6	24.8	44.9	46.8	51.6	44.9
J-6993	28.3	9.3	4.4	51.5	54.4	9.3	51.5
J-6994	29.6	10	4.8	52.1	54.5	10	52.1
J-6995	31.5	0.9	0.4	50.5	53.1	0.9	50.5
J-6996	31.4	2	0.9	50.3	53.1	2	50.3
J-6997	31.5	5	2.4	50.3	53.1	5	50.4
J-6998	41.3	0.9	0.5	47.6	49.5	0.9	47.6
J-6999	41.4	15.2	7.3	47.5	49.4	15.2	47.5
J-7000	32.3	2.3	1.1	50.5	52.9	2.3	50.5
J-7001	31.8	5.8	2.8	51.2	53.5	5.8	51.2
J-7002	30.6	4	1.9	51.7	54	4	51.7
J-7003	37.9	2.9	1.4	50	52	2.9	50
J-7004	38.6	3.4	1.6	49.8	51.7	3.4	49.8
J-7005	48.5	0	0	44.5	46.4	0	44.5
J-7007	41.9	5.1	2.4	47.2	49.2	5.1	47.2
J-7008	38.9	2.6	1.2	48.1	50.3	2.6	48.1
J-7009	39.1	2.3	1.1	48	50.2	2.3	48
J-7010	28.6	3.9	1.9	51.8	54.6	3.9	51.8
J-7011	28.8	3.3	1.6	51.7	54.5	3.3	51.7
J-7012	37.1	8.8	4.2	48.8	53.7	8.8	48.8
J-7013	25	12.6	6.1	54.2	56.7	12.6	54.2
J-7014	30.6	1.4	0.7	52.1	54.6	1.4	52.1
J-7015	38.2	1.6	0.8	48.6	50.6	1.6	48.6
J-7016	37.9	11	5.3	48.7	50.8	11	48.7
J-7017	29.4	1.7	0.8	51.1	53.9	1.7	51.1
J-7018	29.3	11.1	5.3	51.1	54	11.1	51.1
J-7019	42.7	0.8	0.4	46.9	48.9	0.8	46.9
J-7020	38.7	4.1	2	48.3	50.4	4.1	48.3
J-7021	31.9	2.1	1	50.5	53	2.1	50.5
J-7022	31.9	3	1.4	50.5	53	3	50.5
J-7023	31.6	20.4	9.8	50.9	53.4	20.4	50.9
J-7024	38.6	4	1.9	48.4	50.6	4	48.4
J-7025	31.5	2.2	1.1	51.3	53.7	2.2	51.3
J-7026	46.4	35.5	17.1	45.4	47.3	35.5	45.4
J-7027	37.5	3.3	1.6	48.8	50.9	3.3	48.8
J-7028	37.2	1	0.5	48.4	51	1	48.4
J-7029	33.9	0.1	0	49.9	52.3	0.1	49.9
J-7030	32.9	0	0	51.2	53.6	0	51.2
J-7031	32.7	0	0	51.3	53.7	0	51.3
J-7032	28.9	2.5	1.2	51.7	54.4	2.5	51.7
J-7033	29.2	3.3	1.6	51.6	54.3	3.3	51.6
J-7034	43	3.1	1.5	46.9	48.7	3.1	46.9
J-7035	43.8	2.5	1.2	46.6	48.4	2.5	46.6
J-7036	44.3	2.6	1.3	47.4	49.3	2.6	47.4
J-7037	43.4	3.8	1.8	47.8	49.7	3.8	47.8
J-7038	32.7	2.2	1.1	50.3	53	2.2	50.3
J-7039	32.8	0.8	0.4	50.6	53	0.8	50.6
J-7040	32.4	6.6	3.2	50.8	53.1	6.6	50.8
J-7042	42.1	0.9	0.4	47.2	49.1	0.9	47.2
J-7043	40.4	0.4	0.2	48	50	0.4	48
J-7044	45.8	0.4	0.2	48.2	49.2	0.4	48.2
J-7045	45.7	5.3	2.6	48.4	49.3	5.3	48.4

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7046	25.3	0.7	0.3	52.8	55.7	0.7	52.8
J-7047	25.6	3.2	1.6	52.7	55.5	3.2	52.7
J-7048	39.9	3.4	1.6	47.8	50	3.4	47.8
J-7049	39.5	4.1	2	48	50.2	4.1	48
J-7050	38.1	1.5	0.7	48.5	50.7	1.5	48.5
J-7051	32.2	3.6	1.7	50.3	52.9	3.6	50.3
J-7052	32.2	11	5.3	50.3	52.9	11	50.3
J-7053	38.9	1.9	0.9	48.2	50.4	1.9	48.2
J-7054	32.4	4.2	2	51.9	53.3	4.2	51.9
J-7055	46.9	2.2	1.1	45.3	47.1	2.2	45.3
J-7056	40.8	4	1.9	48.9	50.8	4	48.9
J-7057	37.4	9.6	4.6	48.4	51	9.6	48.4
J-7058	38	4.9	2.3	48.4	50.7	4.9	48.4
J-7059	47.3	3.6	1.7	47.1	48.4	3.6	47.1
J-7060	47.8	4.8	2.3	46.9	48.2	4.8	46.9
J-7061	28.2	0	0	53.1	55.5	0	53.1
J-7062	28.1	0	0	53.1	55.5	0	53.1
J-7063	46.3	2.9	1.4	45.6	47.4	2.9	45.6
J-7065	31	9.7	4.7	51.1	53.6	9.7	51.1
J-7066	31.3	13.8	6.6	50.9	53.5	13.8	50.9
J-7067	33.2	4.9	2.3	52.1	53.2	4.9	52.1
J-7068	33.2	6.4	3.1	52.1	53.2	6.4	52.1
J-7069	27.7	4.3	2.1	52.2	54.9	4.3	52.2
J-7070	32.8	5.6	2.7	50.3	52.8	5.6	50.3
J-7071	33	2.1	1	50.2	52.7	2.1	50.2
J-7072	29.9	1.8	0.9	51.2	53.9	1.8	51.2
J-7073	29.6	1.2	0.6	51.3	54	1.2	51.3
J-7074	27.2	5	2.4	52	54.9	5	52
J-7075	26.8	3.7	1.8	52.1	55	3.7	52.2
J-7076	31.9	3.8	1.8	50.3	53	3.8	50.3
J-7077	32.3	3.2	1.5	50.2	52.8	3.2	50.2
J-7078	44.9	5	2.4	46.3	48	5	46.3
J-7079	45.6	0.7	0.4	45.9	47.6	0.7	45.9
J-7080	40.6	1.8	0.8	47.7	49.8	1.8	47.8
J-7081	41.3	0	0	47.4	49.3	0	47.4
J-7082	41.1	0	0	47.5	49.4	0	47.5
J-7084	35.7	4.6	2.2	49.3	51.7	4.6	49.3
J-7085	33.9	5.8	2.8	50.1	52.5	5.8	50.1
J-7086	31.8	5.6	2.7	50.3	53	5.6	50.3
J-7087	44.5	4.7	2.3	46.4	48.1	4.7	46.4
J-7088	45.1	0	0	46.2	47.8	0	46.2
J-7089	43.8	8	3.8	47.9	49.6	8	47.9
J-7090	44.2	5.6	2.7	47.7	49.4	5.6	47.7
J-7091	35.7	2.7	1.3	49.5	51.8	2.7	49.5
J-7092	34.2	6	2.9	50.1	52.4	6	50.1
J-7093	37.4	1.7	0.8	48.4	51	1.7	48.4
J-7094	37.5	4	1.9	48.3	50.9	4	48.3
J-7095	25.6	5.7	2.8	52.2	55.4	5.7	52.2
J-7096	38.9	7.4	3.6	49.7	51.6	7.4	49.7
J-7097	31.4	2.4	1.1	51	53.5	2.4	51
J-7098	31.4	3.6	1.7	51	53.5	3.6	51
J-7099	32.7	1.4	0.7	50.5	53	1.4	50.5
J-7100	32.5	3.6	1.7	50.6	53.1	3.6	50.6
J-7101	32.5	16.8	8.1	50.6	53.1	16.8	50.6
J-7102	32.3	3.6	1.7	50.7	53.2	3.6	50.7
J-7103	31.9	4.2	2	50.9	53.4	4.2	50.9
J-7104	32	3.6	1.7	50.9	53.3	3.6	50.9
J-7105	32.2	2.1	1	50.8	53.2	2.1	50.8
J-7106	32.1	3.6	1.7	50.9	53.3	3.6	50.9
J-7107	33.3	1.5	0.7	52.5	53.3	1.5	52.5
J-7108	30.8	7.1	3.4	50.8	53.4	7.1	50.8
J-7109	42.3	14.4	6.9	47.1	49.1	14.4	47.1
J-7110	38.8	7.9	3.8	48.1	50.4	7.9	48.1
J-7111	32.4	8.1	3.9	50.5	53	8.1	50.5
J-7112	45.9	3.7	1.8	46.8	48.6	3.7	46.8
J-7113	46.7	2.4	1.2	46.5	48.3	2.4	46.5
J-7114	33	8.9	4.3	50.2	52.7	8.9	50.2
J-7115	38.4	3.8	1.8	49.9	51.8	3.8	49.9
J-7116	40.2	1.4	0.7	49.1	51	1.4	49.1
J-7117	37.1	10	4.8	48.7	51.1	10	48.7
J-7118	32.4	2	1	49.7	52.6	2	49.7
J-7119	36.9	5.7	2.8	50.5	52.4	5.7	50.5
J-7120	41.5	2.1	1	48.9	50.6	2.1	48.9
J-7121	41.7	8.7	4.2	48.8	50.5	8.7	48.8
J-7122	40.2	6.1	3	48.1	50	6.1	48.1
J-7123	28.2	0	0	52.4	54.9	0	52.4
J-7124	29.2	2	1	52.8	55.2	2	52.8
J-7125	38.1	0	0	48.3	50.6	0	48.3
J-7126	27.1	4.4	2.1	52.4	55.2	4.4	52.4
J-7127	27.4	3	1.4	52.3	55.1	3	52.3
J-7128	31.7	6.9	3.3	51	53.4	6.9	51
J-7129	32.2	2.1	1	50.9	53.2	2.1	50.9
J-7130	32.3	5.3	2.5	50.9	53.2	5.3	50.9
J-7131	31.8	4.2	2	51.6	54	4.2	51.6
J-7132	32.3	8.4	4.1	51.3	53.8	8.4	51.3
J-7133	32.3	2.4	1.2	50.2	52.9	2.4	50.2
J-7134	38	7.6	3.7	50.1	52	7.6	50.1
J-7135	38	5.4	2.6	50.1	52	5.4	50.1
J-7136	38	1.4	0.7	50	52	1.4	50
J-7137	38.1	1.3	0.6	50	52	1.3	50
J-7138	32.4	2	1	50.1	52.7	2	50.1
J-7139	32.4	6.1	2.9	50.1	52.8	6.1	50.1
J-7140	43.7	0	0	46.9	48.8	0	46.9
J-7141	43.7	0	0	46.9	48.8	0	46.9
J-7142	30.4	0.7	0.3	50.2	53.4	0.7	50.3
J-7143	30.5	3.9	1.9	50.1	53.3	3.9	50.1
J-7144	23.8	14.8	7.1	54.7	57.2	14.8	54.7
J-7145	23.6	5.3	2.5	54.8	57.3	5.3	54.8
J-7146	26.3	0.6	0.3	52.3	55.2	0.6	52.3
J-7147	26.4	8	3.8	52.3	55.2	8	52.3
J-7149	44.1	6.6	3.2	47.7	49.5	6.6	47.7
J-7150	42.2	6.4	3.1	46.9	49	6.4	46.9
J-7151	32.4	0.6	0.3	51.5	53.9	0.6	51.5
J-7152	32.4	5.9	2.9	51.5	53.9	5.9	51.5
J-7153	37	2.7	1.3	48.7	51.2	2.7	48.7
J-7154	37	2.3	1.1	48.7	51.1	2.3	48.7
J-7155	36.8	17.4	8.4	49	51.2	17.4	49
J-7156	39.3	2.8	1.3	49.5	51.4	2.8	49.5
J-7157	38.7	3.1	1.5	49.8	51.7	3.1	49.8
J-7158	32.4	3.7	1.8	51.6	53.9	3.7	51.6
J-7159	42.4	1.6	0.8	48.2	50.1	1.6	48.2
J-7160	42.4	3.8	1.8	48.3	50.1	3.8	48.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7161	37.4	2.1	1	48.6	51	2.1	48.6
J-7162	39.4	2.2	1	49.4	51.4	2.2	49.4
J-7163	38.1	2.2	1	50	51.9	2.2	50
J-7164	33.1	1.7	0.8	50.2	52.6	1.7	50.2
J-7165	33	7.6	3.7	50.2	52.6	7.6	50.2
J-7166	43.6	3.7	1.8	48.1	49.7	3.7	48.1
J-7167	44.7	3.5	1.7	47.6	49.3	3.5	47.6
J-7168	32.3	3.2	1.5	50.5	53.1	3.2	50.6
J-7169	29	5	2.4	52.4	54.8	5	52.4
J-7170	43.5	4.6	2.2	47.7	49.6	4.6	47.7
J-7171	43.6	9.8	4.7	47.6	49.6	9.8	47.6
J-7172	47.6	0.3	0.2	47.7	48.5	0.3	47.7
J-7173	47.5	10.4	5	47.5	48.5	10.4	47.5
J-7174	36.1	7.7	3.7	48.9	51.4	7.7	48.9
J-7176	37.4	5.5	2.6	48.3	51.1	5.5	48.3
J-7177	37.4	10.9	5.2	48.3	51.1	10.9	48.3
J-7178	31.3	2.2	1.1	50.4	53.1	2.2	50.4
J-7179	30.8	5.6	2.7	50.6	53.4	5.6	50.6
J-7180	45.7	5.6	2.7	45.8	47.6	5.6	45.8
J-7181	45.7	4.6	2.2	45.8	47.6	4.6	45.8
J-7182	42.1	3.2	1.6	47.3	49.1	3.2	47.3
J-7183	42.1	3.4	1.6	47.3	49.1	3.4	47.3
J-7185	36.5	2.5	1.2	47.5	50.7	2.5	47.5
J-7186	37.4	0.2	0.1	48.7	50.9	0.2	48.7
J-7187	37.5	1.8	0.9	48.7	50.9	1.8	48.7
J-7188	41.7	0.7	0.4	47.4	49.4	0.7	47.4
J-7189	36.7	4	1.9	48.9	51.3	4	48.9
J-7190	37.2	3	1.4	50.4	52.3	3	50.4
J-7191	37.1	5.6	2.7	50.5	52.4	5.6	50.5
J-7192	32.3	4.3	2.1	49.9	52.7	4.3	49.9
J-7193	32.7	1.5	0.7	49.7	52.5	1.5	49.7
J-7195	48	5.7	2.8	46.9	48.1	5.7	46.9
J-7196	26.8	6.5	3.1	53.6	56.1	6.5	53.6
J-7197	26.5	4	1.9	53.7	56.2	4	53.8
J-7198	45.9	1.9	0.9	47.4	48.8	1.9	47.4
J-7199	18.3	3.3	1.6	57	59.5	3.3	57
J-7200	18.9	9.3	4.4	56.8	59.3	9.3	56.8
J-7201	24.2	0	0	52.8	56	0	52.8
J-7202	24.5	0	0	52.7	55.9	0	52.7
J-7203	40.7	3.7	1.8	48.9	50.8	3.7	48.9
J-7204	31.2	1.7	0.8	51.5	53.9	1.7	51.6
J-7205	29.5	15.5	7.4	52.3	54.7	15.5	52.3
J-7207	26.5	4.5	2.2	53.7	56.3	4.5	53.7
J-7208	45.1	2.2	1	48.9	49.7	2.2	48.9
J-7209	45.7	4.6	2.2	48.6	49.4	4.6	48.6
J-7210	36.8	1.7	0.8	48.9	51.3	1.7	48.9
J-7211	43.3	9.7	4.6	46	48.4	9.7	46
J-7212	41.7	3.3	1.6	48.7	50.5	3.3	48.7
J-7213	42.9	9.3	4.5	46.7	48.8	9.3	46.7
J-7215	34.6	5.1	2.5	50.2	52.1	5.1	50.2
J-7216	34.7	2.2	1.1	50.2	52.1	2.2	50.2
J-7217	26	11.4	5.5	52.5	55.4	11.4	52.5
J-7218	27.3	6.8	3.3	51.9	54.8	6.8	51.9
J-7219	37.3	2.5	1.2	48.8	50.9	2.5	48.8
J-7220	37.4	1.3	0.6	48.4	51.2	1.3	48.4
J-7221	37.4	5.4	2.6	48.4	51.1	5.4	48.4
J-7222	51.8	0	0	43.2	45	0	43.2
J-7223	34.9	3.4	1.6	49.4	52.2	3.4	49.4
J-7224	30.4	11.3	5.4	50.2	53.3	11.3	50.2
J-7225	30.4	9.7	4.7	50.2	53.4	9.7	50.2
J-7226	46	1.7	0.8	47.7	48.9	1.7	47.7
J-7227	32	3.6	1.7	50.8	53.3	3.6	50.8
J-7228	32.5	11	5.3	50.6	53.1	11	50.6
J-7229	19.4	7.8	3.7	56.6	59.1	7.8	56.6
J-7231	33.4	2.9	1.4	52.4	53.2	2.9	52.4
J-7232	31.8	7.8	3.8	50.2	52.9	7.8	50.2
J-7233	28.6	0.8	0.4	51.7	54.5	0.8	51.7
J-7234	28.4	4.5	2.2	51.8	54.6	4.5	51.8
J-7235	31.9	3.5	1.7	50.4	53.1	3.5	50.4
J-7236	32.2	7.3	3.5	50.2	52.9	7.3	50.3
J-7237	33.2	0	0	51.1	53.5	0	51.1
J-7238	27.6	0	0	53.4	55.8	0	53.4
J-7239	32	17.4	8.4	50.4	53	17.4	50.4
J-7240	26.7	1.7	0.8	52.5	55.3	1.7	52.5
J-7241	40.4	0	0	47.8	49.7	0	47.8
J-7242	39.6	0.3	0.1	48.1	50	0.3	48.1
J-7243	32.5	2.2	1.1	50.6	53.1	2.2	50.6
J-7244	42.9	35.7	17.2	46.8	48.8	35.7	46.8
J-7245	28.9	0.7	0.3	52.1	54.6	0.7	52.1
J-7246	28.8	3.8	1.8	52.1	54.6	3.8	52.1
J-7247	36.6	3.8	1.8	49.1	51.3	3.8	49.1
J-7248	38.2	3.2	1.5	48.3	50.7	3.2	48.3
J-7249	37.4	3	1.4	48.6	51	3	48.6
J-7250	33	8.9	4.3	50.2	52.8	8.9	50.2
J-7251	33.6	7.4	3.5	49.9	52.6	7.4	50
J-7252	42.1	0	0	47.3	49.2	0	47.3
J-7253	42	0	0	47.5	49.4	0	47.5
J-7254	37.4	5.7	2.7	48.6	51	5.7	48.6
J-7255	33	8.6	4.1	50.7	52.7	8.6	50.7
J-7257	45.4	6.5	3.1	47.6	49.1	6.5	47.6
J-7259	37.4	4	1.9	48.8	50.9	4	48.8
J-7260	37.2	4.5	2.2	48.9	51	4.5	48.9
J-7261	37.1	2.2	1.1	48.9	51.1	2.2	48.9
J-7262	47.4	1.2	0.6	47.1	48.4	1.2	47.1
J-7263	47.4	5.5	2.6	47	48.3	5.5	47
J-7264	37.3	13.9	6.7	48.7	51.1	13.9	48.7
J-7265	38.6	4.9	2.3	48.1	50.5	4.9	48.1
J-7266	32.5	9.4	4.5	50.9	52.9	9.4	50.9
J-7268	28.2	4.8	2.3	51.6	54.5	4.8	51.6
J-7269	27.5	5.4	2.6	51.9	54.7	5.4	51.9
J-7270	34.8	7	3.3	49.4	52	7	49.4
J-7271	35.4	8.3	4	49.2	51.7	8.3	49.2
J-7272	36.9	4.8	2.3	49	51.2	4.8	49
J-7273	36.7	4.7	2.3	49.1	51.2	4.7	49.1
J-7274	43.3	20.8	10	46	48.4	20.8	46
J-7275	38.4	4.4	2.1	48.3	50.5	4.4	48.3
J-7276	38.2	7.7	3.7	48.4	50.6	7.7	48.4
J-7277	41.1	0.8	0.4	47.5	49.5	0.8	47.5
J-7278	29.7	4.5	2.2	51.1	53.9	4.5	51.1
J-7279	29.8	8.8	4.3	51	53.8	8.8	51
J-7280	39.5	0.7	0.3	48.2	50.1	0.7	48.2
J-7281	39.1	2.3	1.1	48.3	50.3	2.3	48.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7282	42.5	2.1	1	48.2	50.1	2.1	48.2
J-7283	42.1	6.6	3.2	48.4	50.2	6.6	48.4
J-7284	38	5.2	2.5	48.4	50.7	5.2	48.4
J-7285	22.2	0	0	55.4	57.9	0	55.4
J-7286	30.7	2.1	1	52.1	54.6	2.1	52.1
J-7287	30.9	4.1	2	52	54.5	4.1	52
J-7288	25	4.3	2.1	54.3	56.8	4.3	54.3
J-7289	47.6	2.4	1.2	45	46.8	2.4	45
J-7290	47.5	4.6	2.2	45.1	46.8	4.6	45.1
J-7291	31.9	3.4	1.6	51.5	54	3.4	51.5
J-7292	19.4	20.7	10	56.6	59.1	20.7	56.6
J-7293	18.9	1.9	0.9	56.8	59.3	1.9	56.8
J-7294	41.6	9.1	4.4	47.1	49.3	9.1	47.1
J-7295	32.2	4.7	2.3	50.2	52.9	4.7	50.2
J-7296	32.5	0.7	0.3	50.1	52.8	0.7	50.1
J-7297	37.1	3.6	1.7	50.4	52.4	3.6	50.4
J-7298	35.8	4.4	2.1	47.8	51	4.4	47.8
J-7300	43.6	8.6	4.1	46.5	48.5	8.6	46.5
J-7301	43.6	0	0	46.5	48.5	0	46.5
J-7302	37.4	0.4	0.2	50.3	52.2	0.4	50.3
J-7303	37.7	1.7	0.8	50.2	52.1	1.7	50.2
J-7304	41.8	1.6	0.8	47.1	49.2	1.6	47.1
J-7305	42	11	5.3	47	49	11	47
J-7306	31.5	6	2.9	50.5	53.3	6	50.5
J-7307	32.1	2.8	1.3	50.3	53	2.8	50.3
J-7308	40.4	2.1	1	47.6	49.8	2.1	47.6
J-7309	28	0	0	52.5	55	0	52.5
J-7311	38.5	0.8	0.4	48.2	50.5	0.8	48.2
J-7312	28.6	4	1.9	51.4	54.3	4	51.4
J-7314	38.1	0	0	48.7	50.7	0	48.7
J-7315	37.7	4.8	2.3	48.2	50.9	4.8	48.2
J-7316	42.8	8.7	4.2	46.8	48.8	8.7	46.8
J-7317	28.9	6.9	3.3	50.9	54	6.9	50.9
J-7318	35.2	3.7	1.8	49.3	51.8	3.7	49.3
J-7319	35.8	7.8	3.8	49	51.5	7.8	49
J-7320	37.5	8.2	3.9	48.7	51	8.2	48.7
J-7321	31.9	4.9	2.4	50.4	53	4.9	50.4
J-7322	42.5	4.6	2.2	48.3	50.1	4.6	48.3
J-7323	44.1	1.5	0.7	47.6	49.4	1.5	47.6
J-7324	17.5	2.4	1.2	57.4	59.9	2.4	57.4
J-7325	18.1	3.8	1.8	57.2	59.7	3.8	57.2
J-7326	38.5	4	1.9	48.3	50.5	4	48.3
J-7327	38.8	3.5	1.7	48.1	50.4	3.5	48.1
J-7328	20.9	1.8	0.9	55.9	58.4	1.8	55.9
J-7329	32	3.5	1.7	50.1	52.8	3.5	50.1
J-7330	30	8.9	4.3	51	53.7	8.9	51
J-7331	29.9	11.4	5.5	51	53.8	11.4	51
J-7332	27.5	1.7	0.8	51.9	54.7	1.7	51.9
J-7333	27.2	2.4	1.2	52	54.9	2.4	52
J-7334	38.9	10.9	5.3	48.1	50.3	10.9	48.1
J-7335	20.3	4.4	2.1	56.2	58.7	4.4	56.2
J-7336	27.2	9.3	4.5	53.3	55.7	9.3	53.3
J-7337	27.2	7.2	3.4	53.3	55.7	7.2	53.3
J-7338	32.5	6.7	3.2	50.1	52.8	6.7	50.1
J-7339	32.6	2.9	1.4	50.1	52.8	2.9	50.1
J-7340	33.9	2.4	1.2	50.3	52.3	2.4	50.3
J-7341	34	4.4	2.1	50.3	52.3	4.4	50.3
J-7342	48.2	0.7	0.4	47.3	48.2	0.7	47.3
J-7343	32.4	5.8	2.8	50.9	53.3	5.8	50.9
J-7344	31.8	2.9	1.4	51.2	53.6	2.9	51.2
J-7345	42.4	11.7	5.6	47	49	11.7	47
J-7346	28	5.3	2.5	51.8	54.6	5.3	51.8
J-7347	27.5	2.3	1.1	52	54.8	2.3	52
J-7348	39.6	4.7	2.3	47.6	50	4.7	47.6
J-7349	31.4	12.6	6.1	50.3	53.1	12.6	50.3
J-7350	37.6	5.3	2.5	48.6	50.9	5.3	48.6
J-7351	37.7	4.6	2.2	48.5	50.8	4.6	48.5
J-7352	41.3	6.2	3	47.5	49.5	6.2	47.5
J-7353	41.5	5.3	2.6	47.4	49.4	5.3	47.4
J-7354	31.5	1.7	0.8	49.9	52.9	1.7	49.9
J-7356	32.6	2.5	1.2	50.4	52.9	2.5	50.4
J-7357	32.4	9.4	4.5	50.5	53	9.4	50.5
J-7358	35.2	3.4	1.6	49.5	51.9	3.4	49.5
J-7359	35	6.8	3.3	49.7	52	6.8	49.7
J-7360	33.6	1.7	0.8	50.3	52.6	1.7	50.3
J-7361	33.7	3.2	1.5	50.2	52.6	3.2	50.2
J-7362	32.4	8	3.9	50.5	52.9	8	50.5
J-7363	32.4	8.6	4.1	50.5	53	8.6	50.5
J-7364	19.6	4.8	2.3	56.5	59	4.8	56.5
J-7365	43.8	3.4	1.6	47.9	49.6	3.4	47.9
J-7366	43.4	5.6	2.7	48	49.7	5.6	48
J-7367	19.4	3.7	1.8	56.6	59.1	3.7	56.6
J-7368	18.8	4.1	2	56.8	59.3	4.1	56.8
J-7369	37.4	0	0	48.9	51.1	0	48.9
J-7370	19.4	7.9	3.8	56.5	59.1	7.9	56.5
J-7371	19.5	3.1	1.5	56.5	59	3.1	56.5
J-7372	29.1	3.9	1.9	51.3	54.1	3.9	51.3
J-7373	33.7	3.3	1.6	52.1	53	3.3	52.1
J-7374	33.4	4.1	2	52.2	53.1	4.1	52.2
J-7375	30.6	4.5	2.2	50.2	53.3	4.5	50.2
J-7376	33.9	4.4	2.1	50.3	52.3	4.4	50.3
J-7377	36	8.9	4.3	49	52.3	8.9	49
J-7378	36.8	3.1	1.5	48.6	51.9	3.1	48.6
J-7379	35.6	7.8	3.7	49.3	51.8	7.8	49.3
J-7380	37.3	4.4	2.1	48.6	51	4.4	48.6
J-7381	33.6	8.5	4.1	50	52.5	8.5	50
J-7382	32.9	4.6	2.2	50.3	52.7	4.6	50.3
J-7383	39	1.5	0.7	48	50.3	1.5	48
J-7384	33.8	6.4	3.1	50.2	52.5	6.4	50.2
J-7385	38.6	3.8	1.8	48.3	50.5	3.8	48.3
J-7386	32.4	3.7	1.8	50.9	53.3	3.7	50.9
J-7387	19	8.1	3.9	56.7	59.3	8.1	56.7
J-7388	46	7.3	3.5	47.9	49	7.3	47.9
J-7389	45.9	3.2	1.5	48	49.1	3.2	48
J-7390	36.5	9.5	4.6	49.3	51.5	9.5	49.3
J-7391	36.5	9.9	4.8	49.3	51.5	9.9	49.3
J-7392	43.3	0.8	0.4	46.1	48.5	0.8	46.1
J-7393	30.5	3.4	1.6	50.1	53.3	3.4	50.1
J-7394	29.8	7.2	3.4	50.5	53.6	7.2	50.5
J-7395	45	5.8	2.8	47.7	49.2	5.8	47.7
J-7396	32.7	8.7	4.2	51.7	53.2	8.7	51.7
J-7397	32.7	4.2	2	51.9	53.2	4.2	51.9

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7398	33.1	3.6	1.7	50.4	52.8	3.6	50.4
J-7399	28.6	1.1	0.6	51.7	54.5	1.1	51.7
J-7400	27.1	5.9	2.8	51.6	54.8	5.9	51.6
J-7401	27.5	8	3.9	51.4	54.6	8	51.4
J-7402	33.8	9.4	4.5	48.7	51.9	9.4	48.7
J-7403	32	3.5	1.7	50.3	53	3.5	50.3
J-7404	42.6	4.1	2	48.5	50.1	4.1	48.5
J-7405	38.3	7.7	3.7	48.5	50.7	7.7	48.5
J-7406	38.6	0.3	0.2	48.3	50.6	0.3	48.3
J-7408	31	5.7	2.8	50	53.1	5.7	50
J-7409	37.4	6.7	3.2	48.8	51.1	6.7	48.8
J-7410	37.6	3.3	1.6	48.5	50.9	3.3	48.5
J-7411	37.6	3.7	1.8	48.5	50.9	3.7	48.5
J-7412	27.4	4.2	2	51.9	54.7	4.2	51.9
J-7413	27.8	5.9	2.9	51.7	54.6	5.9	51.7
J-7414	42.4	1.9	0.9	47.2	49	1.9	47.2
J-7415	33.7	1.7	0.8	50.3	52.7	1.7	50.3
J-7416	34.7	14.4	6.9	49.9	52.2	14.4	49.9
J-7417	37.5	5.4	2.6	48.8	51	5.4	48.8
J-7418	44.6	5.6	2.7	47.3	49.1	5.6	47.3
J-7419	42.3	4.4	2.1	48.7	50.3	4.4	48.7
J-7420	42.1	4.4	2.1	48.8	50.4	4.4	48.8
J-7421	26.5	5.7	2.7	52.3	55.2	5.7	52.3
J-7422	26.4	2.1	1	52.3	55.2	2.1	52.3
J-7423	37.5	12.2	5.9	48.8	51	12.2	48.8
J-7424	33.3	4.2	2	50.4	52.7	4.2	50.4
J-7425	32.4	3.5	1.7	50.8	53.2	3.5	50.8
J-7426	32.4	4.9	2.3	50.9	53.2	4.9	50.9
J-7427	31.8	6.1	2.9	50.3	53	6.1	50.3
J-7428	32	9	4.3	50.2	52.9	9	50.2
J-7429	37.8	0.4	0.2	48.9	50.8	0.4	48.9
J-7430	37.3	0	0	49.1	51	0	49.1
J-7431	47.1	2.6	1.3	47.1	48.5	2.6	47.1
J-7432	42	7.1	3.4	47.3	49.2	7.1	47.3
J-7433	41.9	5.1	2.5	47.3	49.2	5.1	47.3
J-7434	36.5	7.3	3.5	48.9	52.8	7.3	48.9
J-7435	27.2	6.6	3.2	53.4	55.9	6.6	53.4
J-7436	27.2	4	1.9	53.4	55.9	4	53.4
J-7438	41.6	2.6	1.3	47.4	49.4	2.6	47.4
J-7439	37.4	0.7	0.4	48.9	51.1	0.7	48.9
J-7440	26.9	4.2	2	53.5	56.1	4.2	53.6
J-7441	26.8	4	1.9	53.6	56.1	4	53.6
J-7442	26.9	4.1	2	53.6	56.1	4.1	53.6
J-7443	41.7	3.8	1.8	47.1	49.2	3.8	47.1
J-7444	42.1	5.5	2.7	46.9	49	5.5	46.9
J-7445	30.5	2.4	1.1	51.5	54	2.4	51.5
J-7446	42.2	2.6	1.3	47.2	49	2.6	47.2
J-7447	27.9	1.8	0.9	51.7	54.5	1.8	51.7
J-7448	27.9	2.6	1.3	51.7	54.5	2.6	51.7
J-7449	41	1.2	0.6	47.4	49.5	1.2	47.4
J-7450	37	6.6	3.2	49	51.1	6.6	49
J-7452	32.3	4.9	2.3	50.6	52.8	4.9	50.6
J-7453	27.4	1.8	0.9	52	54.8	1.8	52
J-7454	30.5	2.2	1.1	50.1	53.3	2.2	50.1
J-7455	31.8	11.1	5.3	49.5	52.7	11.1	49.5
J-7456	31.4	2.4	1.1	49.7	52.9	2.4	49.7
J-7457	44.8	1	0.5	45.4	47.8	1	45.4
J-7458	46.2	7.5	3.6	44.8	47.2	7.5	44.8
J-7459	38.3	7.3	3.5	49.9	51.8	7.3	49.9
J-7460	37	29.7	14.3	48.8	51.2	29.7	48.8
J-7461	29.4	0.7	0.4	52.7	55.1	0.7	52.7
J-7462	27.5	2.9	1.4	53.5	55.9	2.9	53.5
J-7463	27.3	10.5	5.1	51.5	54.7	10.5	51.5
J-7464	27	4	1.9	51.6	54.8	4	51.6
J-7465	32.5	5	2.4	50.4	52.9	5	50.4
J-7466	27.6	3.8	1.8	53.3	55.8	3.8	53.3
J-7467	27.3	6.1	2.9	53.4	55.9	6.1	53.4
J-7468	40.6	0	0	47.7	49.6	0	47.7
J-7469	40.8	0	0	47.6	49.5	0	47.6
J-7470	27	3.3	1.6	51.6	54.8	3.3	51.7
J-7471	27	1.2	0.6	51.7	54.8	1.2	51.7
J-7472	37.3	4.3	2.1	48.7	51.1	4.3	48.7
J-7473	37.2	5.6	2.7	48.7	51.1	5.6	48.7
J-7474	29.6	9.4	4.5	50.4	53.7	9.4	50.4
J-7475	31.4	12.1	5.8	49.7	52.9	12.1	49.7
J-7476	31.7	1.3	0.6	49.6	52.8	1.3	49.6
J-7477	19.2	11	5.3	56.7	59.2	11	56.7
J-7478	47.9	2.5	1.2	44.7	46.6	2.5	44.7
J-7479	37.1	11.8	5.7	48.6	52.2	11.8	48.6
J-7480	37.1	5.4	2.6	48.5	51.3	5.4	48.5
J-7481	26.8	3.9	1.9	51.7	54.9	3.9	51.7
J-7482	27	13	6.3	51.7	54.8	13	51.7
J-7483	19.9	6.3	3	56.4	58.9	6.3	56.4
J-7484	18.8	3.4	1.6	56.9	59.4	3.4	56.9
J-7485	29.3	3.2	1.5	50.6	53.8	3.2	50.6
J-7486	27.5	12.5	6	51.8	54.7	12.5	51.9
J-7487	32.7	2.7	1.3	50.1	52.7	2.7	50.1
J-7488	34	8.8	4.2	49.8	52.4	8.8	49.8
J-7489	32.1	5.8	2.8	50.9	53.3	5.8	50.9
J-7490	32.2	6.4	3.1	50.8	53.2	6.4	50.8
J-7491	27.3	7.7	3.7	53.2	55.6	7.7	53.2
J-7492	32.1	1.5	0.7	51.1	53.5	1.5	51.1
J-7493	35.5	9.6	4.6	49.2	51.7	9.6	49.2
J-7495	36.1	6.2	3	49	51.4	6.2	49
J-7496	36.6	14.3	6.9	48.7	51.2	14.3	48.7
J-7497	33.2	0.7	0.3	50.6	52.6	0.7	50.6
J-7498	46.6	3.6	1.7	45.4	47.2	3.6	45.4
J-7499	47.6	0.7	0.4	45.3	46.8	0.7	45.3
J-7500	47.5	10	4.8	45.2	46.8	10	45.2
J-7501	30.9	1.5	0.7	51.3	53.8	1.5	51.3
J-7502	33	3.4	1.6	52.2	53.3	3.4	52.2
J-7503	41.4	2.3	1.1	48.6	50.5	2.3	48.6
J-7504	42.8	8.4	4	48	49.9	8.4	48
J-7505	33.4	3.5	1.7	50	52.6	3.5	50
J-7506	33.6	7.2	3.5	49.9	52.6	7.2	49.9
J-7507	31	3.6	1.7	51.6	54	3.6	51.6
J-7508	32.4	6.9	3.3	51	53.4	6.9	51
J-7509	26.2	8.8	4.2	52.4	55.3	8.8	52.4
J-7510	27.3	8.3	4	52.3	55.1	8.3	52.3
J-7511	36.8	7.7	3.7	48.6	51.1	7.7	48.6
J-7512	32.3	4.2	2	50.5	52.9	4.2	50.5
J-7513	32.4	13.2	6.3	50.5	52.9	13.2	50.5

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7514	33	4.1	2	52.2	53.3	4.1	52.2
J-7515	36.9	3.7	1.8	48.6	51.7	3.7	48.6
J-7517	32.9	3.4	1.7	50.6	53	3.4	50.6
J-7518	35.8	5.3	2.5	49	51.7	5.3	49
J-7519	35.7	8.3	4	49.1	51.9	8.3	49.1
J-7520	30.7	4.1	2	51.4	53.9	4.1	51.4
J-7521	34.2	3.8	1.8	50.1	52.3	3.8	50.1
J-7522	31.4	5.5	2.6	49.7	52.9	5.5	49.7
J-7523	30.9	3.8	1.8	49.9	53.1	3.8	49.9
J-7524	34.6	10.9	5.2	49.3	52.1	10.9	49.3
J-7525	39.9	7.2	3.5	49.2	51.1	7.2	49.2
J-7526	39.4	2.6	1.2	49.5	51.4	2.6	49.5
J-7527	31.5	3.5	1.7	50.3	53.1	3.5	50.3
J-7528	31.2	4	1.9	50.5	53.2	4	50.5
J-7529	45.2	21.4	10.3	45.9	47.8	21.4	45.9
J-7530	38.5	5.5	2.6	48.2	50.5	5.5	48.2
J-7531	42.5	8.4	4	46.9	48.9	8.4	46.9
J-7532	43.6	1.5	0.7	48	49.6	1.5	48
J-7533	27.3	0	0	51.8	54.8	0	51.8
J-7534	35.5	2.2	1	49.2	51.7	2.2	49.2
J-7536	27.7	3.1	1.5	52.1	54.9	3.1	52.1
J-7537	40.6	0	0	47.7	49.6	0	47.7
J-7538	40.5	0	0	47.7	49.6	0	47.7
J-7539	45.8	11	5.3	48	49.1	11	48
J-7540	47	4	1.9	47.2	48.5	4	47.2
J-7541	39.1	1.1	0.5	49.6	51.5	1.1	49.6
J-7543	38.8	0	0	48.5	50.4	0	48.5
J-7544	32.9	3.4	1.6	52.2	53.3	3.4	52.2
J-7545	32.8	4.1	2	52.3	53.3	4.1	52.3
J-7546	32.3	3.7	1.8	50.6	52.8	3.7	50.6
J-7547	32.3	10.4	5	50.6	52.8	10.4	50.6
J-7548	19.4	7.6	3.6	56.6	59.1	7.6	56.6
J-7549	19.4	5.2	2.5	56.6	59.1	5.2	56.6
J-7551	32.4	3.7	1.8	50.2	52.8	3.7	50.2
J-7552	32.4	8.4	4	50.2	52.8	8.4	50.2
J-7553	32.2	2.8	1.3	49.9	52.7	2.8	50
J-7554	32.8	8.2	3.9	50.3	52.8	8.2	50.3
J-7555	32.6	7.3	3.5	50.4	52.9	7.3	50.4
J-7556	30.5	8.2	3.9	51	53.8	8.2	51
J-7557	28.7	1.5	0.7	52.8	55.4	1.5	52.8
J-7558	32	6.3	3	50.2	52.9	6.3	50.2
J-7559	33.8	6	2.9	50.3	52.3	6	50.3
J-7560	45.7	0	0	48.9	49.5	0	48.9
J-7561	32.5	4.4	2.1	50.4	52.9	4.4	50.5
J-7562	33.8	13.1	6.3	50.4	52.4	13.1	50.4
J-7563	32.9	10.8	5.2	52.6	53.4	10.8	52.6
J-7564	40.8	3.6	1.7	47.6	49.5	3.6	47.6
J-7565	41.2	9.6	4.6	47.5	49.4	9.6	47.5
J-7566	43.1	4.3	2.1	46.7	48.7	4.3	46.7
J-7567	47.4	5.4	2.6	46.2	48	5.4	46.2
J-7568	45.7	5.9	2.8	48.6	49.4	5.9	48.6
J-7569	37.4	4	1.9	48.7	51	4	48.7
J-7570	37.7	7.6	3.7	48.6	50.9	7.6	48.6
J-7571	32.4	2.9	1.4	50.5	53	2.9	50.5
J-7572	27.7	0.5	0.2	53.2	55.8	0.5	53.2
J-7573	38	3.1	1.5	50	52	3.1	50
J-7574	37.9	5.9	2.8	50.1	52	5.9	50.1
J-7575	37.3	7.2	3.5	48.6	51	7.2	48.6
J-7576	38.1	7.4	3.6	48.3	50.7	7.4	48.3
J-7577	39.3	4.4	2.1	47.7	50.2	4.4	47.8
J-7578	38.8	3.9	1.9	48	50.4	3.9	48
J-7579	37	4.6	2.2	48.9	51.1	4.6	48.9
J-7580	40.9	0	0	47.6	49.5	0	47.6
J-7581	40.2	0	0	47.9	49.8	0	47.9
J-7582	45.7	3.5	1.7	47.8	49.1	3.5	47.8
J-7583	37.4	4.8	2.3	50.3	52.2	4.8	50.3
J-7584	42.4	2.4	1.2	46.8	48.9	2.4	46.8
J-7585	42.3	9.6	4.6	46.9	49	9.6	46.9
J-7586	31.1	4.8	2.3	50.8	53.5	4.8	50.8
J-7587	27.3	3.8	1.8	51.9	54.8	3.8	51.9
J-7588	27.4	2	1	51.9	54.7	2	51.9
J-7589	27.7	4.4	2.1	53.2	55.7	4.4	53.2
J-7590	27.8	4.5	2.2	53.2	55.7	4.5	53.2
J-7591	38.3	3	1.4	50	51.9	3	50
J-7592	36	12.2	5.9	48.9	51.5	12.2	48.9
J-7593	36.3	5.1	2.5	48.8	51.4	5.1	48.8
J-7594	27.4	1.2	0.6	51.5	54.7	1.2	51.5
J-7595	37.4	10.9	5.3	48.4	51	10.9	48.4
J-7597	32.7	4.5	2.2	51.8	53.2	4.5	51.8
J-7598	32.7	0	0	51.8	53.2	0	51.8
J-7599	21.6	0	0	55.6	58.1	0	55.6
J-7600	28	4.2	2	53.1	55.7	4.2	53.1
J-7601	41.8	0.8	0.4	47.1	49.2	0.8	47.1
J-7602	42.1	7.1	3.4	46.9	49.1	7.1	46.9
J-7603	27.6	7.5	3.6	53.4	55.9	7.5	53.4
J-7604	27.8	8.2	3.9	53.4	55.9	8.2	53.4
J-7605	19.8	6.3	3	56.4	58.9	6.3	56.4
J-7606	45.1	1.5	0.7	48.8	49.6	1.5	48.8
J-7607	37.7	5.7	2.7	48.7	50.8	5.7	48.7
J-7608	32.4	8.7	4.2	50.5	53	8.7	50.5
J-7609	44.5	2.5	1.2	46.4	48.1	2.5	46.4
J-7610	45	3.7	1.8	47.8	49.2	3.7	47.8
J-7611	44.9	4.5	2.2	47.8	49.3	4.5	47.8
J-7612	18.2	2.4	1.1	57.1	59.6	2.4	57.1
J-7613	32.4	11.5	5.5	50.5	53	11.5	50.5
J-7614	30.9	6.9	3.3	50.7	53.4	6.9	50.7
J-7615	31	4.7	2.3	50.6	53.3	4.7	50.6
J-7616	29.9	3.6	1.7	50.5	53.6	3.6	50.5
J-7617	26.5	5.5	2.7	52.6	55.4	5.5	52.6
J-7618	26.1	4.1	2	52	55.2	4.1	52
J-7619	30.8	3	1.4	49.9	53.2	3	49.9
J-7620	30.6	5.6	2.7	50	53.3	5.6	50
J-7621	32.1	3.3	1.6	50.3	53	3.3	50.3
J-7622	42.7	2.8	1.4	46.9	48.9	2.8	46.9
J-7623	39.5	9.4	4.5	48	50.1	9.4	48
J-7624	39.8	9.1	4.4	47.9	50	9.1	47.9
J-7625	37.6	7.9	3.8	50.2	52.2	7.9	50.2
J-7626	40.2	4.8	2.3	49.1	51	4.8	49.1
J-7627	41.9	5	2.4	47	49.2	5	47
J-7628	36.3	4.3	2.1	49	51.4	4.3	49
J-7629	37.1	4.7	2.3	48.7	51.1	4.7	48.7
J-7630	28.7	3.1	1.5	52.8	55.3	3.1	52.8

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7631	28.6	8.8	4.2	52.9	55.4	8.8	52.9
J-7632	46.4	6.7	3.2	48.1	49	6.7	48.1
J-7633	46.7	7.4	3.6	47.9	48.8	7.4	47.9
J-7634	45.6	1.7	0.8	48.6	49.4	1.7	48.6
J-7635	37.4	3	1.4	48.6	51	3	48.6
J-7636	32.3	7	3.3	50.5	52.8	7	50.5
J-7637	47.7	2.7	1.3	47.5	48.4	2.7	47.5
J-7638	23.1	5.3	2.6	55	57.5	5.3	55
J-7639	46.6	7.2	3.5	47.8	48.8	7.2	47.8
J-7640	46.4	2.5	1.2	47.9	48.9	2.5	47.9
J-7641	31	2.7	1.3	50.6	53.3	2.7	50.6
J-7642	27.4	2.9	1.4	53.3	55.9	2.9	53.3
J-7643	28.1	12.7	6.1	51.9	54.7	12.7	51.9
J-7644	27	2.8	1.3	52.4	55.2	2.8	52.4
J-7645	26	2.5	1.2	53.9	56.4	2.5	53.9
J-7646	32.5	8.5	4.1	50.9	53.3	8.5	50.9
J-7647	42	6.3	3	47.2	49.2	6.3	47.2
J-7648	41.6	4	1.9	47.4	49.4	4	47.4
J-7649	27.4	3.7	1.8	51.9	54.8	3.7	51.9
J-7650	27.5	3.4	1.6	51.9	54.7	3.4	51.9
J-7651	28.1	0.3	0.1	53.1	55.6	0.3	53.1
J-7652	27.6	0	0	53.3	55.8	0	53.3
J-7653	27.9	1.5	0.7	53.1	55.7	1.5	53.1
J-7654	34.5	4.6	2.2	50.1	52	4.6	50.1
J-7655	36.2	3.9	1.9	49.3	51.3	3.9	49.3
J-7656	35.6	3.5	1.7	49.6	51.6	3.5	49.6
J-7657	31.6	2.6	1.3	50.4	53.1	2.6	50.4
J-7658	27.6	10.1	4.8	52.2	55	10.1	52.2
J-7659	27.4	3	1.4	52.3	55.1	3	52.3
J-7660	45.8	5.7	2.8	45.7	47.5	5.7	45.7
J-7661	46.5	8.3	4	45.4	47.2	8.3	45.4
J-7662	27.7	0.3	0.1	53.2	55.8	0.3	53.2
J-7663	28.5	2.5	1.2	51.6	54.3	2.5	51.6
J-7664	28.3	1.9	0.9	51.7	54.4	1.9	51.7
J-7665	27.5	3.4	1.6	51.8	54.7	3.4	51.8
J-7666	27.7	6	2.9	51.7	54.6	6	51.7
J-7667	32.3	8.4	4	50.5	52.9	8.4	50.5
J-7668	32.3	8.6	4.1	50.5	52.9	8.6	50.5
J-7669	34.1	5.6	2.7	49.7	52.2	5.6	49.7
J-7670	37.1	9.1	4.4	48.6	52.7	9.1	48.6
J-7671	30.6	9.6	4.6	50.9	53.5	9.6	50.9
J-7672	30.4	7.3	3.5	50.9	53.6	7.3	50.9
J-7673	28.5	4.7	2.3	51.5	54.3	4.7	51.5
J-7674	41.3	10.5	5	47.7	49.5	10.5	47.7
J-7675	41.3	8.1	3.9	47.7	49.5	8.1	47.7
J-7676	32.5	7.2	3.5	50.5	52.9	7.2	50.5
J-7678	35.2	9	4.3	49.3	51.8	9	49.3
J-7679	47.2	3.1	1.5	45.2	47	3.1	45.2
J-7680	47.5	3.8	1.8	45	46.8	3.8	45
J-7681	39.2	3.7	1.8	47.8	50.2	3.7	47.8
J-7682	38.5	9.2	4.4	48.1	50.5	9.2	48.1
J-7683	40.9	0	0	47.6	49.5	0	47.6
J-7684	40.7	0	0	47.7	49.6	0	47.7
J-7685	32.2	3.8	1.8	51.7	54	3.8	51.7
J-7686	31.9	3	1.4	51	53.4	3	51
J-7687	32.4	4.4	2.1	50.5	52.9	4.4	50.5
J-7688	32.4	4.1	2	50.5	52.9	4.1	50.5
J-7689	36.1	0	0	49.3	51.6	0	49.3
J-7690	37.1	2.9	1.4	48.7	51.1	2.9	48.7
J-7691	28.8	6.3	3	52.5	54.9	6.3	52.5
J-7692	27.8	6.6	3.2	53	55.4	6.6	53
J-7693	37.4	0.8	0.4	48.4	51	0.8	48.4
J-7694	37.4	5.6	2.7	48.4	51	5.6	48.4
J-7695	32.4	8.7	4.2	50.5	53	8.7	50.5
J-7696	32.3	13	6.3	50.8	53.2	13	50.8
J-7697	32.6	3.5	1.7	50.6	53.1	3.5	50.6
J-7698	32.2	6.1	2.9	50.8	53.2	6.1	50.8
J-7699	47.4	3.4	1.6	46.3	48	3.4	46.3
J-7700	44.9	6.6	3.2	47.4	49.1	6.6	47.4
J-7701	31.2	2.8	1.3	51.2	53.7	2.8	51.2
J-7702	27.4	2.9	1.4	52.3	55	2.9	52.3
J-7703	26.5	18.4	8.9	52.6	55.4	18.4	52.6
J-7704	37.7	8.4	4.1	48.6	50.9	8.4	48.6
J-7705	37.5	17	8.2	48.3	50.9	17	48.3
J-7706	43.4	16.9	8.1	48	49.7	16.9	48
J-7707	32.5	5.1	2.4	51.8	53.3	5.1	51.8
J-7708	30.3	10.5	5.1	50.9	53.7	10.5	50.9
J-7709	33.7	5.7	2.7	49.9	52.4	5.7	49.9
J-7710	33.9	5.6	2.7	49.8	52.3	5.6	49.8
J-7711	32.1	0.8	0.4	50.7	53.2	0.8	50.7
J-7712	27.4	8.8	4.2	53.4	55.9	8.8	53.4
J-7713	28	5.5	2.7	53.1	55.6	5.5	53.1
J-7714	32.4	4.1	2	49.9	52.7	4.1	49.9
J-7715	32.4	6.6	3.2	49.9	52.7	6.6	49.9
J-7716	27.3	0.6	0.3	53.4	55.9	0.6	53.4
J-7717	43.5	2.6	1.3	48	49.7	2.6	48
J-7718	31.5	3.6	1.7	51.3	53.6	3.6	51.3
J-7719	24.3	0.9	0.4	52.8	56	0.9	52.8
J-7720	23.1	5.6	2.7	55	57.5	5.6	55
J-7721	22.8	3.5	1.7	55.1	57.6	3.5	55.1
J-7722	32.5	1.9	0.9	51.9	53.3	1.9	51.9
J-7723	29.8	1.6	0.8	51.1	53.9	1.6	51.2
J-7724	29.7	1.3	0.6	51.2	53.9	1.3	51.2
J-7725	51.2	0	0	46.3	47	0	46.3
J-7726	19.6	9.2	4.4	56.5	59	9.2	56.5
J-7727	19.5	6.6	3.2	56.5	59.1	6.6	56.5
J-7728	19.2	5	2.4	56.6	59.2	5	56.7
J-7729	42.2	10	4.8	48.3	50.2	10	48.3
J-7730	42.4	0.8	0.4	48.2	50.1	0.8	48.2
J-7731	26.1	4.2	2	53.9	56.4	4.2	53.9
J-7732	41	0	0	47.5	49.4	0	47.5
J-7733	38.3	0	0	48.7	50.6	0	48.7
J-7734	43.9	2	1	47.8	49.5	2	47.8
J-7736	29.3	6	2.9	51.5	54.3	6	51.5
J-7737	46.3	4.8	2.3	47.7	48.8	4.8	47.7
J-7738	39.5	3	1.5	47.7	50.1	3	47.7
J-7739	45.4	6.4	3.1	45.9	47.7	6.4	45.9
J-7740	45.8	10.9	5.2	45.7	47.5	10.9	45.7
J-7741	44.7	1.9	0.9	47.9	49.3	1.9	47.9
J-7742	45.5	0.5	0.2	45.8	47.7	0.5	45.8
J-7743	44.6	22.3	10.7	46.2	48	22.3	46.2
J-7744	30.9	2.1	1	51.1	53.7	2.1	51.2

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7745	29.1	12.2	5.9	50.7	53.9	12.2	50.7
J-7746	21.5	0	0	55.6	58.2	0	55.6
J-7747	21.2	0	0	55.8	58.3	0	55.8
J-7748	28	3.5	1.7	52	54.8	3.5	52
J-7749	28.4	2.5	1.2	51.8	54.6	2.5	51.8
J-7750	47.4	7.9	3.8	45	46.8	7.9	45
J-7751	34.3	3.6	1.7	49.6	52.1	3.6	49.6
J-7752	33.6	8.2	3.9	50	52.4	8.2	50
J-7753	33.7	9.3	4.5	49.9	52.4	9.3	49.9
J-7754	37.6	7.4	3.6	50.2	52.1	7.4	50.2
J-7755	29.1	8.9	4.3	51.2	54.1	8.9	51.2
J-7756	18.8	2.8	1.4	56.8	59.3	2.8	56.8
J-7757	41.5	4.5	2.2	48.7	50.5	4.5	48.7
J-7758	41.7	4.8	2.3	48.6	50.4	4.8	48.6
J-7759	27.8	2.7	1.3	53.2	55.7	2.7	53.2
J-7760	29.6	5.8	2.8	51	53.9	5.8	51
J-7761	31.4	2.5	1.2	50.2	53	2.5	50.3
J-7762	28.1	1.8	0.9	52	54.8	1.8	52
J-7763	37.4	4.3	2.1	48.4	51	4.3	48.4
J-7764	33.7	5.6	2.7	52	53	5.6	52
J-7765	43	8	3.8	46.5	48.7	8	46.5
J-7766	43	7.1	3.4	46.5	48.7	7.1	46.5
J-7767	47.4	3.7	1.8	47	48.3	3.7	47
J-7768	44	9.2	4.4	47.8	49.5	9.2	47.8
J-7769	37.5	9.5	4.6	48.3	51	9.5	48.3
J-7770	26.9	12.9	6.2	52.1	55	12.9	52.1
J-7771	26.9	5.2	2.5	52.1	55	5.2	52.1
J-7772	39	0	0	48.4	50.3	0	48.4
J-7773	46.3	10.1	4.9	46.6	48.4	10.1	46.7
J-7774	30	8.2	3.9	52.2	54.8	8.2	52.2
J-7775	32.4	4.1	2	51.6	53.9	4.1	51.6
J-7776	28	5	2.4	53.3	55.7	5	53.3
J-7777	25.6	0.7	0.3	52.2	55.4	0.7	52.2
J-7778	26.1	0.7	0.3	52	55.2	0.7	52
J-7779	31.4	2.9	1.4	51.1	53.6	2.9	51.1
J-7780	37.6	8.5	4.1	48.7	50.9	8.5	48.7
J-7781	31.4	2	1	50.6	53.4	2	50.6
J-7782	31.2	5.4	2.6	49.7	53	5.4	49.7
J-7783	27.1	4.6	2.2	51.6	54.8	4.6	51.6
J-7784	26.9	7.3	3.5	51.7	54.9	7.3	51.7
J-7785	32.2	1.4	0.7	51	53.4	1.4	51
J-7786	26.5	4	1.9	51.9	55	4	51.9
J-7787	27.7	2.4	1.1	53.3	55.8	2.4	53.3
J-7788	37.3	5.6	2.7	48.6	51.1	5.6	48.7
J-7789	37.4	3	1.4	48.6	51	3	48.6
J-7790	37.2	17.5	8.4	48.7	51.1	17.5	48.7
J-7791	41.8	2.4	1.1	48.7	50.4	2.4	48.7
J-7792	28	6.1	3	51.7	54.6	6.1	51.7
J-7793	27.6	6.8	3.3	51.8	54.7	6.8	51.8
J-7794	18.9	5.4	2.6	56.8	59.3	5.4	56.8
J-7795	18.1	3	1.4	57.1	59.7	3	57.1
J-7796	28	2.1	1	51.8	54.6	2.1	51.8
J-7797	20.9	0	0	55.9	58.4	0	55.9
J-7798	33.5	2	1	50	52.5	2	50
J-7799	32.5	13.2	6.4	50.9	53.2	13.2	50.9
J-7800	22.8	8.9	4.3	55.1	57.6	8.9	55.1
J-7801	20.9	4	1.9	55.9	58.4	4	55.9
J-7802	29.6	3.6	1.7	50.4	53.7	3.6	50.4
J-7803	27.4	6.2	3	53.2	55.5	6.2	53.2
J-7804	27.3	4.9	2.4	53.2	55.6	4.9	53.2
J-7805	29.4	3.5	1.7	52.2	54.5	3.5	52.2
J-7806	27.5	1.5	0.7	53.3	55.8	1.5	53.3
J-7807	27.7	4	1.9	53.2	55.7	4	53.2
J-7808	48.2	11.7	5.6	44.8	46.5	11.7	44.8
J-7809	34.7	1.5	0.7	49.5	52	1.5	49.5
J-7810	32.4	1.8	0.8	50.3	52.8	1.8	50.3
J-7811	50.1	6.5	3.1	43.9	45.7	6.5	43.9
J-7812	51.5	12.9	6.2	43.3	45.1	12.9	43.3
J-7813	31.8	5.4	2.6	50.1	52.9	5.4	50.1
J-7814	47.5	2.2	1.1	45	46.8	2.2	45
J-7815	31.5	5.1	2.5	51.1	53.5	5.1	51.1
J-7816	27.8	4	1.9	52.1	54.9	4	52.1
J-7817	28.6	10.1	4.9	51.8	54.5	10.1	51.8
J-7818	28.6	11.3	5.4	51.7	54.5	11.3	51.7
J-7819	27.1	3.8	1.8	53.5	56	3.8	53.5
J-7820	48.1	1.8	0.9	44.8	46.6	1.8	44.8
J-7821	41.5	7.9	3.8	47.6	49.4	7.9	47.6
J-7822	41.6	3	1.4	47.5	49.3	3	47.5
J-7823	28	7.9	3.8	51.7	54.5	7.9	51.7
J-7824	32.8	1.5	0.7	50.2	52.7	1.5	50.2
J-7825	32.7	23.6	11.3	50.2	52.7	23.6	50.2
J-7826	29.3	10.8	5.2	51.1	54	10.8	51.1
J-7827	36.3	12.7	6.1	48.8	51.7	12.7	48.8
J-7828	37.2	7.7	3.7	48.7	51.1	7.7	48.7
J-7829	41.3	12.1	5.8	47.3	49.3	12.1	47.3
J-7830	26.8	8	3.8	51.7	54.9	8	51.7
J-7831	26.7	5.3	2.6	51.8	55	5.3	51.8
J-7832	41.8	10	4.8	48.5	50.4	10	48.5
J-7833	41.3	3.9	1.9	48.7	50.6	3.9	48.7
J-7834	32.3	2.5	1.2	51.3	53.8	2.5	51.3
J-7835	37.8	2.4	1.1	50.1	52.1	2.4	50.1
J-7836	37.5	2.9	1.4	50.3	52.2	2.9	50.3
J-7837	34.3	6.9	3.3	49.7	52.2	6.9	49.7
J-7838	30.2	4.8	2.3	51.1	53.8	4.8	51.1
J-7839	30.1	26.7	12.9	51.1	53.9	26.7	51.1
J-7840	38.4	2.1	1	49.9	51.8	2.1	49.9
J-7841	32.1	5.2	2.5	51.4	53.9	5.2	51.4
J-7842	37.1	4	1.9	48.8	51.2	4	48.8
J-7843	37.1	2.5	1.2	48.7	51.1	2.5	48.7
J-7844	48.3	8.9	4.3	44.7	46.5	8.9	44.7
J-7845	30	1.2	0.6	52.3	54.8	1.2	52.3
J-7846	29.5	5.4	2.6	52.5	55	5.4	52.5
J-7847	18.5	6.2	3	57	59.5	6.2	57
J-7848	22.4	5.1	2.5	55.3	57.8	5.1	55.3
J-7849	32.5	6.5	3.1	50.1	52.8	6.5	50.1
J-7850	28.8	1.2	0.6	52.8	55.3	1.2	52.8
J-7851	43.1	0	0	46.8	48.8	0	46.8
J-7852	28.2	5.9	2.8	51.9	54.7	5.9	51.9
J-7853	42.1	2.7	1.3	47.4	49.1	2.7	47.4
J-7854	42.2	8.6	4.1	47.3	49.1	8.6	47.3
J-7855	46.8	3.4	1.6	45.3	47.1	3.4	45.3
J-7856	42.8	1.6	0.7	49.9	50.6	1.6	49.9

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7857	43.2	2.1	1	49.7	50.5	2.1	49.7
J-7858	28	2.8	1.3	51.3	54.4	2.8	51.3
J-7859	27.6	5.9	2.9	51.4	54.6	5.9	51.4
J-7860	28.5	7	3.4	51	54.2	7	51
J-7861	29.1	8.5	4.1	50.8	53.9	8.5	50.8
J-7862	46.6	5.8	2.8	46.6	48.3	5.8	46.6
J-7863	28.3	8	3.8	51.1	54.3	8	51.1
J-7864	41.5	2.6	1.3	47.6	49.4	2.6	47.6
J-7865	26.6	7.7	3.7	51.8	55	7.7	51.8
J-7866	26.9	5.8	2.8	51.7	54.9	5.8	51.7
J-7867	21.2	2.9	1.4	55.8	58.3	2.9	55.8
J-7868	27	12.8	6.2	51.7	54.8	12.8	51.7
J-7869	31.5	2.7	1.3	50.3	53	2.7	50.3
J-7870	32.1	1.8	0.9	52	53.5	1.8	52.1
J-7871	45.8	1.4	0.7	47.6	49	1.4	47.6
J-7872	45.8	5	2.4	47.9	49.1	5	47.9
J-7873	30.4	9.7	4.7	52.2	54.7	9.7	52.2
J-7874	29.5	4.6	2.2	50.6	53.8	4.6	50.6
J-7875	28.5	3.7	1.8	51.1	54.2	3.7	51.1
J-7876	28.2	2.7	1.3	51.6	54.4	2.7	51.6
J-7877	28.1	7.4	3.6	51.6	54.5	7.4	51.6
J-7878	42.9	6.5	3.1	48.2	50	6.5	48.2
J-7879	42.3	8.6	4.1	46.9	49	8.6	46.9
J-7880	27.4	4.9	2.3	51.5	54.7	4.9	51.5
J-7881	27.7	7.8	3.7	51.4	54.5	7.8	51.4
J-7882	41.6	4.1	2	47.4	49.4	4.1	47.4
J-7883	47.9	6.1	2.9	44.8	46.7	6.1	44.9
J-7884	42.2	4.6	2.2	47.3	49.1	4.6	47.3
J-7885	42.5	23.9	11.5	47.1	49.1	23.9	47.1
J-7886	37.7	2.7	1.3	48.6	50.8	2.7	48.7
J-7887	37.1	6.8	3.3	48.8	51.1	6.8	48.8
J-7888	37.1	8.5	4.1	48.7	51.1	8.5	48.7
J-7889	37.2	14.7	7.1	48.7	51.1	14.7	48.7
J-7890	40.4	6.9	3.3	47.6	49.8	6.9	47.6
J-7891	39	10.9	5.2	48.2	50.4	10.9	48.2
J-7892	37.8	2.3	1.1	50.1	52.1	2.3	50.1
J-7893	37.9	3.7	1.8	50.1	52	3.7	50.1
J-7894	26.3	7.8	3.8	51.9	55.1	7.8	51.9
J-7895	42.4	7.5	3.6	46.8	48.9	7.5	46.8
J-7896	43.1	11	5.3	48	49.9	11	48
J-7897	43.3	14.7	7.1	48	49.8	14.7	48
J-7898	37.4	7.2	3.5	47.1	50.3	7.2	47.1
J-7899	23.9	0	0	53	56.2	0	53
J-7900	22.5	0	0	53.6	56.8	0	53.6
J-7901	42.1	4.8	2.3	47.1	49.1	4.8	47.1
J-7902	27	7.5	3.6	52.1	54.9	7.5	52.1
J-7903	45.6	6.7	3.2	45.8	47.6	6.7	45.8
J-7904	40.3	4.6	2.2	47.6	49.8	4.6	47.6
J-7905	26.5	3	1.5	52.8	55.5	3	52.8
J-7906	34.9	1.7	0.8	49.4	52.1	1.7	49.4
J-7907	35	6.3	3	49.3	52	6.3	49.3
J-7908	29.2	3.4	1.6	51.5	54.3	3.4	51.5
J-7909	28.9	5.2	2.5	51.7	54.4	5.2	51.7
J-7910	31.9	0.8	0.4	51.5	54	0.8	51.5
J-7911	37.2	2.3	1.1	48.5	51	2.3	48.5
J-7912	32.3	1.5	0.7	50.5	52.9	1.5	50.5
J-7913	26.6	4.3	2.1	51.8	55	4.3	51.8
J-7914	31	3.9	1.9	51.5	53.8	3.9	51.5
J-7915	30.5	6.4	3.1	51.7	54	6.4	51.7
J-7916	37.3	3.6	1.7	50.3	52.3	3.6	50.3
J-7917	27.7	7.5	3.6	51.9	54.7	7.5	51.9
J-7918	27.5	15	7.2	51.9	54.7	15	51.9
J-7919	42.8	7.9	3.8	47	48.8	7.9	47.1
J-7920	25.7	9.4	4.5	52.2	55.4	9.4	52.2
J-7921	26	8.1	3.9	52.1	55.3	8.1	52.1
J-7922	45.1	2.8	1.4	46	47.8	2.8	46
J-7923	45	2.2	1.1	46.1	47.9	2.2	46.1
J-7924	36.4	6	2.9	49	51.4	6	49
J-7925	36.1	13.6	6.6	49.2	51.6	13.6	49.2
J-7926	37.3	4.9	2.4	48.7	51	4.9	48.7
J-7927	43.1	0	0	46.8	48.7	0	46.8
J-7929	38.6	0.1	0.1	48.7	50.7	0.1	48.7
J-7930	38.3	4	1.9	49.9	51.8	4	49.9
J-7931	30.2	5	2.4	51	53.7	5	51
J-7932	27.3	4.1	2	51.9	54.8	4.1	51.9
J-7933	42.5	5	2.4	48.2	50.1	5	48.2
J-7934	32.3	15.8	7.6	50.3	52.8	15.8	50.3
J-7935	29.6	2.2	1	50.4	53.7	2.2	50.4
J-7936	27.7	13.6	6.5	51.8	54.6	13.6	51.8
J-7937	27.8	8.4	4.1	51.8	54.6	8.4	51.8
J-7938	39.1	8.8	4.3	49.6	51.5	8.8	49.6
J-7939	43.3	1.5	0.7	47.8	49.7	1.5	47.8
J-7940	30.1	3.8	1.8	52.2	54.7	3.8	52.2
J-7941	30.7	5.2	2.5	50.7	53.5	5.2	50.7
J-7942	27	5.6	2.7	53.5	56	5.6	53.5
J-7943	27	4.8	2.3	51.6	54.8	4.8	51.6
J-7944	37	8.2	3.9	48.8	53.8	8.2	48.8
J-7945	28	2.7	1.3	51.7	54.6	2.7	51.7
J-7946	48	5	2.4	46.9	48.1	5	46.9
J-7947	48.2	2.5	1.2	46.8	48	2.5	46.8
J-7948	27.7	9.9	4.8	51.8	54.6	9.9	51.8
J-7949	27.5	5.3	2.5	51.9	54.7	5.3	51.9
J-7950	20.8	5.4	2.6	56	58.5	5.4	56
J-7951	38.8	5.3	2.6	49.7	51.6	5.3	49.7
J-7952	28.1	4.7	2.3	51.7	54.5	4.7	51.7
J-7953	28.1	7.7	3.7	51.7	54.5	7.7	51.7
J-7954	27.7	6.3	3	51.8	54.6	6.3	51.8
J-7955	31.6	4.1	2	49.6	52.8	4.1	49.6
J-7956	32.4	3.2	1.6	50.2	52.8	3.2	50.2
J-7957	27.3	5.5	2.6	53.5	56	5.5	53.5
J-7958	32.3	6.6	3.2	50.6	52.8	6.6	50.6
J-7959	28.9	3.6	1.7	50.8	54	3.6	50.8
J-7960	34	3.8	1.8	49.8	52.4	3.8	49.8
J-7961	34	4.2	2	49.8	52.4	4.2	49.8
J-7962	26.6	2.5	1.2	53.6	56.1	2.5	53.6
J-7963	26.8	5.4	2.6	53.6	56.1	5.4	53.6
J-7964	44.5	4.4	2.1	48	49.4	4.4	48
J-7965	33.3	4.6	2.2	50.1	52.7	4.6	50.1
J-7966	42.5	3.7	1.8	47.2	49	3.7	47.2
J-7967	46.1	5	2.4	48	49.1	5	48
J-7968	40	0.4	0.2	48	49.9	0.4	48
J-7969	32.4	3.4	1.6	50.4	52.9	3.4	50.4

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7970	30.4	4.2	2	50.1	53.4	4.2	50.1
J-7971	30.9	5.7	2.7	51.9	54.4	5.7	51.9
J-7972	34.9	4.3	2.1	50.1	52	4.3	50.1
J-7973	31.5	7.1	3.4	51.3	53.7	7.1	51.3
J-7974	37.3	8.2	4	50.3	52.3	8.2	50.3
J-7975	38	4	1.9	50	52	4	50
J-7976	37.4	3.6	1.7	48.3	51	3.6	48.3
J-7977	37.1	8.9	4.3	48.5	51.1	8.9	48.5
J-7978	33.8	4.3	2.1	50.1	52.5	4.3	50.1
J-7979	27.5	2.9	1.4	53.4	55.9	2.9	53.4
J-7980	27.6	8.4	4	53.3	55.8	8.4	53.3
J-7981	36.7	3.5	1.7	48.7	51.2	3.5	48.7
J-7982	35	18.8	9	49.8	51.9	18.8	49.9
J-7983	43.9	6.1	2.9	49.3	50.1	6.1	49.3
J-7984	32.5	4.5	2.1	51	53.4	4.5	51
J-7985	37.5	4.6	2.2	48.6	51	4.6	48.6
J-7986	42	6.3	3	48.6	50.4	6.3	48.6
J-7987	36.4	9.4	4.5	49.2	51.4	9.4	49.2
J-7988	26.8	12.1	5.8	52.1	55	12.1	52.1
J-7989	26.8	7.4	3.6	52.2	55	7.4	52.2
J-7990	37.2	6.8	3.3	48.7	51.1	6.8	48.7
J-7991	43.4	5.1	2.4	47.9	49.7	5.1	47.9
J-7992	25.6	7.4	3.5	52.2	55.4	7.4	52.2
J-7993	42.2	4.1	2	47.3	49.1	4.1	47.3
J-7994	43.6	3.5	1.7	46.8	48.5	3.5	46.8
J-7995	43.3	6.7	3.2	46.9	48.6	6.7	46.9
J-7996	35.2	4.4	2.1	49.6	52	4.4	49.6
J-7997	36.3	5	2.4	49.1	51.5	5	49.1
J-7998	47.5	8.5	4.1	45	46.8	8.5	45
J-7999	22.3	0	0	55.4	57.8	0	55.4
J-8000	48	4.8	2.3	44.8	46.6	4.8	44.8
J-8001	47.3	4.5	2.2	45.1	46.9	4.5	45.1
J-8003	37.3	2.4	1.1	48.7	51	2.4	48.7
J-8004	40.5	2.2	1.1	49	50.9	2.2	49
J-8005	21.9	0	0	55.5	58	0	55.5
J-8006	28.2	3.7	1.8	52.8	55.1	3.7	52.8
J-8007	32	10.7	5.1	50.8	53.3	10.7	50.8
J-8008	28.6	10.7	5.2	51.8	54.5	10.7	51.8
J-8009	36.4	9.4	4.5	49.2	51.3	9.4	49.2
J-8010	27.3	6.1	2.9	51.5	54.7	6.1	51.5
J-8011	46.4	5.6	2.7	47.3	48.7	5.6	47.3
J-8012	46.4	14.6	7	47.3	48.6	14.6	47.3
J-8013	42.4	2.3	1.1	47.2	49	2.3	47.2
J-8014	43	2.6	1.2	47	48.8	2.6	47
J-8015	28	9.8	4.7	53.1	55.6	9.8	53.1
J-8016	27.2	0	0	51.5	54.7	0	51.5
J-8018	27.3	8.9	4.3	53.4	55.9	8.9	53.4
J-8019	43.7	3.7	1.8	47.6	49.5	3.7	47.6
J-8020	27.4	7.2	3.5	51.9	54.8	7.2	51.9
J-8021	27.3	2.7	1.3	53.1	55.5	2.7	53.1
J-8022	43.7	0	0	49.5	50.3	0	49.5
J-8023	32.1	11.6	5.6	50.9	53.3	11.6	50.9
J-8024	46.4	11.5	5.5	47.7	48.9	11.5	47.7
J-8025	36.2	7.6	3.7	49	52.8	7.6	49
J-8026	41.5	6.4	3.1	47.6	49.4	6.4	47.6
J-8027	31.5	4	1.9	51.1	53.6	4	51.1
J-8028	24.1	0	0	54.7	57.2	0	54.7
J-8029	23.8	0	0	54.8	57.3	0	54.8
J-8030	36.7	0	0	49.2	51.1	0	49.2
J-8031	36.9	0	0	49	51	0	49
J-8032	38.5	3.8	1.8	49.8	51.8	3.8	49.8
J-8033	40.4	5.4	2.6	49	51	5.4	49
J-8034	42.3	3.5	1.7	48.2	50.1	3.5	48.2
J-8035	42	10.6	5.1	48.3	50.2	10.6	48.3
J-8036	32.3	3.6	1.7	49.9	52.7	3.6	49.9
J-8037	41.8	4.6	2.2	47.3	49.3	4.6	47.3
J-8038	37.8	2.1	1	50.2	52.1	2.1	50.2
J-8039	42.4	2.6	1.2	46.9	48.9	2.6	46.9
J-8040	42.3	0.2	0.1	46.9	48.9	0.2	46.9
J-8041	37.8	7.6	3.7	50.2	52.1	7.6	50.2
J-8042	37.5	4.9	2.4	50.3	52.2	4.9	50.3
J-8043	41.8	4.6	2.2	47.3	49.3	4.6	47.3
J-8044	32.4	4.9	2.4	51.6	53.2	4.9	51.6
J-8045	32.4	6.9	3.3	51.4	53.2	6.9	51.4
J-8046	34.1	2.5	1.2	49.7	52.4	2.5	49.7
J-8047	27.1	3.4	1.6	53.5	56	3.4	53.5
J-8048	19.5	2.2	1	56.5	59	2.2	56.5
J-8049	31.7	11	5.3	49.5	52.8	11	49.5
J-8050	33.5	14.2	6.8	50.3	52.7	14.2	50.3
J-8051	31.1	3.8	1.8	50.4	53.2	3.8	50.4
J-8052	37.4	2.9	1.4	50.3	52.3	2.9	50.3
J-8053	37.5	2.8	1.3	50.2	52.2	2.8	50.2
J-8054	45.8	1.6	0.8	47.9	49.1	1.6	48
J-8055	43.8	7.5	3.6	46.6	48.4	7.5	46.6
J-8056	29	4.6	2.2	50.7	54	4.6	50.7
J-8057	28.6	5.5	2.7	50.9	54.1	5.5	50.9
J-8058	45.9	1	0.5	47.6	48.9	1	47.6
J-8059	27.4	0.7	0.3	53.4	55.9	0.7	53.4
J-8060	27.6	13.3	6.4	51.8	54.7	13.3	51.8
J-8061	38.6	3.2	1.5	49.8	51.7	3.2	49.8
J-8062	38.9	6.4	3.1	49.7	51.6	6.4	49.7
J-8063	33.1	2.7	1.3	49.9	52.5	2.7	49.9
J-8064	33	7.9	3.8	49.9	52.6	7.9	49.9
J-8065	29	3.4	1.7	52.9	55.3	3.4	52.9
J-8066	29.9	3.9	1.9	52.5	54.9	3.9	52.5
J-8067	27.5	9.1	4.4	53.3	55.8	9.1	53.3
J-8068	40.5	1	0.5	47.8	49.7	1	47.8
J-8069	40.2	1.1	0.5	47.9	49.8	1.1	47.9
J-8070	42.9	3.2	1.5	47.9	49.8	3.2	47.9
J-8071	43.7	5.6	2.7	47.9	49.7	5.6	47.9
J-8072	42.6	4.9	2.4	48.4	50.1	4.9	48.4
J-8073	36.9	1.5	0.7	48.8	51.2	1.5	48.8
J-8076	32.2	4.9	2.4	50.5	52.8	4.9	50.5
J-8077	33	3.5	1.7	49	52.2	3.5	49
J-8078	47.5	6.8	3.3	44.9	46.8	6.8	44.9
J-8079	26.7	1.4	0.7	51.8	55	1.4	51.8
J-8080	30.3	2.3	1.1	50.3	53.4	2.3	50.3
J-8081	29.9	3.7	1.8	50.4	53.6	3.7	50.4
J-8082	21.9	0	0	55.5	58	0	55.5
J-8083	31.5	4.8	2.3	51.8	54.3	4.8	51.8
J-8084	37.3	1.5	0.7	48.7	51.1	1.5	48.7
J-8085	30.7	1.4	0.7	50	53.2	1.4	50

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8086	27.8	4.8	2.3	51.3	54.5	4.8	51.3
J-8087	45.5	4.9	2.4	47.8	49.1	4.9	47.8
J-8088	47.4	0.4	0.2	46.5	48.1	0.4	46.5
J-8089	37.3	3.8	1.8	49.4	51.8	3.8	49.4
J-8090	36.6	3.7	1.8	49.7	52.1	3.7	49.7
J-8091	27	0.7	0.3	51.7	54.8	0.7	51.7
J-8092	26.9	2	1	51.7	54.9	2	51.7
J-8093	26.4	4.4	2.1	51.9	55.1	4.4	51.9
J-8094	33	5.5	2.6	50.6	52.9	5.5	50.6
J-8095	28.8	22.5	10.8	51.4	54.2	22.5	51.4
J-8096	29.1	14.3	6.9	51.3	54.1	14.3	51.3
J-8097	34.4	0.7	0.4	49.9	52.3	0.7	49.9
J-8098	43.5	4.3	2.1	48.2	49.8	4.3	48.2
J-8099	32.3	3.5	1.7	50.8	53.2	3.5	50.8
J-8100	34	4	1.9	50.1	52.5	4	50.1
J-8101	28.3	2.5	1.2	51.7	54.4	2.5	51.7
J-8102	37.1	7	3.4	50.4	52.4	7	50.4
J-8103	46.1	6.5	3.1	46.8	48.6	6.5	46.8
J-8104	30.1	4.5	2.2	50.3	53.5	4.5	50.3
J-8105	31.8	8	3.9	49.6	52.8	8	49.6
J-8106	38.1	19	9.1	48.1	50.7	19	48.1
J-8107	41.3	15.6	7.5	47.6	49.6	15.6	47.6
J-8109	33.5	2	1	48.8	52	2	48.8
J-8110	38.2	0	0	48.6	50.8	0	48.6
J-8111	37.9	5.2	2.5	50.1	52	5.2	50.1
J-8112	44.5	2.9	1.4	48	49.4	2.9	48
J-8113	38.7	10.3	5	49.8	51.7	10.3	49.8
J-8114	41.8	11	5.3	47.4	49.3	11	47.4
J-8115	42.2	28.4	13.6	47.2	49.2	28.4	47.2
J-8116	27.1	2.5	1.2	51.6	54.8	2.5	51.6
J-8117	27.8	4.4	2.1	51.3	54.5	4.4	51.3
J-8118	28.1	1.7	0.8	51.2	54.4	1.7	51.2
J-8119	42.1	9.4	4.5	47	49.1	9.4	47
J-8120	42.5	7	3.4	46.8	48.9	7	46.9
J-8121	40.5	1.1	0.5	49.1	51	1.1	49.1
J-8122	40.4	14.6	7	49.1	51	14.6	49.1
J-8123	34.9	15.9	7.7	49.4	51.9	15.9	49.4
J-8124	34.6	6.2	3	49.6	52.1	6.2	49.6
J-8125	42.5	8.9	4.3	47.1	49	8.9	47.1
J-8126	42.3	9.7	4.7	47.2	49.1	9.7	47.2
J-8127	30.1	2.8	1.3	52.3	54.8	2.8	52.3
J-8128	29.8	0.7	0.4	52.4	54.9	0.7	52.4
J-8129	27.3	9	4.3	53.2	55.6	9	53.2
J-8130	35.1	4.5	2.2	48.1	51.3	4.5	48.1
J-8131	32.7	6.2	3	50.9	53.3	6.2	50.9
J-8132	42.2	3.1	1.5	47.3	49.1	3.1	47.3
J-8133	30.4	9.5	4.6	50.1	53.3	9.5	50.1
J-8134	30.4	8.2	3.9	50.1	53.3	8.2	50.1
J-8135	44.8	3.6	1.7	46.1	48	3.6	46.1
J-8136	47.4	4.5	2.1	47.1	48.4	4.5	47.1
J-8137	31.2	2.2	1.1	49.8	53	2.2	49.8
J-8138	33.8	11.4	5.5	49.9	52.5	11.4	49.9
J-8139	41.7	0	0	48.5	50.3	0	48.5
J-8140	41.2	0	0	48.7	50.6	0	48.7
J-8141	38.6	16.9	8.1	48.3	50.5	16.9	48.3
J-8142	41.5	1.5	0.7	47.4	49.3	1.5	47.4
J-8143	43.2	3.1	1.5	46.9	48.6	3.1	46.9
J-8144	42.6	11.8	5.7	47	49	11.8	47
J-8145	29.3	5.3	2.5	50.6	53.8	5.3	50.6
J-8146	32.4	0.9	0.4	50.8	53.2	0.9	50.8
J-8147	32.7	3.8	1.9	50.7	53	3.8	50.7
J-8148	22.5	0	0	53.6	56.8	0	53.6
J-8149	38	7.3	3.5	50	52	7.3	50
J-8150	44.7	0.4	0.2	46.2	48	0.4	46.2
J-8151	34	22.5	10.8	50.2	52.3	22.5	50.2
J-8152	33.4	3.8	1.8	50.4	52.7	3.8	50.4
J-8153	22.7	4.7	2.3	55.2	57.7	4.7	55.2
J-8154	30.7	3.9	1.9	50	53.2	3.9	50
J-8155	46.8	3.6	1.7	46.7	48.3	3.6	46.7
J-8156	46.2	6.7	3.2	46.9	48.6	6.7	46.9
J-8157	45.3	8.4	4	47.7	49.1	8.4	47.7
J-8158	35.1	9.2	4.4	49.6	52	9.2	49.7
J-8159	35.5	8.2	3.9	49.4	51.8	8.2	49.4
J-8160	30.5	8.5	4.1	52.2	54.6	8.5	52.2
J-8161	22.6	0	0	53.6	56.8	0	53.6
J-8162	46.9	6.6	3.2	47.6	48.6	6.6	47.6
J-8165	32.5	0	0	51.5	53.9	0	51.5
J-8166	29.8	1.6	0.8	51	53.8	1.6	51
J-8167	27.6	3.5	1.7	52.3	55	3.5	52.3
J-8168	20.9	1.5	0.7	55.9	58.4	1.5	55.9
J-8169	42.6	7.2	3.5	48.1	50	7.2	48.1
J-8170	42.2	0	0	48.3	50.2	0	48.3
J-8171	31.8	10.1	4.8	49.5	52.7	10.1	49.5
J-8172	32.4	2.2	1.1	49.3	52.5	2.2	49.3
J-8174	44.4	7.3	3.5	48.1	49.5	7.3	48.1
J-8175	35.2	2.9	1.4	48.1	51.3	2.9	48.1
J-8176	27.1	3.1	1.5	52	54.9	3.1	52
J-8177	45.9	5.8	2.8	48	49.1	5.8	48
J-8178	45.7	4.7	2.3	48.1	49.2	4.7	48.1
J-8179	21.8	4.2	2	55.6	58.1	4.2	55.6
J-8180	39.3	10.3	5	48.1	50.2	10.3	48.1
J-8181	39.7	10.4	5	48	50	10.4	48
J-8182	43.6	6.5	3.1	46.7	48.5	6.5	46.7
J-8183	39.8	0	0	49.3	51.1	0	49.3
J-8184	37.6	1.7	0.8	48.6	51	1.7	48.6
J-8185	27.8	11.5	5.5	52.1	54.8	11.5	52.1
J-8186	30.6	0	0	50.2	53.3	0	50.2
J-8187	35.7	2.2	1.1	49.1	51.8	2.2	49.1
J-8188	37.4	13	6.3	48.4	50.9	13	48.4
J-8189	37.4	9.1	4.4	48.4	51	9.1	48.4
J-8190	42.5	4.1	2	47.1	48.9	4.1	47.1
J-8192	27.1	4.8	2.3	52.4	55.1	4.8	52.4
J-8193	32.4	5.8	2.8	50.3	53	5.8	50.3
J-8194	32.4	1.1	0.5	50.3	53	1.1	50.3
J-8195	42.5	13.2	6.4	47	48.9	13.2	47
J-8196	42.7	15.1	7.3	47	48.8	15.1	47
J-8197	46.9	2	1	47.1	48.5	2	47.1
J-8198	46.4	5.5	2.6	47.2	48.7	5.5	47.2
J-8199	44.8	7.2	3.5	47.9	49.3	7.2	47.9
J-8200	44.4	2.2	1.1	48	49.4	2.2	48
J-8201	37.2	6.7	3.2	50.4	52.4	6.7	50.4
J-8202	27.3	3.1	1.5	53.2	55.6	3.1	53.2

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8203	44.3	3.9	1.9	46.3	48.2	3.9	46.3
J-8204	37.4	2.5	1.2	48.8	51	2.5	48.8
J-8205	32.7	8.6	4.1	49.2	52.4	8.6	49.2
J-8206	42.3	4.6	2.2	47.2	49	4.6	47.2
J-8207	33.8	10.1	4.9	48.7	51.9	10.1	48.7
J-8208	20	4.3	2.1	56.3	58.9	4.3	56.3
J-8209	26.6	0	0	53.7	56.2	0	53.7
J-8210	46.4	0	0	46.2	47.3	0	46.2
J-8211	28	3.7	1.8	52	54.8	3.7	52
J-8212	32.3	9	4.3	50.2	52.9	9	50.2
J-8213	37.8	4.4	2.1	50.1	52.1	4.4	50.1
J-8214	22.4	2.6	1.2	55.3	57.8	2.6	55.3
J-8215	29.9	3.9	1.9	52.5	54.9	3.9	52.5
J-8216	37.8	5.3	2.5	50.1	52.1	5.3	50.1
J-8217	42	3	1.4	47.4	49.1	3	47.4
J-8218	40.8	6.9	3.3	47.1	49.5	6.9	47.1
J-8219	42.8	0	0	48.1	49.9	0	48.1
J-8220	42.3	0	0	48.3	50.1	0	48.3
J-8221	41.9	3.3	1.6	47.4	49.2	3.3	47.4
J-8222	41.9	3	1.4	47.4	49.2	3	47.4
J-8223	27.8	27.9	13.4	52.6	55.1	27.9	52.6
J-8224	43.7	3.8	1.8	46.6	48.4	3.8	46.6
J-8225	44.1	16.1	7.8	46.4	48.2	16.1	46.4
J-8226	28.5	2.9	1.4	51	54.2	2.9	51
J-8227	28.1	13.7	6.6	51.2	54.4	13.7	51.2
J-8228	27.9	2.2	1.1	51.9	54.6	2.2	51.9
J-8229	43.2	3.5	1.7	46.8	48.6	3.5	46.8
J-8230	17.9	8.8	4.2	57.2	59.7	8.8	57.2
J-8232	41.5	1.3	0.6	47.3	49.2	1.3	47.3
J-8233	33.1	0.7	0.4	50.2	52.8	0.7	50.2
J-8234	47.5	4	1.9	44.9	46.8	4	44.9
J-8235	33.1	4.4	2.1	50.5	52.9	4.4	50.5
J-8237	23.9	0	0	53	56.2	0	53
J-8238	23.4	0	0	53.2	56.4	0	53.2
J-8239	39.9	3.2	1.6	49.2	51.2	3.2	49.2
J-8240	44	7.8	3.8	48.1	49.6	7.8	48.1
J-8241	32.9	5.4	2.6	50.8	53.2	5.4	50.8
J-8243	27.3	2.3	1.1	53.3	55.7	2.3	53.3
J-8244	41.4	4.9	2.3	48.6	50.5	4.9	48.6
J-8245	45.2	2.9	1.4	47.8	49.2	2.9	47.8
J-8246	38.1	5.1	2.5	50	51.9	5.1	50
J-8247	32.4	2.2	1.1	50.2	52.9	2.2	50.2
J-8248	40.3	4.8	2.3	49.2	51.1	4.8	49.2
J-8249	30.4	5	2.4	52.3	54.7	5	52.3
J-8250	32.6	2.8	1.3	51.3	53.7	2.8	51.3
J-8251	41.8	0.7	0.4	47	49.1	0.7	47
J-8252	40.6	2.2	1.1	47.5	49.7	2.2	47.5
J-8253	37.7	6.6	3.2	50.2	52.1	6.6	50.2
J-8254	27.3	0	0	51.5	54.7	0	51.5
J-8255	42.5	3.7	1.8	46.8	48.9	3.7	46.8
J-8256	27.9	6.9	3.3	51.7	54.5	6.9	51.7
J-8257	32.7	0	0	51.3	53.7	0	51.3
J-8258	31.3	14.8	7.1	50.6	53.3	14.8	50.6
J-8259	21.9	4.3	2.1	55.5	58	4.3	55.5
J-8260	32.4	4.1	2	49.3	52.5	4.1	49.3
J-8261	28.5	0.8	0.4	51	54.2	0.8	51
J-8263	44.1	50.9	24.5	46.3	48.3	50.9	46.3
J-8264	18.9	5	2.4	56.8	59.3	5	56.8
J-8265	29.2	0.3	0.1	51.6	54.3	0.3	51.6
J-8266	29.5	2.9	1.4	51.5	54.2	2.9	51.5
J-8267	30.2	0.7	0.4	52.2	54.7	0.7	52.2
J-8268	37.8	4.6	2.2	50.1	52.1	4.6	50.2
J-8269	38.6	11.4	5.5	48.1	50.5	11.4	48.1
J-8270	43.6	8.2	4	46.3	48.4	8.2	46.3
J-8271	43.6	12.1	5.8	46.3	48.4	12.1	46.3
J-8272	38.7	5.1	2.5	48.3	50.5	5.1	48.3
J-8273	27.6	7.5	3.6	53.3	55.8	7.5	53.3
J-8274	38.6	3.9	1.9	48.2	50.5	3.9	48.2
J-8276	23.4	0	0	53.2	56.4	0	53.2
J-8277	23.2	0	0	53.3	56.5	0	53.3
J-8278	42.2	2.4	1.2	48.4	50.2	2.4	48.4
J-8279	40.8	10.7	5.1	49	50.8	10.7	49
J-8280	27.7	4.9	2.3	51.3	54.5	4.9	51.3
J-8281	47	0	0	45.2	47	0	45.2
J-8282	32.3	0	0	50.8	53.2	0	50.8
J-8283	32.8	0	0	51.5	53.8	0	51.5
J-8284	26.5	5.4	2.6	51.9	55	5.4	51.9
J-8285	37.8	5.6	2.7	48.4	50.8	5.6	48.4
J-8286	37.9	7.7	3.7	48.4	50.8	7.7	48.4
J-8287	30.8	4.9	2.3	51.7	54.1	4.9	51.7
J-8288	37.9	0	0	49.1	51.1	0	49.1
J-8289	31.5	2.2	1.1	50.6	53.3	2.2	50.6
J-8290	27.8	4.1	2	52	54.8	4.1	52
J-8291	33.4	1.5	0.7	50	52.5	1.5	50
J-8292	32.5	11	5.3	50.9	52.9	11	50.9
J-8293	32.1	0.9	0.4	50.4	52.9	0.9	50.4
J-8294	38.2	4	1.9	50	51.9	4	50
J-8295	41	7.9	3.8	48.8	50.7	7.9	48.8
J-8296	41.6	7.6	3.6	48.6	50.5	7.6	48.6
J-8297	42.3	5	2.4	48.4	50.2	5	48.4
J-8298	47.1	4.1	2	45.2	47	4.1	45.2
J-8299	46.1	5.2	2.5	47.4	48.8	5.2	47.4
J-8300	27.4	10.6	5.1	51.9	54.7	10.6	51.9
J-8301	29.5	17.5	8.4	51.8	54.3	17.5	51.8
J-8302	46.9	9.1	4.4	47.1	48.5	9.1	47.1
J-8303	22.2	0	0	55.4	57.9	0	55.4
J-8304	22.2	0	0	55.4	57.9	0	55.4
J-8305	31.2	9.4	4.5	50.6	53.4	9.4	50.6
J-8306	38.5	1.5	0.7	48.4	50.5	1.5	48.4
J-8307	47.4	14.3	6.9	46.9	48.2	14.3	46.9
J-8308	47.3	8.7	4.2	46.9	48.3	8.7	46.9
J-8309	38.8	2.4	1.2	48.7	50.7	2.4	48.7
J-8310	38.2	7.2	3.4	48.9	51	7.2	48.9
J-8311	28.4	13.5	6.5	51.5	54.3	13.5	51.5
J-8312	27.8	9.3	4.5	51.7	54.6	9.3	51.7
J-8313	44.6	13.4	6.4	46	48	13.4	46
J-8314	42.3	16.2	7.8	47.1	49.1	16.2	47.1
J-8315	34.2	5.4	2.6	48.5	51.7	5.4	48.5
J-8316	46.5	4	1.9	47.3	48.6	4	47.3
J-8317	30.3	5	2.4	51.6	54	5	51.6
J-8318	46.4	3	1.4	47.2	48.6	3	47.2
J-8319	39.7	1.9	0.9	47.9	50.1	1.9	47.9

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8320	39.7	1.9	0.9	47.9	50.1	1.9	47.9
J-8322	31.9	6.9	3.3	50.4	53.1	6.9	50.4
J-8323	43.1	0	0	46.8	48.8	0	46.8
J-8324	42.6	0	0	47.1	49	0	47.1
J-8325	44.3	3.9	1.9	47.8	49.4	3.9	47.8
J-8326	44.2	3.4	1.6	47.8	49.4	3.4	47.9
J-8327	41.1	2.2	1.1	47	49.4	2.2	47
J-8328	39.1	6.7	3.2	48	50.2	6.7	48
J-8329	31.8	5.7	2.8	51.7	54.1	5.7	51.7
J-8330	37.7	1.7	0.8	48.9	51	1.7	48.9
J-8331	43.1	2.7	1.3	48.3	50	2.7	48.3
J-8332	30.6	2.2	1.1	50.8	53.5	2.2	50.8
J-8333	49.4	0.7	0.4	46.3	47.5	0.7	46.3
J-8335	37.5	5.2	2.5	48.7	51	5.2	48.7
J-8336	40.2	2.5	1.2	49.2	51.1	2.5	49.2
J-8337	31.3	5	2.4	52	54.4	5	52
J-8338	37.3	0	0	48.9	51.1	0	48.9
J-8339	26.7	4	1.9	52.2	55.1	4	52.2
J-8340	39.5	8.8	4.2	47.9	50.1	8.8	47.9
J-8341	39.1	2.2	1.1	48.1	50.3	2.2	48.1
J-8342	48.8	5.7	2.8	46.6	47.8	5.7	46.6
J-8344	43.5	4.4	2.1	46.7	48.5	4.4	46.7
J-8345	29.9	5	2.4	51.2	54	5	51.2
J-8346	47.4	1.3	0.6	46.5	48.1	1.3	46.5
J-8347	38.2	5.3	2.6	49.9	51.9	5.3	49.9
J-8348	46.1	6	2.9	48	49	6	48
J-8349	45.5	2.2	1.1	48.2	49.3	2.2	48.2
J-8350	43.2	3.7	1.8	47.9	49.8	3.7	47.9
J-8351	32.9	6	2.9	50.6	52.9	6	50.6
J-8352	37.5	0.1	0.1	50.1	52.1	0.1	50.1
J-8353	43.6	1.9	0.9	48.1	49.7	1.9	48.1
J-8354	43.9	1.2	0.6	48.1	49.6	1.2	48.1
J-8355	34.8	11	5.3	49.9	52.2	11	49.9
J-8356	42	6.3	3	47.4	49.2	6.3	47.4
J-8357	41.7	5.5	2.6	47.5	49.3	5.5	47.5
J-8358	32.2	12.9	6.2	50.8	52.9	12.9	50.8
J-8360	32.9	0	0	51.3	53.7	0	51.3
J-8361	37.2	7.9	3.8	48.7	51.1	7.9	48.7
J-8362	28.8	4.9	2.3	51.3	54.2	4.9	51.3
J-8363	35	3.7	1.8	49.3	52.1	3.7	49.3
J-8364	42.2	4.4	2.1	47.3	49.1	4.4	47.3
J-8365	42	10.5	5	47.2	49.2	10.5	47.2
J-8366	32.4	11.2	5.4	50.1	52.8	11.2	50.1
J-8367	31.5	0	0	50.8	53.4	0	50.8
J-8368	36.6	1.5	0.7	49	51.3	1.5	49
J-8369	42.8	2.5	1.2	46.6	48.7	2.5	46.6
J-8370	43.3	4.7	2.2	46.4	48.6	4.7	46.4
J-8372	37.9	0.3	0.2	50	52	0.3	50
J-8373	32.5	3	1.4	50.1	52.8	3	50.1
J-8374	37	3.9	1.9	48.8	51.2	3.9	48.8
J-8375	32.7	3	1.5	50.3	52.7	3	50.3
J-8376	37.1	4.5	2.2	48.9	51.1	4.5	48.9
J-8377	30.3	3.8	1.8	51.1	53.9	3.8	51.2
J-8378	30.8	2.3	1.1	50.9	53.6	2.3	50.9
J-8379	38.6	5.1	2.4	49.8	51.7	5.1	49.8
J-8380	32	2.2	1.1	50.9	53.3	2.2	50.9
J-8381	37.5	4.1	2	49.9	52	4.1	49.9
J-8382	43.6	5.9	2.8	48.4	49.8	5.9	48.4
J-8383	44.3	6.5	3.1	48.1	49.6	6.5	48.1
J-8384	32.3	8.4	4.1	51	52.9	8.4	51
J-8385	26	1.5	0.7	52.5	55.3	1.5	52.5
J-8386	22.3	0	0	55.3	57.8	0	55.3
J-8387	34.9	3	1.4	49.4	51.9	3	49.4
J-8388	22.2	0	0	55.4	57.9	0	55.4
J-8389	32.3	8.2	4	51.6	54	8.2	51.6
J-8390	45.9	2.2	1.1	47.5	48.9	2.2	47.5
J-8391	44.7	5.1	2.5	47.8	49.4	5.1	47.8
J-8392	44.6	3	1.4	45.5	47.9	3	45.5
J-8393	27.7	4.8	2.3	51.3	54.5	4.8	51.3
J-8394	38.2	0	0	49.6	51.7	0	49.6
J-8395	25.1	0.7	0.4	52.4	55.6	0.7	52.4
J-8397	38.7	2.1	1	48.4	50.6	2.1	48.4
J-8398	45.2	8.9	4.3	47.7	49.2	8.9	47.7
J-8399	28.1	3	1.4	52.7	55.1	3	52.7
J-8400	27.6	4	1.9	51.8	54.7	4	51.8
J-8401	18.5	5.3	2.6	57	59.5	5.3	57
J-8402	31.8	1.5	0.7	50.3	53	1.5	50.3
J-8403	44	7.9	3.8	47.8	49.5	7.9	47.8
J-8404	44.6	6.8	3.3	47.5	49.2	6.8	47.5
J-8405	30.8	5.2	2.5	50.6	53.4	5.2	50.6
J-8406	35	2.9	1.4	49.4	52	2.9	49.4
J-8407	38.8	5.9	2.9	48.4	50.4	5.9	48.4
J-8408	44	2.2	1.1	46.3	48.3	2.2	46.3
J-8409	23.2	0	0	53.3	56.5	0	53.3
J-8410	24.6	5.3	2.5	54.5	57	5.3	54.5
J-8413	33.4	2.1	1	50.2	52.7	2.1	50.2
J-8414	33.9	9.6	4.6	50.2	52.5	9.6	50.2
J-8415	32.5	0.4	0.2	50.4	53	0.4	50.4
J-8416	27.6	1.5	0.7	51.9	54.7	1.5	51.9
J-8417	41.4	5.4	2.6	48.7	50.6	5.4	48.7
J-8418	41.1	5.8	2.8	47	49.4	5.8	47
J-8419	30.7	3	1.4	50.6	53.4	3	50.6
J-8420	45.9	4.4	2.1	47.4	48.8	4.4	47.4
J-8421	41.3	7.9	3.8	47.6	49.6	7.9	47.6
J-8422	26.9	6.4	3.1	52.1	55	6.4	52.1
J-8423	44.2	4	1.9	47.9	49.4	4	47.9
J-8424	32.1	6.7	3.2	50.5	52.9	6.7	50.5
J-8425	35	3.1	1.5	49.3	52.1	3.1	49.3
J-8426	41.2	1.8	0.9	48.9	50.7	1.8	48.9
J-8428	41.7	7.2	3.5	47.4	49.2	7.2	47.4
J-8429	33.3	6.3	3	51.2	53.6	6.3	51.2
J-8430	37.4	2.2	1.1	48.4	51	2.2	48.4
J-8431	37.2	6.1	2.9	48.6	51.1	6.1	48.7
J-8432	28.8	2.5	1.2	50.8	54	2.5	50.8
J-8433	42.1	0.7	0.4	47.3	49.1	0.7	47.3
J-8435	42	0	0	47.2	49	0	47.2
J-8436	29.4	5	2.4	52.5	55	5	52.5
J-8437	29.9	9.7	4.7	52.1	54.5	9.7	52.1
J-8438	30.7	2.2	1.1	50.9	53.6	2.2	50.9
J-8439	30.1	1.5	0.7	51	53.7	1.5	51
J-8440	26.7	0.9	0.4	52.2	55.1	0.9	52.2
J-8441	28.3	10.6	5.1	53.2	55.7	10.6	53.2

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8442	38.5	0	0	49.8	51.7	0	49.8
J-8443	31	1.5	0.7	51.5	53.8	1.5	51.5
J-8444	42.9	4.2	2	48.5	50.1	4.2	48.5
J-8445	31.1	1.5	0.7	50.7	53.5	1.5	50.7
J-8446	42.9	4.9	2.3	48.5	50.1	4.9	48.5
J-8447	42.4	7.3	3.5	48.7	50.3	7.3	48.7
J-8449	30.4	5.4	2.6	52	54.4	5.4	52
J-8450	47.6	1.8	0.8	45	46.8	1.8	45
J-8451	36.8	3.1	1.5	50.5	52.5	3.1	50.5
J-8452	40.6	16.1	7.8	47.5	49.7	16.1	47.5
J-8453	43.1	6.3	3	46.5	48.6	6.3	46.5
J-8454	38.7	3.5	1.7	48	50.4	3.5	48
J-8455	37.4	1.6	0.7	48.4	51	1.6	48.4
J-8456	43	5.8	2.8	48.4	50	5.8	48.4
J-8457	44.9	3.4	1.7	46.1	47.9	3.4	46.1
J-8458	32.5	10.1	4.9	49.8	52.6	10.1	49.8
J-8459	32.1	5.3	2.5	50.1	52.9	5.3	50.1
J-8460	32.4	11.9	5.7	50	52.7	11.9	50
J-8461	42.1	0	0	47	48.9	0	47
J-8462	42.2	0	0	47	48.9	0	47
J-8463	31.4	15.7	7.5	50.4	53.1	15.7	50.4
J-8464	31.1	2.2	1.1	51.3	53.7	2.2	51.3
J-8465	31.2	3	1.4	51.2	53.7	3	51.2
J-8466	49	13.9	6.7	44.2	46.1	13.9	44.2
J-8467	32.6	0	0	49.7	52.5	0	49.7
J-8468	40.2	5.4	2.6	48.1	50.1	5.4	48.1
J-8469	39.9	1.7	0.8	48.2	50.2	1.7	48.2
J-8470	32.7	15.1	7.2	50.4	53	15.1	50.4
J-8471	27.5	21.3	10.2	53.2	55.6	21.3	53.2
J-8472	27.1	1.4	0.7	53.3	55.7	1.4	53.3
J-8473	38.8	2.4	1.1	48.4	50.4	2.4	48.4
J-8474	34.2	10.1	4.8	50.2	52.4	10.1	50.2
J-8475	33.2	6.1	2.9	50.6	52.8	6.1	50.6
J-8476	32.9	1.5	0.7	50.3	52.7	1.5	50.3
J-8478	28.9	0.7	0.4	50.8	54	0.7	50.8
J-8479	36.5	9.8	4.7	48.7	51.4	9.8	48.7
J-8480	32.3	12.5	6	50.5	53	12.5	50.5
J-8481	42.3	0	0	47.2	49.1	0	47.2
J-8482	27.4	39.7	19.1	51.4	54.6	39.7	51.4
J-8483	18.4	11.1	5.4	57	59.5	11.1	57
J-8485	44.2	8.9	4.3	48.1	49.5	8.9	48.1
J-8486	19.3	4.6	2.2	56.6	59.1	4.6	56.6
J-8487	31.7	3	1.4	51.1	53.5	3	51.1
J-8488	38.5	1.8	0.9	48.5	50.7	1.8	48.5
J-8489	37.4	5.5	2.6	48.6	51	5.5	48.6
J-8490	33	7.4	3.6	50.2	52.6	7.4	50.2
J-8491	45.5	0.8	0.4	48.2	49.3	0.8	48.2
J-8493	38.2	3.6	1.7	48.3	50.6	3.6	48.3
J-8494	41.6	6	2.9	47.4	49.3	6	47.4
J-8495	41.4	0	0	47.5	49.3	0	47.5
J-8496	25	0	0	54.3	56.8	0	54.3
J-8497	34.7	5.1	2.4	50	52	5.1	50
J-8498	42.2	0	0	48.3	50.2	0	48.3
J-8499	38.3	0.4	0.2	48.7	50.6	0.4	48.7
J-8500	38.2	9.7	4.6	48.4	50.6	9.7	48.4
J-8501	42.3	9.6	4.6	48.4	50.1	9.6	48.4
J-8502	37.7	5.3	2.5	48.7	50.9	5.3	48.7
J-8503	41.6	2.7	1.3	48.6	50.5	2.7	48.6
J-8504	40.8	2.6	1.3	47.4	49.6	2.6	47.4
J-8505	27.3	8.6	4.1	53.2	55.5	8.6	53.2
J-8506	38.3	0	0	48.6	50.5	0	48.6
J-8507	26.4	2.9	1.4	53.8	56.3	2.9	53.8
J-8509	38.5	1.5	0.7	48.2	50.4	1.5	48.2
J-8510	38	6.1	2.9	48.5	50.7	6.1	48.5
J-8512	30.2	3.1	1.5	51.8	54.2	3.1	51.8
J-8513	29.7	0.7	0.4	51.2	53.9	0.7	51.2
J-8514	34.6	4.2	2	49.6	52.1	4.2	49.6
J-8515	27.4	5.3	2.5	52.3	55	5.3	52.3
J-8516	49.9	4.2	2	46.1	47.3	4.2	46.1
J-8517	29.9	1.5	0.7	51.2	54	1.5	51.2
J-8518	17.8	5.3	2.6	57.3	59.8	5.3	57.3
J-8519	41.5	5.1	2.4	47.4	49.3	5.1	47.4
J-8520	24.3	0	0	54.5	57	0	54.5
J-8521	36.1	6.9	3.3	49.1	51.5	6.9	49.1
J-8522	32.6	7.5	3.6	50.3	52.8	7.5	50.3
J-8523	29.1	0.4	0.2	51.5	54.3	0.4	51.5
J-8524	17.8	7.1	3.4	57.3	59.8	7.1	57.3
J-8525	32.2	3.1	1.5	51	53.4	3.1	51
J-8526	34.6	10	4.8	49.8	52.2	10	49.8
J-8527	37.3	8.7	4.2	48.6	51	8.7	48.6
J-8528	30	2.8	1.4	50.4	53.6	2.8	50.4
J-8529	46.9	5.4	2.6	47.1	48.5	5.4	47.1
J-8530	32.6	2.2	1.1	51.5	53.1	2.2	51.5
J-8532	42.8	2.2	1.1	47	48.8	2.2	47
J-8533	41.6	0	0	47.3	49.2	0	47.3
J-8534	43.4	2.2	1.1	46.7	48.6	2.2	46.7
J-8535	38.8	1.6	0.8	48.5	50.6	1.6	48.5
J-8536	30.7	1.5	0.7	51	53.7	1.5	51
J-8537	31.4	37.2	17.9	50.7	53.4	37.2	50.7
J-8540	46.8	3.8	1.8	45.3	47.1	3.8	45.3
J-8541	47.5	3.1	1.5	45	46.8	3.1	45
J-8544	42.2	7	3.4	47.2	49.1	7	47.2
J-8545	26.9	0	0	52	54.9	0	52
J-8546	29.7	2.2	1.1	51.2	53.9	2.2	51.2
J-8547	22.3	4	1.9	55.3	57.8	4	55.3
J-8548	38.8	2.6	1.2	48	50.4	2.6	48
J-8549	27.2	1.4	0.7	53.3	55.7	1.4	53.3
J-8551	27.9	1.4	0.7	51.6	54.5	1.4	51.6
J-8553	27.7	0.7	0.4	51.7	54.6	0.7	51.7
J-8554	43.3	0	0	46.7	48.7	0	46.7
J-8556	22.1	1.8	0.9	55.4	57.9	1.8	55.4
J-8557	42.3	11.6	5.6	46.8	48.9	11.6	46.8
J-8558	44	20.1	9.7	46.4	48.3	20.1	46.4
J-8559	37.1	1.5	0.7	48.7	51.1	1.5	48.7
J-8560	30.1	1.6	0.8	52.4	54.9	1.6	52.4
J-8561	42.9	1.5	0.7	48.1	49.9	1.5	48.1
J-8562	42.3	5.7	2.7	46.8	48.9	5.7	46.8
J-8563	44.9	2.2	1.1	46	47.9	2.2	46
J-8564	26.3	3.8	1.8	51.9	55.1	3.8	51.9
J-8565	46.4	7.7	3.7	45.3	47.3	7.7	45.3
J-8566	42.4	6.7	3.2	47.2	49	6.7	47.2
J-8567	28.9	4.2	2	50.8	54	4.2	50.8

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8568	27.7	6	2.9	51.8	54.6	6	51.8
J-8569	46	4.4	2.1	45.7	47.5	4.4	45.7
J-8571	30.7	2.9	1.4	51.4	53.9	2.9	51.4
J-8572	47.3	10.3	5	45.1	46.9	10.3	45.1
J-8573	27.4	3	1.4	53.1	55.4	3	53.1
J-8574	29.8	4.3	2.1	50.4	53.6	4.3	50.4
J-8575	38.9	2.3	1.1	48.5	50.6	2.3	48.5
J-8576	38.2	2.2	1	48.8	50.9	2.2	48.8
J-8577	32.4	2.9	1.4	50.1	52.8	2.9	50.1
J-8578	36.8	12.7	6.1	49.1	51.1	12.7	49.1
J-8579	28.4	3.5	1.7	51.8	54.6	3.5	51.8
J-8580	22.4	4	1.9	55.3	57.8	4	55.3
J-8581	26.3	0	0	51.9	55.1	0	51.9
J-8582	37.7	0	0	48.9	50.9	0	48.9
J-8583	30	15.7	7.6	52.6	54.9	15.7	52.6
J-8584	44	1.3	0.6	46.5	48.3	1.3	46.5
J-8585	39.1	2.4	1.1	48.5	50.5	2.4	48.5
J-8587	33.3	11.2	5.4	50.1	53	11.2	50.1
J-8588	44.1	3.1	1.5	48.1	49.6	3.1	48.1
J-8589	44.5	0.2	0.1	48	49.4	0.2	48
J-8590	38.8	7.4	3.5	48.1	50.4	7.4	48.1
J-8591	17.7	4.4	2.1	57.3	59.8	4.4	57.3
J-8592	44.1	0	0	46.3	48.3	0	46.3
J-8593	47.5	4.2	2	45.2	46.8	4.2	45.2
J-8595	32.1	3	1.4	51	53.3	3	51
J-8596	26.3	4.6	2.2	51.9	55.1	4.6	51.9
J-8597	26.5	0	0	52	55.1	0	52
J-8598	26.8	5.3	2.6	52.2	55	5.3	52.2
J-8601	30.9	0.8	0.4	51.4	53.8	0.8	51.4
J-8602	42.4	0	0	47.1	49	0	47.1
J-8603	42.9	0	0	46.9	48.8	0	46.9
J-8604	32.2	12.3	5.9	50.6	52.9	12.3	50.6
J-8605	27.9	3.5	1.7	52	54.8	3.5	52
J-8606	27.2	0	0	51.5	54.7	0	51.5
J-8607	30.2	11.1	5.3	51.8	54.2	11.1	51.8
J-8609	47.4	0	0	47.9	48.6	0	47.9
J-8610	27.3	6.5	3.1	53.3	55.7	6.5	53.3
J-8611	29.2	5.8	2.8	52.4	54.8	5.8	52.4
J-8612	36.1	8.4	4	49.1	51.5	8.4	49.1
J-8614	46.6	0.3	0.2	45.3	47.2	0.3	45.3
J-8615	45.7	10	4.8	47	48.8	10	47
J-8618	27	4.7	2.2	52.1	55	4.7	52.1
J-8619	27.3	0	0	51.5	54.7	0	51.5
J-8620	38.1	8.3	4	48.4	50.6	8.3	48.4
J-8621	42.1	0	0	47.4	49.3	0	47.4
J-8623	30.1	0	0	52.2	54.7	0	52.2
J-8624	42.9	6.1	2.9	48.3	50	6.1	48.3
J-8626	39.6	1.4	0.7	48.3	50.3	1.4	48.3
J-8627	34	6.6	3.2	50.3	52.3	6.6	50.3
J-8628	34.3	3	1.4	50.2	52.2	3	50.2
J-8629	32.3	8	3.8	50.6	52.8	8	50.6
J-8630	32.2	0.7	0.4	50.7	52.9	0.7	50.7
J-8631	31.3	0	0	51	53.6	0	51
J-8633	30.1	4.9	2.3	50.3	53.5	4.9	50.3
J-8634	47.5	3.2	1.5	44.9	46.8	3.2	44.9
J-8636	27.3	13.2	6.3	51.9	54.8	13.2	51.9
J-8637	20.7	3.5	1.7	56.1	58.6	3.5	56.1
J-8638	42.3	4.6	2.2	47.1	48.9	4.6	47.1
J-8639	42.3	3.3	1.6	47.1	48.9	3.3	47.1
J-8640	38.1	1.8	0.9	49	51	1.8	49
J-8641	37.4	4	1.9	48.7	50.9	4	48.7
J-8642	37.2	0	0	48.9	50.9	0	48.9
J-8643	41.7	8.5	4.1	47.3	49.2	8.5	47.3
J-8644	37.4	7.5	3.6	48	50.9	7.5	48.1
J-8645	41.3	0.1	0.1	47.4	49.3	0.1	47.4
J-8646	42	0.7	0.4	47.2	49.1	0.7	47.2
J-8648	37.5	6.1	2.9	48.8	51	6.1	48.8
J-8649	30.3	5	2.4	52.2	54.7	5	52.2
J-8651	36.1	7.5	3.6	49.1	51.5	7.5	49.1
J-8652	38.8	9.1	4.4	49.7	51.6	9.1	49.7
J-8653	45.5	12.1	5.8	47.6	49	12.1	47.6
J-8654	31.5	3.8	1.8	51.8	54.3	3.8	51.8
J-8655	27.4	1.8	0.9	53.3	55.8	1.8	53.3
J-8656	34	6	2.9	50.4	52.3	6	50.4
J-8657	29	7.4	3.6	52.1	54.6	7.4	52.1
J-8658	32.4	9.7	4.7	50.4	52.8	9.7	50.4
J-8659	30.1	0.7	0.4	52.2	54.7	0.7	52.2
J-8660	22.2	0	0	55.4	57.9	0	55.4
J-8661	45.9	6.6	3.2	47.3	48.8	6.6	47.3
J-8662	44.8	3.1	1.5	47.1	49	3.1	47.1
J-8663	39.6	6.8	3.3	48.3	50.3	6.8	48.3
J-8664	39.9	3.3	1.6	48.2	50.2	3.3	48.2
J-8665	39.4	0.8	0.4	48.3	50.4	0.8	48.3
J-8666	37.5	0.7	0.4	48.5	51	0.7	48.5
J-8667	37.6	2.2	1.1	48.5	50.9	2.2	48.5
J-8668	31.9	3.4	1.6	50.4	53.1	3.4	50.4
J-8670	31.6	2.2	1.1	50.4	53.1	2.2	50.4
J-8671	47.5	1.5	0.7	46.8	48.2	1.5	46.8
J-8672	33.3	1.1	0.5	50.3	52.7	1.1	50.3
J-8673	34.3	0.8	0.4	49.9	52.3	0.8	49.9
J-8674	32.5	0.7	0.4	49.8	52.6	0.7	49.8
J-8675	37.6	13.2	6.3	49.2	51.2	13.2	49.2
J-8676	40.2	2.1	1	49.1	51	2.1	49.1
J-8679	40.1	5.2	2.5	48.1	50.1	5.2	48.1
J-8680	27.5	17.4	8.4	51.9	54.7	17.4	51.9
J-8681	28.6	11.7	5.6	51.4	54.3	11.7	51.5
J-8682	40.7	3.6	1.7	47.5	49.6	3.6	47.5
J-8685	32.5	53.4	25.7	50.9	52.9	53.4	50.9
J-8686	27.1	4.8	2.3	52	54.9	4.8	52
J-8689	25.5	10.2	4.9	54.1	56.6	10.2	54.1
J-8691	20.6	6.4	3.1	56.1	58.6	6.4	56.1
J-8692	28.3	1.2	0.6	51.9	54.6	1.2	51.9
J-8694	31.6	2.2	1.1	50.4	53.1	2.2	50.4
J-8695	30.1	13.8	6.6	50.2	53.5	13.8	50.2
J-8696	19.9	2.4	1.2	56.3	58.9	2.4	56.4
J-8697	47	0.7	0.4	48	48.8	0.7	48
J-8698	32.1	7	3.4	49.4	52.6	7	49.4
J-8699	26.8	0	0	52.5	55.3	0	52.5
J-8700	40.2	0.2	0.1	47.9	49.8	0.2	47.9
J-8701	28.2	10.9	5.2	51	54.3	10.9	51
J-8702	45	1.2	0.6	46	47.9	1.2	46
J-8703	22.5	0	0	53.6	56.8	0	53.6

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8704	23.3	0	0	53.3	56.4	0	53.3
J-8705	25	0	0	52.5	55.7	0	52.5
J-8706	28.2	2.5	1.2	53	55.5	2.5	53
J-8708	31.7	3.4	1.6	50.5	53.2	3.4	50.5
J-8709	25.1	0	0	52.5	55.7	0	52.5
J-8710	30	0	0	52.3	54.8	0	52.3
J-8711	36.3	6.6	3.2	48.8	51.4	6.6	48.8
J-8712	39	0	0	48.6	50.5	0	48.6
J-8713	25.8	1.2	0.6	52.9	55.7	1.2	52.9
J-8715	37.5	6.8	3.3	48.6	51	6.8	48.6
J-8716	38.1	7.5	3.6	50	51.9	7.5	50
J-8717	35.6	4.6	2.2	49.2	51.7	4.6	49.2
J-8718	41.2	0	0	47.5	49.4	0	47.5
J-8719	28	3.2	1.5	52.5	55	3.2	52.5
J-8720	36.5	7.6	3.7	49.2	51.2	7.6	49.2
J-8722	27.3	3.7	1.8	52.3	55.1	3.7	52.3
J-8723	30.2	1.1	0.5	50.3	53.5	1.1	50.3
J-8724	27.9	2.3	1.1	52.8	55.2	2.3	52.8
J-8725	28.1	3	1.4	52.7	55.1	3	52.7
J-8726	37.2	5.2	2.5	48.4	51.3	5.2	48.4
J-8727	38.4	16.3	7.8	49	50.9	16.3	49
J-8728	36.1	6	2.9	49.1	51.5	6	49.1
J-8729	26.3	119.5	57.5	52.7	55.5	119.5	52.7
J-8731	29.5	0	0	52.5	55	0	52.5
J-8732	33.1	4.3	2.1	50.1	52.7	4.3	50.1
J-8733	32.9	22.5	10.8	50.2	52.8	22.5	50.2
J-8734	22	100.9	48.5	55.5	57.9	100.9	55.5
J-8735	43.6	9.9	4.8	47.9	49.7	9.9	47.9
J-8736	38.9	5.9	2.8	49.7	51.6	5.9	49.7
J-8737	41.8	3.4	1.6	47.4	49.2	3.4	47.4
J-8738	27.9	6.8	3.3	51.2	54.4	6.8	51.2
J-8740	43.7	4.4	2.1	47.9	49.6	4.4	47.9
J-8741	43.1	6.9	3.3	48.3	49.9	6.9	48.3
J-8742	37.5	1.3	0.6	50.2	52.1	1.3	50.2
J-8743	36.3	6.3	3	49.3	51.3	6.3	49.3
J-8744	17.6	5.3	2.5	57.4	59.9	5.3	57.4
J-8746	47.2	21.2	10.2	46.5	47.8	21.2	46.5
J-8747	42.3	4.5	2.2	47.1	48.9	4.5	47.1
J-8748	42.8	0	0	50.6	50.9	0	50.6
J-8749	37.5	4.8	2.3	50.3	52.2	4.8	50.3
J-8750	37.1	6.9	3.3	48.7	51.1	6.9	48.7
J-8751	32.4	2.3	1.1	50.9	53.3	2.3	50.9
J-8753	37.4	0.1	0	48.4	51	0.1	48.4
J-8754	36.7	2.9	1.4	49.2	51.4	2.9	49.2
J-8755	41.9	9.5	4.6	48.4	50.3	9.5	48.4
J-8757	38.4	2.7	1.3	49	50.9	2.7	49
J-8758	27.9	8.3	4	52.5	55	8.3	52.5
J-8761	45.8	0	0	49.2	49.5	0	49.2
J-8762	30.4	2.3	1.1	52.1	54.6	2.3	52.1
J-8763	26	0	0	52.1	55.3	0	52.1
J-8765	27.7	10.7	5.2	51.3	54.5	10.7	51.3
J-8766	28.4	8.5	4.1	51.1	54.2	8.5	51.1
J-8767	47.5	0	0	45	46.8	0	45
J-8768	28.2	0.4	0.2	53	55.5	0.4	53
J-8769	47.4	2.9	1.4	47.4	48.3	2.9	47.4
J-8771	46.9	15.7	7.6	46.1	47.7	15.7	46.1
J-8772	30.9	3.2	1.5	51.2	53.7	3.2	51.2
J-8774	29	0	0	52.8	55.2	0	52.8
J-8775	42.4	0	0	46.8	48.8	0	46.8
J-8776	41.8	0	0	47.1	49.1	0	47.1
J-8777	29.8	5.7	2.7	50.4	53.6	5.7	50.4
J-8778	21.6	4.5	2.2	55.6	58.1	4.5	55.6
J-8779	30.4	6.3	3	51.4	54	6.3	51.5
J-8783	47.2	0	0	48.2	48.8	0	48.2
J-8785	34.5	3.9	1.9	49.7	52.1	3.9	49.7
J-8786	27.2	0	0	53.3	55.7	0	53.3
J-8787	34.7	0	0	50.8	53	0	50.8
J-8788	37.4	0.2	0.1	49.8	52	0.2	49.8
J-8791	32.3	0	0	51.4	53.8	0	51.4
J-8793	28.3	2.9	1.4	53	55.5	2.9	53
J-8795	30.5	0	0	52.3	54.7	0	52.3
J-8796	33.7	3	1.5	50.5	52.9	3	50.5
J-8799	38.8	6.7	3.2	48.2	50.4	6.7	48.2
J-8800	37.6	5.9	2.9	48.4	50.9	5.9	48.4
J-8801	24	6	2.9	53.9	56.6	6	53.9
J-8802	37.4	4.3	2.1	48.4	51	4.3	48.4
J-8803	37.3	0	0	50.3	52.3	0	50.3
J-8804	38.2	2.3	1.1	49.1	51	2.3	49.1
J-8805	38.6	2.9	1.4	48.2	50.5	2.9	48.2
J-8806	37.5	1.3	0.6	48.6	51	1.3	48.6
J-8807	34.5	2.2	1.1	49.5	52.1	2.2	49.5
J-8808	28.7	2.2	1.1	51.5	54.3	2.2	51.5
J-8810	41.5	1.4	0.7	47.3	49.2	1.4	47.3
J-8811	38.7	1.5	0.7	49.6	51.6	1.5	49.6
J-8812	43.6	14.9	7.2	48.1	49.7	14.9	48.1
J-8813	37.5	6.3	3.1	49.2	51.2	6.3	49.2
J-8814	39.4	0.3	0.1	48.4	50.4	0.3	48.4
J-8815	32.2	0	0	50.1	52.9	0	50.1
J-8816	47.6	8.9	4.3	45	46.8	8.9	45
J-8817	42.5	0	0	47.1	49.1	0	47.1
J-8819	32.3	9.6	4.6	50.5	52.9	9.6	50.5
J-8821	42.5	0	0	46.9	48.8	0	46.9
J-8822	39.8	0.7	0.4	47.7	49.9	0.7	47.7
J-8826	41.8	0	0	47.1	49	0	47.1
J-8829	40	6.4	3.1	47.9	50.1	6.4	47.9
J-8831	33.4	3.3	1.6	48.9	52.1	3.3	48.9
J-8832	23.5	0.9	0.4	54.2	56.8	0.9	54.2
J-8833	25.6	2.5	1.2	53.4	56	2.5	53.4
J-8834	26.6	16.7	8	53.9	56.4	16.7	53.9
J-8838	37.8	0	0	48.7	50.7	0	48.7
J-8848	48.1	0	0	45.9	46.6	0	45.9
J-8851	42.1	1.1	0.6	47.4	49.3	1.1	47.4
J-8852	33.4	1	0.5	48.9	52.1	1	48.9
J-8853	33.1	12.1	5.8	50.4	52.8	12.1	50.4
J-8854	27.5	15.2	7.3	52.9	55.3	15.2	52.9
J-8863	47.9	1.9	0.9	45	46.7	1.9	45
J-8864	47.5	0.3	0.1	45.4	46.9	0.3	45.4
J-8865	47.6	1.3	0.6	45.8	46.8	1.3	45.8
J-8871	46.7	24.4	11.7	45.3	47.2	24.4	45.3
J-8897	38.2	0	0	49.1	51	0	49.1
J-8898	47.1	0	0	49.2	49.3	0	49.2
J-8915	46.7	0.7	0.3	45.4	47.2	0.7	45.4

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8916	46.7	0	0	45.4	47.2	0	45.4
J-8917	46.6	0	0	45.5	47.2	0	45.5
J-8918	45.6	0	0	46	47.6	0	46
J-8919	45.6	0	0	46	47.6	0	46
J-8920	33.2	0	0	51.2	53.6	0	51.2
J-8921	33.2	0	0	51.2	53.6	0	51.2
J-8922	37	0	0	49	51	0	49
J-8923	37	0	0	49	51	0	49
J-8924	22.3	0	0	55.3	57.8	0	55.3
J-8925	22.4	0	0	55.3	57.8	0	55.3
J-8926	22.3	0	0	55.3	57.8	0	55.3
J-8927	22.3	0	0	55.3	57.8	0	55.3
J-8928	22.1	0	0	55.4	57.9	0	55.4
J-8929	22	0	0	55.5	57.9	0	55.5
J-8930	36.2	0	0	49.3	51.4	0	49.3
J-8931	36.2	0	0	49.3	51.4	0	49.3
J-8932	22.3	0	0	55.3	57.8	0	55.3
J-8933	22.3	0	0	55.3	57.8	0	55.3
J-8934	21.9	0	0	55.5	58	0	55.5
J-8935	21.9	0	0	55.5	58	0	55.5
J-8936	22.3	0	0	55.3	57.8	0	55.3
J-8937	22.3	0	0	55.3	57.8	0	55.3
J-8938	22	0	0	55.5	58	0	55.5
J-8940	35.5	1.3	0.6	49.7	51.6	1.3	49.7
J-8941	35.5	0	0	49.6	51.6	0	49.6
J-8942	22.3	0	0	55.3	57.8	0	55.3
J-8943	32.6	0	0	51.4	53.8	0	51.4
J-8944	32.6	0	0	51.4	53.8	0	51.4
J-8945	22.2	0	0	55.4	57.9	0	55.4
J-8946	22.3	0	0	55.3	57.8	0	55.3
J-8947	22.4	0	0	55.3	57.8	0	55.3
J-8948	37.3	0	0	48.8	50.9	0	48.8
J-8949	37.3	0	0	48.8	50.9	0	48.8
J-8950	32.6	0	0	51.5	53.8	0	51.5
J-8951	32.6	0	0	51.4	53.8	0	51.4
J-8952	32.7	0	0	51.4	53.8	0	51.4
J-8953	32.8	0	0	51.4	53.7	0	51.4
J-8956	36	0	0	49.4	51.4	0	49.4
J-8957	21.8	0	0	55.6	58.1	0	55.6
J-8958	30.3	0	0	52.2	54.7	0	52.2
J-8959	46.7	0	0	45.4	47.2	0	45.4
J-8963	33.8	0	0	50.2	52.6	0	50.2
J-8964	32.7	0	0	50.6	53	0	50.6
J-8965	36.2	0	0	49.3	51.3	0	49.3
J-8966	27.3	0	0	53.4	55.9	0	53.4
J-8967	27.3	0	0	53.4	55.9	0	53.4
J-8968	36.8	0	0	49.1	51.1	0	49.1
J-8969	37.2	0	0	48.9	51	0	48.9
J-8970	35.9	0	0	49.5	51.5	0	49.5
J-8971	28	0	0	53.2	55.7	0	53.2
J-8972	27.8	0	0	53.2	55.7	0	53.2
J-8974	36.4	0	0	49.2	51.3	0	49.2
J-8975	36.5	4.2	2	49.2	51.3	4.2	49.2
J-8976	46	0	0	45.8	47.5	0	45.8
J-8977	45.3	0	0	47.7	49.1	0	47.7
J-8978	45.5	0	0	47.6	49	0	47.6
J-8979	27.4	0	0	53.4	55.9	0	53.4
J-8980	27.7	0.9	0.4	53.3	55.8	0.9	53.3
J-8981	28	0	0	53.1	55.6	0	53.1
J-8982	28.6	0	0	52.9	55.4	0	52.9
J-8983	29.3	0	0	52.6	55.1	0	52.6
J-8984	27.6	1	0.5	53.3	55.8	1	53.3
J-8985	27.3	0	0	53.5	56	0	53.5
J-8986	27.3	0	0	53.4	55.9	0	53.5
J-8987	28.6	0	0	52.9	55.4	0	52.9
J-8988	28.4	0	0	53	55.5	0	53
J-8989	29.9	0	0	52.4	54.8	0	52.4
J-8990	28.6	0	0	52.9	55.4	0	52.9
J-8991	36.3	0	0	49.3	51.3	0	49.3
J-8992	36.2	0	0	49.3	51.4	0	49.3
J-8993	36.1	0	0	49.3	51.4	0	49.4
J-8994	29.2	0	0	52.7	55.1	0	52.7
J-8995	28.8	0	0	52.8	55.3	0	52.8
J-8996	28.9	0	0	52.8	55.3	0	52.8
J-8997	28.2	0	0	53.1	55.6	0	53.1
J-8998	28	0.9	0.4	53.2	55.7	0.9	53.2
J-9000	46.4	0	0	47.3	48.7	0	47.3
J-9001	27.4	0	0	53.4	55.9	0	53.4
J-9002	28.1	0	0	53.1	55.6	0	53.1
J-9003	34	3.7	1.8	50.3	52.3	3.7	50.3
J-9004	34.3	0	0	50.2	52.2	0	50.2
J-9006	28.5	0	0	53	55.4	0	53
J-9007	44.8	0.9	0.4	47.9	49.3	0.9	47.9
J-9009	36.3	0	0	49.3	51.4	0	49.3
J-9010	36.2	0	0	49.3	51.4	0	49.3
J-9011	28.4	0	0	53	55.5	0	53
J-9012	27.8	0	0	53.2	55.7	0	53.2
J-9014	39.2	0.3	0.2	48.1	50.3	0.3	48.1
J-9015	38.9	0	0	48.2	50.5	0	48.2
J-9016	33.3	0	0	51.2	53.6	0	51.2
J-9017	45.6	0	0	46.2	47.7	0	46.2
J-9018	36.6	0	0	49.1	51.2	0	49.2
J-9019	36.2	0	0	49.3	51.4	0	49.3
J-9020	36.1	0	0	49.4	51.4	0	49.4
J-9021	43.6	0	0	48.4	49.8	0	48.4
J-9022	36.3	0	0	49.3	51.3	0	49.3
J-9023	44.1	0	0	48.1	49.6	0	48.1
J-9024	43.8	0	0	48.2	49.7	0	48.2
J-9038	38.3	0	0	49.9	51.9	0	49.9
J-9041	21.6	0	0	55.6	58.1	0	55.6
J-9067	27.5	0	0	53.3	55.8	0	53.3
J-9099	22.9	0	0	54.4	57.1	0	54.4
J-9120	27.3	0	0	53.3	55.8	0	53.3
J-9129	45.2	0	0	47.9	49.2	0	48
J-9153	48.5	0	0	44.7	46.4	0	44.7
J-9162	27.5	0	0	52.7	55.2	0	52.7
J-9186	26.8	0	0	52	55	0	52
J-9216	25.3	0	0	53.3	56	0	53.3
J-9218	37.4	0	0	50.3	52.2	0	50.3
J-9220	36.9	0	0	48.8	51.2	0	48.8
J-9224	21.9	0	0	55.5	58	0	55.5
J-9225	27.3	0	0	52.3	55.1	0	52.3

		Existing MDD				Existing PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-9228	27	2.4	1.2	52.1	54.9	2.4	52.1
J-9229	26.2	1.4	0.7	52	55.2	1.4	52
J-9235	27.3	0.7	0.3	52.3	55.1	0.7	52.3

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
P-72	J-5535	J-5125	16	152.5	0.0	0.8	0	2.2	0.8	2.2
P-84(1)	J-5170	TEMP395	8	152.5	5.3	6.0	3.8	4.1	5.9	4.1
P-84(2)	TEMP395	J-7238	8	152.5	5.3	6.0	3.8	4.1	5.9	4.1
P-85	J-6870	J-5170	8	152.5	3.2	4.0	2.9	3.3	4.0	3.3
P-88	J-5546	J-5346	18	152.5	0.0	0.0	0	0	0.0	0
P-93	J-5165	J-5502	12	152.5	0.0	0.6	0	1.5	0.6	1.5
P-94	J-5502	J-5202	12	152.5	0.0	0.1	0	0.7	0.1	0.7
P-110	J-5161	J-5163	12	152.5	0.1	0.2	0.6	0.8	0.2	0.8
P-111	J-5269	J-5161	10	152.5	0.1	0.2	0.6	0.8	0.1	0.6
P-112(1)	J-5069	TEMP399	12	152.5	0.5	1.4	1.3	2.4	1.4	2.4
P-112(2)	TEMP399	J-5320	12	152.5	0.5	1.4	1.3	2.4	1.3	2.4
P-113	J-5069	J-5079	12	152.5	0.9	2.6	1.9	3.4	2.6	3.4
P-114	J-5049	J-8873	16	130	0.0	0.0	0	0	0.0	0
P-115	J-6315	J-5047	16	130	0.0	0.0	0	0	0.0	0
P-116	J-5373	J-5053	16	130	0.0	0.0	0	0	0.0	0
P-118	J-5060	J-6315	16	130	0.0	0.0	0	0	0.0	0
WMAIN-0002	J-7435	J-7436	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0003	169-043	J-5098	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0005	J-7440	J-7441	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0007(1)	J-7440	168-041	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-0007(2)	168-041	168-040	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-0009(1)	J-7435	168-042	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0009(2)	168-042	J-7440	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0010	J-5357	J-5126	30	152.5	0.2	0.5	1.6	2.6	0.5	2.6
WMAIN-0013	J-7590	J-7435	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-0015	168-040	J-7207	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0018	J-8047	168-040	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0020(1)	J-7819	168-039	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0020(2)	168-039	J-8047	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0021(1)	J-8015	168-044	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0021(2)(1)	168-044	168-045	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-0021(2)(2)	168-045	J-7819	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-0022	J-7590	J-8015	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-0026(1)	J-7589	168-043	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-0026(2)	168-043	J-7590	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-0028	J-6193	J-7589	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-0032	J-5420	J-5421	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0033	J-7806	J-7819	8	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-0034	052-006	J-5068	6	140	0.0	0.0	0	0	0.0	0
WMAIN-0035(1)	J-6193	168-046	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0035(2)	168-046	J-8793	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0039(1)	J-6192	168-047	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0039(2)	168-047	J-6193	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0040	J-8442	J-8183	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0043	J-5655	J-8442	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0045	J-5654	J-5655	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0047(1)	J-8352	170-157	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0047(2)	170-157	J-5654	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0049	J-6332	J-8352	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0050	J-6332	J-5377	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0051	J-8140	J-8183	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0053	J-8139	J-8140	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0054(1)	J-8220	170-158	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0054(2)	170-158	J-8139	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0056	J-8219	J-8220	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0058(1)	J-8250	169-001	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0058(2)	169-001	J-6669	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0063	J-6256	169-094	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0064	169-094	J-5183	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0065	J-6256	J-7014	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0068(1)	J-8160	169-096	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-0068(2)(1)	169-096	169-095	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0068(2)(2)	169-095	J-6256	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0070	J-6336	J-6318	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0073	J-6336	J-5698	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-0075(1)	J-8649	169-091	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0075(2)	169-091	J-6336	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-0078(1)	J-6668	169-090	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0078(2)	169-090	J-8649	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0080(1)	J-6668	169-089	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0080(2)	169-089	J-6669	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0083	J-7873	J-6668	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0085(1)	J-7873	169-088	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0085(2)	169-088	J-8160	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0087	J-6318	J-6294	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-0090(1)	J-7014	169-092	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-0090(2)	169-092	J-6318	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-0092(1)	J-7873	169-093	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0092(2)	169-093	J-7014	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0094	J-7286	J-7873	8	152.5	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-0096	J-6113	180-011	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0097	J-8346	H-384	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0098(1)	J-8661	180-001	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0098(2)(1)	180-001	J-8088	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0098(2)(2)	J-8088	J-8346	12	152.5	0.3	0.8	1	1.7	0.8	1.7
WMAIN-0101	J-8155	J-8156	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-0103(1)	J-8156	TEMP476	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-0103(2)	TEMP476	J-6257	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-0104(1)	J-6257	180-004	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0104(2)	180-004	J-6258	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0105	J-6648	J-6257	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-0107	J-6304	J-6648	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-0111(1)	J-6189	180-007	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0111(2)	180-007	J-6190	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0112	J-7991	J-6189	12	152.5	0.0	0.0	0.2	0.4	0.0	0.4
WMAIN-0124(1)	J-8155	180-002	12	152.5	0.3	0.7	1	1.7	0.7	1.7
WMAIN-0124(2)	180-002	J-8346	12	152.5	0.3	0.7	1	1.7	0.7	1.7
WMAIN-0126(1)	J-6648	180-003	12	152.5	0.2	0.5	0.8	1.4	0.5	1.4
WMAIN-0126(2)	180-003	J-8155	12	152.5	0.2	0.5	0.8	1.4	0.5	1.4
WMAIN-0128(1)	J-7991	180-005	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-0128(2)	180-005	J-6648	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-0131	J-8297	J-7991	12	152.5	0.1	0.3	0.7	1.1	0.3	1.1
WMAIN-0134	J-8296	J-8297	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-0136(1)	J-8248	180-009	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-0136(2)	180-009	J-8296	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-0140	J-6113	J-8248	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0143	J-7283	J-6113	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0145	J-7282	J-7283	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0146	J-5592	J-5593	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0147	125-112	J-5593	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0152	J-7455	J-5592	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0153(1)	J-7620	125-114	8	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0153(2)	125-114	J-8698	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0155(1)	J-8698	125-113	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0155(2)	125-113	J-5592	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0156(1)	J-7619	125-115	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0156(2)	125-115	J-7620	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0160(1)	J-7522	125-116 125-116	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0160(2)	125-116 125-116	J-7619	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0162(1)	J-7455	125-117	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0162(2)	125-117	J-7522	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0166	J-5601	J-5602	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0167(1)	J-5602	125-105	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0167(2)	125-105	J-5618	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0168	J-5618	J-5619	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0169(1)	J-5601	125-104	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0169(2)	125-104	J-7970	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0171(1)	J-5619	125-106	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0171(2)	125-106	J-6170	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0173(1)	J-7970	125-107	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0173(2)	125-107	J-6170	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0175	J-8154	J-5629	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0176	J-5629	J-5630	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0177(1)	J-5630	125-110	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0177(2)	125-110	J-5631	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0178	J-5631	J-5632	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0180	J-6171	J-6168	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0182	J-6170	J-6171	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0185	J-6171	J-5743	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0186(1)	J-5743	125-108	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0186(2)	125-108	J-5744	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0187	J-5744	J-5978	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0189	J-5632	J-5978	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0191(1)	J-5978	125-109	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0191(2)	125-109	J-8154	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0199	J-7970	J-7523	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0200(1)	J-7224	125-103	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-0200(2)(1)	125-103	125-102	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-0200(2)(2)	125-102	J-7523	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-0202	J-7522	J-7523	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0204	J-8154	J-7782	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0206	J-7523	J-7782	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0208(1)	J-7455	125-111	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0208(2)	125-111	J-7456	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0210(1)	J-7782	125-101	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0210(2)	125-101	J-7456	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0218(1)	J-7456	125-100	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0218(2)	125-100	J-7955	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0220(1)	J-7955	125-099	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0220(2)	125-099	J-5899	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0221	J-8137	J-7955	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0225	J-6014	J-5899	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0227	J-6140	J-6014	12	130	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0229	J-5899	J-5935	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0230(1)(1)	J-8528	125-096	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0230(1)(2)	125-096	125-097	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0230(2)(1)	125-097	125-098	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0230(2)(2)	125-098	J-6140	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0233	J-7224	J-7225	8	152.5	0.1	0.2	0.3	0.7	0.2	0.7
WMAIN-0235	J-5433	J-5739	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0237	J-5432	J-5433	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0240	J-5259	J-5260	12	130	0.0	0.0	0	0	0.0	0
WMAIN-0242	J-5259	J-5261	12	130	0.0	0.0	0	0	0.0	0
WMAIN-0243	J-5509	J-8852	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0245	J-5508	J-5509	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0246	J-5438	J-5439	8	130	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0247(1)	J-5905	J-8831	12	130	0.0	0.0	0	0	0.0	0
WMAIN-0247(2)	J-8831	J-5259	12	130	0.0	0.0	0	0	0.0	0
WMAIN-0250(1)(1)	J-5508	126-056	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0250(1)(2)	126-056	126-055	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0250(2)	126-055	J-8260	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0252(1)(1)	J-8831	126-058	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0252(1)(2)	126-058	126-057	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0252(2)	126-057	J-5508	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0253	J-6532	J-6533	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0255(1)	J-6533	126-052	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0255(2)	126-052	J-6510	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-0256	J-6510	J-5438	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0257(1)	J-8260	126-053	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0257(2)	126-053	J-6533	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0260(1)	J-6111	126-048	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0260(2)	126-048	J-5439	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0261	J-7143	J-6111	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0262	J-6111	J-6112	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0263(1)	J-8105	126-054	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0263(2)	126-054	J-8260	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0265(1)	J-6712	014-013	12	152.5	1.4	2.0	2.4	3	2.0	2.9
WMAIN-0265(2)	014-013	J-6713	12	152.5	1.4	2.0	2.4	3	2.0	2.9
WMAIN-0267	J-6713	J-8812	12	152.5	1.4	2.0	2.4	3	2.0	2.9
WMAIN-0268	014-017	014-016	16	152.5	0.2	0.4	1	1.4	0.4	1.4
WMAIN-0272(1)	J-6704	J-9017	12	152.5	0.1	1.6	0.7	2.6	1.6	2.6
WMAIN-0272(2)	J-9017	033-010	12	152.5	0.1	0.9	0.6	1.9	0.9	1.9
WMAIN-0274	149-001	J-6704	12	152.5	0.1	1.6	0.7	2.6	1.6	2.6
WMAIN-0275	J-5996	149-002	12	152.5	0.1	1.6	0.7	2.6	1.6	2.6
WMAIN-0277	J-5056	J-5057	16	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0278A(1)	LAPS 16" PRV	139-002	16	152.5	0.1	1.0	0.6	2.5	1.0	2.5
WMAIN-0278A(2)(1)	139-002	139-001	16	152.5	0.1	1.0	0.6	2.5	1.0	2.5
WMAIN-0278A(2)(2)	139-001	J-5569	16	152.5	0.1	1.0	0.6	2.5	1.0	2.5
WMAIN-0278B	J-5057	LAPS 16" PRV	16	152.5	0.1	1.0	0.6	2.5	1.0	2.5
WMAIN-0279	J-5112	J-5113	6	140	0.0	0.3	0	0.7	0.3	0.7
WMAIN-0280(1)	036-052	029-001	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-0280(2)	029-001	J-5411	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-0282(1)	J-6717	H-555	6	140	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-0282(2)	H-555	J-5411	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-0284(1)	J-6049	J-8250	12	152.5	0.0	0.2	0.4	0.8	0.1	0.7
WMAIN-0284(2)	J-8250	J-7286	12	152.5	0.1	0.2	0.5	0.9	0.2	0.8
WMAIN-0285(1)	J-7391	021-036	12	152.5	0.0	0.0	0	0.4	0.0	0
WMAIN-0285(2)	021-036	J-8754	12	152.5	0.0	0.0	0	0.4	0.0	0
WMAIN-0286(1)	J-8754	021-049	12	152.5	0.0	0.1	0	0.4	0.0	0
WMAIN-0286(2)	021-049	J-5762	12	152.5	0.0	0.1	0	0.4	0.0	0
WMAIN-0288	J-6290	J-5691	6	140	0.0	0.7	0	1	0.7	1
WMAIN-0289	J-5691	J-5692	6	140	0.0	0.7	0	1	0.7	1
WMAIN-0291(1)	J-8560	169-002	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-0291(2)	169-002	J-8795	12	152.5	0.1	0.3	0.6	1	0.3	1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0292	J-7286	J-8560	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-0294(1)(1)	J-6631	028-021	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-0294(1)(2)	028-021	028-045	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-0294(2)	028-045	J-5692	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-0296(1)	J-7952	056-013	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0296(2)	056-013	J-7945	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0297(1)	J-8105	126-051	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0297(2)(1)	126-051	126-050	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0297(2)(2)(1)	126-050	126-049	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0297(2)(2)(2)	126-049	J-6233	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0298	J-6232	J-6233	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0300(1)	J-7118	125-089	12	152.5	0.1	0.4	0.5	1.2	0.4	1.2
WMAIN-0300(2)	125-089	J-8467	12	152.5	0.1	0.4	0.5	1.2	0.4	1.2
WMAIN-0302(1)	J-7874	125-057	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0302(2)	125-057	J-7881	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0303(1)(1)	J-7875	125-083	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0303(1)(2)	125-083	125-058	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0303(2)	125-058	J-7880	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0307(1)(1)	J-6002	024-029	12	152.5	0.1	0.5	0.6	1.4	0.4	1.2
WMAIN-0307(1)(2)	024-029	156-044	12	152.5	0.1	0.5	0.6	1.4	0.4	1.2
WMAIN-0307(2)(1)	156-044	024-028	12	152.5	0.1	0.5	0.6	1.4	0.4	1.2
WMAIN-0307(2)(2)	024-028	J-8854	12	152.5	0.1	0.5	0.6	1.4	0.4	1.2
WMAIN-0308	J-6001	J-6002	12	152.5	0.1	0.5	0.6	1.4	0.4	1.2
WMAIN-0312	J-7881	J-7317	8	152.5	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-0315	J-7880	J-7881	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0319	J-5530	J-5531	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0320	040-003	J-8801	12	152.5	0.1	0.2	0.5	0.9	0.2	0.8
WMAIN-0322(1)	J-8722	J-9225	12	152.5	0.1	0.2	0.5	0.9	0.2	0.8
WMAIN-0322(2)	J-9225	040-003	12	152.5	0.1	0.2	0.5	0.9	0.2	0.8
WMAIN-0323	J-5804	J-5805	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-0324	J-5805	J-6688	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-0327	J-5710	J-5711	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0331	J-7317	J-5791	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0333	J-7248	J-8269	12	152.5	0.0	0.3	0.1	1.1	0.1	0.7
WMAIN-0335(1)	J-8467	055-032	12	140	0.1	0.4	0.5	1.2	0.4	1.2
WMAIN-0335(2)	055-032	J-8458	12	140	0.1	0.4	0.5	1.2	0.4	1.2
WMAIN-0337(1)	J-7248	J-9274	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0337(2)	J-9274	J-7249	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0338(1)	J-8269	010-046	16	152.5	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-0338(2)(1)	010-046	011-012	16	152.5	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-0338(2)(2)	011-012	J-5213	16	152.5	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-0340	J-6662	056-041	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-0341(1)	J-8339	056-044	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0341(2)	056-044	J-5958	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0344(1)	J-7046	056-018	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0344(2)	056-018	J-6662	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0345	056-005	J-8545	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0348(1)(1)	J-8269	011-013	8	152.5	0.0	0.2	0	0.6	0.1	0.4
WMAIN-0348(1)(2)	011-013	011-014	8	152.5	0.0	0.1	0	0.5	0.1	0.4
WMAIN-0348(2)	011-014	J-6984	8	152.5	0.0	0.1	0	0.5	0.1	0.4
WMAIN-0349	J-6001	J-6038	12	152.5	0.1	0.4	0.7	1.3	0.3	1.1
WMAIN-0351(1)	J-6430	025-011	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-0351(2)	025-011	J-6001	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-0354(1)	J-7146	056-022	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0354(2)	056-022	J-7046	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0355	J-5569	J-5996	12	152.5	0.1	1.6	0.7	2.6	1.6	2.6
WMAIN-0357	J-8210	149-001	12	152.5	0.1	1.6	0.7	2.6	1.6	2.6
WMAIN-0358	149-002	J-8210	12	152.5	0.1	1.6	0.7	2.6	1.6	2.6
WMAIN-0361(1)	J-5646	023-014	6	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-0361(2)	023-014	J-8282	6	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-0363	J-8805	J-8806	2	120	0.0	0.1	0.1	0.2	0.1	0.1
WMAIN-0365	J-6716	J-6717	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-0368	J-7311	J-5820	6	140	0.1	0.3	0.3	0.6	0.2	0.4
WMAIN-0369	J-5112	J-7311	6	140	0.1	0.3	0.3	0.6	0.2	0.4
WMAIN-0371(1)	J-5113	J-8806	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-0371(2)	J-8806	036-052	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-0372	J-5820	J-5821	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-0374(1)(1)	J-5821	029-006	6	140	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-0374(1)(2)	029-006	J-8805	6	140	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-0374(2)	J-8805	J-6716	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-0375	J-7952	J-7953	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0377	J-6409	J-7945	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0379(1)	J-6409	056-017	8	152.5	0.0	0.3	0.1	0.9	0.3	0.9
WMAIN-0379(2)	056-017	J-6410	8	152.5	0.0	0.3	0.1	0.9	0.3	0.9
WMAIN-0381(1)	J-6410	056-016	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-0381(2)	056-016	J-7953	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-0384(1)	J-7945	056-012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0384(2)	056-012	J-8416	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0387	J-5403	J-5549	1	152.5	0.1	0.5	0.1	0.3	0.5	0.3
WMAIN-0388	J-5402	J-5403	2	152.5	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-0389(1)	J-5710	125-051	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-0389(2)(1)	125-051	126-038	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-0389(2)(2)	126-038	J-5546	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-0392	J-7874	J-7875	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0393(1)	J-7408	125-084	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0393(2)	125-084	J-7874	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0395	125-085	J-7408	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0397	J-7354	125-087	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0398	J-5546	J-5547	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-0401	J-5710	J-5850	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0405	J-7317	J-7858	12	152.5	0.1	0.5	0.6	1.3	0.5	1.3
WMAIN-0407(1)	125-086	125-024	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0407(2)	125-024	J-7317	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0409(1)	J-6024	J-7354	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0409(2)	J-7354	J-6025	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0410	J-6025	125-086	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0412(1)	J-7118	125-088	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0412(2)	125-088	J-6024	12	152.5	0.2	0.9	0.9	1.9	0.9	1.9
WMAIN-0413	J-6528	J-7118	12	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-0414(1)(1)	J-8636	125-090	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0414(1)(2)	125-090	125-091	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0414(2)	125-091	J-6528	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0415(1)(1)	J-8458	055-031	12	140	0.1	0.2	0.4	0.9	0.2	0.9
WMAIN-0415(1)(2)	055-031	055-033	12	140	0.1	0.3	0.4	0.9	0.3	0.9
WMAIN-0415(2)	055-033	J-5547	12	140	0.1	0.3	0.4	0.9	0.3	0.9
WMAIN-0418	J-5958	J-7146	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0421	J-6528	J-6529	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0423	J-5845	J-8458	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-0429A	171-024	171-023	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0429B(1)	J-6469	171-021	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0429B(2)	171-021	171-024	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0430	J-6534	J-6535	8	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0431	J-6382	J-5226	4	140	1.0	3.0	0.9	1.7	3.0	1.7
WMAIN-0432	J-5826	J-5827	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-0434(1)	J-5525	020-010	12	152.5	0.2	1.2	0.9	2.2	1.2	2.2
WMAIN-0434(2)	020-010	J-5526	12	152.5	0.2	1.2	0.9	2.2	1.2	2.2
WMAIN-0435	J-8330	J-5626	12	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-0438(1)	J-5526	020-018	16	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-0438(2)	020-018	J-8727	16	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-0439(1)(1)	J-8727	J-8757	16	152.5	0.0	0.1	0.2	0.6	0.1	0.5
WMAIN-0439(1)(2)	J-8757	020-019	16	152.5	0.0	0.1	0.1	0.6	0.1	0.5
WMAIN-0439(2)	020-019	J-8804	16	152.5	0.0	0.1	0.1	0.6	0.1	0.5
WMAIN-0441(1)	J-8804	020-020	16	152.5	0.0	0.1	0.1	0.6	0.1	0.5
WMAIN-0441(2)(1)	020-020	014-019	16	152.5	0.0	0.1	0.1	0.6	0.1	0.5
WMAIN-0441(2)(2)	014-019	J-5450	16	152.5	0.0	0.1	0.1	0.6	0.1	0.5
WMAIN-0442	J-5827	J-5525	12	152.5	0.2	0.8	0.8	1.8	0.8	1.8
WMAIN-0445	J-8330	J-5827	12	152.5	0.2	0.7	0.7	1.7	0.7	1.7
WMAIN-0448(1)(1)	J-6817	J-6788	12	152.5	0.1	0.4	0.6	1.2	0.4	1.1
WMAIN-0448(1)(2)	J-6788	020-008	12	152.5	0.1	0.3	0.5	1	0.2	0.9
WMAIN-0448(2)	020-008	J-8330	12	152.5	0.1	0.3	0.5	1	0.2	0.9
WMAIN-0450A	J-8288	J-8897	16	152.5	0.0	0.4	0.3	1.4	0.4	1.4
WMAIN-0450B	J-8897	J-5055	16	152.5	0.0	0.4	0.3	1.4	0.4	1.4
WMAIN-0453	J-5209	J-8288	16	152.5	0.0	0.4	0.3	1.4	0.4	1.4
WMAIN-0455	J-5208	J-5209	10	152.5	0.3	1.1	0.9	1.9	1.1	1.9
WMAIN-0457	J-5116	J-6536	12	152.5	0.0	0.2	0.3	0.9	0.2	0.8
WMAIN-0461	J-5116	J-5916	16	152.5	0.0	0.5	0.3	1.6	0.5	1.6
WMAIN-0462	J-5916	J-6521	12	152.5	0.1	1.8	0.5	2.8	1.9	2.8
WMAIN-0467(1)(1)	J-5784	150-001	12	152.5	0.0	0.3	0.2	1.1	0.3	1.1
WMAIN-0467(1)(2)(1)	150-001	J-9153	12	152.5	0.0	0.3	0.2	1.1	0.3	1.1
WMAIN-0467(1)(2)(2)	J-9153	150-002	12	152.5	0.0	0.3	0.2	1.1	0.3	1.1
WMAIN-0467(2)	150-002	J-8863	12	152.5	0.0	0.3	0.2	1.1	0.3	1.1
WMAIN-0468(1)(1)	J-8863	150-003	12	152.5	0.0	0.3	0.2	1.1	0.3	1.1
WMAIN-0468(1)(2)(1)	150-003	J-7499	12	152.5	0.0	0.3	0.2	1.1	0.3	1.1
WMAIN-0468(1)(2)(2)	J-7499	150-004	12	152.5	0.1	0.8	0.4	1.7	0.8	1.7
WMAIN-0468(2)	150-004	J-8864	12	152.5	0.1	0.8	0.4	1.7	0.8	1.7
WMAIN-0469(1)	J-8865	150-006	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-0469(2)(1)	150-006	150-007	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-0469(2)(2)	150-007	J-8848	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-0470(1)	J-8864	150-005	12	152.5	0.1	0.8	0.4	1.7	0.8	1.7
WMAIN-0470(2)	150-005	J-8865	12	152.5	0.1	0.8	0.4	1.7	0.8	1.7
WMAIN-0471(1)(1)	J-8848	150-008	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-0471(1)(2)	150-008	150-009	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-0471(2)	150-009	J-5569	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-0472	J-5569	J-5570	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0474	J-6270	J-6271	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0476	J-7140	J-6712	12	152.5	1.4	2.0	2.4	3	2.0	2.9
WMAIN-0477(1)	J-7140	014-014	16	152.5	0.0	0.0	0.2	0.4	0.0	0.3
WMAIN-0477(2)	014-014	J-7141	16	152.5	0.0	0.0	0.2	0.4	0.0	0.3
WMAIN-0479	J-6508	126-046	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0481(1)	J-8130	126-047	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0481(2)	126-047	J-6305	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0483	J-6305	J-6306	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0484(1)	J-7898	126-045	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0484(2)	126-045	J-6305	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0486	J-7185	J-7898	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0488	J-7298	126-043	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0490	J-6308	J-8175	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0491	J-8077	J-6308	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0492(1)	J-6307	126-042	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0492(2)	126-042	J-6308	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0495	J-6508	J-6108	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0497	J-7185	J-6508	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0499(1)	J-7298	126-044	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0499(2)	126-044	J-7185	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0501	J-6308	J-7298	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0503(1)	J-7943	125-077	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0503(2)	125-077	J-7464	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0504(1)	J-7913	125-074	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0504(2)	125-074	J-7464	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0506	J-6576	J-7913	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0510	J-7464	J-7400	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0511(1)	J-7463	125-076	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0511(2)	125-076	J-7464	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0514	J-7401	J-7463	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0517(1)	J-7400	125-075	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0517(2)	125-075	J-7401	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0519(1)	J-6576	125-073	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0519(2)	125-073	J-7400	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0519(1)	J-6576	125-073	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0519(2)	125-073	J-7400	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0520	J-6575	J-6576	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0522(1)	J-7992	125-092	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0522(2)	125-092	J-8395	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0523	J-7894	J-7992	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0524(1)	J-7831	125-093	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0524(2)	125-093	J-7894	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0526(1)	J-7830	125-094	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0526(2)	125-094	J-7831	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0530	J-7618	J-7830	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0532(1)	J-6541	125-095	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0532(2)	125-095	J-7618	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0533	J-6540	J-6541	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0535	J-6541	J-7831	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0536	J-7095	J-7894	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0539	J-5298	J-5299	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0542(1)	J-8682	036-043	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0542(2)	036-043	J-5298	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0544	J-6016	J-5298	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0545(1)	J-5075	J-5123	6	130	0.0	0.0	0	0	0.0	0
WMAIN-0545(2)	J-5123	J-5076	6	130	0.0	0.0	0	0	0.0	0
WMAIN-0546	J-6016	J-6221	12	152.5	0.0	0.0	0.2	0.4	0.0	0.3
WMAIN-0548	J-6016	J-6017	12	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-0549(1)	J-6017	029-005	12	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-0549(2)	029-005	J-7048	12	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-0550	J-7048	J-8141	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-0552(1)	J-8141	036-044	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-0552(2)	036-044	J-6494	12	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-0553	J-6494	J-5667	12	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-0555	J-5271	J-5241	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0556(1)	J-5667	036-035	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0556(2)	036-035	J-5270	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0558(1)	J-5133	029-008	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-0558(2)	029-008	J-5289	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-0559(1)	J-5289	029-002	12	152.5	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-0559(2)	029-002	J-5271	12	152.5	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-0562(1)	J-8141	029-004	6	140	0.0	0.1	0	0.3	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0562(2)	029-004	J-6242	6	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-0564	J-7048	J-7049	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0566	J-6017	J-6191	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0567(1)	J-8251	J-5299	8	140	0.0	0.0	0	0	0.0	0
WMAIN-0567(2)(1)	J-5299	036-042	8	140	0.0	0.0	0	0	0.0	0
WMAIN-0567(2)(2)	036-042	J-8252	8	140	0.0	0.0	0	0	0.0	0
WMAIN-0568(1)	J-5071	J-5364	8	130	0.0	0.0	0	0	0.0	0
WMAIN-0568(2)	J-5364	J-5072	8	130	0.0	0.0	0	0	0.0	0
WMAIN-0569(1)	J-5073	J-8251	8	130	0.0	0.0	0	0	0.0	0
WMAIN-0569(2)	J-8251	J-5074	8	130	0.0	0.0	0	0	0.0	0
WMAIN-0570	J-5123	J-5124	6	130	0.0	0.0	0	0	0.0	0
WMAIN-0571	J-5240	J-5241	6	140	0.0	0.0	0	0	0.0	0
WMAIN-0572	J-5926	J-5927	8	140	0.0	0.0	0	0	0.0	0
WMAIN-0575	J-6521	J-5312	12	152.5	0.0	0.3	0.1	1	0.3	1
WMAIN-0579(1)(1)(1)	J-8813	020-026	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-0579(1)(1)(2)	020-026	020-025	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-0579(1)(2)(1)	020-025	020-024	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-0579(1)(2)(2)	020-024	020-023	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-0579(2)	020-023	J-5209	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-0581	J-5915	J-5916	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0588(1)	J-6599	J-5926	12	152.5	0.0	0.9	0.3	1.8	0.9	1.8
WMAIN-0588(2)	J-5926	J-6521	12	152.5	0.0	0.9	0.3	1.8	0.9	1.9
WMAIN-0589	J-5121	J-5122	6	130	0.0	0.0	0	0	0.0	0
WMAIN-0591	J-5526	J-5055	16	152.5	0.0	0.6	0.3	1.9	0.6	1.8
WMAIN-0592(1)	J-8801	J-5530	12	152.5	0.1	0.4	0.6	1.3	0.3	1
WMAIN-0592(2)(1)(1)	J-5530	145-016	12	152.5	0.1	0.4	0.6	1.3	0.3	1
WMAIN-0592(2)(1)(2)(1)	145-016	J-9099	12	152.5	0.1	0.4	0.6	1.3	0.3	1
WMAIN-0592(2)(1)(2)(2)	J-9099	145-015	12	152.5	0.1	0.4	0.6	1.3	0.3	1
WMAIN-0592(2)(2)	145-015	J-8832	12	152.5	0.1	0.4	0.6	1.3	0.3	1
WMAIN-0593(1)(1)	J-6038	145-013	12	152.5	0.1	0.4	0.6	1.3	0.3	1.1
WMAIN-0593(1)(2)	145-013	145-014	12	152.5	0.1	0.4	0.6	1.3	0.3	1.1
WMAIN-0593(2)	145-014	J-8833	12	152.5	0.1	0.4	0.6	1.3	0.3	1.1
WMAIN-0594	J-8832	J-8833	12	152.5	0.1	0.4	0.6	1.3	0.3	1.1
WMAIN-0597	J-5784	J-5785	16	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0598	J-5785	J-6015	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0599	J-5786	J-5784	16	152.5	0.0	0.0	0.1	0.4	0.0	0.4
WMAIN-0600	J-5784	J-6018	16	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0601(1)	J-8272	020-013	4	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0601(2)	020-013	J-8397	4	140	0.1	0.4	0.3	0.5	0.4	0.5
WMAIN-0603(1)	J-7530	036-047	6	140	0.1	0.2	0.2	0.4	0.1	0.2
WMAIN-0603(2)	036-047	J-8493	6	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-0604(1)	J-8590	036-056	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0604(2)	036-056	J-7530	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0606	J-6367	J-6393	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-0607	J-5745	J-5746	6	130	0.1	0.3	0.2	0.6	0.3	0.6
WMAIN-0609	J-5340	J-5341	4	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-0611	J-5338	J-5339	4	152.5	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-0613	J-5336	J-5337	4	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-0615	J-5857	J-5858	6	140	0.1	0.7	0.3	1	0.7	1
WMAIN-0617(1)(1)	J-7125	H-520	6	140	0.0	0.4	0.1	0.7	0.0	0.1
WMAIN-0617(1)(2)	H-520	H-511	6	140	0.0	0.4	0.1	0.7	0.0	0.1
WMAIN-0617(2)	H-511	J-5858	6	140	0.0	0.4	0.1	0.7	0.0	0.1
WMAIN-0618	028-019	J-8106	8	140	0.0	0.1	0	0.3	0.0	0
WMAIN-0621	J-6494	036-053	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0624(1)(1)	J-8720	053-040	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0624(1)(2)	053-040	053-052	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0624(2)(1)	053-052	053-051	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0624(2)(2)	053-051	J-5110	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0626(1)(1)	J-8743	053-054	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0626(1)(2)	053-054	053-053	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0626(2)	053-053	J-8720	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0629(1)	J-6994	024-021	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0629(2)	024-021	J-8607	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0630(1)	J-6183	156-020	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0630(2)	156-020	J-7285	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0632	010-035	J-7169	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0633	J-5568	J-5291	6	140	0.0	0.0	0	0	0.0	0
WMAIN-0636	J-6676	J-5762	16	152.5	0.1	0.4	0.6	1.4	0.4	1.4
WMAIN-0638	J-5281	J-6764	12	140	0.1	0.6	0.6	1.4	0.6	1.4
WMAIN-0641(1)	J-7390	021-025	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-0641(2)	021-025	J-7391	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-0643	J-5762	J-5302	16	152.5	0.1	0.4	0.8	1.4	0.4	1.4
WMAIN-0644	J-6764	J-6839	12	140	0.1	0.5	0.6	1.3	0.5	1.3
WMAIN-0645(1)	J-6839	020-022	10	140	0.3	1.3	0.9	1.9	1.3	1.9
WMAIN-0645(2)	020-022	J-5208	10	140	0.3	1.3	0.9	1.9	1.3	1.9
WMAIN-0648	J-5174	J-6602	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-0649	J-6852	J-5174	4	140	0.2	0.8	0.4	0.8	0.8	0.8
WMAIN-0650	J-5174	J-5175	4	140	1.2	3.7	1	1.9	3.7	1.9
WMAIN-0651(1)	J-8656	053-043	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-0651(2)	053-043	J-6227	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-0654	J-6205	J-6206	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0655(1)	J-8501	170-054	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0655(2)	170-054	J-5584	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0657	J-6670	J-6671	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-0659(1)	J-5707	167-072	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-0659(2)	167-072	J-6670	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-0660(1)(1)	J-6847	167-070	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-0660(1)(2)	167-070	167-071	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-0660(2)	167-071	J-5707	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-0663	J-5707	J-5708	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0665	167-075	J-7229	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0667	J-6746	J-5264	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0668	J-5264	J-5265	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0670	J-5265	J-5268	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-0671	J-7370	J-7371	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0674	J-7229	J-7200	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0677(1)	J-5268	J-7368	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0677(2)	J-7368	167-075	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0680	J-7229	J-7370	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0681(1)	J-7364	167-057	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0681(2)	167-057	J-7229	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0683(1)	J-8264	167-054	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0683(2)	167-054	J-7364	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0686(1)	J-6745	167-069	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-0686(2)	167-069	J-5751	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-0687	J-6745	J-6746	12	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-0688(1)(1)	J-8778	167-067	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0688(1)(2)	167-067	167-068	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0688(2)	167-068	J-6745	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0690(1)	J-8751	156-041	12	152.5	0.1	0.6	0.7	1.5	0.4	1.3
WMAIN-0690(2)	156-041	J-5107	12	152.5	0.1	0.6	0.7	1.5	0.5	1.3
WMAIN-0692(1)	J-8854	156-043	12	152.5	0.1	0.6	0.7	1.5	0.4	1.3

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0692(2)(1)	156-043	024-027	12	152.5	0.1	0.6	0.7	1.5	0.4	1.3
WMAIN-0692(2)(2)(1)	024-027	156-042	12	152.5	0.1	0.6	0.7	1.5	0.4	1.3
WMAIN-0692(2)(2)(2)	156-042	J-8751	12	152.5	0.1	0.6	0.7	1.5	0.4	1.3
WMAIN-0695	J-8283	J-5415	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-0697	J-8165	J-7151	12	152.5	0.1	0.1	0.4	0.7	0.1	0.7
WMAIN-0698	J-5232	J-5233	12	152.5	0.1	0.3	0.5	1	0.3	1
WMAIN-0699(1)(1)	J-7151	169-112	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-0699(1)(2)	169-112	169-111	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-0699(2)(1)	169-111	169-011	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-0699(2)(2)	169-011	J-5232	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-0702(1)	J-5233	169-010	12	152.5	0.1	0.2	0.4	0.9	0.2	0.8
WMAIN-0702(2)	169-010	J-6490	12	152.5	0.1	0.2	0.4	0.9	0.2	0.8
WMAIN-0704	J-5415	J-8165	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-0706	169-081	J-8283	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-0707	169-082	J-5275	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-0708(1)	J-5377	169-083	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-0708(2)	169-083	J-5141	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-0711	J-5376	J-5377	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0715	J-6004	J-6892	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-0716	J-6395	J-6396	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-0718(1)	J-8394	169-009	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-0718(2)	169-009	J-8811	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-0720	J-5333	J-5334	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0721	J-6379	J-5333	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0724(1)	J-5333	169-084	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0724(2)	169-084	J-8394	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0726	J-6792	J-6379	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0728(1)	J-8381	169-085	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0728(2)	169-085	J-6379	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0731(1)	J-6339	126-036	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0731(2)	126-036	J-7402	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0732	J-8226	J-8227	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0735	J-8393	J-6339	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0737	J-6339	J-6307	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0739(1)	J-7402	126-035	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0739(2)(1)	126-035	126-034	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0739(2)(2)	126-034	J-8226	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0741(1)	J-8227	126-032	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0741(2)	126-032	J-6687	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0744(1)	J-8227	126-033	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0744(2)(1)	126-033	126-037	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0744(2)(2)	126-037	J-8393	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0746(1)	J-6687	126-031	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0746(2)	126-031	J-6273	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0749	J-6273	J-8393	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0751(1)	J-6273	126-030	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0751(2)	126-030	J-6976	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0752	J-6272	J-6273	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0753	J-6686	J-6687	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0755(1)	J-7393	126-024	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0755(2)	126-024	J-7394	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0756(1)	J-7394	126-025	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0756(2)	126-025	J-8633	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0757(1)	J-8633	126-027	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0757(2)	126-027	J-7143	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0759(1)	J-6860	125-008	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0759(2)	125-008	J-7777	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0760	J-7920	J-7921	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0762(1)	J-7921	125-012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0762(2)	125-012	J-6959	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0765	J-6959	J-6710	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0768(1)	J-7786	125-013	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0768(2)	125-013	J-8079	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0771(1)	J-7778	125-010	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0771(2)	125-010	J-7786	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0772	J-8079	J-6959	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0774(1)	J-7777	125-009	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0774(2)	125-009	J-7778	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0777	J-6860	J-7920	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0780(1)	J-7920	125-011	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0780(2)	125-011	J-7778	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0782	J-7786	J-7921	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0785	J-8765	J-8766	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0786	J-7594	J-7880	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0787(1)	J-7868	125-061	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0787(2)	125-061	J-7482	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0791(1)	J-7482	125-059	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0791(2)	125-059	J-7594	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0792(1)	J-7482	125-060	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0792(2)	125-060	J-7858	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0794(1)	J-7868	125-062	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0794(2)(1)	125-062	125-022	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0794(2)(2)	125-022	J-7859	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0796(1)	J-8284	125-064	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0796(2)	125-064	J-8092	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0798(1)	J-8564	125-065	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0798(2)	125-065	J-8091	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0800(1)	J-8596	125-067	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0800(2)	125-067	J-7471	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0802(1)	J-7470	125-068	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0802(2)	125-068	J-7471	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0804	J-8092	J-7481	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-0807(1)	J-7471	125-066	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0807(2)	125-066	J-8091	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0809	J-8091	J-8092	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0811	J-7866	J-7868	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0812	J-7943	J-7865	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0817(1)	J-7865	125-063	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0817(2)	125-063	J-7481	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-0820	J-7481	J-7482	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-0821(1)	J-8738	125-138	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0821(2)	125-138	J-7943	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-0823(1)(1)	J-8765	125-079	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0823(1)(2)	125-079	125-078	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0823(2)	125-078	J-7866	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0825	J-7783	J-7784	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0828	J-6741	J-8010	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0829(1)	J-8093	125-072	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0829(2)	125-072	J-6741	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0833(1)(1)	J-7784	125-070	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0833(1)(2)	125-070	125-069	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0833(2)	125-069	J-6711	8	152.5	0.0	0.0	0	0.1	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0835	J-7783	J-8093	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0837(1)	J-8010	125-071	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0837(2)	125-071	J-7783	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0839	J-5282	J-5283	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0840	J-5283	J-6741	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0841	J-6160	J-6161	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-0843	J-6225	J-6226	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0844(1)	J-7658	040-018	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0844(2)	040-018	J-7702	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0846(1)(1)(1)	J-8523	041-034	12	152.5	0.0	0.1	0	0.4	0.0	0
WMAIN-0846(1)(1)(2)	041-034	J-7399	12	152.5	0.0	0.1	0	0.4	0.0	0
WMAIN-0846(1)(2)(1)	J-7399	041-035	12	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-0846(1)(2)(2)	041-035	J-8579	12	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-0846(2)	J-8579	J-8692	12	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-0847(1)(1)	J-8692	041-036	12	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-0847(1)(2)	041-036	041-037	12	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-0847(2)	041-037	J-8605	12	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-0848(1)	040-035	041-038	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-0848(2)	041-038	J-5804	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-0850(1)(1)(1)	J-8713	145-018	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0850(1)(1)(2)	145-018	145-019	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0850(1)(2)	145-019	134-027	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0850(2)(1)	134-027	134-001	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0850(2)(2)(1)	134-001	134-002	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0850(2)(2)(2)	134-002	J-5471	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0852(1)	J-6231	040-022	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-0852(2)	040-022	J-6392	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-0857	J-7073	J-8523	12	152.5	0.0	0.1	0	0.4	0.0	0
WMAIN-0858(1)	J-8699	145-017	12	152.5	0.0	0.1	0.3	0.7	0.1	0.5
WMAIN-0858(2)	145-017	J-8722	12	152.5	0.0	0.1	0.3	0.7	0.1	0.5
WMAIN-0861(1)	J-5471	134-003	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0861(2)	134-003	134-004	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0863	J-8605	040-035	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-0865(1)	J-6688	040-037	12	152.5	0.0	0.1	0.3	0.7	0.1	0.5
WMAIN-0865(2)(1)	040-037	145-020	12	152.5	0.0	0.1	0.3	0.7	0.1	0.5
WMAIN-0865(2)(2)	145-020	J-8699	12	152.5	0.0	0.1	0.3	0.7	0.1	0.5
WMAIN-0867(1)	J-6688	134-031	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0867(2)	134-031	J-8713	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0868(1)	J-6373	041-050	12	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-0868(2)(1)	041-050	134-030	12	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-0868(2)(2)	134-030	J-6688	12	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-0870	J-7072	J-7073	12	152.5	0.0	0.1	0	0.4	0.0	0
WMAIN-0871	J-5330	J-7622	16	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-0872	J-5406	J-5330	8	152.5	0.1	0.5	0.5	1	0.5	1
WMAIN-0876	J-6585	J-8397	6	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-0878	J-6584	J-8320	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0879	J-5576	020-017	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0880	020-017	J-6382	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0882(1)(1)	J-5504	019-006	16	152.5	0.0	0.2	0.3	0.9	0.1	0.8
WMAIN-0882(1)(2)	019-006	J-7043	16	152.5	0.0	0.2	0.3	0.9	0.1	0.8
WMAIN-0882(2)	J-7043	J-5938	16	152.5	0.0	0.1	0.3	0.9	0.1	0.7
WMAIN-0883	J-5938	J-5507	16	152.5	0.0	0.2	0.3	0.9	0.1	0.7
WMAIN-0885	J-5144	J-5145	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0886	J-5144	J-5503	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-0887	J-5503	J-5504	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-0891(1)	J-8114	019-046	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0891(2)(1)	019-046	J-9299	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0891(2)(2)	J-9299	J-8115	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0893(1)	J-8107	J-9296	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0893(2)	J-9296	J-8114	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0895(1)	J-6368	019-040	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0895(2)(1)	019-040	J-9267	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0895(2)(2)	J-9267	J-8107	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0896	J-5144	J-5318	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-0897	J-5318	J-6368	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0898	J-5383	J-5384	2	152.5	0.8	3.2	0.6	1.2	3.2	1.2
WMAIN-0900(1)	J-5227	020-016	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-0900(2)	020-016	J-5487	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-0901(1)(1)	J-5487	J-9327	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-0901(1)(2)	J-9327	019-001	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-0901(2)	019-001	J-7080	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-0903	J-7237	J-6882	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-0906(1)	J-6026	169-059	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0906(2)	169-059	J-6063	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0907(1)	J-7030	169-044	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-0907(2)	169-044	J-5767	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-0911(1)	J-7030	169-045	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0911(2)	169-045	J-7031	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0913(1)	J-5596	169-046	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0913(2)	169-046	J-7031	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0915(1)(1)	J-8654	169-049	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-0915(1)(2)	169-049	169-050	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0915(2)	169-050	J-5801	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0918(1)	J-7030	169-048	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0918(2)	169-048	J-8654	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0921(1)	J-5997	169-047	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0921(2)	169-047	J-7030	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0923(1)	J-5880	169-052	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0923(2)	169-052	J-5998	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0927(1)	J-6642	169-115	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-0927(2)(1)	169-115	169-114	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-0927(2)(2)	169-114	J-5980	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-0928	J-5891	J-6642	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-0929	169-116	J-5891	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0933	J-5880	169-116	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0934	169-051	J-5880	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0936	J-5801	169-051	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0937	J-5800	J-5801	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0938(1)	169-061	169-062	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0938(2)	169-062	J-5800	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0941(1)	J-6026	169-060	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0941(2)	169-060	169-061	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0943	J-5980	J-6026	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-0945	J-5979	J-5980	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0946	J-5979	J-6118	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0948(1)	J-6968	035-043	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-0948(2)	035-043	J-8428	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-0949(1)	J-6969	035-036	8	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-0949(2)	035-036	J-8646	8	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-0950	J-6968	J-6969	8	152.5	0.0	0.2	0.2	0.6	0.1	0.4
WMAIN-0954	J-8519	J-6968	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-0957(1)	J-6439	035-035	8	152.5	0.1	0.4	0.3	0.9	0.1	0.5

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-0957(2)	035-035	J-6969	8	152.5	0.1	0.4	0.3	0.9	0.1	0.5
WMAIN-0961(1)	J-6845	156-005	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0961(2)	156-005	J-8660	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0964	J-5874	J-5816	10	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-0965(1)	J-6777	156-001	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0965(2)	156-001	J-6778	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0966	J-5230	J-5231	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0967(1)(1)	J-5231	156-023	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0967(1)(2)	156-023	156-022	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0967(2)	156-022	J-6777	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0968(1)	J-8388	156-024	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0968(2)	156-024	J-5244	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0969	J-5244	J-5230	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0970(1)	J-5874	156-046	12	152.5	0.0	0.1	0.1	0.7	0.1	0.4
WMAIN-0970(2)	156-046	J-8933	12	152.5	0.0	0.1	0.1	0.7	0.1	0.4
WMAIN-0971(1)	J-7999	156-002	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0971(2)	156-002	J-5874	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0972(1)	J-8660	156-003	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0972(2)	156-003	J-7999	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0974	J-8304	J-6864	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-0976(1)(1)	J-8304	156-021	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0976(1)(2)	156-021	156-004	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0976(2)	156-004	J-8660	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-0978(1)(1)	J-8304	156-026	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0978(1)(2)	156-026	156-025	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0978(2)	156-025	J-8388	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-0979(1)(1)	J-8303	156-011	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0979(1)(2)	156-011	156-029	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0979(2)	156-029	J-8304	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0980(1)(1)	J-7285	156-031	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0980(1)(2)	156-031	156-030	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0980(2)	156-030	J-8303	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-0981(1)	156-033	156-032	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-0981(2)	156-032	J-7285	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-0985	J-5713	156-033	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-0986(1)(1)	J-5634	038-004	16	140	0.0	0.4	0.1	1.3	0.4	1.3
WMAIN-0986(1)(2)(1)	038-004	043-050	16	140	0.0	0.4	0.1	1.3	0.4	1.3
WMAIN-0986(1)(2)(2)	043-050	J-5336	16	140	0.0	0.4	0.1	1.3	0.4	1.3
WMAIN-0986(2)	J-5336	J-5534	16	140	0.0	0.4	0.1	1.3	0.4	1.3
WMAIN-0988(1)	J-6570	021-003	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-0988(2)	021-003	J-8672	8	140	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-0989	J-8672	J-8673	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-0991	J-5289	J-5124	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-0992(1)	J-7089	170-113	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0992(2)	170-113	J-7090	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-0996	J-6657	033-010	12	152.5	0.1	0.9	0.6	1.9	0.9	1.9
WMAIN-0998	J-8222	J-6567	16	152.5	0.1	0.2	0.5	1	0.1	0.8
WMAIN-1000(1)	J-8221	034-021	16	152.5	0.1	0.2	0.5	0.9	0.1	0.8
WMAIN-1000(2)	034-021	J-8222	16	152.5	0.1	0.2	0.5	0.9	0.1	0.8
WMAIN-1002(1)	J-8737	034-022	16	152.5	0.1	0.2	0.5	1	0.1	0.8
WMAIN-1002(2)	034-022	J-8221	16	152.5	0.1	0.2	0.5	1	0.1	0.8
WMAIN-1003(1)	053-013	053-014	6	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-1003(2)	053-014	J-6138	6	140	0.1	0.2	0.2	0.4	0.1	0.2
WMAIN-1004	J-6214	J-5861	6	140	0.2	1.0	0.4	1.2	1.0	1.2
WMAIN-1006(1)	J-5308	022-005	6	140	0.0	0.5	0.2	0.8	0.5	0.8
WMAIN-1006(2)	022-005	J-6555	6	140	0.0	0.5	0.2	0.8	0.4	0.8
WMAIN-1007	J-5272	H-507	2	140	0.3	1.3	0.3	0.7	1.3	0.7
WMAIN-1008	J-5919	J-6150	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1009(1)	J-8255	035-020	8	140	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-1009(2)(1)	035-020	J-5163	8	140	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-1009(2)(2)	J-5163	J-5317	8	140	0.5	0.9	1	1.3	0.9	1.3
WMAIN-1012(1)	J-6200	170-064	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1012(2)	170-064	J-8113	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1015	J-7159	J-7160	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1016	J-7159	J-7933	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-1018(1)	J-7730	170-069	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-1018(2)	170-069	J-7159	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-1021(1)(1)	J-6200	170-065	12	152.5	0.0	0.1	0.4	0.6	0.1	0.6
WMAIN-1021(1)(2)	170-065	170-068	12	152.5	0.1	0.1	0.4	0.6	0.1	0.6
WMAIN-1021(2)	170-068	J-7730	12	152.5	0.1	0.1	0.4	0.6	0.1	0.6
WMAIN-1023	J-6199	J-6200	12	152.5	0.1	0.1	0.4	0.7	0.1	0.6
WMAIN-1026(1)	J-8113	170-063	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-1026(2)(1)	170-063	170-062	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-1026(2)(2)	170-062	J-8279	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-1027	J-5455	J-6568	12	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1028(1)	J-7070	038-037	8	140	0.0	0.5	0.1	1	0.0	0.1
WMAIN-1028(2)	038-037	J-7071	8	140	0.0	0.5	0.1	1	0.0	0.1
WMAIN-1031(1)	J-5113	036-051	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-1031(2)(1)	036-051	036-032	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-1031(2)(2)(1)	036-032	J-9329	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-1031(2)(2)(2)	J-9329	J-5857	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-1033(1)	J-8500	036-034	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1033(2)	036-034	J-5857	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1036	J-7404	J-6395	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1038(1)	J-6467	170-154	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1038(2)	170-154	J-6636	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1040(1)	J-6636	170-135	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1040(2)	170-135	J-7878	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1042	J-7791	J-7986	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1043	J-8072	J-7986	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1045	J-8446	J-8447	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-1048	J-7419	J-7420	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1050(1)	J-8071	170-138	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-1050(2)	170-138	J-7166	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-1052	J-7166	J-6962	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-1054(1)	J-8098	170-129	8	152.5	0.2	0.4	0.6	0.9	0.4	0.9
WMAIN-1054(2)	170-129	J-6396	8	152.5	0.2	0.3	0.6	0.9	0.3	0.9
WMAIN-1055(1)	J-8382	170-148	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1055(2)	170-148	J-8588	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1060(2)(1)(1)(2)	J-9023	J-9024	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1060(2)(1)(2)	J-9024	170-146	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1060(2)(2)(1)	170-146	J-9021	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1062(1)	J-8661	170-144	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-1062(2)	170-144	J-8391	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-1064	J-6362	J-6674	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-1065	J-5757	026-013	12	140	0.0	0.1	0	0.4	0.0	0
WMAIN-1067	J-6624	J-5687	4	140	0.0	0.3	0	0.4	0.0	0.1
WMAIN-1068	J-5677	J-5678	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1070	J-5713	009-039	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1071	J-5712	J-5713	8	152.5	0.1	0.8	0.5	1.4	0.8	1.4
WMAIN-1072	168-038	J-5524	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-1074(1)	J-5447	052-005	12	152.5	0.1	0.3	0.6	1.1	0.2	0.8

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1074(2)	052-005	J-5473	12	152.5	0.1	0.3	0.6	1.1	0.2	0.8
WMAIN-1075	J-5493	J-5494	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1076	J-5496	J-5497	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1077(1)	J-5372	042-021	12	140	0.1	0.2	0.4	0.8	0.2	0.8
WMAIN-1077(2)	042-021	J-8212	12	140	0.1	0.2	0.4	0.8	0.2	0.8
WMAIN-1078	J-5371	J-5372	12	140	0.1	0.3	0.4	0.9	0.3	0.9
WMAIN-1079	J-5500	J-5501	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1080(1)	J-5464	037-042	6	140	0.1	0.4	0.3	0.7	0.1	0.4
WMAIN-1080(2)	037-042	J-6364	6	140	0.1	0.4	0.3	0.7	0.1	0.4
WMAIN-1081(1)	J-7036	170-035	8	152.5	0.2	0.7	0.7	1.2	0.7	1.2
WMAIN-1081(2)	170-035	J-5584	8	152.5	0.2	0.7	0.7	1.2	0.7	1.2
WMAIN-1083	J-6840	J-6841	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1084(1)	J-7498	034-043	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-1084(2)	034-043	J-8569	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-1085	J-8569	J-7923	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-1088(1)	J-6886	034-042	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-1088(2)	034-042	J-7923	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-1091	J-6386	J-6387	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1093	J-6551	J-6386	6	140	0.0	0.5	0	0.8	0.0	0
WMAIN-1095(1)	J-7221	037-050	6	140	0.0	0.5	0.1	0.8	0.0	0.1
WMAIN-1095(2)	037-050	J-6386	6	140	0.0	0.5	0.1	0.8	0.0	0.1
WMAIN-1098(1)	J-7839	039-057	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1098(2)	039-057	J-8445	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1100	J-7817	J-7818	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1102(1)	J-7306	039-055	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1102(2)	039-055	J-7307	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1105(1)	J-6929	039-058	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1105(2)	039-058	J-8445	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1106	J-7307	J-8305	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1107	J-7816	J-7817	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-1108(1)	J-7817	040-027	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-1108(2)	040-027	J-7838	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-1110	J-7838	J-7306	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1113(1)(1)	J-7839	040-006	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-1113(1)(2)	040-006	040-005	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1113(2)	040-005	J-7908	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1115(1)	J-7838	039-056	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-1115(2)	039-056	J-7839	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-1116(1)	J-7556	039-053	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-1116(2)	039-053	J-8265	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-1119(1)	J-7908	J-8345	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1119(2)	J-8345	J-8517	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1121(1)	J-8345	039-059	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1121(2)	039-059	J-6929	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1123	J-6929	J-6930	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1124(1)(1)	J-8311	041-001	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1124(1)(2)(1)	041-001	041-002	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1124(1)(2)(2)	041-002	041-003	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1124(2)	041-003	J-7333	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1127	J-7902	J-7988	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1129(1)	J-7988	041-011	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1129(2)	041-011	J-7771	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1133(1)	J-7988	041-006	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1133(2)	041-006	J-7989	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1134	J-8598	J-7989	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1136	J-6640	J-6641	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1139(1)	J-6640	041-009	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1139(2)(1)	041-009	041-010	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1139(2)(2)	041-010	J-8598	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1142	J-6082	J-6083	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1145	J-6029	J-6030	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1147(1)	J-6029	056-052	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1147(2)	056-052	J-6082	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1149	J-6082	J-7421	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1152	J-7421	J-7422	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1154(1)	J-7421	056-053	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1154(2)	056-053	J-8385	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1157(1)	J-8221	047-007	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-1157(2)(1)	047-007	047-008	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-1157(2)(2)	047-008	J-7822	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-1158	J-6151	J-6152	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1160(1)	J-6152	047-015	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1160(2)	047-015	J-6547	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1163	J-6547	J-6548	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1165(1)	J-6547	047-016	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1165(2)	047-016	J-8364	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1167	J-8356	J-8364	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1170	J-7675	J-8026	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1172	J-6897	J-6664	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-1173	J-8496	J-6898	12	152.5	0.1	0.2	0.6	0.9	0.2	0.8
WMAIN-1174(1)	J-8029	168-010	12	152.5	0.1	0.2	0.6	0.9	0.2	0.8
WMAIN-1174(2)(1)	168-010	168-011	12	152.5	0.1	0.2	0.6	0.9	0.2	0.8
WMAIN-1174(2)(2)	168-011	J-8496	12	152.5	0.1	0.2	0.6	0.9	0.2	0.8
WMAIN-1175(1)	J-6896	J-5771	12	152.5	0.2	0.4	0.8	1.2	0.3	1
WMAIN-1175(2)	J-5771	J-8029	12	152.5	0.2	0.4	0.8	1.2	0.3	1
WMAIN-1177	J-7238	168-038	12	152.5	0.3	0.5	1.1	1.3	0.3	1.1
WMAIN-1178(1)(1)	J-8209	168-013	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-1178(1)(2)	168-013	TEMP391	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-1178(2)	TEMP391	J-7238	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-1181	J-6871	J-8209	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-1183(1)	J-6898	168-012	12	152.5	0.1	0.1	0.5	0.6	0.1	0.6
WMAIN-1183(2)	168-012	J-6871	12	152.5	0.1	0.1	0.5	0.6	0.1	0.6
WMAIN-1185(1)	J-7801	167-032	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1185(2)	167-032	J-6665	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1188(1)	J-7205	009-001	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-1188(2)	009-001	J-8437	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-1189(1)	J-7507	009-013	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1189(2)	009-013	J-7508	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-1191	J-7508	J-7336	8	152.5	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-1195(1)	J-8611	009-027	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-1195(2)	009-027	J-6903	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-1197(1)	J-8131	009-028	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1197(2)	009-028	J-6903	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1200(1)	J-7491	009-029	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1200(2)	009-029	J-8202	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-1202	J-7336	J-7337	8	152.5	0.2	0.4	0.7	1	0.3	0.8
WMAIN-1205(1)	J-7336	009-014	8	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-1205(2)	009-014	J-7491	8	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-1207(1)	J-7491	009-015	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1207(2)	009-015	J-7492	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1209	J-7508	J-7984	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1211	J-7507	J-8287	8	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1212	J-6902	J-6903	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1215	J-8131	J-8241	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1216	J-5897	J-7117	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1217(1)	J-6933	010-008	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1217(2)	010-008	J-5897	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1221(1)	J-8100	010-007	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1221(2)	010-007	J-6933	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-1222	J-6785	J-7490	12	152.5	0.0	0.2	0	0.8	0.0	0.4
WMAIN-1223	J-6784	J-6785	12	152.5	0.0	0.2	0	0.7	0.0	0.4
WMAIN-1225	J-7398	J-6784	12	152.5	0.0	0.2	0	0.9	0.1	0.6
WMAIN-1227(1)	J-8099	010-002	12	152.5	0.0	0.3	0.1	1.1	0.2	0.8
WMAIN-1227(2)	010-002	J-7398	12	152.5	0.0	0.3	0.1	1.1	0.2	0.8
WMAIN-1230	J-7398	J-8023	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1232(1)	J-8099	010-004	8	152.5	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-1232(2)	010-004	J-8100	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1233	J-5896	J-5897	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1236(1)	J-6776	023-021	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1236(2)	023-021	023-025	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-1239(1)(1)	J-7815	023-032	8	152.5	0.0	0.3	0	0.8	0.1	0.5
WMAIN-1239(1)(2)	023-032	023-022	8	152.5	0.0	0.3	0	0.7	0.1	0.4
WMAIN-1239(2)	023-022	J-8027	8	152.5	0.0	0.3	0	0.7	0.1	0.4
WMAIN-1241	J-6776	J-5645	10	152.5	0.0	0.1	0	0.5	0.0	0.3
WMAIN-1243	J-8027	J-6776	10	152.5	0.0	0.1	0	0.5	0.0	0.3
WMAIN-1246(1)	J-8027	023-023	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-1246(2)	023-023	J-6815	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1248(1)	J-6815	023-024	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-1248(2)	023-024	023-025	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-1249	J-6815	J-6816	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1252(1)	J-8023	023-027	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1252(2)	023-027	J-8027	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1254	J-8367	J-6156	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1255(1)(1)	J-7251	027-005	8	152.5	0.1	0.3	0.3	0.8	0.1	0.3
WMAIN-1255(1)(2)	027-005	027-004	8	152.5	0.1	0.3	0.3	0.8	0.1	0.3
WMAIN-1255(2)	027-004	J-8733	8	152.5	0.1	0.3	0.3	0.8	0.1	0.3
WMAIN-1256(1)(1)	J-8733	027-003	8	152.5	0.0	0.2	0.2	0.7	0.0	0.2
WMAIN-1256(1)(2)	027-003	J-9332	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-1256(2)(1)	J-9332	027-002	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-1256(2)(2)	027-002	J-5517	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-1259(1)(1)	J-5517	027-055	16	140	0.0	0.1	0.1	0.7	0.0	0.1
WMAIN-1259(1)(2)	027-055	J-5192	16	140	0.0	0.1	0.1	0.7	0.0	0.1
WMAIN-1259(2)	J-5192	J-5511	16	140	0.0	0.1	0.1	0.7	0.0	0.1
WMAIN-1261(1)	J-8257	169-057	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1261(2)	169-057	J-5979	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1265(1)	J-6064	169-058	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1265(2)	169-058	J-8257	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1267(1)	J-6064	169-065	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1267(2)	169-065	J-6213	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1269	J-6063	J-6064	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1272(1)	J-8360	169-063	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1272(2)(1)	169-063	169-064	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1272(2)(2)	169-064	J-6063	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1273	169-069	J-8360	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1274	169-068	169-069	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1275	J-5468	169-068	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1278(1)	J-6201	J-8944	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1278(2)	J-8944	169-067	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1279	169-067	J-5468	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1280	169-070	J-8165	10	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1282	J-6201	169-070	10	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1284(1)	J-6213	169-072	8	152.5	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-1284(2)	169-072	J-6201	8	152.5	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-1286	J-6212	J-6213	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-1288(1)	J-6212	169-071	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1288(2)	169-071	J-6331	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1290	J-5315	J-6212	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1292	169-073	J-5315	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1293	J-5838	169-073	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1296(1)	169-077	169-076	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1296(2)(1)	169-076	169-075	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1296(2)(2)	169-075	J-5838	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1297	J-5724	169-077	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1299	J-6501	J-5724	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1302(1)	J-8791	TEMP398	12	152.5	0.0	0.2	0.3	0.8	0.1	0.6
WMAIN-1302(2)	TEMP398	J-6490	12	152.5	0.0	0.2	0.3	0.8	0.1	0.6
WMAIN-1303(1)	J-5597	169-080	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-1303(2)	169-080	J-6882	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-1305(1)	J-6501	169-079	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-1305(2)	169-079	J-7237	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-1309(1)	J-6118	169-078	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1309(2)	169-078	J-6501	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1312(1)	J-5998	169-054	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-1312(2)(1)	169-054	169-055	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1312(2)(2)(1)	169-055	169-056	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1312(2)(2)(2)	169-056	J-6118	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1313	J-5997	J-5998	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-1316(1)	J-5597	169-053	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1316(2)	169-053	J-5997	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1317	J-5596	J-5597	8	152.5	0.0	0.2	0.3	0.6	0.1	0.5
WMAIN-1320	J-5232	J-5596	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1322(1)	J-5319	054-005	8	152.5	2.5	7.3	2.5	4.6	7.3	4.6
WMAIN-1322(2)	054-005	J-6597	8	152.5	2.5	7.3	2.5	4.6	7.3	4.6
WMAIN-1323	J-5319	J-5320	12	152.5	0.5	1.3	1.3	2.4	1.3	2.4
WMAIN-1328	J-5069	J-5173	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1329	030-037	J-5717	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1332	J-5715	030-037	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1334(1)	J-6194	167-066	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1334(2)	167-066	J-6195	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1335	J-6070	J-6071	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-1336(1)	J-6071	167-064	8	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-1336(2)	167-064	J-6978	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1339	J-6988	J-6977	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1341	J-6988	J-6070	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-1344(1)	J-6977	167-065	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1344(2)	167-065	J-6978	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1345(1)	J-6128	013-027	6	130	0.0	0.0	0	0	0.0	0
WMAIN-1345(2)	013-027	J-6129	6	130	0.0	0.0	0	0	0.0	0
WMAIN-1347	J-6437	J-8206	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1348	J-5300	J-5301	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1349	J-5301	J-6437	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1351(1)	J-8217	047-003	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1351(2)	047-003	J-6437	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1352	J-8217	J-7966	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1355(1)	J-7822	047-004	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1355(2)	047-004	J-8217	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-1358(1)	J-7966	J-5162	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1358(2)(1)	J-5162	047-002	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1358(2)(2)	047-002	J-7919	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1360(1)	J-6567	048-001	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1360(2)(1)	048-001	047-001	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-1360(2)(2)	047-001	J-7966	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-1362	J-6807	J-6808	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1364	J-7966	J-6807	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-1366(1)	J-6807	048-005	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1366(2)(1)	048-005	048-003	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1366(2)(2)	048-003	J-8143	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1367	J-6884	J-8143	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1369(1)	J-6657	048-002	8	152.5	0.1	0.6	0.4	1.2	0.6	1.2
WMAIN-1369(2)	048-002	J-6884	8	152.5	0.1	0.6	0.4	1.2	0.6	1.2
WMAIN-1371(1)	J-6181	048-004	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1371(2)	048-004	J-6884	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-1374	J-6181	J-6182	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1375	J-6205	J-6181	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1378(1)	J-7919	048-007	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1378(2)	048-007	J-6205	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1380(1)	J-8356	047-005	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-1380(2)	047-005	J-7919	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-1382	J-6405	J-7919	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1384(1)	J-6404	047-006	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1384(2)	047-006	J-6405	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1387	J-6405	J-8566	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1390(1)	J-6405	048-006	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1390(2)	048-006	J-6205	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1391A(1)	J-6794	171-044	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1391A(2)	171-044	J-6003	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1391B	J-6003	J-6004	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1393	J-6892	J-8423	8	152.5	0.5	1.2	1.1	1.7	1.2	1.7
WMAIN-1396(1)	J-6892	171-075	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1396(2)	171-075	J-6492	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1398(1)	J-6493	171-074	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1398(2)	171-074	J-8240	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1400(1)	J-8240	171-073	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1400(2)	171-073	J-7741	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1403	J-6492	J-6493	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-1405(1)	J-7395	171-072	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-1405(2)	171-072	J-6492	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-1406	J-7395	J-6385	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-1408	J-7741	J-7395	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1411(1)	J-8199	171-043	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1411(2)	171-043	J-8200	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1413	J-6794	J-8199	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1414(1)	J-7964	171-042	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1414(2)	171-042	J-7611	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1417	171-071	J-8245	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1418(1)	J-8087	171-070	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1418(2)	171-070	J-8058	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1421	J-7226	J-7582	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1422(1)	J-8054	171-064	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1422(2)	171-064	J-6893	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1424(1)	J-7388	171-065	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1424(2)	171-065	J-8054	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1428	J-8177	J-7388	8	152.5	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-1430	J-8348	J-8177	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-1432	J-8177	J-8178	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1434(1)(1)	J-8162	171-058	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1434(1)(2)	171-058	171-066	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1434(2)	171-066	J-8177	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1437(1)	J-8348	171-067	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1437(2)	171-067	J-8349	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1439(1)	J-7173	171-068	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-1439(2)	171-068	J-8348	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1441(1)	J-8302	171-051	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1441(2)	171-051	J-8671	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-1444(1)(1)	J-8307	171-053	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1444(1)(2)	171-053	171-054	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1444(2)	171-054	J-8011	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1446	J-6915	J-8307	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-1447(1)	J-8302	171-052	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1447(2)	171-052	J-6915	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1449	J-6915	171-056	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-1451	J-6914	J-6915	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1453	J-8011	J-8012	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1457	J-8316	J-8011	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1458(1)	171-056	171-057	8	152.5	0.5	1.3	1.1	1.8	1.3	1.8
WMAIN-1458(2)	171-057	J-7737	8	152.5	0.5	1.3	1.1	1.8	1.3	1.8
WMAIN-1460(1)	J-6270	171-055	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1460(2)	171-055	171-056	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-1463	J-8316	J-6270	8	152.5	0.1	0.3	0.5	0.7	0.3	0.7
WMAIN-1466(1)	J-8653	171-046	8	152.5	0.2	0.4	0.7	0.9	0.4	0.9
WMAIN-1466(2)	171-046	J-8316	8	152.5	0.2	0.4	0.7	1	0.4	1
WMAIN-1468	J-8112	J-7610	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1471(1)(1)	J-8485	171-039	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1471(1)(2)	171-039	171-040	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1471(2)	171-040	J-8112	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1472	J-8157	J-7198	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-1474(1)	J-8485	171-038	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1474(2)	171-038	J-8157	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1476	J-7611	J-8199	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1478	J-7610	J-7611	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1482(1)	J-8157	171-041	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1482(2)	171-041	J-7610	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1483(1)	J-8308	171-050	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1483(2)	171-050	J-8671	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-1485(1)	J-8012	171-049	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-1485(2)	171-049	J-8308	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-1487(1)	J-8299	171-048	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1487(2)	171-048	J-8012	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1490(1)	J-8011	171-047	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1490(2)	171-047	J-8390	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1493	J-8307	J-8308	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1495	J-7388	J-7389	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1497(1)	J-8491	171-063	8	152.5	0.3	0.8	0.9	1.3	0.8	1.3
WMAIN-1497(2)	171-063	J-6894	8	152.5	0.3	0.7	0.9	1.3	0.7	1.3
WMAIN-1499(1)	J-7198	171-037	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-1499(2)	171-037	J-5828	8	152.5	0.0	0.0	0	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1501(1)	J-8653	171-045	8	152.5	0.0	0.1	0.3	0.4	0.1	0.3
WMAIN-1501(2)	171-045	J-7198	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1504	J-6794	J-8653	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-1507	J-6385	J-6004	8	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-1509	171-071	J-6385	8	152.5	0.5	1.0	1	1.6	1.0	1.6
WMAIN-1511	J-8058	171-071	8	152.5	0.5	1.1	1	1.6	1.1	1.6
WMAIN-1513	J-7226	J-8058	8	152.5	0.5	1.1	1.1	1.7	1.1	1.7
WMAIN-1515(1)	J-6894	171-069	8	152.5	0.5	1.2	1.1	1.7	1.2	1.7
WMAIN-1515(2)	171-069	J-7226	8	152.5	0.5	1.2	1.1	1.7	1.2	1.7
WMAIN-1517	J-6893	J-6894	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1519	J-7737	J-6893	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-1520	J-8162	J-7737	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-1521	J-7173	J-8162	8	152.5	0.5	1.2	1	1.7	1.2	1.7
WMAIN-1524(1)	J-7172	171-059	8	152.5	1.0	2.7	1.6	2.7	2.7	2.7
WMAIN-1524(2)	171-059	J-7173	8	152.5	1.0	2.7	1.6	2.7	2.7	2.7
WMAIN-1526(1)	J-6651	171-062	12	152.5	0.8	2.0	1.8	3	2.0	3
WMAIN-1526(2)	171-062	J-8491	12	152.5	0.8	2.0	1.8	3	2.0	3
WMAIN-1527	J-7560	J-6651	12	152.5	1.0	2.6	2	3.3	2.6	3.3
WMAIN-1528	J-8491	171-076	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-1530(1)(1)	171-076	J-9129	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-1530(1)(2)	J-9129	171-077	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-1530(2)	171-077	J-8589	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-1533(1)	J-6086	126-018	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1533(2)	126-018	J-6087	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1535	J-8205	J-6086	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1537	J-6198	J-5905	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1539(1)	J-8171	126-020	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1539(2)	126-020	J-8172	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1543	J-6107	J-6108	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1544	J-6087	J-6107	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1546	J-6198	J-6086	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1548(1)	J-8171	126-019	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1548(2)	126-019	J-6198	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1551	J-8105	J-8171	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1553	J-6087	J-8315	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1555(1)	J-8315	126-017	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1555(2)(1)	126-017	126-016	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1555(2)(2)	126-016	J-8130	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1559	J-6107	J-8130	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1560(1)	J-6107	126-015	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1560(2)(1)	126-015	126-014	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1560(2)(2)	126-014	J-8109	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1563(1)	J-6581	126-008	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1563(2)	126-008	J-6272	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1566	J-7143	J-6232	8	152.5	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-1570(1)(1)	J-8104	126-022	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1570(1)(2)	126-022	126-021	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1570(2)	126-021	J-8105	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1572(1)	J-8207	126-029	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1572(2)	126-029	J-8085	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1575	J-8205	J-8085	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1578(1)	J-8085	126-012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1578(2)	126-012	J-8086	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1580(1)	J-8086	126-011	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1580(2)	126-011	J-8077	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1581(1)	J-6232	126-026	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1581(2)	126-026	J-7393	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1583(1)	J-7393	126-023	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1583(2)	126-023	J-8104	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1585	J-8104	J-8205	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1587(1)	J-8205	126-013	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1587(2)	126-013	J-8109	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1589	J-8109	J-8207	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1591	J-8207	J-8077	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1594(1)	J-6581	126-009	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1594(2)(1)	126-009	126-010	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1594(2)(2)	126-010	J-8077	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1595	J-8567	J-6581	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1596(1)	J-6961	125-044	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1596(2)	125-044	J-7454	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1598(1)(1)	J-8766	125-039	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1598(1)(2)	125-039	125-040	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1598(2)	125-040	J-8777	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1600(1)	J-7533	125-001	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1600(2)	125-001	J-8545	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1602(1)(1)	J-8597	125-003	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1602(1)(2)	125-003	J-6245	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1602(2)	J-6245	J-6249	12	152.5	0.1	0.3	0.5	1.1	0.3	1.1
WMAIN-1603(1)	125-005	125-004	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1603(2)	125-004	J-8597	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1605	J-6859	J-6860	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1615(1)	J-5710	125-050	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-1615(2)(1)(1)	125-050	125-080	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-1615(2)(1)(2)	125-080	125-049	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-1615(2)(2)	125-049	J-7375	12	152.5	0.3	1.0	1	2	1.0	2
WMAIN-1617(1)	J-7142	125-048	12	152.5	0.2	0.6	0.8	1.6	0.6	1.6
WMAIN-1617(2)	125-048	J-7375	12	152.5	0.2	0.6	0.8	1.6	0.6	1.6
WMAIN-1620(1)	J-7142	126-028	8	152.5	0.2	0.7	0.7	1.3	0.7	1.3
WMAIN-1620(2)	126-028	J-7143	8	152.5	0.2	0.7	0.7	1.3	0.7	1.3
WMAIN-1623(1)	J-8723	125-046	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1623(2)	125-046	J-8528	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1624(1)	J-8723	125-047	12	152.5	0.1	0.3	0.5	1	0.3	1
WMAIN-1624(2)	125-047	J-7142	12	152.5	0.1	0.3	0.5	1	0.3	1
WMAIN-1625	J-5790	J-5791	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1628(1)	J-7860	125-028	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1628(2)	125-028	J-7861	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-1630	J-7861	J-5995	8	152.5	0.1	0.2	0.3	0.7	0.2	0.7
WMAIN-1632(1)	J-5791	125-025	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1632(2)	125-025	J-5994	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1634	J-5994	J-5995	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1636(1)	J-5995	125-026	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1636(2)	125-026	J-6078	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1638	J-6078	J-7616	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1640	J-7616	J-8081	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-1643	J-8081	J-6734	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1646	J-5994	J-6078	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1649(1)	J-7375	125-031	8	152.5	0.1	0.3	0.4	0.9	0.3	0.9
WMAIN-1649(2)	125-031	J-7616	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-1650(1)	J-8080	125-032	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1650(2)	125-032	J-8081	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1652	J-6733	J-6734	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1654(1)	J-6734	125-033	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1654(2)	125-033	J-6944	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1656	J-6960	J-6961	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1660(1)	J-8528	125-045	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1660(2)(1)	125-045	125-043	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1660(2)(2)	125-043	J-7454	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1661	J-7454	J-7225	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1665(1)	J-7861	125-027	12	152.5	0.0	0.0	0.2	0.4	0.0	0.4
WMAIN-1665(2)	125-027	J-7858	12	152.5	0.0	0.0	0.2	0.4	0.0	0.4
WMAIN-1667(1)	J-6944	125-030	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1667(2)	125-030	J-7861	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1670	J-6943	J-6944	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-1671(1)	J-7225	125-042	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1671(2)(1)	125-042	125-035	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1671(2)(2)	125-035	J-6943	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1673	J-7860	J-7859	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1677(1)	J-7863	125-029	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1677(2)	125-029	J-7860	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1678(1)	J-8777	125-041	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1678(2)	125-041	J-7863	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1682	J-6554	J-7470	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1684(1)	J-8723	126-006	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1684(2)(1)	126-006	126-007	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1684(2)(2)	126-007	J-8567	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1686(1)	J-6943	125-034	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1686(2)	125-034	J-8723	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1689	J-7863	J-6943	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-1691	J-8118	J-7863	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1692(1)	J-8482	125-038	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1692(2)	125-038	J-8116	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1694(1)	J-8116	125-020	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1694(2)	125-020	J-8117	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1696(1)	J-8482	125-037	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1696(2)	125-037	J-8478	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1699(1)	J-8117	125-055	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1699(2)	125-055	J-8118	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1701(1)	J-8118	125-036	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1701(2)	125-036	J-8478	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-1702(1)	J-7866	125-019	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1702(2)	125-019	J-8116	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1704(1)	J-7865	125-018	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1704(2)	125-018	J-7866	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1706(1)	J-6575	125-017	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1706(2)	125-017	J-7865	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1708	J-5283	J-6575	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1710(1)	J-6554	125-016	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1710(2)	125-016	J-5283	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1713(1)	J-6711	J-9229	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1713(2)	J-9229	J-6554	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1716	J-6710	J-6711	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1718(1)	J-6540	125-015	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1718(2)	125-015	J-6710	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1719(1)	J-7095	125-014	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1719(2)	125-014	J-6540	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1720	J-6859	J-7095	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-1723(1)	J-7719	125-007	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1723(2)	125-007	J-6859	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-1726(1)	J-5432	125-006	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1726(2)	125-006	J-7719	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1728(1)	056-041	J-9186	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-1728(2)	J-9186	J-8545	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-1729(1)	J-7719	J-5959	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-1729(2)(1)	J-5959	J-5961	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-1729(2)(2)	J-5961	J-5413	12	152.5	0.1	0.3	0.5	1	0.3	1
WMAIN-1730	J-5413	125-005	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-1731(1)	J-7859	125-021	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1731(2)	125-021	J-8117	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1734(1)	J-7858	125-023	8	152.5	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-1734(2)	125-023	J-7859	8	152.5	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-1735(1)	J-6819	022-049	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1735(2)	022-049	J-6820	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1738	J-5766	J-6819	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1739	J-5294	019-047	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1740	019-047	J-6546	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1741	J-7043	J-5384	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1742(1)	J-5384	J-8814	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1742(2)	J-8814	J-6546	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1744	J-6546	J-6975	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1746(1)	H-498	J-8851	8	152.5	0.2	0.3	0.6	0.8	0.3	0.8
WMAIN-1746(2)	J-8851	J-8621	8	152.5	0.5	0.7	1	1.3	0.7	1.2
WMAIN-1749	J-5471	J-5472	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1750(1)	J-8494	047-018	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1750(2)	047-018	J-8495	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1752	J-5941	018-052	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1754	J-5939	J-5940	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1755(1)(1)(1)(1)	J-8871	017-024	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1755(1)(1)(1)(2)	017-024	017-023	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1755(1)(1)(2)	017-023	017-022	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1755(1)(2)	017-022	017-021	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1755(2)(1)	017-021	017-020	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1755(2)(2)	017-020	J-7844	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1757(1)	J-8449	009-025	12	152.5	0.0	0.2	0.3	0.9	0.2	0.9
WMAIN-1757(2)	009-025	J-8786	12	152.5	0.0	0.2	0.3	0.9	0.2	0.9
WMAIN-1759(1)	J-6185	009-035	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1759(2)(1)	009-035	009-034	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1759(2)(2)	009-034	J-8449	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1761	J-6184	J-6185	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1763	J-5598	J-5599	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1764	J-5794	J-5795	2	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1765	J-5603	J-5604	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1766	J-5813	J-5814	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1767	015-026	J-5825	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1768	J-5834	J-5835	2	152.5	0.3	1.3	0.4	0.7	1.3	0.7
WMAIN-1769	J-5796	J-5797	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1770	J-5836	J-5837	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1771	J-5636	J-5637	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1772	J-5684	J-5685	2	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1773	J-5620	J-5621	2	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1774	J-5722	J-5723	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1777	J-5421	J-5719	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1778(1)	J-5421	015-021	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1778(2)	015-021	J-6240	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1779(1)	015-024	J-5620	8	152.5	0.0	0.0	0	0.1	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1779(2)(1)	J-5620	015-023	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1779(2)(2)	015-023	J-8817	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1781(1)(1)	J-6646	J-5636	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1781(1)(2)	J-5636	J-5684	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1781(2)	J-5684	015-024	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1782(1)	J-7851	J-5834	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1782(2)(1)	J-5834	J-5796	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1782(2)(2)(1)	J-5796	J-5836	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1782(2)(2)(2)(1)	J-5836	015-025	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1782(2)(2)(2)(2)	015-025	J-6646	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1784(1)	J-5420	J-5598	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1784(2)(1)	J-5598	J-5794	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1784(2)(2)(1)(1)	J-5794	015-027	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1784(2)(2)(1)(2)	015-027	J-5603	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1784(2)(2)(2)(1)	J-5603	J-5813	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1784(2)(2)(2)(2)(1)	J-5813	015-026	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1784(2)(2)(2)(2)(2)	015-026	J-7851	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1785(1)(1)	J-8326	J-8423	12	152.5	0.3	0.4	0.9	1.2	0.4	1.2
WMAIN-1785(1)(2)	J-8423	170-059	12	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-1785(2)	170-059	J-8353	12	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-1788	J-5828	J-5829	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1789(1)	J-5828	171-035	16	152.5	0.4	0.9	1.5	2.3	0.9	2.3
WMAIN-1789(2)(1)	171-035	171-036	16	152.5	0.4	0.9	1.5	2.3	0.9	2.3
WMAIN-1789(2)(2)	171-036	J-8812	16	152.5	0.4	0.9	1.5	2.3	0.9	2.3
WMAIN-1791(1)(1)	J-7172	171-030	16	152.5	0.4	1.0	1.5	2.5	1.0	2.5
WMAIN-1791(1)(2)	171-030	171-031	16	152.5	0.4	1.0	1.5	2.5	1.0	2.5
WMAIN-1791(2)(1)	171-031	171-032	16	152.5	0.4	1.0	1.5	2.5	1.0	2.5
WMAIN-1791(2)(2)	171-032	J-5870	16	152.5	0.4	1.0	1.5	2.5	1.0	2.5
WMAIN-1794(1)	J-5870	171-033	16	152.5	0.4	1.0	1.5	2.4	1.0	2.4
WMAIN-1794(2)(1)	171-033	171-034	16	152.5	0.4	1.0	1.5	2.4	1.0	2.4
WMAIN-1794(2)(2)	171-034	J-5828	16	152.5	0.4	1.0	1.5	2.4	1.0	2.4
WMAIN-1796	J-5870	J-5871	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1798	J-5842	J-5843	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1799(1)	J-5060	J-5842	16	152.5	0.7	1.6	1.9	3.1	1.6	3.1
WMAIN-1799(2)	J-5842	J-6956	16	152.5	0.7	1.6	1.9	3.1	1.6	3.1
WMAIN-1800(1)	J-6956	171-029	16	152.5	0.7	1.6	1.9	3.1	1.6	3.1
WMAIN-1800(2)	171-029	J-7172	16	152.5	0.7	1.6	1.9	3.1	1.6	3.1
WMAIN-1803	J-5060	J-5841	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1805(1)	J-5382	171-028	16	152.5	0.7	1.6	1.9	3.1	1.6	3.1
WMAIN-1805(2)	171-028	J-5060	16	152.5	0.7	1.6	1.9	3.1	1.6	3.1
WMAIN-1808	J-6427	J-6428	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1810(1)	J-7364	167-055	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1810(2)	167-055	J-6427	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1811(1)	J-8483	167-053	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1811(2)	167-053	J-8264	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1813	037-005	J-5934	12	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1815(1)	J-7605	167-061	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1815(2)	167-061	J-8168	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1816(1)	J-7477	167-060	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1816(2)	167-060	J-7199	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1819(1)	J-7477	167-059	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1819(2)	167-059	J-7756	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1820	J-7293	J-7756	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1823	J-7199	J-7200	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1826(1)	J-7200	167-058	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1826(2)	167-058	J-7293	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1828	J-7605	J-7199	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1829(1)	J-7292	167-050	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1829(2)	167-050	J-7293	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1832	J-7726	J-7292	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1835(1)	J-7292	167-049	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1835(2)	167-049	J-7728	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1836	J-7726	J-7727	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1838	J-7727	J-7728	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1840(1)	J-5168	031-022	16	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-1840(2)(1)	031-022	018-015	16	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-1840(2)(2)	018-015	J-5329	16	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-1842	J-5267	J-5268	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1844	J-5268	J-7605	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1846(1)	J-6957	167-045	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1846(2)	167-045	J-8696	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1847(1)(1)	167-041	167-077	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-1847(1)(2)	167-077	167-042	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-1847(2)(1)	167-042	J-9224	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-1847(2)(2)	J-9224	J-6830	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-1848	J-6972	167-041	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-1850	J-7387	J-6958	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1853	J-6958	J-8483	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1856(1)	J-6958	167-052	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1856(2)	167-052	J-7549	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1860	J-6746	J-6977	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-1862	J-6746	J-6194	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1864	J-5265	J-6988	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1869	167-075	J-5185	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1871(1)	J-7371	167-051	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-1871(2)	167-051	J-7612	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-1873	J-7612	J-7387	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1877	J-7293	J-7371	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1879(1)	J-7335	167-047	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1879(2)	167-047	J-7612	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1881	J-7548	J-7387	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1884(1)	J-7549	167-056	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1884(2)	167-056	J-7370	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1887	J-6957	J-6958	8	152.5	0.0	0.1	0.2	0.5	0.0	0.3
WMAIN-1889	J-7549	J-6427	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1892(1)	J-6831	167-048	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-1892(2)	167-048	J-7726	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-1895	J-7335	J-6831	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-1896(1)	J-7548	167-046	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1896(2)	167-046	J-7335	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1900	J-5262	J-5263	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1902(1)	J-5262	167-044	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1902(2)	167-044	J-6957	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1904(1)(1)	J-6830	167-076	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1904(1)(2)	167-076	167-043	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1904(2)	167-043	J-5262	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1906	J-6830	J-6831	8	152.5	0.1	0.2	0.3	0.6	0.1	0.4
WMAIN-1909(1)	J-6439	J-8718	16	140	0.0	0.1	0	0.7	0.0	0.3
WMAIN-1909(2)(1)	J-8718	035-044	16	140	0.1	0.3	0.6	1.2	0.2	0.9
WMAIN-1909(2)(2)	035-044	J-8494	16	140	0.1	0.3	0.6	1.2	0.2	0.9
WMAIN-1913	J-6041	J-7042	8	152.5	0.2	0.7	0.6	1.2	0.4	0.9
WMAIN-1914(1)	J-8638	035-039	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-1914(2)	035-039	J-8639	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1916(1)	J-8643	035-038	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1916(2)	035-038	J-8638	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1918(1)	J-8643	035-037	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-1918(2)	035-037	J-8646	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-1920	J-8639	J-6618	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1922	J-8747	J-8639	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1924	J-6041	J-8747	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-1925(1)	J-6040	035-041	8	152.5	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-1925(2)	035-041	J-6041	8	152.5	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-1926(1)	J-8142	J-8519	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1926(2)(1)	J-8519	035-042	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-1926(2)(2)	035-042	J-6040	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-1929	J-8428	J-6040	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-1932	J-8643	J-8428	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1936(1)	J-8428	035-040	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1936(2)	035-040	J-8747	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1937	J-8799	J-8800	2	140	0.3	1.0	0.3	0.6	1.0	0.6
WMAIN-1938(1)	J-7818	040-028	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-1938(2)	040-028	J-8008	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1946(1)	J-6641	041-024	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-1946(2)	041-024	J-7486	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-1947(1)	J-7587	041-028	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1947(2)	041-028	J-7588	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1948	J-8311	J-8312	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-1949	J-5566	J-5567	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1950(1)	J-5533	021-013	10	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1950(2)	021-013	J-6879	10	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1951(1)	J-8146	021-014	6	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1951(2)	021-014	J-6153	6	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1952	J-7091	J-8355	4	140	0.0	0.3	0.1	0.5	0.3	0.5
WMAIN-1954	J-6334	J-6406	3	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-1955	J-6406	J-6236	3	140	0.0	0.2	0.1	0.3	0.2	0.3
WMAIN-1956	J-6880	J-6627	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-1957	J-5527	J-5591	4	140	0.0	0.2	0	0.4	0.2	0.4
WMAIN-1958	J-5591	J-5807	4	140	0.0	0.2	0	0.4	0.2	0.4
WMAIN-1959	J-6162	J-6163	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1960	J-6447	021-001	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-1961	J-5108	J-5109	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1962(1)(1)(1)	J-7161	J-9306	6	140	0.1	0.7	0.3	0.9	0.7	0.9
WMAIN-1962(1)(1)(2)	J-9306	028-040	6	140	0.1	0.7	0.3	1	0.7	1
WMAIN-1962(1)(2)	028-040	028-042	6	140	0.1	0.7	0.3	1	0.7	1
WMAIN-1962(2)	028-042	J-6679	6	140	0.1	0.7	0.3	1	0.7	1
WMAIN-1963(1)	028-044	028-031	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1963(2)	028-031	J-6591	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-1966(1)	J-7852	040-031	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1966(2)	040-031	J-7748	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1968	J-5460	J-5461	6	140	0.1	0.2	0.4	0.5	0.2	0.5
WMAIN-1969	J-5465	J-5466	6	130	0.0	0.1	0	0.2	0.1	0.2
WMAIN-1970	J-5436	J-5437	8	140	0.1	0.3	0.4	0.7	0.2	0.6
WMAIN-1971(1)	J-5430	027-030	6	140	0.0	0.2	0	0.5	0.1	0.4
WMAIN-1971(2)(1)	027-030	027-029	6	140	0.0	0.2	0	0.5	0.1	0.4
WMAIN-1971(2)(2)	027-029	J-5216	6	140	0.0	0.2	0	0.5	0.1	0.4
WMAIN-1973	J-6444	J-5431	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-1974	J-5387	J-5322	6	140	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-1975	J-5251	J-5252	6	140	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-1976	J-5272	J-5273	4	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-1978	J-5272	J-5972	6	130	0.0	0.0	0	0.2	0.0	0.1
WMAIN-1980(1)	J-5519	021-002	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-1980(2)	021-002	J-5520	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-1981(1)	J-5732	022-027	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1981(2)	022-027	J-8097	6	140	0.0	0.0	0	0	0.0	0
WMAIN-1982(1)	J-7376	053-015	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-1982(2)	053-015	J-6138	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-1984	J-5434	J-5435	8	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-1986	J-7057	J-5435	8	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-1987	J-5234	J-5235	8	140	0.0	0.1	0	0.4	0.0	0.3
WMAIN-1988	J-5235	J-7057	8	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-1989(1)	J-5566	029-017A	2	130	0.0	0.2	0.1	0.2	0.1	0.1
WMAIN-1989(2)	029-017A	J-5470	2	130	0.0	0.0	0	0.1	0.0	0.1
WMAIN-1990(1)	J-5567	029-027	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-1990(2)	029-027	J-5166	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-1992(1)	J-7748	040-036	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1992(2)	040-036	J-7816	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-1994	J-8147	J-5808	10	140	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-1995(1)	J-7425	023-030	10	152.5	0.1	0.5	0.5	1.2	0.4	1.1
WMAIN-1995(2)	023-030	J-7426	10	152.5	0.1	0.5	0.5	1.2	0.4	1.1
WMAIN-1997	J-7278	J-7279	8	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-1998(1)	J-7941	042-008	8	140	0.1	0.4	0.3	0.8	0.4	0.8
WMAIN-1998(2)	042-008	J-5559	8	140	0.1	0.4	0.3	0.9	0.4	0.9
WMAIN-2002	J-7278	J-7941	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2004(1)(1)	J-7279	042-006	8	140	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-2004(1)(2)	042-006	042-053	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2004(2)	042-053	J-7330	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2005	J-7239	J-7934	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2007	J-7138	J-8366	8	140	0.0	0.1	0.2	0.5	0.1	0.3
WMAIN-2009(1)	J-7139	042-060	8	140	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2009(2)	042-060	J-7077	8	140	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2011(1)	J-7077	042-061	8	140	0.0	0.4	0.3	0.8	0.4	0.8
WMAIN-2011(2)	042-061	J-7051	8	140	0.1	0.4	0.3	0.8	0.4	0.8
WMAIN-2014	J-7051	J-7052	8	140	0.1	0.5	0.4	1	0.5	1
WMAIN-2017(1)	J-7138	042-059	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2017(2)	042-059	J-7139	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2019	J-7076	J-7077	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2022(1)	J-8460	042-058	8	152.5	0.0	0.3	0.3	0.8	0.3	0.8
WMAIN-2022(2)	042-058	J-7138	8	152.5	0.0	0.3	0.3	0.8	0.3	0.8
WMAIN-2026	J-6928	J-7051	6	140	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-2029	J-5839	J-7139	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-2031(1)	J-7810	043-003	8	140	0.1	0.3	0.4	0.8	0.3	0.7
WMAIN-2031(2)	043-003	J-7934	8	140	0.1	0.3	0.4	0.8	0.3	0.7
WMAIN-2034(1)	J-7558	042-057	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-2034(2)	042-057	J-8460	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2035(1)	J-8459	042-056	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2035(2)	042-056	J-8460	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2036	J-8036	J-7553	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-2039	J-7330	J-7331	8	140	0.0	0.3	0.2	0.8	0.3	0.7
WMAIN-2041(1)	J-8036	042-049	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2041(2)	042-049	J-6061	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2043(1)(1)	J-7331	042-051	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-2043(1)(2)	042-051	042-050	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2043(2)	042-050	J-8036	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2047(1)(1)	J-7330	042-054	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2047(1)(2)	042-054	042-055	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2047(2)	042-055	J-8459	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2049(1)(1)(1)	J-7331	041-020	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2049(1)(1)(2)	041-020	042-052	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2049(1)(2)	042-052	042-048	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2049(2)	042-048	J-6798	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2052	J-6061	J-6798	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2055(1)	J-6797	042-047	8	152.5	0.1	0.5	0.3	1.1	0.5	1.1
WMAIN-2055(2)	042-047	J-7312	8	152.5	0.1	0.5	0.3	1.1	0.5	1.1
WMAIN-2057	J-6061	J-6062	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2059	J-5664	J-5493	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2062(1)	J-7528	042-034	6	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2062(2)	042-034	J-5493	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2063(1)	J-7641	042-041	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2063(2)	042-041	J-7086	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2065	J-7528	J-7641	8	152.5	0.1	0.4	0.3	1	0.4	1
WMAIN-2067(1)	J-7527	042-035	8	152.5	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-2067(2)	042-035	J-7528	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2070	J-5840	J-7086	8	140	0.1	0.4	0.3	0.9	0.4	0.9
WMAIN-2072(1)	J-7086	042-042	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2072(2)	042-042	J-6751	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2073	J-6751	J-6752	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2074(1)	J-7931	042-033	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2074(2)	042-033	J-7641	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2076(1)	J-7553	042-037	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2076(2)	042-037	J-7527	8	152.5	0.0	0.3	0.2	0.9	0.3	0.9
WMAIN-2080(1)	J-7672	042-032	8	140	0.1	0.5	0.3	1	0.5	1
WMAIN-2080(2)	042-032	J-7931	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-2081	J-6947	J-7931	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-2084(1)	J-6588	J-9284	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2084(2)	J-9284	J-8439	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2086	J-6947	J-6948	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2087(1)	J-6588	055-017	12	152.5	0.0	0.3	0.4	1.1	0.3	1.1
WMAIN-2087(2)	055-017	J-6561	12	152.5	0.0	0.3	0.4	1.1	0.3	1.1
WMAIN-2089	J-6561	J-6562	12	152.5	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-2092(1)	J-6562	055-016	12	152.5	0.0	0.3	0.3	1	0.3	1
WMAIN-2092(2)	055-016	J-8101	12	152.5	0.0	0.3	0.3	1	0.3	1
WMAIN-2094(1)	J-6517	J-9283	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2094(2)	J-9283	J-6754	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2095	J-5220	J-5178	8	140	0.0	0.2	0	0.6	0.2	0.6
WMAIN-2096	J-5178	J-5179	8	140	0.0	0.2	0	0.6	0.2	0.6
WMAIN-2097(1)	J-5179	028-025	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2097(2)	028-025	J-5234	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2098	J-5417	J-5094	12	140	0.1	0.5	0.6	1.2	0.2	0.8
WMAIN-2101	J-5197	029-031	6	130	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-2102	J-5197	J-6927	6	130	0.1	0.6	0.3	0.8	0.6	0.8
WMAIN-2103	J-5100	J-5101	6	152.5	0.1	0.2	0.2	0.6	0.1	0.4
WMAIN-2104	J-5101	J-5201	6	152.5	0.2	0.8	0.5	1.1	0.5	0.9
WMAIN-2106	J-5119	J-5120	10	140	0.0	0.0	0	0.3	0.0	0.2
WMAIN-2107	J-5104	J-5105	16	140	0.0	0.2	0.3	0.8	0.1	0.7
WMAIN-2109	J-6150	J-6910	4	140	0.0	0.0	0	0	0.0	0
WMAIN-2110	J-5195	J-5196	6	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2113	J-5321	J-5322	6	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2115	J-5236	J-5237	12	110	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-2116	J-6627	J-6628	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2117(1)	J-6628	J-8673	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-2117(2)	J-8673	J-5519	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2118(1)	J-6619	J-9325	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2118(2)	J-9325	J-5527	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2120(1)	J-7361	022-026	10	140	0.0	0.2	0	0.6	0.1	0.4
WMAIN-2120(2)	022-026	J-7384	10	140	0.0	0.2	0	0.6	0.1	0.4
WMAIN-2121	J-7384	J-6966	10	140	0.0	0.1	0	0.5	0.1	0.3
WMAIN-2122	J-8361	J-5291	6	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2123	J-8351	J-5238	10	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-2124(1)	J-8050	021-019	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2124(2)(1)	021-019	021-020	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2124(2)(2)	021-020	J-7924	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2125	J-7924	021-031	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2126	021-031	J-5290	6	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2127	J-5290	J-5291	6	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2128	J-6569	J-6570	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-2130	J-5430	J-5431	6	140	0.0	0.3	0	0.6	0.2	0.5
WMAIN-2131	J-6398	J-6905	6	140	0.1	0.3	0.3	0.7	0.3	0.7
WMAIN-2133	J-5955	J-5956	8	140	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-2135	J-7385	J-6366	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2136	J-6391	J-6388	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2138	J-6390	J-6391	6	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-2140	029-029	J-6244	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2142	J-6244	J-7423	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2144	J-5587	J-5588	4	140	0.5	1.5	0.6	1.2	1.5	1.2
WMAIN-2146	J-5975	J-5470	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-2148	J-6750	J-5321	6	130	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-2149	J-6926	J-6803	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-2151	J-6809	J-6810	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2152(1)	J-6121	028-034	6	140	0.2	1.0	0.4	1.2	1.0	1.2
WMAIN-2152(2)	028-034	J-6214	6	140	0.2	1.0	0.4	1.2	1.0	1.2
WMAIN-2153	J-8152	J-8094	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2155(1)	J-7161	028-039	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2155(2)	028-039	J-6065	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2157	J-5481	028-043	6	130	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2158	J-6302	J-5197	6	130	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2159(1)	028-043	J-9309	6	130	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2159(2)	J-9309	J-6302	6	130	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2161	J-6495	J-5745	6	130	0.1	0.3	0.2	0.6	0.3	0.6
WMAIN-2162	J-6885	J-6821	6	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-2164(1)	J-6822	020-004	6	140	0.1	0.3	0.3	0.6	0.2	0.5
WMAIN-2164(2)(1)	020-004	029-033	6	140	0.1	0.3	0.3	0.6	0.2	0.5
WMAIN-2164(2)(2)	029-033	J-5322	6	140	0.1	0.3	0.3	0.6	0.2	0.5
WMAIN-2166	J-6789	J-6530	6	140	0.1	0.6	0.4	0.9	0.6	0.9
WMAIN-2168(1)	J-6530	020-009	6	140	0.1	0.6	0.4	0.9	0.6	0.9
WMAIN-2168(2)	020-009	J-5826	6	140	0.1	0.6	0.4	0.9	0.6	0.9
WMAIN-2169	J-5826	J-7929	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-2170(1)	J-6584	020-015	6	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2170(2)	020-015	J-6585	6	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2172	J-6623	J-6584	6	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2174	J-6677	J-5383	2	120	1.1	4.3	0.5	1.1	4.3	1.1
WMAIN-2175(1)(1)	J-7122	J-9300	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2175(1)(2)	J-9300	019-004	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2175(2)	019-004	J-5873	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2177	J-6340	J-5084	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-2178	J-5084	J-5085	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-2179(1)	J-8126	J-9268	6	140	0.0	0.0	0	0.1	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2179(2)	J-9268	J-6340	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2180	J-6769	J-6237	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2182	J-6241	J-6053	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2183	J-6053	021-037	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2186(1)	J-6426	021-010	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2186(2)	021-010	J-5100	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2187	J-5201	J-5538	12	140	0.0	0.0	0	0	0.0	0
WMAIN-2188	J-5626	J-5999	8	140	0.1	0.4	0.4	0.9	0.3	0.8
WMAIN-2189	J-6153	J-5532	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-2191	J-6879	J-5343	10	140	0.0	0.0	0	0.3	0.0	0.2
WMAIN-2193	J-8235	J-6879	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2195	J-5808	J-5737	10	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2196	J-5737	J-5738	10	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2198	J-6629	J-6630	8	140	0.0	0.0	0	0	0.0	0
WMAIN-2200	J-6313	J-6314	6	130	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2201	J-6314	J-5485	6	130	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-2202	J-5485	J-5486	6	130	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-2203	J-5486	J-5466	6	130	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-2205	J-5643	J-6629	8	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-2206(1)	J-5642	021-005	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2206(2)	021-005	J-5643	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2208	J-6046	J-6021	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2209	J-6021	J-5561	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2210	J-5561	J-5562	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2211(1)	J-5562	J-9335	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2211(2)(1)	J-9335	J-9313	6	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2211(2)(2)	J-9313	J-5642	6	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2213	J-6649	J-6046	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2215(1)	J-6649	021-008	6	130	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2215(2)	021-008	J-5465	6	130	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2216(1)(1)	J-7486	041-025	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2216(1)(2)	041-025	041-026	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2216(2)	041-026	J-8312	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2217(1)	J-8312	041-027	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2217(2)	041-027	J-7588	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2218	J-7588	J-7486	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2219	J-6797	J-6798	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-2221(1)	J-5535	038-005	16	140	0.0	0.1	0	0.6	0.1	0.6
WMAIN-2221(2)	038-005	J-7164	16	140	0.0	0.1	0	0.6	0.1	0.6
WMAIN-2222(1)	J-7164	J-5338	16	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-2222(2)	J-5338	J-6423	16	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-2224	J-5848	J-5849	16	140	0.0	0.1	0.1	0.7	0.0	0.1
WMAIN-2225	J-7895	J-8255	8	140	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-2227(1)	J-7585	030-012	6	140	0.0	0.2	0.2	0.4	0.1	0.4
WMAIN-2227(2)	030-012	J-7879	6	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-2228(1)	J-7879	030-013	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2228(2)	030-013	J-6889	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2230	J-6351	J-6889	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2231	J-6106	J-7904	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2232(1)	J-7904	030-014	6	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2232(2)	030-014	J-5478	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2234	J-6289	J-7294	8	140	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-2235	027-017	J-7744	8	140	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-2237	J-6722	J-5058	6	140	0.2	0.8	0.5	1	0.8	1
WMAIN-2238	J-6868	J-6805	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2240(1)	J-6805	029-016	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2240(2)	029-016	J-6806	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2241	J-6806	028-029	6	140	0.1	0.6	0.4	0.9	0.6	0.9
WMAIN-2242	028-046	J-6631	6	140	0.2	1.1	0.4	1.2	1.1	1.2
WMAIN-2243(1)	J-6631	028-028	6	140	0.0	0.5	0.1	0.8	0.5	0.8
WMAIN-2243(2)	028-028	J-6632	6	140	0.0	0.5	0	0.8	0.5	0.8
WMAIN-2245(1)	J-6744	028-027	6	110	0.0	0.7	0	0.7	0.7	0.7
WMAIN-2245(2)	028-027	J-6718	6	110	0.0	0.6	0	0.7	0.6	0.7
WMAIN-2246	J-6718	J-6719	6	140	0.0	0.6	0.2	0.9	0.6	0.9
WMAIN-2248(1)	J-5818	028-033	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-2248(2)	028-033	J-6066	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-2249	J-5058	J-5289	6	140	0.2	0.8	0.5	1	0.8	1
WMAIN-2250(1)	J-5579	036-050	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2250(2)	036-050	J-8500	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2253(1)	J-6056	036-037	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2253(2)	036-037	J-5579	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2254	J-6281	J-6282	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2256(1)	J-8584	034-027	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2256(2)	034-027	J-6281	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2259(1)	J-7740	034-032	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2259(2)	034-032	J-8001	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-2261	J-8001	J-7883	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2262	J-7883	J-7855	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2264(1)	J-5087	037-048	8	140	0.1	0.8	0.5	1.2	0.8	1.2
WMAIN-2264(2)	037-048	J-6523	8	140	0.1	0.7	0.5	1.2	0.7	1.2
WMAIN-2265(1)	J-6609	037-001	12	140	0.0	0.3	0.3	1	0.1	0.4
WMAIN-2265(2)	037-001	J-6355	12	140	0.0	0.3	0.3	1	0.1	0.4
WMAIN-2266(1)	J-6423	038-006	16	140	0.0	0.0	0	0.4	0.0	0.2
WMAIN-2266(2)	038-006	J-5848	16	140	0.0	0.0	0	0.4	0.0	0.2
WMAIN-2268	J-7553	J-8051	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2270(1)	J-8051	042-039	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2270(2)	042-039	J-6945	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2271	J-6945	J-7372	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2272(1)	J-7372	042-040	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2272(2)	042-040	J-6797	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2274(1)	J-7211	012-065	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2274(2)	012-065	J-8073	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2276(1)	J-8129	009-032	12	152.5	0.4	0.7	1.2	1.7	0.5	1.3
WMAIN-2276(2)	009-032	J-8243	12	152.5	0.4	0.7	1.2	1.7	0.5	1.3
WMAIN-2278(1)	J-7205	009-002	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2278(2)	009-002	J-8610	8	152.5	0.0	0.2	0.2	0.7	0.2	0.6
WMAIN-2280(1)	J-6965	009-009	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2280(2)(1)	009-009	009-005	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2280(2)(2)	009-005	J-6739	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2282(1)	J-7729	170-067	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-2282(2)	170-067	J-7730	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-2286(1)	J-7729	170-066	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2286(2)	170-066	J-7939	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2287	J-8998	J-6418	8	152.5	0.2	0.3	0.6	0.7	0.2	0.6
WMAIN-2288(1)	J-6453	168-025	8	152.5	0.1	0.2	0.5	0.6	0.2	0.6
WMAIN-2288(2)	168-025	J-8273	8	152.5	0.1	0.2	0.5	0.6	0.2	0.6
WMAIN-2290	J-8273	J-6418	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7
WMAIN-2293	J-6418	J-7776	8	152.5	0.6	0.7	1.2	1.3	0.7	1.3
WMAIN-2295	J-7776	J-8441	8	152.5	0.3	0.3	0.8	0.8	0.3	0.8
WMAIN-2296(1)	J-6335	168-103	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7
WMAIN-2296(2)(1)	168-103	168-026	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7
WMAIN-2296(2)(2)	168-026	J-7957	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2298	J-7957	J-7603	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7
WMAIN-2301	J-7603	J-7604	8	152.5	0.9	1.0	1.5	1.6	1.0	1.6
WMAIN-2303(1)	J-7604	168-023	8	152.5	1.0	1.1	1.5	1.7	1.1	1.7
WMAIN-2303(2)	168-023	J-6870	8	152.5	1.0	1.2	1.5	1.7	1.2	1.7
WMAIN-2309(1)	J-8441	168-024	8	152.5	0.3	0.4	0.8	0.9	0.4	0.9
WMAIN-2309(2)	168-024	J-6870	8	152.5	0.3	0.4	0.8	0.9	0.4	0.9
WMAIN-2311	J-6872	J-7196	8	152.5	0.0	0.2	0.2	0.6	0.0	0.3
WMAIN-2313(1)	J-6871	168-014	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2313(2)	168-014	J-6872	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2315(1)	J-7196	168-015	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2315(2)	168-015	J-7197	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2317(1)	J-7197	168-027	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-2317(2)	168-027	J-7731	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-2318	J-6950	J-7197	8	152.5	0.0	0.1	0	0.3	0.0	0.1
WMAIN-2320	J-8507	J-7731	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2322(1)	J-7963	168-028	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2322(2)	168-028	J-7645	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2325	J-6899	J-7645	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-2327(1)	J-6898	168-035	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-2327(2)	168-035	J-6899	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-2329	J-6300	J-6301	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2331	J-8410	J-8689	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-2333(1)	J-7288	168-032	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2333(2)	168-032	J-8410	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-2334	J-7962	J-7963	8	152.5	0.1	0.3	0.5	0.8	0.2	0.7
WMAIN-2338(1)	J-6300	168-030	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-2338(2)	168-030	J-7962	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-2340(1)	J-7288	168-034	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2340(2)	168-034	J-6300	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2342(1)	J-6068	168-033	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-2342(2)	168-033	J-7288	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-2344	J-6068	J-6069	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2346(1)	J-8029	167-002	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-2346(2)	167-002	J-6068	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-2347(1)	J-8028	167-001	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2347(2)	167-001	J-8029	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2349	J-8524	J-8547	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2352(1)	J-5818	J-9242	6	140	0.1	0.6	0.2	0.9	0.6	0.9
WMAIN-2352(2)	J-9242	J-6121	6	140	0.1	0.6	0.2	0.9	0.6	0.9
WMAIN-2353	J-5862	J-5923	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2354(1)(1)	J-5923	J-9307	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2354(1)(2)	J-9307	028-035	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2354(2)	028-035	J-5668	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2355	J-5668	J-5669	6	140	0.1	0.6	0.3	0.9	0.6	0.9
WMAIN-2356(1)	J-7530	036-055	6	140	0.1	0.3	0.4	0.6	0.2	0.4
WMAIN-2356(2)	036-055	J-5578	6	140	0.1	0.3	0.4	0.6	0.2	0.4
WMAIN-2357	J-5578	J-5579	6	140	0.1	0.3	0.4	0.6	0.2	0.4
WMAIN-2359(1)	J-7042	035-045	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-2359(2)	035-045	034-014	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-2361(1)	J-8494	034-010	12	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-2361(2)	034-010	J-7042	12	152.5	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-2363(1)	J-8494	034-003	16	140	0.1	0.2	0.5	1	0.2	0.8
WMAIN-2363(2)(1)	034-003	034-004	16	140	0.1	0.2	0.5	1	0.2	0.8
WMAIN-2363(2)(2)	034-004	J-8737	16	140	0.1	0.2	0.5	1	0.2	0.8
WMAIN-2365	J-8013	J-8014	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2368(1)	J-8013	033-008	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2368(2)	033-008	J-7995	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2370(1)(1)	J-6473	032-022	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2370(1)(2)	032-022	032-020	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2370(2)(1)	032-020	032-013	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2370(2)(2)	032-013	J-8816	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2371	031-023	J-5884	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2373	J-6269	J-5588	4	140	0.1	0.5	0.3	0.6	0.5	0.6
WMAIN-2374(1)	J-6829	030-043	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2374(2)	030-043	J-5587	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2375(1)	J-5436	030-008	8	140	0.1	0.5	0.5	1	0.4	0.9
WMAIN-2375(2)	030-008	J-6351	8	140	0.1	0.5	0.5	1	0.4	0.9
WMAIN-2377(1)	J-8502	J-9289	4	152.5	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-2377(2)	J-9289	J-7904	4	152.5	0.1	0.2	0.3	0.5	0.2	0.4
WMAIN-2379	J-6105	J-6106	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2380(1)	J-7308	030-026	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2380(2)	030-026	J-6390	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2383(1)	J-7294	030-015	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2383(2)	030-015	J-6905	8	140	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-2384	J-5956	J-6144	8	140	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-2386(1)	J-6889	031-001	8	140	0.1	0.3	0.4	0.8	0.3	0.7
WMAIN-2386(2)	031-001	J-5955	8	140	0.1	0.3	0.4	0.8	0.3	0.7
WMAIN-2387(1)(1)	J-6383	J-9328	6	130	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2387(1)(2)	J-9328	029-036	6	130	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2387(2)	029-036	J-6823	6	130	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2389	J-5553	J-7385	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2392	J-6868	J-6926	2	130	0.0	0.1	0.1	0.2	0.1	0.1
WMAIN-2393	029-031	J-5328	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-2394	J-5328	J-6809	6	140	0.0	0.2	0.2	0.4	0.1	0.3
WMAIN-2396	J-5095	J-5096	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-2398(1)	J-5096	029-039	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2398(2)(1)	029-039	029-038	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2398(2)(2)	029-038	J-6243	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2399	J-5270	J-5271	6	140	0.0	0.9	0	1.1	0.2	0.5
WMAIN-2400	J-5241	J-5536	6	140	0.2	0.8	0.5	1	0.7	1
WMAIN-2402(1)	J-7423	029-023	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2402(2)	029-023	J-7308	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2404	J-7417	J-7423	6	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2407	J-6388	J-6389	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-2408	J-6927	J-6495	6	130	0.0	0.3	0.2	0.5	0.3	0.5
WMAIN-2410(1)	J-6678	028-041	8	140	0.1	0.5	0.5	1	0.5	1
WMAIN-2410(2)(1)	028-041	J-9263	8	140	0.1	0.5	0.5	1	0.5	1
WMAIN-2410(2)(2)	J-9263	J-7369	8	140	0.1	0.5	0.5	1	0.5	1
WMAIN-2412	J-6678	J-5481	6	140	0.0	0.3	0.1	0.6	0.0	0.2
WMAIN-2414	J-5583	J-5818	8	140	0.1	1.0	0.5	1.4	1.0	1.4
WMAIN-2416	J-5861	J-6679	6	140	0.1	0.3	0.2	0.6	0.2	0.6
WMAIN-2418	J-5171	J-5172	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2419	J-6719	028-019	8	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-2421	J-6555	J-6444	6	140	0.0	0.2	0.2	0.5	0.2	0.4
WMAIN-2423	J-7223	J-6341	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2425	J-6569	J-6362	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-2428(1)(1)	022-020	022-013	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2428(1)(2)	022-013	022-019	4	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2428(2)	022-019	J-6674	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2429	J-5252	022-020	4	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2430	J-7424	J-7360	10	140	0.0	0.2	0	0.7	0.1	0.5
WMAIN-2431(1)	J-6570	J-9291	6	140	0.0	0.3	0.2	0.6	0.3	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2431(2)	J-9291	J-5307	6	140	0.0	0.3	0.2	0.6	0.3	0.6
WMAIN-2432	J-5307	J-5308	6	140	0.0	0.3	0.2	0.6	0.3	0.6
WMAIN-2435(1)	J-7887	021-043	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-2435(2)	021-043	J-7926	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2437(1)	J-8094	J-9324	10	140	0.1	0.2	0.3	0.7	0.2	0.7
WMAIN-2437(2)	J-9324	J-8147	10	140	0.1	0.2	0.3	0.7	0.2	0.7
WMAIN-2439(1)	J-8152	021-015	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2439(2)	021-015	J-8146	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2440(1)(1)	J-5308	J-9292	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2440(1)(2)	J-9292	J-6447	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2440(2)	J-6447	J-5519	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2442	J-5520	J-6046	6	140	0.0	0.3	0.1	0.6	0.3	0.6
WMAIN-2443	J-5239	J-5732	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2445	J-5120	J-8050	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2446(1)	J-6100	021-016	4	140	0.1	0.7	0.2	0.7	0.7	0.7
WMAIN-2446(2)(1)	021-016	J-9322	4	140	0.1	0.7	0.2	0.7	0.7	0.7
WMAIN-2446(2)(2)	J-9322	J-7091	4	140	0.1	0.7	0.2	0.7	0.7	0.7
WMAIN-2447	J-5101	J-6426	8	140	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-2450	J-6356	J-6885	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-2451	J-6765	J-5625	8	140	0.0	0.1	0	0.5	0.1	0.3
WMAIN-2452(1)	J-5625	020-007	8	140	0.0	0.1	0	0.5	0.1	0.3
WMAIN-2452(2)	020-007	J-5626	8	140	0.0	0.1	0	0.5	0.1	0.3
WMAIN-2454(1)(1)	J-5999	J-9303	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2454(1)(2)	J-9303	020-002	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2454(2)	020-002	J-6075	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2456	J-6822	J-6818	6	152.5	0.1	0.3	0.3	0.7	0.2	0.6
WMAIN-2458	J-6356	J-6241	6	140	0.1	0.3	0.2	0.6	0.1	0.4
WMAIN-2460(1)	021-037	J-9304	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2460(2)	J-9304	021-040	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2462(1)(1)	J-6622	J-9014	6	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2462(1)(2)	J-9014	020-014	6	152.5	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2462(2)	020-014	J-6623	6	152.5	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2464	J-7053	J-6622	2	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2465	J-8355	J-5280	8	140	0.2	0.6	0.5	1.1	0.6	1.1
WMAIN-2467	J-5318	J-6237	4	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2469(1)(1)	J-8421	J-9294	6	140	0.0	0.1	0.2	0.3	0.1	0.2
WMAIN-2469(1)(2)	J-9294	014-018	6	140	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-2469(2)	014-018	J-6769	6	140	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-2471(1)	J-6236	014-001	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2471(2)	014-001	J-5709	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2474	J-5451	J-5709	8	140	0.1	0.1	0.3	0.5	0.1	0.3
WMAIN-2477	J-7472	J-7473	8	152.5	0.1	0.5	0.5	1.1	0.5	1.1
WMAIN-2478	J-7472	J-7569	16	140	0.1	0.3	0.4	1.1	0.3	1.1
WMAIN-2480(1)	J-7887	021-044	16	140	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-2480(2)	021-044	J-7472	16	140	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-2483	J-6918	J-7810	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-2485(1)	J-8658	043-012	6	140	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-2485(2)	043-012	J-7636	6	140	0.1	0.4	0.2	0.7	0.4	0.7
WMAIN-2488(1)	J-7650	055-039	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2488(2)	055-039	J-8020	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2491	J-6410	J-6696	8	152.5	0.0	0.8	0.3	1.4	0.8	1.4
WMAIN-2493	J-6696	J-6697	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2495(1)	J-7649	056-008	8	152.5	0.0	0.3	0.1	0.8	0.3	0.8
WMAIN-2495(2)	056-008	J-6409	8	152.5	0.0	0.3	0.1	0.8	0.3	0.8
WMAIN-2498(1)	J-8636	056-009	12	152.5	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-2498(2)	056-009	J-7649	12	152.5	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-2500	J-6945	J-6946	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2501	J-5664	J-5665	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2502(1)	J-7527	042-036	6	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2502(2)	042-036	J-5664	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2504(1)	J-7615	042-010	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2504(2)	042-010	J-8670	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2507(1)	J-7818	040-029	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2507(2)	040-029	J-8305	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2509(1)	J-7686	023-031	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2509(2)	023-031	J-8487	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2510(1)	J-7425	023-029	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2510(2)	023-029	J-8595	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2512(1)	J-8607	024-022	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2512(2)	024-022	J-5458	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2515(1)	J-6312	024-020	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2515(2)	024-020	J-6994	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2517(1)	J-6311	024-023	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2517(2)	024-023	J-6520	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-2519	J-7204	J-7205	8	152.5	0.0	0.2	0.2	0.6	0.1	0.3
WMAIN-2520	J-6451	J-6311	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2522(1)	J-6964	009-007	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2522(2)	009-007	J-6965	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2523(1)	J-8471	009-030	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-2523(2)	009-030	J-8472	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-2526(1)	J-8471	009-031	8	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-2526(2)	009-031	J-8243	8	152.5	0.1	0.2	0.4	0.7	0.1	0.5
WMAIN-2528	J-7855	J-6796	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-2530(1)	J-7661	034-031	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-2530(2)	034-031	J-7855	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-2532	J-7740	J-7661	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2534(1)	J-7739	034-029	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2534(2)	034-029	J-7740	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-2537	J-8135	J-7739	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-2540	J-6281	J-8135	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2542(1)	J-6899	168-036	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-2542(2)	168-036	J-6872	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-2546(1)	J-8689	168-031	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-2546(2)	168-031	J-7962	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2548	J-7645	J-7731	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-2552	J-8273	J-7957	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2554(1)	J-7603	168-017	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2554(2)(1)	168-017	168-018	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2554(2)(2)	168-018	J-6418	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2557(1)	J-7604	168-019	8	152.5	0.1	0.1	0.5	0.5	0.1	0.5
WMAIN-2557(2)	168-019	J-7776	8	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-2559(1)	J-8834	168-022	8	152.5	0.1	0.2	0.5	0.6	0.2	0.6
WMAIN-2559(2)	168-022	J-6870	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7
WMAIN-2563(1)(1)	J-8834	168-021	8	152.5	0.1	0.1	0.5	0.5	0.1	0.5
WMAIN-2563(1)(2)	168-021	168-020	8	152.5	0.1	0.1	0.5	0.5	0.1	0.5
WMAIN-2563(2)	168-020	J-7604	8	152.5	0.1	0.1	0.5	0.5	0.1	0.5
WMAIN-2565(1)	J-7196	168-016	8	152.5	0.2	0.3	0.6	0.9	0.3	0.8
WMAIN-2565(2)	168-016	J-7603	8	152.5	0.2	0.3	0.7	0.9	0.3	0.8
WMAIN-2566(1)	J-6416	168-029	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-2566(2)	168-029	J-7963	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-2569(1)	J-6779	024-026	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2569(2)	024-026	J-8443	8	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2572	J-8610	J-6814	8	152.5	0.0	0.8	0.3	1.4	0.7	1.3
WMAIN-2575(1)	J-7954	J-5078	8	152.5	0.0	1.2	0.2	1.7	1.2	1.7
WMAIN-2575(2)(1)	J-5078	056-015	8	152.5	0.2	3.8	0.7	3.2	3.8	3.2
WMAIN-2575(2)(2)	056-015	J-8290	8	152.5	0.2	3.8	0.7	3.2	3.8	3.2
WMAIN-2576(1)	J-5105	023-005	16	140	0.0	0.2	0.4	0.9	0.1	0.7
WMAIN-2576(2)	023-005	J-6072	16	140	0.0	0.2	0.4	0.9	0.1	0.7
WMAIN-2577(1)(1)	J-6763	010-011	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2577(1)(2)(1)(1)	010-011	011-039	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2577(1)(2)(1)(2)	011-039	011-040	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2577(1)(2)(2)	011-040	J-5863	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2577(2)(1)	J-5863	010-010	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2577(2)(2)(1)	010-010	011-033	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2577(2)(2)(2)	011-033	J-7248	12	152.5	0.0	0.3	0.2	1.1	0.2	0.7
WMAIN-2578(1)	J-6762	011-041	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2578(2)	011-041	J-6763	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2579	J-8404	J-7862	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2581	J-8403	J-8404	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2585(1)(1)	J-6866	170-106	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2585(1)(2)	170-106	170-107	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2585(2)	170-107	J-8403	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2588	J-8325	J-8403	8	152.5	0.2	0.5	0.6	1.1	0.5	1.1
WMAIN-2590(1)	J-6280	012-063	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-2590(2)	012-063	J-7274	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-2592(1)	J-6279	012-064	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2592(2)	012-064	J-8392	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2593(1)	J-6666	J-9285	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2593(2)	J-9285	J-6667	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2597	J-7990	J-7788	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2598	J-7843	J-7990	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2601(1)	J-7264	012-010	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-2601(2)	012-010	J-7265	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-2603(1)	J-7738	011-028	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2603(2)	011-028	J-6504	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-2605	J-7264	J-7788	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2608(1)	J-7842	012-013	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2608(2)	012-013	J-7843	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2609(1)(1)	J-7264	012-014	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2609(1)(2)	012-014	012-015	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2609(2)	012-015	J-7842	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2612(1)	J-6814	009-003	12	152.5	0.0	0.4	0.1	1.2	0.4	1.2
WMAIN-2612(2)	009-003	J-6740	12	152.5	0.0	0.4	0.1	1.2	0.4	1.2
WMAIN-2613(1)	J-6964	009-008	12	152.5	0.0	0.4	0.2	1.3	0.4	1.3
WMAIN-2613(2)	009-008	J-5963	12	152.5	0.0	0.4	0.2	1.3	0.4	1.3
WMAIN-2616(1)	J-6965	009-006	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2616(2)	009-006	J-6739	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2618	J-6739	J-6740	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2621	J-7686	J-7425	10	152.5	0.1	0.4	0.5	1.1	0.4	1
WMAIN-2623	J-7815	J-7686	10	152.5	0.1	0.4	0.4	1.1	0.3	1
WMAIN-2625	J-7701	J-7815	10	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-2627	J-6278	J-7701	10	152.5	0.1	0.2	0.4	0.7	0.1	0.6
WMAIN-2628	J-6137	J-6278	10	152.5	0.1	0.2	0.3	0.6	0.1	0.6
WMAIN-2630(1)	J-5964	024-003	12	152.5	0.1	0.8	0.4	1.8	0.8	1.7
WMAIN-2630(2)(1)	024-003	024-002	12	152.5	0.0	0.7	0.2	1.6	0.6	1.5
WMAIN-2630(2)(2)	024-002	J-7204	12	152.5	0.0	0.7	0.2	1.6	0.6	1.5
WMAIN-2632	J-5963	J-5964	18	110	0.0	0.8	0.2	1.6	0.8	1.6
WMAIN-2635(1)	J-5963	009-004	12	152.5	0.0	0.8	0	1.8	0.8	1.8
WMAIN-2635(2)	009-004	J-6814	12	152.5	0.0	0.8	0	1.8	0.8	1.8
WMAIN-2636(1)(1)	J-8796	024-005	8	152.5	0.1	0.8	0.5	1.4	0.8	1.3
WMAIN-2636(1)(2)	024-005	024-004	8	152.5	0.1	0.8	0.5	1.4	0.8	1.4
WMAIN-2636(2)	024-004	J-5963	8	152.5	0.1	0.8	0.5	1.4	0.8	1.4
WMAIN-2639(1)	J-5459	024-007	8	152.5	0.1	0.8	0.5	1.4	0.7	1.3
WMAIN-2639(2)(1)	024-007	024-006	8	152.5	0.1	0.8	0.5	1.4	0.7	1.3
WMAIN-2639(2)(2)	024-006	J-8796	8	152.5	0.1	0.8	0.5	1.4	0.7	1.3
WMAIN-2640	J-5458	J-5459	10	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2641(1)	J-6780	024-009	8	152.5	0.0	0.2	0.2	0.7	0.2	0.6
WMAIN-2641(2)	024-009	J-5459	8	152.5	0.0	0.2	0.2	0.7	0.2	0.6
WMAIN-2643	J-6779	J-6780	8	152.5	0.0	0.1	0	0.4	0.0	0.3
WMAIN-2645	J-8512	J-6779	8	152.5	0.0	0.1	0	0.4	0.1	0.3
WMAIN-2647	J-6312	J-5458	10	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2651	J-6311	J-6312	10	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-2653(1)	J-6520	024-024	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2653(2)	024-024	J-8512	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2657	J-8008	J-7852	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2659	J-8305	J-8008	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2660	J-6696	J-8290	8	152.5	0.1	0.8	0.3	1.4	0.8	1.4
WMAIN-2662(1)	J-8290	056-014	8	152.5	0.1	1.3	0.3	1.8	1.3	1.8
WMAIN-2662(2)	056-014	J-7917	8	152.5	0.1	1.3	0.3	1.8	1.3	1.8
WMAIN-2665(1)(1)(1)	J-5547	126-041	8	152.5	2.3	6.7	2.4	4.4	6.7	4.4
WMAIN-2665(1)(1)(2)	126-041	J-5945	8	152.5	2.3	6.8	2.4	4.4	6.7	4.4
WMAIN-2665(1)(2)	J-5945	J-5950	8	152.5	2.3	6.8	2.4	4.4	6.8	4.4
WMAIN-2665(2)	J-5950	J-6594	8	152.5	2.5	7.4	2.5	4.6	7.4	4.6
WMAIN-2667	J-7649	J-7650	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2669(1)	J-7650	056-006	12	152.5	0.0	0.2	0.3	0.7	0.2	0.7
WMAIN-2669(2)	056-006	J-7954	12	152.5	0.0	0.2	0.3	0.7	0.2	0.7
WMAIN-2670	J-7994	J-7995	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2672(1)	J-5324	031-024	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2672(2)	031-024	031-023	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-2674(1)	J-6020	036-049	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2674(2)	036-049	J-7050	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2676(1)	J-7595	028-010	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2676(2)	028-010	028-011	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2679(1)	J-8106	037-047	6	140	0.0	0.3	0.1	0.6	0.1	0.3
WMAIN-2679(2)	037-047	J-5463	6	140	0.0	0.2	0	0.5	0.1	0.3
WMAIN-2680	J-5463	J-5464	6	140	0.0	0.2	0	0.5	0.1	0.3
WMAIN-2682	J-5418	J-5537	8	140	0.0	0.3	0	0.8	0.0	0
WMAIN-2684	J-6868	J-6722	2	140	0.1	0.2	0.1	0.3	0.1	0.2
WMAIN-2687(1)	J-8500	036-033	6	140	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-2687(2)	036-033	J-5536	6	140	0.1	0.3	0.3	0.6	0.1	0.4
WMAIN-2690(1)	J-5917	037-046	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2690(2)	037-046	J-8430	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2692	J-7584	J-7585	6	140	0.0	0.2	0.2	0.4	0.1	0.4
WMAIN-2694(1)	J-6221	036-059	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2694(2)	036-059	J-6222	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2696	J-7008	J-7009	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2698(1)	J-7701	023-033	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2698(2)	023-033	J-8465	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2700(1)	J-6278	023-034	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2700(2)	023-034	J-8464	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2702(1)	J-6341	027-052	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2702(2)	027-052	J-6342	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2704(1)	J-7676	038-027	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2704(2)	038-027	J-5832	6	140	0.0	0.0	0	0.1	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2705	J-8641	J-5422	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2707	J-7569	J-7570	16	140	0.1	0.3	0.5	1.2	0.3	1.2
WMAIN-2710(1)	J-6520	024-025	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2710(2)	024-025	J-8512	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2713	J-8607	J-6994	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-2716	J-6719	J-5220	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-2718(1)	J-5499	027-026	12	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-2718(2)	027-026	J-5215	12	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-2721	J-6474	J-5431	4	140	0.0	0.1	0	0.2	0.0	0.2
WMAIN-2725(1)	J-6475	027-033	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2725(2)	027-033	J-6444	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2726	J-7243	J-6150	2	130	0.1	0.2	0.1	0.2	0.2	0.2
WMAIN-2728	J-5273	J-5919	4	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2730	J-5238	J-6966	10	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-2732(1)	J-5119	021-011	10	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-2732(2)(1)	021-011	J-9326	10	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-2732(2)(2)	J-9326	J-8351	10	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-2733(1)	J-6150	J-9245	2	130	0.1	0.3	0.1	0.3	0.3	0.3
WMAIN-2733(2)	J-9245	J-5119	2	130	0.2	0.8	0.2	0.5	0.8	0.5
WMAIN-2734	021-012	J-6883	4	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2735	J-6883	J-6880	4	140	0.0	0.1	0	0.2	0.0	0.2
WMAIN-2736	J-6879	J-6880	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2738	J-5533	J-6649	6	140	0.1	0.3	0.2	0.6	0.3	0.6
WMAIN-2740	J-5738	J-5532	10	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-2742(1)(1)	J-7925	021-029	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2742(1)(2)	021-029	021-021	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2742(2)	021-021	J-8235	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-2743(1)	J-8355	021-023	8	140	0.2	0.7	0.5	1.1	0.7	1.1
WMAIN-2743(2)	021-023	J-8094	8	140	0.1	0.6	0.5	1.1	0.6	1.1
WMAIN-2747(1)	J-7390	021-024	6	140	0.1	0.6	0.4	0.9	0.6	0.9
WMAIN-2747(2)	021-024	J-7415	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2749(1)(1)	J-7416	021-026	4	140	0.1	0.3	0.2	0.5	0.3	0.5
WMAIN-2749(1)(2)	021-026	J-9266	4	140	0.2	0.8	0.4	0.8	0.8	0.8
WMAIN-2749(2)	J-9266	J-7391	4	140	0.2	0.8	0.4	0.8	0.8	0.8
WMAIN-2752	J-8235	J-8050	2	140	0.0	0.1	0	0.2	0.1	0.1
WMAIN-2754	J-8351	021-018	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2756(1)	J-8361	021-030	6	140	0.0	0.1	0	0.2	0.0	0.2
WMAIN-2756(2)	021-030	021-018	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2758(1)	J-6966	022-028	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-2758(2)	022-028	J-8368	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-2759(1)	J-8374	022-037	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2759(2)	022-037	J-8368	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2762	J-8374	J-8361	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-2764	J-7360	J-7361	10	140	0.0	0.2	0	0.6	0.1	0.4
WMAIN-2765(1)	J-5251	J-8193	2	140	0.4	1.4	0.3	0.7	1.4	0.7
WMAIN-2767	J-5732	J-8853	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2768(1)	J-7424	022-018	10	140	0.0	0.4	0.3	1	0.4	0.9
WMAIN-2768(2)	022-018	J-7039	10	140	0.0	0.4	0.3	0.9	0.4	0.9
WMAIN-2769(1)	J-6109	J-9258	10	140	0.0	0.6	0.2	1.3	0.6	1.2
WMAIN-2769(2)	J-9258	J-7039	10	140	0.0	0.6	0.3	1.3	0.6	1.2
WMAIN-2770(1)	J-6904	022-008	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2770(2)	022-008	J-7128	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-2771	J-7128	J-5062	4	140	0.0	0.2	0.1	0.4	0.1	0.3
WMAIN-2772	J-5062	J-5063	4	140	0.0	0.2	0.1	0.3	0.1	0.3
WMAIN-2773	J-5063	J-5875	6	140	0.0	0.4	0.2	0.8	0.3	0.7
WMAIN-2774(1)	J-5875	022-003	6	140	0.0	0.4	0.2	0.7	0.3	0.6
WMAIN-2774(2)	022-003	J-5876	6	140	0.0	0.4	0.2	0.7	0.3	0.6
WMAIN-2776(1)	J-5507	019-005	6	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2776(2)	019-005	J-7122	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2777(1)	J-8125	J-9295	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2777(2)	J-9295	J-8126	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2778(1)	J-8144	J-9298	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2778(2)	J-9298	J-8125	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2782(1)	J-7122	J-9282	4	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2782(2)	J-9282	J-8814	4	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-2783	J-8488	J-6677	2	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2784	J-6488	J-6677	2	140	0.1	0.5	0.2	0.4	0.5	0.4
WMAIN-2785	J-6488	J-6489	2	140	0.0	0.0	0	0	0.0	0
WMAIN-2786	019-002	J-5084	4	140	0.0	0.0	0	0	0.0	0
WMAIN-2789	J-5806	J-5318	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-2790	J-5085	J-5806	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2793(1)(1)	J-8114	019-012	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2793(1)(2)	019-012	019-011	6	140	0.0	0.3	0.3	0.4	0.0	0.4
WMAIN-2793(2)	019-011	J-5461	6	140	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-2796(1)	J-8125	019-009	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2796(2)(1)	019-009	019-008	6	140	0.0	0.3	0.1	0.3	0.3	0.3
WMAIN-2796(2)(2)	019-008	J-8114	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2799	J-8126	J-8107	4	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2802	J-8144	J-8115	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2805	J-8107	J-8421	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2808(1)	J-6340	019-007	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2808(2)	019-007	J-6368	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2811(1)	J-6368	019-010	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2811(2)	019-010	J-6769	6	140	0.0	0.1	0.2	0.2	0.0	0.2
WMAIN-2812(1)	J-8115	014-005	6	140	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-2812(2)	014-005	H-498	6	140	0.1	0.3	0.4	0.6	0.3	0.6
WMAIN-2814	H-498	J-5461	6	140	0.3	0.6	0.6	0.9	0.5	0.8
WMAIN-2816(1)(1)	J-5460	J-9297	6	140	0.1	0.2	0.3	0.4	0.1	0.4
WMAIN-2816(1)(2)	J-9297	014-004	6	140	0.1	0.2	0.3	0.4	0.1	0.4
WMAIN-2816(2)	014-004	J-8421	6	140	0.1	0.2	0.3	0.4	0.1	0.4
WMAIN-2818	J-6236	J-6237	2	140	0.1	1.2	0.2	0.7	1.1	0.6
WMAIN-2819	J-6406	J-5460	2	140	0.2	0.5	0.2	0.4	0.5	0.4
WMAIN-2821	J-6333	J-6334	2	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2822	J-6673	J-6334	3	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-2823	J-6601	J-7080	6	140	0.4	1.3	0.7	1.4	1.3	1.4
WMAIN-2826(1)	J-5375	030-033	6	140	0.1	0.4	0.4	0.8	0.4	0.8
WMAIN-2826(2)	030-033	J-6601	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-2827	J-6601	J-6602	8	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-2829	J-5477	J-6391	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2831	J-6106	J-6289	3	140	0.1	0.4	0.1	0.4	0.4	0.4
WMAIN-2833	J-5859	J-9251	4	140	0.1	0.5	0.3	0.6	0.5	0.6
WMAIN-2834(1)	J-9251	030-036	4	140	0.1	0.3	0.2	0.5	0.3	0.4
WMAIN-2834(2)	030-036	J-5587	4	140	0.1	0.2	0.2	0.4	0.2	0.3
WMAIN-2836	J-5588	J-5550	4	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-2839	J-5780	J-7024	6	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2840(1)	J-7423	029-020	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2840(2)	029-020	J-5553	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-2843(1)	J-5167	H-501	4	140	0.0	0.2	0.1	0.3	0.1	0.2
WMAIN-2843(2)	H-501	J-5196	4	140	0.0	0.1	0.1	0.2	0.0	0.1
WMAIN-2845(1)	J-5195	J-9319	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2845(2)	J-9319	J-5606	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2846	J-6755	J-5166	6	140	0.0	0.1	0.1	0.3	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2848	J-6803	J-6755	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2850	J-5387	J-5566	2	130	0.0	0.2	0.1	0.2	0.1	0.2
WMAIN-2852	J-5321	J-5567	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-2855	J-6750	J-6755	4	130	0.0	0.2	0.1	0.3	0.1	0.3
WMAIN-2858(1)	J-6802	029-037	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-2858(2)	029-037	J-6823	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-2861	J-6802	J-7024	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-2863	J-5780	J-6823	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2864	J-5387	J-7405	6	130	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-2867(1)	J-5746	J-9248	6	130	0.0	0.2	0.2	0.4	0.1	0.3
WMAIN-2867(2)	J-9248	J-6750	6	130	0.0	0.2	0.2	0.4	0.1	0.3
WMAIN-2869	J-6495	J-6926	2	130	0.1	0.2	0.1	0.3	0.2	0.2
WMAIN-2872	J-6810	J-6926	6	140	0.0	0.3	0.2	0.6	0.3	0.6
WMAIN-2874(1)	J-6821	J-9249	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2874(2)	J-9249	J-6822	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2876	J-6678	J-6679	6	140	0.3	1.6	0.6	1.5	1.6	1.5
WMAIN-2877	J-6382	J-6383	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2878	J-6526	J-6382	4	140	0.1	0.2	0.2	0.3	0.2	0.3
WMAIN-2881	J-6622	J-6526	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-2883	J-6623	J-8319	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2886(1)	J-6817	J-9247	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2886(2)(1)	J-9247	020-006	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2886(2)(2)	020-006	J-6818	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2887	J-6000	J-6817	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-2889	J-5992	J-5993	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2890	J-6075	J-5992	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-2891	J-6356	020-001	6	140	0.1	0.6	0.4	0.9	0.5	0.8
WMAIN-2892(1)	020-001	J-9264	6	140	0.1	0.5	0.4	0.8	0.5	0.8
WMAIN-2892(2)	J-9264	J-6927	6	140	0.1	0.5	0.4	0.8	0.5	0.8
WMAIN-2896(1)(1)	J-6927	H-540	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-2896(1)(2)	H-540	029-025	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-2896(2)	029-025	J-6810	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-2898(1)(1)	J-6810	H-539	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2898(1)(2)	H-539	H-538	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2898(2)	H-538	J-6805	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2900	J-5606	J-6868	6	140	0.0	0.4	0.2	0.7	0.4	0.7
WMAIN-2901(1)(1)	J-5669	J-9310	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2901(1)(2)	J-9310	029-024	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2901(2)	029-024	J-6809	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2902	J-5869	J-5669	6	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-2905	J-6809	J-6806	6	130	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2907	028-046	J-5869	6	140	0.1	0.2	0.2	0.5	0.1	0.4
WMAIN-2909	028-029	028-046	6	140	0.0	0.5	0.2	0.9	0.5	0.9
WMAIN-2912	J-5861	J-5862	6	140	0.0	0.4	0.1	0.7	0.4	0.7
WMAIN-2914	J-5862	J-7254	4	140	0.1	0.4	0.2	0.5	0.3	0.5
WMAIN-2915	J-7254	J-6632	4	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-2917	J-6632	J-6744	6	140	0.0	0.6	0.2	0.9	0.6	0.9
WMAIN-2918	J-6122	J-6718	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2922(1)	J-6719	028-026	8	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2922(2)(1)	028-026	H-530	8	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2922(2)(2)(1)	H-530	H-531	8	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2922(2)(2)(2)	H-531	J-5583	8	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-2924	J-6781	J-5220	6	140	0.0	0.1	0	0.2	0.0	0.2
WMAIN-2926	J-5179	J-8802	2	130	0.0	0.1	0	0.1	0.0	0.1
WMAIN-2929(1)(1)	J-5235	H-528	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2929(1)(2)(1)	H-528	H-529	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2929(1)(2)(2)	H-529	J-9243	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2929(2)	J-9243	J-5236	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2931	J-6394	J-7057	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2934	J-5207	028-023	6	140	0.0	0.0	0	0	0.0	0
WMAIN-2936	J-5434	J-8455	4	140	0.0	0.0	0	0	0.0	0
WMAIN-2939	J-8717	J-6591	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2940	J-6591	J-5792	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2941	J-5792	028-037	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-2943	J-6555	J-6749	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-2945	J-5430	J-7524	2	140	0.8	3.2	0.5	1.1	3.2	1.1
WMAIN-2947(1)	021-037	021-038	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2947(2)	021-038	J-7369	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2950(1)	J-7369	021-039	8	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-2950(2)	021-039	J-6425	8	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-2951	J-8338	J-5538	10	140	0.0	0.0	0	0	0.0	0
WMAIN-2955(1)	J-5642	J-9331	4	140	0.0	0.1	0	0.3	0.1	0.2
WMAIN-2955(2)(1)	J-9331	H-551	4	140	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-2955(2)(2)	H-551	J-5485	4	140	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-2957(1)(1)	J-5466	H-463	4	140	0.0	0.2	0.1	0.3	0.1	0.3
WMAIN-2957(1)(2)	H-463	021-004	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2957(2)	021-004	J-5561	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2959	J-6629	J-6313	6	130	0.1	0.8	0.4	0.9	0.8	0.9
WMAIN-2960	J-6627	J-6649	6	130	0.0	0.1	0	0.3	0.1	0.3
WMAIN-2961	J-5527	J-5528	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2962(1)	J-5528	021-007	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-2962(2)	021-007	J-6627	6	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-2963	J-6628	J-6619	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2965(1)	J-6643	J-8672	4	140	0.0	0.0	0	0	0.0	0
WMAIN-2965(2)	J-8672	J-6619	4	140	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-2966(1)	J-5807	021-006	6	130	0.0	0.0	0	0.2	0.0	0.1
WMAIN-2966(2)	021-006	J-5273	6	130	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2968(1)	J-5972	022-014	6	140	0.0	0.2	0.1	0.4	0.2	0.4
WMAIN-2968(2)(1)	022-014	J-9260	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2968(2)(2)	J-9260	J-6569	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-2969	J-5972	J-5251	6	140	0.0	0.3	0.1	0.6	0.2	0.5
WMAIN-2970(1)	J-5252	J-9259	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2970(2)	J-9259	J-5239	6	140	0.1	0.5	0.3	0.8	0.5	0.8
WMAIN-2972	J-6100	J-5201	12	140	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-2974	J-6313	J-6100	6	140	0.3	1.2	0.6	1.3	1.2	1.3
WMAIN-2976	J-6100	J-5910	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-2978	J-7091	J-7092	2	130	0.3	1.2	0.3	0.6	1.2	0.6
WMAIN-2981	J-5626	021-040	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-2982(1)	J-5195	029-010	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-2982(2)(1)	029-010	J-9255	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-2982(2)(2)	J-9255	J-5095	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-2986	J-6806	J-6716	2	140	0.1	0.3	0.1	0.3	0.2	0.2
WMAIN-2988(1)	J-5124	029-009	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2988(2)	029-009	J-5095	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-2989(1)(1)	J-6717	029-007	6	140	0.1	0.5	0.4	0.8	0.5	0.8
WMAIN-2989(1)(2)	029-007	J-8799	6	140	0.1	0.5	0.4	0.8	0.5	0.8
WMAIN-2989(2)	J-8799	J-6722	6	140	0.2	0.7	0.5	1	0.7	1
WMAIN-2991	J-5096	029-003	4	140	0.0	0.1	0	0.2	0.0	0.1
WMAIN-2992	029-003	J-5667	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-2994	J-5058	J-5059	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-2995	J-8644	J-5178	2	130	0.5	1.8	0.4	0.8	1.8	0.8
WMAIN-2997	J-5085	J-5507	6	140	0.1	0.6	0.2	0.9	0.3	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-2998	J-5215	J-5216	6	152.5	0.2	1.5	0.5	1.6	1.0	1.3
WMAIN-2999	J-5411	J-5412	6	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-3000	J-5412	J-5536	6	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-3001	J-5470	J-5196	6	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3006(1)	J-8425	027-051	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3006(2)	027-051	J-6341	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3008	J-6567	J-6657	12	152.5	0.0	0.5	0.4	1.3	0.5	1.3
WMAIN-3010(1)	J-7333	041-029	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3010(2)	041-029	J-8176	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3013	J-7748	J-7749	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3017(1)	J-8568	041-030	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3017(2)	041-030	J-8176	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3019(1)	J-8422	041-033	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3019(2)	041-033	J-7587	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3022(1)	J-6252	041-031	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3022(2)	041-031	J-8568	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3023	J-8176	J-8422	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3026(1)	J-6251	041-032	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3026(2)	041-032	J-6252	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3028	J-7587	J-6252	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3029	J-5159	J-5100	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3032(1)	028-011	028-014	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3032(2)	028-014	J-7769	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3036(1)	J-8090	169-032	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3036(2)	169-032	J-6620	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3037	J-7685	J-6836	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3040	J-6827	J-6828	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3042(1)	J-6827	169-030	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3042(2)	169-030	J-8089	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3044	J-8429	J-6827	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3046	J-6836	J-8429	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3048(1)	J-6774	169-038	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3048(2)	169-038	J-6775	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3049	J-8583	J-8389	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-3051	J-8337	J-7775	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3054(1)	J-8089	169-031	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3054(2)	169-031	J-8090	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3055(1)	J-6620	169-033	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3055(2)(1)	169-033	169-029	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3055(2)(2)	169-029	J-8429	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3058	J-6620	J-6621	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3060(1)	J-6621	169-034	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3060(2)	169-034	J-7158	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3063(1)	J-7158	169-037	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3063(2)	169-037	J-7775	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3066	J-7775	J-7152	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-3067	J-6836	J-5365	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-3069(1)	J-8389	169-027	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3069(2)(1)	169-027	169-028	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3069(2)(2)	169-028	J-6836	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3073	J-8389	J-6774	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3074	J-6774	J-7158	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3076(1)	J-7158	169-035	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3076(2)	169-035	J-5415	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3079	J-7287	J-8066	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3081(1)	J-6049	169-016	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3081(2)	169-016	J-5699	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3083	168-037	169-042	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-3085	J-5767	169-043	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3086(1)	J-8329	169-023	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3086(2)	169-023	J-6873	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3088	J-6873	J-6381	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3089	J-6380	J-6381	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3093(1)	J-6381	169-022	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3093(2)(1)	169-022	169-021	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3093(2)(2)	169-021	J-7462	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3094(1)	J-8249	169-020	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3094(2)	169-020	J-7461	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3097(1)	J-7124	169-019	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3097(2)	169-019	J-7461	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3099	J-7461	J-7462	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3102	J-8083	J-7462	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3104	J-8215	J-7287	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-3106(1)	J-8065	169-025	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3106(2)	169-025	J-8215	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3108(1)	J-7151	169-036	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3108(2)	169-036	J-7152	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3111(1)	J-7152	169-026	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3111(2)	169-026	J-8583	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3113(1)(1)	J-8583	169-014	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-3113(1)(2)	169-014	169-012A	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-3113(2)	169-012A	J-8065	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-3115	J-8065	J-8066	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3119(1)	J-8066	169-024	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3119(2)	169-024	J-8083	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3120	J-8083	J-6873	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3123(1)	J-5233	J-9256	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3123(2)	J-9256	J-7124	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3125(1)	J-7124	169-012B	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3125(2)	169-012B	J-8066	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3128(1)	J-7286	169-015	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-3128(2)	169-015	J-7287	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-3130	J-7056	J-8295	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3134	J-7203	J-7056	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3136	J-7003	J-7004	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3137(1)	J-6593	170-156	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3137(2)	170-156	J-6433	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3139(1)	J-6592	170-088	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3139(2)	170-088	J-6593	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3142(1)	J-6593	170-087	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-3142(2)(1)	170-087	170-086	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-3142(2)(2)	170-086	J-7036	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-3144	J-7203	J-6593	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3146	J-7056	J-6434	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3148(1)	J-8246	170-090	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3148(2)(1)	170-090	170-089	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3148(2)(2)	170-089	J-7056	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3151(1)(1)	J-6743	170-095	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3151(1)(2)	170-095	170-091	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3151(2)	170-091	J-7975	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3154	J-6742	J-6743	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-3156(1)	J-8652	170-094	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3156(2)	170-094	J-6743	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-3159	J-8111	J-8652	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3161(1)	J-7003	170-093	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3161(2)	170-093	J-8111	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3163(1)	J-7975	170-092	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3163(2)	170-092	J-7003	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3165	J-8246	J-7975	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-3168(1)	J-7525	170-096	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-3168(2)	170-096	J-8246	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3169	J-7525	J-7526	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3172	J-8295	J-7525	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3173(1)	J-8295	170-097	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3173(2)	170-097	J-8498	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3176(1)	J-8503	170-082	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-3176(2)	170-082	J-6931	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-3177	J-6931	J-6932	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3181	J-6434	J-6931	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3182	J-6433	J-6434	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3183	J-6932	J-6433	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3187	J-8350	J-8169	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3190	J-8350	J-6932	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-3192(1)	J-7418	170-083	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3192(2)	170-083	J-8350	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3194(1)	J-8169	170-084	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3194(2)	170-084	J-8170	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3196	J-8019	J-8169	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3197(1)	J-7418	170-085	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3197(2)	170-085	J-8019	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3198	J-7036	J-7418	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-3201	J-7036	J-7037	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3202	J-7958	J-7452	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3205(1)	J-5199	031-026	12	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3205(2)	031-026	J-7478	12	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3206	J-5199	J-5200	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3208	J-5281	J-7390	12	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-3209	020-030	J-5303	16	140	0.0	0.0	0	0	0.0	0
WMAIN-3212	J-7493	037-014	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3213	022-006	J-7779	6	152.5	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-3218	J-7723	J-7724	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3219	041-022	J-7770	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3221(1)	J-5521	041-023	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3221(2)	041-023	041-022	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3223	J-5521	J-5522	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3226	J-5221	161-001	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3227	J-5221	J-5222	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3229	J-5785	J-5221	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3231	J-5080	J-5785	16	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3232	J-5080	J-5081	16	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3233	J-5786	J-5080	16	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3237	032-046	J-5786	16	152.5	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-3239	J-5881	032-046	16	152.5	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-3240(1)	J-8592	018-010	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3240(2)	018-010	J-6987	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3241	J-9320	029-028	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3243(1)(1)	J-5608	J-9317	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3243(1)(2)(1)	J-9317	J-9318	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3243(1)(2)(2)	J-9318	029-042	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3243(2)	029-042	J-5108	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3244	J-5108	J-5133	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3247(1)	J-7252	014-011	8	152.5	1.3	2.3	1.8	2.5	2.1	2.3
WMAIN-3247(2)	014-011	J-7253	8	152.5	1.3	2.3	1.8	2.5	2.1	2.3
WMAIN-3249(1)(1)	015-003	015-010	12	152.5	0.5	0.9	1.4	1.9	0.9	1.9
WMAIN-3249(1)(2)	015-010	015-011	12	152.5	0.5	0.9	1.4	1.9	0.9	1.9
WMAIN-3249(2)	015-011	J-6707	12	152.5	0.5	0.9	1.4	1.9	0.9	1.9
WMAIN-3251(1)	J-7019	019-033	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-3251(2)	019-033	J-7109	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-3252	J-5882	J-7222	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3254	023-055	023-056	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3256	J-6057	023-055	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3257	028-044	J-5764	6	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3259	J-5206	J-5207	12	140	0.0	0.1	0.1	0.5	0.1	0.3
WMAIN-3260	J-5206	J-5309	12	140	0.0	0.0	0	0	0.0	0
WMAIN-3263	J-5398	J-5399	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3264	J-5217	J-5191	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3265	J-5191	J-5192	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3266	027-054	J-5191	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3268	J-6955	026-030	12	140	0.0	0.1	0	0.6	0.0	0.3
WMAIN-3269(1)	J-7245	026-025	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3269(2)	026-025	J-5675	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3272(1)	J-7246	026-029	6	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-3272(2)	026-029	J-6955	6	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-3276	J-7245	J-7246	6	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-3278	J-5701	J-5702	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3280	J-5703	J-5704	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3283(1)	031-040	J-9253	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3283(2)	J-9253	J-7026	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3285(1)(1)	J-8811	170-155	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-3285(1)(2)(1)	170-155	170-150	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-3285(1)(2)(2)	170-150	170-151	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-3285(2)	170-151	J-5146	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-3286(1)(1)	J-8149	170-079	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3286(1)(2)	170-079	170-078	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3286(2)	170-078	J-8736	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3287	J-8736	J-7459	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3289	J-6788	J-6789	6	140	0.1	0.6	0.4	0.9	0.6	0.9
WMAIN-3290	J-8624	J-7089	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-3293(1)	J-6173	170-111	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3293(2)	170-111	J-8624	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3295	J-5990	J-5991	10	152.5	0.0	0.3	0.2	0.9	0.3	0.9
WMAIN-3296	J-5105	J-5687	8	140	0.0	0.2	0	0.5	0.1	0.4
WMAIN-3298	J-5881	J-5882	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3300	J-5986	J-5931	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-3301(1)(1)	J-6992	032-015	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3301(1)(2)	032-015	032-001	8	140	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-3301(2)	032-001	J-6268	8	140	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-3303	J-6288	J-6289	8	140	0.0	0.2	0.2	0.6	0.1	0.4
WMAIN-3305	J-8397	020-012	4	140	0.5	2.2	0.6	1.4	2.0	1.4
WMAIN-3306(1)	J-7864	047-011	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3306(2)	047-011	J-8026	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3307	J-7674	J-7675	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3308(1)(1)	J-8344	034-017	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3308(1)(2)	034-017	034-016	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3308(2)	034-016	J-8190	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3309(1)(1)(1)	J-7478	031-031	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3309(1)(1)(2)	031-031	031-027	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3309(1)(2)(1)(1)	031-027	031-028	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3309(1)(2)(1)(2)	031-028	031-041	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3309(1)(2)(2)	031-041	031-029	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3309(2)	031-029	J-5361	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3311(1)	J-5881	032-028	16	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-3311(2)	032-028	J-7844	16	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-3313	J-6008	J-6721	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3314(1)	J-7015	J-8473	16	140	0.1	0.5	0.8	1.6	0.5	1.5
WMAIN-3314(2)	J-8473	J-8407	16	140	0.1	0.7	0.5	1.9	0.7	1.9
WMAIN-3316	J-6020	J-7015	16	140	0.1	0.4	0.6	1.2	0.3	1.2
WMAIN-3317(1)	J-6482	045-009	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3317(2)	045-009	J-7187	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3318(1)	J-5953	045-002	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3318(2)(1)	045-002	045-003	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3318(2)(2)	045-003	052-006	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3320(1)(1)(1)	J-5952	H-515	8	140	0.0	0.3	0	0.7	0.3	0.7
WMAIN-3320(1)(1)(2)	H-515	044-016	8	140	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-3320(1)(2)	044-016	044-051	8	140	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-3320(2)(1)	044-051	H-514	8	140	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-3320(2)(2)	H-514	J-5613	8	140	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-3321(1)	J-5429	044-012	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3321(2)(1)	044-012	044-013	8	140	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-3321(2)(2)	044-013	J-5943	8	140	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-3323	J-6321	J-6322	12	140	0.0	0.0	0	0	0.0	0
WMAIN-3324	J-7219	J-6861	12	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-3326	J-6568	J-5628	12	140	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3327	J-7497	J-7559	8	140	0.0	0.2	0.1	0.6	0.0	0.1
WMAIN-3328(1)	J-7266	053-003	8	140	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-3328(2)	053-003	J-7497	8	140	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-3329(1)	J-8292	044-009	12	140	0.0	0.4	0.2	1.1	0.0	0.1
WMAIN-3329(2)(1)	044-009	044-010	12	140	0.0	0.4	0.2	1.1	0.0	0.2
WMAIN-3329(2)(2)	044-010	J-8497	12	140	0.0	0.4	0.2	1.1	0.0	0.2
WMAIN-3330	J-5748	J-8292	12	140	0.0	0.2	0	0.8	0.0	0
WMAIN-3331	J-6133	J-5747	12	140	0.0	0.3	0	1	0.0	0
WMAIN-3332	J-5747	J-5748	12	140	0.0	0.3	0	1	0.0	0
WMAIN-3333(1)	J-6132	044-004	12	140	0.0	0.4	0	1.2	0.0	0
WMAIN-3333(2)	044-004	J-6133	12	140	0.0	0.4	0	1.2	0.0	0
WMAIN-3334	J-6995	J-5968	12	152.5	0.0	0.1	0	0.4	0.0	0.1
WMAIN-3336(1)	J-5969	054-030	12	152.5	0.1	0.4	0.5	1.2	0.4	1.2
WMAIN-3336(2)	054-030	J-8463	12	152.5	0.1	0.4	0.5	1.2	0.4	1.2
WMAIN-3337(1)	J-8463	054-025	12	152.5	0.0	0.2	0.3	0.9	0.2	0.9
WMAIN-3337(2)	054-025	J-5547	12	152.5	0.0	0.2	0.3	0.9	0.2	0.9
WMAIN-3339	J-7917	J-7918	8	152.5	0.0	0.7	0.2	1.3	0.6	1.2
WMAIN-3341	J-7217	J-7218	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3343	J-6499	J-6500	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3346(1)	J-7770	041-021	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3346(2)	041-021	J-8440	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3347(1)	J-6773	043-028	8	140	0.0	0.1	0	0.5	0.1	0.5
WMAIN-3347(2)	043-028	J-6900	8	140	0.0	0.1	0	0.5	0.1	0.5
WMAIN-3348	J-6076	J-6077	12	152.5	0.0	0.2	0.4	0.8	0.1	0.6
WMAIN-3349	J-5839	J-5840	8	140	0.1	0.5	0.3	1	0.5	1
WMAIN-3350(1)	J-6736	042-024	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3350(2)	042-024	J-7551	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3352	J-7052	J-6917	12	140	0.1	0.3	0.4	0.9	0.2	0.8
WMAIN-3354(1)	J-7239	043-004	8	140	0.0	0.2	0.2	0.6	0.2	0.5
WMAIN-3354(2)	043-004	J-6077	8	140	0.0	0.2	0.2	0.6	0.2	0.5
WMAIN-3356	J-7934	J-7239	8	140	0.0	0.2	0.2	0.5	0.1	0.5
WMAIN-3359	J-7512	J-7513	6	140	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-3360	J-5594	J-5595	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3361(1)	J-5878	044-022	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3361(2)	044-022	J-7465	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3363(1)	J-5895	044-018	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-3363(2)	044-018	J-7381	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3365	J-7029	J-5225	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3367	J-6438	J-5634	12	140	0.5	1.5	1.2	2.3	1.5	2.3
WMAIN-3368(1)	J-5849	J-5340	16	140	0.0	0.1	0.1	0.7	0.0	0.1
WMAIN-3368(2)	J-5340	J-6790	16	140	0.0	0.1	0.1	0.7	0.0	0.1
WMAIN-3370	J-5888	J-5889	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3371	J-5802	J-5803	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3372(1)	J-6411	038-029	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3372(2)	038-029	J-7356	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3373	J-5830	J-5831	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3374	J-5832	J-5833	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3376	J-5931	J-5932	8	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-3378	J-5970	J-5971	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3379	037-014	J-7495	6	140	0.0	0.1	0.2	0.3	0.1	0.2
WMAIN-3381(1)	J-6524	037-015	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3381(2)	037-015	J-7493	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3382(1)	J-7493	037-013	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3382(2)	037-013	J-7495	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3383	J-7495	J-7496	8	140	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-3387(1)	J-7977	037-033	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-3387(2)	037-033	J-6952	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-3388	J-6364	J-6365	8	140	0.0	0.2	0	0.6	0.1	0.4
WMAIN-3390	J-6180	J-5953	6	140	0.0	0.8	0.1	1.1	0.0	0.1
WMAIN-3393(1)	J-8620	036-030	6	140	0.0	0.2	0	0.4	0.0	0
WMAIN-3393(2)	036-030	036-029	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3394	036-029	J-5933	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3396	J-6260	J-7275	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3398(1)	J-6248	036-021	6	140	0.0	0.3	0.1	0.6	0.3	0.6
WMAIN-3398(2)	036-021	J-7886	6	140	0.0	0.3	0.1	0.6	0.3	0.6
WMAIN-3400	J-5782	J-5783	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3401	J-6055	J-6056	8	140	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-3403(1)	J-5363	J-8682	8	140	0.2	0.3	0.5	0.7	0.2	0.6
WMAIN-3403(2)	J-8682	J-6285	8	140	0.0	0.7	0.1	1.2	0.0	0.1
WMAIN-3406(1)	J-7765	035-021	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3406(2)	035-021	J-8255	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3407	J-8370	J-7765	8	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-3408	J-5864	J-5865	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3409(1)	J-7444	030-003	8	140	0.0	0.1	0.1	0.5	0.0	0.2
WMAIN-3409(2)	030-003	J-6012	8	140	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-3411(1)	J-6549	035-027	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3411(2)	035-027	J-7443	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3412	J-7766	J-6850	8	140	0.0	0.1	0.2	0.5	0.1	0.3
WMAIN-3414(1)	J-6732	030-005	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3414(2)	030-005	J-7150	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3416(1)	J-6731	030-004	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-3416(2)	030-004	J-6732	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-3417(1)	J-6028	030-006	6	140	0.0	0.1	0.2	0.4	0.1	0.4

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3417(2)	030-006	J-6851	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3419(1)	J-6874	030-010	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-3419(2)	030-010	J-7584	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-3421(1)	J-7890	029-013	6	140	0.1	0.2	0.3	0.4	0.1	0.4
WMAIN-3421(2)	029-013	J-7891	6	140	0.1	0.2	0.3	0.4	0.1	0.4
WMAIN-3422(1)	J-7891	029-012	6	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3422(2)	029-012	J-6242	6	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3424(1)	J-6243	029-011	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-3424(2)	029-011	J-5552	6	140	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-3426	J-8502	J-6366	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-3428	J-7627	J-5550	6	140	0.1	0.4	0.4	0.7	0.4	0.7
WMAIN-3429(1)	J-6513	030-017	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-3429(2)	030-017	J-5733	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-3431	J-5734	J-7531	10	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3433	J-5908	J-5759	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3435(1)	J-6095	039-045	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-3435(2)	039-045	J-7307	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-3437	J-6156	026-004	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3438(1)	J-7066	027-001	16	152.5	0.1	0.2	0.5	1	0.1	0.5
WMAIN-3438(2)	027-001	J-5518	16	152.5	0.1	0.2	0.5	1	0.1	0.5
WMAIN-3440(1)(1)	J-7065	026-017	16	140	0.1	0.3	0.6	1.2	0.1	0.7
WMAIN-3440(1)(2)	026-017	027-011	16	140	0.1	0.3	0.6	1.2	0.1	0.7
WMAIN-3440(2)	027-011	J-7066	16	140	0.1	0.3	0.6	1.2	0.1	0.7
WMAIN-3441(1)	J-7711	027-022B	16	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-3441(2)(1)	027-022B	027-031	16	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-3441(2)(2)	027-031	J-7168	16	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-3443(1)	J-7094	037-039	6	140	0.0	0.4	0.1	0.7	0.0	0.1
WMAIN-3443(2)	037-039	J-5810	6	140	0.0	0.4	0.1	0.7	0.0	0.1
WMAIN-3445	J-5810	J-8106	6	140	0.0	0.4	0	0.7	0.4	0.7
WMAIN-3447	J-7595	J-5419	4	140	0.0	0.4	0.1	0.6	0.0	0.1
WMAIN-3449	028-011	J-6895	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-3451(1)	J-6895	028-015	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3451(2)	028-015	J-7693	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3453	J-7694	J-5234	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-3455	J-7763	J-5171	6	140	0.0	0.2	0	0.4	0.1	0.4
WMAIN-3457(1)	J-6474	H-496	8	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-3457(2)	H-496	J-6475	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-3459	J-6475	J-5987	8	152.5	0.0	0.2	0	0.6	0.2	0.6
WMAIN-3461(1)	J-5692	028-018	6	140	0.0	0.7	0	1	0.7	1
WMAIN-3461(2)	028-018	J-5688	6	140	0.0	0.7	0	1	0.7	1
WMAIN-3462	J-6558	J-6638	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3463	J-6749	J-6557	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-3465	J-5812	J-5424	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3466	J-5811	J-5812	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3467	J-5855	J-5856	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3468	J-6503	J-7244	8	140	0.1	0.3	0.3	0.7	0.2	0.6
WMAIN-3470(1)	J-7244	030-038	8	140	0.1	0.4	0.4	0.9	0.4	0.8
WMAIN-3470(2)	030-038	J-5406	8	140	0.1	0.5	0.5	0.9	0.4	0.9
WMAIN-3471(1)	J-6502	030-032	8	140	0.0	0.2	0.3	0.6	0.1	0.5
WMAIN-3471(2)	030-032	J-6503	8	140	0.0	0.2	0.3	0.6	0.1	0.5
WMAIN-3472	031-046	J-7566	8	140	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-3473	J-6089	J-7213	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3474(1)	J-7213	031-002	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3474(2)	031-002	J-5352	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3475(1)	J-6287	031-006	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3475(2)	031-006	J-7345	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3476	J-7316	J-5673	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-3478	J-5672	J-5673	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-3480	J-5552	J-5553	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-3481(1)	J-6366	029-021	6	140	0.1	0.2	0.2	0.5	0.1	0.4
WMAIN-3481(2)	029-021	J-6367	6	140	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-3482	J-5755	J-7531	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3483	J-5754	J-5755	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-3484(1)	030-037	J-9252	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3484(2)	J-9252	J-5679	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3488	J-6639	J-5408	16	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-3490(1)	J-8203	018-001	16	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3490(2)	018-001	J-5325	16	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3492	J-5400	J-5401	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3493	J-7109	019-025	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-3494(1)	018-043	018-041	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3494(2)	018-041	J-5726	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-3496	J-5726	J-5727	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3498(1)	J-6987	018-006	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3498(2)	018-006	J-5680	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3499(1)	J-6967	018-007	12	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-3499(2)	018-007	J-5681	12	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-3501(1)	J-6589	018-008	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-3501(2)	018-008	J-6590	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-3502	J-6590	J-6967	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-3503	J-7024	J-5258	6	140	0.0	0.2	0.2	0.5	0.1	0.3
WMAIN-3504	J-6823	J-6824	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3505	J-5610	J-5676	8	140	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-3507(1)	J-5676	019-023	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3507(2)	019-023	J-5292	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3508	J-5885	J-5082	4	140	0.0	0.0	0	0	0.0	0
WMAIN-3509(1)	J-8314	019-026	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3509(2)(1)	019-026	019-041	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3509(2)(2)	019-041	J-8602	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3511(1)	J-8602	019-042	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3511(2)	019-042	J-8603	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3512(1)	J-8603	019-043	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3512(2)	019-043	J-8554	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3514	J-8324	J-7252	12	152.5	0.2	0.3	0.8	1.1	0.3	1
WMAIN-3517	J-5576	J-6585	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3518	J-8712	J-6250	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-3520	J-5992	J-6241	6	152.5	0.1	0.3	0.3	0.7	0.3	0.7
WMAIN-3522	J-7415	J-7416	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-3526	J-7925	J-7924	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-3527	J-8159	J-7925	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-3529	J-6327	J-6328	4	140	0.1	0.5	0.3	0.6	0.5	0.6
WMAIN-3530(1)	J-6328	021-047	4	140	0.2	0.6	0.4	0.7	0.6	0.7
WMAIN-3530(2)	021-047	J-7439	4	140	0.2	0.7	0.4	0.8	0.7	0.8
WMAIN-3531	J-7409	J-5392	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-3533(1)	J-7704	021-035	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-3533(2)	021-035	J-7409	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-3534(1)	J-7473	012-037	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3534(2)	012-037	J-7789	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3536(1)	J-5695	012-017	16	140	0.0	0.1	0.2	0.8	0.1	0.8
WMAIN-3536(2)	012-017	J-7887	16	140	0.0	0.1	0.2	0.8	0.1	0.8
WMAIN-3538(1)	J-5394	022-009	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3538(2)	022-009	J-6820	10	152.5	0.0	0.0	0	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3540(1)	J-6820	H-505	10	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-3540(2)	H-505	J-6904	10	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-3542	J-5991	J-6109	10	152.5	0.0	0.4	0.2	1	0.3	1
WMAIN-3544	J-5687	J-6110	4	140	0.0	3.2	0.2	1.7	2.7	1.6
WMAIN-3545	J-7129	J-7130	6	152.5	0.0	0.2	0	0.5	0.1	0.4
WMAIN-3547(1)	J-7040	022-017	6	152.5	0.0	0.2	0	0.5	0.2	0.5
WMAIN-3547(2)	022-017	J-7129	6	152.5	0.0	0.2	0	0.5	0.2	0.5
WMAIN-3548(1)	J-6059	022-031	6	152.5	0.0	0.7	0	1	0.6	0.9
WMAIN-3548(2)(1)	022-031	022-032	6	152.5	0.0	0.7	0	1.1	0.6	1
WMAIN-3548(2)(2)	022-032	J-5787	6	152.5	0.0	0.7	0	1.1	0.6	1
WMAIN-3550(1)	J-5787	022-048	6	152.5	0.0	0.1	0	0.2	0.0	0.2
WMAIN-3550(2)	022-048	J-8474	6	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3552	J-7521	J-7424	10	152.5	0.0	0.7	0	1.5	0.7	1.5
WMAIN-3554	J-6101	J-6102	6	140	0.0	0.1	0	0.2	0.0	0.1
WMAIN-3556	J-6760	J-6761	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3558	J-8454	J-6505	8	152.5	0.0	0.1	0	0.4	0.0	0.3
WMAIN-3560(1)	J-6073	023-004	16	152.5	0.0	0.1	0.4	0.8	0.1	0.7
WMAIN-3560(2)	023-004	J-5682	16	152.5	0.0	0.1	0.3	0.8	0.1	0.7
WMAIN-3562(1)(1)	J-6974	027-050	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-3562(1)(2)	027-050	026-016	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-3562(2)	026-016	J-6598	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-3563(1)(1)	J-6539	025-002	10	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3563(1)(2)	025-002	025-003	10	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3563(2)	025-003	J-8657	10	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3565	J-7309	025-006	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-3566	J-6359	J-8413	16	140	0.0	0.2	0.4	0.9	0.1	0.8
WMAIN-3567(1)(1)(1)	J-8413	023-011	16	140	0.0	0.2	0.4	0.9	0.1	0.8
WMAIN-3567(1)(1)(2)	023-011	J-5347	16	140	0.0	0.2	0.4	0.9	0.1	0.8
WMAIN-3567(1)(2)	J-5347	J-5348	16	140	0.0	0.2	0.4	0.9	0.1	0.8
WMAIN-3567(2)	J-5348	J-5104	16	140	0.0	0.2	0.4	0.9	0.2	0.8
WMAIN-3568	J-7697	J-6690	16	140	0.0	0.2	0.4	0.8	0.1	0.8
WMAIN-3570(1)	J-7696	J-9330	16	140	0.0	0.2	0.4	0.8	0.1	0.7
WMAIN-3570(2)	J-9330	J-7697	16	140	0.0	0.2	0.4	0.8	0.1	0.7
WMAIN-3571(1)	J-8724	010-019	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-3571(2)	010-019	J-8725	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-3573(1)	J-8725	010-021	8	152.5	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-3573(2)	010-021	J-6319	8	152.5	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-3575(1)	J-8437	009-012	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3575(2)	009-012	J-7507	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3577	J-7794	J-7847	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3580	J-8580	J-6664	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3581(1)	J-7720	167-034	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3581(2)	167-034	J-7721	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3584(1)(1)	J-6983	170-125	12	152.5	0.1	0.4	0.7	1.1	0.4	1.1
WMAIN-3584(1)(2)	170-125	170-126	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-3584(2)	170-126	J-8219	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-3585	J-7717	J-7706	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3587	J-7706	J-6982	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3590(1)	J-6982	170-109	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3590(2)(1)	170-109	170-110	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3590(2)(2)	170-110	J-6173	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3591(1)	J-6982	170-152	8	152.5	0.0	0.1	0	0.4	0.0	0.1
WMAIN-3591(2)	170-152	J-6983	8	152.5	0.0	0.1	0	0.4	0.0	0.1
WMAIN-3595(1)	J-7090	170-108	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3595(2)	170-108	J-6982	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3596	J-7700	J-7768	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-3598(1)	J-8325	170-159	12	152.5	0.1	0.2	0.6	0.8	0.2	0.7
WMAIN-3598(2)	170-159	J-8326	12	152.5	0.1	0.2	0.6	0.8	0.2	0.8
WMAIN-3599	J-8354	J-8589	12	152.5	0.3	0.7	1.1	1.6	0.7	1.6
WMAIN-3601	J-7268	J-7673	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3603	J-7673	J-7755	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3605(1)	J-7332	041-004	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-3605(2)	041-004	J-7333	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-3608(1)	J-7269	041-016	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3608(2)	041-016	J-7792	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3610	J-7792	J-8362	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3611(1)(1)	J-7755	041-018	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3611(1)(2)	041-018	041-017	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3611(2)	041-017	J-8362	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3614	J-7826	J-7755	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-3618(1)	J-7826	041-014	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3618(2)	041-014	J-8681	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3619(1)	J-8681	041-015	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3619(2)	041-015	J-7332	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3621	J-7018	J-7826	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-3624	J-7332	J-7269	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3627(1)	J-7792	041-019	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3627(2)	041-019	J-7673	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3629	J-7268	J-7269	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3633(1)	J-7017	041-013	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3633(2)	041-013	J-7018	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3636	J-8681	J-7018	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3638	J-7074	J-7075	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3640(1)	J-6641	041-008	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3640(2)	041-008	J-7074	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3641(1)	J-7989	041-007	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3641(2)	041-007	J-8618	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3644	J-7074	J-8618	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3645(1)(1)	J-7333	J-9228	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3645(1)(2)	J-9228	041-005	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3645(2)	041-005	J-7902	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3648	J-5477	J-5478	6	140	0.1	0.3	0.3	0.7	0.3	0.7
WMAIN-3649	J-5478	J-6398	6	140	0.2	0.6	0.5	0.9	0.6	0.9
WMAIN-3651(1)	J-6408	023-016	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-3651(2)	023-016	J-7698	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-3652	J-5479	J-5480	12	152.5	0.0	0.4	0.3	1.3	0.3	1
WMAIN-3653(1)	J-5359	032-036	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-3653(2)	032-036	J-7289	12	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-3655	J-5362	017-001	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3657	J-5361	J-5362	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-3658	J-5658	J-5659	8	140	0.2	0.7	0.6	1.2	0.7	1.2
WMAIN-3659	J-5659	J-5390	8	140	0.2	0.7	0.6	1.2	0.7	1.2
WMAIN-3660(1)	J-5473	J-8838	12	152.5	0.1	0.3	0.6	1.1	0.2	0.8
WMAIN-3660(2)	J-8838	J-5474	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3661(1)	J-6781	J-8802	12	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-3661(2)	J-8802	J-5236	12	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-3662(1)	J-6565	010-009	12	152.5	0.0	0.1	0	0.6	0.0	0.2
WMAIN-3662(2)	010-009	J-5214	12	152.5	0.0	0.1	0	0.6	0.0	0.2
WMAIN-3665	J-5302	J-5303	16	140	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-3666	J-5316	J-5317	8	140	0.5	0.9	1	1.3	0.9	1.3
WMAIN-3667	J-5331	J-5332	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3670	J-5613	J-5086	8	140	0.7	2.8	1.2	2.5	1.4	1.7

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3671	J-5247	J-5248	16	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-3673	J-5238	J-5239	10	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3675(1)	J-5924	J-9022	12	140	0.0	0.2	0.3	0.7	0.2	0.7
WMAIN-3675(2)	J-9022	J-5428	12	140	0.1	0.2	0.4	0.9	0.1	0.4
WMAIN-3677	J-5253	J-5254	6	140	0.0	0.0	0	0	0.0	0
WMAIN-3678	J-5133	J-5134	12	140	0.0	0.0	0	0	0.0	0
WMAIN-3679	J-5679	J-5292	10	152.5	0.1	0.3	0.4	0.9	0.2	0.8
WMAIN-3681	J-5293	J-5408	16	140	0.0	0.0	0	0.3	0.0	0.2
WMAIN-3682	J-6084	J-6085	8	140	0.3	0.7	0.7	1.2	0.7	1.2
WMAIN-3683	J-6139	J-6471	6	140	0.1	0.3	0.4	0.6	0.2	0.4
WMAIN-3685	J-6138	J-6139	6	140	0.1	0.4	0.4	0.7	0.1	0.4
WMAIN-3686	J-7255	053-013	6	140	0.0	0.2	0.1	0.4	0.0	0.1
WMAIN-3687	J-6134	J-6135	12	152.5	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-3689	J-7363	J-7613	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-3691(1)	J-7114	044-036	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3691(2)	044-036	J-7571	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3692(1)	J-5093	044-025	8	140	0.0	0.2	0.2	0.7	0.1	0.3
WMAIN-3692(2)	044-025	J-6354	8	140	0.0	0.2	0.2	0.7	0.1	0.3
WMAIN-3694	J-5422	J-5423	8	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-3695	J-5550	J-5551	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-3698	J-5167	J-6701	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-3699	J-5166	J-5167	6	140	0.1	0.4	0.3	0.7	0.2	0.5
WMAIN-3700(1)	J-5580	028-005	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-3700(2)	028-005	J-6706	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-3702(1)	J-5488	028-004	6	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-3702(2)	028-004	J-5580	6	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-3703	J-6791	J-7753	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-3704	J-7223	J-7519	12	152.5	0.1	0.5	0.6	1.4	0.1	0.6
WMAIN-3706	J-6727	J-7403	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-3708	J-6324	J-7069	8	152.5	0.1	0.3	0.4	0.7	0.2	0.7
WMAIN-3710	J-5517	J-5518	16	140	0.0	0.1	0.1	0.6	0.0	0.1
WMAIN-3711	J-5475	J-5476	16	140	0.0	0.3	0.3	1.1	0.2	0.8
WMAIN-3712(1)	J-6001	145-012	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3712(2)	145-012	J-6238	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3713	J-6238	J-8223	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3714	J-5224	J-6538	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3715	J-7997	J-7189	16	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-3716	J-7690	J-7888	16	140	0.0	0.1	0	0.6	0.1	0.5
WMAIN-3717(1)	J-7460	011-008	16	140	0.0	0.1	0	0.6	0.1	0.4
WMAIN-3717(2)	011-008	J-7690	16	140	0.0	0.1	0	0.6	0.1	0.4
WMAIN-3718	J-5612	J-7460	16	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-3719	J-5611	J-5612	16	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-3722(1)	J-6922	043-041	8	140	0.0	0.1	0.3	0.5	0.1	0.3
WMAIN-3722(2)	043-041	J-6923	8	140	0.0	0.1	0.3	0.5	0.1	0.3
WMAIN-3723(1)	J-5918	028-017	6	140	0.0	0.6	0	0.9	0.6	0.9
WMAIN-3723(2)	028-017	J-6290	6	140	0.0	0.6	0	0.9	0.6	0.9
WMAIN-3724	J-5424	J-5425	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3726	J-5374	J-5375	6	140	0.3	0.9	0.6	1.1	0.9	1.1
WMAIN-3727	J-5335	J-5248	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-3729	J-5172	028-007	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3730	J-5498	J-5499	12	152.5	0.0	0.1	0.1	0.6	0.1	0.4
WMAIN-3731	J-5157	J-5158	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3732(1)	J-5683	022-002	10	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3732(2)(1)	022-002	H-504	10	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-3732(2)(2)	H-504	J-5876	10	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-3734	J-5456	J-5457	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-3735	J-5688	J-5112	6	140	0.1	0.8	0.3	1.1	0.8	1.1
WMAIN-3737	J-5257	J-5258	6	140	0.0	0.2	0.2	0.5	0.1	0.3
WMAIN-3740(1)	J-6284	055-018	12	152.5	0.0	0.3	0.4	1.1	0.3	1.1
WMAIN-3740(2)	055-018	J-6588	12	152.5	0.0	0.3	0.4	1.1	0.3	1.1
WMAIN-3742(1)(1)	J-8637	167-005	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-3742(1)(2)	167-005	167-004	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-3742(2)(1)	167-004	167-003	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-3742(2)(2)	167-003	J-5564	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-3743	J-6661	J-7120	8	152.5	0.1	0.5	0.5	1	0.5	1
WMAIN-3746	J-5541	J-5542	6	140	0.2	0.7	0.5	1	0.7	1
WMAIN-3747	J-5391	J-5392	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-3748	021-012	J-5343	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3749	J-5426	J-5427	16	152.5	0.0	0.2	0.2	0.9	0.2	0.9
WMAIN-3751	J-5741	J-5742	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3753	J-5418	J-5419	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3755	J-5442	J-5443	8	140	0.0	0.5	0	1	0.0	0
WMAIN-3756	037-036	J-6952	8	140	0.0	0.3	0	0.7	0.0	0
WMAIN-3758(1)	171-060	171-061	12	152.5	1.0	2.6	2	3.3	2.6	3.3
WMAIN-3758(2)	171-061	J-7560	12	152.5	1.0	2.6	2	3.3	2.6	3.3
WMAIN-3759(1)(1)	J-8761	171-026	12	152.5	0.6	1.2	1.5	2.2	1.2	2.2
WMAIN-3759(1)(2)	171-026	171-027	12	152.5	0.6	1.2	1.5	2.2	1.2	2.2
WMAIN-3759(2)	171-027	J-5381	12	152.5	0.6	1.2	1.5	2.2	1.2	2.2
WMAIN-3760	J-5381	J-5382	16	152.5	1.6	3.9	3.1	5	3.9	5
WMAIN-3761	J-5382	171-060	12	152.5	1.0	2.6	2	3.3	2.6	3.3
WMAIN-3762	J-6470	J-8761	12	152.5	0.6	1.2	1.5	2.2	1.2	2.2
WMAIN-3764	J-6469	J-6470	12	152.5	0.6	1.2	1.5	2.2	1.2	2.2
WMAIN-3765(1)	J-8609	171-088	12	152.5	0.6	1.1	1.5	2.2	1.1	2.2
WMAIN-3765(2)	171-088	J-6469	12	152.5	0.6	1.1	1.5	2.2	1.1	2.2
WMAIN-3767(1)	171-019	171-020	12	152.5	0.6	1.1	1.5	2.2	1.1	2.2
WMAIN-3767(2)	171-020	J-8609	12	152.5	0.6	1.1	1.5	2.2	1.1	2.2
WMAIN-3768(1)	J-8769	171-018	12	152.5	0.6	1.1	1.5	2.1	1.1	2.1
WMAIN-3768(2)	171-018	171-019	12	152.5	0.6	1.1	1.5	2.2	1.1	2.2
WMAIN-3769(1)(1)	J-8746	171-079	12	152.5	0.6	1.1	1.5	2.1	1.1	2.1
WMAIN-3769(1)(2)	171-079	171-016	12	152.5	0.6	1.1	1.5	2.1	1.1	2.1
WMAIN-3769(2)(1)	171-016	171-017	12	152.5	0.6	1.1	1.5	2.1	1.1	2.1
WMAIN-3769(2)(2)	171-017	J-8769	12	152.5	0.6	1.1	1.5	2.1	1.1	2.1
WMAIN-3770(1)	171-001	171-002	12	152.5	0.5	1.0	1.5	2	1.0	2
WMAIN-3770(2)	171-002	J-8746	12	152.5	0.5	1.0	1.5	2	1.0	2
WMAIN-3771(1)	J-8323	014-012	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3771(2)	014-012	J-8324	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3773(1)	J-8554	019-044	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3773(2)(1)	019-044	019-045	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3773(2)(2)	019-045	J-8323	12	152.5	0.1	0.1	0.5	0.7	0.1	0.6
WMAIN-3775	J-5305	J-5306	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-3777	J-5086	J-5087	8	152.5	0.0	1.3	0.1	1.8	1.3	1.8
WMAIN-3778	J-5662	J-5663	8	152.5	0.2	5.4	0.6	3.9	5.4	3.9
WMAIN-3780	038-059	J-5511	16	140	0.0	0.3	0.1	1.2	0.0	0.1
WMAIN-3782	J-8456	J-8098	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3784	J-8588	J-8589	12	152.5	0.0	0.2	0.3	0.8	0.2	0.8
WMAIN-3787	J-7166	J-7167	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3790(1)	J-8382	170-147	8	152.5	0.3	0.9	0.9	1.5	0.9	1.5
WMAIN-3790(2)	170-147	J-8446	8	152.5	0.3	0.9	0.9	1.4	0.9	1.4
WMAIN-3793	J-8456	J-8446	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3797(1)	J-7878	170-136	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3797(2)	170-136	J-8072	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3798	J-6635	J-6636	6	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3801	J-6467	J-6468	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3803(1)	J-7986	170-134	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-3803(2)	170-134	J-6467	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3806	J-8071	J-8072	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-3808(1)(1)	J-7419	170-142	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3808(1)(2)	170-142	170-143	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3808(2)	170-143	J-8447	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3810(1)	J-8444	170-141	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3810(2)	170-141	J-7419	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3812(1)	J-6962	170-140	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3812(2)	170-140	J-8444	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3815	J-6962	J-6963	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3817(1)	J-6962	170-139	12	152.5	0.3	0.8	1.1	1.8	0.8	1.8
WMAIN-3817(2)	170-139	J-8391	12	152.5	0.3	0.8	1.1	1.8	0.8	1.8
WMAIN-3819(1)	J-7897	170-024	12	152.5	0.2	0.4	0.8	1.3	0.4	1.3
WMAIN-3819(2)(1)	170-024	170-137	12	152.5	0.2	0.4	0.8	1.3	0.4	1.3
WMAIN-3819(2)(2)	170-137	J-8071	12	152.5	0.2	0.4	0.8	1.3	0.4	1.3
WMAIN-3821	J-8712	J-8757	4	140	0.1	0.5	0.2	0.6	0.4	0.6
WMAIN-3822(1)(1)	J-8563	018-037	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3822(1)(2)(1)	018-037	018-040	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3822(1)(2)(2)	018-040	018-036	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3822(2)	018-036	J-5400	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3825(1)	J-8203	018-038	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3825(2)	018-038	J-8563	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3826	J-6176	J-6177	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3829(1)	J-7144	167-021	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3829(2)(1)	167-021	167-020	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-3829(2)(2)	167-020	J-6177	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-3831	J-6177	J-7638	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3834(1)	J-7145	167-012	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3834(2)	167-012	J-7638	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3836	J-7638	J-7800	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3837(1)	J-8556	167-023	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3837(2)	167-023	J-6664	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3840	J-7800	J-7483	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-3843(1)	J-7800	167-013	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3843(2)(1)	167-013	167-039	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3843(2)(2)	167-039	J-8547	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3844(1)	J-7144	167-024	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3844(2)	167-024	J-6897	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3847(1)	J-7145	167-022	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3847(2)	167-022	J-8556	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3849	J-7144	J-7145	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3851(1)	J-6177	167-019	8	152.5	0.1	0.2	0.3	0.6	0.1	0.4
WMAIN-3851(2)	167-019	J-6071	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-3854(1)	167-026	167-025	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-3854(2)	167-025	J-6671	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-3856(1)	167-026	167-027	12	152.5	0.0	0.1	0.3	0.6	0.0	0.4
WMAIN-3856(2)	167-027	J-6896	12	152.5	0.0	0.1	0.3	0.6	0.0	0.4
WMAIN-3859	J-8353	J-8354	12	152.5	0.3	0.7	1.1	1.6	0.7	1.6
WMAIN-3862(1)	J-7365	170-040	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3862(2)	170-040	J-7366	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3865(1)	J-7768	170-041	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-3865(2)(1)	170-041	170-058	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-3865(2)(2)	170-058	J-8326	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-3867(1)	J-7699	170-037	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-3867(2)	170-037	J-7700	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-3868(1)	J-7700	170-038	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3868(2)(1)	170-038	170-039	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3868(2)(2)	170-039	J-7734	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3870	J-7734	J-7366	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-3872(1)	J-7366	170-060	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3872(2)	170-060	J-7365	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3875	J-7768	J-7365	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3879(1)	J-8812	170-153	12	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3879(2)(1)	170-153	171-078	12	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3879(2)(2)	171-078	J-8325	12	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-3882(1)	J-8741	170-061	12	152.5	0.1	0.4	0.6	1.1	0.4	1.1
WMAIN-3882(2)	170-061	J-8353	12	152.5	0.1	0.4	0.6	1.1	0.4	1.1
WMAIN-3883	J-8740	J-8741	12	152.5	0.2	0.5	0.8	1.3	0.5	1.3
WMAIN-3885(1)	J-7567	170-036	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3885(2)	170-036	J-7112	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3887(1)	J-7322	170-055	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3887(2)	170-055	J-8501	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3890(1)	J-7112	170-057	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3890(2)	170-057	J-7322	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3891	J-5584	J-5585	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-3893	J-5585	J-7567	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-3895	J-7567	J-7699	8	152.5	0.2	0.7	0.6	1.2	0.7	1.2
WMAIN-3896	J-7773	J-5585	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3898(1)	J-6626	170-031	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3898(2)	170-031	J-7773	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-3901	J-7699	J-7862	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-3904	J-6625	J-6626	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3906(1)	J-7773	170-034	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3906(2)(1)	170-034	170-032	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3906(2)(2)	170-032	J-6626	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3909(1)	J-7322	170-056	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3909(2)	170-056	J-7323	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3911	J-7112	J-7113	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3912(1)	J-8740	170-033	8	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-3912(2)	170-033	J-7699	8	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-3918(1)	J-7675	047-014	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3918(2)	047-014	J-6152	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3921	J-6149	J-7674	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3922	J-6148	J-6149	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3925	J-7822	J-8357	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-3927	J-8357	J-6547	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3929	J-6149	J-7821	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3933	J-7821	J-7822	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-3935(1)	J-7821	047-010	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3935(2)	047-010	J-7864	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-3936(1)(1)	J-6149	047-013	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3936(1)(2)	047-013	047-017	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3936(2)	047-017	J-7821	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3938(1)	J-7674	047-012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3938(2)	047-012	J-7864	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3940(1)	J-8356	047-009	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-3940(2)	047-009	J-8357	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-3942	J-8767	J-5247	16	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-3944(1)	J-8281	032-008	16	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-3944(2)	032-008	J-8767	16	152.5	0.0	0.1	0.2	0.5	0.1	0.5

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-3945	J-8572	J-6937	16	152.5	0.0	0.0	0.2	0.4	0.0	0.4
WMAIN-3948(1)	J-7808	033-016	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3948(2)	033-016	033-017	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3949(1)(1)	J-8450	033-013	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3949(1)(2)	033-013	033-014	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-3949(2)	033-014	J-6496	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-3953(1)	J-6796	033-001	16	152.5	0.1	0.2	0.8	1	0.2	0.9
WMAIN-3953(2)	033-001	J-5128	16	152.5	0.1	0.2	0.8	1	0.2	0.9
WMAIN-3956(1)	J-7812	034-046	16	152.5	0.1	0.2	0.8	1.1	0.2	1.1
WMAIN-3956(2)	034-046	J-5128	16	152.5	0.1	0.2	0.8	1.1	0.2	1.1
WMAIN-3958	J-7498	J-6796	16	152.5	0.1	0.1	0.6	0.8	0.1	0.6
WMAIN-3960(1)	J-6840	033-002	16	152.5	0.1	0.1	0.5	0.7	0.1	0.5
WMAIN-3960(2)	033-002	J-7498	16	152.5	0.1	0.1	0.5	0.7	0.1	0.5
WMAIN-3962	J-6886	J-6840	16	152.5	0.1	0.1	0.5	0.7	0.1	0.5
WMAIN-3964(1)	J-7922	034-037	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-3964(2)	034-037	J-7923	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-3965	J-6203	J-6204	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3967	J-7034	J-7035	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3969(1)	J-8182	034-039	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-3969(2)	034-039	J-7035	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-3972	J-8182	J-7854	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3974	J-7854	J-7993	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3976	J-6566	J-8132	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-3979(1)(1)	J-6204	034-036	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-3979(1)(2)	034-036	034-035	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3979(2)	034-035	J-8150	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-3982	J-8225	J-8150	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-3985(1)(1)	J-8225	034-045	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-3985(1)(2)	034-045	034-044	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-3985(2)	034-044	J-7922	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-3987	J-7660	J-7922	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-3989(1)	J-7808	033-015	12	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-3989(2)	033-015	J-6496	12	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-3990	J-7995	J-7181	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-3993(1)	J-7181	033-009	8	152.5	0.0	0.3	0.3	0.7	0.2	0.6
WMAIN-3993(2)	033-009	J-7063	8	152.5	0.0	0.3	0.3	0.8	0.2	0.6
WMAIN-3995	J-7180	J-7181	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-3997(1)	J-6496	TEMP424	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-3997(2)	TEMP424	J-8915	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-3998	J-6545	J-7998	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4000(1)	J-7998	032-035	12	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-4000(2)	032-035	J-5359	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4003	J-5359	J-7808	12	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-4005(1)	J-7680	032-039	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4005(2)	032-039	J-7814	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4008(1)	J-7811	032-038	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4008(2)	032-038	J-8540	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4010	J-8572	J-7812	16	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4012	J-6937	J-6938	16	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4014	J-6938	J-8281	16	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4016(1)	J-7679	032-041	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4016(2)	032-041	J-7998	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4019(1)	J-6937	032-045	8	152.5	0.0	0.1	0	0.3	0.1	0.3
WMAIN-4019(2)	032-045	J-7679	8	152.5	0.0	0.1	0	0.3	0.1	0.3
WMAIN-4021	J-7289	J-7290	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4023	J-7680	J-8540	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4025(1)	J-7679	032-040	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4025(2)	032-040	J-7680	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4026	J-8541	J-6937	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4030(1)	J-8572	032-044	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4030(2)(1)	032-044	032-043	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4030(2)(2)	032-043	J-8541	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4031	J-8298	J-6545	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4034(1)	J-6938	032-042	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4034(2)	032-042	J-7055	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4035(1)	033-017	033-018	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-4035(2)	033-018	J-7811	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4038(1)	J-7884	033-012	8	152.5	0.1	0.1	0.3	0.4	0.1	0.3
WMAIN-4038(2)(1)	033-012	033-007	8	152.5	0.1	0.1	0.3	0.4	0.1	0.3
WMAIN-4038(2)(2)	033-007	J-8013	8	152.5	0.1	0.1	0.3	0.4	0.1	0.3
WMAIN-4040	J-6887	J-7180	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4042(1)(1)	J-7180	033-005	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-4042(1)(2)	033-005	033-006	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4042(2)	033-006	J-8013	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4045	J-7853	J-7854	8	152.5	0.2	0.4	0.6	0.9	0.3	0.8
WMAIN-4046(1)	J-7660	034-030	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4046(2)	034-030	J-7661	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-4048(1)	J-6566	034-054	16	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4048(2)	034-054	J-6567	16	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4050	J-7884	J-6566	16	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4052	J-7853	J-7884	16	152.5	0.0	0.0	0.2	0.4	0.0	0.2
WMAIN-4054(1)	J-6887	033-011	16	152.5	0.0	0.1	0.4	0.6	0.0	0.4
WMAIN-4054(2)(1)	033-011	034-040	16	152.5	0.0	0.1	0.4	0.6	0.0	0.4
WMAIN-4054(2)(2)	034-040	J-7853	16	152.5	0.0	0.1	0.4	0.6	0.0	0.4
WMAIN-4056	J-6886	J-6887	16	152.5	0.0	0.1	0.4	0.6	0.0	0.4
WMAIN-4058	J-6204	J-7660	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-4060	J-7289	J-7811	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4062(1)	J-7811	032-037	12	152.5	0.0	0.1	0.1	0.5	0.0	0.2
WMAIN-4062(2)	032-037	J-7812	12	152.5	0.0	0.1	0.1	0.5	0.0	0.2
WMAIN-4064	J-5358	J-5359	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4066(1)	J-8135	034-028	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4066(2)	034-028	J-8150	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4068(1)	J-8336	170-016	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4068(2)	170-016	J-6832	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4070	J-8121	J-8122	12	152.5	0.0	0.1	0.4	0.5	0.1	0.5
WMAIN-4071	J-6431	J-6432	8	152.5	0.0	0.1	0	0.3	0.1	0.3
WMAIN-4073(1)	J-8741	170-001	8	152.5	0.1	0.1	0.4	0.5	0.1	0.4
WMAIN-4073(2)	170-001	J-6431	8	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-4074(1)	J-6432	170-132	8	152.5	0.0	0.1	0	0.3	0.1	0.3
WMAIN-4074(2)	170-132	J-6661	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-4076	J-8113	J-7591	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4079(1)	J-8061	170-017	8	152.5	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-4079(2)	170-017	J-7135	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-4080	J-7591	J-7134	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-4082(1)	J-7134	170-014	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-4082(2)	170-014	J-7135	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-4086(1)	J-7135	170-015	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4086(2)	170-015	J-6832	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4088	J-6832	J-6833	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4090(1)	J-8061	J-5070	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4090(2)	J-5070	J-8062	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4091(1)	J-8062	170-018	12	152.5	0.0	0.1	0.4	0.5	0.1	0.5

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4091(2)(1)	170-018	170-019	12	152.5	0.0	0.1	0.4	0.5	0.1	0.5
WMAIN-4091(2)(2)	170-019	J-8121	12	152.5	0.0	0.1	0.4	0.5	0.1	0.5
WMAIN-4093	J-8336	J-8061	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4096(1)(1)	J-8122	170-011	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4096(1)(2)	170-011	170-012	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4096(2)(1)	170-012	170-013	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4096(2)(2)	170-013	J-7591	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4098(1)	J-8503	170-081	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-4098(2)	170-081	J-8336	12	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-4100(1)	J-8426	170-002	8	152.5	0.3	0.7	0.8	1.3	0.7	1.3
WMAIN-4100(2)	170-002	J-7120	8	152.5	0.3	0.8	0.8	1.3	0.8	1.3
WMAIN-4102(1)	J-8122	170-003	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-4102(2)	170-003	J-8426	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-4103(1)	J-6625	170-030	12	152.5	0.1	0.4	0.7	1.3	0.4	1.3
WMAIN-4103(2)(1)	170-030	170-029	12	152.5	0.1	0.4	0.7	1.3	0.4	1.3
WMAIN-4103(2)(2)	170-029	J-8740	12	152.5	0.1	0.4	0.7	1.3	0.4	1.3
WMAIN-4105	J-8503	J-6625	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-4108	J-8122	J-8279	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4110(1)	J-7212	170-005	8	152.5	0.2	0.5	0.6	1.1	0.5	1.1
WMAIN-4110(2)	170-005	J-7791	8	152.5	0.2	0.5	0.6	1.1	0.5	1.1
WMAIN-4113	J-7757	J-7212	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-4115	J-7896	J-7897	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-4118	J-6337	J-6338	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4121(1)	J-7933	170-028	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4121(2)	170-028	J-7282	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4123(1)	J-8278	170-022	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4123(2)	170-022	J-7896	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-4125(1)	J-7757	170-004	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4125(2)	170-004	J-8426	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4128	J-7757	J-7758	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-4130(1)	J-7758	170-006	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4130(2)	170-006	J-8278	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4132	J-7832	J-7933	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4133	J-7832	J-7833	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4136(1)	J-8279	170-009	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-4136(2)	170-009	J-7833	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-4138	J-7212	J-5491	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4139	J-5491	J-5492	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4141(1)	J-7897	170-025	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4141(2)(1)	170-025	170-026	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4141(2)(2)	170-026	J-7212	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4144(1)	J-6338	170-027	12	152.5	0.1	0.2	0.6	0.9	0.2	0.9
WMAIN-4144(2)	170-027	J-7896	12	152.5	0.1	0.2	0.6	0.9	0.2	0.9
WMAIN-4146	J-6338	J-7933	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-4149(1)(1)	J-7832	170-020	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4149(1)(2)	170-020	170-021	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4149(2)	170-021	J-8278	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4151(1)	J-8417	170-007	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4151(2)	170-007	J-7758	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4154(1)	J-7833	170-008	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4154(2)	170-008	J-8417	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4156(1)	J-8279	170-010	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-4156(2)	170-010	J-7757	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-4158(1)	J-6509	170-046	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4158(2)	170-046	J-7939	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4159	J-5296	J-5297	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4161	J-5297	J-7096	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4164(1)	J-7938	170-049	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4164(2)	170-049	J-8004	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4166	J-7170	J-7171	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4169	J-8244	J-7930	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4171	J-6478	J-8347	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4173(1)	J-8749	J-9038	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4173(2)	J-9038	J-8662	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4174	J-8742	J-8749	12	152.5	0.0	0.1	0.4	0.7	0.1	0.6
WMAIN-4177	J-6478	J-6479	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4178	J-7930	J-7754	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4181	J-7754	J-7625	12	152.5	0.1	0.2	0.5	0.7	0.2	0.7
WMAIN-4183(1)	J-7754	170-043	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4183(2)(1)	170-043	170-050	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4183(2)(2)	170-050	J-6478	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4185(1)	J-7625	170-044	12	152.5	0.0	0.1	0.4	0.6	0.1	0.6
WMAIN-4185(2)	170-044	J-7626	12	152.5	0.0	0.1	0.4	0.6	0.1	0.6
WMAIN-4187	J-7625	J-7938	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4190	J-7626	J-6509	12	152.5	0.1	0.1	0.4	0.7	0.1	0.7
WMAIN-4193	J-6509	J-6199	12	152.5	0.1	0.1	0.4	0.6	0.1	0.6
WMAIN-4195	J-7096	J-7938	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4197(1)	J-7096	170-047	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4197(2)	170-047	J-6509	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4199(1)	J-7134	170-048	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4199(2)	170-048	J-7096	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4200(1)	J-8070	170-051	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4200(2)	170-051	J-7930	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4204(1)	J-7171	170-052	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4204(2)	170-052	J-7625	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4206(1)	J-7171	170-045	6	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4206(2)	170-045	J-7626	6	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4209(1)	J-8662	170-053	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4209(2)	170-053	J-8070	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4211(1)	J-8749	170-042	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4211(2)	170-042	J-7754	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4214(1)	J-8811	170-080	12	152.5	0.1	0.3	0.5	1	0.2	0.9
WMAIN-4214(2)	170-080	J-8742	12	152.5	0.1	0.3	0.5	1	0.2	0.9
WMAIN-4215(1)	J-8811	170-099	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-4215(2)(1)(1)	170-099	J-6742	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-4215(2)(1)(2)	J-6742	170-098	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-4215(2)(2)	170-098	J-8503	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-4217(1)	J-8788	169-007	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4217(2)(1)	169-007	169-008	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4217(2)(2)	169-008	J-8394	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4218(1)	J-8787	169-006	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4218(2)	169-006	J-8788	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4219A(1)(1)	J-5135	169-004	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4219A(1)(2)	169-004	169-005	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4219A(2)	169-005	J-8787	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4219B	J-5365	J-5135	12	152.5	0.2	0.6	0.9	1.6	0.6	1.6
WMAIN-4220(1)	J-8795	169-003	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-4220(2)	169-003	J-5365	12	152.5	0.1	0.3	0.6	1	0.3	1
WMAIN-4221(1)(1)	J-8762	168-008	12	152.5	0.0	0.2	0.4	0.7	0.1	0.7
WMAIN-4221(1)(2)	168-008	168-009	12	152.5	0.0	0.2	0.4	0.7	0.1	0.7
WMAIN-4221(2)	168-009	J-6049	12	152.5	0.0	0.2	0.4	0.7	0.1	0.7
WMAIN-4223	J-6207	J-6208	12	152.5	0.0	0.1	0.1	0.5	0.0	0.3

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4224(1)	J-8706	168-057	12	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-4224(2)(1)(1)	168-057	J-8971	12	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-4224(2)(1)(2)	J-8971	168-005	12	152.5	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-4224(2)(2)	168-005	J-6207	12	152.5	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-4225(1)	J-8793	168-004	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4225(2)(1)	168-004	168-056	12	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-4225(2)(2)	168-056	J-8706	12	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-4226(1)	J-7807	168-003	12	152.5	0.1	0.1	0.4	0.7	0.1	0.6
WMAIN-4226(2)	168-003	J-8793	12	152.5	0.1	0.1	0.4	0.7	0.1	0.6
WMAIN-4227(1)	J-8655	168-002	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-4227(2)	168-002	J-7806	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-4228	J-7806	J-7807	12	152.5	0.1	0.1	0.4	0.7	0.1	0.6
WMAIN-4229(1)	168-001	J-9120	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-4229(2)(1)	J-9120	J-9067	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-4229(2)(2)	J-9067	J-8655	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-4230	J-5564	168-001	12	152.5	0.1	0.2	0.5	0.8	0.1	0.7
WMAIN-4232(1)	J-8637	167-006	12	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4232(2)	167-006	J-7324	12	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4235	167-040	J-8637	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-4236(1)	J-7950	167-007	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4236(2)	167-007	J-7324	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4239	J-7324	J-8230	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4241(1)	J-8230	167-017	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4241(2)(1)	167-017	167-016	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4241(2)(2)	167-016	J-8744	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4244	J-7484	J-7801	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4245(1)	J-8518	167-014	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4245(2)	167-014	J-7484	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4247	J-7483	J-7484	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4251(1)	J-8744	167-015	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4251(2)	167-015	J-8591	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4252	J-8591	J-7847	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4255(1)	J-8208	167-010	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4255(2)	167-010	J-7801	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4258(1)	J-7638	167-011	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4258(2)	167-011	J-7801	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4260(1)	J-7324	167-008	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4260(2)	167-008	J-7325	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4262	J-7325	J-8208	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4263(1)	J-7794	167-018	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4263(2)	167-018	J-7795	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4264	J-8401	J-7325	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4266(1)	J-8691	167-009	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4266(2)	167-009	J-8208	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4269	J-8230	J-7794	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4270	J-7484	J-7847	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4273(1)	J-6664	167-031	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4273(2)	167-031	J-6665	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4275(1)	J-6896	167-028	12	152.5	0.1	0.1	0.4	0.7	0.1	0.7
WMAIN-4275(2)	167-028	J-6897	12	152.5	0.1	0.1	0.4	0.7	0.1	0.7
WMAIN-4278(1)	J-6512	055-048	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4278(2)	055-048	J-8419	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4280(1)	J-8419	055-047	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4280(2)	055-047	J-7761	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4282(1)	J-7793	055-052	8	152.5	0.1	0.5	0.4	1	0.5	1
WMAIN-4282(2)	055-052	J-7760	8	152.5	0.1	0.5	0.4	1	0.5	1
WMAIN-4284(1)	J-7760	055-046	8	152.5	0.0	0.3	0.3	0.8	0.3	0.8
WMAIN-4284(2)	055-046	J-7761	8	152.5	0.0	0.3	0.3	0.8	0.3	0.8
WMAIN-4287	J-7761	J-7192	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4289(1)	J-7192	055-045	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4289(2)	055-045	J-7193	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4291(1)	J-7760	055-053	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4291(2)	055-053	J-8674	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4292	J-7742	J-7743	12	152.5	0.1	0.2	0.4	0.8	0.2	0.8
WMAIN-4295(1)	J-6282	034-026	12	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-4295(2)	034-026	J-7743	12	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-4299	J-8000	J-8001	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4301	J-7903	J-8457	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4303(1)	J-7812	034-033	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-4303(2)	034-033	J-8000	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-4305	J-8000	J-5440	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-4308(1)	J-7903	034-034	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4308(2)	034-034	J-7742	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4311	J-7739	J-7903	8	152.5	0.0	0.1	0	0.3	0.1	0.3
WMAIN-4313(1)	J-8020	055-040	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4313(2)	055-040	J-8680	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4314(1)	J-6993	055-043	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4314(2)	055-043	J-8020	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4316(1)	J-8680	055-044	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4316(2)	055-044	J-6993	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4318	J-6529	J-6993	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4321(1)	J-8680	055-041	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4321(2)	055-041	J-7793	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4323(1)	J-7793	055-042	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4323(2)	055-042	J-6529	8	152.5	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-4326(1)	J-5844	055-035	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-4326(2)	055-035	J-7192	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4327	J-5652	J-5653	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4329	J-5653	J-6705	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4332	J-5844	J-5845	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4335(1)	J-7715	055-034	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-4335(2)	055-034	J-8419	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-4337	J-7715	J-6705	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4339	J-6705	J-5844	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4340	J-6522	J-5110	10	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4342(1)	J-6103	053-064	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4342(2)	053-064	J-6698	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4344	J-6103	J-6699	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4347	J-5847	J-6700	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4350(1)	J-6695	053-059	10	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4350(2)	053-059	J-6522	10	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-4352(1)	J-6103	053-065	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4352(2)	053-065	J-5846	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4355	J-5846	J-5847	10	152.5	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-4357(1)	J-5847	053-058	10	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4357(2)	053-058	J-6695	10	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4359	J-6861	J-5846	10	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-4361(1)(1)	J-6698	053-063	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4361(1)(2)	053-063	053-062	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4361(2)	053-062	J-6699	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4364(1)	J-6699	053-061	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4364(2)	053-061	J-6700	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4365(1)	J-6700	053-060	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-4365(2)	053-060	J-6522	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-4366	J-8202	J-8131	8	152.5	0.0	0.0	0.2	0.2	0.0	0.2
WMAIN-4368(1)(1)	J-8437	009-010	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-4368(1)(2)	009-010	009-011	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-4368(2)	009-011	J-8611	8	152.5	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-4371	J-8610	J-8611	8	152.5	0.0	0.2	0	0.7	0.2	0.6
WMAIN-4373	J-7692	J-7646	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4375	J-7646	J-6920	8	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-4378(1)	J-6920	009-018	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4378(2)	009-018	J-7025	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4380	J-7692	J-7336	8	152.5	0.0	0.4	0.3	0.9	0.3	0.8
WMAIN-4381	J-6919	J-6920	8	152.5	0.0	0.1	0	0.3	0.0	0.3
WMAIN-4382	J-7691	J-6919	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-4385(1)	J-7691	009-016	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-4385(2)	009-016	J-7692	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-4387(1)	J-6740	009-026	12	152.5	0.0	0.3	0.2	1	0.3	1
WMAIN-4387(2)	009-026	J-8449	12	152.5	0.0	0.3	0.2	1	0.3	1
WMAIN-4389(1)	J-8786	009-023	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4389(2)(1)	009-023	009-024	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4389(2)(2)	009-024	J-5712	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4392(1)(1)(1)	J-8472	009-021	12	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4392(1)(1)(2)	009-021	J-5913	12	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4392(1)(2)(1)	J-5913	009-022	12	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4392(1)(2)(2)	009-022	J-5928	12	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-4392(2)(1)	J-5928	J-8549	12	152.5	0.0	0.1	0.3	0.5	0.0	0.4
WMAIN-4392(2)(2)	J-8549	J-8786	12	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-4394(1)	J-7337	009-020	12	152.5	0.0	0.1	0.1	0.6	0.1	0.4
WMAIN-4394(2)	009-020	J-8472	12	152.5	0.0	0.1	0.1	0.6	0.1	0.4
WMAIN-4396(1)	J-8129	009-019	12	152.5	0.0	0.1	0	0.7	0.0	0
WMAIN-4396(2)	009-019	J-7337	12	152.5	0.0	0.1	0	0.7	0.0	0
WMAIN-4398	J-7803	J-8129	12	152.5	0.2	0.6	0.9	1.5	0.5	1.3
WMAIN-4400(1)	J-5050	027-048	8	152.5	0.9	5.9	1.5	4.1	0.9	1.5
WMAIN-4400(2)	027-048	J-7944	8	152.5	0.9	5.8	1.4	4	0.9	1.5
WMAIN-4402(1)	J-7944	027-049	8	152.5	0.9	6.3	1.5	4.2	0.9	1.5
WMAIN-4402(2)	027-049	J-7434	8	152.5	0.9	6.3	1.4	4.2	0.9	1.5
WMAIN-4406	J-7012	J-7944	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4407	J-5050	J-7012	8	152.5	1.5	10.1	1.9	5.4	1.5	2
WMAIN-4411	J-7480	J-8726	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-4412	J-5720	J-5721	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4413	J-7488	J-5720	8	152.5	0.1	0.2	0.3	0.7	0.1	0.3
WMAIN-4417(1)	J-7555	038-035	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4417(2)	038-035	J-8807	8	140	0.0	0.0	0	0	0.0	0
WMAIN-4419(1)	J-7960	038-056	12	152.5	0.1	0.3	0.4	1.1	0.1	0.4
WMAIN-4419(2)	038-056	J-5720	12	152.5	0.1	0.3	0.4	1.1	0.1	0.4
WMAIN-4423(1)	J-7505	038-063	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4423(2)	038-063	J-8233	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4425(1)	J-7488	038-062	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-4425(2)	038-062	J-7505	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-4427	J-7960	J-7961	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4431	J-7505	J-7506	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-4433(1)	J-7510	040-025	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-4433(2)	040-025	J-6811	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-4435	J-8211	J-6811	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4438	J-6655	J-6656	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4439	J-6811	J-6655	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4440(1)	J-7510	040-023	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4440(2)	040-023	J-6363	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4442	J-6392	J-7510	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4444	J-7536	J-6363	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4446(1)	J-8211	040-024	8	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-4446(2)	040-024	J-7536	8	152.5	0.0	0.1	0.2	0.5	0.0	0.3
WMAIN-4449(1)	J-7536	040-026	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-4449(2)	040-026	J-7816	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-4453	J-8192	J-6392	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4456(1)	J-8605	040-034	8	152.5	0.0	0.2	0.3	0.7	0.1	0.3
WMAIN-4456(2)	040-034	J-8211	8	152.5	0.1	0.2	0.3	0.7	0.1	0.3
WMAIN-4457	J-8686	056-049	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4459(1)	J-6726	056-048	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4459(2)	056-048	J-8686	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4461	056-049	J-7147	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4463(1)	J-7147	056-050	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4463(2)	056-050	J-6726	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4466(1)	J-6725	056-047	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4466(2)	056-047	J-6726	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4467	J-5957	J-5958	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4469(1)	J-7146	056-043	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4469(2)	056-043	J-7147	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4471(1)	J-6725	056-045	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4471(2)	056-045	J-8339	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4473	J-7771	J-8339	12	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4476(1)(1)	J-6999	019-027	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4476(1)(2)	019-027	019-028	10	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4476(2)	019-028	J-7433	10	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4478(1)	J-7882	019-030	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4478(2)	019-030	J-8043	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4480(1)	J-8043	019-029	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4480(2)	019-029	J-7432	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4484	J-7432	J-7433	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4486(1)	J-7433	019-037	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4486(2)	019-037	J-8544	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-4488(1)	J-8801	040-002	12	152.5	0.0	0.0	0.1	0.4	0.0	0.3
WMAIN-4488(2)(1)(1)	040-002	J-9216	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4488(2)(1)(2)	J-9216	040-001	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4488(2)(2)	040-001	J-7905	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4491(1)	J-7905	040-009	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4491(2)	040-009	J-8167	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4493(1)	J-6226	040-020	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4493(2)	040-020	J-6552	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4496	J-6552	J-6553	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4498	J-5656	J-5657	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4499(1)	J-6324	040-013	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4499(2)	040-013	J-5656	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4501	J-6378	J-7658	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4505(1)(1)	J-7659	J-9235	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4505(1)(2)	J-9235	040-015	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4505(2)	040-015	J-6230	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4507	J-6230	J-6161	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4510	J-6230	J-6231	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4511(1)	J-7126	040-010	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-4511(2)	040-010	J-7905	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-4513	J-7069	J-7126	8	152.5	0.1	0.3	0.5	0.8	0.3	0.7

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4515	J-6323	J-6324	8	152.5	0.1	0.2	0.4	0.7	0.2	0.6
WMAIN-4517(1)	J-6161	040-014	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-4517(2)	040-014	J-6323	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-4519	J-6363	J-6160	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-4522(1)	J-8722	040-004	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4522(2)	040-004	J-6230	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4524(1)	J-7658	040-016	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4524(2)	040-016	J-7659	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4526	J-7659	J-8515	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4528(1)	J-7069	040-012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4528(2)	040-012	J-5693	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4529	J-5693	J-5694	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4531(1)	J-7126	040-011	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4531(2)	040-011	J-7127	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4532	J-7702	J-7703	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4534(1)	J-7703	040-021	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4534(2)	040-021	J-6552	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4537(1)	J-7703	040-019	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4537(2)	040-019	J-6226	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4540(1)	J-6378	040-017	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4540(2)	040-017	J-6225	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4542	J-6323	J-6378	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4544(1)(1)	J-7217	056-029	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4544(1)(2)	056-029	056-028	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4544(2)	056-028	J-7665	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4546	J-8551	056-005	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-4549(1)	J-7953	056-032	8	152.5	0.0	0.3	0.3	0.9	0.3	0.9
WMAIN-4549(2)	056-032	J-7447	8	152.5	0.0	0.3	0.3	0.9	0.3	0.9
WMAIN-4550(1)(1)	J-8636	056-010	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4550(1)(2)	056-010	056-011	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4550(2)	056-011	J-8551	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4551	J-7665	J-7413	8	152.5	0.1	0.3	0.3	0.9	0.3	0.9
WMAIN-4553	J-7218	J-7666	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4555(1)	J-7666	056-007	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4555(2)	056-007	J-8551	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4559	J-7447	J-7448	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4561(1)	J-7413	056-042	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-4561(2)	056-042	J-7447	8	152.5	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-4563(1)	J-7218	056-031	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4563(2)	056-031	J-8553	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4566(1)	J-7665	056-030	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4566(2)	056-030	J-7666	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4569	J-6662	J-7217	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4572(1)	J-7918	056-026	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4572(2)(1)	056-026	056-027	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4572(2)(2)	056-027	J-7936	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4574	J-7953	J-7917	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4576	J-7412	J-7413	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4577	J-7932	J-7918	8	152.5	0.1	0.3	0.3	0.8	0.3	0.8
WMAIN-4581(1)	J-7509	056-024	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4581(2)(1)	056-024	056-025	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4581(2)(2)	056-025	J-7932	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4583(1)	J-7047	056-023	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4583(2)	056-023	J-7509	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4584	J-6220	J-7047	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4587	J-7918	J-8300	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-4589	J-7932	J-7412	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4592(1)	J-6220	056-019	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4592(2)(1)(1)	056-019	056-020	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4592(2)(1)(2)	056-020	056-021	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4592(2)(2)	056-021	J-7412	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4593	J-6219	J-6220	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4596(1)	J-7046	J-9269	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-4596(2)	J-9269	J-7047	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-4598	J-7509	J-7421	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4599	J-8400	J-7948	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4603(1)	J-8256	056-037	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4603(2)	056-037	J-8400	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4605(1)	J-8300	056-035	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-4605(2)	056-035	J-7949	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4607(1)	J-7949	056-040	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4607(2)	056-040	J-8060	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4609(1)	056-033	056-034	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-4609(2)	056-034	J-8300	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4613(1)	J-8300	056-051	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4613(2)	056-051	J-6029	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4614	J-7877	J-7948	12	152.5	0.0	0.0	0.2	0.4	0.0	0.4
WMAIN-4616(1)	J-7948	056-036	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4616(2)	056-036	J-7949	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4620(1)	J-7949	056-046	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4620(2)	056-046	J-6725	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4622(1)	J-7877	056-038	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4622(2)	056-038	J-8256	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4624(1)	J-7434	027-045	8	152.5	0.2	1.0	0.6	1.6	0.2	0.6
WMAIN-4624(2)	027-045	J-8025	8	152.5	0.1	1.0	0.5	1.6	0.1	0.5
WMAIN-4626	J-8025	J-7479	8	152.5	0.1	1.0	0.5	1.5	0.1	0.5
WMAIN-4629	J-7434	J-7670	8	152.5	0.2	1.2	0.6	1.7	0.2	0.6
WMAIN-4632(1)	J-7377	027-044	8	152.5	0.8	6.6	1.4	4.3	0.8	1.4
WMAIN-4632(2)	027-044	J-7434	8	152.5	0.8	6.6	1.4	4.3	0.8	1.4
WMAIN-4633(1)	J-7479	027-046	8	152.5	1.0	8.5	1.6	5	1.0	1.6
WMAIN-4633(2)	027-046	J-7480	8	152.5	1.0	8.5	1.6	5	1.0	1.6
WMAIN-4635	J-7670	J-7479	8	152.5	0.6	4.4	1.2	3.5	0.6	1.2
WMAIN-4637(1)	J-7012	027-047	8	152.5	1.3	9.3	1.8	5.2	1.3	1.8
WMAIN-4637(2)	027-047	J-7670	8	152.5	1.3	9.3	1.8	5.2	1.3	1.8
WMAIN-4640	J-7519	J-7377	8	152.5	0.4	2.5	0.9	2.6	0.4	0.9
WMAIN-4642	J-7377	J-7378	8	152.5	0.1	1.2	0.5	1.7	0.1	0.5
WMAIN-4644(1)	J-6998	019-014	8	152.5	0.0	0.4	0.2	0.9	0.2	0.7
WMAIN-4644(2)	019-014	J-6999	8	152.5	0.0	0.4	0.2	0.9	0.2	0.7
WMAIN-4646	J-6999	J-7438	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-4649(1)	J-7353	019-021	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4649(2)	019-021	J-7648	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4650(1)	J-7352	019-022	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4650(2)	019-022	J-7353	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4652(1)	J-7352	019-015	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4652(2)	019-015	J-6999	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4655	J-8037	J-8043	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4657	J-7647	J-7432	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4658(1)	J-5558	019-019	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4658(2)	019-019	J-7647	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4660	J-5557	J-5408	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4662	J-5557	J-5558	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4663(1)	J-7353	019-020	8	152.5	0.0	0.0	0	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4663(2)	019-020	J-5557	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4664(1)	J-8037	019-018	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4664(2)	019-018	J-7647	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4668(1)	J-7648	019-016	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4668(2)(1)	019-016	019-017	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4668(2)(2)	019-017	J-8037	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4670(1)	J-7438	019-031	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4670(2)	019-031	J-7882	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4672	J-7648	J-7438	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4674(1)	J-7936	055-054	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-4674(2)(1)(1)	055-054	055-050	8	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4674(2)(1)(2)	055-050	055-049	8	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4674(2)(2)	055-049	J-7823	8	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4677	J-7954	J-7936	12	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-4678	J-7823	J-6512	8	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-4681(1)	J-7823	055-051	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4681(2)	055-051	J-7760	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4683	J-5542	J-7320	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4684	J-7985	J-7472	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4687	J-7320	J-8335	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4690(1)	J-7320	021-042	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4690(2)(1)	021-042	021-045	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4690(2)(2)	021-045	J-7569	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4693(1)	J-5911	032-034	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4693(2)	032-034	J-6545	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4695	J-6556	J-6441	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4697	J-6578	J-6556	12	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4699	J-6577	J-6578	12	152.5	0.0	0.0	0.1	0.4	0.0	0.4
WMAIN-4701	J-6574	J-6577	12	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4703	J-6573	J-6574	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4704	J-7820	J-6573	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4706	J-7844	J-7820	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4707(1)	J-6556	032-033	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4707(2)	032-033	J-6472	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4708	J-6472	J-6473	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4709(1)	J-6473	032-024	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4709(2)	032-024	J-6441	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4710(1)	J-6577	032-031	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4710(2)	032-031	J-6579	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4711	J-6579	J-6580	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4712(1)	J-6580	032-032	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4712(2)	032-032	J-6578	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4713(1)	J-6573	032-029	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4713(2)	032-029	J-6571	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4714	J-6571	J-6572	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4715(1)	J-6572	032-030	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4715(2)	032-030	J-6574	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-4718(1)	J-8418	012-061	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4718(2)	012-061	J-8612	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4721	J-8218	J-6504	6	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4723	J-5768	J-5769	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4724(1)	J-8218	012-060	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4724(2)	012-060	J-5768	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4725	J-8418	J-8218	6	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4728(1)	J-5921	023-050	8	152.5	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-4728(2)(1)	023-050	023-051	8	152.5	0.0	0.2	0.3	0.7	0.2	0.6
WMAIN-4728(2)(2)	023-051	J-8601	8	152.5	0.0	0.2	0.3	0.7	0.2	0.6
WMAIN-4729(1)	J-8571	023-052	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4729(2)	023-052	J-6692	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4732	J-6137	J-8601	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-4733(1)	J-8317	023-047	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4733(2)	023-047	J-6691	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4735(1)	J-7520	023-048	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4735(2)	023-048	J-7445	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4738(1)	J-6136	023-049	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4738(2)	023-049	J-7501	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4739(1)	J-8601	024-017	8	152.5	0.0	0.5	0.2	1	0.3	0.8
WMAIN-4739(2)	024-017	024-008	8	152.5	0.0	0.5	0.2	1	0.3	0.8
WMAIN-4741	J-5921	J-5922	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4743	J-6692	J-5921	8	152.5	0.0	0.2	0.2	0.6	0.1	0.4
WMAIN-4745	J-6691	J-6692	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-4746	J-6691	J-7445	10	152.5	0.0	0.2	0.3	0.8	0.2	0.7
WMAIN-4748	J-7445	J-6136	10	152.5	0.1	0.2	0.3	0.8	0.2	0.7
WMAIN-4750	J-6136	J-6137	10	152.5	0.1	0.2	0.4	0.8	0.2	0.7
WMAIN-4754(1)(1)	J-6116	023-045	10	152.5	0.1	0.4	0.4	1	0.3	0.8
WMAIN-4754(1)(2)	023-045	023-046	10	152.5	0.1	0.4	0.4	1.1	0.3	0.9
WMAIN-4754(2)	023-046	J-6691	10	152.5	0.1	0.4	0.4	1.1	0.3	0.9
WMAIN-4756	J-7892	J-7893	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4757(1)	J-6748	170-072	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4757(2)	170-072	J-7892	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4759	J-6747	J-6748	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4762	J-6748	J-6544	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4765	J-6544	J-8294	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4766(1)	J-6479	170-071	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4766(2)	170-071	J-6544	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4769(1)	J-8742	170-070	8	152.5	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-4769(2)	170-070	J-6748	8	152.5	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-4771(1)	J-8253	170-073	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4771(2)	170-073	J-7892	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-4773	J-7892	J-8213	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4775	J-8253	J-8268	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4778	J-6875	J-8253	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4780	J-6747	J-8149	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4782(1)	J-7459	170-077	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4782(2)	170-077	J-6747	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4785	J-7157	J-7459	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4786(1)	J-7156	170-076	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4786(2)	170-076	J-7157	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4789	J-6875	J-7157	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-4790(1)	J-6875	170-075	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4790(2)	170-075	J-6832	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4793	J-6875	J-6876	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4796	J-7770	J-7771	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4798	J-7902	J-5521	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4800(1)	J-7506	038-057	12	152.5	0.0	0.3	0.4	1	0.0	0.4
WMAIN-4800(2)	038-057	J-7960	12	152.5	0.0	0.3	0.4	1	0.0	0.4
WMAIN-4802	J-7506	J-7070	8	140	0.0	0.6	0.2	1	0.0	0.2
WMAIN-4804(1)	J-7506	038-058	12	152.5	0.0	0.2	0.3	0.9	0.0	0.3
WMAIN-4804(2)	038-058	J-5511	12	152.5	0.0	0.2	0.3	0.9	0.0	0.3
WMAIN-4807(1)	J-6761	011-037	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4807(2)	011-037	J-7577	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4809	J-8285	J-8489	6	152.5	0.0	0.0	0	0.1	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4811(1)	J-7577	011-038	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4811(2)	011-038	J-8285	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4813(1)	J-8527	011-011	6	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4813(2)	011-011	J-6760	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4814(1)	J-6761	011-036	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4814(2)(1)	011-036	011-035	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4814(2)(2)	011-035	J-8454	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4816(1)	J-7576	011-034	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4816(2)	011-034	J-8454	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-4818	J-7577	J-7578	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4820(1)	J-7490	010-041	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4820(2)	010-041	J-8327	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4822	J-7489	J-7490	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-4825(1)	J-7990	012-039	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4825(2)	012-039	J-8559	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4826	J-7789	J-7790	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4827(1)	J-7842	012-016	8	152.5	0.0	0.2	0.3	0.6	0.2	0.6
WMAIN-4827(2)	012-016	J-7473	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4829(1)	J-7788	012-012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4829(2)	012-012	J-8084	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4832(1)(1)	J-7790	012-036	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4832(1)(2)	012-036	012-035	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4832(2)(1)	012-035	012-034	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4832(2)(2)	012-034	J-7392	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4835(1)	J-7790	012-038	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4835(2)	012-038	J-7843	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4836	J-6531	J-6667	8	152.5	0.1	0.4	0.4	1	0.4	1
WMAIN-4838(1)(1)(1)(1)	J-6667	012-028	8	152.5	0.1	0.5	0.5	1.1	0.5	1.1
WMAIN-4838(1)(1)(1)(2)	012-028	012-029	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-4838(1)(1)(2)(1)	012-029	012-056	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-4838(1)(1)(2)(2)(1)	012-056	012-030	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-4838(1)(1)(2)(2)(2)	012-030	012-031	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-4838(1)(2)	012-031	012-057	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-4838(2)	012-057	J-5243	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-4841	J-7210	J-7211	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-4843(1)	J-7211	012-027	8	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-4843(2)	012-027	J-6279	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4845	J-6279	J-6280	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4847	J-6280	J-6531	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4849	J-7392	J-6531	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4851	J-7457	J-7392	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4855(1)	J-7458	012-033	6	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-4855(2)(1)	012-033	012-062	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4855(2)(2)	012-062	J-8418	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4859(1)(1)	J-8612	012-024	8	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-4859(1)(2)	012-024	012-025	8	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-4859(2)	012-025	J-7210	8	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-4862	J-7457	J-7458	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4863(1)	J-7458	012-026	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4863(2)	012-026	J-7210	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4866(1)	J-7265	012-011	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4866(2)	012-011	J-7457	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4869(1)	J-6853	010-042	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4869(2)	010-042	J-6854	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4871(1)	J-7379	011-025	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-4871(2)	011-025	J-8728	8	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-4873(1)	J-8728	012-023	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-4873(2)	012-023	J-8612	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-4876(1)	J-6505	011-026	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4876(2)	011-026	J-8728	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4878	J-7575	J-7576	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4879(1)	J-8431	011-032	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4879(2)	011-032	J-7411	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4883(1)	J-7379	011-030	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4883(2)	011-030	J-7380	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4885A(1)	J-7575	011-031	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4885A(2)	011-031	J-7380	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4885B	J-7411	J-7575	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4888(1)	J-7380	011-029	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4888(2)	011-029	J-8667	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4890(1)	J-7803	010-045	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-4890(2)	010-045	J-7804	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4891(1)	J-7804	010-044	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-4891(2)	010-044	J-8505	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-4894(1)	J-6539	025-007	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4894(2)	025-007	J-7309	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4897	J-5224	J-5157	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4898(1)	J-8758	026-022	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-4898(2)	026-022	J-5224	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-4901	J-7123	025-006	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-4903(1)	J-8657	025-004	12	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-4903(2)(1)	025-004	025-005	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4903(2)(2)	025-005	J-7123	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4905(1)(1)	J-5157	025-008	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4905(1)(2)	025-008	025-009	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4905(2)	025-009	J-7309	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4906(1)	J-6538	025-001	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4906(2)	025-001	J-6539	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4907	J-5223	J-5224	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4909(1)	J-6117	023-053	12	140	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-4909(2)	023-053	J-8657	12	140	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-4910	J-5335	J-5395	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-4911	J-5395	J-6812	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-4914	J-8095	J-8096	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4917(1)	J-8060	056-039	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4917(2)(1)	056-039	056-004	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4917(2)(2)	056-004	J-6499	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4919(1)	J-7937	056-001	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4919(2)	056-001	056-033	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-4921(1)	J-7796	055-024	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4921(2)	055-024	J-7823	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4923	J-6511	J-6512	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4925	J-7453	J-6511	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-4927	J-7876	J-6499	12	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-4928	J-6500	J-7312	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4930(1)	J-7937	056-002	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4930(2)	056-002	J-7876	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4934	J-7936	J-7937	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-4936(1)	J-7876	056-003	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4936(2)	056-003	J-7877	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-4938(1)	J-8095	055-026	12	152.5	0.0	0.2	0.2	0.9	0.2	0.9
WMAIN-4938(2)(1)	055-026	055-027	12	152.5	0.0	0.2	0.2	0.8	0.2	0.8

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-4938(2)(2)	055-027	J-7876	12	152.5	0.0	0.2	0.2	0.8	0.2	0.8
WMAIN-4939	J-8101	J-8095	12	152.5	0.0	0.3	0.3	1	0.3	1
WMAIN-4941	J-7453	J-7796	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-4942(1)	J-8096	042-038	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-4942(2)	042-038	J-8051	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-4945(1)(1)	J-8096	055-028	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4945(1)(2)	055-028	055-029	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4945(2)	055-029	J-8808	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4947(1)	J-8101	055-025	4	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4947(2)	055-025	J-8228	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4948	J-6909	J-7586	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4950	J-6094	J-6095	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4953(1)	J-6939	039-044	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4953(2)	039-044	J-6940	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4955	J-6935	J-6939	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4958	J-6939	J-7621	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-4960	J-7621	J-6095	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-4962(1)	J-7586	039-047	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4962(2)	039-047	J-8289	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4964(1)	J-6935	039-043	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4964(2)	039-043	J-6936	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4966	J-6909	J-6935	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-4967(1)	J-6321	044-046	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4967(2)(1)	044-046	044-045	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4967(2)(2)	044-045	J-8151	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-4969(1)	J-8151	044-047	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-4969(2)	044-047	J-6321	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4971(1)	J-7465	044-021	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4971(2)	044-021	J-6855	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-4974	J-6855	J-6856	6	140	0.0	0.0	0	0	0.0	0
WMAIN-4976(1)	J-6855	044-044	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4976(2)	044-044	J-8387	6	140	0.0	0.0	0	0	0.0	0
WMAIN-4978(1)	J-7613	044-032	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-4978(2)(1)	044-032	044-033	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-4978(2)(2)	044-033	J-6855	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-4980	J-8151	J-6321	12	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4982	J-8497	J-8151	12	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4983	J-7247	J-8009	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-4984(1)	J-8009	045-033	6	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-4984(2)	045-033	J-6606	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-4986	J-6605	J-6606	6	140	0.0	0.4	0.2	0.7	0.1	0.4
WMAIN-4988(1)	J-7446	034-011	8	152.5	0.0	0.2	0.2	0.6	0.1	0.4
WMAIN-4988(2)	034-011	J-7042	8	152.5	0.0	0.2	0.2	0.6	0.1	0.4
WMAIN-4991	J-8195	J-8196	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-4993(1)	J-7446	034-013	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4993(2)	034-013	J-8195	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-4994(1)	J-8055	034-018	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-4994(2)	034-018	J-8344	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-4997(1)	J-7035	034-038	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-4997(2)	034-038	J-8055	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-4998	J-7182	J-7183	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5000	J-7183	J-8222	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5004(1)	J-7854	034-041	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-5004(2)	034-041	J-7414	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-5005(1)	J-7414	034-020	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5005(2)	034-020	J-7183	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5008	J-7414	J-8190	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5011(1)	J-8190	034-015	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5011(2)	034-015	J-8433	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5013(1)	J-8055	034-019	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5013(2)	034-019	J-7414	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5015(1)	J-7978	022-047	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5015(2)	022-047	J-6358	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5018	J-6565	J-6804	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5020	J-7490	J-6565	12	152.5	0.0	0.1	0	0.7	0.0	0.2
WMAIN-5023	J-6924	J-6615	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5025	J-6924	J-6925	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5028(1)	J-8285	011-022	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5028(2)	011-022	J-8286	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5029(1)	J-8286	011-021	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5029(2)	011-021	J-6985	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5033(1)	J-8286	011-004	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-5033(2)	011-004	J-7154	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5034(1)	J-6924	011-016	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5034(2)(1)	011-016	011-015	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5034(2)(2)	011-015	J-6984	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5037(1)	J-6985	011-020	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5037(2)	011-020	J-7410	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5039	J-6984	J-6985	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-5042(1)	J-6615	011-017	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5042(2)(1)	011-017	011-018	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5042(2)(2)(1)	011-018	J-9220	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5042(2)(2)(2)	J-9220	J-7828	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5044	J-6615	J-6616	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5046	J-7410	J-7411	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5048(1)(1)(1)	J-7828	011-019	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5048(1)(1)(2)	011-019	011-023	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5048(1)(2)	011-023	011-024	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5048(2)	011-024	J-7379	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5050	J-7410	J-7828	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5051(1)	J-7343	010-030	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-5051(2)	010-030	J-7799	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-5052(1)	J-7799	010-029	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5052(2)	010-029	J-7785	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5055(1)	J-7718	010-027	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5055(2)	010-027	J-5574	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5056	J-5574	J-5575	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5057	J-5622	J-5623	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5058(1)	J-5623	010-023	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5058(2)	010-023	J-6768	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5061(1)	J-7426	010-028	10	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-5061(2)	010-028	J-7718	10	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-5063	J-7718	J-7973	10	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-5064	J-7204	J-7785	12	152.5	0.0	0.9	0.3	1.9	0.7	1.7
WMAIN-5066(1)	J-7785	024-001	12	152.5	0.1	0.8	0.4	1.8	0.6	1.5
WMAIN-5066(2)	024-001	J-7426	12	152.5	0.1	0.8	0.4	1.8	0.6	1.5
WMAIN-5069	J-7426	J-6768	12	152.5	0.0	0.5	0.3	1.4	0.3	1.1
WMAIN-5071(1)	J-6768	010-001	12	152.5	0.0	0.5	0.2	1.3	0.3	1
WMAIN-5071(2)	010-001	J-8099	12	152.5	0.0	0.5	0.2	1.3	0.3	1
WMAIN-5074(1)	J-8525	010-033	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5074(2)	010-033	J-5670	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5075	J-5670	J-5671	8	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5077	J-7973	J-7343	10	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-5080	J-7343	J-7344	10	152.5	0.1	0.1	0.4	0.6	0.1	0.5
WMAIN-5082(1)	J-7343	010-034	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5082(2)	010-034	J-5749	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5083	J-5749	J-5750	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5085(1)(1)	J-7973	010-031	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5085(1)(2)	010-031	010-032	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5085(2)	010-032	J-8525	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5087(1)	J-7386	010-040	8	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-5087(2)	010-040	J-8525	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5090	J-7386	J-7001	8	152.5	0.0	0.1	0	0.4	0.1	0.3
WMAIN-5091(1)	J-8505	010-043	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-5091(2)	010-043	J-8006	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-5094(1)	J-5480	010-017	8	152.5	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-5094(2)	010-017	J-7386	8	152.5	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-5095	J-7344	J-6146	10	152.5	0.1	0.1	0.4	0.5	0.1	0.4
WMAIN-5098(1)	J-6146	010-038	10	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-5098(2)	010-038	J-8021	10	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-5100(1)	J-7344	010-036	8	152.5	0.0	0.2	0.1	0.7	0.1	0.5
WMAIN-5100(2)	010-036	J-6737	8	152.5	0.0	0.2	0.1	0.7	0.1	0.5
WMAIN-5102(1)	J-6737	009-017	8	152.5	0.0	0.3	0.1	0.8	0.2	0.6
WMAIN-5102(2)	009-017	J-6919	8	152.5	0.0	0.3	0.1	0.8	0.2	0.6
WMAIN-5105(1)	J-7001	010-037	8	152.5	0.0	0.1	0	0.5	0.1	0.4
WMAIN-5105(2)	010-037	J-7344	8	152.5	0.0	0.1	0	0.5	0.1	0.4
WMAIN-5107	J-8021	J-7803	12	152.5	0.1	0.4	0.7	1.2	0.3	1.1
WMAIN-5110(1)	J-8006	010-039	12	152.5	0.0	0.2	0.4	0.9	0.2	0.7
WMAIN-5110(2)	010-039	J-8021	12	152.5	0.0	0.2	0.4	0.9	0.2	0.7
WMAIN-5112	J-5480	J-8006	12	152.5	0.1	0.3	0.5	1.1	0.2	0.9
WMAIN-5114	J-6737	010-035	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5116	J-6146	J-6147	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5118	J-7001	J-7002	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5120(1)	J-5479	010-018	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-5120(2)	010-018	J-8724	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-5123	J-6763	J-6881	12	152.5	0.0	0.3	0.2	1.1	0.2	0.8
WMAIN-5125(1)	J-7805	010-016	12	152.5	0.0	0.3	0.3	1	0.2	0.8
WMAIN-5125(2)	010-016	J-5479	12	152.5	0.0	0.3	0.3	1	0.2	0.8
WMAIN-5127(1)	J-7915	010-014	12	152.5	0.0	0.3	0.2	1	0.2	0.7
WMAIN-5127(2)	010-014	J-7805	12	152.5	0.0	0.3	0.2	1	0.2	0.7
WMAIN-5129	J-7914	J-7915	12	152.5	0.0	0.2	0.2	0.9	0.1	0.7
WMAIN-5131	J-6090	J-7914	12	152.5	0.0	0.2	0.2	0.9	0.1	0.6
WMAIN-5133(1)	J-6881	010-012	12	152.5	0.0	0.2	0.2	0.9	0.1	0.6
WMAIN-5133(2)	010-012	J-6090	12	152.5	0.0	0.2	0.2	0.9	0.1	0.6
WMAIN-5134	J-6853	J-6881	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-5136(1)	J-6319	010-022	8	152.5	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-5136(2)	010-022	J-6853	8	152.5	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-5139(1)	J-7805	010-015	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5139(2)	010-015	J-8573	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5142(1)	J-7915	010-020	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5142(2)	010-020	J-8725	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5144(1)	J-7914	010-013	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5144(2)	010-013	J-8399	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5146	J-6319	J-6320	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5148	J-6090	J-6091	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5150(1)(1)	J-7827	038-054	8	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5150(1)(2)	038-054	038-061	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-5150(2)	038-061	J-8726	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-5152	J-7518	J-7519	8	140	0.2	1.3	0.5	1.7	0.2	0.5
WMAIN-5153(1)(1)	J-5720	038-055	12	152.5	0.1	0.5	0.6	1.4	0.1	0.6
WMAIN-5153(1)(2)	038-055	038-050	12	152.5	0.1	0.5	0.6	1.4	0.1	0.6
WMAIN-5153(2)	038-050	J-7223	12	152.5	0.1	0.5	0.6	1.4	0.1	0.6
WMAIN-5155(1)	J-7827	038-053	12	152.5	0.1	0.2	0.4	0.9	0.1	0.4
WMAIN-5155(2)	038-053	J-7480	12	152.5	0.1	0.2	0.4	0.9	0.1	0.4
WMAIN-5157	J-7519	J-7827	12	152.5	0.1	0.3	0.5	1	0.1	0.5
WMAIN-5159(1)	J-8479	038-046	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5159(2)	038-046	J-7906	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5161(1)	J-7907	038-052	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5161(2)	038-052	J-8187	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5163(1)	J-8479	038-047	8	140	0.0	0.5	0.2	0.9	0.0	0.2
WMAIN-5163(2)	038-047	J-7518	8	140	0.0	0.5	0.3	1	0.0	0.3
WMAIN-5164(1)	J-7593	038-042	8	140	0.0	0.3	0.1	0.8	0.0	0.1
WMAIN-5164(2)	038-042	J-8479	8	140	0.0	0.3	0.1	0.8	0.0	0.1
WMAIN-5166(1)	J-8046	038-045	8	152.5	0.0	0.2	0.1	0.6	0.0	0.1
WMAIN-5166(2)	038-045	J-7906	8	152.5	0.0	0.2	0.1	0.6	0.0	0.1
WMAIN-5168	J-7906	J-7907	8	152.5	0.0	0.2	0.1	0.6	0.0	0.1
WMAIN-5170	J-7907	J-8363	8	152.5	0.0	0.2	0.2	0.7	0.0	0.2
WMAIN-5173(1)	J-7518	038-048	8	152.5	0.0	0.2	0.2	0.7	0.0	0.2
WMAIN-5173(2)(1)	038-048	038-051	8	152.5	0.0	0.2	0.2	0.7	0.0	0.2
WMAIN-5173(2)(2)	038-051	J-8363	8	152.5	0.0	0.2	0.2	0.7	0.0	0.2
WMAIN-5175(1)	J-8510	045-019	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-5175(2)	045-019	J-6007	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-5178	J-6316	J-6317	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5181(1)	J-6516	046-003	8	140	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-5181(2)	046-003	J-6317	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5183	J-6317	J-8510	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5185(1)	J-7016	045-018	6	140	0.1	0.3	0.3	0.6	0.2	0.5
WMAIN-5185(2)	045-018	J-8510	6	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-5188(1)	J-7016	046-001	6	140	0.1	0.3	0.3	0.6	0.2	0.5
WMAIN-5188(2)(1)	046-001	046-002	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-5188(2)(2)	046-002	J-6516	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-5189	J-6515	J-6516	4	140	0.0	0.0	0	0	0.0	0
WMAIN-5192	J-7607	J-7016	6	140	0.2	0.6	0.4	0.9	0.5	0.8
WMAIN-5195(1)	J-7015	045-025	8	140	0.2	0.7	0.6	1.2	0.6	1.1
WMAIN-5195(2)	045-025	J-7016	8	140	0.2	0.7	0.6	1.2	0.6	1.1
WMAIN-5197	J-6019	J-6020	16	140	0.1	0.3	0.6	1.2	0.3	1.2
WMAIN-5198(1)	J-8407	035-033	16	140	0.1	0.7	0.5	1.9	0.7	1.9
WMAIN-5198(2)	035-033	J-5118	16	140	0.1	0.7	0.5	1.9	0.7	1.9
WMAIN-5201(1)	J-7260	045-006	8	140	0.1	0.2	0.3	0.6	0.1	0.4
WMAIN-5201(2)	045-006	J-7450	8	140	0.1	0.2	0.3	0.6	0.1	0.4
WMAIN-5203	J-7027	J-7260	8	140	0.1	0.2	0.3	0.6	0.1	0.4
WMAIN-5204(1)	J-7027	045-005	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-5204(2)	045-005	J-7780	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-5206(1)	J-7780	045-016	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5206(2)	045-016	J-7607	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5208	J-7886	J-6019	16	152.5	0.1	0.2	0.5	1.1	0.2	1.1
WMAIN-5210(1)	J-7607	045-017	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-5210(2)	045-017	J-8204	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5211	J-7259	J-7027	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5214(1)	J-7260	J-9280	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5214(2)	J-9280	J-7261	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5217(1)	J-6019	045-004	8	140	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-5217(2)	045-004	J-7027	8	140	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-5219	J-7187	J-7886	16	140	0.1	0.2	0.5	1	0.2	1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5222(1)	J-7744	027-012	16	140	0.1	0.4	0.6	1.3	0.1	0.7
WMAIN-5222(2)	027-012	J-7065	16	140	0.1	0.4	0.6	1.3	0.1	0.7
WMAIN-5224(1)	J-8367	026-038	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-5224(2)	026-038	J-5518	12	152.5	0.1	0.3	0.6	1.1	0.3	1.1
WMAIN-5226(1)	J-8536	026-001	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-5226(2)	026-001	J-8367	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-5227	026-002	J-7066	8	152.5	0.1	0.3	0.4	0.8	0.2	0.7
WMAIN-5229(1)	J-6156	026-003	8	152.5	0.1	0.3	0.4	0.8	0.2	0.7
WMAIN-5229(2)	026-003	026-002	8	152.5	0.1	0.3	0.4	0.8	0.2	0.7
WMAIN-5232(1)	J-7965	027-008	8	152.5	0.0	0.2	0.3	0.6	0.1	0.5
WMAIN-5232(2)	027-008	J-8138	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-5235(1)	J-8470	027-007	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-5235(2)	027-007	J-8415	6	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-5237	J-8138	J-8470	6	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-5239(1)	J-8470	027-006	6	152.5	0.1	0.2	0.3	0.5	0.1	0.3
WMAIN-5239(2)	027-006	J-6296	6	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-5241	J-6295	J-6296	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5243(1)	J-7250	J-9279	6	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5243(2)	J-9279	J-7251	6	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5247	J-6296	J-7250	6	152.5	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5249	J-8138	J-7251	8	152.5	0.1	0.2	0.4	0.7	0.1	0.4
WMAIN-5251	J-6799	J-6800	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5252	J-6799	J-8138	6	152.5	0.0	0.2	0.2	0.5	0.0	0.2
WMAIN-5255(1)	J-6799	027-034	6	152.5	0.1	0.2	0.3	0.6	0.1	0.3
WMAIN-5255(2)(1)	027-034	027-042	6	152.5	0.1	0.3	0.4	0.6	0.1	0.4
WMAIN-5255(2)(2)	027-042	J-7038	6	152.5	0.1	0.3	0.4	0.6	0.1	0.4
WMAIN-5258(1)	J-7592	038-044	6	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5258(2)	038-044	J-7028	6	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5261(1)	J-7592	038-041	8	140	0.0	0.2	0	0.6	0.0	0
WMAIN-5261(2)	038-041	J-7593	8	140	0.0	0.2	0	0.6	0.0	0
WMAIN-5264	J-7271	J-7592	8	140	0.0	0.7	0	1.2	0.0	0
WMAIN-5265	J-7028	J-6031	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5266	J-6031	J-6032	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5267(1)	J-7450	045-007	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5267(2)(1)	045-007	045-008	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5267(2)(2)	045-008	J-7155	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5269(1)	J-7780	045-015	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5269(2)	045-015	J-6721	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-5273	J-7450	J-7272	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5274	J-8204	J-6008	6	140	0.0	0.1	0.2	0.3	0.1	0.2
WMAIN-5277(1)	J-6007	045-020	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5277(2)	045-020	J-6008	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5279	J-6721	J-7272	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-5281(1)	J-7272	045-014	8	140	0.0	0.2	0.2	0.5	0.0	0.2
WMAIN-5281(2)	045-014	J-6349	8	140	0.0	0.2	0.2	0.5	0.0	0.2
WMAIN-5283	J-7272	J-7273	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5286A	J-6350	J-6051	8	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-5286B	J-6349	J-6350	8	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-5289A	J-6007	J-8376	6	140	0.0	0.2	0.2	0.4	0.1	0.3
WMAIN-5289B(1)	J-8376	045-021	6	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-5289B(2)	045-021	J-6050	6	140	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-5290(1)	J-7987	045-012	8	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-5290(2)(1)	045-012	045-013	8	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-5290(2)(2)	045-013	J-6349	8	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-5292	J-6586	J-6587	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5296(1)	J-7155	045-028	8	140	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-5296(2)(1)	045-028	045-027	8	140	0.0	0.1	0.1	0.5	0.0	0.2
WMAIN-5296(2)(2)	045-027	J-6180	8	140	0.0	0.1	0.1	0.5	0.0	0.2
WMAIN-5297(1)	J-7155	045-010	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5297(2)	045-010	J-6482	8	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5299(1)	J-6587	045-011	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5299(2)	045-011	J-7155	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5301(1)	J-7186	J-8641	16	140	0.0	0.2	0.4	0.9	0.2	0.9
WMAIN-5301(2)	J-8641	J-7187	16	140	0.0	0.2	0.4	1	0.2	1
WMAIN-5304(1)	J-7579	036-001	16	140	0.0	0.2	0.4	0.9	0.2	0.9
WMAIN-5304(2)	036-001	J-7186	16	140	0.0	0.2	0.4	0.9	0.2	0.9
WMAIN-5306(1)	J-5086	045-032	16	140	0.0	0.2	0.4	0.9	0.2	0.9
WMAIN-5306(2)	045-032	J-7579	16	140	0.0	0.2	0.4	0.9	0.2	0.9
WMAIN-5308	J-6482	J-6483	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5310	J-7987	J-6587	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5313	J-6360	J-6361	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5315	J-6050	J-6299	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5316	J-6050	J-6051	6	152.5	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5318	J-6051	J-7247	6	140	0.0	0.7	0	1	0.0	0.1
WMAIN-5319(1)	J-6360	045-023	6	140	0.0	0.2	0	0.5	0.0	0.1
WMAIN-5319(2)(1)	045-023	045-022	6	140	0.0	0.2	0	0.5	0.0	0.1
WMAIN-5319(2)(2)	045-022	J-7247	6	140	0.0	0.2	0	0.5	0.0	0.1
WMAIN-5321(1)	J-6606	045-024	6	140	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-5321(2)	045-024	J-6360	6	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-5325(1)	J-7601	035-014	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5325(2)(1)	035-014	035-015	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5325(2)(2)	035-015	J-7602	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5326	035-013	J-7304	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5329	J-7305	J-8557	6	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5330	J-7449	J-6210	6	152.5	0.0	0.1	0.1	0.2	0.0	0.1
WMAIN-5332	J-6210	035-013	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5335(1)	J-6210	035-009	6	152.5	0.2	0.4	0.5	0.7	0.2	0.5
WMAIN-5335(2)	035-009	J-6211	6	152.5	0.2	0.4	0.5	0.7	0.2	0.5
WMAIN-5337(1)	J-8181	035-010	6	152.5	0.0	0.2	0.2	0.5	0.0	0.2
WMAIN-5337(2)	035-010	J-6210	6	152.5	0.1	0.2	0.3	0.5	0.1	0.3
WMAIN-5340(1)	J-7829	035-003	8	152.5	0.0	0.1	0	0.3	0.0	0
WMAIN-5340(2)(1)	035-003	035-004	8	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5340(2)(2)	035-004	J-8557	8	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5342(1)	J-8557	035-005	8	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-5342(2)(1)	035-005	035-023	8	152.5	0.0	0.2	0.3	0.7	0.0	0.3
WMAIN-5342(2)(2)	035-023	J-8453	8	152.5	0.0	0.2	0.3	0.7	0.0	0.3
WMAIN-5345	J-7304	J-7305	6	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5348(1)(1)	J-7305	035-006	6	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5348(1)(2)	035-006	035-007	6	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5348(2)	035-007	J-7449	6	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5351(1)	J-7829	035-008	6	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5351(2)	035-008	J-7449	6	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5353(1)(1)	J-8180	035-001	8	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5353(1)(2)	035-001	035-002	8	152.5	0.0	0.1	0	0.5	0.0	0
WMAIN-5353(2)	035-002	J-7829	8	152.5	0.0	0.1	0	0.5	0.0	0
WMAIN-5355A(1)	J-7624	036-004	6	152.5	0.2	0.4	0.6	0.8	0.2	0.6
WMAIN-5355A(2)	036-004	035-012	6	152.5	0.3	0.4	0.6	0.8	0.3	0.7
WMAIN-5355B	035-012	J-5269	6	152.5	0.3	0.4	0.7	0.8	0.3	0.7
WMAIN-5358(1)	J-7623	035-011	6	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-5358(2)	035-011	J-6211	6	152.5	0.1	0.2	0.4	0.5	0.1	0.4
WMAIN-5361	J-7624	J-6285	12	140	0.0	0.1	0	0.5	0.1	0.5
WMAIN-5362	J-8180	J-8181	12	152.5	0.0	0.1	0.1	0.6	0.1	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5364	J-7623	J-7624	12	152.5	0.0	0.1	0.1	0.4	0.0	0.4
WMAIN-5365	J-6787	J-8181	12	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-5368(1)	J-6787	036-003	12	152.5	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-5368(2)	036-003	J-7623	12	152.5	0.0	0.1	0	0.5	0.0	0.3
WMAIN-5369	J-6786	J-6787	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5372(1)	J-8473	036-002	12	152.5	0.0	0.1	0.2	0.7	0.1	0.7
WMAIN-5372(2)	036-002	J-8180	12	152.5	0.0	0.1	0.2	0.7	0.1	0.7
WMAIN-5375(1)	J-6035	036-048	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5375(2)	036-048	J-8306	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5376	J-6034	J-6035	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5379	J-7020	J-7326	6	140	0.2	0.6	0.5	0.9	0.6	0.9
WMAIN-5381(1)	J-7327	036-009	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5381(2)	036-009	J-7383	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5383(1)	J-5782	036-006	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5383(2)	036-006	J-6846	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5385	J-6846	J-5782	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5387	J-5783	J-7020	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-5389	J-7110	J-8328	4	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5391(1)	J-7326	036-008	6	140	0.2	0.6	0.5	0.9	0.6	0.9
WMAIN-5391(2)	036-008	J-7327	6	140	0.2	0.6	0.4	0.9	0.5	0.8
WMAIN-5392(1)	J-6758	036-005	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5392(2)	036-005	J-6846	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5396(1)	J-7327	036-019	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-5396(2)	036-019	J-7275	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5398(1)(1)	J-7334	036-023	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5398(1)(2)	036-023	036-024	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5398(2)	036-024	J-8822	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5399	J-8274	J-6055	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5402(1)	J-7020	036-007	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5402(2)	036-007	J-6035	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5405	J-5783	J-6787	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-5408	J-8224	J-8225	8	152.5	0.0	0.1	0.3	0.5	0.0	0.3
WMAIN-5410(1)	J-8224	034-009	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5410(2)	034-009	J-8534	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5412(1)	J-8229	034-008	8	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-5412(2)	034-008	J-8224	8	152.5	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-5414(1)	J-8229	034-007	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5414(2)	034-007	J-8532	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5416(1)	J-6612	034-006	8	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5416(2)	034-006	J-8229	8	152.5	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5419	J-8190	J-6612	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-5420	J-6612	J-6613	8	152.5	0.1	0.4	0.5	1	0.2	0.7
WMAIN-5422(1)	J-6613	034-005	8	152.5	0.1	0.3	0.4	0.8	0.2	0.6
WMAIN-5422(2)(1)	034-005	034-012	8	152.5	0.1	0.2	0.4	0.7	0.2	0.6
WMAIN-5422(2)(2)	034-012	J-7446	8	152.5	0.1	0.2	0.4	0.7	0.2	0.6
WMAIN-5425	J-8737	J-6613	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-5429(1)	J-6502	031-044	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5429(2)	031-044	J-7300	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5431	J-7300	J-7301	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5432(1)	J-7300	031-051	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5432(2)	031-051	J-8408	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5434(1)	J-8408	031-049	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5434(2)	031-049	J-5672	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5436	032-016	J-6992	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5438	J-6992	J-8634	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-5439	032-018	032-016	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5441	J-7005	032-018	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5442	J-8078	J-7750	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5444	J-6267	J-6268	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5446	J-6268	J-8078	8	140	0.0	0.1	0.1	0.3	0.0	0.3
WMAIN-5449	J-6435	J-6436	4	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5450	J-7750	J-6812	8	140	0.1	0.3	0.3	0.7	0.3	0.7
WMAIN-5452(1)	J-6435	032-004	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5452(2)	032-004	J-7005	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5454(1)	J-8078	032-002	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5454(2)	032-002	J-8234	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5456(1)	J-7750	032-003	8	140	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5456(2)	032-003	J-6435	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5458(1)	J-7888	012-004	16	140	0.0	0.1	0.2	0.7	0.1	0.7
WMAIN-5458(2)	012-004	J-5695	16	140	0.0	0.1	0.2	0.7	0.1	0.7
WMAIN-5460(1)(1)	J-7889	011-009	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5460(1)(2)	011-009	011-010	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5460(2)	011-010	J-7738	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5462	J-7888	J-7889	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5464	J-7681	J-7682	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5466(1)	J-7682	012-009	8	152.5	0.0	0.1	0	0.4	0.0	0.3
WMAIN-5466(2)	012-009	J-7265	8	152.5	0.0	0.1	0	0.4	0.1	0.3
WMAIN-5468(1)(1)	J-8750	012-006	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5468(1)(2)	012-006	012-008	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5468(2)	012-008	J-7681	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5472(1)	J-7889	012-005	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5472(2)	012-005	J-8750	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5474(1)	J-7682	012-007	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5474(2)	012-007	J-8750	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5476	J-7738	J-7681	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-5478(1)	J-8023	023-028	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5478(2)	023-028	J-8380	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5480(1)	J-6785	010-003	6	152.5	0.0	0.1	0	0.4	0.0	0.1
WMAIN-5480(2)(1)	010-003	010-006	6	152.5	0.0	0.1	0	0.4	0.0	0.1
WMAIN-5480(2)(2)	010-006	J-7348	6	152.5	0.0	0.1	0	0.4	0.0	0.1
WMAIN-5483	J-7117	J-7348	6	152.5	0.0	0.2	0	0.5	0.0	0.2
WMAIN-5485	J-6933	J-6934	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5487	J-7105	J-6784	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5490(1)	J-7117	010-005	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-5490(2)	010-005	J-8100	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5493(1)	J-7592	038-040	8	152.5	0.0	0.2	0	0.6	0.0	0.1
WMAIN-5493(2)	038-040	J-8046	8	152.5	0.0	0.2	0.1	0.6	0.0	0.1
WMAIN-5495(1)	J-7593	038-043	6	152.5	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5495(2)	038-043	J-7028	6	152.5	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5499(1)	J-8537	039-003	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5499(2)	039-003	J-8377	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5501(1)(1)	J-8537	039-002	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5501(1)(2)	039-002	039-001	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5501(2)	039-001	J-8708	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5503(1)	J-8266	039-005	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-5503(2)	039-005	J-8536	12	152.5	0.1	0.2	0.5	0.8	0.2	0.8
WMAIN-5506(1)	J-8536	039-004	8	152.5	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-5506(2)	039-004	J-8537	8	152.5	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-5509(1)	J-8708	039-006	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5509(2)	039-006	J-8378	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5511	J-8266	J-8377	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5513(1)	J-8378	039-009	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5513(2)	039-009	J-7781	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-5515(1)	J-8377	039-008	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-5515(2)	039-008	J-8378	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-5518(1)	J-8265	039-007	12	152.5	0.1	0.1	0.4	0.7	0.1	0.7
WMAIN-5518(2)	039-007	J-8266	12	152.5	0.1	0.1	0.4	0.7	0.1	0.7
WMAIN-5519(1)	J-8167	039-041	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-5519(2)	039-041	J-8265	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-5521(1)	J-8322	039-011	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5521(2)	039-011	J-8668	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5523(1)	J-7781	039-010	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-5523(2)	039-010	J-8322	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-5524(1)	J-7586	039-048	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5524(2)	039-048	J-7781	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5527(1)	J-8322	039-046	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5527(2)	039-046	J-7621	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5528(1)	J-7010	039-038	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5528(2)	039-038	J-7762	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5531	J-7010	J-7011	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5532	J-7032	J-7010	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5535	J-7032	J-7033	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5536(1)	J-7736	039-037	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5536(2)	039-037	J-7032	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5537	J-5645	J-5646	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5538	J-5646	J-7103	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-5541(1)	J-7101	023-010	6	152.5	0.1	0.6	0.4	1	0.5	0.9
WMAIN-5541(2)	023-010	J-6407	6	152.5	0.1	0.6	0.5	1	0.5	0.9
WMAIN-5543	J-7101	J-7102	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5545	J-7099	J-7101	6	152.5	0.1	0.4	0.3	0.8	0.3	0.7
WMAIN-5547	J-7099	J-7100	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5549(1)	J-6707	014-008	12	152.5	0.2	0.4	0.8	1.1	0.3	1.1
WMAIN-5549(2)(1)	014-008	014-009	12	152.5	0.2	0.3	0.8	1.1	0.3	1
WMAIN-5549(2)(2)(1)	014-009	014-010	12	152.5	0.2	0.3	0.8	1.1	0.3	1
WMAIN-5549(2)(2)(2)	014-010	J-7253	12	152.5	0.2	0.3	0.8	1.1	0.3	1
WMAIN-5551(1)(1)	J-5420	015-020	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5551(1)(2)	015-020	J-5723	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5551(2)(1)	J-5723	J-8817	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5551(2)(2)	J-8817	J-7885	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5554(1)	J-7885	015-019	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5554(2)	015-019	J-8481	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5555(1)	J-8481	015-018	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5555(2)	015-018	J-8324	12	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5557	J-8558	J-8702	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5560(1)	J-8313	031-017	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5560(2)	031-017	J-8565	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5562	017-001	J-5753	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-5563(1)	J-8614	031-050	16	140	0.0	0.2	0.2	0.8	0.2	0.8
WMAIN-5563(2)	031-050	J-5362	16	140	0.0	0.2	0.2	0.8	0.2	0.8
WMAIN-5565(1)	J-5815	017-004	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5565(2)	017-004	017-005	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5566(1)	017-005	017-018	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5566(2)	017-018	J-5882	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5568	J-5952	J-5953	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5569(1)(1)	J-5933	036-010	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-5569(1)(2)	036-010	045-001	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5569(2)(1)	045-001	045-026	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5569(2)(2)	045-026	J-6180	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5571	J-5429	052-006	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5573	J-5428	J-5429	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-5574	044-020	J-6757	4	140	0.0	0.0	0	0	0.0	0
WMAIN-5576(1)	J-6523	037-003	8	140	0.2	0.5	0.5	0.9	0.2	0.7
WMAIN-5576(2)	037-003	J-8514	8	140	0.1	0.5	0.5	0.9	0.2	0.6
WMAIN-5578	J-8514	J-7029	8	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-5580	J-5094	J-6609	12	140	0.0	0.2	0.3	0.8	0.1	0.4
WMAIN-5581	J-5225	J-5093	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5582(1)	J-8120	J-9277	4	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-5582(2)	J-9277	J-5551	4	140	0.1	0.2	0.2	0.3	0.2	0.3
WMAIN-5585(1)	J-8119	030-016	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-5585(2)	030-016	J-8120	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-5586	J-6269	J-6852	4	140	0.1	0.3	0.3	0.5	0.3	0.5
WMAIN-5590(1)	J-6269	J-9250	3	130	0.0	0.0	0	0.1	0.0	0
WMAIN-5590(2)	J-9250	J-7277	3	130	0.0	0.1	0	0.2	0.1	0.1
WMAIN-5591	J-7007	J-5754	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-5593	J-8120	J-6513	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-5595(1)(1)	J-5551	030-021	6	140	0.1	0.5	0.4	0.8	0.5	0.8
WMAIN-5595(1)(2)	030-021	030-042	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-5595(2)	030-042	J-5754	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-5599	J-6513	J-5755	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5601	J-8365	J-7007	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5604(1)	J-8365	030-045	10	152.5	0.1	0.2	0.4	0.8	0.2	0.8
WMAIN-5604(2)(1)	030-045	030-044	10	152.5	0.1	0.3	0.4	0.9	0.2	0.8
WMAIN-5604(2)(2)	030-044	J-5679	10	152.5	0.1	0.3	0.4	0.9	0.2	0.8
WMAIN-5606	J-7531	J-8365	10	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-5607	J-7901	J-8365	6	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5609	J-6877	J-7901	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-5612	J-5760	J-5811	6	140	0.0	0.2	0.2	0.4	0.1	0.4
WMAIN-5614(1)	J-5759	030-018	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-5614(2)	030-018	J-5760	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-5616	J-5734	J-5908	6	140	0.1	0.4	0.3	0.7	0.3	0.6
WMAIN-5617(1)	J-5760	030-019	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5617(2)	030-019	J-5956	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-5618	J-7584	J-5908	6	140	0.2	0.6	0.4	0.9	0.5	0.8
WMAIN-5619(1)	J-7130	022-016	6	152.5	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-5619(2)(1)	022-016	022-015	6	152.5	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-5619(2)(2)	022-015	J-6110	6	152.5	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-5622	J-6110	J-5741	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5625	J-7779	J-6624	6	140	0.0	0.2	0.2	0.5	0.2	0.4
WMAIN-5627	J-7094	J-7705	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-5629(1)	J-5443	037-035	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5629(2)(1)	037-035	037-034	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5629(2)(2)	037-034	J-6551	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5631	J-6551	J-7977	6	140	0.0	0.4	0.1	0.8	0.0	0.1
WMAIN-5632	J-5512	J-8188	8	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-5635(1)	J-7837	037-022	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5635(2)	037-022	J-7534	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5636	J-7174	037-028	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-5639(1)	J-8124	037-020	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-5639(2)	037-020	J-8123	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-5643(1)	J-6524	037-016	6	140	0.1	0.2	0.2	0.5	0.1	0.3
WMAIN-5643(2)(1)	037-016	037-017	6	140	0.0	0.2	0.2	0.4	0.1	0.2
WMAIN-5643(2)(2)	037-017	J-6610	6	140	0.0	0.2	0.2	0.4	0.1	0.2
WMAIN-5645(1)	J-7176	028-002	6	140	0.1	0.3	0.4	0.6	0.2	0.4
WMAIN-5645(2)	028-002	J-7177	6	140	0.1	0.3	0.4	0.6	0.1	0.4

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5646(1)	J-7319	038-014	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-5646(2)	038-014	J-7271	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5650(1)	J-5931	038-031	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5650(2)	038-031	J-5970	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5652	J-5985	J-6916	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-5653(1)	J-8480	044-028	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5653(2)	044-028	J-7687	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-5657(1)	J-8480	044-027	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5657(2)	044-027	J-7561	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-5658	J-5895	J-6757	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5661(1)	J-8732	038-034	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5661(2)	038-034	J-7555	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-5664(1)	J-6790	J-5341	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-5664(2)	J-5341	J-6791	8	140	0.0	0.2	0	0.6	0.2	0.6
WMAIN-5665	J-6399	J-6400	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5666	J-5877	J-5878	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5668(1)(1)	J-8514	044-017	8	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-5668(1)(2)	044-017	044-048	8	140	0.1	0.2	0.3	0.5	0.1	0.5
WMAIN-5668(2)	044-048	J-7381	8	140	0.1	0.2	0.3	0.5	0.1	0.5
WMAIN-5669	J-5894	J-5895	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5671(1)	J-7608	044-035	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5671(2)	044-035	J-5594	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5674(1)	J-7736	039-036	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5674(2)	039-036	J-6376	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5677	J-6377	J-6908	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5678(1)	J-6908	039-042	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5678(2)	039-042	J-6909	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5679(1)(1)	J-6377	039-035	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5679(1)(2)	039-035	039-034	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5679(2)	039-034	J-7909	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-5682	J-6376	J-6377	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-5686	J-7908	J-7909	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-5687(1)	J-7909	039-039	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-5687(2)	039-039	J-7762	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-5689(1)	J-7762	039-040	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-5689(2)	039-040	J-8167	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-5691(1)	J-7556	039-054	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-5691(2)	039-054	J-6376	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-5695(1)(1)	J-8258	039-026	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5695(1)(2)	039-026	039-025	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5695(2)	039-025	J-8577	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5696(1)	J-8577	039-024	6	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5696(2)	039-024	J-7849	6	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5698(1)	J-7849	039-016	6	152.5	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-5698(2)	039-016	J-7338	6	152.5	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-5701(1)	J-7849	039-023	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5701(2)	039-023	J-6487	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5705(1)	J-7338	039-017	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5705(2)	039-017	J-8063	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5706	J-7338	J-7339	6	152.5	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-5708(1)	J-7339	039-013	6	152.5	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-5708(2)	039-013	J-7487	6	152.5	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-5711(1)	J-7339	039-015	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5711(2)	039-015	J-8247	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5712(1)	J-7487	039-012	6	152.5	0.5	1.3	0.9	1.5	1.2	1.4
WMAIN-5712(2)	039-012	038-059	6	152.5	0.5	1.3	0.9	1.5	1.2	1.4
WMAIN-5715	J-7487	J-6309	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-5716	038-001	J-6611	16	140	0.0	0.2	0.1	0.9	0.0	0.1
WMAIN-5717	038-059	038-001	16	140	0.0	0.2	0.1	1	0.0	0.1
WMAIN-5719(1)	J-6309	039-014	8	152.5	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-5719(2)	039-014	J-8063	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-5720	J-6309	J-6310	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5722(1)	J-8063	039-018	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-5722(2)	039-018	J-8064	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-5724(1)	J-8064	039-020	8	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-5724(2)	039-020	J-6486	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-5726(1)	J-8064	039-019	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5726(2)	039-019	J-8373	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5728	J-6486	J-6487	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5731(1)	J-6487	039-022	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5731(2)	039-022	J-7235	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5733	J-5371	J-7133	8	152.5	0.0	0.3	0.1	0.8	0.3	0.8
WMAIN-5735(1)	J-6727	039-032	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5735(2)	039-032	J-6728	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5737(1)	J-7133	039-030	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5737(2)	039-030	J-6782	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5739	J-6782	J-7236	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5740	J-7235	J-7236	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5743(1)	J-7236	039-029	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5743(2)	039-029	J-6518	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5746	J-6518	J-7295	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5747	J-8258	J-7235	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5749(1)	J-7295	039-027	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5749(2)	039-027	J-7296	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5750	J-7403	J-7295	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5753(1)	J-6438	042-028	12	140	0.1	0.5	0.6	1.3	0.5	1.3
WMAIN-5753(2)	042-028	J-5371	12	140	0.1	0.5	0.6	1.3	0.5	1.3
WMAIN-5755(1)	J-7403	039-031	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5755(2)	039-031	J-8438	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5757(1)	J-7072	039-033	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-5757(2)	039-033	J-6727	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-5759(1)	J-6518	039-028	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5759(2)	039-028	J-6519	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5761(1)	J-6486	039-021	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5761(2)	039-021	J-7133	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-5762	J-7296	J-8258	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5765	J-6782	J-6783	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5767	J-6325	J-6326	8	140	0.1	0.6	0.5	1.1	0.6	1.1
WMAIN-5769(1)(1)	J-6326	042-002	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5769(1)(2)	042-002	J-7724	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5769(2)	J-7724	J-8513	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5771	J-6326	J-7708	8	140	0.1	0.4	0.4	0.8	0.4	0.8
WMAIN-5773(1)(1)	J-7708	042-003	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5773(1)(2)	042-003	J-7723	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5773(2)	J-7723	J-8546	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5775(1)	J-7708	042-004	8	140	0.1	0.5	0.4	0.9	0.4	0.9
WMAIN-5775(2)	042-004	J-8166	8	140	0.1	0.4	0.4	0.9	0.4	0.9
WMAIN-5776(1)	J-7826	041-012	8	152.5	0.1	0.7	0.5	1.3	0.7	1.3
WMAIN-5776(2)	041-012	J-8166	8	152.5	0.1	0.7	0.5	1.3	0.7	1.3
WMAIN-5779(1)	J-8166	042-005	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5779(2)	042-005	J-7278	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5781	J-8212	J-6542	12	140	0.0	0.2	0.3	0.8	0.2	0.8

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5783(1)	J-6542	042-001	12	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-5783(2)	042-001	J-6325	12	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-5785	J-6325	J-7072	12	140	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-5788(1)	J-7279	042-007	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5788(2)	042-007	J-7941	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-5790(1)	J-6561	055-015	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-5790(2)	055-015	J-7663	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-5793	J-7663	J-8405	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5795(1)	J-6284	J-9276	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5795(2)	J-9276	J-8332	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5798(1)	J-6562	055-020	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-5798(2)	055-020	J-6947	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-5801	J-5662	J-6517	12	152.5	0.1	0.4	0.4	1.2	0.4	1.2
WMAIN-5802	J-6283	J-6284	12	152.5	0.1	0.4	0.4	1.1	0.4	1.1
WMAIN-5804(1)	J-6517	055-019	12	152.5	0.1	0.4	0.4	1.2	0.4	1.2
WMAIN-5804(2)	055-019	J-6283	12	152.5	0.1	0.4	0.4	1.2	0.4	1.2
WMAIN-5807(1)	J-6283	055-021	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5807(2)	055-021	J-8402	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5808(1)	J-7663	055-014	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5808(2)	055-014	J-7664	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5810	J-7178	J-7179	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5811(1)(1)	J-7179	055-009	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5811(1)(2)	055-009	055-008	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5811(2)	055-008	J-7346	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5813	J-7664	J-7347	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-5816(1)	J-7347	055-023	8	152.5	0.0	0.3	0.2	0.9	0.3	0.9
WMAIN-5816(2)	055-023	J-7453	8	152.5	0.0	0.3	0.2	0.9	0.3	0.9
WMAIN-5817	J-7346	J-7347	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5820(1)	J-7349	055-011	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5820(2)	055-011	J-7178	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5823(1)	J-7349	055-012	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5823(2)(1)	055-012	055-013	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5823(2)(2)	055-013	J-7664	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5824(1)	J-7349	055-010	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5824(2)	055-010	J-6996	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5827	J-7813	J-7346	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-5829(1)(1)	J-5662	055-022	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-5829(1)(2)	055-022	054-001	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-5829(2)	054-001	J-6995	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-5831(1)	J-6995	055-005	6	152.5	0.3	1.5	0.6	1.6	1.5	1.6
WMAIN-5831(2)	055-005	J-6996	6	152.5	0.3	1.5	0.6	1.6	1.5	1.6
WMAIN-5833	J-6996	J-7232	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5835(1)(1)	J-7232	055-006	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5835(1)(2)	055-006	055-007	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5835(2)	055-007	J-7813	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5838	J-7232	J-7329	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-5840	J-7813	J-7715	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-5842	J-6401	J-6477	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-5844(1)	J-6477	055-003	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5844(2)	055-003	J-7714	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5847	J-7714	J-7715	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-5850	J-7329	J-7714	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5851	J-6997	J-7869	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5855	J-5969	J-6997	8	152.5	0.2	0.8	0.6	1.4	0.8	1.4
WMAIN-5857(1)	J-6997	055-004	8	152.5	0.1	0.3	0.3	0.8	0.3	0.8
WMAIN-5857(2)	055-004	J-7329	8	152.5	0.1	0.3	0.3	0.8	0.3	0.8
WMAIN-5859	J-6401	J-6402	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5860(1)	J-7869	055-001	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5860(2)	055-001	J-6401	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-5863(1)	J-6476	055-002	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5863(2)	055-002	J-6477	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-5864	J-5968	J-5969	12	152.5	0.2	0.9	0.7	1.9	0.9	1.9
WMAIN-5866(1)	J-8045	054-020	8	152.5	1.9	5.7	2.2	4	5.7	4
WMAIN-5866(2)	054-020	J-5968	8	152.5	1.9	5.6	2.2	3.9	5.6	3.9
WMAIN-5869(1)	J-8044	054-019	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5869(2)	054-019	J-8530	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5871(1)	J-7054	054-018	8	152.5	0.6	1.8	1.2	2.1	1.8	2.1
WMAIN-5871(2)	054-018	J-8044	8	152.5	0.6	1.8	1.2	2.1	1.8	2.1
WMAIN-5873	J-8044	J-8045	8	152.5	0.6	1.7	1.1	2	1.7	2
WMAIN-5874	J-7397	J-7597	8	152.5	0.2	0.5	0.6	1.1	0.5	1.1
WMAIN-5876(1)	J-7396	054-022	8	152.5	0.6	1.7	1.2	2.1	1.7	2.1
WMAIN-5876(2)	054-022	J-7397	8	152.5	0.6	1.7	1.2	2.1	1.7	2.1
WMAIN-5879(1)	J-7396	054-021	8	152.5	0.6	1.6	1.1	2	1.6	2
WMAIN-5879(2)	054-021	J-8045	8	152.5	0.5	1.5	1.1	2	1.5	2
WMAIN-5882	J-6595	J-7054	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-5884(1)	J-7707	054-024	8	152.5	0.2	0.5	0.6	1	0.5	1
WMAIN-5884(2)	054-024	J-7597	8	152.5	0.2	0.5	0.6	1.1	0.5	1.1
WMAIN-5886(1)	J-7597	054-023	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5886(2)	054-023	J-7598	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5888	J-7707	J-7722	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5890	J-7054	J-7707	8	152.5	0.1	0.4	0.5	1	0.4	1
WMAIN-5892(1)	J-6594	054-017	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-5892(2)	054-017	J-6595	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-5894	J-6595	J-7870	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5896	J-5079	J-5319	8	152.5	0.4	1.3	1	1.8	1.3	1.8
WMAIN-5897	J-6594	J-5079	8	152.5	3.8	11.4	3.2	5.8	11.4	5.8
WMAIN-5899(1)	J-7502	054-009	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5899(2)	054-009	J-7544	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-5903	J-7764	J-7068	6	152.5	0.1	0.5	0.4	0.8	0.5	0.8
WMAIN-5905(1)	J-7373	054-013	6	152.5	0.2	0.5	0.5	0.9	0.5	0.9
WMAIN-5905(2)	054-013	J-7764	6	152.5	0.2	0.5	0.5	0.9	0.5	0.9
WMAIN-5907	J-7373	J-7374	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5908	J-5448	J-5449	6	152.5	0.2	0.8	0.6	1.1	0.8	1.1
WMAIN-5909(1)	J-5449	054-014	6	152.5	0.2	0.7	0.6	1.1	0.7	1.1
WMAIN-5909(2)	054-014	J-7373	6	152.5	0.2	0.6	0.5	1	0.6	1
WMAIN-5911	J-7502	J-7514	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5913	J-7067	J-7068	6	152.5	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-5914(1)	J-7067	054-010	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5914(2)	054-010	J-7502	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-5918	J-7544	J-7397	8	152.5	1.3	3.8	1.8	3.2	3.8	3.2
WMAIN-5920	J-7544	J-7545	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5922	J-7563	J-7544	8	152.5	1.1	3.3	1.6	3	3.3	3
WMAIN-5924	J-6597	J-7563	8	152.5	1.1	3.2	1.6	2.9	3.2	2.9
WMAIN-5925	J-7231	J-7107	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5929(1)(1)	J-7563	054-008	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5929(1)(2)	054-008	054-007	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5929(2)	054-007	J-7231	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5930	J-7107	J-5448	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-5932(1)	J-6596	054-015	8	152.5	0.1	0.3	0.5	0.8	0.2	0.7
WMAIN-5932(2)	054-015	J-5448	8	152.5	0.1	0.3	0.5	0.8	0.2	0.7
WMAIN-5935(1)	J-6597	054-006	8	152.5	0.4	1.1	0.9	1.6	1.1	1.6
WMAIN-5935(2)	054-006	J-7107	8	152.5	0.4	1.0	0.9	1.6	1.0	1.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-5938(1)(1)	J-5319	126-005	8	152.5	0.8	2.3	1.4	2.4	2.3	2.4
WMAIN-5938(1)(2)	126-005	054-016	8	152.5	0.7	2.1	1.3	2.3	2.1	2.3
WMAIN-5938(2)(1)	054-016	126-001	8	152.5	0.7	2.1	1.3	2.3	2.1	2.3
WMAIN-5938(2)(2)	126-001	J-6596	8	152.5	0.7	2.1	1.3	2.3	2.1	2.3
WMAIN-5940	J-7109	018-043	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5941	J-7751	J-7752	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-5942(1)	J-7752	038-009	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5942(2)	038-009	J-7753	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-5945(1)	J-7177	028-003	6	140	0.1	0.1	0.2	0.4	0.1	0.2
WMAIN-5945(2)	028-003	J-5488	6	140	0.0	0.1	0.2	0.4	0.1	0.2
WMAIN-5946(1)	J-5434	028-024	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-5946(2)	028-024	J-8753	8	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-5947	J-5765	J-5766	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-5949	J-5766	J-5920	6	140	0.0	1.0	0.2	1.2	0.9	1.1
WMAIN-5950(1)	J-5920	022-004	6	140	0.0	1.0	0.2	1.2	0.9	1.1
WMAIN-5950(2)	022-004	J-5987	6	140	0.0	1.0	0.2	1.2	0.9	1.1
WMAIN-5951(1)	J-7378	027-024	8	140	0.1	1.4	0.4	1.7	0.1	0.4
WMAIN-5951(2)	027-024	J-7515	8	140	0.1	1.4	0.4	1.7	0.1	0.4
WMAIN-5952	J-5347	J-5348	4	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-5955	J-6234	J-6235	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5956(1)	J-6115	036-031	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-5956(2)(1)	036-031	J-9290	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-5956(2)(2)	J-9290	J-8620	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-5958	J-5317	J-5349	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5960	J-6758	J-6759	6	140	0.0	0.0	0	0	0.0	0
WMAIN-5962	J-8634	J-8466	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-5964(1)	J-8466	031-042	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5964(2)	031-042	J-7478	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5967(1)	019-002	019-013	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5967(2)	019-013	J-7188	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5968	J-5082	019-002	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5969	J-5714	J-5715	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5971	J-5863	J-5403	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-5974	J-6229	J-5689	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5975	J-5689	J-5690	8	140	0.0	0.0	0	0	0.0	0
WMAIN-5977(1)(1)	J-8620	036-058	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5977(1)(2)	036-058	J-9254	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5977(2)	J-9254	J-6535	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5980(1)	037-006	H-512	12	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-5980(2)	H-512	J-7125	12	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-5981(1)	J-5934	H-513	12	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-5981(2)	H-513	037-006	12	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-5983(1)	J-5087	037-004	12	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5983(2)(1)	037-004	H-518	12	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5983(2)(2)	H-518	037-005	12	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5985	J-7350	J-7351	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5987	J-5422	J-6921	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5988(1)	J-5423	036-016	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5988(2)	036-016	J-6197	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-5990	J-7284	J-6196	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-5993(1)	J-7276	036-018	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-5993(2)	036-018	J-8509	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-5994	J-6259	J-6260	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-5996(1)(1)	J-5674	026-028	12	140	0.0	0.1	0	0.5	0.0	0.2
WMAIN-5996(1)(2)	026-028	023-059	12	140	0.0	0.1	0	0.5	0.0	0.2
WMAIN-5996(2)	023-059	J-6955	12	140	0.0	0.1	0	0.5	0.0	0.2
WMAIN-5997	026-030	J-6116	12	140	0.0	0.1	0	0.6	0.0	0.3
WMAIN-5999(1)	J-6116	026-031	12	140	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-5999(2)	026-031	J-6117	12	140	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-6001(1)(1)	J-8758	026-023	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-6001(1)(2)	026-023	026-024	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-6001(2)	026-024	J-7245	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-6004	J-7123	J-6234	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6005(1)	J-6234	025-010	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6005(2)	025-010	J-8719	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6006	J-8719	J-6430	12	152.5	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6007(1)(1)(1)(1)	J-8223	145-001	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6007(1)(1)(1)(2)	145-001	145-003	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6007(1)(1)(2)(1)	145-003	145-004	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6007(1)(1)(2)(2)	145-004	145-005	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6007(1)(2)(1)(1)	145-005	J-9162	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6007(1)(2)(1)(2)	J-9162	145-006	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6007(1)(2)(2)	145-006	J-5756	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6007(2)	J-5756	145-007	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6009(1)(1)(1)	J-5391	H-552	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6009(1)(1)(2)	H-552	J-7689	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6009(1)(2)	J-7689	021-034	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6009(2)	021-034	J-6327	4	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6012(1)	J-7409	J-9278	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6012(2)(1)	J-9278	H-553	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-6012(2)(2)	H-553	J-6327	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-6014(1)	J-7704	H-554	4	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-6014(2)	H-554	J-7439	4	140	0.1	0.4	0.3	0.6	0.4	0.6
WMAIN-6015(1)	J-5302	013-001	16	140	0.1	0.3	0.7	1.2	0.3	1.2
WMAIN-6015(2)	013-001	J-8110	16	140	0.1	0.3	0.7	1.2	0.3	1.2
WMAIN-6016(1)	J-8110	013-002	16	140	0.1	0.3	0.7	1.2	0.3	1.2
WMAIN-6016(2)	013-002	J-5242	16	140	0.1	0.3	0.7	1.2	0.3	1.2
WMAIN-6017(1)(1)	J-5303	013-028	8	152.5	0.1	0.5	0.5	1	0.5	1
WMAIN-6017(1)(2)	013-028	J-6128	8	152.5	0.2	0.6	0.6	1.2	0.6	1.1
WMAIN-6017(2)	J-6128	J-5483	8	152.5	0.2	0.6	0.6	1.2	0.6	1.1
WMAIN-6018	J-5483	J-5484	8	152.5	0.2	0.6	0.6	1.2	0.6	1.1
WMAIN-6019(1)	J-5484	013-026	8	152.5	0.2	0.6	0.6	1.2	0.6	1.2
WMAIN-6019(2)(1)	013-026	013-025	8	152.5	0.2	0.7	0.6	1.2	0.7	1.2
WMAIN-6019(2)(2)	013-025	J-5427	8	152.5	0.2	0.7	0.6	1.2	0.7	1.2
WMAIN-6021(1)	J-8626	013-036	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6021(2)	013-036	J-8468	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6022(1)	013-034	013-035	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6022(2)	013-035	J-8626	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6023(1)	J-8585	013-033	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6023(2)	013-033	013-034	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6025(1)	J-8575	013-032	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6025(2)	013-032	J-8585	16	140	0.1	0.1	0.5	0.7	0.1	0.7
WMAIN-6027(1)	J-7103	023-015	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6027(2)	023-015	J-7105	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6029	J-7105	J-7106	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6031	J-7103	J-7104	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6032(1)	J-6355	038-007	16	140	0.0	0.1	0.2	0.7	0.0	0.2
WMAIN-6032(2)	038-007	J-6790	16	140	0.0	0.1	0.2	0.7	0.0	0.2
WMAIN-6034	J-6354	J-6355	8	140	0.0	0.3	0	0.7	0.0	0.1
WMAIN-6036(1)	J-6837	043-038	8	140	0.1	0.1	0.3	0.5	0.1	0.3
WMAIN-6036(2)	043-038	J-8490	8	140	0.0	0.1	0.3	0.5	0.1	0.3
WMAIN-6037(1)(1)	J-7513	043-046	8	140	0.0	0.0	0	0.1	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6037(1)(2)	043-046	043-045	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6037(2)(1)	043-045	043-044	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6037(2)(2)	043-044	J-8819	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6038(1)(1)	J-7668	043-048	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6038(1)(2)	043-048	043-047	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6038(2)	043-047	J-7512	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6042	J-7667	J-7668	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6044	J-6923	J-7667	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6046(1)	J-7165	043-034	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-6046(2)	043-034	J-8522	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-6048(1)	J-8522	043-033	8	140	0.1	0.2	0.3	0.7	0.2	0.7
WMAIN-6048(2)	043-033	J-7824	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6050	J-7824	J-7825	6	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-6053(1)	J-6918	043-032	8	140	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-6053(2)	043-032	J-7824	8	140	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-6056(1)	J-6917	043-002	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6056(2)	043-002	J-6918	8	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6059(1)	J-7552	042-025	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6059(2)	042-025	J-6736	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6061(1)	J-6543	042-014	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6061(2)	042-014	J-8815	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6063(1)	J-7614	042-012	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6063(2)	042-012	J-8694	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6065	J-6077	J-7052	12	140	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-6066	J-8658	J-8424	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-6068	J-8424	J-6772	6	140	0.0	0.8	0.1	1.1	0.8	1.1
WMAIN-6069(1)	J-6863	043-009	8	140	0.0	0.3	0.1	0.8	0.3	0.8
WMAIN-6069(2)	043-009	J-7021	8	140	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-6071	J-6135	J-6863	12	140	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-6073(1)	J-6857	043-008	8	140	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-6073(2)	043-008	J-8293	8	140	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-6074	J-8293	J-6863	8	140	0.0	0.4	0	0.8	0.4	0.8
WMAIN-6078(1)	J-6857	043-007	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6078(2)	043-007	J-6858	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6080(1)	J-6634	043-006	8	140	0.0	0.4	0.1	0.9	0.4	0.9
WMAIN-6080(2)	043-006	J-6857	8	140	0.0	0.4	0.1	0.9	0.4	0.9
WMAIN-6083(1)	J-5663	043-005	12	140	0.0	0.6	0.2	1.4	0.6	1.4
WMAIN-6083(2)	043-005	J-6633	12	140	0.0	0.6	0.2	1.4	0.6	1.4
WMAIN-6084	J-6633	J-6599	12	140	0.1	1.2	0.4	2	1.2	2
WMAIN-6086	J-6599	J-5506	12	140	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-6088	J-7546	J-7547	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6089(1)	J-8685	044-006	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6089(2)	044-006	J-6132	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6092(1)(1)	J-8578	053-038	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6092(1)(2)	053-038	053-037	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6092(2)(1)	053-037	053-036	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6092(2)(2)	053-036	J-5462	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6093	J-5462	J-5455	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6095	J-8578	J-8720	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6097	J-5628	J-8578	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6099(1)	J-7982	053-034	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6099(2)(1)	053-034	053-033	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6099(2)(2)	053-033	J-5627	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6100	J-5627	J-5628	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6102(1)	J-7982	053-035	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6102(2)	053-035	J-6568	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6104	J-7655	J-7656	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6106(1)	J-7559	053-005	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6106(2)	053-005	J-7656	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6109(1)	J-7654	053-007	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-6109(2)	053-007	J-7655	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6112(1)(1)	J-6096	053-031	8	140	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-6112(1)(2)	053-031	053-032	8	140	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-6112(2)	053-032	J-6139	8	140	0.1	0.3	0.4	0.7	0.1	0.5
WMAIN-6114	J-6096	J-6097	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6116(1)	J-6097	053-030	6	140	0.2	0.4	0.4	0.7	0.4	0.7
WMAIN-6116(2)	053-030	J-5799	6	140	0.2	0.5	0.5	0.8	0.5	0.8
WMAIN-6119	J-6084	J-5799	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6120(1)(1)	J-5822	053-028	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-6120(1)(2)	053-028	053-029	6	140	0.1	0.2	0.3	0.4	0.2	0.4
WMAIN-6120(2)	053-029	J-5798	6	140	0.1	0.2	0.3	0.4	0.2	0.4
WMAIN-6121	J-5798	J-5799	6	140	0.1	0.2	0.3	0.4	0.2	0.4
WMAIN-6123	J-5822	J-5823	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6126	J-7972	J-5822	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-6128(1)	J-7215	053-025	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6128(2)	053-025	J-7216	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6130	J-6227	J-6228	4	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6132	J-6369	J-6096	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-6134	J-7341	J-6369	8	140	0.1	0.1	0.3	0.5	0.1	0.4
WMAIN-6136(1)	J-7340	053-019	8	140	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-6136(2)	053-019	J-7341	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6138(1)	J-7153	J-9302	8	140	0.0	0.0	0	0	0.0	0
WMAIN-6138(2)	J-9302	J-7635	8	140	0.0	0.0	0	0	0.0	0
WMAIN-6139	J-7084	J-7085	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6142	168-038	J-8243	12	152.5	0.5	1.0	1.4	2	0.6	1.5
WMAIN-6146(1)	J-8524	167-038	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-6146(2)	167-038	J-7483	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6147	J-6247	J-6248	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6150	J-6097	J-7982	8	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-6151	J-6425	J-6426	8	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-6152	J-7085	J-7517	4	140	0.1	0.3	0.2	0.5	0.3	0.5
WMAIN-6154(1)	J-7153	011-003	4	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6154(2)	011-003	J-7154	4	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-6158(1)	J-7628	011-002	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6158(2)	011-002	J-7153	4	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-6160(1)	J-7085	011-001	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-6160(2)	011-001	J-7628	4	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6162(1)	J-7135	170-074	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6162(2)	170-074	J-8253	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6163	J-5663	J-6134	12	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-6164	J-5867	J-5868	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6165(1)	J-7068	054-011	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6165(2)	054-011	J-5867	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6166	J-6352	J-6353	8	140	0.5	1.5	1	1.8	1.5	1.8
WMAIN-6168	J-7340	J-7562	6	140	0.1	0.3	0.4	0.6	0.2	0.4
WMAIN-6170(1)	J-7562	053-018	6	140	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-6170(2)(1)	053-018	053-017	6	140	0.0	0.1	0.1	0.2	0.0	0.1
WMAIN-6170(2)(2)	053-017	J-7255	6	140	0.0	0.1	0.1	0.2	0.0	0.1
WMAIN-6172(1)	J-7215	053-027	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6172(2)	053-027	J-7972	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6174	J-6352	J-7215	6	140	0.1	0.4	0.4	0.7	0.4	0.7
WMAIN-6175	J-6227	J-6352	6	140	0.1	0.3	0.3	0.6	0.3	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6179(1)(1)	J-6085	053-023	8	140	0.2	0.5	0.6	1	0.5	1
WMAIN-6179(1)(2)	053-023	053-024	8	140	0.2	0.6	0.6	1	0.6	1
WMAIN-6179(2)	053-024	J-6352	8	140	0.2	0.6	0.6	1	0.6	1
WMAIN-6181(1)	J-7654	053-008	8	140	0.1	0.3	0.3	0.7	0.1	0.3
WMAIN-6181(2)	053-008	J-6471	8	140	0.1	0.3	0.3	0.7	0.1	0.3
WMAIN-6183(1)	J-7559	053-006	8	140	0.0	0.2	0.2	0.5	0.0	0.2
WMAIN-6183(2)	053-006	J-7654	8	140	0.0	0.2	0.2	0.5	0.0	0.2
WMAIN-6184(1)(1)(1)	J-6861	053-011	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6184(1)(1)(2)	053-011	053-057	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6184(1)(2)(1)(1)	053-057	053-048	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6184(1)(2)(1)(2)	053-048	053-047	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6184(1)(2)(2)(1)	053-047	053-012	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6184(1)(2)(2)(2)	053-012	053-046	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6184(2)	053-046	J-8497	12	140	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6187	J-5628	J-7219	12	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6189	J-5454	J-5455	12	140	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-6190(1)(1)	J-5777	J-8940	12	140	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-6190(1)(2)	J-8940	053-056	12	140	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-6190(2)	053-056	J-5454	12	140	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-6192	J-5218	J-5219	12	140	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-6194(1)(1)	J-5943	J-8975	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6194(1)(2)(1)(1)	J-8975	H-517	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6194(1)(2)(1)(2)	H-517	H-516	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6194(1)(2)(2)	H-516	044-015	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6194(2)	044-015	J-5952	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6195(1)	J-6757	044-019	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6195(2)	044-019	J-7382	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6197	J-5093	J-5094	6	140	0.7	2.0	1	1.8	1.8	1.6
WMAIN-6198	J-6186	J-5063	6	152.5	0.0	0.3	0.2	0.7	0.3	0.6
WMAIN-6199	J-5248	J-5815	6	152.5	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-6201(1)	J-8263	015-022	6	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6201(2)	015-022	J-6240	6	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6204	J-6638	J-5350	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6205	J-5350	J-5176	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6206	J-5176	J-5177	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6208	J-5943	044-014	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6210	J-5777	J-5778	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6212	J-5292	J-5293	10	152.5	0.1	0.5	0.5	1.2	0.4	1.1
WMAIN-6214(1)	J-7404	170-128	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6214(2)	170-128	J-8331	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6215(1)	J-7848	167-033	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6215(2)	167-033	J-7721	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6217	J-8214	J-7848	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6221(1)	J-7950	167-029	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6221(2)	167-029	J-8214	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6222(1)	J-7721	167-037	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6222(2)	167-037	J-8580	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6223	167-035	J-7720	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6225	J-8153	167-035	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6227(1)	J-7950	167-036	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6227(2)	167-036	J-8153	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6230	J-7848	J-8179	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6233(1)	J-6665	167-030	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6233(2)	167-030	J-8214	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6235(1)	J-8588	170-149	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-6235(2)	170-149	J-8098	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-6236(1)(1)	J-5887	018-012	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6236(1)(2)	018-012	018-011	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6236(2)	018-011	J-8592	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6237	J-5886	J-5887	4	152.5	0.5	2.1	0.7	1.5	2.1	1.5
WMAIN-6239	J-6866	J-6867	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6241(1)	J-7089	170-112	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6241(2)	170-112	J-7532	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6242	J-6172	J-6173	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6244(1)	J-6866	170-105	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6244(2)	170-105	J-7717	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6247(1)	J-8812	170-124	12	152.5	0.1	0.5	0.6	1.4	0.5	1.4
WMAIN-6247(2)	170-124	J-6983	12	152.5	0.1	0.4	0.6	1.2	0.4	1.2
WMAIN-6249(1)	J-8602	018-009	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6249(2)	018-009	J-6589	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6250	J-5680	J-5681	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6253	J-5680	J-6164	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6254	J-6164	J-8558	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6255(1)	J-5681	018-005	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6255(2)	018-005	J-7927	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6256(1)	J-7927	018-004	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6256(2)	018-004	J-5726	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6258(1)	J-5727	018-039	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6258(2)	018-039	J-5400	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6259(1)	J-8544	019-038	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-6259(2)(1)	019-038	019-039	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-6259(2)(2)	019-039	J-8314	8	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-6261(1)(1)(1)	J-5727	018-003	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6261(1)(1)(2)	018-003	J-5941	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6261(1)(2)	J-5941	J-5939	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6261(2)	J-5939	J-8203	16	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6262	019-025	J-8314	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6265(1)	J-5329	019-024	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6265(2)	019-024	J-7019	12	152.5	0.0	0.0	0.2	0.3	0.0	0.2
WMAIN-6267	J-7121	J-8447	8	152.5	0.3	0.7	0.7	1.2	0.7	1.2
WMAIN-6269(1)	J-7121	170-133	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-6269(2)	170-133	J-7791	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-6271	J-7120	J-7121	8	152.5	0.0	0.1	0.3	0.3	0.1	0.3
WMAIN-6273(1)(1)	J-6661	170-131	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-6273(1)(2)	170-131	170-130	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-6273(2)	170-130	J-8456	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-6276(1)	J-6431	170-127	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-6276(2)	170-127	J-7404	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-6277	J-5257	029-029	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6279	J-6702	J-6813	4	140	0.0	0.0	0	0	0.0	0
WMAIN-6280(1)	J-5129	029-028	12	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6281(1)	029-028	029-022	12	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6281(2)	029-022	J-7417	12	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6283	J-5607	J-5608	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6285(1)	J-7417	029-019	12	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6285(2)	029-019	J-5607	12	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6289	J-5555	J-7417	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6290	J-5129	J-5257	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6294(1)	J-6701	J-9321	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6294(2)	J-9321	J-5129	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6295	J-8648	J-5258	2	130	0.0	0.1	0.1	0.2	0.1	0.1
WMAIN-6297	J-6702	J-5554	6	140	0.0	0.0	0.1	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6298	J-5554	J-5555	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6299	J-5974	J-5975	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6300	J-5555	J-5974	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6301	J-6239	J-5607	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6303	J-6239	J-5975	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6304	J-5606	J-5133	12	152.5	0.0	0.1	0.2	0.6	0.0	0.3
WMAIN-6305(1)	J-6803	029-041	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-6305(2)(1)	029-041	029-017B	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-6305(2)(2)	029-017B	J-5606	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-6307(1)	J-5746	029-026	12	152.5	0.1	0.2	0.4	0.9	0.2	0.7
WMAIN-6307(2)	029-026	J-6803	12	152.5	0.1	0.2	0.4	0.9	0.2	0.7
WMAIN-6310	J-6801	J-6802	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6311(1)	029-035	J-9015	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6311(2)	J-9015	J-5780	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6313	J-7405	029-035	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6316(1)(1)	J-6821	020-003	12	152.5	0.1	0.3	0.5	1.1	0.3	1
WMAIN-6316(1)(2)	020-003	020-027	12	152.5	0.1	0.3	0.5	1.1	0.3	1
WMAIN-6316(2)	020-027	J-6817	12	152.5	0.1	0.3	0.5	1.1	0.3	1
WMAIN-6319(1)	J-6885	J-9246	6	152.5	0.1	0.3	0.3	0.7	0.3	0.6
WMAIN-6319(2)	J-9246	J-6000	6	152.5	0.1	0.3	0.3	0.7	0.3	0.6
WMAIN-6320(1)	J-5999	020-005	8	152.5	0.0	0.1	0.2	0.5	0.1	0.3
WMAIN-6320(2)	020-005	J-6000	8	152.5	0.0	0.1	0.2	0.5	0.1	0.3
WMAIN-6323	J-6121	J-6122	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-6324(1)(1)	J-6557	028-036	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6324(1)(2)(1)	028-036	J-9293	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6324(1)(2)(2)	J-9293	J-8717	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6324(2)(1)(1)	J-8717	J-9316	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6324(2)(1)(2)	J-9316	J-9244	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6324(2)(2)	J-9244	028-037	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6326	J-6347	J-6348	2	130	0.1	0.5	0.2	0.4	0.5	0.4
WMAIN-6329	J-6557	J-6558	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6331	J-6638	J-6348	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6332	J-6682	J-6558	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6334	J-5910	J-5280	8	152.5	0.2	0.7	0.7	1.3	0.7	1.3
WMAIN-6336	028-029	J-8184	6	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-6337(1)	J-8184	028-022	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6337(2)	028-022	J-5866	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6340(1)	J-5918	028-020	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6340(2)	028-020	J-6744	4	140	0.0	0.2	0.1	0.4	0.1	0.3
WMAIN-6342	J-7693	J-7694	6	140	0.0	0.2	0.1	0.4	0.1	0.4
WMAIN-6344	J-7763	J-7694	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6347	J-5171	J-6895	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6350(1)	J-7769	H-521	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-6350(2)	H-521	J-7693	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-6352	J-5809	J-7769	6	140	0.0	0.1	0	0.2	0.0	0.1
WMAIN-6355	J-7315	028-011	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-6357(1)	J-5809	028-013	8	140	0.0	0.3	0.1	0.7	0.0	0.2
WMAIN-6357(2)	028-013	J-7315	8	140	0.0	0.3	0.1	0.7	0.0	0.2
WMAIN-6360(1)	J-7315	028-009	8	140	0.0	0.5	0.1	1	0.0	0.2
WMAIN-6360(2)	028-009	J-5418	8	140	0.0	0.5	0.1	1	0.0	0.2
WMAIN-6361	J-8753	J-5398	8	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-6363(1)	J-5398	027-027	12	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6363(2)	027-027	J-6143	12	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6366(1)	J-5215	027-035	12	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6366(2)	027-035	J-6143	12	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6369	J-5308	J-5765	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-6371	J-6059	J-6060	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6372	J-5120	J-5343	6	140	0.0	0.5	0	0.8	0.2	0.5
WMAIN-6374	J-5532	J-5533	10	140	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-6376(1)	J-5808	H-547	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6376(2)	H-547	J-6153	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6378(1)	J-8159	H-548	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6378(2)	H-548	J-5808	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6381(1)	J-8147	H-549	4	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6381(2)	H-549	J-8146	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6384(1)	J-8158	H-550	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6384(2)	H-550	J-8147	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6387(1)	J-8094	021-022	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-6387(2)	021-022	J-7415	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-6388(1)	J-7416	021-027	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6388(2)	021-027	J-5391	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6390(1)	J-8158	021-028	4	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6390(2)	021-028	J-8159	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6393	J-5541	J-8158	4	140	0.1	0.4	0.3	0.6	0.4	0.6
WMAIN-6394	J-7925	J-7926	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6396	J-5392	J-5542	6	140	0.0	0.2	0	0.4	0.1	0.4
WMAIN-6399(1)	J-5541	021-033	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6399(2)	021-033	J-7926	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6402(1)	J-7926	021-032	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-6402(2)	021-032	021-031	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6404(1)	J-7888	022-045	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-6404(2)	022-045	J-8374	6	140	0.0	0.1	0	0.4	0.1	0.2
WMAIN-6405	J-8193	J-8194	2	100	0.0	0.1	0.1	0.1	0.1	0.1
WMAIN-6406(1)	J-5165	022-023	10	152.5	0.0	1.0	0.1	1.7	0.9	1.7
WMAIN-6406(2)	022-023	J-7521	10	152.5	0.0	0.9	0.1	1.7	0.9	1.7
WMAIN-6408(1)	J-5991	022-012	10	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6408(2)	022-012	J-6362	10	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6409	J-5393	J-5394	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6410	J-6079	J-8712	8	152.5	0.0	0.2	0.1	0.6	0.1	0.5
WMAIN-6414(1)(1)	J-5709	014-002	8	140	0.1	0.2	0.4	0.5	0.1	0.4
WMAIN-6414(1)(2)	014-002	014-003	8	140	0.1	0.2	0.4	0.5	0.1	0.4
WMAIN-6414(2)	014-003	J-8851	8	140	0.1	0.2	0.4	0.5	0.1	0.4
WMAIN-6415	J-8621	J-5331	12	152.5	0.1	0.2	0.6	0.8	0.1	0.7
WMAIN-6418(1)	J-6708	014-007	12	152.5	0.3	0.5	1.1	1.4	0.4	1.3
WMAIN-6418(2)(1)	014-007	014-006	12	152.5	0.3	0.5	1.1	1.4	0.4	1.3
WMAIN-6418(2)(2)	014-006	J-8621	12	152.5	0.3	0.5	1.1	1.4	0.4	1.3
WMAIN-6419	030-047	J-5610	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-6420	J-6443	J-5375	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6421(1)	J-6388	J-9288	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-6421(2)	J-9288	J-5374	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-6423(1)	J-6442	J-5175	6	140	0.0	0.2	0.2	0.4	0.1	0.4
WMAIN-6423(2)	J-5175	J-6443	6	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-6425(1)	J-6398	030-028	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6425(2)	030-028	J-6442	6	140	0.0	0.2	0.2	0.4	0.1	0.4
WMAIN-6428(1)	J-7891	029-014	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6428(2)	029-014	J-7385	4	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-6430(1)	J-7890	029-015	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6430(2)	029-015	J-8502	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-6431	J-6454	J-6288	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6433	J-6905	J-7627	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6434	J-8119	J-7627	4	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6438(1)	J-5683	022-001	8	140	0.0	0.1	0.2	0.5	0.1	0.5

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6438(2)	022-001	J-7779	8	140	0.0	0.2	0.2	0.5	0.1	0.5
WMAIN-6440	J-5682	J-5683	10	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-6442(1)(1)	J-5457	026-015	12	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6442(1)(2)	026-015	026-014	12	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6442(2)	026-014	J-5757	12	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6444(1)(1)	026-013	023-058	12	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6444(1)(2)	023-058	026-026	12	140	0.0	0.0	0	0.3	0.0	0
WMAIN-6444(2)	026-026	J-8301	12	140	0.0	0.0	0	0.3	0.0	0
WMAIN-6446	J-7227	J-7228	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6448	J-6953	J-6954	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6449	J-7023	J-6953	6	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6452	J-7097	J-7098	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6454(1)	J-6359	023-012	6	140	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-6454(2)	023-012	J-5677	6	140	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-6456(1)	J-6689	023-013	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6456(2)	023-013	J-5677	6	140	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-6457(1)	J-5579	036-036	6	140	0.2	0.5	0.4	0.8	0.3	0.7
WMAIN-6457(2)(1)	036-036	036-045	6	140	0.2	0.6	0.5	0.9	0.5	0.8
WMAIN-6457(2)(2)	036-045	J-5270	6	140	0.2	0.6	0.5	0.9	0.5	0.8
WMAIN-6460(1)	J-8106	028-016	6	140	0.0	0.3	0	0.6	0.3	0.6
WMAIN-6460(2)	028-016	J-5917	6	140	0.0	0.3	0	0.7	0.3	0.7
WMAIN-6461	J-7093	J-7094	6	140	0.0	0.3	0.2	0.6	0.0	0.2
WMAIN-6463(1)	J-8189	037-040	6	152.5	0.0	0.2	0.1	0.5	0.0	0.2
WMAIN-6463(2)	037-040	J-7093	6	152.5	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-6464	J-7168	J-5498	16	140	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-6467(1)	J-8631	027-022A	16	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-6467(2)	027-022A	J-7711	16	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-6469(1)	J-5475	027-021	16	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6469(2)	027-021	J-8631	16	140	0.0	0.0	0	0.3	0.0	0.1
WMAIN-6472(1)(1)	J-6848	027-018	8	152.5	0.0	0.2	0.2	0.6	0.1	0.4
WMAIN-6472(1)(2)	027-018	027-019	8	152.5	0.1	0.2	0.3	0.7	0.1	0.5
WMAIN-6472(2)	027-019	J-8631	8	152.5	0.1	0.2	0.3	0.7	0.1	0.5
WMAIN-6474	J-7168	J-6720	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6475	J-6720	027-043	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6476	027-043	J-6188	8	152.5	0.0	0.1	0	0.5	0.1	0.4
WMAIN-6479(1)	J-7965	027-010	8	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-6479(2)	027-010	J-8415	8	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-6481	J-6188	J-7965	8	152.5	0.1	0.3	0.5	0.8	0.1	0.5
WMAIN-6482(1)	J-7038	027-040	6	152.5	0.0	0.5	0.1	0.9	0.0	0.1
WMAIN-6482(2)	027-040	J-6188	6	152.5	0.0	0.5	0.1	0.9	0.0	0.1
WMAIN-6484(1)	J-8415	027-009	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6484(2)	027-009	J-6848	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6486	J-6848	027-017	8	140	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-6489(1)(1)	J-5812	030-023	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-6489(1)(2)	030-023	030-030	6	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-6489(2)	030-030	J-7901	6	140	0.0	0.1	0.1	0.3	0.1	0.2
WMAIN-6490(1)	J-5425	030-031	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6490(2)	030-031	J-6877	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6492	J-5424	031-046	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-6494	J-6088	J-5955	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6497	J-6089	J-6979	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6499	J-7585	J-7879	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-6501	030-009	J-6275	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6502	J-6275	J-6874	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6503	J-5352	J-6351	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6505	J-6027	J-6028	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6508	J-6042	J-6043	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6510	J-6549	J-6550	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6512(1)	J-8340	036-039	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6512(2)	036-039	J-8341	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6513	J-5674	J-5675	12	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-6515	J-5452	J-5453	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6516(1)	J-5453	023-035	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6516(2)(1)	023-035	023-036	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6516(2)(2)	023-036	J-8779	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6517(1)	J-8779	023-037	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6517(2)(1)(1)	023-037	023-043	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6517(2)(1)(2)	023-043	023-038	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6517(2)(2)	023-038	J-5674	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6519	J-7976	J-7977	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6523(1)	J-5513	037-030	6	140	0.0	0.1	0	0.2	0.0	0.2
WMAIN-6523(2)(1)	037-030	037-031	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6523(2)(2)(1)	037-031	037-032	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6523(2)(2)(2)	037-032	J-7976	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6525	J-7554	J-7555	8	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-6527(1)	J-7554	038-036	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6527(2)	038-036	J-8291	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6529	J-7071	J-7554	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-6530	J-7070	J-6989	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6531(1)	J-6989	038-038	8	140	0.0	0.0	0	0	0.0	0
WMAIN-6531(2)	038-038	J-6990	8	140	0.0	0.0	0	0	0.0	0
WMAIN-6533(1)	J-5932	038-033	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6533(2)	038-033	J-8732	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6534	J-5830	J-5832	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6536	J-5125	J-5266	18	140	0.0	0.0	0	0	0.0	0
WMAIN-6538	J-6916	J-5970	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6540	J-6411	J-6412	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6542(1)	J-5893	038-023	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6542(2)	038-023	J-7356	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6545(1)	J-6422	038-025	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-6545(2)	038-025	J-5830	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6546	J-5893	J-6422	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-6548	J-5892	J-5893	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6551	J-5633	J-5634	16	140	0.0	0.2	0	0.9	0.0	0
WMAIN-6553(1)	J-7710	038-016	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6553(2)	038-016	J-7809	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6555(1)	J-7709	038-018	8	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-6555(2)	038-018	J-7710	8	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-6557(1)	J-7710	038-017	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6557(2)	038-017	J-5802	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6559	J-7798	J-7709	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-6561(1)	J-6424	038-021	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-6561(2)	038-021	J-7798	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-6563(1)	J-6423	J-5339	8	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-6563(2)	J-5339	J-6424	8	140	0.0	0.2	0.2	0.6	0.2	0.5
WMAIN-6565(1)	J-6424	038-039	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6565(2)	038-039	J-5849	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6567(1)	J-7270	038-012	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6567(2)	038-012	J-7318	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6568	J-7318	J-7319	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6571(1)	J-7669	038-011	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-6571(2)	038-011	J-7751	6	140	0.0	0.0	0.1	0.2	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6573(1)	J-6791	038-008	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6573(2)	038-008	J-8476	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6575(1)	J-7174	037-029	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6575(2)	037-029	J-8124	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6577(1)	J-8124	037-019	6	140	0.0	0.2	0	0.5	0.0	0.2
WMAIN-6577(2)	037-019	J-6604	6	140	0.0	0.2	0	0.4	0.1	0.3
WMAIN-6579	J-6609	J-6603	6	140	0.0	0.5	0.1	0.8	0.0	0.1
WMAIN-6582(1)	037-024	037-025	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6582(2)	037-025	J-5253	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6585(1)	J-7496	037-012	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6585(2)	037-012	J-7911	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6586(1)	J-7911	037-010	8	140	0.1	0.3	0.3	0.8	0.1	0.3
WMAIN-6586(2)	037-010	J-6365	8	140	0.1	0.3	0.3	0.8	0.1	0.3
WMAIN-6588(1)	J-7496	037-011	8	140	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-6588(2)	037-011	J-7911	8	140	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-6590	J-6523	J-6524	8	140	0.0	0.2	0	0.6	0.2	0.6
WMAIN-6591(1)	J-6400	044-037	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6591(2)	044-037	J-7029	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6593	J-5500	J-5594	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6595(1)	J-7695	044-034	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6595(2)	044-034	J-5500	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6599(1)	J-7363	044-030	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6599(2)	044-030	J-7688	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6601	J-7111	J-7561	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-6604(1)	J-6354	044-026	6	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-6604(2)	044-026	J-7111	6	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-6605	J-7561	J-7687	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6607(1)	J-7687	044-029	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6607(2)	044-029	J-7688	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6609	J-7688	J-7362	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6611	J-7695	J-7613	6	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6613	J-7608	J-7695	6	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6614	J-7571	J-7608	6	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6617	J-7114	J-7111	6	140	0.0	0.2	0.2	0.5	0.1	0.2
WMAIN-6619	J-6400	J-7114	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-6622	J-7381	J-7382	8	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6625(1)	J-7381	044-023	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6625(2)	044-023	J-7571	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6627	J-7382	J-7465	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6629	J-6757	J-5878	6	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6630(1)	J-7362	044-031	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6630(2)	044-031	J-7363	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6632(1)	J-8497	044-011	12	140	0.0	0.3	0.2	1	0.0	0.2
WMAIN-6632(2)(1)	044-011	053-045	12	140	0.0	0.4	0.2	1	0.0	0.2
WMAIN-6632(2)(2)	053-045	J-5428	12	140	0.0	0.4	0.2	1	0.0	0.2
WMAIN-6636(1)	J-7667	043-049	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6636(2)	043-049	J-7000	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6637	J-7912	J-8375	8	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-6641	J-6922	J-7912	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6643	J-6838	J-6922	8	140	0.0	0.1	0.2	0.5	0.1	0.3
WMAIN-6645	J-6837	J-6838	8	140	0.1	0.4	0.5	0.8	0.2	0.6
WMAIN-6647	J-7000	J-7512	6	140	0.0	0.1	0.2	0.3	0.1	0.2
WMAIN-6649(1)	J-6923	043-042	8	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-6649(2)	043-042	J-7969	8	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-6653	J-7969	J-6891	6	140	0.0	0.3	0	0.6	0.0	0
WMAIN-6655(1)	J-7636	043-014	6	140	0.0	0.4	0.2	0.7	0.4	0.7
WMAIN-6655(2)	043-014	J-8629	6	140	0.0	0.5	0.1	0.8	0.5	0.8
WMAIN-6657(1)	J-8629	043-015	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6657(2)	043-015	J-8630	6	140	0.0	0.3	0	0.6	0.3	0.6
WMAIN-6659	J-8629	J-7958	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6661(1)	J-7546	043-016	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6661(2)	043-016	J-7958	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6662(1)	J-8384	044-050	12	140	0.0	0.5	0.1	1.2	0.0	0.1
WMAIN-6662(2)	044-050	J-6132	12	140	0.0	0.5	0.1	1.3	0.0	0.1
WMAIN-6664(1)	J-6537	043-018	6	140	0.0	0.6	0.2	0.9	0.6	0.9
WMAIN-6664(2)(1)	043-018	043-017	6	140	0.0	0.4	0.1	0.7	0.4	0.7
WMAIN-6664(2)(2)	043-017	J-7546	6	140	0.0	0.3	0.1	0.6	0.3	0.6
WMAIN-6666	J-8358	J-6537	8	140	0.0	0.3	0.1	0.7	0.3	0.7
WMAIN-6668	J-6900	J-5505	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6669	J-5505	J-5506	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6672(1)	J-7021	043-011	8	140	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-6672(2)	043-011	J-8424	8	140	0.0	0.4	0.1	0.9	0.4	0.9
WMAIN-6674	J-6634	J-8076	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6675(1)(1)	J-5312	043-025	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6675(1)(2)	043-025	J-5122	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6675(2)	J-5122	J-8358	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6677(1)	J-8604	043-026	8	140	0.0	0.4	0	0.9	0.4	0.9
WMAIN-6677(2)	043-026	J-5313	8	140	0.0	0.5	0	1	0.5	1
WMAIN-6678	J-5312	J-5313	8	140	0.0	2.4	0.3	2.3	2.4	2.3
WMAIN-6679	J-7636	J-8604	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6681(1)	J-6891	043-013	8	140	0.0	0.4	0.1	0.8	0.2	0.6
WMAIN-6681(2)	043-013	J-7636	8	140	0.0	0.4	0.1	0.8	0.2	0.6
WMAIN-6683	J-6890	J-6891	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-6685	J-8375	J-6890	8	140	0.1	0.5	0.5	0.9	0.1	0.5
WMAIN-6688(1)	J-7165	043-036	8	140	0.1	0.2	0.3	0.6	0.1	0.3
WMAIN-6688(2)	043-036	J-8375	8	140	0.1	0.2	0.3	0.6	0.1	0.3
WMAIN-6691(1)	J-7825	043-031	8	140	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-6691(2)	043-031	J-7810	8	140	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-6693	J-6135	J-6076	12	152.5	0.0	0.1	0.1	0.5	0.0	0.1
WMAIN-6694	J-6917	J-6980	12	152.5	0.1	0.3	0.5	1	0.1	0.6
WMAIN-6696(1)	J-6980	043-052	12	152.5	0.1	0.4	0.6	1.2	0.3	1
WMAIN-6696(2)(1)	043-052	043-001	12	152.5	0.1	0.4	0.6	1.2	0.3	1
WMAIN-6696(2)(2)	043-001	J-6438	12	152.5	0.1	0.4	0.6	1.2	0.3	1
WMAIN-6697	J-6543	J-7614	8	140	0.1	0.3	0.4	0.8	0.3	0.7
WMAIN-6699(1)	J-7614	042-011	8	140	0.1	0.3	0.3	0.7	0.2	0.6
WMAIN-6699(2)	042-011	J-7615	8	140	0.1	0.3	0.3	0.7	0.2	0.6
WMAIN-6701(1)	J-7615	042-009	8	140	0.0	0.2	0.3	0.6	0.2	0.5
WMAIN-6701(2)	042-009	J-5559	8	140	0.0	0.2	0.3	0.6	0.2	0.5
WMAIN-6703	J-5534	J-5535	16	140	0.0	0.5	0	1.6	0.5	1.6
WMAIN-6704	J-5888	J-5802	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6706(1)	J-5985	038-032	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-6706(2)	038-032	J-5986	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-6707	J-7071	J-5985	8	140	0.0	0.2	0.1	0.6	0.0	0.1
WMAIN-6710	J-7356	J-7357	8	152.5	0.0	0.0	0	0.3	0.0	0.3
WMAIN-6712(1)	J-6916	038-030	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6712(2)	038-030	J-6411	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6714(1)	J-5932	038-028	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-6714(2)	038-028	J-7357	8	140	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-6716	J-7357	J-7676	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-6720(1)	J-7357	038-022	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6720(2)	038-022	J-7709	8	140	0.0	0.0	0	0.3	0.0	0.3
WMAIN-6721(1)	J-7676	038-026	8	140	0.0	0.2	0.2	0.6	0.2	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6721(2)	038-026	J-6422	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-6723(1)(1)	J-6422	038-024	8	140	0.0	0.6	0.2	1.1	0.6	1.1
WMAIN-6723(1)(2)	038-024	J-5337	8	140	0.0	0.6	0.2	1.1	0.6	1.1
WMAIN-6723(2)	J-5337	J-5534	8	140	0.0	0.7	0.1	1.1	0.6	1.1
WMAIN-6726(1)	J-7709	038-019	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6726(2)	038-019	J-5888	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6728(1)	J-7753	038-010	8	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-6728(2)	038-010	J-7669	8	140	0.0	0.1	0	0.5	0.1	0.3
WMAIN-6730(1)	J-7753	038-020	8	140	0.0	0.0	0	0.3	0.0	0
WMAIN-6730(2)	038-020	J-7798	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6733	J-7669	J-7270	8	140	0.0	0.2	0	0.6	0.1	0.3
WMAIN-6735(1)	J-7270	038-013	8	140	0.0	0.2	0.1	0.5	0.0	0.2
WMAIN-6735(2)	038-013	J-7271	8	140	0.0	0.2	0.1	0.6	0.0	0.2
WMAIN-6737(1)	J-7271	038-015	8	140	0.0	0.1	0	0.5	0.0	0
WMAIN-6737(2)	038-015	J-7809	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6739	037-036	J-6654	6	140	0.0	0.0	0	0	0.0	0
WMAIN-6740	J-7981	J-5253	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6742(1)	J-7678	037-023	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6742(2)	037-023	J-7534	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-6744	J-7534	037-014	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-6745	J-8123	J-7678	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-6749	J-8123	037-028	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6750	037-028	J-7511	6	140	0.0	0.3	0.1	0.6	0.0	0.1
WMAIN-6753(1)	J-7511	037-026	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-6753(2)	037-026	J-7981	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-6756	J-5537	J-5443	8	140	0.0	0.6	0.1	1.1	0.0	0.1
WMAIN-6757	J-5442	037-036	8	140	0.0	0.3	0	0.7	0.0	0
WMAIN-6758	J-6952	J-5512	8	140	0.0	0.4	0.1	0.8	0.0	0.1
WMAIN-6760	J-5512	J-5513	8	140	0.0	0.6	0.1	1.1	0.0	0.1
WMAIN-6763(1)	J-5513	037-027	8	140	0.0	0.7	0	1.1	0.0	0
WMAIN-6763(2)	037-027	J-7511	8	140	0.0	0.6	0	1.1	0.0	0
WMAIN-6764	J-7511	037-024	8	140	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-6766	037-024	J-7678	8	140	0.0	0.2	0.2	0.6	0.1	0.3
WMAIN-6768(1)	J-7678	037-021	8	140	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-6768(2)	037-021	J-7837	8	140	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-6770	J-7837	J-6610	8	140	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-6773	J-7705	J-5442	6	140	0.0	0.3	0.1	0.6	0.0	0.1
WMAIN-6774(1)	J-8785	037-002	12	140	0.1	0.3	0.5	1	0.3	1
WMAIN-6774(2)	037-002	J-5417	12	140	0.1	0.3	0.5	1	0.3	1
WMAIN-6777(1)	J-5613	044-041	12	140	0.1	0.3	0.5	1	0.3	1
WMAIN-6777(2)(1)	044-041	044-052	12	140	0.1	0.3	0.5	1	0.3	1
WMAIN-6777(2)(2)(1)	044-052	044-049	12	140	0.1	0.3	0.5	1	0.3	1
WMAIN-6777(2)(2)(2)	044-049	J-8785	12	140	0.1	0.3	0.5	1	0.3	1
WMAIN-6780	J-6610	J-5417	8	140	0.0	0.2	0	0.6	0.1	0.4
WMAIN-6782(1)	J-6610	037-018	6	140	0.0	0.1	0.2	0.4	0.1	0.2
WMAIN-6782(2)	037-018	J-6603	6	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-6784	J-6603	J-6604	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-6787	J-8188	J-8189	8	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-6789(1)	J-8189	037-041	8	140	0.0	0.2	0	0.6	0.2	0.6
WMAIN-6789(2)	037-041	J-6364	8	140	0.0	0.2	0	0.6	0.2	0.6
WMAIN-6791(1)	J-6365	037-009	8	140	0.0	0.4	0	0.8	0.4	0.8
WMAIN-6791(2)	037-009	J-5690	8	140	0.0	0.4	0.1	0.8	0.4	0.8
WMAIN-6793(1)	J-5690	037-008	6	140	0.0	1.6	0.1	1.5	1.6	1.5
WMAIN-6793(2)	037-008	J-7125	6	140	0.0	1.6	0.1	1.5	1.6	1.5
WMAIN-6796	J-5917	J-5918	6	140	0.0	0.4	0	0.7	0.4	0.7
WMAIN-6799(1)	J-5858	037-044	6	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-6799(2)(1)(1)	037-044	H-509	6	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-6799(2)(1)(2)	H-509	H-508	6	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-6799(2)(2)	H-508	J-5688	6	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-6801	J-5857	J-6115	6	140	0.0	0.2	0	0.5	0.0	0
WMAIN-6803	J-7008	J-7334	6	140	0.1	0.2	0.3	0.5	0.1	0.3
WMAIN-6806	J-7334	J-7110	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-6807(1)	J-7110	036-022	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6807(2)	036-022	J-6260	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-6810	J-7276	J-6196	8	140	0.0	0.1	0.2	0.5	0.1	0.3
WMAIN-6813(1)	J-6196	036-017	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6813(2)	036-017	J-6197	8	140	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-6815(1)	J-6197	036-013	8	140	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-6815(2)	036-013	J-8003	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6818	J-8003	J-5933	8	140	0.0	0.2	0.2	0.5	0.1	0.3
WMAIN-6822(1)	J-7350	036-028	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6822(2)	036-028	J-7058	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6824(1)	J-7058	036-057	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6824(2)	036-057	J-6535	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6826(1)	J-8493	J-9301	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6826(2)(1)	J-9301	036-026	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6826(2)(2)	036-026	J-8509	6	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-6828	J-5933	J-5934	8	140	0.0	0.2	0.2	0.6	0.1	0.5
WMAIN-6831(1)	J-7275	036-020	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6831(2)	036-020	J-6248	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-6832	J-7275	J-7276	8	140	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-6836(1)	J-5858	037-043	6	140	0.0	0.6	0.1	0.9	0.6	0.9
WMAIN-6836(2)	037-043	J-5464	6	140	0.0	0.5	0.1	0.8	0.5	0.8
WMAIN-6838(1)	J-8340	036-038	8	140	0.1	0.4	0.4	0.8	0.4	0.8
WMAIN-6838(2)	036-038	J-6055	8	140	0.1	0.4	0.4	0.8	0.3	0.8
WMAIN-6840	J-5118	J-8435	16	140	0.0	0.2	0.1	0.9	0.1	0.4
WMAIN-6841(1)	J-8435	035-034	16	140	0.0	0.2	0.1	0.9	0.1	0.4
WMAIN-6841(2)	035-034	J-6439	16	140	0.0	0.2	0.1	0.9	0.1	0.4
WMAIN-6843(1)	J-7766	035-029	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6843(2)(1)	035-029	035-028	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6843(2)(2)	035-028	J-6042	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6845	J-6042	J-6549	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6847	J-7443	J-5864	6	140	0.1	0.2	0.3	0.4	0.2	0.4
WMAIN-6850(1)	J-7443	035-026	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6850(2)	035-026	J-7444	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-6852(1)	J-6285	036-040	8	140	0.1	0.5	0.5	0.9	0.5	0.9
WMAIN-6852(2)	036-040	J-8340	8	140	0.1	0.4	0.5	0.9	0.4	0.9
WMAIN-6853(1)(1)	J-5316	035-019	8	140	0.2	0.3	0.6	0.7	0.3	0.7
WMAIN-6853(1)(2)	035-019	036-041	8	140	0.2	0.3	0.5	0.7	0.2	0.6
WMAIN-6853(2)	036-041	J-5363	8	140	0.2	0.3	0.5	0.7	0.2	0.6
WMAIN-6854	J-8369	J-8370	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-6856	J-7602	J-7895	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6857(1)	J-8453	035-024	8	152.5	0.0	0.1	0.2	0.5	0.0	0.3
WMAIN-6857(2)	035-024	J-8270	8	152.5	0.0	0.1	0.2	0.5	0.0	0.3
WMAIN-6859	J-8270	J-8271	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-6861(1)	J-8271	035-032	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-6861(2)	035-032	J-5437	8	152.5	0.1	0.2	0.4	0.7	0.2	0.6
WMAIN-6863	034-025	J-6282	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-6864(1)	034-023	034-024	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-6864(2)	034-024	034-025	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-6865(1)	034-014	035-046	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4
WMAIN-6865(2)	035-046	034-023	12	152.5	0.0	0.2	0.3	0.7	0.1	0.4

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-6867(1)	J-5305	031-014	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6867(2)	031-014	J-8313	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6869	J-6286	J-7316	6	140	0.0	0.2	0.2	0.4	0.1	0.3
WMAIN-6871	J-6209	J-5199	12	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-6872(1)(1)	J-7743	031-035	12	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-6872(1)(2)	031-035	031-034	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-6872(2)(1)	031-034	031-033	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-6872(2)(2)	031-033	J-6209	12	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-6873(1)	J-5884	031-018	8	140	0.1	0.2	0.3	0.5	0.1	0.5
WMAIN-6873(2)	031-018	J-8565	8	140	0.1	0.2	0.3	0.5	0.1	0.5
WMAIN-6875(1)	J-8565	031-016	8	140	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-6875(2)	031-016	J-5306	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-6877(1)	J-6266	031-010	8	152.5	0.1	0.5	0.4	1.1	0.5	1.1
WMAIN-6877(2)	031-010	J-7345	8	152.5	0.1	0.5	0.4	1	0.5	1
WMAIN-6879	J-6265	J-6266	6	140	0.1	0.8	0.3	1	0.8	1
WMAIN-6882	J-8313	J-5672	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6883(1)(1)	J-5673	031-013	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-6883(1)(2)	031-013	031-045	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-6883(2)	031-045	J-7566	8	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-6886	J-6286	J-6287	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6888(1)	J-6088	031-008	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6888(2)	031-008	J-6089	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6889	J-5733	J-5734	10	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6890(1)	030-047	030-046	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-6890(2)	030-046	J-7007	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-6892	J-7007	J-6829	6	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6894	J-6877	J-5855	6	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6896	J-6503	J-5855	4	140	0.1	0.2	0.2	0.4	0.2	0.4
WMAIN-6899	J-7150	J-6874	4	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6900	J-8562	J-6731	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-6902	030-009	J-6732	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-6905	J-6443	J-8504	2	120	0.1	0.3	0.1	0.3	0.3	0.3
WMAIN-6908(1)	J-5293	J-9281	16	140	0.0	0.0	0	0.3	0.0	0.2
WMAIN-6908(2)	J-9281	J-5389	16	140	0.0	0.0	0	0.3	0.0	0.2
WMAIN-6909	J-7150	J-6028	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-6911	J-6644	J-6221	8	140	0.2	0.3	0.5	0.8	0.3	0.7
WMAIN-6912(1)	J-5425	030-024	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6912(2)	030-024	J-7566	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6915(1)	J-7531	030-022	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6915(2)	030-022	J-5811	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6916	J-6393	J-5477	6	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-6919(1)	J-7277	030-035	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-6919(2)	030-035	J-5658	6	140	0.2	0.5	0.4	0.8	0.5	0.8
WMAIN-6921(1)	J-6852	030-034	6	140	0.1	0.4	0.4	0.8	0.4	0.8
WMAIN-6921(2)	030-034	J-7277	6	140	0.2	0.4	0.4	0.8	0.4	0.8
WMAIN-6924(1)(1)	J-6905	030-020	6	140	0.1	0.3	0.3	0.6	0.2	0.6
WMAIN-6924(1)(2)	030-020	030-029	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6924(2)	030-029	J-6852	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-6926(1)	J-6013	030-002	8	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-6926(2)	030-002	J-6288	8	140	0.0	0.2	0.2	0.5	0.1	0.4
WMAIN-6927	J-6012	J-6013	8	140	0.0	0.1	0	0.3	0.0	0
WMAIN-6930	J-8119	J-7294	6	140	0.1	0.3	0.3	0.6	0.2	0.6
WMAIN-6931	J-6850	J-6851	8	140	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-6933(1)	J-6851	030-011	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6933(2)	030-011	J-7584	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6935(1)	J-6851	030-007	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6935(2)	030-007	J-5436	6	140	0.1	0.2	0.2	0.5	0.2	0.4
WMAIN-6937	J-6144	031-046	8	140	0.1	0.2	0.3	0.6	0.2	0.5
WMAIN-6939(1)(1)	J-7566	030-025	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-6939(1)(2)	030-025	031-043	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6939(2)(1)	031-043	J-9286	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6939(2)(2)	J-9286	J-6502	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6940(1)(1)	J-6821	J-9265	12	152.5	0.1	0.4	0.5	1.1	0.3	1
WMAIN-6940(1)(2)	J-9265	029-032	12	152.5	0.1	0.4	0.5	1.1	0.3	1
WMAIN-6940(2)	029-032	J-5746	12	152.5	0.1	0.4	0.5	1.1	0.3	1
WMAIN-6942	J-6701	J-6702	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-6944	J-5607	J-5552	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6946(1)	J-6013	030-001	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-6946(2)	030-001	J-7890	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-6948	J-7444	J-6644	8	140	0.1	0.2	0.4	0.6	0.2	0.5
WMAIN-6950	J-6242	J-6243	6	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-6953(1)(1)	J-6389	030-027	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6953(1)(2)	030-027	029-030	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6953(2)	029-030	J-6244	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-6955	029-029	J-8452	4	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-6957	J-8452	J-5374	4	140	0.1	0.4	0.3	0.6	0.4	0.6
WMAIN-6959	J-5820	J-5866	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-6960	J-5580	J-5581	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6961(1)	J-5581	028-006	6	140	0.0	0.0	0	0.1	0.0	0
WMAIN-6961(2)	028-006	J-6706	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-6963	J-5488	J-5489	4	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-6965	J-5489	J-7177	4	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-6967(1)	J-7176	028-008	8	152.5	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-6967(2)	028-008	J-5419	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-6970	J-6066	J-5643	8	140	0.0	0.2	0.1	0.6	0.1	0.4
WMAIN-6971(1)	J-6065	J-9261	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-6971(2)	J-9261	J-6066	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-6976	J-5583	J-6781	12	140	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-6977	J-5582	J-5583	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-6979(1)	J-6394	028-032	12	140	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-6979(2)	028-032	J-5237	12	140	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-6980	J-5206	J-6394	12	140	0.0	0.1	0.1	0.5	0.1	0.3
WMAIN-6981	J-5764	J-5207	12	140	0.0	0.1	0.1	0.5	0.0	0.3
WMAIN-6984	J-6348	J-5764	12	140	0.0	0.1	0	0.4	0.0	0.3
WMAIN-6985	028-007	J-7595	4	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-6987	J-5809	J-5810	6	140	0.0	0.8	0	1.1	0.2	0.5
WMAIN-6989(1)	J-7176	028-001	8	140	0.0	0.3	0.1	0.7	0.0	0.1
WMAIN-6989(2)	028-001	J-7220	8	140	0.0	0.3	0.1	0.7	0.0	0.1
WMAIN-6992(1)	J-7480	028-047	12	152.5	0.0	0.5	0.1	1.3	0.0	0.1
WMAIN-6992(2)	028-047	J-7220	12	152.5	0.0	0.5	0.1	1.3	0.0	0.1
WMAIN-6994	J-7220	J-7221	12	152.5	0.0	0.3	0.1	1	0.0	0.1
WMAIN-6996	J-7221	J-5537	12	152.5	0.0	0.2	0	0.8	0.0	0
WMAIN-6998(1)	J-8711	027-028	4	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-6998(2)	027-028	J-8406	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7001(1)(1)	J-8406	027-036	12	140	0.0	0.1	0	0.4	0.0	0.3
WMAIN-7001(1)(2)	027-036	028-030	12	140	0.0	0.1	0	0.4	0.0	0.3
WMAIN-7001(2)	028-030	J-6348	12	140	0.0	0.1	0	0.4	0.0	0.3
WMAIN-7003	J-5216	J-8406	12	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-7004	J-7515	J-8587	8	152.5	0.1	1.1	0.4	1.7	0.1	0.4
WMAIN-7005(1)	J-8587	027-025	6	152.5	0.0	1.2	0.1	1.5	0.0	0.1
WMAIN-7005(2)	027-025	J-5498	6	152.5	0.0	1.2	0	1.4	0.0	0
WMAIN-7008(1)	J-5499	027-037	6	152.5	0.0	0.3	0.1	0.7	0.2	0.6

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7008(2)	027-037	J-6474	6	152.5	0.0	0.4	0.1	0.8	0.3	0.7
WMAIN-7010(1)	J-8587	027-041	6	152.5	0.2	1.2	0.5	1.5	0.2	0.5
WMAIN-7010(2)	027-041	J-7038	6	152.5	0.2	1.2	0.5	1.5	0.2	0.5
WMAIN-7012(1)	J-8772	023-041	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7012(2)(1)	023-041	023-042	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7012(2)(2)	023-042	J-5572	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7013	J-5572	J-5573	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7014	J-7227	J-5104	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7016(1)	J-6953	023-007	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7016(2)	023-007	J-7227	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7019	J-7097	J-8007	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-7021(1)(1)	J-8007	023-008	8	152.5	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-7021(1)(2)	023-008	023-009	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7021(2)	023-009	J-7099	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7023(1)(1)	026-013	023-001	8	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-7023(1)(2)	023-001	J-6057	8	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-7023(2)(1)	J-6057	023-002	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7023(2)(2)	023-002	J-7097	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7024	J-5645	J-6407	10	152.5	0.0	0.1	0.1	0.6	0.1	0.4
WMAIN-7026(1)	J-6407	J-8282	8	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-7026(2)	J-8282	J-6408	8	140	0.0	0.2	0	0.6	0.0	0.3
WMAIN-7028	J-6408	J-6689	6	140	0.0	0.3	0	0.6	0.1	0.4
WMAIN-7030(1)	J-6689	023-018	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-7030(2)	023-018	J-6690	6	140	0.0	0.1	0	0.2	0.0	0
WMAIN-7033(1)	J-7698	023-017	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7033(2)	023-017	J-7489	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7035	J-6186	022-006	6	152.5	0.0	0.3	0.2	0.6	0.2	0.5
WMAIN-7036(1)	J-5990	022-007	10	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-7036(2)	022-007	J-6186	10	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-7040(1)	J-6109	022-011	6	152.5	0.0	0.3	0.2	0.6	0.2	0.5
WMAIN-7040(2)(1)	022-011	022-010	6	152.5	0.0	0.2	0.1	0.5	0.1	0.4
WMAIN-7040(2)(2)	022-010	J-6624	6	152.5	0.0	0.2	0.1	0.5	0.1	0.4
WMAIN-7042	J-7039	J-7040	6	152.5	0.0	0.5	0	0.9	0.5	0.9
WMAIN-7045	J-8414	J-7040	6	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-7048(1)	J-8414	022-022	6	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7048(2)	022-022	J-7129	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7050	J-7521	J-8414	6	152.5	0.0	0.3	0.2	0.7	0.3	0.7
WMAIN-7051	J-6904	J-5990	10	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-7053	J-8526	J-6059	6	152.5	0.0	0.6	0.1	1	0.4	0.8
WMAIN-7055	J-8474	J-8475	4	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7056(1)	J-8521	022-042	8	140	0.0	0.0	0	0	0.0	0
WMAIN-7056(2)	022-042	J-7997	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7058(1)(1)	J-8474	022-029	6	152.5	0.0	1.2	0.1	1.4	1.1	1.4
WMAIN-7058(1)(2)(1)	022-029	J-5202	6	152.5	0.0	1.3	0	1.5	1.3	1.5
WMAIN-7058(1)(2)(2)	J-5202	022-021	6	152.5	0.0	1.0	0.1	1.3	1.0	1.3
WMAIN-7058(2)	022-021	J-7130	6	152.5	0.0	1.0	0.1	1.3	1.0	1.3
WMAIN-7062(1)	J-8526	022-030	6	152.5	0.0	1.2	0	1.5	1.0	1.3
WMAIN-7062(2)	022-030	J-8474	6	152.5	0.0	1.3	0	1.5	1.1	1.4
WMAIN-7064(1)	J-8526	022-041	10	140	0.0	0.3	0.1	0.8	0.2	0.7
WMAIN-7064(2)	022-041	J-7996	10	140	0.0	0.3	0.1	0.8	0.2	0.7
WMAIN-7066	J-5876	J-5954	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-7067	J-5394	J-5765	6	140	0.0	0.2	0	0.4	0.1	0.4
WMAIN-7070	J-5954	J-5456	6	140	0.0	0.1	0.1	0.2	0.0	0.1
WMAIN-7074(1)	J-5987	027-032	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-7074(2)(1)	027-032	027-053	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7074(2)(2)	027-053	J-5954	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7075(1)	J-7361	J-9270	4	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7075(2)	J-9270	J-7358	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7076	J-7358	J-7359	4	140	0.0	0.0	0	0.1	0.0	0
WMAIN-7077(1)	J-7359	022-024	4	140	0.0	0.1	0	0.2	0.1	0.2
WMAIN-7077(2)	022-024	J-7360	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-7080(1)	J-7384	022-025	6	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-7080(2)(1)(1)	022-025	J-9334	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-7080(2)(1)(2)	J-9334	J-9333	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-7080(2)(2)	J-9333	J-6101	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-7082(1)	J-6676	021-048	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-7082(2)	021-048	J-7439	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-7084(1)	J-7570	021-046	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7084(2)	021-046	J-7704	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7086	J-5695	J-5696	8	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7088(1)	J-6314	021-009	6	140	0.0	0.1	0.1	0.4	0.1	0.3
WMAIN-7088(2)(1)	021-009	J-9323	6	140	0.0	0.2	0.1	0.4	0.1	0.3
WMAIN-7088(2)(2)	J-9323	J-8152	6	140	0.0	0.2	0.1	0.4	0.1	0.3
WMAIN-7089(1)	J-7405	029-034	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7089(2)	029-034	J-7406	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7091	J-7406	J-8272	4	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7092(1)	J-6764	020-021	8	152.5	0.0	0.1	0	0.5	0.0	0.3
WMAIN-7092(2)	020-021	J-6765	8	152.5	0.0	0.1	0	0.5	0.0	0.3
WMAIN-7093	021-040	J-5729	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-7094(1)	J-5729	021-017	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-7094(2)	021-017	J-5910	6	140	0.0	0.2	0	0.5	0.2	0.5
WMAIN-7096	020-012	J-7929	6	152.5	0.1	0.3	0.3	0.6	0.2	0.6
WMAIN-7098	J-7929	J-6250	6	140	0.2	0.8	0.5	1	0.8	1
WMAIN-7101(1)	J-6250	020-011	6	152.5	0.2	1.8	0.6	1.8	1.7	1.7
WMAIN-7101(2)	020-011	J-5525	6	152.5	0.2	1.8	0.6	1.8	1.7	1.7
WMAIN-7103	J-5280	J-5281	12	152.5	0.1	0.3	0.5	1.1	0.3	1.1
WMAIN-7104	J-8648	J-7405	6	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7107	J-5873	J-6079	8	152.5	0.0	0.2	0.1	0.6	0.1	0.5
WMAIN-7108	J-5226	J-5227	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7109	J-5872	J-5873	8	140	0.0	0.3	0.3	0.7	0.2	0.7
WMAIN-7110(1)	J-5227	020-028	8	140	0.0	0.2	0.2	0.7	0.2	0.6
WMAIN-7110(2)	020-028	J-5872	8	140	0.1	0.3	0.3	0.7	0.2	0.7
WMAIN-7112(1)(1)	J-5406	J-5714	8	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7112(1)(2)	J-5714	J-5717	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7112(2)	J-5717	J-5292	8	140	0.0	0.0	0	0.1	0.0	0
WMAIN-7113(1)	J-5390	J-5859	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7113(2)(1)	J-5859	030-039	8	140	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7113(2)(2)	030-039	J-5676	8	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7114(1)	J-7622	019-032	16	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-7114(2)	019-032	J-6639	16	152.5	0.0	0.0	0	0.3	0.0	0.2
WMAIN-7116	J-5329	J-5330	16	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-7120	J-5610	J-6033	4	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7122(1)	J-5679	J-9275	4	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7122(2)	J-9275	J-5610	4	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7125	J-7080	J-5658	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-7127	J-6998	J-5389	16	152.5	0.0	0.1	0.2	0.7	0.1	0.6
WMAIN-7129	J-5540	J-6998	16	152.5	0.0	0.2	0.2	0.9	0.1	0.8
WMAIN-7130(1)	J-5507	J-9312	16	152.5	0.0	0.2	0.3	0.9	0.1	0.8
WMAIN-7130(2)	J-9312	J-5540	16	152.5	0.0	0.2	0.2	0.9	0.1	0.8
WMAIN-7133(1)(1)	J-5362	J-5701	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-7133(1)(2)	J-5701	J-5703	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-7133(2)	J-5703	J-7529	16	152.5	0.0	0.1	0	0.7	0.1	0.7

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7135(1)	J-5324	031-047	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-7135(2)	031-047	J-7529	16	152.5	0.0	0.1	0	0.7	0.1	0.7
WMAIN-7136	J-5324	J-5325	16	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-7137(1)	J-5325	031-056	16	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-7137(2)(1)	031-056	018-002	16	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-7137(2)(2)	018-002	J-5168	16	152.5	0.0	0.0	0	0.4	0.0	0.4
WMAIN-7138	J-5753	J-7026	8	152.5	0.0	0.1	0	0.3	0.1	0.3
WMAIN-7139(1)	J-7026	017-002	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-7139(2)(1)	017-002	017-003	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-7139(2)(2)	017-003	J-5815	8	152.5	0.0	0.2	0.2	0.7	0.2	0.7
WMAIN-7140(1)	J-8614	032-025	16	140	0.0	0.2	0.2	0.8	0.2	0.8
WMAIN-7140(2)	032-025	J-5247	16	140	0.0	0.2	0.2	0.8	0.2	0.8
WMAIN-7141(1)	J-7844	032-027	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7141(2)(1)	032-027	032-026	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7141(2)(2)	032-026	J-5248	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7143(1)(1)	J-5451	H-497	16	152.5	0.0	0.2	0.3	1.1	0.2	1
WMAIN-7143(1)(2)	H-497	J-9311	16	152.5	0.0	0.2	0.3	1.1	0.2	1
WMAIN-7143(2)	J-9311	J-5504	16	152.5	0.0	0.2	0.3	1.1	0.2	1
WMAIN-7144	J-6707	J-6708	8	152.5	0.5	1.2	1.1	1.7	1.2	1.7
WMAIN-7146	J-5331	J-5450	16	152.5	0.0	0.1	0.3	0.5	0.0	0.4
WMAIN-7147	J-5450	J-5451	16	152.5	0.0	0.2	0.2	1	0.2	0.9
WMAIN-7148	171-001	J-8771	12	152.5	0.5	1.0	1.5	2	1.0	2
WMAIN-7150(1)(1)	J-8771	015-001	12	152.5	0.5	1.0	1.4	2	1.0	2
WMAIN-7150(1)(2)	015-001	015-002	12	152.5	0.5	1.0	1.4	2	1.0	2
WMAIN-7150(2)	015-002	015-003	12	152.5	0.5	1.0	1.4	2	1.0	2
WMAIN-7151	J-5242	J-5243	12	152.5	0.0	0.1	0.3	0.6	0.1	0.6
WMAIN-7152(1)(1)	J-5243	012-032	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7152(1)(2)(1)	012-032	013-003	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7152(1)(2)(2)	013-003	013-043	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7152(2)	013-043	J-8829	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7154(1)(1)	J-8468	013-014	16	140	0.2	0.4	1	1.4	0.4	1.4
WMAIN-7154(1)(2)	013-014	013-013	16	140	0.2	0.4	1	1.4	0.4	1.4
WMAIN-7154(2)	013-013	014-017	16	140	0.2	0.4	1	1.4	0.4	1.4
WMAIN-7155(1)	J-8679	013-012	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7155(2)	013-012	J-8468	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7157(1)	J-8664	013-010	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7157(2)(1)	013-010	013-011	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7157(2)(2)	013-011	J-8679	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7158(1)	J-8663	013-009	12	140	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-7158(2)	013-009	J-8664	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7159(1)	J-8665	013-007	12	140	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7159(2)(1)	013-007	013-008	12	140	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7159(2)(2)	013-008	J-8663	12	140	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7161(1)	J-8575	013-006	12	140	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7161(2)	013-006	J-8665	12	140	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7162(1)	J-8576	013-029	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7162(2)	013-029	J-5427	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7164(1)	J-5426	013-024	16	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-7164(2)(1)	013-024	013-037	16	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-7164(2)(2)	013-037	J-8813	16	152.5	0.0	0.1	0	0.6	0.1	0.6
WMAIN-7166(1)	J-8675	013-022	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7166(2)(1)	013-022	013-021	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7166(2)(2)	013-021	J-8640	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7167(1)	J-8640	013-020	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7167(2)	013-020	J-8309	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7169(1)	J-5426	013-023	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7169(2)	013-023	J-8675	12	140	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-7170(1)(1)	J-8469	013-017	16	140	0.0	0.0	0.3	0.3	0.0	0.3
WMAIN-7170(1)(2)	013-017	013-018	16	140	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7170(2)	013-018	J-8309	16	140	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7173(1)	J-8468	013-016	16	140	0.0	0.0	0.3	0.3	0.0	0.3
WMAIN-7173(2)(1)	013-016	013-015	16	140	0.0	0.0	0.3	0.3	0.0	0.3
WMAIN-7173(2)(2)	013-015	J-8469	16	140	0.0	0.0	0.3	0.3	0.0	0.3
WMAIN-7174(1)	J-8535	013-005	16	140	0.2	0.5	0.8	1.5	0.5	1.5
WMAIN-7174(2)	013-005	J-8575	16	140	0.2	0.5	0.8	1.5	0.5	1.5
WMAIN-7177(1)	J-5242	013-004	16	140	0.2	0.5	0.8	1.5	0.5	1.5
WMAIN-7177(2)	013-004	J-8535	16	140	0.2	0.5	0.8	1.5	0.5	1.5
WMAIN-7178	J-6675	J-6676	16	140	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-7179(1)	J-7570	012-022	16	140	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-7179(2)	012-022	J-6675	16	140	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-7181	J-7628	J-7629	4	140	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7183	J-6760	J-8548	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7185(1)	J-7690	011-007	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7185(2)	011-007	J-8527	6	140	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7186	J-6102	J-8368	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-7188	J-6709	J-6101	6	140	0.0	0.1	0	0.4	0.0	0
WMAIN-7189(1)	J-8651	022-033	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-7189(2)	022-033	J-6709	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-7192(1)	J-5612	022-046	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-7192(2)(1)	022-046	022-035	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-7192(2)(2)	022-035	J-8651	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-7195(1)	J-7460	022-043	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-7195(2)(1)	022-043	022-036	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7195(2)(2)	022-036	J-6709	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7196	J-8715	J-8527	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7200(1)	J-5611	011-006	6	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-7200(2)	011-006	J-8715	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7201(1)	J-7154	011-005	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-7201(2)	011-005	J-7189	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-7204	J-7189	J-5611	16	140	0.0	0.1	0	0.5	0.0	0.3
WMAIN-7205	J-7996	J-7997	16	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-7206	J-7517	J-7996	16	140	0.0	0.1	0	0.7	0.1	0.4
WMAIN-7208(1)	022-038	022-040	16	140	0.0	0.1	0	0.7	0.0	0.4
WMAIN-7208(2)	022-040	J-7517	16	140	0.0	0.1	0	0.7	0.0	0.4
WMAIN-7210	J-5213	022-038	16	140	0.0	0.1	0	0.7	0.0	0.4
WMAIN-7211(1)(1)	J-6611	038-002	16	140	0.0	0.2	0	0.9	0.0	0
WMAIN-7211(1)(2)	038-002	038-003	16	140	0.0	0.2	0	0.9	0.0	0
WMAIN-7211(2)	038-003	J-5633	16	140	0.0	0.2	0	0.9	0.0	0
WMAIN-7213(1)(1)	J-5475	026-006	16	140	0.1	0.3	0.5	1.2	0.1	0.7
WMAIN-7213(1)(2)	026-006	026-005	16	140	0.1	0.3	0.5	1.2	0.1	0.7
WMAIN-7213(2)	026-005	J-7744	16	140	0.1	0.3	0.5	1.2	0.1	0.7
WMAIN-7214	J-6598	J-5476	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-7216(1)	J-5456	026-012	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-7216(2)	026-012	J-6974	16	140	0.0	0.3	0.4	1.1	0.2	0.9
WMAIN-7217	J-5682	J-5457	16	152.5	0.0	0.2	0.4	1	0.2	0.9
WMAIN-7218(1)	J-6072	023-026	16	152.5	0.0	0.2	0.4	0.9	0.1	0.7
WMAIN-7218(2)	023-026	J-6073	16	152.5	0.0	0.1	0.4	0.8	0.1	0.7
WMAIN-7220	J-6358	J-6359	16	140	0.0	0.2	0.4	0.8	0.1	0.7
WMAIN-7221	J-6690	J-6358	16	140	0.0	0.2	0.4	0.8	0.1	0.7
WMAIN-7223	J-5214	J-7696	16	140	0.0	0.2	0.4	0.8	0.1	0.8
WMAIN-7224	J-5213	J-5214	8	152.5	0.5	4.1	1	3.3	2.6	2.6
WMAIN-7226(1)	J-5107	J-5205	12	152.5	0.0	0.5	0.3	1.4	0.5	1.4

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7226(2)	J-5205	J-6964	12	152.5	0.0	0.5	0.3	1.4	0.5	1.4
WMAIN-7229	J-5107	009-033	12	152.5	0.0	0.1	0	0.5	0.0	0.1
WMAIN-7230	009-033	J-5712	12	152.5	0.0	0.1	0	0.5	0.0	0.1
WMAIN-7233(1)	J-7862	170-100	8	152.5	0.0	0.0	0	0.3	0.0	0
WMAIN-7233(2)	170-100	J-7090	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7236(1)(1)(1)	J-7706	170-104	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7236(1)(1)(2)	170-104	170-103	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7236(1)(2)	170-103	170-102	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7236(2)(1)	170-102	170-101	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7236(2)(2)	170-101	J-8404	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7237	J-6708	J-7141	12	152.5	0.1	0.2	0.4	0.8	0.1	0.5
WMAIN-7238(1)	J-6504	011-027	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-7238(2)	011-027	J-6505	8	152.5	0.0	0.1	0.1	0.5	0.1	0.4
WMAIN-7239	024-008	J-6780	8	152.5	0.0	0.5	0.2	1	0.3	0.8
WMAIN-7241(1)	J-5675	J-6163	12	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-7241(2)	J-6163	J-8301	12	140	0.0	0.1	0	0.4	0.0	0
WMAIN-7243	J-6735	J-6736	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7245	J-7108	J-7671	8	140	0.1	0.5	0.3	1	0.5	1
WMAIN-7246	J-5559	J-5560	8	140	0.0	0.1	0	0.3	0.1	0.3
WMAIN-7248	J-5560	J-7427	8	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7250	J-7427	J-7428	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7254(1)	J-7428	042-015	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7254(2)	042-015	J-8815	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7256	J-7552	J-7956	6	140	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7257(1)	J-6981	042-023	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-7257(2)	042-023	J-6735	8	140	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-7259(1)	J-6735	042-020	8	140	0.1	0.3	0.3	0.7	0.3	0.7
WMAIN-7259(2)	042-020	J-7321	8	140	0.1	0.3	0.3	0.7	0.3	0.7
WMAIN-7261	J-7321	J-8212	8	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7263(1)	J-8366	042-019	8	140	0.1	0.4	0.4	0.9	0.3	0.8
WMAIN-7263(2)	042-019	J-7321	8	140	0.1	0.4	0.4	0.9	0.4	0.8
WMAIN-7265(1)	J-6928	042-044	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-7265(2)	042-044	J-7657	8	140	0.1	0.4	0.3	0.9	0.4	0.9
WMAIN-7267(1)	J-7657	042-043	8	140	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-7267(2)	042-043	J-5839	8	140	0.0	0.3	0.2	0.8	0.3	0.8
WMAIN-7269(1)	J-7671	042-030	8	140	0.1	0.5	0.3	1	0.5	1
WMAIN-7269(2)	042-030	J-7672	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-7271(1)	J-6134	042-029	8	140	0.0	0.4	0.3	0.9	0.4	0.9
WMAIN-7271(2)	042-029	J-7108	8	140	0.0	0.4	0.3	0.9	0.4	0.9
WMAIN-7273	J-6476	J-5845	8	152.5	0.1	0.4	0.4	0.9	0.4	0.9
WMAIN-7275(1)	J-6353	053-026	8	152.5	0.3	0.7	0.7	1.3	0.7	1.3
WMAIN-7275(2)(1)	053-026	053-044	8	152.5	0.2	0.7	0.7	1.3	0.7	1.3
WMAIN-7275(2)(2)	053-044	J-5777	8	152.5	0.2	0.7	0.7	1.3	0.7	1.3
WMAIN-7276	J-6596	J-6353	8	152.5	1.3	3.5	1.8	3.1	3.5	3.1
WMAIN-7278	J-7312	J-8311	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-7279	J-6466	J-5306	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7282(1)	J-7316	031-012	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-7282(2)(1)	031-012	031-011	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-7282(2)(2)	031-011	J-6265	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-7286(1)	J-5305	031-015	6	140	0.0	0.2	0	0.5	0.2	0.4
WMAIN-7286(2)	031-015	J-6265	6	140	0.0	0.2	0.1	0.5	0.2	0.5
WMAIN-7289	J-6266	J-6209	12	152.5	0.0	0.2	0.3	0.7	0.2	0.7
WMAIN-7292(1)	J-7213	031-007	6	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7292(2)	031-007	J-6287	6	140	0.0	0.2	0.2	0.4	0.2	0.4
WMAIN-7294(1)(1)	J-7345	031-005	8	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-7294(1)(2)(1)	031-005	031-004	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7294(1)(2)(2)	031-004	031-003	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7294(2)	031-003	J-5351	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7296	J-5351	J-5352	8	140	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7297(1)	J-6286	031-009	6	140	0.1	0.2	0.2	0.5	0.2	0.5
WMAIN-7297(2)	031-009	J-6088	6	140	0.0	0.2	0.2	0.5	0.2	0.5
WMAIN-7299	J-7765	J-7766	8	140	0.0	0.0	0	0.2	0.0	0
WMAIN-7301	J-6012	J-6731	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7303(1)	J-8271	035-031	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7303(2)	035-031	J-6850	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7306(1)	J-7602	035-016	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7306(2)	035-016	J-8369	6	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7308	J-5316	J-7443	8	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-7310(1)	J-6644	035-025	6	140	0.1	0.1	0.3	0.4	0.1	0.3
WMAIN-7310(2)	035-025	J-5864	6	140	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-7312	J-5363	J-5364	8	140	0.0	0.0	0	0	0.0	0
WMAIN-7315(1)	J-8270	035-030	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7315(2)	035-030	J-7766	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7317(1)	J-8453	035-022	8	140	0.0	0.0	0.1	0.3	0.0	0.1
WMAIN-7317(2)	035-022	J-8370	8	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7320(1)	J-7895	035-018	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7320(2)(1)	035-018	035-017	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7320(2)(2)	035-017	J-8369	6	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7322(1)	J-6056	036-025	6	140	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-7322(2)	036-025	J-7008	6	140	0.1	0.2	0.3	0.5	0.1	0.4
WMAIN-7323(1)	J-7058	036-027	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7323(2)	036-027	J-8493	6	140	0.0	0.2	0.2	0.4	0.1	0.3
WMAIN-7325	J-8003	J-7350	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7326	J-5423	J-6370	4	140	0.0	0.1	0.1	0.2	0.1	0.2
WMAIN-7327	J-6370	J-6371	4	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7329(1)	J-5435	028-012	6	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-7329(2)	028-012	J-7763	6	140	0.0	0.1	0	0.4	0.1	0.3
WMAIN-7330	J-6706	J-5172	4	140	0.0	0.4	0	0.6	0.2	0.4
WMAIN-7332(1)	J-6290	037-045	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7332(2)	037-045	J-8666	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7335(1)(1)	J-8188	037-037	6	140	0.0	0.2	0.1	0.5	0.0	0.2
WMAIN-7335(1)(2)	037-037	037-038	6	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-7335(2)	037-038	J-7705	6	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-7339(1)	J-5225	044-024	8	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-7339(2)	044-024	J-7114	8	140	0.1	0.2	0.3	0.5	0.2	0.5
WMAIN-7341	J-6611	J-6411	8	140	0.0	0.1	0	0.4	0.1	0.4
WMAIN-7343(1)	J-6838	043-040	6	140	0.1	0.3	0.3	0.6	0.1	0.4
WMAIN-7343(2)	043-040	J-7000	6	140	0.1	0.3	0.3	0.6	0.1	0.4
WMAIN-7345(1)	J-5848	043-039	8	140	0.3	0.9	0.7	1.3	0.5	0.9
WMAIN-7345(2)	043-039	J-6837	8	140	0.3	0.9	0.7	1.3	0.5	0.9
WMAIN-7347(1)	J-8490	043-037	8	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7347(2)	043-037	J-7912	8	140	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-7350(1)	J-8819	043-043	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7350(2)	043-043	J-7969	8	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7352(1)	J-6890	043-030	8	140	0.0	0.6	0.2	1	0.6	1.1
WMAIN-7352(2)	043-030	J-7825	8	140	0.0	0.6	0.2	1	0.6	1
WMAIN-7354(1)(1)	J-6536	043-023	6	140	0.3	3.4	0.6	2.3	3.4	2.3
WMAIN-7354(1)(2)	043-023	043-022	6	140	0.3	3.4	0.6	2.3	3.4	2.3
WMAIN-7354(2)	043-022	J-6537	6	140	0.3	3.4	0.6	2.3	3.4	2.3
WMAIN-7356(1)	J-8358	043-024	6	140	0.0	0.5	0.1	0.8	0.5	0.8
WMAIN-7356(2)	043-024	J-8630	6	140	0.0	0.3	0	0.6	0.3	0.6
WMAIN-7359(1)	J-6773	043-027	6	140	0.0	0.1	0.2	0.4	0.1	0.3

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7359(2)	043-027	J-8604	6	140	0.0	0.2	0.2	0.5	0.1	0.3
WMAIN-7361	J-6772	J-6773	8	140	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-7363(1)	J-7164	043-035	8	140	0.3	0.9	0.7	1.4	0.6	1.1
WMAIN-7363(2)	043-035	J-7165	8	140	0.3	0.9	0.7	1.4	0.6	1.1
WMAIN-7364(1)	J-5506	043-029	8	140	0.0	0.8	0.2	1.3	0.8	1.3
WMAIN-7364(2)	043-029	J-5313	8	140	0.0	0.9	0.3	1.3	0.9	1.3
WMAIN-7367(1)	J-7021	043-010	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7367(2)	043-010	J-7022	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7369	J-6633	J-6634	8	140	0.0	0.5	0.1	0.9	0.5	0.9
WMAIN-7370	J-6536	J-8384	12	140	0.0	0.5	0.1	1.2	0.0	0.2
WMAIN-7372	J-5219	J-5447	12	152.5	0.1	0.3	0.5	1	0.2	0.8
WMAIN-7375(1)	J-8685	044-007	8	140	0.0	0.2	0.1	0.5	0.0	0.1
WMAIN-7375(2)	044-007	J-8292	8	140	0.0	0.2	0.2	0.6	0.0	0.2
WMAIN-7378(1)(1)	J-7266	053-002	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7378(1)(2)	053-002	053-004	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-7378(2)	053-004	J-7497	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-7380(1)	J-7255	053-016	6	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7380(2)	053-016	J-7376	6	140	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-7383	J-6133	053-013	6	140	0.0	0.4	0.1	0.7	0.0	0.1
WMAIN-7384	J-5748	J-5781	8	140	0.0	0.1	0	0.4	0.0	0
WMAIN-7385(1)	J-5781	053-001	8	140	0.0	0.1	0	0.5	0.0	0
WMAIN-7385(2)	053-001	J-7266	8	140	0.0	0.1	0	0.5	0.0	0
WMAIN-7387(1)(1)	J-6471	053-009	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-7387(1)(2)	053-009	053-010	8	140	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-7387(2)	053-010	J-7219	8	140	0.0	0.1	0.2	0.5	0.0	0.2
WMAIN-7389	J-7562	J-7376	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7391(1)	J-7341	053-021	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7391(2)(1)	053-021	J-9004	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7391(2)(2)	J-9004	J-8628	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7392(1)(1)	J-8627	J-9003	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7392(1)(2)	J-9003	053-020	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7392(2)	053-020	J-7340	6	140	0.0	0.0	0	0	0.0	0
WMAIN-7395(1)	J-6369	053-022	8	140	0.2	0.5	0.6	0.9	0.4	0.9
WMAIN-7395(2)	053-022	J-6084	8	140	0.2	0.5	0.6	1	0.5	0.9
WMAIN-7397(1)	J-6085	053-042	6	140	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7397(2)	053-042	J-8656	6	140	0.1	0.1	0.2	0.4	0.1	0.4
WMAIN-7399(1)	J-7108	042-045	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7399(2)	042-045	J-6928	6	140	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7402(1)	J-7671	042-046	6	140	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7402(2)	042-046	J-7657	6	140	0.0	0.1	0.1	0.2	0.0	0.2
WMAIN-7405(1)	J-7672	042-031	6	140	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7405(2)	042-031	J-5840	6	140	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7408(1)(1)	J-8463	055-036	8	152.5	0.0	0.2	0.2	0.6	0.2	0.6
WMAIN-7408(1)(2)	055-036	055-037	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-7408(2)	055-037	J-6476	8	152.5	0.0	0.1	0.2	0.5	0.1	0.5
WMAIN-7411	J-6076	J-6928	8	140	0.1	0.5	0.3	1	0.5	1
WMAIN-7413	J-5496	J-5560	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7416(1)	J-7558	042-017	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7416(2)	042-017	J-5496	6	140	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7418(1)	J-7427	042-016	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7418(2)	042-016	J-7558	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7420(1)	J-6542	042-013	8	140	0.1	0.6	0.5	1	0.5	0.9
WMAIN-7420(2)	042-013	J-6543	8	140	0.1	0.6	0.5	1	0.5	0.9
WMAIN-7423(1)	J-8366	042-018	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-7423(2)	042-018	J-7428	6	140	0.1	0.3	0.2	0.7	0.3	0.7
WMAIN-7424	J-7551	J-7552	6	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7426(1)	J-6981	042-026	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-7426(2)	042-026	J-7956	6	140	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-7430(1)	J-6980	042-027	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-7430(2)	042-027	J-6981	8	140	0.1	0.5	0.3	0.9	0.5	0.9
WMAIN-7432(1)	J-5372	042-022	8	140	0.0	0.1	0.1	0.4	0.0	0.1
WMAIN-7432(2)	042-022	J-6735	8	140	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7435(1)(1)	J-5476	026-007	8	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-7435(1)(2)	026-007	026-008	8	152.5	0.0	0.1	0	0.5	0.1	0.3
WMAIN-7435(2)(1)	026-008	026-009	8	152.5	0.0	0.1	0	0.5	0.1	0.3
WMAIN-7435(2)(2)(1)	026-009	026-020	8	152.5	0.0	0.1	0	0.5	0.1	0.3
WMAIN-7435(2)(2)(2)(1)	026-020	026-021	8	152.5	0.0	0.1	0	0.5	0.1	0.3
WMAIN-7435(2)(2)(2)(2)	026-021	J-8758	8	152.5	0.0	0.1	0	0.5	0.1	0.3
WMAIN-7438(1)	J-8007	023-006	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7438(2)	023-006	J-6953	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7441(1)(1)	J-8301	023-039	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7441(1)(2)	023-039	023-040	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7441(2)	023-040	J-8772	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7443(1)	J-7698	023-019	6	140	0.0	0.1	0	0.4	0.0	0.2
WMAIN-7443(2)	023-019	J-7697	6	140	0.0	0.1	0	0.4	0.0	0.1
WMAIN-7446(1)	J-7489	023-020	6	140	0.0	0.1	0	0.3	0.0	0.1
WMAIN-7446(2)	023-020	J-7696	6	140	0.0	0.1	0	0.3	0.0	0
WMAIN-7448	J-5106	J-5107	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7449	J-5446	J-5447	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7450(1)	J-8575	013-031	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7450(2)(1)	013-031	013-030	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7450(2)(2)	013-030	J-8576	16	140	0.0	0.1	0.1	0.6	0.1	0.6
WMAIN-7451	J-5389	J-5390	8	140	0.4	1.2	0.9	1.6	1.2	1.6
WMAIN-7454(1)(1)	J-6102	022-034	6	140	0.0	0.0	0	0.2	0.0	0
WMAIN-7454(1)(2)	022-034	022-044	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-7454(2)	022-044	J-7690	6	140	0.0	0.1	0	0.3	0.0	0.2
WMAIN-7457(1)	J-8309	013-019	8	140	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7457(2)	013-019	J-8310	8	140	0.0	0.0	0	0	0.0	0
WMAIN-7458	J-5168	J-5169	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7459(1)(1)	J-6208	168-006	12	152.5	0.0	0.1	0.2	0.6	0.1	0.5
WMAIN-7459(1)(2)	168-006	J-7979	12	152.5	0.0	0.1	0.2	0.6	0.1	0.5
WMAIN-7459(2)(1)	J-7979	168-007	12	152.5	0.0	0.1	0.3	0.7	0.1	0.6
WMAIN-7459(2)(2)	168-007	J-8762	12	152.5	0.0	0.2	0.4	0.7	0.1	0.7
WMAIN-7460	167-040	J-6972	12	152.5	0.0	0.1	0.3	0.6	0.1	0.4
WMAIN-7461	J-5565	J-5564	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7462	J-5563	J-5564	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7463	J-8059	J-6208	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7464(1)	168-051	168-050	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7464(2)	168-050	J-7712	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7465(1)	J-7712	168-055	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7465(2)	168-055	J-7630	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7466(1)	J-7630	168-054	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7466(2)	168-054	J-7631	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7467(1)	J-7631	168-053	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7467(2)	168-053	J-7713	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7468(1)	J-7713	168-052	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7468(2)	168-052	J-8059	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7469	J-7712	J-7713	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7470	J-6277	J-7712	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7471	J-6276	J-6277	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7472(1)	J-8768	J-5706	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7472(2)(1)(1)	J-5706	168-071	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7472(2)(1)(2)	168-071	168-049	12	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7472(2)(2)	168-049	J-6277	12	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7473	J-6277	168-048	12	152.5	0.0	0.1	0.1	0.4	0.0	0.3
WMAIN-7474	168-048	J-6193	12	152.5	0.0	0.1	0.1	0.4	0.0	0.2
WMAIN-7476(1)	J-8296	180-015	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7476(2)	180-015	J-8561	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7477(1)	J-8615	180-021	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7477(2)	180-021	J-6303	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7478(1)	J-8735	180-018	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7478(2)	180-018	J-7149	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7479(1)(1)	J-8134	125-155	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7479(1)(2)	125-155	125-125	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7479(2)	125-125	J-8137	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7480(1)(1)(1)	J-8134	125-126	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7480(1)(1)(2)	125-126	125-127	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7480(1)(2)	125-127	125-128	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7480(2)	125-128	J-7935	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7481(1)	J-8695	125-121	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7481(2)	125-121	J-7476	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7482(1)	J-7087	033-019	8	152.5	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-7482(2)	033-019	J-7088	8	152.5	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-7483(1)	J-7078	033-020	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7483(2)	033-020	J-7079	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7484	J-7609	J-7087	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7485	J-7087	J-7078	8	152.5	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-7486	J-7078	J-7063	8	152.5	0.0	0.3	0.1	0.8	0.3	0.8
WMAIN-7487(1)	J-7063	033-021	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7487(2)	033-021	J-8450	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7488	J-7063	033-022	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7490(1)	J-8420	171-087	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7490(2)	171-087	J-6844	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7491	J-6844	J-6986	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7492(1)	J-6844	171-086	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7492(2)	171-086	J-8318	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7493	J-6003	J-6844	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7494(1)	125-156	125-120	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7494(2)	125-120	J-7476	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7495(1)	J-8049	125-118	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7495(2)(1)	125-118	125-119	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7495(2)(2)	125-119	J-7476	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7496(1)	J-7475	125-123	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7496(2)(1)	125-123	125-122	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7496(2)(2)	125-122	J-8049	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7498	J-8133	J-7475	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7499(1)	J-8280	126-060	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7499(2)	126-060	J-8261	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7500(1)	J-8261	126-059	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7500(2)	126-059	J-8086	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7501(1)	J-8432	126-061	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7501(2)	126-061	J-8261	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7502(1)	J-6684	180-020	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7502(2)	180-020	J-8103	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7503(1)	J-8735	180-019	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7503(2)	180-019	J-6684	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7504	J-7149	J-6303	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7505	J-8103	J-8615	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7506(1)(1)	J-7896	170-023	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7506(1)(2)(1)	170-023	180-016	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7506(1)(2)(2)	180-016	180-008	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7506(2)	180-008	J-8297	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7507(1)	J-7283	180-012	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7507(2)	180-012	J-8561	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7509(1)	J-6195	167-073	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7509(2)	167-073	J-8048	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7510(1)	J-5264	167-063	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7510(2)	167-063	J-8048	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7511(1)	J-8486	167-074	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7511(2)	167-074	J-7367	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7512	J-8048	J-7367	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7513	J-7367	J-7368	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7514	J-7475	J-7476	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7515	J-8049	J-7955	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7516	J-8133	J-8134	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7518	J-8248	J-6263	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7519	J-6263	J-6264	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7520	J-6684	J-6685	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7521	180-017	J-7149	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7522(1)	J-7149	180-006	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-7522(2)	180-006	J-7991	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-7523	J-6303	J-6304	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-7524(1)	J-8103	180-022	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7524(2)	180-022	J-6303	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7525	J-6525	J-6263	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7526(1)(1)	J-6189	180-013	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-7526(1)(2)	180-013	180-014	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-7526(2)	180-014	J-6263	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-7528	J-5959	J-5960	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7529	J-5961	J-5962	8	152.5	0.1	0.5	0.5	1.1	0.5	1.1
WMAIN-7530	J-5771	J-5772	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7531	J-5773	J-5771	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7532	J-6490	168-037	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-7533	J-5445	J-5767	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-7534	169-042	J-5444	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-7535	J-5444	J-5445	8	152.5	0.1	0.2	0.3	0.7	0.2	0.6
WMAIN-7536(1)	168-096	169-018	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7536(2)	169-018	J-6490	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7537	J-5699	J-5700	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7538	J-5700	168-095	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7539(1)	168-095	169-017	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7539(2)	169-017	J-5635	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7540	J-5635	J-5409	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7541	J-5409	J-5410	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7542	J-5410	168-096	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7543	J-7980	J-5901	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7544	J-5902	J-6223	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7545	J-6459	J-6460	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7546	J-7600	J-6223	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7547	168-051	J-5901	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7548(1)	J-5902	168-061	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7548(2)	168-061	J-6459	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7549(1)(1)	J-7980	168-058	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7549(1)(2)	168-058	168-059	8	152.5	0.0	0.0	0	0.1	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7549(2)	168-059	J-7940	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7550(1)	J-6459	168-062	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7550(2)	168-062	J-7600	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7551	J-7940	J-6459	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7552(1)	J-6223	168-064	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7552(2)	168-064	J-6224	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7553	J-5901	J-5902	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7554	J-7979	J-7980	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7555(1)	J-6485	180-063	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-7555(2)	180-063	J-6446	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-7556(1)	J-6446	180-047	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7556(2)	180-047	J-7835	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7557	J-7191	J-8032	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7558	J-7190	J-7191	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7559	J-6080	J-6081	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7560(1)	J-8755	180-027	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7560(2)	180-027	J-8032	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7561(1)	J-8032	180-028	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7561(2)	180-028	J-8033	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7562(1)	J-8033	180-038	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7562(2)	180-038	J-8038	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7563(1)	J-8038	180-037	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7563(2)	180-037	J-7190	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7564	J-6445	J-6446	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-7565(1)	J-8201	180-026	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7565(2)	180-026	J-8755	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7566(1)	J-7191	180-036	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7566(2)	180-036	J-6498	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7567	J-7297	J-6498	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7568	J-6498	J-6081	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7569(1)	J-6081	180-035	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7569(2)	180-035	J-8201	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7570	J-5949	J-5950	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7571(1)	J-5945	J-9272	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7571(2)	J-9272	J-5946	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7572(1)	J-8056	125-135	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7572(2)	125-135	J-8057	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7573	J-6169	J-8056	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7574(1)	125-137	125-136	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7574(2)	125-136	J-8056	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7575(1)	J-6169	125-129	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7575(2)	125-129	125-137	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7576(1)	J-6168	125-130	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7576(2)	125-130	J-6169	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7577(1)	J-7802	125-131	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7577(2)	125-131	J-6168	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7578	J-8145	J-7802	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7579(1)	J-8574	125-132	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7579(2)	125-132	J-7802	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7580(1)	J-8145	125-133	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7580(2)	125-133	J-8574	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7581(1)	J-7959	125-134	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7581(2)	125-134	J-8145	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7583(1)	J-8057	125-139	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7583(2)	125-139	J-8738	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7584(1)	J-7959	125-141	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7584(2)	125-141	J-8057	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7585(1)	J-7745	125-143	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7585(2)	125-143	J-7959	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7586(1)	125-142	125-140	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7586(2)	125-140	J-8738	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7587(1)	J-7745	125-144	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7587(2)	125-144	125-142	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7588	168-094	J-6343	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7589	J-5284	168-094	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7590(1)	J-6343	168-090	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7590(2)	168-090	J-6344	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7591	J-6215	J-6216	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7592(1)	J-6215	168-093	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7592(2)	168-093	J-7774	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7593	J-6217	J-6218	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7594(1)	J-7774	168-078	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7594(2)	168-078	J-6218	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7595(1)	J-7971	168-091	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7595(2)	168-091	J-6343	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7596(1)	J-7971	168-092	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7596(2)	168-092	J-6215	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7597(1)	J-8436	168-085	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7597(2)	168-085	J-7971	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7598	J-8436	J-7774	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7599(1)	J-6971	168-072	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7599(2)	168-072	J-8436	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7600(1)	J-6218	168-076	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7600(2)	168-076	J-6253	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7601	J-6253	J-6254	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7602(1)	J-6254	168-074	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7602(2)	168-074	J-7557	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7603	J-6254	J-6971	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7604(1)	J-6971	168-073	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7604(2)	168-073	J-6276	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7606(1)	168-077	168-075	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7606(2)	168-075	J-6192	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7607	J-5286	168-077	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7608(1)	J-6835	125-152	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7608(2)	125-152	J-8701	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7609(1)	J-6834	125-153	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7609(2)	125-153	J-6835	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7610(1)	J-8701	125-151	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7610(2)	125-151	125-148	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7611	J-6158	J-6159	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7612	J-5404	J-7745	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7613(1)	J-7474	125-149	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7613(2)(1)	125-149	125-147	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7613(2)(2)	125-147	J-5405	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7614(1)	J-8133	125-124	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7614(2)	125-124	J-7474	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7615	J-7474	J-6834	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7617	J-6293	J-6294	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7618(1)	J-7291	169-105	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7618(2)	169-105	J-6293	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7619	J-7291	J-7910	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7620(1)	J-5639	169-106	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7620(2)	169-106	J-7910	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7621	J-5638	J-5639	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7622(1)	J-7132	169-107	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7622(2)	169-107	J-5639	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7623(1)	J-7131	169-108	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7623(2)	169-108	J-7132	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7624	J-7834	J-7132	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7625(1)	J-7841	169-109	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7625(2)	169-109	J-7834	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7626(1)	J-6293	169-104	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7626(2)	169-104	J-6770	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7627	J-6770	J-6771	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7628(1)	J-6771	169-103	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7628(2)	169-103	J-7834	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7629(1)	J-5697	169-101	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7629(2)	169-101	J-6770	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7630	J-5852	J-6771	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7631	J-5851	J-5852	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7632	J-5852	J-7841	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7633(1)	J-7845	168-082	12	152.5	0.0	0.1	0.3	0.7	0.1	0.6
WMAIN-7633(2)	168-082	J-6878	12	152.5	0.0	0.1	0.3	0.7	0.1	0.6
WMAIN-7634(1)	169-110	169-102	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7634(2)	169-102	J-6878	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7635	J-6878	J-5852	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-7636(1)(1)	J-6878	169-100	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7636(1)(2)	169-100	168-066	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7636(2)	168-066	J-8710	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7637(1)	J-8710	168-065	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7637(2)	168-065	J-6044	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7638(1)	J-6045	168-060	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7638(2)	168-060	J-6048	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7639	J-6048	J-6049	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7640	J-5736	J-6130	12	152.5	0.1	0.4	0.7	1.2	0.4	1.2
WMAIN-7641	J-5735	J-5736	16	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7642	J-5909	J-5736	12	152.5	0.1	0.4	0.7	1.2	0.4	1.2
WMAIN-7643	J-6766	J-6767	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7644(1)	J-8529	081-007	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7644(2)	081-007	J-8197	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7645	J-7431	J-7262	8	152.5	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-7646(1)	J-7540	081-008	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7646(2)	081-008	J-7431	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7647	J-7767	J-7431	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-7648	J-7767	J-7060	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-7649(1)	J-6292	081-016	8	152.5	0.4	0.9	0.9	1.5	0.9	1.5
WMAIN-7649(2)(1)	081-016	081-015	8	152.5	0.4	1.0	0.9	1.5	1.0	1.5
WMAIN-7649(2)(2)	081-015	J-7767	8	152.5	0.4	1.0	0.9	1.5	1.0	1.5
WMAIN-7650(1)	J-6767	081-017	8	152.5	0.3	0.9	0.9	1.4	0.9	1.4
WMAIN-7650(2)	081-017	J-6292	8	152.5	0.3	0.9	0.9	1.4	0.9	1.4
WMAIN-7651	J-8088	J-6767	8	152.5	0.3	0.8	0.9	1.4	0.8	1.4
WMAIN-7652	J-6291	J-6292	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7653(1)	J-6292	081-006	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7653(2)	081-006	J-8198	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7654	J-7263	J-6795	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-7655	J-7195	J-5909	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-7656(1)(1)	J-5909	081-004	8	152.5	0.3	0.9	0.9	1.5	0.9	1.5
WMAIN-7656(1)(2)	081-004	081-009	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-7656(2)	081-009	J-7262	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-7657	J-7262	J-7263	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-7658(1)(1)	J-7263	081-003	8	152.5	0.3	0.8	0.9	1.4	0.8	1.4
WMAIN-7658(1)(2)	081-003	081-002	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-7658(2)	081-002	J-8197	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-7659	J-8197	J-8198	8	152.5	0.3	0.8	0.8	1.3	0.8	1.3
WMAIN-7660(1)	J-8198	081-001	8	152.5	0.3	0.7	0.8	1.3	0.7	1.3
WMAIN-7660(2)	081-001	J-8661	8	152.5	0.3	0.7	0.8	1.2	0.7	1.2
WMAIN-7661(1)	J-8035	180-024	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7661(2)(1)	180-024	180-023	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7661(2)(2)	180-023	J-8239	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7662(1)	J-8034	180-025	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7662(2)	180-025	J-8035	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7663	J-7162	J-7163	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7664(1)	J-7163	180-043	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7664(2)	180-043	J-6715	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7665	J-6714	J-6715	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7666(1)	J-8102	180-034	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7666(2)	180-034	J-8034	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7667(1)	J-8035	180-032	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7667(2)	180-032	J-8451	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7668(1)	J-8451	180-033	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7668(2)	180-033	J-8102	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7669(1)	J-7119	180-031	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7669(2)	180-031	J-8451	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7670(1)	J-6126	180-030	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7670(2)	180-030	J-7119	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7671	J-6126	J-6127	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7672	J-8239	J-6126	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7673	J-5326	J-5327	6	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7674	J-6715	J-6901	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7675	J-6901	J-7119	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7676(1)	J-8041	180-010	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-7676(2)	180-010	J-8248	12	152.5	0.2	0.4	0.7	1.2	0.4	1.2
WMAIN-7677	J-8041	J-6445	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-7678(1)	J-8041	180-046	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-7678(2)	180-046	J-8042	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-7679	J-8042	J-7190	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-7680(1)	J-8042	180-045	12	152.5	0.0	0.1	0.4	0.6	0.1	0.6
WMAIN-7680(2)	180-045	J-7836	12	152.5	0.0	0.1	0.4	0.6	0.1	0.6
WMAIN-7681	J-7836	J-8201	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7682(1)	J-7835	180-048	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7682(2)	180-048	J-7836	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7683	J-7583	J-8102	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7684(1)	J-7573	180-050	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7684(2)	180-050	J-7574	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7685(1)	J-7574	180-051	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7685(2)	180-051	J-7163	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7686(1)	J-7137	180-060	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7686(2)(1)	180-060	180-059	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7686(2)(2)	180-059	J-8216	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7687(1)	J-7137	180-061	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7687(2)	180-061	J-7840	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7688(1)	J-7136	J-5326	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7688(2)	J-5326	J-7137	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7689	J-7136	J-6458	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7690(1)	J-7303	180-049	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7690(2)	180-049	J-7136	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7691	J-7836	J-7303	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7692	J-7302	J-7303	12	152.5	0.0	0.0	0.2	0.4	0.0	0.4
WMAIN-7693(1)	J-8201	180-039	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7693(2)	180-039	J-7302	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7694(1)	J-7583	180-044	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7694(2)(1)	180-044	J-9218	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7694(2)(2)	J-9218	J-7302	12	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7695	J-7574	J-7583	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7696	180-040	J-7583	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7697(1)	J-6901	180-041	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7697(2)	180-041	180-040	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7698	J-8372	J-6901	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7699(1)	180-052	180-042	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7699(2)	180-042	J-8372	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7700	180-029	J-8372	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7701	J-8662	180-029	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7702	J-5404	J-5405	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7703	J-5404	J-7935	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7704(1)	J-7485	125-145	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7704(2)	125-145	J-5405	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7705(1)	125-148	125-146	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7705(2)	125-146	J-7485	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7706	J-6158	125-148	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7707(1)	J-6834	125-150	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7707(2)	125-150	J-6158	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7708(1)	J-8695	125-154	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7708(2)	125-154	J-6834	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7709(1)	J-6559	041-047	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7709(2)	041-047	J-6560	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7710	J-8579	J-7234	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7711(1)	J-7399	041-039	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7711(2)	041-039	J-7233	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7712	J-7233	J-7234	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7713(1)	J-7234	041-040	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-7713(2)	041-040	J-7643	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-7714	J-7643	J-8185	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-7715(1)(1)	J-8185	041-045	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7715(1)(2)	041-045	041-046	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7715(2)	041-046	J-7240	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7716	J-7240	J-6560	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7717(1)	J-8185	041-042	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7717(2)(1)	041-042	041-044	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7717(2)(2)	041-044	J-6793	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7718(1)(1)	J-7643	041-041	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7718(1)(2)	041-041	041-043	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7718(2)	041-043	J-7644	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7719(1)	J-7644	041-051	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7719(2)	041-051	J-6793	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7720	J-6560	J-7617	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7721(1)	J-7617	041-048	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7721(2)	041-048	J-6372	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7722	J-6793	J-6372	8	152.5	0.0	0.0	0	0.2	0.0	0
WMAIN-7723	J-6372	J-6373	8	152.5	0.0	0.1	0.1	0.3	0.0	0.1
WMAIN-7724(1)	J-8729	041-049	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7724(2)	041-049	J-6373	12	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7725	J-5377	J-5245	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-7726	J-5245	J-5249	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-7727	J-5249	169-082	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-7728	J-5277	169-081	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-7729	J-5275	J-5277	12	152.5	0.2	0.7	0.9	1.6	0.7	1.6
WMAIN-7730	J-5141	J-5146	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-7731	J-5245	J-5246	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7732	J-5249	J-5250	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7733	J-5245	J-5989	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7734	J-5249	J-5988	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7735	J-5276	J-5277	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7736	J-5274	J-5275	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7737	J-5277	J-5906	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7738	J-5275	J-5907	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7739	J-5415	J-5416	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7740	J-5135	J-5136	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7741	J-5135	J-5143	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7742	J-5141	J-5142	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7743	J-5146	J-5147	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7745	J-6457	J-6458	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7746(1)	J-6458	180-062	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7746(2)	180-062	J-6484	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7747	J-6913	J-6484	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7748	J-6484	J-6485	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7749	J-6485	J-6683	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7750(1)	J-6683	180-064	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7750(2)	180-064	J-6345	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7751(1)	J-8716	180-067	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7751(2)	180-067	J-7840	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7752	J-7840	J-7951	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7753	J-8379	J-7951	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7754(1)	J-7951	180-066	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7754(2)	180-066	J-7541	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7755	J-7541	180-078	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7756(1)	J-6345	180-065	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7756(2)	180-065	J-7541	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7757	J-6345	J-6346	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7758(1)	J-6345	180-079	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7758(2)	180-079	J-6119	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7759(1)	180-077	180-076	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7759(2)	180-076	J-8716	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7760	J-6119	180-077	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7761	J-6119	J-6120	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7762	014-016	014-015	16	152.5	0.2	0.4	1	1.4	0.4	1.4
WMAIN-7763	014-015	J-7140	16	152.5	0.2	0.4	1	1.4	0.4	1.4
WMAIN-7764(1)(1)	J-8067	168-118	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7764(1)(2)	168-118	168-111	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7764(2)	168-111	J-6950	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7765(1)	J-6330	168-109	8	152.5	0.1	0.2	0.4	0.6	0.1	0.5
WMAIN-7765(2)	168-109	J-6949	8	152.5	0.1	0.2	0.3	0.6	0.1	0.5
WMAIN-7766	J-7442	J-6335	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7767	J-6330	J-6335	8	152.5	0.2	0.2	0.6	0.7	0.2	0.7
WMAIN-7768	J-6329	J-6330	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7769(1)	J-7467	168-112	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7769(2)	168-112	J-6949	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7770	J-7466	J-7467	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7771	J-8018	J-7467	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7772	J-7716	J-8018	8	152.5	0.1	0.2	0.4	0.7	0.2	0.6
WMAIN-7773(1)	J-8018	168-113	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7773(2)(1)	168-113	168-115	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-7773(2)(2)	168-115	J-7759	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-7774	J-7759	J-6912	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-7775	J-6912	J-7466	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-7776(1)	J-8067	168-116	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7776(2)	168-116	J-7466	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7777(1)	J-6416	168-119	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7777(2)	168-119	J-8067	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-7778	J-6415	J-6416	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7779	J-7642	J-6416	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7780(1)	J-6912	168-117	8	152.5	0.0	0.1	0.1	0.3	0.0	0.2
WMAIN-7780(2)(1)	168-117	168-120	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7780(2)(2)	168-120	J-7642	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7781	J-7806	J-6912	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7782(1)	J-6949	168-110	8	152.5	0.0	0.1	0.1	0.5	0.1	0.3
WMAIN-7782(2)	168-110	J-6950	8	152.5	0.0	0.1	0.1	0.5	0.1	0.3
WMAIN-7783	J-5751	J-5139	18	152.5	0.0	0.0	0	0.4	0.0	0.1
WMAIN-7785(1)	J-8734	J-8933	18	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7786	J-8386	J-8734	18	152.5	0.0	0.0	0	0.4	0.0	0.1
WMAIN-7787	J-5139	J-8386	18	152.5	0.0	0.0	0	0.4	0.0	0.1
WMAIN-7788	J-5139	J-5140	18	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7789	J-5751	J-6847	12	152.5	0.0	0.1	0.3	0.6	0.0	0.3
WMAIN-7790(1)	J-8676	180-055	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7790(2)	180-055	180-052	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7791(1)	J-8803	180-072	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7791(2)	180-072	J-8676	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7792(1)	J-8676	180-057	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7792(2)	180-057	J-7115	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7793	J-7115	J-7116	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7794(1)	J-7116	180-056	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7794(2)	180-056	J-7503	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7795	J-7503	J-7504	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7796(1)	J-7504	180-053	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7796(2)(1)	180-053	180-054	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7796(2)(2)	180-054	J-6825	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7797	J-6825	J-6826	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7798	J-6825	J-7573	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7799	J-8216	J-7573	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7800(1)	J-8216	180-068	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7800(2)	180-068	J-6449	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7801	J-8053	J-8216	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7802	J-8052	J-8053	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7803(1)	J-7115	180-058	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7803(2)	180-058	J-8053	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7804	J-7974	J-7115	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7805(1)	J-7974	180-070	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7805(2)(1)	180-070	180-069	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7805(2)(2)	180-069	J-8052	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7806	J-5947	J-7974	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7807	J-5947	J-5948	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7808(1)	J-7916	180-071	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7808(2)	180-071	J-5947	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7809(1)	180-074	180-073	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7809(2)	180-073	J-7916	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7810(1)	J-6449	180-075	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7810(2)	180-075	180-074	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7811	J-6449	J-6450	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7812(1)	J-7059	081-014	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7812(2)	081-014	J-7060	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7813	J-7060	J-7946	8	152.5	0.2	0.4	0.6	0.9	0.4	0.9
WMAIN-7814	J-8136	J-7946	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7815(1)	J-7946	081-013	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-7815(2)	081-013	J-7947	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-7816(1)	J-7195	081-010	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-7816(2)	081-010	J-7947	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-7817	J-7947	J-8342	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7818(1)	J-8342	081-012	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7818(2)	081-012	J-8516	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7819(1)	J-8516	081-011	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7819(2)	081-011	J-8333	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7820(1)	J-8333	081-005	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7820(2)	081-005	J-7195	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7821(1)	J-6044	168-063	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7821(2)	168-063	J-6045	12	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7822	J-6052	J-5697	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7823(1)	J-6052	169-099	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7823(2)	169-099	J-8267	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7824	J-8127	J-6052	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7825(1)	J-8127	169-098	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7825(2)	169-098	J-8128	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7826	J-6693	J-8127	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7827	J-6693	J-6694	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7828(1)	J-6045	169-097	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7828(2)	169-097	J-6693	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7829	J-5697	J-5698	8	152.5	0.0	0.1	0.2	0.5	0.1	0.4
WMAIN-7830(1)	J-6249	125-002	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-7830(2)	125-002	J-7533	12	152.5	0.1	0.4	0.6	1.3	0.4	1.3
WMAIN-7831	J-6245	J-6246	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7832	J-6249	J-6246	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7833A	J-8898	J-5381	30	152.5	0.2	0.5	1.6	2.6	0.5	2.6
WMAIN-7833B	J-5126	J-8898	30	152.5	0.2	0.5	1.6	2.6	0.5	2.6
WMAIN-7834(1)	J-8549	009-037	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7834(2)	009-037	009-036	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7835	J-5928	J-5929	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7836	J-5913	J-5914	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7837	156-040	J-6843	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7838	J-6843	J-6845	10	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7839	J-6842	J-6843	10	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7840(1)(1)(1)	J-5817	156-034	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7840(1)(1)(2)	156-034	156-035	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7840(1)(2)	156-035	156-036	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7840(2)(1)	156-036	156-037	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7840(2)(2)	156-037	J-6842	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7841(1)	J-5817	156-039	10	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-7841(2)(1)	156-039	156-038	10	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7841(2)(2)	156-038	J-6842	10	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7842	J-5816	J-5817	10	152.5	0.0	0.1	0	0.4	0.0	0.2
WMAIN-7843	J-5413	J-8237	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7844	J-8237	J-8238	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7845	J-8238	J-7900	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7846	J-7900	J-5229	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7847	J-5228	J-5229	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7848	J-5229	J-8148	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7849	J-8148	J-8161	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7850	J-8161	J-8703	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7851	J-8703	J-8704	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7852	J-8704	J-8276	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7853	J-8276	J-8277	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7854	J-8277	J-8409	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7855(1)	J-8409	114-047	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7855(2)(1)	114-047	114-046	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7855(2)(2)	114-046	J-7899	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7856(1)	J-7899	114-045	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7856(2)	114-045	J-7201	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7857	J-7201	J-7202	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7858(1)(1)	J-7202	114-044	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7858(1)(2)	114-044	114-043	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7858(2)	114-043	J-8705	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7859(1)	J-8705	114-042	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7859(2)	114-042	114-041	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7860(1)	114-041	114-040	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7860(2)	114-040	J-5853	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7861	J-5853	J-5854	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7862(1)	J-5854	114-036	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7862(2)	114-036	J-8619	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7863	J-5854	114-035	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7864(1)	J-8619	114-037	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7864(2)	114-037	J-8606	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7865(1)(1)	J-8606	114-038	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7865(1)(2)	114-038	114-039	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7865(2)	114-039	J-8016	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7866	114-035	J-8254	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7867(1)(1)	J-8254	114-034	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7867(1)(2)	114-034	114-033	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7867(2)	114-033	J-8581	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7868(1)	J-8581	114-032	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7868(2)	114-032	J-8709	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7869(1)	J-8709	114-031	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7869(2)(1)	114-031	114-030	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7869(2)(2)	114-030	J-5788	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7870(1)(1)	J-5788	114-001	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7870(1)(2)	114-001	114-002	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7870(2)	114-002	114-003	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7871	J-5788	J-5789	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7872	J-6154	J-6637	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7873(1)	J-6154	127-001	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7873(2)	127-001	J-6155	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7874(1)	J-6154	137-001	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7874(2)	137-001	J-6862	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7875	J-8642	J-6154	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7876	J-8031	J-8642	12	130	0.0	0.0	0	0	0.0	0
WMAIN-7877	J-8030	J-8031	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7878	J-6124	J-8030	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7879(1)	J-6124	126-062	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7879(2)	126-062	J-6888	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7880	J-5777	J-6124	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7881(1)	J-8743	053-066	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-7881(2)(1)(1)	053-066	J-8965	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7881(2)(1)(2)	J-8965	053-039	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7881(2)(2)	053-039	J-8030	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7882(1)	J-5219	053-041	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-7882(2)	053-041	J-5924	12	152.5	0.0	0.1	0.3	0.7	0.1	0.7
WMAIN-7883	J-6651	J-6652	8	152.5	0.1	0.3	0.4	0.9	0.3	0.9
WMAIN-7884(1)	J-6652	171-091	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7884(2)	171-091	J-8022	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7885(1)	J-6167	171-089	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7885(2)	171-089	J-6652	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7886	H-386	J-6167	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7887(1)	J-6179	171-095	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7887(2)	171-095	J-6167	8	152.5	0.0	0.1	0.3	0.5	0.1	0.5
WMAIN-7888(1)	J-6652	171-090	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7888(2)	171-090	J-7634	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-7889(1)	J-7634	171-094	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7889(2)	171-094	J-7856	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7890	J-7634	J-7568	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-7891(1)	J-7568	171-098	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7891(2)	171-098	J-7983	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7892(1)	J-7568	171-099	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-7892(2)	171-099	J-6374	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-7893(1)	J-6375	171-103	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7893(2)	171-103	J-7606	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7894	J-6374	J-6375	8	152.5	0.3	0.7	0.8	1.3	0.7	1.3
WMAIN-7895(1)	J-6179	171-104	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7895(2)	171-104	J-6374	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-7896	H-385	J-6179	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7897(1)	J-6375	171-112	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-7897(2)	171-112	J-7045	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-7898(1)	J-7045	171-113	8	152.5	0.4	1.0	0.9	1.5	1.0	1.5
WMAIN-7898(2)	171-113	J-7208	8	152.5	0.4	1.0	0.9	1.5	1.0	1.5
WMAIN-7899	J-7044	J-7045	8	152.5	0.8	2.2	1.4	2.4	2.2	2.4
WMAIN-7900(1)	J-7045	171-119	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7900(2)	171-119	J-7632	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-7901(1)	J-7967	171-120	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7901(2)	171-120	J-7044	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7902(1)	J-7539	171-111	8	152.5	0.8	2.1	1.4	2.3	2.1	2.3
WMAIN-7902(2)	171-111	J-7044	8	152.5	0.8	2.1	1.4	2.3	2.1	2.3
WMAIN-7903(1)	J-7539	J-7872	8	152.5	0.8	2.0	1.4	2.2	2.0	2.2
WMAIN-7903(2)	J-7872	J-8024	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-7904	J-7871	J-7872	8	152.5	1.1	2.9	1.7	2.7	2.9	2.7
WMAIN-7905(1)	J-8024	171-135	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-7905(2)	171-135	J-6174	8	152.5	0.2	0.4	0.6	1	0.4	1
WMAIN-7906(1)	J-7640	171-123	8	152.5	0.4	1.1	1	1.6	1.1	1.6
WMAIN-7906(2)	171-123	J-8024	8	152.5	0.4	1.1	1	1.6	1.1	1.6
WMAIN-7907(1)	J-7640	171-124	8	152.5	0.6	1.4	1.1	1.9	1.4	1.9
WMAIN-7907(2)	171-124	J-7633	8	152.5	0.6	1.5	1.1	1.9	1.5	1.9
WMAIN-7908(1)	J-7639	171-128	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7908(2)	171-128	J-7640	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-7909(1)(1)	J-7639	171-130	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-7909(1)(2)	171-130	171-129	8	152.5	0.3	0.7	0.7	1.2	0.7	1.2
WMAIN-7909(2)	171-129	J-7342	8	152.5	0.3	0.7	0.7	1.2	0.7	1.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7910	J-6131	J-7639	8	152.5	0.3	0.8	0.8	1.4	0.8	1.4
WMAIN-7912	J-6131	J-6174	12	152.5	0.4	0.9	1.2	1.9	0.9	1.9
WMAIN-7913(1)	J-6130	171-134	12	152.5	0.2	0.5	0.8	1.3	0.5	1.3
WMAIN-7913(2)	171-134	J-6131	12	152.5	0.2	0.5	0.8	1.3	0.5	1.3
WMAIN-7914	J-6130	J-6098	12	152.5	0.6	1.5	1.5	2.5	1.5	2.5
WMAIN-7915	J-5790	J-8186	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7916(1)	J-6865	156-007	10	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7916(2)(1)	156-007	156-006	10	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7916(2)(2)	156-006	J-6845	10	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7917(1)(1)	J-6865	156-009	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7917(1)(2)	156-009	156-008	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7917(2)	156-008	J-8520	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7918	J-6864	J-6865	10	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7919(1)	J-5982	156-016	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7919(2)	156-016	156-017	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7920(1)(1)	J-6970	156-014	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7920(1)(2)(1)	156-014	156-013	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7920(1)(2)(2)	156-013	156-010	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7920(2)	156-010	J-7013	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7921	J-5982	J-6970	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7922(1)	J-6183	156-019	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7922(2)	156-019	156-018	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7923(1)	J-5981	J-9257	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7923(2)	J-9257	J-5982	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-7924	J-5981	J-6183	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-7925(1)	J-7013	156-012	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7925(2)(1)	156-012	156-015	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7925(2)(2)	156-015	J-5981	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-7926	J-6864	J-7013	10	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-7927(1)(1)	114-003	114-004	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7927(1)(2)	114-004	114-005	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7927(2)	114-005	114-006	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7928	J-5356	J-5516	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7929	114-008	J-5356	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7930	J-5514	114-008	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7931(1)(1)(1)	114-006	114-007	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7931(1)(1)(2)	114-007	J-5516	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7931(1)(2)	J-5516	J-5514	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7931(2)	J-5514	J-5137	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7932	J-5648	J-5649	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7933	J-5650	J-5651	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7934	J-5137	J-5138	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7935(1)	J-8763	114-010	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7935(2)(1)	114-010	114-009	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7935(2)(2)	114-009	J-5137	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7936(1)	J-5255	114-012	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7936(2)(1)	114-012	114-011	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7936(2)(2)	114-011	J-8763	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7937	J-5255	J-5256	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7938(1)	J-5649	114-013	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7938(2)	114-013	J-5255	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7939(1)(1)	114-016	114-015	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7939(1)(2)	114-015	114-014	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7939(2)	114-014	J-5649	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7940(1)	114-019	114-018	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7940(2)(1)	114-018	114-017	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7940(2)(2)	114-017	114-016	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7941	J-5651	114-019	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7942(1)	J-5148	114-021	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7942(2)(1)	114-021	114-020	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7942(2)(2)	114-020	J-5651	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7943	114-022	J-5148	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7944(1)(1)	114-025	114-024	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7944(1)(2)	114-024	114-023	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7944(2)	114-023	114-022	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7945(1)	114-028	114-027	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7945(2)	114-027	J-8016	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7946(1)(1)	124-002	124-001	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7946(1)(2)	124-001	114-029	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7946(2)	114-029	114-028	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7947(1)	124-005	124-004	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7947(2)(1)	124-004	124-003	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7947(2)(2)	124-003	124-002	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7948(1)(1)	124-008	124-007	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7948(1)(2)	124-007	124-006	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7948(2)	124-006	124-005	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7949(1)	J-5739	124-009	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7949(2)	124-009	124-008	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7950	J-5148	J-5149	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7951	J-8016	114-025	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7952	J-5481	J-5669	6	130	0.1	0.4	0.3	0.7	0.3	0.6
WMAIN-7960	J-6009	J-6010	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7961	J-5730	J-5731	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7962	J-5616	J-5617	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7963	J-5614	J-5615	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7964(1)	J-6600	167-088	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7964(2)	167-088	J-7867	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7965	J-6465	J-6141	12	130	0.0	0.0	0	0.1	0.0	0
WMAIN-7966	167-080	J-6465	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7967(1)	J-5262	J-9041	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7967(2)	J-9041	167-080	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-7968	J-8082	J-7599	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7969(1)	J-7797	167-093	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7969(2)	167-093	J-6730	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7970	J-7797	J-6092	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7971	J-6036	J-6037	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7972(1)	J-6730	167-098	8	130	0.0	0.0	0	0	0.0	0
WMAIN-7972(2)	167-098	J-6036	8	130	0.0	0.0	0	0	0.0	0
WMAIN-7973	J-8005	J-6262	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7974(1)	J-7747	167-092	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7974(2)	167-092	J-7797	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7975	J-5984	J-6730	8	130	0.0	0.0	0	0	0.0	0
WMAIN-7976	J-5983	J-5984	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7977(1)	J-7599	167-099	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7977(2)	167-099	J-5983	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7978	J-6261	J-6262	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7979(1)	J-6262	167-100	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7979(2)	167-100	J-8082	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7980	J-7746	J-7747	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7981(1)	J-7746	167-096	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7981(2)	167-096	J-7599	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7982(1)	J-7747	167-097	8	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-7982(2)	167-097	J-5983	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7983	J-7867	J-7747	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7984(1)	J-8005	167-095	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7984(2)	167-095	J-7746	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7985(1)	J-6093	167-094	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7985(2)	167-094	J-6037	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7986	J-6092	J-6093	8	130	0.0	0.0	0	0	0.0	0
WMAIN-7987	J-6455	J-6456	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7988	J-6142	J-5640	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7989	J-6141	J-6142	12	130	0.0	0.0	0	0	0.0	0
WMAIN-7990(1)	J-5640	167-090	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7990(2)	167-090	J-6092	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7991(1)	J-6005	167-079	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7991(2)	167-079	J-6006	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7992	167-082	J-6005	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7993	J-5661	167-082	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-7994(1)	J-7867	167-087	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7994(2)	167-087	J-5660	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7995(1)(1)	J-5661	167-084	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7995(1)(2)(1)	167-084	167-085	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7995(1)(2)(2)	167-085	J-6009	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7995(2)	J-6009	J-7328	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7996	J-5660	J-5661	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-7997	J-6481	J-5660	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7998	J-6480	J-6481	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7999(1)	J-8259	167-091	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-7999(2)	167-091	J-6481	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8000	J-7867	J-8259	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8001(1)	J-6165	167-089	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8001(2)	167-089	J-6600	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8002	J-6092	J-6165	8	130	0.0	0.0	0	0	0.0	0
WMAIN-8003(1)	J-5614	167-081	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8003(2)	167-081	J-7328	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8004	J-5616	J-5614	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8005	J-6006	J-5616	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8006(1)	J-6456	167-078	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8006(2)	167-078	J-6006	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8007(1)	J-6481	167-083	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8007(2)	167-083	J-6456	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8008	J-6006	J-6830	12	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8009(1)	J-5730	167-086	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8009(2)	167-086	J-6141	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8010	J-7328	J-5730	12	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8011	J-5640	J-5641	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8012(1)	J-7257	171-139	12	152.5	0.3	0.6	1	1.6	0.6	1.6
WMAIN-8012(2)	171-139	J-6298	12	152.5	0.3	0.7	1	1.6	0.7	1.6
WMAIN-8013(1)(1)	J-6298	171-138	12	152.5	0.4	1.0	1.2	2	1.0	2
WMAIN-8013(1)(2)	171-138	171-137	12	152.5	0.4	1.0	1.2	2	1.0	2
WMAIN-8013(2)	171-137	J-6795	12	152.5	0.4	1.0	1.2	2	1.0	2
WMAIN-8014(1)	J-6298	TEMP437	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-8014(2)	TEMP437	J-8977	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-8015	J-7257	171-140	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8016(1)(1)	J-6795	J-6175	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-8016(1)(2)	J-6175	171-136	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-8016(2)	171-136	J-6174	12	152.5	0.5	1.4	1.4	2.4	1.4	2.4
WMAIN-8017(1)	J-8391	171-141	12	152.5	0.3	0.6	1	1.6	0.6	1.6
WMAIN-8017(2)	171-141	J-7257	12	152.5	0.3	0.6	1	1.6	0.6	1.6
WMAIN-8018	J-6098	J-6099	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8019	J-6680	J-6681	8	152.5	1.8	4.6	2.1	3.6	4.6	3.6
WMAIN-8020	J-7208	J-7209	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8021(1)	J-8748	171-100	16	152.5	0.5	1.3	1.6	2.8	1.3	2.8
WMAIN-8021(2)(1)	171-100	171-115	16	152.5	0.5	1.3	1.6	2.8	1.3	2.8
WMAIN-8021(2)(2)	171-115	J-6681	16	152.5	0.5	1.3	1.6	2.8	1.3	2.8
WMAIN-8022(1)	J-5515	171-093	16	152.5	0.5	1.3	1.6	2.8	1.3	2.8
WMAIN-8022(2)	171-093	J-8748	16	152.5	0.5	1.3	1.6	2.8	1.3	2.8
WMAIN-8023(1)	J-8783	171-117	16	152.5	0.2	0.6	1.1	1.9	0.6	1.9
WMAIN-8023(2)	171-117	J-6681	16	152.5	0.2	0.6	1.1	1.9	0.6	1.9
WMAIN-8024(1)	J-6753	171-131	16	152.5	0.2	0.6	1.1	1.9	0.6	1.9
WMAIN-8024(2)(1)	171-131	171-126	16	152.5	0.2	0.6	1.1	1.9	0.6	1.9
WMAIN-8024(2)(2)	171-126	J-8783	16	152.5	0.2	0.6	1.1	1.9	0.6	1.9
WMAIN-8025	J-6753	J-7725	16	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8026	J-6463	J-6464	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8027(1)	J-6463	171-132	12	152.5	1.0	2.5	2	3.3	2.5	3.3
WMAIN-8027(2)	171-132	J-6753	12	152.5	1.0	2.5	2	3.3	2.5	3.3
WMAIN-8028(1)	J-6098	171-133	12	152.5	0.6	1.5	1.5	2.5	1.5	2.5
WMAIN-8028(2)	171-133	J-6463	12	152.5	0.6	1.5	1.5	2.5	1.5	2.5
WMAIN-8031	J-7342	J-6463	8	152.5	0.5	1.3	1.1	1.8	1.3	1.8
WMAIN-8032(1)	J-7637	171-127	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-8032(2)	171-127	J-7342	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8033(1)	J-7633	171-125	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-8033(2)	171-125	J-7637	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-8035	J-7632	J-7633	8	152.5	0.3	0.9	0.9	1.5	0.9	1.5
WMAIN-8037(1)	J-7632	171-118	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-8037(2)	171-118	J-8697	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-8038(1)	J-7208	171-114	8	152.5	0.3	0.9	0.9	1.4	0.9	1.4
WMAIN-8038(2)	171-114	J-6680	8	152.5	0.3	0.9	0.9	1.4	0.9	1.4
WMAIN-8040(1)	J-6680	171-116	8	152.5	0.3	0.7	0.7	1.2	0.7	1.2
WMAIN-8040(2)	171-116	J-8697	8	152.5	0.2	0.6	0.7	1.2	0.6	1.2
WMAIN-8041(1)	J-7857	171-101	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-8041(2)	171-101	J-6680	8	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-8042(1)	J-7983	171-102	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8042(2)	171-102	J-7208	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8043(1)	J-7983	171-097	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8043(2)	171-097	J-7857	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8045(1)	J-7856	171-096	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-8045(2)	171-096	J-7857	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-8047(1)	J-8022	171-092	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8047(2)	171-092	J-7856	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8049(1)	J-8700	046-023	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8049(2)	046-023	J-8232	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8050	J-5774	J-5775	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8051	J-5775	J-7733	12	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8052	J-7968	J-8821	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8053(1)	J-8810	046-005	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-8053(2)(1)	046-005	046-004	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-8053(2)(2)	046-004	J-7281	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-8054	J-7537	J-8069	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8055	J-7732	J-7469	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8056	J-8821	J-8461	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8057	J-8499	J-7968	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8058(1)	J-8826	045-040	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8058(2)(1)	045-040	045-039	12	152.5	0.0	0.0	0	0	0.0	0

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-8058(2)(2)	045-039	J-8506	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8059	J-8461	J-8462	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8060(1)	J-8775	046-027	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8060(2)	046-027	J-8776	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8061(1)(1)	J-8826	046-025	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8061(1)(2)	046-025	046-026	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8061(2)	046-026	J-8775	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8062(1)	J-8838	045-037	12	152.5	0.1	0.3	0.6	1.1	0.2	0.8
WMAIN-8062(2)	045-037	J-8506	12	152.5	0.1	0.3	0.6	1.1	0.2	0.8
WMAIN-8063(1)	J-7733	046-021	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8063(2)	046-021	J-7241	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8064(1)	J-7430	045-046	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-8064(2)	045-046	J-7733	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-8065(1)(1)	J-6723	045-043	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8065(1)(2)	045-043	045-044	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8065(2)	045-044	J-7430	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8066(1)	J-8582	045-036	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8066(2)	045-036	J-6723	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8067	J-7314	J-8582	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8068(1)	J-6724	045-038	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8068(2)	045-038	J-7314	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8069	J-6724	J-6869	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8070	J-6723	J-6724	8	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-8071	J-7429	J-7430	12	152.5	0.0	0.1	0.2	0.4	0.0	0.3
WMAIN-8072	J-7772	J-7429	8	152.5	0.0	0.2	0.3	0.6	0.1	0.4
WMAIN-8073(1)	J-7968	045-041	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8073(2)	045-041	J-7772	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8074	J-8645	J-8039	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8075	J-7772	J-8645	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8076(1)	J-7281	046-014	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8076(2)	046-014	J-7543	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8077(1)	J-7565	046-006	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8077(2)	046-006	J-8810	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8078	J-8462	J-8533	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-8079	J-8040	J-8462	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8080	J-8039	J-8040	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8081(1)	J-7543	046-015	12	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8081(2)	046-015	J-5775	12	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8082(1)	J-7242	046-016	12	152.5	0.0	0.0	0.2	0.4	0.0	0.3
WMAIN-8082(2)	046-016	J-7543	12	152.5	0.0	0.0	0.2	0.4	0.0	0.3
WMAIN-8083	J-7581	J-7242	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8084	J-7468	J-7469	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8085	J-7538	J-7468	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-8086	J-7537	J-7538	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8087(1)	J-7280	046-010	12	152.5	0.0	0.1	0.2	0.4	0.0	0.4
WMAIN-8087(2)	046-010	J-7537	12	152.5	0.0	0.1	0.2	0.4	0.0	0.4
WMAIN-8088(1)	J-7242	046-011	12	152.5	0.0	0.1	0.2	0.4	0.0	0.4
WMAIN-8088(2)	046-011	J-7280	12	152.5	0.0	0.1	0.2	0.4	0.0	0.4
WMAIN-8089	J-7241	J-7242	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8090(1)	J-8232	046-020	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8090(2)	046-020	J-7241	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8091(1)	J-8039	046-024	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8091(2)	046-024	J-8232	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8092(1)	J-8232	046-019	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8092(2)	046-019	J-7580	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8093(1)	J-7429	046-022	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8093(2)	046-022	J-8700	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8094(1)	J-6869	045-042	12	152.5	0.1	0.2	0.4	0.8	0.1	0.7
WMAIN-8094(2)(1)	045-042	045-045	12	152.5	0.1	0.2	0.4	0.8	0.1	0.7
WMAIN-8094(2)(2)	045-045	J-7429	12	152.5	0.1	0.2	0.4	0.8	0.1	0.7
WMAIN-8095	J-8506	J-6869	12	152.5	0.1	0.3	0.6	1.1	0.2	0.8
WMAIN-8096(1)	J-7564	046-008	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8096(2)	046-008	J-7565	8	152.5	0.0	0.1	0.3	0.5	0.1	0.4
WMAIN-8097	J-7684	J-7564	8	152.5	0.1	0.2	0.4	0.7	0.2	0.6
WMAIN-8098	J-7683	J-7684	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8099	J-7732	J-7683	8	152.5	0.0	0.1	0.2	0.4	0.1	0.3
WMAIN-8100	J-8533	J-7732	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-8101(1)	J-8069	046-012	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8101(2)	046-012	J-8068	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8102(1)	J-7581	046-013	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-8102(2)	046-013	J-8069	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-8103(1)	J-7580	046-017	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8103(2)	046-017	J-7581	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8104(1)	J-8068	046-018	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8104(2)	046-018	J-7580	8	152.5	0.0	0.1	0.2	0.3	0.0	0.2
WMAIN-8105	J-7538	J-7684	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8106	J-7280	J-7281	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8107	J-7081	J-7082	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8108	J-7468	J-7683	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8109(1)	J-7564	046-009	12	152.5	0.0	0.1	0.4	0.7	0.1	0.6
WMAIN-8109(2)	046-009	J-7537	12	152.5	0.0	0.1	0.4	0.7	0.1	0.6
WMAIN-8110(1)	J-8718	046-007	12	152.5	0.1	0.4	0.6	1.2	0.3	1
WMAIN-8110(2)	046-007	J-7564	12	152.5	0.1	0.4	0.6	1.2	0.3	1
WMAIN-8111	J-7082	J-7469	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-8112	J-8040	J-7082	8	152.5	0.0	0.0	0.1	0.3	0.0	0.2
WMAIN-8113	J-7469	J-8068	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8114	J-5912	J-6123	8	152.5	0.0	0.6	0.2	1.2	0.6	1.2
WMAIN-8115	J-6123	J-5967	8	152.5	0.0	0.6	0.2	1.2	0.6	1.2
WMAIN-8116(1)	J-8593	032-048	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-8116(2)	032-048	J-7500	8	152.5	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-8117	J-5911	J-5912	8	152.5	0.0	0.6	0.2	1.1	0.6	1.1
WMAIN-8118(1)	J-7500	032-051	8	152.5	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-8118(2)(1)	032-051	032-050	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-8118(2)(2)	032-050	J-5967	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-8119(1)	J-7499	032-047	8	152.5	0.1	0.8	0.3	1.4	0.8	1.4
WMAIN-8119(2)	032-047	J-7500	8	152.5	0.1	0.8	0.3	1.4	0.8	1.4
WMAIN-8120	J-5966	J-5967	8	152.5	0.0	0.1	0.1	0.5	0.1	0.5
WMAIN-8121	J-6514	J-5966	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8122(1)	J-5966	032-049	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-8122(2)	032-049	J-8593	8	152.5	0.0	0.2	0.1	0.6	0.2	0.6
WMAIN-8123	J-5218	J-5110	8	152.5	0.0	0.4	0.2	1	0.0	0.3
WMAIN-8125	J-6441	J-5911	12	152.5	0.0	0.1	0.2	0.6	0.1	0.6
WMAIN-8126	J-5269	J-6211	6	152.5	0.6	0.9	1	1.2	0.6	1
WMAIN-8127	J-5787	J-5165	10	152.5	0.0	0.1	0	0.5	0.1	0.5
WMAIN-8128(1)	J-6419	168-104	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8128(2)	168-104	J-6329	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8129(1)	J-6607	TEMP443	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8129(2)	TEMP443	J-9000	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8130(1)	J-6507	171-121	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-8130(2)	171-121	J-6607	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-8131	J-7871	J-6607	8	152.5	0.3	0.8	0.9	1.4	0.8	1.4
WMAIN-8132(1)	J-8383	171-108	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-8132(2)	171-108	J-8398	8	152.5	0.1	0.2	0.5	0.7	0.2	0.7
WMAIN-8133(1)	J-8174	171-106	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-8133(2)	171-106	J-6414	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-8134	171-107	J-8174	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8135	J-8174	J-8383	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8136(1)	J-6413	171-105	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8136(2)	171-105	J-6414	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8137	J-6414	J-8398	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-8138	J-9007	J-6507	8	152.5	0.2	0.5	0.7	1.1	0.5	1.1
WMAIN-8139(1)(1)	J-8978	J-6614	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8139(1)(2)	J-6614	171-122	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8139(2)	171-122	J-6507	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8140(1)	J-8398	171-109	8	152.5	0.3	0.7	0.8	1.3	0.7	1.3
WMAIN-8140(2)(1)	171-109	171-110	8	152.5	0.3	0.7	0.8	1.3	0.7	1.3
WMAIN-8140(2)(2)	171-110	J-7871	8	152.5	0.3	0.7	0.8	1.3	0.7	1.3
WMAIN-8141	J-8382	J-8383	8	152.5	0.2	0.5	0.7	1	0.5	1
WMAIN-8142	J-8984	J-6453	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8143	J-6453	J-7942	8	152.5	0.1	0.1	0.4	0.5	0.1	0.5
WMAIN-8144(1)	J-7942	168-102	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-8144(2)	168-102	J-6419	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-8145	J-6419	J-7716	8	152.5	0.0	0.1	0.3	0.4	0.1	0.3
WMAIN-8146	J-8980	J-6462	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8147	J-6462	J-7572	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8148(1)	J-7572	168-100	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-8148(2)	168-100	J-7662	8	152.5	0.1	0.1	0.3	0.4	0.1	0.4
WMAIN-8149(1)	J-7662	168-107	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8149(2)	168-107	J-7652	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8150(1)	J-7942	168-101	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8150(2)	168-101	J-7572	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8151(1)	J-6453	168-098	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8151(2)	168-098	J-6462	8	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-8152(1)	J-7716	168-108	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8152(2)	168-108	J-7652	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8153(1)	J-7652	168-114	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8153(2)	168-114	J-7653	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8154(1)	J-6462	168-097	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8154(2)	168-097	J-7651	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8155(1)	J-7651	168-099	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8155(2)	168-099	J-6941	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8156(1)	J-6941	168-106	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8156(2)	168-106	J-7653	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8157(1)	J-6419	168-105	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8157(2)	168-105	J-7662	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8158	J-7662	J-6941	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8159	J-6941	J-8793	12	152.5	0.0	0.0	0.2	0.3	0.0	0.3
WMAIN-8160(1)	J-7845	168-083	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-8160(2)	168-083	J-7846	12	152.5	0.0	0.1	0.3	0.6	0.1	0.5
WMAIN-8161	J-7787	J-6397	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8162	J-6563	J-6564	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8163(1)	J-6344	168-089	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8163(2)	168-089	J-6563	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8164	J-6420	J-6421	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8165(1)	J-8731	168-067	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8165(2)(1)	168-067	168-068	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8165(2)(2)	168-068	J-7787	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8166	J-6224	J-6397	8	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-8167(1)	J-7846	168-084	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8167(2)	168-084	J-8768	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8168(1)	J-6421	168-087	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8168(2)(1)	168-087	168-086	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8168(2)(2)	168-086	J-8659	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8169(1)	J-6421	168-088	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8169(2)	168-088	J-6563	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8170	J-7846	J-6421	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8171(1)	J-6397	168-079	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8171(2)	168-079	J-7846	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8172	J-7850	J-7845	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8173(1)	J-7787	168-080	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8173(2)	168-080	J-7850	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8174(1)	J-8623	168-081	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8174(2)	168-081	J-7850	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8175(1)	J-6397	168-069	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8175(2)	168-069	J-6906	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8176(1)	J-6906	168-070	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8176(2)	168-070	J-6907	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8177(1)	J-7061	TEMP394	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8177(2)	TEMP394	J-7062	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8178	J-5936	J-5937	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-8179	J-7062	J-5524	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8180(1)	J-8774	TEMP393	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8180(2)	TEMP393	J-7061	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8181(1)	J-5937	TEMP392	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8181(2)	TEMP392	J-8774	12	152.5	0.0	0.2	0.3	0.7	0.1	0.5
WMAIN-8182(1)(1)	J-8791	TEMP397	12	152.5	0.0	0.2	0.3	0.8	0.1	0.6
WMAIN-8182(1)(2)	TEMP397	TEMP396	12	152.5	0.0	0.2	0.3	0.8	0.1	0.6
WMAIN-8182(2)	TEMP396	J-5937	12	152.5	0.0	0.2	0.3	0.8	0.1	0.6
WMAIN-8183	J-5440	J-5441	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8184(1)	J-5440	031-036	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-8184(2)	031-036	J-7742	12	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-8185	J-5515	J-6125	18	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8186	J-5381	J-5515	24	152.5	0.1	0.2	0.7	1.2	0.2	1.2
WMAIN-8187	J-8918	J-8919	8	130	0.0	1.6	0.2	1.7	1.6	1.7
WMAIN-8188	J-8915	J-8917	8	130	0.0	0.4	0	0.8	0.4	0.8
WMAIN-8189	J-8915	J-8916	8	130	0.0	0.0	0	0	0.0	0
WMAIN-8190	J-8916	J-8959	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8191	J-8915	033-022	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8192	J-8976	J-7079	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8193(1)	J-8976	TEMP425	8	152.5	0.0	0.3	0	0.8	0.3	0.8
WMAIN-8193(2)	TEMP425	J-8917	8	152.5	0.0	0.3	0	0.8	0.3	0.8
WMAIN-8194	J-8918	J-8976	8	152.5	0.0	0.5	0.1	1	0.5	1
WMAIN-8195	J-8918	J-7088	8	152.5	0.0	0.2	0.1	0.7	0.2	0.7
WMAIN-8196(1)	J-9017	TEMP426	8	152.5	0.0	1.2	0.2	1.7	1.2	1.7
WMAIN-8196(2)	TEMP426	J-8919	8	152.5	0.0	1.2	0.2	1.7	1.2	1.7
WMAIN-8197	J-9003	J-9004	6	130	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8198(1)	J-9014	H-470	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8198(2)	H-470	J-9015	12	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8199	J-5466	J-8964	2	130	0.0	0.0	0	0	0.0	0
WMAIN-8200	J-5485	J-8963	2	130	0.0	0.0	0	0	0.0	0
WMAIN-8201(1)	J-9022	TEMP436	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8201(2)	TEMP436	J-8922	12	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8202(1)	J-8922	TEMP423	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8202(2)	TEMP423	J-8969	12	152.5	0.0	0.0	0.1	0.2	0.0	0.2

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-8203(1)	J-8969	TEMP421	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8203(2)	TEMP421	J-8948	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8204	J-8948	J-8949	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8205	J-8949	J-6605	12	152.5	0.0	0.0	0	0.2	0.0	0.1
WMAIN-8206(1)	J-8949	TEMP418	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8206(2)	TEMP418	TEMP419	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8207(1)	TEMP419	TEMP420	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8207(2)	TEMP420	J-9009	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8208(1)(1)	J-9009	TEMP409	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8208(1)(2)	TEMP409	J-8930	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8208(2)	J-8930	J-9010	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8209	J-8930	J-8931	3	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8210(1)	J-9009	TEMP422	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8210(2)	TEMP422	J-8993	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8211(1)	J-8993	TEMP435	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8211(2)	TEMP435	J-8992	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8212(1)	J-8992	TEMP416	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8212(2)	TEMP416	J-8991	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8213(1)	J-9018	TEMP410	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8213(2)	TEMP410	J-8993	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8214(1)	J-8969	TEMP408	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8214(2)	TEMP408	J-9018	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8215	J-8922	J-8968	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8216(1)	J-8968	TEMP412	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8216(2)	TEMP412	J-9019	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8217(1)	J-9019	TEMP411	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8217(2)	TEMP411	J-8991	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8218	J-8991	J-8974	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8219(1)	J-8974	TEMP417	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-8219(2)	TEMP417	J-8975	8	152.5	0.0	0.1	0.1	0.4	0.1	0.4
WMAIN-8220(1)	J-9020	TEMP414	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8220(2)	TEMP414	J-8974	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8221(1)(1)(1)	J-8968	TEMP444	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8221(1)(1)(2)	TEMP444	TEMP413	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8221(1)(2)	TEMP413	TEMP415	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8221(2)	TEMP415	J-9020	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8240(1)	J-8952	TEMP404	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8240(2)	TEMP404	J-8953	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8241(1)	J-8953	TEMP403	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8241(2)	TEMP403	J-9016	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8242	J-5416	J-8952	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-8243	J-9016	J-8920	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8244	J-8920	J-8921	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8245(1)(1)	J-8920	TEMP402	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8245(1)(2)	TEMP402	TEMP401	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8245(2)	TEMP401	J-8950	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8246(1)	J-8950	TEMP400	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8246(2)	TEMP400	J-8951	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8247	J-8951	J-8943	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8248	J-8943	J-8944	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-8249(1)	J-8943	TEMP406	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8249(2)	TEMP406	TEMP407	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8250(1)	J-8952	TEMP405	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8250(2)	TEMP405	TEMP407	8	152.5	0.0	0.1	0.2	0.4	0.1	0.4
WMAIN-8251	J-8922	J-8923	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8252	J-8938	TEMP427	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8253	TEMP427	TEMP428	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8254	TEMP428	J-8934	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8255	J-8934	J-8935	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8256	J-8957	J-8934	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8257	J-8934	TEMP429	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8258	TEMP429	J-8928	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8259	J-8928	J-8929	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8260	J-8945	J-8928	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8261	J-8928	TEMP430	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8262	TEMP430	J-8936	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8263	J-8936	J-8937	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8264	J-8936	TEMP431	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8265	TEMP431	J-8946	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8266	J-8946	J-8926	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8267	J-8946	J-8947	10	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8268	J-8926	J-8927	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8269	J-8926	TEMP432	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8270	TEMP432	TEMP433	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8271	TEMP433	J-8924	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8272	J-8924	J-8925	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8273(1)	J-8924	TEMP434	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8273(2)	TEMP434	J-8932	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8274	J-8932	J-8942	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8275	J-8932	J-8933	12	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8276(1)	J-9011	TEMP470	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8276(2)	TEMP470	J-9006	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8277(1)	J-8996	TEMP472	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8277(2)(1)	TEMP472	TEMP473	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8277(2)(2)	TEMP473	J-9011	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8278(1)	J-8989	TEMP471	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8278(2)	TEMP471	J-8996	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8279(1)	J-8995	TEMP469	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8279(2)	TEMP469	J-8996	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8280(1)	J-9006	TEMP468	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8280(2)	TEMP468	J-8997	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8281	J-8997	J-8987	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8282(1)(1)	J-8987	TEMP465	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8282(1)(2)	TEMP465	TEMP467	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8282(2)	TEMP467	J-8989	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8283(1)	J-8987	TEMP463	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8283(2)	TEMP463	J-8988	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8284(1)	J-8958	TEMP466	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8284(2)	TEMP466	J-8989	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8285	J-8958	J-5936	8	152.5	0.0	0.1	0	0.4	0.1	0.4
WMAIN-8286(1)	J-8994	TEMP464	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8286(2)	TEMP464	J-8958	8	152.5	0.0	0.0	0	0.2	0.0	0.2
WMAIN-8287	J-8988	J-8994	8	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8288(1)	J-8990	TEMP461	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8288(2)	TEMP461	J-8994	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8289(1)	J-8998	TEMP462	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-8289(2)	TEMP462	J-8988	8	152.5	0.0	0.1	0.2	0.4	0.0	0.2
WMAIN-8290(1)	J-8998	TEMP459	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-8290(2)	TEMP459	J-8984	8	152.5	0.0	0.1	0.3	0.4	0.1	0.4
WMAIN-8291(1)	J-8988	TEMP460	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8291(2)	TEMP460	J-9002	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8292(1)	J-9002	TEMP458	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3

					Existing MDD				Existing PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss (Min.) (ft/1000ft)	Headloss (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss (ft/1000ft)	Velocity (ft/s)
WMAIN-8292(2)	TEMP458	J-8984	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8293(1)	J-8990	TEMP457	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8293(2)	TEMP457	J-9002	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8294(1)	J-8983	TEMP456	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8294(2)	TEMP456	J-8990	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8295	J-8982	J-8983	8	152.5	0.0	0.1	0.1	0.3	0.1	0.3
WMAIN-8296(1)	J-8982	TEMP455	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8296(2)	TEMP455	J-9012	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8297(1)	J-8967	TEMP453	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8297(2)	TEMP453	J-8982	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8298	J-8984	J-8985	8	152.5	0.0	0.1	0.2	0.3	0.0	0.3
WMAIN-8299(1)	J-9012	TEMP454	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8299(2)	TEMP454	J-8985	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8300(1)	J-8985	TEMP452	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8300(2)	TEMP452	J-8979	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8301(1)	J-8979	TEMP450	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8301(2)	TEMP450	J-8986	8	152.5	0.0	0.0	0	0.1	0.0	0
WMAIN-8302(1)	J-8986	TEMP451	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8302(2)	TEMP451	J-8966	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8303	J-8966	J-8967	8	152.5	0.0	0.0	0.1	0.3	0.0	0.3
WMAIN-8304(1)(1)	J-9001	TEMP447	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8304(1)(2)	TEMP447	TEMP449	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8304(2)	TEMP449	J-8966	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8305(1)	J-8972	TEMP448	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8305(2)	TEMP448	J-8986	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8306	J-8979	J-8980	8	152.5	0.0	0.1	0.2	0.3	0.1	0.3
WMAIN-8307	J-8981	J-8972	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8308	J-8972	J-9001	8	152.5	0.0	0.0	0.1	0.1	0.0	0.1
WMAIN-8309(1)	J-8971	TEMP445	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-8309(2)	TEMP445	J-8972	8	152.5	0.0	0.1	0	0.3	0.0	0.2
WMAIN-8310(1)	J-8980	TEMP446	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8310(2)	TEMP446	J-8981	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8311	J-9021	J-8382	12	152.5	0.0	0.0	0.1	0.2	0.0	0.1
WMAIN-8312(1)	J-8391	170-145	12	152.5	0.1	0.2	0.4	0.9	0.2	0.9
WMAIN-8312(2)	170-145	J-9023	12	152.5	0.1	0.2	0.5	0.9	0.2	0.9
WMAIN-8313(1)	J-9023	TEMP438	8	152.5	0.2	0.5	0.7	1.1	0.5	1.1
WMAIN-8313(2)	TEMP438	J-8977	8	152.5	0.2	0.5	0.7	1.1	0.5	1.1
WMAIN-8314	J-8977	J-8978	8	152.5	0.0	0.0	0.1	0.2	0.0	0.2
WMAIN-8315(1)	J-9000	TEMP441	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8315(2)	TEMP441	J-8978	8	152.5	0.1	0.2	0.3	0.6	0.2	0.6
WMAIN-8316	TEMP442	J-9000	8	152.5	0.0	0.0	0	0	0.0	0
WMAIN-8317(1)	J-9021	TEMP440	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-8317(2)	TEMP440	J-9007	8	152.5	0.1	0.2	0.4	0.6	0.2	0.6
WMAIN-8318(1)	J-9024	TEMP439	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-8318(2)	TEMP439	J-9007	8	152.5	0.1	0.1	0.3	0.5	0.1	0.5
WMAIN-8319	J-8940	J-8941	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8320	J-8941	J-8970	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8321	J-8970	TEMP474	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8322	TEMP474	J-8956	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8323(1)	J-8956	TEMP475	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-8323(2)	TEMP475	J-8965	8	152.5	0.0	0.0	0	0.1	0.0	0.1
WMAIN-H0047(2)(1)	J-5397	J-5047	30	130	0.3	0.7	1.6	2.6	0.7	2.6
WMAIN-H0047(2)(2)	J-5047	J-5357	30	130	0.3	0.7	1.6	2.6	0.7	2.6
WMAIN-H0078(1)(1)	J-5049	J-5053	16	130	0.0	0.0	0	0	0.0	0
WMAIN-H0078(1)(2)	J-5053	J-6315	16	130	0.0	0.0	0	0	0.0	0

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
009-001	53.4	50.4	1,252.2	1,752.2	WMAIN-1188(1)	8	Passed
009-002	54.2	50.9	1,257.2	1,757.2	WMAIN-2278(2)	7.4	Passed
009-003	54.2	52.5	1,250.6	1,750.6	WMAIN-5897	4.9	Passed
009-004	53.7	52.1	1,250.4	1,750.4	WMAIN-5897	4.9	Passed
009-005	54	50.9	1,250.0	1,750.0	WMAIN-2280(2)(2)	8.3	Passed
009-006	53.1	49.1	1,254.9	1,754.9	WMAIN-2616(1)	6.5	Passed
009-007	52.1	49.7	1,250.9	1,750.9	WMAIN-2522(1)	7.8	Passed
009-008	52.8	51	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
009-009	53.2	49.2	1,254.0	1,754.0	WMAIN-2280(1)	6.3	Passed
009-010	53.2	49.4	1,253.8	1,753.8	WMAIN-4368(1)(1)	7.2	Passed
009-011	53.4	49.5	1,250.0	1,750.0	WMAIN-4368(2)	6.9	Passed
009-012	52.7	47.9	1,251.7	1,751.7	WMAIN-3575(1)	6.5	Passed
009-013	52.2	47.2	1,251.2	1,751.2	WMAIN-1191	5.8	Passed
009-014	54.3	51.2	1,252.3	1,752.3	WMAIN-1205(1)	9.4	Passed
009-015	54.2	47.6	1,251.4	1,751.4	WMAIN-1207(1)	11.2	Passed
009-016	53.9	49.9	1,251.1	1,751.1	WMAIN-4385(2)	8.1	Passed
009-017	52.2	48.2	1,251.0	1,751.0	WMAIN-5100(1)	6.1	Passed
009-018	52.1	45.9	1,251.0	1,751.0	WMAIN-4378(1)	11.2	Passed
009-019	54.3	52.7	1,253.4	1,753.4	WMAIN-5897	4.9	Passed
009-020	54.3	52.6	1,253.0	1,753.0	WMAIN-5897	4.9	Passed
009-021	54.4	52.5	1,250.5	1,750.5	WMAIN-5897	4.9	Passed
009-022	54.4	52.5	1,252.1	1,752.1	WMAIN-5897	4.9	Passed
009-023	54.4	52.6	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
009-024	54.3	48	3,500.0	4,000.0	WMAIN-4389(2)(2)	6.2	Passed
009-025	52.1	50.2	1,252.2	1,752.2	WMAIN-5897	4.9	Passed
009-026	53.2	51.3	1,251.5	1,751.5	WMAIN-5897	4.9	Passed
009-027	52.8	46.5	1,252.7	1,752.7	WMAIN-1195(1)	7.1	Passed
009-028	51.9	44.9	1,251.6	1,751.6	WMAIN-1195(1)	6.4	Passed
009-029	54.1	46.9	1,254.1	1,754.1	WMAIN-1205(1)	6	Passed
009-030	54.3	50.3	1,251.7	1,751.7	WMAIN-2523(2)	7.4	Passed
009-031	54.3	49.7	1,259.2	1,759.2	WMAIN-2526(2)	6.6	Passed
009-032	54.4	52.8	1,251.2	1,751.2	WMAIN-5897	4.9	Passed
009-033	54.3	52.3	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
009-034	53.5	45.7	1,250.0	1,750.0	WMAIN-1759(2)(2)	11.2	Passed
009-035	53.9	29.4	3,504.6	2,342.3	WMAIN-1759(2)(2)	15	Velocity Failed
009-036	54.1	39.5	3,506.1	2,349.5	WMAIN-7834(1)	15	Velocity Failed
009-037	54.2	48.5	3,500.6	2,344.0	WMAIN-7834(1)	15	Velocity Failed
009-039	54.2	47.9	3,500.0	3,280.9	WMAIN-1071	15	Velocity Failed
010-001	52	50.3	1,252.7	1,752.7	WMAIN-5897	4.9	Passed
010-002	51.8	50.1	1,251.5	1,751.5	WMAIN-5897	4.9	Passed
010-003	50	47	1,253.1	1,576.2	WMAIN-5480(1)	15	Passed
010-004	51.5	47.3	1,251.1	1,751.1	WMAIN-1232(1)	9.2	Passed
010-005	50	43.2	1,254.3	1,754.3	WMAIN-1232(1)	8.6	Passed
010-006	48.6	38.9	1,250.0	1,750.0	WMAIN-5480(1)	10.7	Passed
010-007	51	43.9	1,252.6	1,752.6	WMAIN-1232(1)	8.8	Passed
010-008	50.2	43	1,251.7	1,751.7	WMAIN-1232(1)	8.5	Passed
010-009	52.1	49.6	2,500.3	3,000.3	WMAIN-7224	9.8	Passed
010-010	49.5	47.8	1,250.4	1,750.4	WMAIN-5897	4.9	Passed
010-011	49.7	47.8	1,251.9	1,751.9	WMAIN-5897	4.9	Passed
010-012	51.6	49.6	1,250.3	1,750.3	WMAIN-5897	4.9	Passed
010-013	52.7	49.9	1,251.6	1,751.6	WMAIN-5144(1)	11.2	Passed
010-014	52.9	46	3,500.2	4,000.2	WMAIN-3652	6.8	Passed
010-015	54	49.3	1,252.4	1,752.4	WMAIN-5139(1)	11.2	Passed
010-016	53.5	51.7	1,250.2	1,750.2	WMAIN-5897	4.9	Passed
010-017	52.2	49.2	1,251.2	1,751.2	WMAIN-5094(2)	6	Passed
010-018	54.2	49.9	1,254.1	1,754.1	WMAIN-5120(1)	7	Passed
010-019	53.9	49.3	1,251.4	1,751.4	WMAIN-3571(2)	6.4	Passed
010-020	54.1	50.2	1,253.5	1,753.5	WMAIN-5142(1)	5.9	Passed
010-021	53.9	49.4	1,251.9	1,751.9	WMAIN-3573(1)	6.8	Passed
010-022	53.4	48.9	1,251.3	1,751.3	WMAIN-5134	6.8	Passed
010-023	51.8	49.5	1,250.5	1,750.5	WMAIN-5058(2)	11.2	Passed
010-027	52.3	49.3	1,251.5	1,751.5	WMAIN-5055(1)	11.2	Passed
010-028	52	50.3	1,253.0	1,753.0	WMAIN-5061(1)	5.4	Passed
010-029	52.8	48.3	1,256.7	1,756.7	WMAIN-5052(2)	6.3	Passed
010-030	52	48.6	1,251.0	1,751.0	WMAIN-5051(1)	8.1	Passed
010-031	52.4	49.9	1,252.3	1,752.3	WMAIN-5085(1)(1)	8.9	Passed
010-032	52.1	48	1,250.0	1,750.0	WMAIN-5085(1)(1)	6.5	Passed
010-033	51.7	43.8	1,252.3	1,752.3	WMAIN-5074(1)	11.2	Passed
010-034	52	45.8	1,252.2	1,752.2	WMAIN-5082(1)	11.2	Passed
010-035	52.7	46.6	1,252.5	1,752.5	WMAIN-5114	11.2	Passed
010-036	52.3	50	1,250.8	1,750.8	WMAIN-5100(1)	8.9	Passed
010-037	52.3	48.9	1,251.7	1,751.7	WMAIN-5105(2)	6	Passed
010-038	53.5	51.5	1,251.0	1,751.0	WMAIN-5897	4.9	Passed
010-039	54	52.3	1,251.4	1,751.4	WMAIN-5897	4.9	Passed
010-040	52	47.7	1,252.0	1,752.0	WMAIN-5087(1)	6	Passed
010-041	51.3	49	1,251.6	1,751.6	WMAIN-4820(1)	11.2	Passed
010-042	51.8	47.6	1,250.4	1,750.4	WMAIN-4869(1)	11.2	Passed
010-043	54.2	49.6	1,254.5	1,754.5	WMAIN-5091(2)	5.8	Passed
010-044	54.3	50.4	1,252.6	1,752.6	WMAIN-4890(1)	7.4	Passed
010-045	54.3	52.1	1,251.0	1,751.0	WMAIN-4890(1)	9.6	Passed
010-046	49.1	45.1	3,502.0	4,002.0	WMAIN-7224	10.2	Passed
011-001	51.1	27.8	1,251.5	937.6	WMAIN-6152	15	Velocity Failed
011-002	50.2	20	1,251.8	1,008.6	WMAIN-6154(2)	14.1	Residual Pressure and Velocity Failed
011-004	49.8	40.6	1,253.2	1,753.2	WMAIN-5033(1)	10.9	Passed
011-005	50.1	46.5	1,250.9	1,674.9	WMAIN-7201(2)	15	Passed
011-006	49.8	35.7	1,252.3	1,752.3	WMAIN-7200(1)	11.4	Passed
011-007	49.9	41.3	1,252.1	1,752.1	WMAIN-7185(2)	11.4	Passed
011-008	50	48.6	1,250.2	1,750.2	WMAIN-5897	4.9	Passed
011-009	49.9	46.8	1,254.1	1,754.1	WMAIN-5460(1)(1)	8.2	Passed
011-010	49.4	45.6	1,250.0	1,750.0	WMAIN-5460(2)	6.8	Passed
011-011	49	40.5	1,251.9	1,751.9	WMAIN-3556	11.8	Passed
011-012	49.5	45.6	3,500.0	4,000.0	WMAIN-7224	10.4	Passed
011-013	49.8	47.6	1,254.4	1,754.4	WMAIN-0348(1)(1)	8.8	Passed
011-014	50	46.4	1,250.0	1,749.5	WMAIN-0348(1)(1)	6.6	Passed
011-015	50	45.8	1,250.0	1,750.0	WMAIN-5034(2)(2)	9.1	Passed
011-016	49.7	43	1,252.3	1,752.3	WMAIN-5034(2)(2)	6.8	Passed
011-017	49.8	42.8	1,259.7	1,759.7	WMAIN-5042(2)(1)	5.7	Passed
011-018	50.4	44.2	1,250.0	1,750.0	WMAIN-5042(2)(2)(2)	7.3	Passed
011-019	50	45	1,255.1	1,755.1	WMAIN-5048(1)(1)(1)	7.5	Passed
011-020	49.8	45	1,253.2	1,753.2	WMAIN-5037(2)	6.1	Passed
011-021	49.9	45.9	1,251.9	1,751.9	WMAIN-5029(2)	7.3	Passed
011-022	49.6	44.8	1,251.4	1,751.4	WMAIN-5028(2)	7.2	Passed
011-023	50.6	44.9	1,250.0	1,750.0	WMAIN-5048(1)(1)(1)	6.1	Passed
011-024	50.6	45.6	1,250.0	1,750.0	WMAIN-5048(2)	7.6	Passed
011-025	50.4	45.3	1,254.1	1,754.1	WMAIN-4871(2)	6	Passed
011-026	50.3	46.1	1,252.9	1,752.9	WMAIN-4876(2)	6.6	Passed
011-027	48.7	45.4	1,250.3	1,750.3	WMAIN-7238(2)	5.9	Passed
011-028	48.5	35.4	3,501.3	4,001.3	WMAIN-2603(1)	13.3	Passed
011-029	49.8	39.9	1,252.9	1,752.9	WMAIN-4888(1)	11.2	Passed
011-030	50	44.7	1,250.4	1,750.4	WMAIN-4883(1)	6.2	Passed
011-031	49.9	44.9	1,252.6	1,752.6	WMAIN-4885A(1)	7	Passed
011-032	49.8	44	1,252.3	1,752.3	WMAIN-4879(2)	11.2	Passed
011-033	49.5	47.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
011-034	49.4	44.4	1,253.0	1,753.0	WMAIN-4816(2)	6.5	Passed
011-035	49.2	45.3	1,250.0	1,750.0	WMAIN-4814(2)(2)	7.2	Passed
011-036	48.8	44.4	1,251.3	1,751.3	WMAIN-4814(2)(2)	5.6	Passed
011-037	48.9	43.7	1,250.8	1,750.8	WMAIN-4807(1)	6.7	Passed
011-038	49.4	43.9	1,251.3	1,751.3	WMAIN-5028(2)	5.9	Passed
011-039	49.7	47.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
011-040	49.6	43.2	3,500.0	4,000.0	WMAIN-0333	7	Passed
011-041	50.2	48	1,250.2	1,750.2	WMAIN-2578(2)	5	Passed
012-004	50	45.9	3,502.4	4,002.4	WMAIN-7224	6.9	Passed
012-005	49.9	45.3	1,254.5	1,754.5	WMAIN-5472(1)	5.7	Passed
012-006	49.9	45	1,253.6	1,753.6	WMAIN-5468(1)(1)	6.3	Passed
012-007	49.9	45.3	1,253.2	1,753.2	WMAIN-5474(2)	5.8	Passed
012-008	49.4	45.5	1,250.0	1,750.0	WMAIN-5468(2)	8.3	Passed
012-009	49.2	45.6	1,251.5	1,751.5	WMAIN-5466(1)	6.2	Passed
012-010	49.6	46	1,250.8	1,750.8	WMAIN-2601(2)	7.2	Passed
012-011	47.8	43.8	1,253.5	1,753.5	WMAIN-4866(2)	5.6	Passed
012-012	49.9	44.1	1,251.8	1,751.8	WMAIN-4829(1)	11.2	Passed
012-013	49.9	45.3	1,250.9	1,750.9	WMAIN-2608(1)	6	Passed
012-014	50	44.3	1,256.8	1,756.8	WMAIN-2609(1)(1)	6.7	Passed
012-015	50	44.4	1,250.0	1,750.0	WMAIN-2609(2)	6.7	Passed
012-016	50	46.3	1,252.3	1,752.3	WMAIN-4827(2)	7.2	Passed
012-017	50	48.6	1,251.6	1,751.6	WMAIN-5897	4.9	Passed
012-022	49.7	48.4	1,253.6	1,753.6	WMAIN-5897	4.9	Passed
012-023	50.3	45.5	1,253.8	1,753.8	WMAIN-4873(1)	6.1	Passed
012-024	50.4	45.5	1,255.1	1,755.1	WMAIN-4859(1)(1)	6.9	Passed
012-025	50.4	45.2	1,250.0	1,750.0	WMAIN-4859(2)	6.3	Passed
012-026	50	45.8	1,250.5	1,750.5	WMAIN-4863(2)	6.4	Passed
012-027	46.1	41.2	1,257.3	1,757.3	WMAIN-4847	6.2	Passed
012-028	49.7	44.8	1,259.5	1,759.5	WMAIN-4836	7	Passed
012-029	50	26.5	3,500.0	4,000.0	WMAIN-4836	13.4	Passed
012-030	50	27	3,500.0	4,000.0	WMAIN-4838(1)(1)(2)(2)(2)	14.3	Passed
012-031	49.9	35.5	3,500.0	3,503.3	WMAIN-4838(1)(2)	15	Passed
012-032	49.6	45.2	3,501.8	4,001.8	WMAIN-7152(1)(1)	11.4	Passed
012-033	46.1	40.8	1,254.2	1,683.0	WMAIN-4855(1)	15	Passed
012-034	47.7	43.8	1,250.0	1,750.0	WMAIN-4832(2)(2)	8	Passed
012-035	49.9	44.7	1,250.0	1,750.0	WMAIN-4832(2)(2)	6.4	Passed
012-036	49.9	44.8	1,255.1	1,755.1	WMAIN-4832(1)(1)	6.6	Passed
012-037	49.9	44.8	1,252.8	1,752.8	WMAIN-3534(1)	6.2	Passed
012-038	49.9	38.7	1,255.1	1,755.1	WMAIN-4835(1)	10.8	Passed
012-039	49.9	41.9	1,252.6	1,752.6	WMAIN-4825(1)	11.2	Passed
012-056	50	26.6	3,500.0	4,000.0	WMAIN-4838(1)(1)(2)(2)(2)	13.6	Passed
012-057	49.8	39.5	3,500.0	3,239.4	WMAIN-4838(2)	15	Velocity Failed
012-060	48.4	40.6	1,251.8	1,320.0	WMAIN-4724(1)	15	Passed
012-061	48.6	40.3	1,251.9	1,751.9	WMAIN-4718(1)	11.5	Passed
012-062	48.1	37.4	1,250.0	1,750.0	WMAIN-4855(1)	10.7	Passed
012-063	47.2	41.7	1,251.6	1,751.6	WMAIN-2590(1)	11.3	Passed
012-064	46.3	40.5	1,253.7	1,753.7	WMAIN-2592(1)	11.2	Passed
012-065	48.4	42.5	1,252.2	1,752.2	WMAIN-2274(1)	11.2	Passed
013-001	49.6	46.2	3,500.8	4,000.8	WMAIN-5897	5.3	Passed
013-002	49.6	46.2	3,500.0	4,000.0	WMAIN-5897	5.3	Passed
013-003	49.7	43.7	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
013-004	49.5	43.6	5,000.0	5,500.0	WMAIN-5897	6	Passed
013-005	49.4	46.1	3,500.4	4,000.4	WMAIN-5897	5.3	Passed
013-006	49.3	44.5	3,502.5	4,002.5	WMAIN-7161(1)	8.6	Passed
013-007	49.2	43	3,501.7	4,001.7	WMAIN-7161(1)	7.4	Passed
013-008	49.2	37	5,000.0	5,500.0	WMAIN-7161(1)	9	Passed
013-009	49.1	36.5	5,003.6	5,503.6	WMAIN-7161(1)	7.9	Passed
013-010	49	36.8	5,001.9	5,501.9	WMAIN-7155(2)	8.9	Passed
013-011	49	37.8	5,000.0	5,500.0	WMAIN-7155(2)	10	Passed
013-012	48.9	43.7	3,502.1	4,002.1	WMAIN-7155(2)	8.4	Passed
013-013	48.7	42.9	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
013-014	48.8	43	5,001.8	5,501.8	WMAIN-5897	5.9	Passed
013-015	49	42.6	5,000.0	5,500.0	WMAIN-7173(1)	7.1	Passed
013-016	49	43.1	5,001.1	5,501.1	WMAIN-7173(1)	7.4	Passed
013-017	49.1	42.3	5,001.0	5,501.0	WMAIN-7173(1)	6.8	Passed
013-018	49.5	45.1	3,500.0	4,000.0	WMAIN-5897	5.3	Passed
013-019	49.7	40	3,502.0	2,345.5	WMAIN-7457(1)	15	Velocity Failed
013-020	49.7	44.4	3,500.8	4,000.8	WMAIN-7167(2)	6.9	Passed
013-021	49.9	40	5,000.0	5,500.0	WMAIN-7167(2)	7.9	Passed
013-022	50	40.6	5,001.6	5,501.6	WMAIN-7169(2)	9.3	Passed
013-023	50.1	42.3	5,000.0	5,500.0	WMAIN-7169(1)	11.2	Passed
013-024	50.2	44.4	5,007.9	5,507.9	WMAIN-5897	6	Passed
013-025	50.1	46.9	3,500.0	2,785.3	WMAIN-6019(2)(2)	15	Velocity Failed
013-026	50	37.7	3,504.4	3,799.2	WMAIN-6019(2)(2)	15	Passed
013-027	50	43.7	3,500.0	1,322.0	WMAIN-1345(1)	15	Velocity Failed
013-028	49.9	34.7	3,510.5	4,010.5	WMAIN-6019(2)(2)	12.8	Passed
013-029	49.9	46.6	3,501.0	4,001.0	WMAIN-5897	5.3	Passed
013-030	49.7	44	5,000.0	5,500.0	WMAIN-5897	6	Passed
013-031	49.5	44	5,001.0	5,501.0	WMAIN-5897	6	Passed
013-032	49.4	43.5	5,000.3	5,500.3	WMAIN-5897	6	Passed
013-033	49.3	43.1	5,001.5	5,501.5	WMAIN-5897	6	Passed
013-034	49.3	42.9	5,002.1	5,502.1	WMAIN-5897	6	Passed
013-035	49.2	42.9	5,001.5	5,501.5	WMAIN-5897	6	Passed
013-036	49.1	45.6	3,500.1	4,000.1	WMAIN-5897	5.3	Passed
013-037	50.1	46.7	3,500.0	4,000.0	WMAIN-5897	5.3	Passed
013-043	49.7	42	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
014-001	48.9	38.1	3,500.5	1,478.8	WMAIN-2471(2)	15	Velocity Failed
014-002	48.2	33.4	3,500.0	3,968.8	WMAIN-6414(1)(1)	15	Passed
014-003	48.2	36.9	3,500.0	3,631.6	WMAIN-6414(2)	15	Passed
014-004	48.4	37.6	1,250.0	1,750.0	WMAIN-2816(1)(2)	10.6	Passed
014-005	48.3	44	1,261.1	1,549.4	WMAIN-2812(2)	15	Passed
014-006	48.1	43.8	3,500.0	4,000.0	WMAIN-6418(2)(2)	5.7	Passed
014-007	48.1	44.4	3,500.0	4,000.0	WMAIN-6418(1)	8	Passed
014-008	48.3	41.2	3,513.2	4,013.2	WMAIN-7144	11.5	Passed
014-009	48.4	34	5,000.0	5,500.0	WMAIN-7144	15	Passed
014-010	48.4	32.8	5,000.0	5,500.0	WMAIN-7144	14.1	Passed
014-011	48.2	35.3	5,000.0	4,611.0	WMAIN-3247(1)	15	Velocity Failed
014-012	47.9	31.5	5,000.0	5,425.0	WMAIN-3247(2)	15	Passed
014-013	48	45.4	2,500.0	3,000.0	WMAIN-0265(2)	5.4	Passed
014-014	47.7	44.6	3,500.0	4,000.0	WMAIN-5897	5.2	Passed
014-015	48	45.8	2,500.0	3,000.0	WMAIN-5897	5	Passed
014-016	48.2	45.9	2,500.0	3,000.0	WMAIN-5897	5	Passed
014-017	48.6	42.7	5,000.0	5,500.0	WMAIN-5897	5.8	Passed
014-018	48.5	37.1	1,250.0	1,750.0	WMAIN-2469(2)	11.1	Passed
014-019	49.5	46.3	3,500.0	4,000.0	WMAIN-5897	5.2	Passed
015-001	46.8	28.2	5,005.7	5,505.7	WMAIN-7144	14.8	Passed
015-002	46.6	30.4	5,000.0	5,354.5	WMAIN-7144	15	Passed
015-003	46.5	32.7	5,003.9	5,184.5	WMAIN-7144	15	Passed
015-010	47.1	39.5	3,503.6	4,003.6	WMAIN-7144	11.8	Passed
015-011	47.8	41.4	3,500.0	4,000.0	WMAIN-7144	12.2	Passed
015-018	48.1	27.8	5,000.0	5,178.6	WMAIN-5555(2)	15	Passed
015-019	48.1	22.5	5,004.0	5,182.6	WMAIN-5554(2)	15	Passed
015-020	48	20	5,015.5	4,923.4	WMAIN-5554(2)	14.2	Residual Pressure and Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
015-021	47.7	20	5,000.0	4,522.0	WMAIN-5554(2)	13.1	Residual Pressure Failed
015-022	47.3	33.5	3,500.0	1,289.3	WMAIN-6201(2)	15	Velocity Failed
015-023	48	27.5	5,000.5	3,258.4	WMAIN-1779(2)(2)	15	Velocity Failed
015-024	47.3	20	5,007.0	3,400.9	WMAIN-1779(2)(2)	11.4	Residual Pressure Failed
015-025	47.4	20	3,500.0	3,416.8	WMAIN-1784(1)	12	Residual Pressure Failed
015-026	47.8	20	5,000.3	3,595.0	WMAIN-1784(1)	14.6	Residual Pressure and Velocity Failed
015-027	47.8	29.6	5,000.0	3,140.8	WMAIN-1784(1)	15	Velocity Failed
017-001	46.4	42.6	3,500.4	4,000.4	WMAIN-3655	10.3	Passed
017-002	46.2	33.5	3,506.5	3,796.4	WMAIN-6199	15	Passed
017-003	46.1	41.5	2,500.0	2,573.9	WMAIN-6199	15	Passed
017-004	46	38	2,501.4	2,947.0	WMAIN-6199	15	Passed
017-005	45.6	35.8	2,500.0	3,000.0	WMAIN-6199	10.7	Passed
017-018	44.2	38.9	3,500.0	3,017.6	WMAIN-3298	15	Velocity Failed
017-020	45.5	40.7	3,500.0	4,000.0	WMAIN-1755(2)(2)	11.4	Passed
017-021	45.7	37.7	3,500.0	4,000.0	WMAIN-1755(2)(2)	11.4	Passed
017-022	45.9	34.6	3,500.0	4,000.0	WMAIN-1755(1)(2)	11.4	Passed
017-023	46	31.8	3,500.0	4,000.0	WMAIN-1755(1)(1)(2)	11.4	Passed
017-024	46.2	28.7	3,510.1	4,010.1	WMAIN-1755(1)(1)(1)(2)	11.4	Passed
018-001	47.1	43.6	3,500.4	4,000.4	WMAIN-5897	5.2	Passed
018-002	47.4	43.9	3,500.0	4,000.0	WMAIN-5897	5.2	Passed
018-003	47.3	44.7	2,500.0	3,000.0	WMAIN-5897	5	Passed
018-004	47.5	43.4	3,500.0	4,000.0	WMAIN-5897	5.2	Passed
018-005	47.7	43.2	3,502.3	4,002.3	WMAIN-5897	5.2	Passed
018-006	47.9	42.1	3,500.0	4,000.0	WMAIN-6250	11.5	Passed
018-007	48	42.7	3,501.1	4,001.1	WMAIN-3499(2)	6.7	Passed
018-008	48	42.4	3,500.0	4,000.0	WMAIN-3499(2)	5.7	Passed
018-009	48	42.5	3,500.0	4,000.0	WMAIN-6249(1)	6.3	Passed
018-010	47.5	37.6	3,500.0	4,000.0	WMAIN-6250	11.5	Passed
018-011	47.2	25.9	5,000.0	5,235.6	WMAIN-6250	15	Passed
018-012	47	30.8	3,500.0	4,000.0	WMAIN-6250	11.5	Passed
018-015	47.5	44.1	3,500.0	4,000.0	WMAIN-5897	5.2	Passed
018-036	47	28.5	3,500.0	4,000.0	WMAIN-6258(1)	13.5	Passed
018-037	46.9	30.1	3,500.5	3,936.8	WMAIN-3825(1)	15	Passed
018-038	47.1	42.5	3,503.1	2,869.4	WMAIN-3825(1)	15	Velocity Failed
018-039	47.3	35.8	3,501.7	3,497.2	WMAIN-6258(1)	15	Velocity Failed
018-040	46.9	28.5	3,500.0	4,000.0	WMAIN-3825(1)	13.9	Passed
018-041	47.6	33.9	3,505.9	3,805.9	WMAIN-3494(2)	15	Passed
018-043	47.8	31.4	3,506.1	4,006.1	WMAIN-5940	14.4	Passed
018-052	47.3	43.4	5,000.0	2,350.1	WMAIN-1752	15	Velocity Failed
019-001	48.7	39.1	3,500.3	3,255.1	WMAIN-0901(2)	15	Velocity Failed
019-002	48.5	24.9	1,250.2	586.6	WMAIN-2786	15	Velocity Failed
019-004	48.9	41.9	1,250.0	1,750.0	WMAIN-2175(2)	10.2	Passed
019-005	48.6	46.1	1,251.5	1,602.1	WMAIN-2776(1)	15	Passed
019-006	48.8	46.6	2,500.0	3,000.0	WMAIN-5897	5	Passed
019-007	48.5	23.3	1,252.3	1,112.4	WMAIN-2808(1)	15	Velocity Failed
019-008	48	33.8	1,250.0	1,750.0	WMAIN-2796(2)(2)	11	Passed
019-009	48	33.8	1,254.6	1,754.6	WMAIN-2796(2)(2)	11	Passed
019-010	48.7	37.8	1,252.1	1,752.1	WMAIN-2811(1)	11.2	Passed
019-011	48.4	34.5	1,250.0	1,750.0	WMAIN-2793(1)(1)	11.3	Passed
019-012	48.4	34.5	1,256.3	1,756.3	WMAIN-2793(1)(1)	11.3	Passed
019-013	48.4	23.7	1,250.4	586.9	WMAIN-2786	15	Velocity Failed
019-014	48.4	46.7	1,250.5	1,750.5	WMAIN-4644(1)	8.2	Passed
019-015	48.4	45.9	1,253.1	1,753.1	WMAIN-4652(2)	9.1	Passed
019-016	48.3	45.1	1,252.0	1,752.0	WMAIN-4668(1)	7.4	Passed
019-017	48.2	45	1,250.0	1,750.0	WMAIN-4668(2)(2)	7.3	Passed
019-018	48.1	45.1	1,250.9	1,750.9	WMAIN-4664(2)	7	Passed
019-019	48.1	45.6	1,251.2	1,751.2	WMAIN-4662	7.5	Passed
019-020	48.2	44.5	1,253.0	1,753.0	WMAIN-4663(2)	6.1	Passed
019-021	48.3	45.2	1,251.2	1,751.2	WMAIN-4649(1)	6.2	Passed
019-022	48.4	44.6	1,250.5	1,750.5	WMAIN-4650(2)	6.4	Passed
019-023	48.1	43.6	3,500.0	3,206.8	WMAIN-3507(2)	15	Velocity Failed
019-024	47.7	44.3	3,500.0	4,000.0	WMAIN-6265(1)	8.8	Passed
019-025	48.1	43.2	3,504.1	4,004.1	WMAIN-3493	6.4	Passed
019-026	48	42.9	3,505.5	4,005.5	WMAIN-3509(1)	6	Passed
019-027	48.1	45.2	1,261.1	1,761.1	WMAIN-4644(1)	5.2	Passed
019-028	48	36.2	3,500.0	4,000.0	WMAIN-4644(1)	10.8	Passed
019-029	48.2	45.1	1,251.3	1,751.3	WMAIN-4480(2)	7	Passed
019-030	48.2	44.5	1,252.1	1,752.1	WMAIN-4478(2)	7.2	Passed
019-031	48.3	44.3	1,250.9	1,750.9	WMAIN-4670(1)	6.7	Passed
019-032	47.9	44.5	3,501.3	4,001.3	WMAIN-5897	5.2	Passed
019-033	47.9	43.6	3,500.4	4,000.4	WMAIN-6265(2)	6.7	Passed
019-037	48.1	34.7	3,502.2	4,002.2	WMAIN-4486(1)	14.3	Passed
019-038	48.1	35	3,500.9	3,997.1	WMAIN-6259(2)(2)	15	Passed
019-039	48.1	43.9	3,500.0	2,961.6	WMAIN-6259(2)(2)	15	Velocity Failed
019-040	48.6	45.3	1,250.8	1,750.8	WMAIN-0895(1)	8	Passed
019-041	48	42.9	3,500.0	4,000.0	WMAIN-3509(2)(2)	6.4	Passed
019-042	47.8	41.5	3,500.0	4,000.0	WMAIN-3511(1)	8.3	Passed
019-043	47.7	34.6	5,000.0	5,500.0	WMAIN-3247(2)	11.7	Passed
019-044	47.6	33	5,000.0	5,500.0	WMAIN-3247(2)	13	Passed
019-045	47.7	31.8	5,000.0	5,500.0	WMAIN-3247(2)	14.1	Passed
019-046	48.2	42.4	1,250.5	1,750.5	WMAIN-0891(1)	9	Passed
019-047	49.2	40.3	1,250.4	1,750.4	WMAIN-1742(2)	11.2	Passed
020-001	49.8	38.6	3,501.8	2,424.6	WMAIN-2891	15	Velocity Failed
020-002	50	31.9	3,500.0	3,642.5	WMAIN-2454(1)(2)	15	Passed
020-003	49.8	45	3,500.0	4,000.0	WMAIN-6316(1)(1)	6.4	Passed
020-004	49.7	36.9	3,500.2	2,254.6	WMAIN-2164(1)	15	Velocity Failed
020-005	49.9	42.5	3,500.0	4,000.0	WMAIN-6320(2)	14.4	Passed
020-006	50	42.6	2,500.0	2,919.5	WMAIN-2886(1)	15	Passed
020-007	50	46.4	3,500.0	3,105.7	WMAIN-2452(2)	15	Velocity Failed
020-008	49.8	47.2	2,500.0	3,000.0	WMAIN-0448(2)	5.6	Passed
020-009	49.8	45.8	2,500.0	1,732.4	WMAIN-2168(2)	15	Velocity Failed
020-010	49.7	47.8	2,500.0	3,000.0	WMAIN-0434(2)	7	Passed
020-011	49.6	44.3	3,500.0	2,359.0	WMAIN-7101(2)	15	Velocity Failed
020-012	49.5	32.3	3,500.1	1,750.2	WMAIN-7096	15	Velocity Failed
020-013	49.3	20	3,517.6	1,152.7	WMAIN-0601(2)	14.9	Residual Pressure and Velocity Failed
020-014	49.1	37.8	1,250.0	1,750.0	WMAIN-2462(1)(2)	13.8	Passed
020-015	49.1	24.6	2,500.3	2,424.3	WMAIN-2170(2)	15	Velocity Failed
020-016	48.8	29	3,500.0	3,825.4	WMAIN-0431	15	Passed
020-017	48.8	26.7	3,501.4	2,282.7	WMAIN-0431	15	Velocity Failed
020-018	49.7	47.7	2,502.3	3,002.3	WMAIN-5897	5	Passed
020-019	49.8	44.3	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
020-020	49.8	44.2	5,000.6	5,500.6	WMAIN-5897	5.9	Passed
020-021	50.1	47.1	3,500.0	2,983.7	WMAIN-7092(1)	15	Velocity Failed
020-022	50.1	41.2	5,000.0	5,500.0	WMAIN-0455	12.1	Passed
020-023	50	44.7	5,000.0	5,500.0	WMAIN-5897	6	Passed
020-024	50	44.4	5,000.0	5,500.0	WMAIN-5897	6	Passed
020-025	49.9	46.6	3,500.0	4,000.0	WMAIN-5897	5.3	Passed
020-026	50	46.6	3,504.9	4,004.9	WMAIN-5897	5.3	Passed
020-027	49.9	47	2,500.0	3,000.0	WMAIN-6316(2)	5.8	Passed
020-028	48.9	20.6	3,504.2	4,004.2	WMAIN-7110(1)	14.4	Passed
020-030	49.9	48.6	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
021-001	51	41.5	3,500.2	1,321.9	WMAIN-1960	15	Velocity Failed
021-002	50.8	44	3,500.0	2,058.2	WMAIN-1980(1)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
021-003	51.6	37	2,502.3	3,002.3	WMAIN-0988(1)	10.4	Passed
021-005	50.1	38	3,500.0	3,332.7	WMAIN-2206(2)	15	Velocity Failed
021-006	52	42	2,500.9	1,179.2	WMAIN-1957	15	Velocity Failed
021-007	51.8	47.5	1,251.8	1,602.7	WMAIN-2962(2)	15	Passed
021-008	51.6	39.2	2,500.7	2,306.4	WMAIN-2215(1)	15	Velocity Failed
021-009	50.7	42.2	2,500.4	2,044.0	WMAIN-7088(1)	15	Velocity Failed
021-010	50	46.7	3,500.0	1,876.5	WMAIN-2104	15	Velocity Failed
021-011	51.8	42.1	3,500.5	3,890.5	WMAIN-6372	15	Passed
021-012	52	49.3	2,500.2	1,403.3	WMAIN-3748	15	Velocity Failed
021-013	52	46.5	2,500.4	3,000.4	WMAIN-6372	10.2	Passed
021-014	52	43.8	2,500.5	1,994.0	WMAIN-1951(2)	15	Velocity Failed
021-015	52	37.5	2,501.1	2,445.3	WMAIN-2439(2)	15	Velocity Failed
021-016	50.6	40.5	3,500.1	887.6	WMAIN-2446(1)	15	Velocity Failed
021-017	50.2	48	3,500.4	1,543.1	WMAIN-7094(2)	15	Velocity Failed
021-018	50.9	34.8	1,253.9	1,753.9	WMAIN-2754	11	Passed
021-019	51.5	39.3	1,255.8	1,755.8	WMAIN-2124(1)	12.6	Passed
021-020	50.7	25.9	2,500.0	2,413.9	WMAIN-2124(2)(2)	15	Velocity Failed
021-021	51.5	30.6	2,500.0	2,317.6	WMAIN-2742(2)	15	Velocity Failed
021-023	51.1	36.3	3,501.5	4,001.5	WMAIN-2743(2)	13.2	Passed
021-024	50.7	30.7	2,505.4	2,280.8	WMAIN-2747(1)	15	Velocity Failed
021-025	50.4	45.5	3,500.1	4,000.1	WMAIN-0641(1)	6.5	Passed
021-026	50.7	20.9	2,507.4	1,040.2	WMAIN-2749(1)(2)	15	Velocity Failed
021-027	51	35	2,501.9	2,414.2	WMAIN-6388(1)	15	Velocity Failed
021-028	50.7	35.8	1,251.6	1,012.7	WMAIN-6390(2)	15	Velocity Failed
021-029	50.5	39.2	2,505.3	1,927.3	WMAIN-2742(1)(1)	15	Velocity Failed
021-030	49.9	40.8	2,505.5	1,766.8	WMAIN-2756(1)	15	Velocity Failed
021-031	49.9	42	1,251.1	1,751.1	WMAIN-6402(1)	7	Passed
021-032	49.9	43.4	1,252.3	1,752.3	WMAIN-6402(1)	14.3	Passed
021-033	50.2	44.3	1,253.8	1,753.8	WMAIN-6399(1)	14.7	Passed
021-034	50.5	22.3	1,250.6	1,041.2	WMAIN-6009(2)	15	Velocity Failed
021-035	49.9	41.3	1,251.1	1,751.1	WMAIN-3533(2)	10.9	Passed
021-036	50.3	45.2	3,506.0	4,006.0	WMAIN-0286(2)	6.2	Passed
021-037	50	33.5	3,501.9	3,483.0	WMAIN-2182	15	Velocity Failed
021-038	49.9	37.7	3,500.7	2,564.5	WMAIN-2947(2)	15	Velocity Failed
021-039	49.9	44.4	3,500.0	2,402.8	WMAIN-2104	15	Velocity Failed
021-040	50	31.9	3,500.2	4,000.2	WMAIN-2981	13.3	Passed
021-042	49.8	45.8	1,252.8	1,752.8	WMAIN-4690(2)(2)	6.5	Passed
021-043	49.9	37.4	2,504.2	2,108.1	WMAIN-2435(1)	15	Velocity Failed
021-044	49.9	48.6	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
021-045	49.8	47.9	1,250.0	1,750.0	WMAIN-4690(2)(2)	9.3	Passed
021-046	49.8	45.8	1,251.0	1,727.3	WMAIN-7084(1)	15	Passed
021-047	50	43.1	1,251.3	803.8	WMAIN-3530(2)	15	Velocity Failed
021-048	49.8	46.6	1,251.1	1,519.8	WMAIN-7082(1)	15	Passed
021-049	49.9	48.6	1,251.5	1,751.5	WMAIN-5897	4.9	Passed
022-001	52.7	49.9	3,500.9	2,702.3	WMAIN-6438(1)	15	Velocity Failed
022-002	52.6	47.6	2,502.9	3,002.9	WMAIN-3732(1)	8.7	Passed
022-003	52.4	48.8	3,500.0	1,723.1	WMAIN-2774(2)	15	Velocity Failed
022-004	51.7	44.1	3,500.0	2,516.2	WMAIN-5950(2)	15	Velocity Failed
022-005	51.3	39.8	2,501.0	2,340.4	WMAIN-1006(1)	15	Velocity Failed
022-006	52.4	35	2,504.4	2,637.9	WMAIN-3213	15	Passed
022-007	52.2	49.6	1,251.6	1,751.6	WMAIN-7036(1)	5	Passed
022-008	52.2	49.8	3,500.9	1,424.5	WMAIN-2770(1)	15	Velocity Failed
022-009	52.1	43.8	2,500.2	3,000.2	WMAIN-3538(2)	9.5	Passed
022-010	52.2	39	1,250.0	1,750.0	WMAIN-7040(2)(2)	11.2	Passed
022-011	52.1	42.5	1,256.9	1,756.9	WMAIN-7040(1)	13.8	Passed
022-012	52.1	47	2,500.0	3,000.0	WMAIN-6408(1)	10.9	Passed
022-013	52	20	1,251.4	1,046.8	WMAIN-2429	13.6	Residual Pressure Failed
022-014	52	40.4	2,501.9	2,363.9	WMAIN-2968(1)	15	Velocity Failed
022-015	52.1	42.8	1,250.0	1,327.3	WMAIN-3544	15	Passed
022-016	52.1	42.7	1,252.4	1,752.4	WMAIN-5619(1)	14.5	Passed
022-017	52.2	45.4	1,251.3	1,751.3	WMAIN-3547(2)	11.6	Passed
022-018	51.8	49.9	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
022-019	52	23.1	1,251.1	1,020.5	WMAIN-2428(2)	15	Velocity Failed
022-020	52	32.1	1,252.6	910.1	WMAIN-2429	15	Velocity Failed
022-021	51.5	42.5	1,250.0	1,750.0	WMAIN-7058(1)(2)(2)	12.5	Passed
022-022	51.5	44.3	1,252.2	1,752.2	WMAIN-7048(1)	13.5	Passed
022-023	51.3	49.2	1,251.7	1,751.7	WMAIN-5897	4.9	Passed
022-024	51	23.6	1,251.5	1,002.7	WMAIN-7077(2)	15	Velocity Failed
022-025	51	36.7	2,503.7	2,239.8	WMAIN-7080(1)	15	Velocity Failed
022-026	51.5	45.6	2,500.2	3,000.2	WMAIN-2430	6.2	Passed
022-027	51.4	41.9	1,250.0	1,307.7	WMAIN-2443	15	Passed
022-028	50.3	40.8	1,253.8	1,753.8	WMAIN-2758(2)	11.8	Passed
022-029	51.5	41.5	2,504.5	2,383.5	WMAIN-7058(1)(1)	15	Velocity Failed
022-030	51.1	47.1	1,251.6	1,751.6	WMAIN-7062(1)	14.4	Passed
022-031	50.7	41.5	1,252.3	1,752.3	WMAIN-3548(2)(2)	10.3	Passed
022-032	51	46	1,250.0	1,734.0	WMAIN-3548(2)(2)	15	Passed
022-033	50.6	35.5	1,253.7	1,753.7	WMAIN-7189(2)	12.3	Passed
022-034	50.3	42.4	1,257.4	1,757.4	WMAIN-7454(1)(1)	14.7	Passed
022-035	50.3	33.9	1,250.0	1,750.0	WMAIN-7192(1)	11.4	Passed
022-036	50.4	37	1,250.0	1,750.0	WMAIN-7195(2)(2)	11.9	Passed
022-037	50	37.9	2,502.4	2,211.7	WMAIN-2759(1)	15	Velocity Failed
022-038	52.1	50.8	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
022-040	52	49.6	2,501.3	3,001.3	WMAIN-7224	7.7	Passed
022-041	50.9	49.4	1,252.4	1,752.4	WMAIN-7064(2)	5.8	Passed
022-042	50.5	45.8	1,252.2	1,752.2	WMAIN-7056(2)	11.2	Passed
022-043	50.1	37.3	1,257.4	1,757.4	WMAIN-7195(1)	12.4	Passed
022-044	50.1	36.2	1,250.0	1,750.0	WMAIN-7454(2)	10.8	Passed
022-045	50	40.4	1,253.0	1,753.0	WMAIN-6404(1)	12.1	Passed
022-046	50.1	46.2	1,255.5	1,559.9	WMAIN-7192(1)	15	Passed
022-047	51.4	48.9	1,251.0	1,751.0	WMAIN-5015(2)	11.2	Passed
022-048	51	48.1	1,254.0	1,572.7	WMAIN-3550(1)	15	Passed
022-049	52	37.2	3,500.5	4,000.5	WMAIN-1735(2)	14	Passed
023-001	52.9	46.4	3,500.3	3,062.1	WMAIN-7023(1)(1)	15	Velocity Failed
023-002	52.4	47.7	1,252.0	1,752.0	WMAIN-7023(1)(1)	5.7	Passed
023-004	52.5	48.8	3,502.2	4,002.2	WMAIN-7224	7.7	Passed
023-005	52.1	49.7	2,500.3	3,000.3	WMAIN-7224	6.7	Passed
023-006	52.1	40.7	2,502.2	3,002.2	WMAIN-7014	10.5	Passed
023-007	52.1	42.6	2,500.8	3,000.8	WMAIN-7014	12.6	Passed
023-008	51.9	45.9	1,253.0	1,753.0	WMAIN-7021(1)(1)	7.8	Passed
023-009	51.8	43.9	1,250.0	1,750.0	WMAIN-5541(2)	8.1	Passed
023-010	51.9	44.1	1,251.0	1,751.0	WMAIN-5541(2)	12.3	Passed
023-011	51.5	47.6	3,500.8	4,000.8	WMAIN-7224	9.3	Passed
023-012	51.5	49.2	1,250.4	1,571.4	WMAIN-6454(1)	15	Passed
023-013	51.6	44.5	1,251.2	1,751.2	WMAIN-6454(1)	11	Passed
023-014	52.2	48.2	1,251.1	1,751.1	WMAIN-0361(1)	14.2	Passed
023-015	52	48.8	1,251.3	1,751.3	WMAIN-5487	6.4	Passed
023-016	52	47.6	1,251.6	1,751.6	WMAIN-3651(1)	13.6	Passed
023-017	52.1	45.9	1,251.4	1,751.4	WMAIN-7033(2)	10.1	Passed
023-018	51.7	47.9	2,500.3	1,911.9	WMAIN-7030(2)	15	Velocity Failed
023-019	52	44.3	1,253.2	1,753.2	WMAIN-7443(2)	11.1	Passed
023-020	52.1	44.5	1,253.2	1,753.2	WMAIN-7446(2)	11.1	Passed
023-021	52.3	49.3	1,253.6	1,753.6	WMAIN-1236(1)	9.4	Passed
023-022	52.4	49.7	1,250.0	1,750.0	WMAIN-1239(2)	7.5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
023-023	52.4	48.1	1,251.4	1,751.4	WMAIN-1246(1)	8	Passed
023-024	52.3	46.9	1,253.9	1,753.9	WMAIN-1246(1)	6.4	Passed
023-025	52	46.6	1,250.5	1,750.5	WMAIN-1236(1)	6.5	Passed
023-026	52.2	49.8	2,502.8	3,002.8	WMAIN-7224	6.5	Passed
023-027	52.2	48.2	1,254.4	1,754.4	WMAIN-1230	6	Passed
023-028	52.1	45.6	1,251.9	1,320.5	WMAIN-5478(1)	15	Passed
023-029	52.1	45	1,252.4	1,752.4	WMAIN-2510(1)	11.2	Passed
023-030	52	50	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
023-031	52.2	46.9	1,251.6	1,751.6	WMAIN-2509(1)	11.2	Passed
023-032	52.3	49.8	1,252.9	1,752.9	WMAIN-1239(1)(1)	7.6	Passed
023-033	52.5	47	1,252.0	1,752.0	WMAIN-2698(1)	11.2	Passed
023-034	52.6	49.1	1,252.0	1,320.5	WMAIN-2700(1)	15	Passed
023-035	52.4	31.2	1,254.2	1,754.2	WMAIN-6517(2)(1)(2)	11.3	Passed
023-036	52.6	37.1	1,250.0	1,750.0	WMAIN-6517(2)(1)(2)	11.3	Passed
023-037	52.9	42.9	1,252.4	1,752.4	WMAIN-6517(2)(1)(2)	11.3	Passed
023-038	53.1	47.7	3,500.0	2,333.8	WMAIN-6517(2)(2)	15	Velocity Failed
023-039	53	47.8	3,503.3	2,344.8	WMAIN-7441(1)(1)	15	Velocity Failed
023-040	52.8	38.5	2,500.0	2,341.5	WMAIN-7441(1)(1)	15	Velocity Failed
023-041	52.4	37.7	1,252.2	1,752.2	WMAIN-7441(1)(1)	11.2	Passed
023-042	52.2	31.1	1,250.0	1,750.0	WMAIN-7441(1)(1)	11.2	Passed
023-043	53	41.7	5,000.0	2,333.6	WMAIN-6517(2)(1)(2)	15	Velocity Failed
023-045	53.2	45.9	3,506.0	4,006.0	WMAIN-4754(1)(1)	11.4	Passed
023-046	53.1	44.2	3,500.0	4,000.0	WMAIN-4754(1)(1)	10	Passed
023-047	52.9	49.3	1,251.6	1,751.6	WMAIN-4733(2)	11.2	Passed
023-048	52.7	49	1,251.1	1,751.1	WMAIN-4735(2)	11.2	Passed
023-049	52.6	48.9	1,251.7	1,751.7	WMAIN-4738(1)	11.2	Passed
023-050	52.8	48.1	1,252.6	1,752.6	WMAIN-4745	6.2	Passed
023-051	52.6	48.6	1,250.0	1,750.0	WMAIN-4728(2)(2)	7.5	Passed
023-052	52.9	48.7	1,251.0	1,751.0	WMAIN-4729(2)	11.2	Passed
023-053	53.3	45.9	3,500.3	4,000.3	WMAIN-5999(2)	6.4	Passed
023-055	52.8	44.5	5,004.0	2,347.9	WMAIN-3256	15	Velocity Failed
023-056	52.9	37.7	5,002.2	2,346.1	WMAIN-3256	15	Velocity Failed
023-058	53.1	46.7	3,503.2	4,003.2	WMAIN-7224	7.1	Passed
023-059	53.3	46.5	3,500.0	4,000.0	WMAIN-7224	6.7	Passed
024-001	52	50.4	1,250.5	1,750.5	WMAIN-5897	4.9	Passed
024-002	52.8	51.1	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
024-003	53.4	51.6	1,300.7	1,800.7	WMAIN-5897	4.9	Passed
024-004	53.3	51.3	1,250.0	1,750.0	WMAIN-2636(2)	10.1	Passed
024-005	50	37.3	2,501.5	3,001.5	WMAIN-2636(1)(2)	13.7	Passed
024-006	52	45	1,250.0	1,750.0	WMAIN-2636(1)(2)	6.8	Passed
024-007	52.3	44.8	1,250.8	1,750.8	WMAIN-2636(1)(2)	5.9	Passed
024-008	52.5	29.3	3,500.1	3,689.1	WMAIN-4739(2)	15	Passed
024-009	52.5	44.6	1,251.3	1,751.3	WMAIN-2641(1)	7.3	Passed
024-017	52.6	39.8	3,500.0	3,196.1	WMAIN-4739(1)	15	Velocity Failed
024-020	53	44.2	1,250.9	1,750.9	WMAIN-2515(1)	8.5	Passed
024-021	53.3	42.2	1,253.7	1,753.7	WMAIN-2515(1)	7.2	Passed
024-022	52.9	42.6	1,254.7	1,754.7	WMAIN-2515(1)	6.6	Passed
024-023	53.2	44.4	1,250.7	1,750.7	WMAIN-2517(1)	7.3	Passed
024-024	53.1	43	1,253.2	1,753.2	WMAIN-2517(1)	6.4	Passed
024-025	52.8	42.4	1,253.7	1,753.7	WMAIN-2517(1)	6.3	Passed
024-026	52.6	43	1,251.0	1,751.0	WMAIN-2569(1)	11.2	Passed
024-027	53.6	51.2	1,250.0	1,750.0	WMAIN-5897	5	Passed
024-028	53.7	45	3,500.0	4,000.0	WMAIN-0308	6	Passed
024-029	53.7	45.7	3,505.0	4,005.0	WMAIN-0308	6.9	Passed
025-001	53.6	33.5	5,000.0	5,320.2	WMAIN-4906(2)	15	Passed
025-002	53.5	35.2	5,001.1	5,501.1	WMAIN-3563(1)(2)	14.7	Passed
025-003	53.4	42.5	5,000.0	4,699.7	WMAIN-3563(2)	15	Velocity Failed
025-004	53.5	45.2	3,507.1	4,007.1	WMAIN-4903(1)	6.1	Passed
025-005	53.7	45.5	3,500.0	4,000.0	WMAIN-4903(2)(2)	6.4	Passed
025-006	54	37.4	3,500.0	4,000.0	WMAIN-4901	14.4	Passed
025-007	53.7	36	3,500.2	4,000.2	WMAIN-4894(1)	13.4	Passed
025-008	53.8	39.1	5,000.5	3,500.9	WMAIN-4905(1)(2)	15	Velocity Failed
025-009	53.8	42.6	3,500.0	3,232.2	WMAIN-4905(2)	15	Velocity Failed
025-010	53.8	45.4	3,500.0	4,000.0	WMAIN-6004	5.7	Passed
025-011	53.8	51.7	1,250.0	1,750.0	WMAIN-5897	5	Passed
026-001	52.2	49.1	2,500.1	3,000.1	WMAIN-5226(2)	6.9	Passed
026-002	52.2	45.4	2,500.0	3,000.0	WMAIN-5227	12	Passed
026-003	52.4	44.8	2,500.0	3,000.0	WMAIN-1254	10.2	Passed
026-004	52.5	44.3	2,506.8	2,350.1	WMAIN-3437	15	Velocity Failed
026-005	52.7	50.4	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
026-006	52.8	46.5	5,005.0	5,505.0	WMAIN-7224	7.8	Passed
026-007	53.1	44.1	5,051.7	3,172.0	WMAIN-7435(1)(1)	15	Velocity Failed
026-008	53.6	32.6	5,000.0	3,884.2	WMAIN-7435(1)(1)	15	Velocity Failed
026-009	53.8	39.4	2,500.0	3,000.0	WMAIN-7435(1)(1)	9.9	Passed
026-012	52.8	49.4	3,500.0	4,000.0	WMAIN-7224	6.8	Passed
026-013	53	47	3,502.4	4,002.4	WMAIN-7224	7.2	Passed
026-014	53	47	3,500.0	4,000.0	WMAIN-7224	7.2	Passed
026-015	52.9	47.8	3,506.0	4,006.0	WMAIN-6442(1)(1)	7.8	Passed
026-016	52.9	49.5	3,500.0	4,000.0	WMAIN-7224	6.4	Passed
026-017	52.3	50.1	2,501.9	3,001.9	WMAIN-5897	5.3	Passed
026-020	53.8	39.9	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	10.8	Passed
026-021	53.8	42.6	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	12.7	Passed
026-022	53.8	42.6	2,500.0	3,000.0	WMAIN-4898(1)	12.4	Passed
026-023	53.7	43.7	2,504.4	3,004.4	WMAIN-6001(1)(2)	9.6	Passed
026-024	53.5	38.4	3,500.0	3,956.0	WMAIN-6001(2)	15	Passed
026-025	53.3	42.8	3,500.0	3,854.2	WMAIN-3269(2)	15	Passed
026-026	53.1	46.6	3,500.0	4,000.0	WMAIN-7224	7	Passed
026-028	53.2	41.3	5,000.0	5,500.0	WMAIN-7224	8.9	Passed
026-029	53.4	39.7	3,500.8	2,640.6	WMAIN-3272(2)	15	Velocity Failed
026-030	53.3	46.5	3,500.0	4,000.0	WMAIN-7224	6.6	Passed
026-031	53.3	41.1	5,000.0	5,500.0	WMAIN-5999(1)	10	Passed
026-038	52.1	49.5	2,500.0	3,000.0	WMAIN-5224(2)	6.5	Passed
027-001	52	49.9	2,503.9	3,003.9	WMAIN-5897	5.3	Passed
027-002	51.8	44.7	2,500.0	3,000.0	WMAIN-1256(2)(2)	14.3	Passed
027-003	51.6	40.9	2,502.5	3,002.5	WMAIN-1256(1)(2)	12.1	Passed
027-004	51.5	39.1	2,500.0	3,000.0	WMAIN-1256(1)(2)	9.9	Passed
027-005	51.3	39.8	2,501.0	3,001.0	WMAIN-1255(1)(1)	11.2	Passed
027-006	51.8	38.6	1,255.0	1,755.0	WMAIN-5239(1)	10.3	Passed
027-007	51.7	44	1,250.8	1,750.8	WMAIN-5235(1)	10.9	Passed
027-008	51.3	36.4	3,501.7	4,001.7	WMAIN-5232(2)	13.3	Passed
027-009	51.9	38.6	3,500.1	4,000.1	WMAIN-6484(1)	12.8	Passed
027-010	51.5	40.1	3,500.4	3,752.0	WMAIN-6479(1)	15	Passed
027-011	52.3	50	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
027-012	52.5	48.9	3,506.8	4,006.8	WMAIN-7224	5.7	Passed
027-017	52.3	45.9	2,500.0	3,000.0	WMAIN-2235	10.5	Passed
027-018	52.1	44.6	2,510.7	3,010.7	WMAIN-6472(1)(1)	10.6	Passed
027-019	52.3	46.6	2,500.0	3,000.0	WMAIN-6472(2)	13.4	Passed
027-021	52.6	46.3	5,000.2	5,500.2	WMAIN-2998	7.8	Passed
027-022A	52.2	48.4	3,500.0	4,000.0	WMAIN-2998	6.9	Passed
027-022B	52	48	3,500.5	4,000.5	WMAIN-2998	7.8	Passed
027-024	50.3	45.3	1,250.8	1,750.8	WMAIN-4642	6.7	Passed
027-025	51.7	45.4	2,502.6	1,966.4	WMAIN-7005(1)	15	Velocity Failed
027-026	51.8	43.6	5,001.9	5,501.9	WMAIN-2998	14.5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
027-027	50.2	43.7	2,500.0	3,000.0	WMAIN-2998	9.4	Passed
027-028	50.2	29.7	1,252.9	583.3	WMAIN-6998(2)	15	Velocity Failed
027-029	51.7	48	2,500.0	1,747.0	WMAIN-1971(2)(2)	15	Velocity Failed
027-030	51.2	40	2,501.0	2,416.1	WMAIN-2130	15	Velocity Failed
027-031	51.9	47.9	3,500.0	4,000.0	WMAIN-2998	7.9	Passed
027-032	51.9	33.9	3,505.0	2,172.1	WMAIN-7074(1)	15	Velocity Failed
027-033	51.5	46.4	3,502.3	1,824.8	WMAIN-2725(1)	15	Velocity Failed
027-034	50.9	40	1,251.4	1,751.4	WMAIN-5252	11.5	Passed
027-035	51.9	47.2	2,505.6	3,005.6	WMAIN-2998	10.5	Passed
027-036	50.4	46.5	3,501.0	2,717.2	WMAIN-2998	15	Velocity Failed
027-037	51.5	45.6	3,504.6	2,122.5	WMAIN-7008(2)	15	Velocity Failed
027-040	51.8	47	3,500.0	1,924.8	WMAIN-6482(2)	15	Velocity Failed
027-041	51.7	38.3	3,501.0	2,550.1	WMAIN-7010(2)	15	Velocity Failed
027-042	51.2	32.6	3,500.0	2,347.8	WMAIN-5255(2)(2)	15	Velocity Failed
027-043	52	40.3	3,517.8	4,017.8	WMAIN-6474	13.1	Passed
027-044	51.1	39	3,501.0	4,001.0	WMAIN-4632(1)	14.5	Passed
027-045	51.5	47.5	1,251.6	1,751.6	WMAIN-4624(1)	6.8	Passed
027-046	50.2	48.3	1,251.1	1,751.1	WMAIN-4633(2)	6.6	Passed
027-047	51.5	47.8	1,252.1	1,752.1	WMAIN-4637(2)	5.8	Passed
027-048	53.1	47.9	1,253.6	1,753.6	WMAIN-4400(1)	8.8	Passed
027-049	52.3	47.6	1,253.0	1,753.0	WMAIN-4402(1)	7.3	Passed
027-050	52.9	49.5	3,500.0	4,000.0	WMAIN-7224	6.6	Passed
027-051	50.9	41.2	1,251.8	1,751.8	WMAIN-2423	11.2	Passed
027-052	51	45.2	1,250.6	1,750.6	WMAIN-2423	11.2	Passed
027-053	52.3	47	3,500.0	1,671.9	WMAIN-7074(2)(2)	15	Velocity Failed
027-054	51.8	49.2	3,500.0	2,350.1	WMAIN-3266	15	Velocity Failed
027-055	51.9	48.5	3,500.8	4,000.8	WMAIN-5897	5.8	Passed
028-001	49.9	43.4	2,501.5	3,001.5	WMAIN-6989(2)	13.6	Passed
028-002	49.9	46.1	2,501.0	1,445.0	WMAIN-5645(1)	15	Velocity Failed
028-003	49.8	35.3	2,501.4	1,664.6	WMAIN-5645(1)	15	Velocity Failed
028-004	49.8	27.2	2,501.3	1,800.0	WMAIN-5645(1)	15	Velocity Failed
028-005	49.8	22.2	2,500.3	1,758.2	WMAIN-7330	15	Velocity Failed
028-006	49.8	20.4	2,506.7	1,710.6	WMAIN-7330	15	Velocity Failed
028-007	49.8	40.9	1,252.6	1,590.2	WMAIN-3729	15	Passed
028-008	49.8	47.4	1,251.1	1,751.1	WMAIN-6967(2)	8.2	Passed
028-009	49.7	46.7	1,250.5	1,750.5	WMAIN-6360(2)	6.3	Passed
028-010	49.8	37.9	1,251.4	1,751.4	WMAIN-2676(2)	12.8	Passed
028-011	49.8	44.1	1,256.4	1,756.4	WMAIN-6355	6.1	Passed
028-012	49.8	42.2	1,250.6	1,750.6	WMAIN-7329(1)	10.2	Passed
028-013	49.6	41.1	2,500.4	3,000.4	WMAIN-6987	12	Passed
028-014	49.8	40.1	2,501.5	2,114.7	WMAIN-3032(2)	15	Velocity Failed
028-015	49.8	38.9	2,500.7	2,198.4	WMAIN-3451(2)	15	Velocity Failed
028-016	49.5	43.7	2,500.5	1,782.1	WMAIN-6460(1)	15	Velocity Failed
028-017	49.6	32.2	2,500.0	2,407.3	WMAIN-3723(1)	15	Velocity Failed
028-018	49.8	44.3	3,501.1	1,824.3	WMAIN-3461(2)	15	Velocity Failed
028-019	49.7	44	1,261.8	1,761.8	WMAIN-2419	6.4	Passed
028-020	49.7	20	2,509.4	864.8	WMAIN-6340(1)	11.8	Residual Pressure Failed
028-021	49.5	20	2,510.9	2,267.1	WMAIN-0294(1)(1)	13.3	Residual Pressure Failed
028-022	49.8	29.3	3,500.4	2,336.1	WMAIN-6336	15	Velocity Failed
028-023	49.8	36.7	2,500.1	1,321.9	WMAIN-2934	15	Velocity Failed
028-024	49.8	25.8	3,505.5	4,005.5	WMAIN-1984	13.4	Passed
028-025	49.8	42.9	2,500.2	3,000.2	WMAIN-2097(2)	10.2	Passed
028-026	49.8	43.5	2,500.8	3,000.8	WMAIN-2922(1)	13.6	Passed
028-027	49.7	33.7	2,500.8	2,548.6	WMAIN-2245(2)	15	Passed
028-028	49.7	40.1	3,500.4	2,121.2	WMAIN-2243(1)	15	Velocity Failed
028-029	49.8	33.2	3,500.8	3,194.0	WMAIN-2909	15	Velocity Failed
028-030	50.1	45.9	2,500.0	2,868.8	WMAIN-2998	15	Passed
028-031	49.8	39.1	3,500.3	1,889.2	WMAIN-3257	15	Velocity Failed
028-032	49.8	42.5	3,500.7	4,000.7	WMAIN-2998	12.9	Passed
028-033	49.8	44.1	3,501.4	3,164.6	WMAIN-2248(1)	15	Velocity Failed
028-034	49.8	36.6	3,500.0	2,597.1	WMAIN-2152(1)	15	Velocity Failed
028-035	49.8	38.8	3,500.0	2,283.9	WMAIN-2355	15	Velocity Failed
028-036	51	41.2	1,251.4	1,751.4	WMAIN-6324(1)(1)	13.5	Passed
028-037	50.4	27.3	2,500.0	2,126.6	WMAIN-3257	15	Velocity Failed
028-039	49.8	42.2	3,500.3	2,012.5	WMAIN-2155(2)	15	Velocity Failed
028-040	49.9	37.1	3,500.0	2,395.9	WMAIN-1962(1)(2)	15	Velocity Failed
028-041	49.9	35.1	3,500.6	3,940.2	WMAIN-2104	15	Passed
028-042	49.8	43.3	3,500.0	1,927.0	WMAIN-1962(2)	15	Velocity Failed
028-043	49.9	42.8	3,500.3	1,919.6	WMAIN-2157	15	Velocity Failed
028-044	49.8	46.1	2,501.1	1,568.6	WMAIN-3257	15	Velocity Failed
028-045	49.5	31.5	2,500.0	1,987.5	WMAIN-0294(2)	15	Velocity Failed
028-046	49.7	32.7	3,502.5	3,286.4	WMAIN-2909	15	Velocity Failed
028-047	49.9	48.2	1,250.3	1,750.3	WMAIN-5897	5	Passed
029-001	49.7	43.3	2,500.8	1,944.6	WMAIN-0280(2)	15	Velocity Failed
029-002	49.8	45.4	3,501.9	3,230.7	WMAIN-2399	15	Velocity Failed
029-003	49.7	46.2	1,254.0	718.3	WMAIN-2992	15	Velocity Failed
029-004	49.4	45.4	1,253.6	1,685.6	WMAIN-0562(1)	15	Passed
029-005	48.2	46.4	1,251.0	1,751.0	WMAIN-2399	5.6	Passed
029-006	49.4	34.4	3,500.1	2,326.0	WMAIN-0372	15	Velocity Failed
029-007	49.3	36.6	3,500.8	2,411.5	WMAIN-2989(1)(1)	15	Velocity Failed
029-008	49.3	45.6	2,500.1	3,000.1	WMAIN-2399	9.7	Passed
029-009	49.2	38.5	3,500.9	2,298.9	WMAIN-2988(2)	15	Velocity Failed
029-010	49.6	29	2,507.6	2,504.0	WMAIN-2982(1)	15	Velocity Failed
029-011	49.1	29.2	3,505.1	2,448.6	WMAIN-3424(1)	15	Velocity Failed
029-012	49.6	41.7	1,250.7	1,750.7	WMAIN-3422(2)	12.8	Passed
029-013	48.8	39.3	1,251.2	1,751.2	WMAIN-3421(1)	11.5	Passed
029-014	49.1	20	1,255.6	1,053.0	WMAIN-6428(1)	13.9	Residual Pressure Failed
029-015	49.7	37.4	1,253.4	1,753.4	WMAIN-6430(2)	11.5	Passed
029-016	49.8	40.2	3,501.4	2,294.7	WMAIN-2240(1)	15	Velocity Failed
029-017A	49.8	41.3	3,501.3	179.2	WMAIN-1989(2)	15	Velocity Failed
029-017B	49.7	46.5	2,500.0	3,000.0	WMAIN-2399	6.7	Passed
029-019	49.8	42.8	3,500.5	4,000.5	WMAIN-6285(2)	7.7	Passed
029-020	49.6	44.5	1,250.5	1,750.5	WMAIN-2840(2)	12.3	Passed
029-021	48.8	37.6	3,500.6	2,084.0	WMAIN-3481(1)	15	Velocity Failed
029-022	49.8	35.7	5,001.8	5,501.8	WMAIN-6281(2)	12.3	Passed
029-023	49.8	38.3	1,254.4	1,754.4	WMAIN-2402(1)	12.8	Passed
029-024	49.6	37.4	3,500.0	2,386.0	WMAIN-2901(2)	15	Velocity Failed
029-025	49.6	44.5	5,000.0	1,821.3	WMAIN-2896(2)	15	Velocity Failed
029-026	49.6	44.5	3,500.0	4,000.0	WMAIN-2399	7.3	Passed
029-027	49.7	43.6	3,500.0	1,924.6	WMAIN-1990(2)	15	Velocity Failed
029-028	49.8	40	3,501.5	4,001.5	WMAIN-6281(2)	7.9	Passed
029-029	49.7	38.5	3,506.2	2,577.7	WMAIN-6277	15	Velocity Failed
029-030	48.9	34.7	1,250.0	1,750.0	WMAIN-6953(2)	10.3	Passed
029-031	49.7	43	3,500.0	1,894.2	WMAIN-2101	15	Velocity Failed
029-032	49.6	44.6	3,500.0	4,000.0	WMAIN-2399	6.6	Passed
029-033	49.6	37.9	3,500.0	2,184.6	WMAIN-2164(2)(2)	15	Velocity Failed
029-034	49.4	34.6	3,500.0	1,561.6	WMAIN-7089(1)	15	Velocity Failed
029-035	49.3	39.8	1,252.0	1,752.0	WMAIN-6311(1)	14	Passed
029-036	48.8	23.2	3,500.2	2,489.4	WMAIN-0431	15	Velocity Failed
029-037	48.7	25.3	2,501.2	2,246.2	WMAIN-2858(2)	15	Velocity Failed
029-038	49.1	29.4	2,500.0	2,247.8	WMAIN-2398(1)	15	Velocity Failed
029-039	49.1	30	2,506.1	2,228.8	WMAIN-2398(1)	15	Velocity Failed
029-041	49.8	46.4	2,501.6	3,001.6	WMAIN-2399	6.1	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
029-042	49.8	43.6	3,500.0	4,000.0	WMAIN-2399	8.5	Passed
030-001	47.9	35.9	1,254.4	1,754.4	WMAIN-6946(1)	10.7	Passed
030-002	47.9	43.7	1,251.2	1,751.2	WMAIN-6926(1)	6.5	Passed
030-003	47.8	44.6	1,251.1	1,751.1	WMAIN-3409(2)	5.8	Passed
030-004	47.8	38.8	1,250.2	1,750.2	WMAIN-7301	10.7	Passed
030-005	47.9	36.8	1,251.2	1,751.2	WMAIN-3414(2)	10.9	Passed
030-006	47.8	42.1	1,251.1	1,704.3	WMAIN-3417(2)	15	Passed
030-007	47.7	36.2	1,254.0	1,754.0	WMAIN-6935(2)	10.8	Passed
030-008	47.6	44.5	1,250.2	1,750.2	WMAIN-2375(2)	7.1	Passed
030-009	47.8	32.4	1,252.5	1,752.5	WMAIN-6502	10.2	Passed
030-010	47.8	36.1	1,251.3	1,751.3	WMAIN-3419(2)	11.5	Passed
030-011	47.9	43.3	1,252.3	1,752.3	WMAIN-6933(2)	5.9	Passed
030-012	47.9	37.4	1,251.3	1,751.3	WMAIN-2227(1)	12.1	Passed
030-013	47.9	38.5	1,250.6	1,750.6	WMAIN-2228(2)	12	Passed
030-014	48.6	30.4	1,251.4	1,751.4	WMAIN-2232(2)	12.4	Passed
030-015	48.1	43.9	1,252.5	1,752.5	WMAIN-2383(1)	6.5	Passed
030-016	47.9	37.7	1,251.3	1,751.3	WMAIN-5585(1)	11.8	Passed
030-017	47.7	43	1,250.2	1,750.2	WMAIN-3429(2)	13.1	Passed
030-018	47.7	42.5	1,250.0	1,750.0	WMAIN-5614(2)	10	Passed
030-019	47.9	42.9	1,253.0	1,741.3	WMAIN-5617(2)	15	Passed
030-020	48.2	43.5	3,501.6	1,709.1	WMAIN-6924(1)(1)	15	Velocity Failed
030-021	47.9	40.8	1,250.7	1,750.7	WMAIN-5595(1)(1)	10.2	Passed
030-022	47.8	45.4	1,250.6	1,750.6	WMAIN-6915(1)	7.4	Passed
030-023	47.9	43.5	1,252.4	1,668.2	WMAIN-6489(1)(1)	15	Passed
030-024	47.6	44.6	1,250.7	1,750.7	WMAIN-6912(1)	5.9	Passed
030-025	47.6	44.4	1,252.2	1,752.2	WMAIN-6939(1)(1)	7.7	Passed
030-026	48.5	34.7	2,501.6	1,998.7	WMAIN-2138	15	Velocity Failed
030-027	48.5	37.6	1,252.9	1,752.9	WMAIN-2407	13.4	Passed
030-028	48.3	41.9	1,253.2	1,619.5	WMAIN-0650	15	Passed
030-029	48.3	36.5	3,500.0	2,112.9	WMAIN-6924(2)	15	Velocity Failed
030-030	48	33.7	3,500.0	2,226.4	WMAIN-6489(2)	15	Velocity Failed
030-031	47.9	33.3	1,252.8	1,752.8	WMAIN-5609	11.3	Passed
030-032	47.7	44.3	1,250.1	1,750.1	WMAIN-3471(1)	5.8	Passed
030-033	48.5	30.6	2,502.4	2,569.2	WMAIN-2826(2)	15	Passed
030-034	48.4	37.9	1,250.5	1,750.5	WMAIN-6921(1)	10.4	Passed
030-035	48.5	44	3,500.4	1,664.6	WMAIN-6919(2)	15	Velocity Failed
030-036	48.3	20	1,252.3	1,064.4	WMAIN-2834(2)	14.3	Residual Pressure and Velocity Failed
030-037	47.9	42.4	2,504.4	2,166.3	WMAIN-1329	15	Velocity Failed
030-038	47.7	42.4	3,507.0	3,115.2	WMAIN-3470(2)	15	Velocity Failed
030-039	48.4	37.2	3,500.0	3,862.7	WMAIN-7113(2)(1)	15	Passed
030-042	47.9	43.1	1,250.0	1,750.0	WMAIN-5595(2)	14.4	Passed
030-043	48.2	37.1	1,250.3	1,750.3	WMAIN-2144	13.1	Passed
030-044	48.1	43.7	3,500.0	4,000.0	WMAIN-5604(2)(2)	13	Passed
030-045	48.1	43.7	2,502.4	3,002.4	WMAIN-5604(1)	6.6	Passed
030-046	48.1	44.8	1,252.8	1,752.8	WMAIN-6890(2)	7	Passed
030-047	48.2	40.1	3,503.2	3,395.2	WMAIN-6419	15	Velocity Failed
031-001	47.9	44.6	1,250.4	1,750.4	WMAIN-2386(2)	5.8	Passed
031-002	47.6	41.2	1,250.9	1,750.9	WMAIN-3474(2)	10.1	Passed
031-003	47.3	42	1,250.0	1,750.0	WMAIN-7296	7.1	Passed
031-004	47.3	41.2	1,250.0	1,750.0	WMAIN-7294(1)(1)	5.8	Passed
031-005	47.7	42.5	1,258.7	1,758.7	WMAIN-7294(1)(1)	7.4	Passed
031-006	47.9	44.2	1,251.2	1,751.2	WMAIN-3475(2)	5.9	Passed
031-007	47.6	35.1	1,253.7	1,753.7	WMAIN-7292(1)	10.2	Passed
031-008	47.9	41.9	1,250.1	1,750.1	WMAIN-6888(1)	13.3	Passed
031-009	47.9	39.6	1,252.3	1,752.3	WMAIN-7297(1)	10.2	Passed
031-010	47.5	44.3	1,253.0	1,753.0	WMAIN-6877(1)	6.4	Passed
031-011	47.4	36.3	1,250.0	1,750.0	WMAIN-7282(2)(2)	11.5	Passed
031-012	47.7	39.5	2,504.3	1,844.9	WMAIN-7282(1)	15	Velocity Failed
031-013	47.4	37.4	5,002.7	3,545.9	WMAIN-6883(1)(1)	15	Velocity Failed
031-014	46.9	28.1	5,001.7	4,016.9	WMAIN-6867(2)	15	Velocity Failed
031-015	46.2	31.9	2,504.4	2,536.2	WMAIN-7286(2)	15	Passed
031-016	46.3	34.6	2,503.1	3,003.1	WMAIN-3775	12	Passed
031-017	46.8	20	2,505.6	2,534.1	WMAIN-5560(1)	14.6	Passed
031-018	46.3	26	3,502.2	4,002.2	WMAIN-6873(2)	13.7	Passed
031-022	47.4	44	3,502.3	4,002.3	WMAIN-5897	5.2	Passed
031-023	46.8	33.1	3,500.0	3,584.3	WMAIN-2672(1)	15	Passed
031-024	46.9	43.4	3,504.7	2,752.6	WMAIN-2672(1)	15	Velocity Failed
031-026	45.7	40.6	3,500.0	4,000.0	WMAIN-6871	6.4	Passed
031-027	43.5	37.9	3,500.0	4,000.0	WMAIN-3657	6.3	Passed
031-028	46.2	41.2	3,500.0	4,000.0	WMAIN-3657	7.3	Passed
031-029	46.3	43	3,500.0	4,000.0	WMAIN-3657	9.3	Passed
031-031	45.2	41.6	2,503.9	3,003.9	WMAIN-5897	5	Passed
031-033	46.9	43.8	2,500.0	3,000.0	WMAIN-5897	5	Passed
031-034	47	44	2,500.0	3,000.0	WMAIN-6872(1)(1)	5.3	Passed
031-035	47	44.3	2,510.9	3,010.9	WMAIN-6872(1)(1)	5.7	Passed
031-036	46.5	45	1,251.1	1,751.1	WMAIN-5897	4.9	Passed
031-040	46	25.2	5,003.9	1,321.3	WMAIN-3283(2)	15	Velocity Failed
031-041	46.3	41.7	3,500.0	4,000.0	WMAIN-3657	7.9	Passed
031-042	45.1	31.1	3,500.0	3,204.5	WMAIN-5964(2)	15	Velocity Failed
031-043	47.7	43.7	1,250.0	1,750.0	WMAIN-6939(2)(2)	6.1	Passed
031-044	47.4	29.4	3,500.5	3,832.8	WMAIN-5429(1)	15	Passed
031-045	47.6	39.7	3,500.0	3,304.2	WMAIN-6883(2)	15	Velocity Failed
031-046	47.7	44.3	1,253.4	1,753.4	WMAIN-3472	5.5	Passed
031-047	46.8	44.6	2,500.0	3,000.0	WMAIN-5897	5	Passed
031-049	47.3	33.3	5,001.3	3,543.4	WMAIN-5434(2)	15	Velocity Failed
031-050	46.3	43.1	3,500.7	4,000.7	WMAIN-5897	5.2	Passed
031-051	47.2	25.6	3,500.0	4,000.0	WMAIN-5434(2)	13.2	Passed
031-056	47.3	43.9	3,507.1	4,007.1	WMAIN-5897	5.2	Passed
032-001	45.9	21.8	2,500.0	3,000.0	WMAIN-4910	12.1	Passed
032-002	45.8	24.2	2,504.7	2,347.5	WMAIN-5454(1)	15	Velocity Failed
032-003	45.9	32.8	2,504.8	2,679.5	WMAIN-5456(1)	15	Passed
032-004	45.8	20	2,500.6	2,892.4	WMAIN-5456(1)	13.9	Passed
032-008	45.9	43.6	2,500.0	3,000.0	WMAIN-5897	5	Passed
032-013	45.9	24.8	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-015	45.8	22.1	2,502.3	3,002.3	WMAIN-4910	11.6	Passed
032-016	45.3	27.5	2,500.2	2,023.7	WMAIN-5436	15	Velocity Failed
032-018	45.2	20	2,500.4	2,263.1	WMAIN-5441	14.5	Residual Pressure and Velocity Failed
032-020	45.9	28.6	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-022	45.9	32.5	1,261.8	1,761.8	WMAIN-2370(1)(1)	11.3	Passed
032-024	45.9	42.6	1,250.8	1,750.8	WMAIN-4709(2)	6.5	Passed
032-025	46.2	40.7	5,000.0	5,500.0	WMAIN-5897	5.8	Passed
032-026	46	43.8	2,500.0	3,000.0	WMAIN-5897	5	Passed
032-027	45.8	42.4	3,505.5	4,005.5	WMAIN-5897	5.2	Passed
032-028	45.5	41.8	3,500.5	4,000.5	WMAIN-5897	5.2	Passed
032-029	45.9	43.6	1,251.7	1,751.7	WMAIN-4713(1)	9	Passed
032-030	45.9	42.6	1,251.6	1,751.6	WMAIN-4715(2)	6.5	Passed
032-031	45.9	43.6	1,251.7	1,751.7	WMAIN-4710(1)	9	Passed
032-032	45.9	42.6	1,251.6	1,751.6	WMAIN-4712(2)	6.5	Passed
032-033	45.9	43.6	1,251.7	1,751.7	WMAIN-4707(1)	9	Passed
032-034	45.9	44.2	1,250.7	1,750.7	WMAIN-5897	4.9	Passed
032-035	45.9	44.3	1,254.0	1,754.0	WMAIN-5897	4.9	Passed
032-036	45.9	44.3	1,253.5	1,753.5	WMAIN-5897	4.9	Passed
032-037	44.7	43.3	1,250.4	1,750.4	WMAIN-5897	4.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
032-038	46.2	41.8	1,253.7	1,753.7	WMAIN-4008(1)	6	Passed
032-039	45.9	41.1	1,251.3	1,751.3	WMAIN-4005(1)	11.2	Passed
032-040	46	43.3	1,251.3	1,751.3	WMAIN-4025(1)	8.5	Passed
032-041	45.9	44	1,250.6	1,750.6	WMAIN-4016(2)	7.9	Passed
032-042	46.2	43.7	1,250.8	1,750.8	WMAIN-4034(1)	11.2	Passed
032-043	45.9	33.9	3,500.0	4,000.0	WMAIN-4030(1)	13.4	Passed
032-044	45.9	44.2	1,252.1	1,752.1	WMAIN-4030(1)	9.4	Passed
032-045	46.2	44.4	1,251.8	1,751.8	WMAIN-4019(1)	8.4	Passed
032-046	44.6	43.1	1,252.4	1,752.4	WMAIN-5897	4.9	Passed
032-047	46	43	1,250.5	1,750.5	WMAIN-8119(1)	7.1	Passed
032-048	46	41.2	1,252.8	1,752.8	WMAIN-8119(1)	6.2	Passed
032-049	45.9	41.8	1,252.8	1,752.8	WMAIN-8120	7.5	Passed
032-050	45.9	42	1,250.0	1,750.0	WMAIN-8118(2)(2)	7.6	Passed
032-051	46	41.3	1,254.1	1,754.1	WMAIN-8119(1)	6.2	Passed
033-001	46	43.2	3,500.0	4,000.0	WMAIN-5897	5.2	Passed
033-002	46.3	45.1	1,250.3	1,750.3	WMAIN-5897	4.9	Passed
033-005	47	44.2	1,253.1	1,753.1	WMAIN-4042(1)(1)	8	Passed
033-006	47.9	44.4	1,250.0	1,750.0	WMAIN-4042(1)(1)	5.9	Passed
033-007	48.1	45.5	1,250.0	1,750.0	WMAIN-4038(1)	5.9	Passed
033-008	47.8	44	1,250.7	1,750.7	WMAIN-2368(1)	6.6	Passed
033-009	46.7	44.2	1,250.2	1,750.2	WMAIN-3993(1)	5.9	Passed
033-010	47.5	45.9	1,250.1	1,750.1	WMAIN-5897	4.9	Passed
033-011	47.2	45.9	1,252.5	1,752.5	WMAIN-5897	4.9	Passed
033-012	48.1	46.4	1,250.8	1,750.8	WMAIN-4038(1)	8.6	Passed
033-013	45.8	42	1,251.8	1,751.8	WMAIN-3949(2)	5.6	Passed
033-014	45.8	43.4	1,251.8	1,751.8	WMAIN-3949(2)	8.9	Passed
033-015	45.5	43.5	1,254.9	1,754.9	WMAIN-5897	4.9	Passed
033-016	45.6	43.5	1,251.4	1,751.4	WMAIN-3948(1)	9.2	Passed
033-017	45.3	41.3	1,269.6	1,769.6	WMAIN-3948(1)	6.1	Passed
033-018	44.6	41.5	1,257.1	1,757.1	WMAIN-4035(2)	7.7	Passed
033-019	47.2	43.4	1,251.3	1,751.3	WMAIN-8195	5.7	Passed
033-020	47	43.9	1,251.3	1,751.3	WMAIN-7483(1)	7	Passed
033-021	46.3	43.5	1,250.5	1,750.5	WMAIN-7487(1)	8.2	Passed
033-022	46.4	43.5	1,251.9	1,751.9	WMAIN-7488	5.6	Passed
034-003	48.2	46.9	1,252.2	1,752.2	WMAIN-5897	4.9	Passed
034-004	48.2	42.4	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
034-005	47.9	45.3	1,255.8	1,755.8	WMAIN-5422(1)	8.2	Passed
034-006	47.8	44.1	1,250.9	1,750.9	WMAIN-5416(1)	7	Passed
034-007	47.8	35.6	1,251.3	1,320.5	WMAIN-5414(1)	15	Passed
034-008	47.5	43.4	1,250.7	1,750.7	WMAIN-5408	6.1	Passed
034-009	47.6	35.3	1,251.3	1,320.5	WMAIN-5410(1)	15	Passed
034-010	48.2	44.8	3,501.0	4,001.0	WMAIN-2361(1)	8.3	Passed
034-011	48.1	46.3	1,250.6	1,750.6	WMAIN-4988(2)	9.2	Passed
034-012	48	44.2	1,250.0	1,750.0	WMAIN-4988(2)	5.9	Passed
034-013	47.9	40.1	1,251.1	1,751.1	WMAIN-4993(1)	11.3	Passed
034-014	47.8	46.1	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
034-015	48.1	41.8	1,251.6	1,751.6	WMAIN-5011(1)	11.2	Passed
034-016	47.9	44.7	1,250.0	1,750.0	WMAIN-3308(2)	8.5	Passed
034-017	47.6	42.8	1,251.9	1,751.9	WMAIN-3308(1)(2)	5.8	Passed
034-018	47.4	43.4	1,252.7	1,752.7	WMAIN-4994(1)	7.5	Passed
034-019	48	45	1,252.5	1,752.5	WMAIN-5013(2)	8.5	Passed
034-020	48.1	45.2	1,250.5	1,750.5	WMAIN-5005(1)	5.8	Passed
034-021	48.2	47	1,250.3	1,750.3	WMAIN-5897	4.9	Passed
034-022	48.2	47	1,250.7	1,750.7	WMAIN-5897	4.9	Passed
034-023	47.8	41.5	3,504.8	4,004.8	WMAIN-2359(1)	6.2	Passed
034-024	47.5	45.6	1,250.4	1,750.4	WMAIN-5897	4.9	Passed
034-025	47.3	45.4	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
034-026	47.1	45.5	1,251.1	1,751.1	WMAIN-5897	4.9	Passed
034-027	47.1	44	1,250.1	1,750.1	WMAIN-2256(2)	11.2	Passed
034-028	47	44.5	1,250.5	1,750.5	WMAIN-4066(1)	7	Passed
034-029	46.6	44	1,251.3	1,751.3	WMAIN-2534(2)	6.4	Passed
034-030	46.4	43.8	1,250.9	1,750.9	WMAIN-4046(2)	6.6	Passed
034-031	46.2	43.9	1,252.5	1,752.5	WMAIN-2530(2)	7.7	Passed
034-032	46	43.4	1,254.7	1,754.7	WMAIN-2259(2)	8.1	Passed
034-033	44.3	42.8	1,253.8	1,753.8	WMAIN-5897	4.9	Passed
034-034	46.6	43.9	1,250.8	1,750.8	WMAIN-4308(2)	6.3	Passed
034-035	46.9	43.2	1,250.0	1,750.0	WMAIN-3979(2)	7	Passed
034-036	46.7	42.7	1,253.1	1,753.1	WMAIN-4058	6.5	Passed
034-037	46.9	44.3	1,250.5	1,750.5	WMAIN-3964(1)	6.1	Passed
034-038	47.5	42.8	1,251.1	1,751.1	WMAIN-4997(2)	6.6	Passed
034-039	47.6	42.7	1,251.3	1,751.3	WMAIN-3972	6.1	Passed
034-040	48.2	46.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
034-041	48.2	45.2	1,252.1	1,752.1	WMAIN-5004(1)	7.6	Passed
034-042	47	44.3	1,254.8	1,754.8	WMAIN-1088(1)	5.7	Passed
034-043	46.5	43.3	1,252.1	1,752.1	WMAIN-1084(1)	6.3	Passed
034-044	47.2	43.1	1,250.0	1,750.0	WMAIN-3985(2)	6	Passed
034-045	47.3	44	1,256.1	1,756.1	WMAIN-3985(1)(1)	7.6	Passed
034-046	44.2	43	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
034-054	48	46.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
035-001	49	47.1	1,256.3	1,756.3	WMAIN-5353(1)(1)	9.3	Passed
035-002	48.5	44.2	1,250.0	1,750.0	WMAIN-5353(1)(1)	6.3	Passed
035-003	48.2	42.9	1,257.1	1,757.1	WMAIN-5340(1)	7	Passed
035-004	48	42.1	1,250.0	1,750.0	WMAIN-5340(2)(2)	6	Passed
035-005	47.8	42.7	1,255.5	1,755.5	WMAIN-5342(1)	6	Passed
035-006	47.9	39.2	1,254.0	1,754.0	WMAIN-5348(1)(1)	13.5	Passed
035-007	48.2	37.1	1,250.0	1,750.0	WMAIN-5348(2)	10.9	Passed
035-008	48.3	42.3	1,251.3	1,751.3	WMAIN-5351(2)	11.3	Passed
035-009	48.4	43.9	1,250.0	1,750.0	WMAIN-5335(1)	10.2	Passed
035-010	48.8	42.2	1,253.6	1,753.6	WMAIN-5337(1)	13.2	Passed
035-011	48.7	38.7	1,254.6	1,754.6	WMAIN-5358(1)	11.1	Passed
035-012	48.6	39.4	1,252.2	1,752.2	WMAIN-5355B	11.5	Passed
035-013	48.2	37.5	1,251.6	1,751.6	WMAIN-5332	11.8	Passed
035-014	48	33.6	1,250.5	1,321.4	WMAIN-5325(2)(2)	15	Passed
035-015	47.9	40.7	1,250.0	1,321.0	WMAIN-5325(2)(2)	15	Passed
035-016	47.7	33.9	1,254.7	1,754.7	WMAIN-7306(2)	10.7	Passed
035-017	47.6	35.7	1,250.0	1,750.0	WMAIN-7320(2)(2)	12.3	Passed
035-018	47.8	40.4	1,254.0	1,665.0	WMAIN-7320(1)	15	Passed
035-019	48.2	38.9	3,505.6	3,577.4	WMAIN-6853(1)(1)	15	Passed
035-020	47.8	43.8	1,251.5	1,751.5	WMAIN-1009(2)(1)	5.9	Passed
035-021	47.5	43.6	1,252.5	1,752.5	WMAIN-3406(1)	7.2	Passed
035-022	47.4	43.3	1,251.9	1,751.9	WMAIN-7317(2)	6.1	Passed
035-023	47.6	43.2	1,250.0	1,750.0	WMAIN-5342(2)(2)	7.1	Passed
035-024	47.3	43.2	1,252.6	1,752.6	WMAIN-6857(1)	5.6	Passed
035-025	47.8	40.3	1,251.7	1,751.7	WMAIN-7310(1)	13.2	Passed
035-026	48	45.2	1,250.7	1,750.7	WMAIN-6850(2)	6.2	Passed
035-027	48	36.2	1,251.4	1,751.4	WMAIN-3411(2)	12.8	Passed
035-028	47.8	22.2	2,500.0	2,440.2	WMAIN-6843(1)	15	Velocity Failed
035-029	47.6	42.5	1,253.8	1,646.7	WMAIN-6843(1)	15	Passed
035-030	47.4	35.8	1,254.5	1,754.5	WMAIN-7315(2)	10.6	Passed
035-031	47.5	37.9	1,254.2	1,754.2	WMAIN-7303(2)	11.8	Passed
035-032	47.3	43.3	1,251.5	1,751.5	WMAIN-6861(1)	6.3	Passed
035-033	49	47.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
035-034	48.1	46.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
035-035	48.3	46.6	1,250.3	1,750.3	WMAIN-0957(1)	8.4	Passed
035-036	48	43.6	1,251.3	1,751.3	WMAIN-0949(1)	6.7	Passed
035-037	48.2	44.2	1,252.5	1,752.5	WMAIN-1918(1)	7.4	Passed
035-038	47.9	42.6	1,253.2	1,753.2	WMAIN-1916(1)	6.3	Passed
035-039	47.9	42.9	1,251.8	1,751.8	WMAIN-1922	7	Passed
035-040	47.9	44.3	1,252.7	1,752.7	WMAIN-1936(2)	7.3	Passed
035-041	48.1	45.5	1,250.4	1,750.4	WMAIN-1925(2)	7	Passed
035-042	48.2	44.5	1,251.5	1,751.5	WMAIN-1926(2)(2)	6.5	Passed
035-043	48.2	45.2	1,250.5	1,750.5	WMAIN-0948(2)	6.6	Passed
035-044	48.4	47.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
035-045	47.9	46.3	1,250.1	1,750.1	WMAIN-5897	4.9	Passed
035-046	47.9	41.6	3,500.0	4,000.0	WMAIN-2359(1)	6.4	Passed
036-001	49.8	47.4	2,501.2	3,001.2	WMAIN-5897	5.1	Passed
036-002	49.2	48	1,251.3	1,751.3	WMAIN-5897	4.9	Passed
036-003	49	47.4	1,251.1	1,751.1	WMAIN-5897	4.9	Passed
036-004	48.8	44.8	1,253.8	1,678.1	WMAIN-5355A(1)	15	Passed
036-005	48.9	36.7	1,250.9	1,750.9	WMAIN-3400	11.2	Passed
036-006	49.1	42	1,250.8	1,678.9	WMAIN-5383(1)	15	Passed
036-007	49.3	42.1	1,250.8	1,750.8	WMAIN-5402(1)	11.2	Passed
036-008	49.3	39.2	1,250.8	1,750.8	WMAIN-5391(2)	11.5	Passed
036-009	49.1	37.6	1,251.1	1,321.0	WMAIN-5381(1)	15	Passed
036-010	50.2	31.7	3,504.0	2,024.2	WMAIN-5569(1)(1)	15	Velocity Failed
036-013	49.8	34.4	3,501.4	4,001.4	WMAIN-6815(2)	14.5	Passed
036-016	49.7	37.7	2,500.2	3,000.2	WMAIN-5988(2)	13.6	Passed
036-017	49.6	40.1	2,500.4	3,000.4	WMAIN-6813(2)	11.2	Passed
036-018	49.4	42.7	2,503.5	1,730.6	WMAIN-5993(1)	15	Velocity Failed
036-019	49.3	44.7	1,251.9	1,751.9	WMAIN-5396(2)	8.8	Passed
036-020	49.4	40.7	1,251.2	1,751.2	WMAIN-6831(1)	11.6	Passed
036-021	49.6	41.4	2,502.6	1,943.6	WMAIN-3398(2)	15	Velocity Failed
036-022	49.2	34.2	1,251.6	1,751.6	WMAIN-3396	12.1	Passed
036-023	49.1	32	1,255.1	1,755.1	WMAIN-5398(1)(1)	11.2	Passed
036-024	48.9	22.9	1,250.0	1,750.0	WMAIN-5398(1)(1)	11.2	Passed
036-025	49.1	37.5	1,250.8	1,750.8	WMAIN-7322(1)	13.8	Passed
036-026	49.3	36	1,250.0	1,750.0	WMAIN-6826(1)	10.2	Passed
036-027	49.4	33.1	2,502.6	2,354.7	WMAIN-7323(2)	15	Velocity Failed
036-028	49.6	30.2	2,500.7	2,578.2	WMAIN-7325	15	Passed
036-029	49.8	41.5	5,000.3	1,860.2	WMAIN-3394	15	Velocity Failed
036-030	49.5	34.3	3,504.5	2,182.1	WMAIN-3393(1)	15	Velocity Failed
036-031	49.4	32.9	3,500.6	2,333.9	WMAIN-6801	15	Velocity Failed
036-032	49.7	30.2	3,500.0	2,588.8	WMAIN-1031(2)(2)(2)	15	Velocity Failed
036-033	49.6	30.5	2,503.5	2,583.8	WMAIN-2687(1)	15	Passed
036-034	49.5	34.4	3,501.8	4,001.8	WMAIN-1033(1)	13.8	Passed
036-035	49.7	45.7	2,502.4	2,889.9	WMAIN-2399	15	Passed
036-036	49.4	44.6	2,505.9	1,761.9	WMAIN-6457(1)	15	Velocity Failed
036-037	49.3	37.2	2,508.6	3,008.6	WMAIN-2253(2)	9.7	Passed
036-038	49	36.6	2,501.2	3,001.2	WMAIN-6852(1)	10.5	Passed
036-039	49.1	35.8	1,251.3	1,320.5	WMAIN-6512(1)	15	Passed
036-040	48.7	45	1,253.5	1,753.5	WMAIN-6852(1)	7.8	Passed
036-041	48.4	45.6	1,250.0	1,750.0	WMAIN-3403(1)	7.5	Passed
036-042	48.4	43.1	1,251.4	1,751.4	WMAIN-0567(2)(1)	11.2	Passed
036-043	48.1	46.3	1,252.4	1,752.4	WMAIN-5897	4.9	Passed
036-044	49.6	45.3	2,508.5	3,008.5	WMAIN-2399	13.1	Passed
036-045	49.5	34.2	2,500.0	2,419.4	WMAIN-6457(1)	15	Velocity Failed
036-047	49.4	31.3	3,503.9	2,246.1	WMAIN-0603(2)	15	Velocity Failed
036-048	49.4	39.2	1,251.4	1,321.0	WMAIN-5375(1)	15	Passed
036-049	49.6	46.4	1,251.0	1,321.0	WMAIN-2674(1)	15	Passed
036-050	49.4	40.2	2,502.2	3,002.2	WMAIN-2250(2)	9.6	Passed
036-051	49.8	42.9	3,501.4	1,838.1	WMAIN-1031(1)	15	Velocity Failed
036-053	49.5	41.5	1,255.4	1,755.4	WMAIN-0621	11.2	Passed
036-055	49.4	43.3	1,251.0	1,718.1	WMAIN-2357	15	Passed
036-056	49.3	37.5	1,252.7	1,752.7	WMAIN-2357	12.3	Passed
036-057	49.4	31.9	2,501.0	2,255.4	WMAIN-6824(1)	15	Velocity Failed
036-058	49.4	28.2	3,500.3	2,435.1	WMAIN-5977(1)(1)	15	Velocity Failed
036-059	47.7	45.5	1,251.1	1,321.9	WMAIN-2694(1)	15	Passed
037-001	51.7	50.4	1,250.4	1,750.4	WMAIN-5897	5	Passed
037-002	51.1	49.5	1,251.8	1,751.8	WMAIN-5897	4.9	Passed
037-003	50.8	47.4	1,251.4	1,751.4	WMAIN-6197	7.9	Passed
037-004	50.3	47.1	3,500.2	3,506.5	WMAIN-3777	15	Passed
037-005	50.1	44.4	3,509.3	4,009.3	WMAIN-3777	12.7	Passed
037-006	49.6	41.7	3,500.9	4,000.9	WMAIN-3777	11.2	Passed
037-008	49.4	45.2	3,500.1	1,859.4	WMAIN-6793(2)	15	Velocity Failed
037-009	49.5	44.3	1,253.3	1,753.3	WMAIN-6793(2)	8.1	Passed
037-010	49.7	45.9	1,250.9	1,750.9	WMAIN-6586(2)	7.4	Passed
037-011	49.9	45.1	1,251.0	1,751.0	WMAIN-6586(2)	5.9	Passed
037-012	49.9	34.9	1,256.7	1,756.7	WMAIN-6585(2)	11.5	Passed
037-013	50.2	46.1	1,251.6	1,751.6	WMAIN-3382(2)	5.8	Passed
037-014	50.4	45	1,258.5	1,758.5	WMAIN-6744	6.4	Passed
037-015	50.5	47.1	1,251.6	1,751.6	WMAIN-3381(1)	6.4	Passed
037-016	50.8	38.5	1,253.5	1,753.5	WMAIN-5643(1)	11.5	Passed
037-017	51	41.2	1,250.0	1,750.0	WMAIN-5643(2)(2)	13.3	Passed
037-018	51.4	44	1,251.6	1,751.6	WMAIN-6782(2)	10.1	Passed
037-019	51.2	39.4	1,253.5	1,753.5	WMAIN-6784	10	Passed
037-020	50.7	42.1	1,250.5	1,750.5	WMAIN-5639(2)	13.1	Passed
037-021	50.8	47.6	1,250.5	1,750.5	WMAIN-6768(2)	6.6	Passed
037-022	50.7	39.8	1,254.1	1,754.1	WMAIN-5635(1)	10	Passed
037-023	50.5	42.9	1,253.0	1,753.0	WMAIN-6742(1)	12.2	Passed
037-024	50.3	46.3	1,255.0	1,755.0	WMAIN-6766	5.5	Passed
037-025	50.2	36	1,253.0	1,753.0	WMAIN-6582(1)	12.4	Passed
037-026	49.9	36.9	1,253.0	1,753.0	WMAIN-6753(1)	13.1	Passed
037-027	49.9	46.3	1,250.5	1,750.5	WMAIN-6763(1)	5.9	Passed
037-028	50.1	40.9	1,255.9	1,755.9	WMAIN-6750	9.4	Passed
037-029	50.5	36.3	1,253.5	1,753.5	WMAIN-6575(2)	11.4	Passed
037-030	49.7	44.3	1,256.9	1,593.1	WMAIN-6523(1)	15	Passed
037-031	50	32.2	1,250.0	1,750.0	WMAIN-6523(1)	10.7	Passed
037-032	49.7	33.6	1,250.0	1,750.0	WMAIN-6519	12.1	Passed
037-033	49.9	39.4	1,253.0	1,753.0	WMAIN-3387(1)	10.3	Passed
037-034	49.8	42.4	1,250.0	1,750.0	WMAIN-5629(2)(2)	11.6	Passed
037-035	49.8	44.7	1,253.0	1,753.0	WMAIN-5629(1)	14.6	Passed
037-036	49.8	45.6	1,253.2	1,753.2	WMAIN-6757	6.2	Passed
037-037	49.7	44.5	1,254.7	1,685.0	WMAIN-7335(1)(1)	15	Passed
037-038	49.7	38.6	1,250.0	1,750.0	WMAIN-7335(2)	11	Passed
037-039	49.7	42.5	1,251.1	1,751.1	WMAIN-3443(1)	12.5	Passed
037-040	49.7	39.2	1,253.9	1,753.9	WMAIN-6463(1)	11	Passed
037-041	49.7	34.3	3,502.0	4,002.0	WMAIN-6789(1)	13.9	Passed
037-042	49.7	39.7	1,251.8	1,751.8	WMAIN-1080(1)	10.1	Passed
037-043	49.6	36	1,254.6	1,754.6	WMAIN-6836(1)	10.4	Passed
037-044	49.6	45.1	5,000.9	1,684.8	WMAIN-6799(1)	15	Velocity Failed
037-045	49.8	35.6	1,252.5	1,752.5	WMAIN-7332(1)	11.2	Passed
037-046	49.7	36.9	1,251.6	1,751.6	WMAIN-2690(1)	11.2	Passed
037-047	49.7	38.3	1,254.0	1,754.0	WMAIN-2680	10	Passed
037-048	50.6	36.3	3,500.4	4,000.4	WMAIN-2264(2)	14.3	Passed
037-050	49.8	40.5	1,252.2	1,752.2	WMAIN-1093	10.6	Passed
038-001	51.1	50.1	1,253.1	1,753.1	WMAIN-5897	5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
038-002	51.6	50.6	1,251.5	1,751.5	WMAIN-5897	5	Passed
038-003	51.7	48.7	3,500.0	4,000.0	WMAIN-5897	6	Passed
038-004	51.7	48.9	3,500.5	4,000.5	WMAIN-5897	6	Passed
038-005	51.4	50.5	1,250.4	1,750.4	WMAIN-5897	5	Passed
038-006	51.4	50.4	1,250.0	1,750.0	WMAIN-5897	5	Passed
038-007	51.6	50.5	1,253.3	1,753.3	WMAIN-5897	5	Passed
038-008	51.4	46.5	1,251.6	1,321.0	WMAIN-6573(1)	15	Passed
038-009	51.2	39.9	1,252.0	1,752.0	WMAIN-5942(2)	12.8	Passed
038-010	51.1	47.6	1,251.2	1,751.2	WMAIN-6728(1)	6.6	Passed
038-011	50.9	40.4	1,252.6	1,752.6	WMAIN-6571(1)	13.3	Passed
038-012	50.6	39.6	1,252.6	1,752.6	WMAIN-6567(1)	13.3	Passed
038-013	50.6	46.6	1,250.4	1,750.4	WMAIN-6735(2)	5.9	Passed
038-014	50.3	39.5	1,252.1	1,752.1	WMAIN-5646(2)	13.4	Passed
038-015	50.6	45.7	1,255.2	1,755.2	WMAIN-6737(1)	6.3	Passed
038-016	50.8	46	1,251.3	1,751.3	WMAIN-6553(1)	6.4	Passed
038-017	50.9	38.6	1,252.7	1,752.7	WMAIN-6557(1)	11.9	Passed
038-018	51.1	47.5	1,251.3	1,751.3	WMAIN-6555(1)	7.4	Passed
038-019	51	39	1,252.3	1,752.3	WMAIN-6726(1)	12.1	Passed
038-020	51.2	47.5	1,254.4	1,754.4	WMAIN-6730(1)	5.6	Passed
038-021	51.3	48.8	1,251.4	1,751.4	WMAIN-6561(1)	5.9	Passed
038-022	51.4	47.6	1,255.2	1,755.2	WMAIN-6720(1)	5.6	Passed
038-023	51.7	42.4	1,253.0	1,753.0	WMAIN-6542(2)	10.9	Passed
038-024	51.7	49.9	1,250.2	1,750.2	WMAIN-6723(1)(2)	7.6	Passed
038-025	51.4	37.1	1,253.2	1,753.2	WMAIN-6545(1)	11.6	Passed
038-026	51.7	49	1,250.8	1,750.8	WMAIN-6723(1)(2)	5.8	Passed
038-027	51.4	37	1,253.6	1,753.6	WMAIN-2704(1)	11.5	Passed
038-028	51.7	49.1	1,250.7	1,750.7	WMAIN-6714(2)	7.4	Passed
038-029	51.6	49.1	1,251.1	1,751.1	WMAIN-3372(1)	6.2	Passed
038-030	51.2	40.2	1,252.7	1,752.7	WMAIN-6712(1)	10.1	Passed
038-031	51.4	43	1,250.9	1,750.9	WMAIN-5650(1)	10.6	Passed
038-032	51.3	47.5	1,250.0	1,750.0	WMAIN-6706(1)	5.9	Passed
038-033	51.6	45.6	1,258.1	1,758.1	WMAIN-6533(1)	7.5	Passed
038-034	51.7	44.5	1,252.0	1,752.0	WMAIN-6529	5.9	Passed
038-035	51.1	38.7	1,254.5	1,754.5	WMAIN-4417(1)	11.2	Passed
038-036	51.7	45.3	1,251.9	1,321.0	WMAIN-6527(1)	15	Passed
038-037	51.7	48.1	1,250.7	1,750.7	WMAIN-1028(2)	5.6	Passed
038-038	51.6	42.4	1,251.1	1,751.1	WMAIN-6530	11.2	Passed
038-039	51.3	44.5	1,254.3	1,754.3	WMAIN-6565(2)	10.7	Passed
038-040	50.4	44.7	1,253.4	1,753.4	WMAIN-5493(1)	6.8	Passed
038-041	50.3	45.7	1,251.0	1,751.0	WMAIN-5261(1)	7.6	Passed
038-042	50.1	45	1,251.5	1,751.5	WMAIN-5152	6.3	Passed
038-043	49.8	36.9	1,251.8	1,751.8	WMAIN-5495(1)	11.8	Passed
038-044	49.9	36.9	1,253.3	1,753.3	WMAIN-5258(1)	11.6	Passed
038-045	50.8	45	1,251.3	1,751.3	WMAIN-5166(2)	6.7	Passed
038-046	50.4	44.5	1,254.1	1,754.1	WMAIN-5152	6.7	Passed
038-047	50.2	45.5	1,251.9	1,751.9	WMAIN-5152	6.9	Passed
038-048	50.5	46.5	1,252.3	1,752.3	WMAIN-5173(1)	9	Passed
038-050	50.9	49.3	1,250.0	1,750.0	WMAIN-5897	5	Passed
038-051	50.7	45.1	1,250.0	1,750.0	WMAIN-5152	7.3	Passed
038-052	50.7	44	1,251.6	1,751.6	WMAIN-5161(1)	11.2	Passed
038-053	50.3	48.7	1,252.3	1,752.3	WMAIN-5897	5	Passed
038-054	50.3	46.5	1,253.3	1,753.3	WMAIN-5150(1)(1)	7.2	Passed
038-055	51	49.5	1,251.8	1,751.8	WMAIN-5897	5	Passed
038-056	51.1	49.5	1,251.0	1,751.0	WMAIN-5897	5	Passed
038-057	51.3	49.9	1,251.4	1,751.4	WMAIN-5897	5	Passed
038-058	51.4	50.1	1,251.4	1,751.4	WMAIN-5897	5	Passed
038-059	51.5	48.3	3,501.2	4,001.2	WMAIN-5897	5.8	Passed
038-061	50	45.7	1,250.0	1,750.0	WMAIN-4411	5.9	Passed
038-062	51.2	47.8	1,254.0	1,754.0	WMAIN-4413	7.2	Passed
038-063	51.4	47.8	1,251.5	1,751.5	WMAIN-4423(1)	11.2	Passed
039-001	52	46	1,250.0	1,750.0	WMAIN-5509(2)	5.9	Passed
039-002	52	47	1,254.3	1,754.3	WMAIN-5501(1)(1)	7.6	Passed
039-003	52.3	47.5	1,251.9	1,751.9	WMAIN-5499(2)	5.6	Passed
039-004	52.4	49.8	1,251.3	1,751.3	WMAIN-5506(1)	8.8	Passed
039-005	52.8	50.6	1,251.0	1,751.0	WMAIN-5897	5	Passed
039-006	52.2	47.1	1,251.4	1,751.4	WMAIN-5509(2)	7.3	Passed
039-007	53	50.7	1,250.3	1,750.3	WMAIN-5897	5	Passed
039-008	52.6	48.9	1,250.9	1,750.9	WMAIN-5515(1)	7.1	Passed
039-009	52.2	47.9	1,251.5	1,751.5	WMAIN-5513(1)	6.3	Passed
039-010	51.9	46.3	1,251.1	1,751.1	WMAIN-5523(1)	6.9	Passed
039-011	51.8	41.1	1,252.3	1,752.3	WMAIN-5521(1)	11.2	Passed
039-012	51.5	47.6	1,251.2	1,735.2	WMAIN-5712(2)	15	Passed
039-013	51.5	44.1	1,250.4	1,750.4	WMAIN-5708(2)	14.5	Passed
039-014	51.6	44.6	1,252.6	1,752.6	WMAIN-5712(2)	7.4	Passed
039-015	51.5	39.8	1,251.3	1,751.3	WMAIN-5711(1)	11.2	Passed
039-016	51.5	44.2	1,250.6	1,750.6	WMAIN-5698(2)	10.9	Passed
039-017	51.6	44.4	1,254.0	1,754.0	WMAIN-5712(2)	6.7	Passed
039-018	51.3	45.1	1,251.6	1,751.6	WMAIN-5712(2)	6.6	Passed
039-019	51.5	42.6	1,251.6	1,751.6	WMAIN-5726(1)	11.2	Passed
039-020	51.5	45.5	1,253.8	1,753.8	WMAIN-5724(2)	6.7	Passed
039-021	51.7	47.6	1,252.8	1,752.8	WMAIN-5733	6.4	Passed
039-022	51.8	47.3	1,252.6	1,752.6	WMAIN-5733	6.1	Passed
039-023	51.6	45.6	1,253.8	1,753.8	WMAIN-5701(2)	6.5	Passed
039-024	51.6	41.5	1,251.0	1,751.0	WMAIN-5696(2)	11.6	Passed
039-025	51.6	43.5	1,250.0	1,750.0	WMAIN-5695(1)(1)	7.7	Passed
039-026	52.1	46.8	1,257.7	1,757.7	WMAIN-5695(1)(1)	9	Passed
039-027	51.7	47.3	1,250.5	1,750.5	WMAIN-5749(1)	7.5	Passed
039-028	52.1	46.1	1,250.3	1,750.3	WMAIN-5759(1)	11.2	Passed
039-029	51.7	47.6	1,252.4	1,752.4	WMAIN-5743(1)	8.5	Passed
039-030	51.7	48.2	1,251.3	1,751.3	WMAIN-5737(1)	7.8	Passed
039-031	52.2	44.1	1,252.2	1,752.2	WMAIN-5755(1)	11.2	Passed
039-032	51.8	47.4	1,250.6	1,321.0	WMAIN-5735(1)	15	Passed
039-033	52.6	50.2	1,250.3	1,750.3	WMAIN-5757(1)	8.8	Passed
039-034	53.1	48.8	1,250.0	1,750.0	WMAIN-5679(2)	7.2	Passed
039-035	52.8	48.6	1,252.4	1,752.4	WMAIN-5679(1)(1)	7.6	Passed
039-036	52.8	47.7	1,251.8	1,751.8	WMAIN-5674(2)	7.4	Passed
039-037	53.1	47.2	1,251.0	1,751.0	WMAIN-5528(2)	6.1	Passed
039-038	53.4	48.4	1,250.7	1,750.7	WMAIN-5528(2)	7.7	Passed
039-039	53.4	49.1	1,252.2	1,752.2	WMAIN-5687(2)	6.6	Passed
039-040	53.7	50.9	1,250.7	1,750.7	WMAIN-5689(2)	8.3	Passed
039-041	53.3	50.8	1,252.0	1,752.0	WMAIN-5897	5	Passed
039-042	52.5	47.9	1,250.6	1,750.6	WMAIN-5678(2)	6.1	Passed
039-043	52.3	47.2	1,251.1	1,321.0	WMAIN-4964(1)	15	Passed
039-044	52	47.1	1,251.1	1,321.0	WMAIN-4953(1)	15	Passed
039-045	51.8	46.4	1,251.1	1,751.1	WMAIN-4960	5.6	Passed
039-046	51.8	46.2	1,252.8	1,752.8	WMAIN-5527(2)	6.8	Passed
039-047	52.1	42.8	1,251.1	1,751.1	WMAIN-4962(1)	11.2	Passed
039-048	52.2	47.3	1,250.7	1,750.7	WMAIN-5524(2)	6	Passed
039-053	52.8	48.3	1,253.3	1,753.3	WMAIN-1116(2)	7	Passed
039-054	52.5	47.9	1,250.5	1,750.5	WMAIN-5691(2)	6.6	Passed
039-055	51.9	46.8	1,250.5	1,750.5	WMAIN-1102(2)	7.3	Passed
039-056	52.6	47.5	1,250.7	1,750.7	WMAIN-1115(1)	6.9	Passed
039-057	52.3	44.9	1,251.9	1,751.9	WMAIN-1098(1)	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
039-058	52.4	44.4	1,251.5	1,751.5	WMAIN-5686	6.1	Passed
039-059	52.7	45	1,251.5	1,751.5	WMAIN-1119(1)	6.8	Passed
040-001	54.7	52.1	1,250.0	1,750.0	WMAIN-5897	5	Passed
040-002	55.2	52.9	1,253.8	1,753.8	WMAIN-5897	5	Passed
040-003	54	51.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
040-004	53.8	50.7	1,252.4	1,752.4	WMAIN-4522(1)	7.7	Passed
040-005	52.9	29.3	3,500.0	3,850.6	WMAIN-1113(2)	15	Passed
040-006	52.6	47	1,264.0	1,764.0	WMAIN-1113(1)(1)	7.7	Passed
040-009	54	51.5	1,250.9	1,750.9	WMAIN-5897	5	Passed
040-010	54.2	51.3	1,250.7	1,750.7	WMAIN-4511(2)	9	Passed
040-011	53.8	49	1,250.8	1,750.8	WMAIN-4531(1)	11.2	Passed
040-012	53.7	48.3	1,250.9	1,750.9	WMAIN-4528(1)	11.2	Passed
040-013	53.6	48.4	1,251.1	1,751.1	WMAIN-4499(1)	11.2	Passed
040-014	53.8	49.6	1,250.0	1,750.0	WMAIN-4517(1)	7.4	Passed
040-015	53.8	50.3	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
040-016	53.8	49.8	1,250.6	1,750.6	WMAIN-4524(2)	8.2	Passed
040-017	53.6	48.2	1,250.3	1,750.3	WMAIN-4540(1)	8.9	Passed
040-018	53.8	46.8	1,252.1	1,752.1	WMAIN-0844(1)	6.9	Passed
040-019	53.8	45.6	1,253.8	1,753.8	WMAIN-4540(1)	6.9	Passed
040-020	53.8	45.5	1,251.2	1,751.2	WMAIN-4493(1)	7.8	Passed
040-021	54.5	45.6	1,256.3	1,756.3	WMAIN-4534(1)	6.9	Passed
040-022	53.9	50	1,250.3	1,750.3	WMAIN-0852(1)	7.1	Passed
040-023	53.8	50.1	1,251.0	1,751.0	WMAIN-4440(2)	7.5	Passed
040-024	53.5	50	1,251.3	1,751.3	WMAIN-4446(1)	6.7	Passed
040-025	53.6	48.6	1,252.9	1,752.9	WMAIN-4435	5.9	Passed
040-026	53.6	49.4	1,251.2	1,751.2	WMAIN-4449(1)	6.5	Passed
040-027	53.2	48.3	1,253.0	1,753.0	WMAIN-1108(1)	7.1	Passed
040-028	53.3	47.7	1,251.0	1,751.0	WMAIN-1938(2)	5.9	Passed
040-029	52.3	46.5	1,254.9	1,754.9	WMAIN-2507(2)	7.7	Passed
040-031	53.5	47.1	1,251.0	1,751.0	WMAIN-1992(2)	6.1	Passed
040-034	53.5	50.7	1,252.0	1,752.0	WMAIN-4456(1)	7.9	Passed
040-035	53.7	51	1,250.5	1,750.5	WMAIN-5897	5.1	Passed
040-036	53.5	47.8	1,250.9	1,750.9	WMAIN-1992(2)	7.5	Passed
040-037	54.1	43.9	3,500.0	4,000.0	WMAIN-0865(1)	6.1	Passed
041-001	53.3	50.9	1,256.8	1,756.8	WMAIN-5897	5.5	Passed
041-002	53.3	50.8	1,250.0	1,750.0	WMAIN-5897	5.5	Passed
041-003	53.5	44	3,500.0	4,000.0	WMAIN-3778	9.3	Passed
041-004	53.7	51.1	1,250.0	1,750.0	WMAIN-3605(2)	8.2	Passed
041-005	53.8	51.2	1,250.0	1,750.0	WMAIN-5897	5.5	Passed
041-006	53.9	50.7	1,250.7	1,750.7	WMAIN-1133(1)	8.7	Passed
041-007	53.9	47.6	1,252.3	1,752.3	WMAIN-3641(1)	6.6	Passed
041-008	53.7	47.9	1,251.0	1,751.0	WMAIN-3640(1)	7.3	Passed
041-009	53.8	47.8	1,252.7	1,752.7	WMAIN-1136	7.1	Passed
041-010	53.9	47.5	1,250.0	1,750.0	WMAIN-1133(1)	6.5	Passed
041-011	53.9	51.3	1,252.9	1,752.9	WMAIN-5897	5.5	Passed
041-012	52.8	49	1,251.3	1,751.3	WMAIN-5776(2)	6.3	Passed
041-013	52.8	46.2	1,250.8	1,750.8	WMAIN-3633(2)	11.2	Passed
041-014	53.1	48.1	1,253.2	1,753.2	WMAIN-3618(2)	6.4	Passed
041-015	53.4	48.4	1,251.9	1,751.9	WMAIN-3619(2)	6.6	Passed
041-016	53.6	48.4	1,251.2	1,751.2	WMAIN-3608(1)	7.7	Passed
041-017	53.1	46.5	1,250.0	1,750.0	WMAIN-3605(2)	6.1	Passed
041-018	52.9	47.7	1,253.0	1,753.0	WMAIN-3611(1)(1)	8.8	Passed
041-019	53.2	47.7	1,251.5	1,751.5	WMAIN-3627(2)	7.1	Passed
041-020	52.7	48.9	1,253.0	1,753.0	WMAIN-2049(1)(1)(1)	6.8	Passed
041-021	53.9	47.9	1,252.5	1,752.5	WMAIN-3346(1)	11.2	Passed
041-022	53.8	46.8	1,255.7	1,755.7	WMAIN-4796	5.9	Passed
041-023	53.8	47.3	1,257.2	1,757.2	WMAIN-4798	6.9	Passed
041-024	53.6	49.2	1,251.2	1,751.2	WMAIN-1946(2)	7	Passed
041-025	53.4	47.5	1,256.4	1,756.4	WMAIN-2216(1)(1)	6	Passed
041-026	53.4	49	1,250.0	1,750.0	WMAIN-2216(2)	8.4	Passed
041-027	53.5	48.4	1,253.9	1,753.9	WMAIN-2217(1)	6.3	Passed
041-028	53.7	49.3	1,251.1	1,751.1	WMAIN-1947(2)	7	Passed
041-029	53.8	49.6	1,250.7	1,750.7	WMAIN-3010(1)	7.3	Passed
041-030	53.7	47.6	1,253.3	1,753.3	WMAIN-3017(2)	7.5	Passed
041-031	53.6	46.6	1,252.2	1,752.2	WMAIN-3010(1)	6.4	Passed
041-032	53.6	46.8	1,250.0	1,750.0	WMAIN-3026(2)	11.2	Passed
041-033	53.9	48.3	1,251.5	1,751.5	WMAIN-3010(1)	6.3	Passed
041-034	53.1	50.8	1,250.3	1,750.3	WMAIN-5897	5.1	Passed
041-035	53.3	50.9	1,250.1	1,750.1	WMAIN-5897	5.1	Passed
041-036	53.4	50.9	1,250.7	1,750.7	WMAIN-5897	5.1	Passed
041-037	53.5	51	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
041-038	53.7	51	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
041-039	53.2	49.8	1,250.6	1,750.6	WMAIN-7711(1)	7	Passed
041-040	53.3	49.6	1,250.5	1,750.5	WMAIN-7713(1)	7.8	Passed
041-041	53.5	47.2	1,258.5	1,758.5	WMAIN-7718(1)(1)	7.6	Passed
041-042	53.6	47.9	1,256.8	1,756.8	WMAIN-7717(1)	7.5	Passed
041-043	53.7	46.4	1,250.0	1,750.0	WMAIN-7723	5.8	Passed
041-044	53.8	47.4	1,250.0	1,750.0	WMAIN-7723	6.2	Passed
041-045	53.8	46.4	1,251.0	1,751.0	WMAIN-7715(1)(1)	7	Passed
041-046	53.9	45.8	1,250.0	1,750.0	WMAIN-7723	6.3	Passed
041-047	54	44.6	1,250.1	1,750.1	WMAIN-7709(2)	11.2	Passed
041-048	54.2	47.8	1,252.6	1,752.6	WMAIN-7721(2)	8	Passed
041-049	54.3	50	1,258.8	1,758.8	WMAIN-7724(2)	5.2	Passed
041-050	54.2	50.8	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
041-051	54	48.2	1,250.6	1,750.6	WMAIN-7719(2)	8	Passed
042-001	52.5	50.8	1,250.8	1,750.8	WMAIN-5897	5.2	Passed
042-002	52.6	41.9	1,251.2	1,751.2	WMAIN-5769(1)(1)	13.2	Passed
042-003	52.6	41.7	1,251.8	1,751.8	WMAIN-5773(1)(1)	13	Passed
042-004	52.4	48.2	1,253.5	1,753.5	WMAIN-5767	6.1	Passed
042-005	52.7	49.4	1,251.3	1,751.3	WMAIN-5779(1)	6.1	Passed
042-006	52.7	49.2	1,251.4	1,751.4	WMAIN-2004(1)(1)	6	Passed
042-007	52.2	43.4	1,253.0	1,753.0	WMAIN-5788(2)	11	Passed
042-008	52.3	48.7	1,250.8	1,750.8	WMAIN-1998(1)	5.7	Passed
042-009	52.1	48.7	1,251.0	1,751.0	WMAIN-6701(2)	7.5	Passed
042-010	52	34.1	1,252.2	1,320.5	WMAIN-2504(1)	15	Passed
042-011	52.2	47.9	1,251.4	1,751.4	WMAIN-6697	5.8	Passed
042-012	52	33.2	1,252.6	1,320.5	WMAIN-6063(1)	15	Passed
042-013	52.4	49.8	1,250.4	1,750.4	WMAIN-7420(1)	8	Passed
042-014	51.7	33.4	1,251.8	1,751.8	WMAIN-6061(1)	10.6	Passed
042-015	51.9	37.4	1,254.9	1,754.9	WMAIN-7254(1)	13.1	Passed
042-016	51.8	48.2	1,250.9	1,750.9	WMAIN-7418(1)	6.7	Passed
042-017	51.9	42	1,251.9	1,751.9	WMAIN-7416(1)	10	Passed
042-018	51.7	44.4	1,254.0	1,754.0	WMAIN-7423(2)	11.1	Passed
042-019	51.6	48.1	1,252.8	1,752.8	WMAIN-7263(1)	6.1	Passed
042-020	51.8	49.2	1,250.8	1,750.8	WMAIN-7259(2)	5.9	Passed
042-021	51.6	50.1	1,250.3	1,750.3	WMAIN-5897	5.1	Passed
042-022	51.7	48.8	1,253.0	1,753.0	WMAIN-7432(1)	6.5	Passed
042-023	51.7	49.1	1,252.4	1,752.4	WMAIN-7257(2)	7.7	Passed
042-024	51.6	35.2	1,251.8	1,751.8	WMAIN-7243	13.6	Passed
042-025	51.6	35.6	1,253.0	1,753.0	WMAIN-7243	13.4	Passed
042-026	51.6	36.5	1,253.1	1,753.1	WMAIN-7426(1)	10.2	Passed
042-027	51.7	49.2	1,250.7	1,750.7	WMAIN-7430(1)	7.3	Passed
042-028	51.7	46.8	3,502.5	4,002.5	WMAIN-5897	6.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
042-029	51.5	49.5	1,250.9	1,750.9	WMAIN-7271(1)	7.9	Passed
042-030	52.4	49.2	1,251.2	1,751.2	WMAIN-7269(1)	6.5	Passed
042-031	52.3	43.6	1,253.1	1,753.1	WMAIN-7405(1)	11.4	Passed
042-032	52.5	49.5	1,250.8	1,750.8	WMAIN-2080(2)	6.8	Passed
042-033	52.2	49.1	1,252.1	1,752.1	WMAIN-2074(2)	6.5	Passed
042-034	52.4	42.4	1,251.4	1,751.4	WMAIN-2062(1)	13.2	Passed
042-035	52	48.2	1,250.9	1,750.9	WMAIN-2067(1)	6.4	Passed
042-036	52.5	41.7	1,251.6	1,751.6	WMAIN-2502(1)	12.5	Passed
042-037	51.7	48.5	1,251.0	1,751.0	WMAIN-2076(1)	7.2	Passed
042-038	52.6	48.5	1,253.3	1,753.3	WMAIN-4942(2)	6.4	Passed
042-039	52.6	48.5	1,251.4	1,751.4	WMAIN-2270(1)	6.3	Passed
042-040	52.9	49.1	1,250.7	1,750.7	WMAIN-2272(2)	6.9	Passed
042-041	51.9	48.5	1,250.5	1,750.5	WMAIN-2063(1)	6	Passed
042-042	51.8	39.3	1,252.4	1,318.6	WMAIN-2072(1)	15	Passed
042-043	51.9	48.9	1,251.2	1,751.2	WMAIN-7267(2)	6.3	Passed
042-044	51.9	49.5	1,251.1	1,751.1	WMAIN-7265(1)	7.7	Passed
042-045	52.1	43.8	1,253.3	1,753.3	WMAIN-7399(2)	10.8	Passed
042-046	52.1	43.4	1,253.3	1,753.3	WMAIN-7402(2)	10.5	Passed
042-047	53	50.2	1,250.4	1,750.4	WMAIN-2055(1)	5.8	Passed
042-048	52.8	49.5	1,250.0	1,750.0	WMAIN-2049(2)	7.7	Passed
042-049	52	47.7	1,252.0	1,752.0	WMAIN-2041(1)	5.9	Passed
042-050	51.6	48	1,250.0	1,750.0	WMAIN-2043(2)	7.4	Passed
042-051	52.1	48.1	1,253.4	1,753.4	WMAIN-2043(1)(1)	6	Passed
042-052	52.7	48.9	1,250.0	1,750.0	WMAIN-2049(1)(1)(1)	6.7	Passed
042-053	52.6	49.2	1,250.0	1,750.0	WMAIN-2004(2)	6.4	Passed
042-054	52	47.3	1,254.8	1,754.8	WMAIN-2047(1)(1)	6.8	Passed
042-055	51.7	46.5	1,250.0	1,750.0	WMAIN-2035(2)	5.9	Passed
042-056	51.6	47.7	1,252.3	1,752.3	WMAIN-2035(2)	7.9	Passed
042-057	51.6	47.5	1,252.2	1,752.2	WMAIN-2034(2)	5.9	Passed
042-058	51.6	47.8	1,255.7	1,755.7	WMAIN-2022(2)	6.4	Passed
042-059	51.6	48.5	1,250.8	1,750.8	WMAIN-2017(2)	5.8	Passed
042-060	51.6	48.1	1,251.3	1,751.3	WMAIN-2009(1)	5.7	Passed
042-061	51.7	48.9	1,251.7	1,751.7	WMAIN-2011(2)	7.7	Passed
043-001	51.6	47.8	3,500.0	4,000.0	WMAIN-6696(2)(2)	7.7	Passed
043-002	51.7	49.7	1,250.6	1,750.6	WMAIN-6056(1)	6.4	Passed
043-003	51.6	48.2	1,250.7	1,750.7	WMAIN-2031(1)	6.3	Passed
043-004	51.8	48.7	1,251.1	1,751.1	WMAIN-3354(2)	7.1	Passed
043-005	51.7	50.2	1,253.0	1,753.0	WMAIN-5897	5.3	Passed
043-006	51.6	48.4	1,251.0	1,751.0	WMAIN-7369	7.9	Passed
043-007	51.7	47.7	1,250.9	1,320.5	WMAIN-6078(1)	15	Passed
043-008	51.7	47.7	1,250.6	1,750.6	WMAIN-6074	6.9	Passed
043-009	51.9	48.2	1,252.2	1,752.2	WMAIN-6069(1)	7.9	Passed
043-010	51.8	47.7	1,250.6	1,320.0	WMAIN-7367(1)	15	Passed
043-011	51.7	46.4	1,250.9	1,750.9	WMAIN-6068	6.1	Passed
043-012	51.6	39.6	1,252.0	1,752.0	WMAIN-2485(2)	10.7	Passed
043-013	51.6	48.9	1,250.7	1,750.7	WMAIN-6681(2)	5.8	Passed
043-014	51.6	40.5	1,253.2	1,753.2	WMAIN-6655(2)	10.2	Passed
043-015	51.7	35.1	1,252.7	1,752.7	WMAIN-6657(1)	11.5	Passed
043-016	51.6	31.5	1,250.9	1,750.9	WMAIN-6659	10.9	Passed
043-017	51.7	31.5	1,253.1	1,753.1	WMAIN-6664(1)	11	Passed
043-018	51.7	35.8	1,263.1	1,763.1	WMAIN-6664(1)	13.3	Passed
043-022	51.7	44.8	2,500.0	2,531.0	WMAIN-7354(1)(1)	15	Passed
043-023	51.7	49.3	1,250.2	1,750.2	WMAIN-7354(1)(1)	14.4	Passed
043-024	51.7	42.1	1,262.1	1,762.1	WMAIN-7356(1)	15	Passed
043-025	51.6	50.2	1,250.8	1,750.8	WMAIN-6675(1)(1)	9.2	Passed
043-026	51.7	47.6	1,254.9	1,754.9	WMAIN-6677(2)	6.3	Passed
043-027	51.7	46	1,253.0	1,753.0	WMAIN-7359(2)	14.5	Passed
043-028	51.7	41	2,500.7	3,000.7	WMAIN-6669	11	Passed
043-029	51.6	49.9	1,250.9	1,750.9	WMAIN-7364(1)	7.7	Passed
043-030	51.6	49.1	1,251.2	1,751.2	WMAIN-7352(1)	7.1	Passed
043-031	51.5	42.4	2,510.5	3,010.5	WMAIN-6691(1)	10.3	Passed
043-032	51.6	48	1,253.6	1,753.6	WMAIN-6053(1)	6.6	Passed
043-033	51.4	47.3	1,254.3	1,754.3	WMAIN-6048(2)	6.8	Passed
043-034	51.5	47.3	1,252.3	1,752.3	WMAIN-6046(1)	6.9	Passed
043-035	51.4	49.4	1,250.7	1,750.7	WMAIN-7363(1)	7.1	Passed
043-036	51.4	48.3	1,253.3	1,753.3	WMAIN-6688(2)	5.9	Passed
043-037	51.7	47.8	1,253.3	1,753.3	WMAIN-7347(2)	7.7	Passed
043-038	51.4	46.9	1,251.9	1,751.9	WMAIN-6036(1)	6.7	Passed
043-039	51.5	49.6	1,250.9	1,750.9	WMAIN-7345(1)	8.4	Passed
043-040	51.7	48.1	1,250.6	1,610.7	WMAIN-7343(1)	15	Passed
043-041	51.7	48	1,250.1	1,750.1	WMAIN-3722(1)	8	Passed
043-042	51.7	46.3	1,250.6	1,750.6	WMAIN-6649(1)	6.6	Passed
043-043	51.7	42.6	1,254.8	1,754.8	WMAIN-7350(2)	8.1	Passed
043-044	51.7	40.4	1,250.0	1,750.0	WMAIN-3359	7.5	Passed
043-045	51.7	39.3	1,250.0	1,750.0	WMAIN-3359	8.7	Passed
043-046	51.7	38.8	1,255.9	1,755.9	WMAIN-3359	10	Passed
043-047	51.7	39.9	1,250.0	1,750.0	WMAIN-6038(2)	14.3	Passed
043-048	51.7	35.8	1,253.5	1,753.5	WMAIN-6042	11.4	Passed
043-049	51.7	38.8	1,253.1	1,753.1	WMAIN-6636(1)	10.5	Passed
043-050	51.7	50.9	1,250.0	1,750.0	WMAIN-5897	5	Passed
043-052	51.7	47.4	3,502.2	4,002.2	WMAIN-5897	6.3	Passed
044-004	51.7	45.2	3,500.3	4,000.3	WMAIN-3333(1)	6.5	Passed
044-006	51.7	39	2,502.7	3,002.7	WMAIN-6089(2)	12.1	Passed
044-007	51.7	29.5	3,508.3	3,938.7	WMAIN-7375(2)	15	Passed
044-009	51.7	47.7	2,503.2	3,003.2	WMAIN-5897	5.2	Passed
044-010	50.9	44.2	3,500.0	4,000.0	WMAIN-3329(2)(2)	7	Passed
044-011	50.4	43.4	3,502.4	4,002.4	WMAIN-5897	5.8	Passed
044-012	50.3	41.6	3,502.2	3,258.7	WMAIN-3321(1)	15	Velocity Failed
044-013	50.4	31.9	3,500.0	4,000.0	WMAIN-3321(1)	14.3	Passed
044-014	50.3	45	3,500.0	1,321.9	WMAIN-6208	15	Velocity Failed
044-015	49.8	36.6	3,500.0	4,000.0	WMAIN-6194(2)	14.5	Passed
044-016	49.8	33.1	3,500.0	4,000.0	WMAIN-3320(1)(1)(1)	12.8	Passed
044-017	50.9	41.9	3,502.2	2,867.2	WMAIN-6197	15	Velocity Failed
044-018	50.7	38.3	1,251.7	1,751.7	WMAIN-3363(2)	12.3	Passed
044-019	51.5	41.8	1,251.8	1,751.8	WMAIN-6195(2)	14.7	Passed
044-020	49.6	35.2	3,501.0	587.5	WMAIN-5574	15	Velocity Failed
044-021	51.6	37.4	1,251.1	1,751.1	WMAIN-4971(1)	13	Passed
044-022	50.5	35.5	1,251.8	1,751.8	WMAIN-6197	10.5	Passed
044-023	51.4	41.1	1,254.9	1,754.9	WMAIN-6625(1)	11.7	Passed
044-024	51.4	49.1	1,250.4	1,750.4	WMAIN-6197	13.3	Passed
044-025	51.6	48.5	1,250.0	1,750.0	WMAIN-6197	10.9	Passed
044-026	51.7	45.3	1,250.8	1,750.8	WMAIN-6604(1)	11.2	Passed
044-027	51.7	30.7	1,252.0	1,752.0	WMAIN-5657(2)	13.4	Passed
044-028	51.8	31.3	1,254.3	1,754.3	WMAIN-5653(2)	13.5	Passed
044-029	51.7	34.9	1,251.3	1,751.3	WMAIN-6197	11.4	Passed
044-030	51.7	31.3	1,254.1	1,754.1	WMAIN-6599(2)	12.2	Passed
044-031	51.7	30.5	1,251.7	1,751.7	WMAIN-6630(2)	11.6	Passed
044-032	51.7	39.2	1,254.6	1,754.6	WMAIN-4978(1)	13.8	Passed
044-033	51.7	34.2	1,250.0	1,750.0	WMAIN-6197	11.2	Passed
044-034	51.7	33.6	1,252.9	1,752.9	WMAIN-6595(1)	13.4	Passed
044-035	51.8	34.1	1,253.0	1,753.0	WMAIN-5671(1)	13.9	Passed
044-036	51.7	47.2	1,251.1	1,751.1	WMAIN-6197	12.1	Passed
044-037	51.2	44.1	1,250.4	1,750.4	WMAIN-6197	12.1	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
044-041	50.4	45.1	3,502.5	4,002.5	WMAIN-3670	14.6	Passed
044-044	51.1	32.1	1,251.8	1,320.0	WMAIN-4976(1)	15	Passed
044-045	51.2	45.5	1,250.0	1,748.3	WMAIN-4967(2)(2)	15	Passed
044-046	51.4	44.2	1,255.8	1,755.8	WMAIN-4967(1)	13.6	Passed
044-047	50.9	41	1,260.8	1,760.8	WMAIN-4969(1)	10.5	Passed
044-048	51.1	45.6	1,250.0	1,750.0	WMAIN-6197	10.1	Passed
044-049	50.8	44.2	3,500.0	4,000.0	WMAIN-3670	10.1	Passed
044-050	51.7	45.5	3,504.5	4,004.5	WMAIN-7370	6.7	Passed
044-051	49.9	33.4	3,500.0	4,000.0	WMAIN-3320(2)(2)	13.7	Passed
044-052	50.6	44.2	3,500.0	4,000.0	WMAIN-3670	12.2	Passed
045-001	50.1	24.9	3,500.0	2,210.9	WMAIN-5569(2)(2)	15	Velocity Failed
045-002	49.7	41.4	3,500.2	1,735.1	WMAIN-3318(1)	15	Velocity Failed
045-003	50.1	27.8	3,500.0	2,154.3	WMAIN-3318(1)	15	Velocity Failed
045-004	49.6	47.8	1,250.5	1,750.5	WMAIN-5217(1)	8.3	Passed
045-005	49.7	46	1,251.1	1,751.1	WMAIN-5204(1)	14.8	Passed
045-006	49.9	46.4	1,251.2	1,751.2	WMAIN-5203	5.8	Passed
045-007	50	46.7	1,253.6	1,753.6	WMAIN-5267(1)	7.6	Passed
045-008	50	46.1	1,250.0	1,750.0	WMAIN-5267(2)(2)	6.1	Passed
045-009	49.9	46.4	1,253.0	1,753.0	WMAIN-3317(2)	6	Passed
045-010	50	46.9	1,262.7	1,762.7	WMAIN-5297(1)	7.2	Passed
045-011	50.1	46.1	1,250.4	1,750.4	WMAIN-5299(2)	7.9	Passed
045-012	50.2	44.8	1,253.6	1,753.6	WMAIN-5299(2)	5.9	Passed
045-013	50	46.1	1,250.0	1,750.0	WMAIN-5290(2)(2)	8	Passed
045-014	50	46.8	1,250.5	1,750.5	WMAIN-5281(1)	7.3	Passed
045-015	49.9	38.6	1,254.2	1,754.2	WMAIN-5269(2)	10.1	Passed
045-016	49.7	42.6	1,251.3	1,751.3	WMAIN-5206(1)	10.2	Passed
045-017	49.8	38.4	1,253.0	1,753.0	WMAIN-5210(1)	10.9	Passed
045-018	49.7	40.4	1,253.2	1,753.2	WMAIN-5185(1)	11.7	Passed
045-019	49.5	44	1,251.9	1,751.9	WMAIN-5175(2)	6.4	Passed
045-020	49.8	45.9	1,250.0	1,750.0	WMAIN-5277(2)	6.7	Passed
045-021	50	41.4	1,252.3	1,752.3	WMAIN-5316	13.9	Passed
045-022	50.1	40	1,250.0	1,750.0	WMAIN-5319(2)(2)	14.6	Passed
045-023	50	35.3	1,251.2	1,751.2	WMAIN-5319(2)(2)	11.3	Passed
045-024	49.8	36.8	1,251.8	1,751.8	WMAIN-5321(1)	12.9	Passed
045-025	49.5	47.5	1,250.3	1,750.3	WMAIN-5195(1)	8.8	Passed
045-026	49.7	43.2	3,500.0	1,666.0	WMAIN-5569(2)(2)	15	Velocity Failed
045-027	49.7	33.4	3,500.0	3,369.2	WMAIN-3390	15	Velocity Failed
045-028	49.8	28.4	3,506.0	4,006.0	WMAIN-3390	15	Passed
045-032	50.1	46.2	3,501.0	4,001.0	WMAIN-3777	6.5	Passed
045-033	50.1	32.6	1,253.6	1,753.6	WMAIN-4986	11.3	Passed
045-036	49.8	43.6	1,250.0	1,750.0	WMAIN-8069	7.4	Passed
045-037	49.6	43.9	2,500.0	3,000.0	WMAIN-5897	5.1	Passed
045-038	49.6	44.2	1,250.0	1,750.0	WMAIN-8068(1)	7.7	Passed
045-039	49.4	46.7	1,250.0	1,750.0	WMAIN-8058(2)(2)	5	Passed
045-040	48.6	44.9	1,250.0	1,750.0	WMAIN-8058(2)(2)	5	Passed
045-041	48.9	43.6	1,250.0	1,750.0	WMAIN-8073(2)	8.2	Passed
045-042	49.6	47.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
045-043	49.8	45.4	1,251.2	1,751.2	WMAIN-8069	6.7	Passed
045-044	50	45.8	1,250.0	1,750.0	WMAIN-8065(2)	7.1	Passed
045-045	49.7	47.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
045-046	49.8	47.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
046-001	49.4	39.2	1,253.1	1,753.1	WMAIN-5188(1)	12.3	Passed
046-002	49.1	38.5	1,250.0	1,750.0	WMAIN-5188(2)(2)	11.8	Passed
046-003	49.3	40.6	1,251.9	1,751.9	WMAIN-5183	7.6	Passed
046-004	49.1	45.6	1,250.0	1,750.0	WMAIN-8053(2)(2)	8.5	Passed
046-005	48.4	42.8	1,250.1	1,750.1	WMAIN-8053(2)(2)	6.3	Passed
046-006	47.9	42.4	1,254.8	1,754.8	WMAIN-8096(1)	6.6	Passed
046-007	48.5	46.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
046-008	48.4	45.5	1,250.1	1,750.1	WMAIN-8096(1)	9.2	Passed
046-009	48.4	46.3	1,251.8	1,751.8	WMAIN-5897	4.9	Passed
046-010	48.6	46.4	1,251.0	1,751.0	WMAIN-5897	4.9	Passed
046-011	49	46.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
046-012	48.7	36.9	3,504.0	3,713.0	WMAIN-8101(1)	15	Passed
046-013	48.8	33.3	3,500.0	4,000.0	WMAIN-8102(1)	14.6	Passed
046-014	49.4	45.7	1,252.3	1,752.3	WMAIN-8076(2)	6.7	Passed
046-015	49.7	47.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
046-016	49	46.7	1,250.3	1,750.3	WMAIN-5897	4.9	Passed
046-017	48.6	35.3	3,500.0	4,000.0	WMAIN-8103(2)	13.1	Passed
046-018	48.5	34.9	3,501.3	3,865.1	WMAIN-8104(1)	15	Passed
046-019	48.4	45.2	1,250.6	1,750.6	WMAIN-8092(2)	6.3	Passed
046-020	48.4	45.3	1,250.0	1,750.0	WMAIN-8090(2)	5.7	Passed
046-021	49	45.5	1,250.0	1,750.0	WMAIN-8063(1)	5.9	Passed
046-022	48.9	44.5	1,250.7	1,750.7	WMAIN-8093(1)	6.2	Passed
046-023	48.2	44.3	1,250.3	1,750.3	WMAIN-8049(2)	7.4	Passed
046-024	47.9	44.6	1,251.0	1,751.0	WMAIN-8091(2)	6.4	Passed
046-025	47.7	42.8	1,250.0	1,750.0	WMAIN-8058(2)(2)	5	Passed
046-026	47.7	41.6	1,250.0	1,750.0	WMAIN-8058(2)(2)	5	Passed
046-027	47.8	40.9	1,250.0	1,750.0	WMAIN-8058(2)(2)	5	Passed
047-001	48	46.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
047-002	47.9	45.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
047-003	48.2	40.4	1,250.9	1,750.9	WMAIN-1351(1)	11.2	Passed
047-004	48.2	44.2	1,250.4	1,750.4	WMAIN-1352	6.2	Passed
047-005	48.2	44	1,251.9	1,751.9	WMAIN-1380(2)	5.8	Passed
047-006	47.7	45	1,250.4	1,750.4	WMAIN-1384(2)	5	Passed
047-007	48.3	46.2	1,251.4	1,751.4	WMAIN-1157(1)	8.5	Passed
047-008	48.4	37	3,500.0	4,000.0	WMAIN-1157(2)(2)	13.4	Passed
047-009	48.3	44.1	1,250.8	1,750.8	WMAIN-3940(2)	7.2	Passed
047-010	48.4	42.7	1,251.6	1,751.6	WMAIN-3935(1)	8	Passed
047-011	48.4	41.2	1,251.6	1,751.6	WMAIN-3933	7.5	Passed
047-012	48.5	42	1,253.2	1,753.2	WMAIN-3938(1)	7.6	Passed
047-013	48.5	41.8	1,257.2	1,757.2	WMAIN-3936(1)(1)	8.2	Passed
047-014	48.5	42	1,250.7	1,750.7	WMAIN-3933	6.2	Passed
047-015	48.4	43.3	1,254.7	1,754.7	WMAIN-1160(2)	7.9	Passed
047-016	48.2	42.5	1,252.9	1,752.9	WMAIN-1167	6	Passed
047-017	48.4	41.4	1,250.0	1,750.0	WMAIN-3933	8	Passed
047-018	48.3	38.2	5,000.9	5,287.7	WMAIN-1750(1)	15	Passed
048-001	48	46.6	1,253.3	1,753.3	WMAIN-5897	4.9	Passed
048-002	47.6	45.6	1,250.6	1,750.6	WMAIN-1369(1)	8.5	Passed
048-003	47.7	43.8	1,250.0	1,750.0	WMAIN-1367	6.5	Passed
048-004	47.4	43.6	1,251.5	1,751.5	WMAIN-1371(2)	7.1	Passed
048-005	47.7	44	1,253.3	1,753.3	WMAIN-1364	6.9	Passed
048-006	47.1	42.4	1,255.9	1,755.9	WMAIN-1390(2)	6.1	Passed
048-007	47.2	43.4	1,254.2	1,754.2	WMAIN-1378(2)	6.8	Passed
052-005	49.6	44.1	2,500.0	3,000.0	WMAIN-5897	5.1	Passed
052-006	50.1	45.3	1,250.0	1,604.3	WMAIN-5571	15	Passed
053-001	51.8	45.5	2,501.0	2,943.5	WMAIN-7384	15	Passed
053-002	51.4	37.8	1,255.2	1,755.2	WMAIN-7378(1)(1)	13	Passed
053-003	51.5	46.7	1,250.6	1,750.6	WMAIN-7384	6.8	Passed
053-004	51.1	37.3	1,250.0	1,750.0	WMAIN-7378(2)	12.8	Passed
053-005	50.7	35.3	1,252.4	1,752.4	WMAIN-6106(1)	12.6	Passed
053-006	51.1	45.9	1,251.4	1,751.4	WMAIN-6183(1)	6	Passed
053-007	50.5	35.1	1,252.4	1,752.4	WMAIN-6109(1)	12.6	Passed
053-008	50.9	46.1	1,250.9	1,750.9	WMAIN-6181(2)	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
053-009	50.6	46	1,255.7	1,755.7	WMAIN-7387(1)(1)	5.8	Passed
053-010	49.8	43.3	2,500.0	2,971.5	WMAIN-7387(2)	15	Passed
053-011	49.9	45.1	2,511.6	3,011.6	WMAIN-5897	5.2	Passed
053-012	50.4	42.6	3,500.0	4,000.0	WMAIN-6184(1)(2)(2)(2)	6.8	Passed
053-013	51.5	42.7	1,259.0	1,759.0	WMAIN-7383	8.2	Passed
053-014	51.2	37.4	1,254.6	1,754.6	WMAIN-1003(2)	10.8	Passed
053-015	51.2	42.2	1,251.4	1,751.4	WMAIN-1982(1)	10.2	Passed
053-016	51.3	35.5	1,254.6	1,754.6	WMAIN-7380(1)	10.3	Passed
053-017	51.6	35.9	1,250.0	1,750.0	WMAIN-6170(2)(2)	12.8	Passed
053-018	51.3	34.5	1,256.3	1,756.3	WMAIN-6170(1)	12.1	Passed
053-019	51.2	44.1	1,250.9	1,750.9	WMAIN-6134	7.9	Passed
053-020	51.2	35.9	1,250.0	1,750.0	WMAIN-7392(2)	12.9	Passed
053-021	51.1	35.9	1,252.2	1,752.2	WMAIN-7391(1)	13	Passed
053-022	51	46.2	1,253.2	1,753.2	WMAIN-7395(2)	6.2	Passed
053-023	51.1	46.2	1,251.9	1,751.9	WMAIN-6179(1)(1)	6.3	Passed
053-024	51.2	46.8	1,250.0	1,750.0	WMAIN-6179(2)	8	Passed
053-025	51.1	40.6	1,250.9	1,320.5	WMAIN-6128(1)	15	Passed
053-026	51	30	3,501.2	4,001.2	WMAIN-7275(1)	13.1	Passed
053-027	50.9	33	1,251.1	1,751.1	WMAIN-6174	11.9	Passed
053-028	50.9	33.4	1,251.1	1,751.1	WMAIN-6121	12.1	Passed
053-029	51	39.5	1,250.0	1,750.0	WMAIN-6121	14.7	Passed
053-030	50.9	40.9	1,253.1	1,753.1	WMAIN-6116(2)	10.8	Passed
053-031	50.9	47.3	1,250.8	1,750.8	WMAIN-6112(1)(1)	7.3	Passed
053-032	50.9	47	1,250.0	1,750.0	WMAIN-3683	6.5	Passed
053-033	49.9	47.1	1,250.0	1,750.0	WMAIN-6100	8.7	Passed
053-034	50.6	46.8	1,253.2	1,753.2	WMAIN-6099(1)	6.8	Passed
053-035	50.6	46	1,258.6	1,758.6	WMAIN-6102(2)	6.2	Passed
053-036	50.5	46.8	1,250.0	1,582.2	WMAIN-6093	15	Passed
053-037	50.4	39.1	1,250.0	1,750.0	WMAIN-6093	10.2	Passed
053-038	50	44.3	1,254.1	1,711.9	WMAIN-6092(1)(1)	15	Passed
053-039	50.2	45.8	1,250.0	1,750.0	WMAIN-7881(2)(1)(2)	6.7	Passed
053-040	50	45.9	1,253.7	1,753.7	WMAIN-0624(1)(1)	7.1	Passed
053-041	50.1	43.2	3,500.5	4,000.5	WMAIN-3675(1)	6.5	Passed
053-042	51.3	33.5	1,252.7	1,752.7	WMAIN-7397(1)	11.7	Passed
053-043	51.4	33.8	1,252.8	1,752.8	WMAIN-6175	11.9	Passed
053-044	50.6	39.7	3,500.0	3,332.8	WMAIN-7275(2)(2)	15	Velocity Failed
053-045	50.4	42.9	3,500.0	4,000.0	WMAIN-6632(2)(2)	6.5	Passed
053-046	50.8	46.8	2,500.0	3,000.0	WMAIN-6184(2)	5.9	Passed
053-047	50.4	42.6	3,500.0	4,000.0	WMAIN-6184(1)(2)(2)(2)	6.8	Passed
053-048	50.1	45.4	2,500.0	3,000.0	WMAIN-5897	5.2	Passed
053-051	49.7	38.9	3,500.0	3,323.9	WMAIN-0624(2)(2)	15	Velocity Failed
053-052	49.8	29.3	3,500.0	4,000.0	WMAIN-0624(2)(2)	12.9	Passed
053-053	50.2	45.2	1,250.0	1,750.0	WMAIN-0626(2)	6.4	Passed
053-054	50.2	45	1,251.2	1,751.2	WMAIN-7881(2)(1)(1)	5.8	Passed
053-056	50.6	38.8	3,500.0	4,000.0	WMAIN-6189	7.3	Passed
053-057	49.9	47.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
053-058	49.6	47	1,250.4	1,750.4	WMAIN-4357(1)	5.3	Passed
053-059	49.8	46.9	1,254.7	1,754.7	WMAIN-5897	4.9	Passed
053-060	49.7	46.9	1,250.2	1,750.2	WMAIN-4365(2)	7.7	Passed
053-061	49.7	46.5	1,250.2	1,750.2	WMAIN-4364(2)	7.7	Passed
053-062	49.7	45.9	1,250.0	1,750.0	WMAIN-4361(2)	8.6	Passed
053-063	49.7	45.3	1,250.2	1,750.2	WMAIN-4361(1)(2)	7.7	Passed
053-064	49.6	45.4	1,255.4	1,755.4	WMAIN-4342(1)	8.1	Passed
053-065	49.6	46.6	1,250.1	1,750.1	WMAIN-4352(2)	8.4	Passed
053-066	50.2	45.1	1,252.8	1,752.8	WMAIN-7881(2)(1)(1)	6.3	Passed
054-001	51.6	44.8	3,500.0	4,000.0	WMAIN-3778	12.5	Passed
054-005	53.5	51.9	1,250.6	1,750.6	WMAIN-1322(1)	12.2	Passed
054-006	53.1	49.2	1,252.2	1,752.2	WMAIN-1322(1)	8.4	Passed
054-007	52.9	48.6	1,250.0	1,750.0	WMAIN-1322(1)	7.7	Passed
054-008	53	49	1,254.7	1,754.7	WMAIN-1322(1)	7.8	Passed
054-009	52.8	49.2	1,250.9	1,750.9	WMAIN-5899(2)	9.8	Passed
054-010	52.8	46.6	1,251.2	1,751.2	WMAIN-5899(2)	9.1	Passed
054-011	52.7	42.1	3,500.3	1,314.4	WMAIN-6165(1)	15	Velocity Failed
054-013	52.6	36.1	1,251.4	1,751.4	WMAIN-5908	10.4	Passed
054-014	52.6	38.1	1,252.8	1,752.8	WMAIN-5908	12.4	Passed
054-015	52.8	49.8	1,250.4	1,750.4	WMAIN-1322(1)	6.6	Passed
054-016	53.1	49.4	1,250.0	1,750.0	WMAIN-5938(1)(1)	6.3	Passed
054-017	52.8	50.1	1,250.4	1,750.4	WMAIN-5892(1)	8.1	Passed
054-018	52.7	48.8	1,251.4	1,751.4	WMAIN-5897	7	Passed
054-019	52.5	45	1,252.2	1,752.2	WMAIN-5869(1)	11.2	Passed
054-020	52.2	48.9	1,253.5	1,753.5	WMAIN-5866(1)	6.5	Passed
054-021	52.5	48.2	1,254.0	1,754.0	WMAIN-5897	6.6	Passed
054-022	52.6	48.4	1,250.8	1,750.8	WMAIN-5876(2)	7.3	Passed
054-023	52.7	47.6	1,251.3	1,751.3	WMAIN-5886(1)	11.2	Passed
054-024	52.7	48.2	1,250.8	1,750.8	WMAIN-5897	7	Passed
054-025	52	47.4	2,500.0	3,000.0	WMAIN-3778	8.8	Passed
054-030	52	47.6	2,504.4	3,004.4	WMAIN-3778	9	Passed
055-001	51.9	47.9	1,250.4	1,750.4	WMAIN-5897	5.7	Passed
055-002	51.6	48.8	1,250.3	1,750.3	WMAIN-5897	5.7	Passed
055-003	51.6	48.7	1,251.5	1,751.5	WMAIN-5844(2)	7.3	Passed
055-004	52	49.2	1,251.4	1,751.4	WMAIN-5857(1)	7.1	Passed
055-005	52	48.4	1,250.3	1,750.3	WMAIN-5831(1)	11.7	Passed
055-006	51.6	48.5	1,252.8	1,752.8	WMAIN-5835(1)(1)	7.6	Passed
055-007	51.7	48.5	1,250.0	1,750.0	WMAIN-5835(2)	7.4	Passed
055-008	53.4	49.9	1,250.0	1,750.0	WMAIN-5811(2)	8.3	Passed
055-009	52.5	47.9	1,251.6	1,751.6	WMAIN-5811(1)(2)	6.5	Passed
055-010	52	48.6	1,250.8	1,750.8	WMAIN-5824(2)	5.8	Passed
055-011	52.1	47.4	1,252.0	1,752.0	WMAIN-5820(1)	6.5	Passed
055-012	51.7	47.4	1,255.3	1,755.3	WMAIN-5823(1)	6.8	Passed
055-013	52.2	47.8	1,250.0	1,750.0	WMAIN-5823(2)(2)	6.5	Passed
055-014	53.3	50.3	1,250.3	1,750.3	WMAIN-5808(2)	6.5	Passed
055-015	53.1	50.1	1,250.4	1,750.4	WMAIN-5790(1)	7	Passed
055-016	53.3	51.4	1,250.5	1,750.5	WMAIN-5897	5.5	Passed
055-017	52.6	50.8	1,250.0	1,750.0	WMAIN-3778	5.6	Passed
055-018	52.1	50.3	1,251.3	1,751.3	WMAIN-3778	6	Passed
055-019	51.8	50.1	1,250.0	1,750.0	WMAIN-3778	6.4	Passed
055-020	52.7	49.6	1,251.3	1,751.3	WMAIN-5798(1)	6.3	Passed
055-021	51.9	43.5	3,503.0	1,321.0	WMAIN-5807(1)	15	Velocity Failed
055-022	51.6	45.3	3,500.3	4,000.3	WMAIN-3778	13.1	Passed
055-023	53.7	50.6	1,250.5	1,750.5	WMAIN-5816(2)	5.8	Passed
055-024	53.4	49.3	1,251.3	1,751.3	WMAIN-4941	5.8	Passed
055-025	53.4	49.4	1,251.7	586.1	WMAIN-4947(1)	15	Velocity Failed
055-026	53.1	51	1,263.1	1,763.1	WMAIN-5897	5.5	Passed
055-027	53.3	46.1	3,500.0	4,000.0	WMAIN-3778	10	Passed
055-028	53	48.8	1,255.0	1,755.0	WMAIN-4945(1)(1)	11.2	Passed
055-029	53.1	41.4	1,250.0	1,750.0	WMAIN-4945(1)(1)	11.2	Passed
055-031	51.5	43.3	3,503.9	4,003.9	WMAIN-3778	10.8	Passed
055-032	51.5	43.5	3,500.0	4,000.0	WMAIN-3778	10.8	Passed
055-033	52.1	44.9	3,500.0	4,000.0	WMAIN-3778	10.8	Passed
055-034	51.6	48.8	1,251.9	1,751.9	WMAIN-4335(1)	8	Passed
055-035	51.4	48.4	1,251.8	1,751.8	WMAIN-4326(1)	8	Passed
055-036	52	46.3	3,503.2	2,953.6	WMAIN-7408(1)(1)	15	Velocity Failed
055-037	51.6	42.1	3,500.0	3,416.4	WMAIN-7408(2)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
055-039	53.7	51	1,250.7	1,750.7	WMAIN-2488(1)	8.2	Passed
055-040	53.6	49	1,253.9	1,753.9	WMAIN-4313(1)	5.9	Passed
055-041	53.4	48.7	1,255.5	1,755.5	WMAIN-4321(2)	5.8	Passed
055-042	52.7	49.5	1,252.5	1,752.5	WMAIN-4323(2)	7.2	Passed
055-043	53.7	49.1	1,255.3	1,755.3	WMAIN-4314(1)	6.1	Passed
055-044	53.7	48.5	1,255.7	1,755.7	WMAIN-4316(2)	5.9	Passed
055-045	51.5	47.1	1,250.8	1,750.8	WMAIN-4289(1)	11.2	Passed
055-046	52	48.9	1,250.7	1,750.7	WMAIN-4284(2)	6.4	Passed
055-047	52.3	49.1	1,251.9	1,751.9	WMAIN-4280(1)	7	Passed
055-048	53	49.8	1,252.7	1,752.7	WMAIN-4278(1)	6.9	Passed
055-049	53.5	50.2	1,250.0	1,750.0	WMAIN-4674(2)(2)	8	Passed
055-050	53.6	49.2	1,250.0	1,750.0	WMAIN-4674(2)(1)(2)	5.7	Passed
055-051	52.9	48.8	1,254.2	1,754.2	WMAIN-4681(1)	5.9	Passed
055-052	53	49.8	1,250.7	1,750.7	WMAIN-4282(2)	6.6	Passed
055-053	51.7	42.5	1,253.6	1,753.6	WMAIN-4291(1)	11.2	Passed
055-054	53.6	50.9	1,257.1	1,757.1	WMAIN-4674(1)	8.8	Passed
056-001	53.5	51	1,254.3	1,754.3	WMAIN-4919(1)	9.4	Passed
056-002	53.4	51.3	1,251.4	1,751.4	WMAIN-5897	5.5	Passed
056-003	53.4	51.3	1,251.5	1,751.5	WMAIN-5897	5.5	Passed
056-004	53.3	48.5	2,500.0	2,742.5	WMAIN-4917(2)(2)	15	Passed
056-005	53.6	50.8	1,251.0	1,751.0	WMAIN-5897	5.6	Passed
056-006	53.6	51.4	1,251.3	1,751.3	WMAIN-5897	5.6	Passed
056-007	53.4	50.5	1,252.4	1,752.4	WMAIN-4555(2)	8.5	Passed
056-008	53.7	51.1	1,251.5	1,751.5	WMAIN-2495(1)	8.6	Passed
056-009	53.7	51.4	1,253.0	1,753.0	WMAIN-5897	5.6	Passed
056-010	53.4	50.7	1,254.4	1,754.4	WMAIN-5897	5.6	Passed
056-011	53.4	50.6	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
056-012	53.5	47.7	1,251.2	1,751.2	WMAIN-0384(1)	11.2	Passed
056-013	53.5	48.4	1,251.5	1,751.5	WMAIN-0375	6.9	Passed
056-014	53.7	50.5	1,251.8	1,751.8	WMAIN-2662(2)	6.6	Passed
056-015	53.8	50.9	1,250.1	1,750.1	WMAIN-2575(2)(1)	7.1	Passed
056-016	53.5	50	1,251.8	1,751.8	WMAIN-0381(2)	7.3	Passed
056-017	53.5	50	1,250.4	1,750.4	WMAIN-0379(2)	6.1	Passed
056-018	55	52.3	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
056-019	55.1	50.1	1,256.3	1,756.3	WMAIN-4584	7	Passed
056-020	54	48.7	1,255.6	1,755.6	WMAIN-4592(2)(2)	6.1	Passed
056-021	53.7	50	1,250.0	1,750.0	WMAIN-4592(2)(2)	8.6	Passed
056-022	54.6	52	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
056-023	54.4	51	1,251.0	1,751.0	WMAIN-4583(1)	7	Passed
056-024	54	49.5	1,254.6	1,754.6	WMAIN-4581(1)	5.8	Passed
056-025	53.7	50.2	1,250.0	1,750.0	WMAIN-4581(2)(2)	8.2	Passed
056-026	53.7	50.6	1,257.2	1,757.2	WMAIN-4572(1)	8.6	Passed
056-027	53.6	49	1,250.0	1,750.0	WMAIN-4572(2)(2)	6	Passed
056-028	54.1	49.2	1,250.0	1,750.0	WMAIN-4544(2)	6.1	Passed
056-029	54.5	50.4	1,254.6	1,754.6	WMAIN-4544(1)(1)	8	Passed
056-030	53.5	49.8	1,251.4	1,751.4	WMAIN-4566(2)	6.6	Passed
056-031	53.6	45.4	1,252.0	1,752.0	WMAIN-4563(1)	11.2	Passed
056-032	53.5	49.5	1,250.9	1,750.9	WMAIN-4549(1)	6.3	Passed
056-033	53.6	48.9	1,254.2	1,754.2	WMAIN-4919(1)	5.8	Passed
056-034	53.7	50.3	1,252.9	1,752.9	WMAIN-4609(2)	8.2	Passed
056-035	53.6	51	1,253.9	1,753.9	WMAIN-4605(2)	8.6	Passed
056-036	53.5	51.2	1,250.8	1,750.8	WMAIN-5897	5.5	Passed
056-037	53.5	48.6	1,253.2	1,753.2	WMAIN-4599	5.7	Passed
056-038	53.4	50.7	1,251.2	1,751.2	WMAIN-4622(1)	9.6	Passed
056-039	53.4	48.3	1,257.2	1,757.2	WMAIN-4917(2)(2)	6.1	Passed
056-040	53.6	49.5	1,251.5	1,751.5	WMAIN-4607(1)	7.7	Passed
056-041	54.1	51.4	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
056-042	53.5	50	1,251.7	1,751.7	WMAIN-4561(1)	7.3	Passed
056-043	54.1	50.9	1,250.6	1,750.6	WMAIN-4469(1)	8.1	Passed
056-044	54	47.8	2,500.4	3,000.4	WMAIN-3778	7.8	Passed
056-045	54	51.5	1,250.7	1,750.7	WMAIN-5897	5.5	Passed
056-046	53.8	51.4	1,252.8	1,752.8	WMAIN-5897	5.5	Passed
056-047	53.9	50.5	1,250.3	1,750.3	WMAIN-4466(1)	7.6	Passed
056-048	53.8	47.2	1,252.3	1,752.3	WMAIN-4459(1)	7	Passed
056-049	53.9	47.1	1,255.4	1,755.4	WMAIN-4461	6.7	Passed
056-050	54.1	49.4	1,253.1	1,753.1	WMAIN-4463(1)	6.7	Passed
056-051	53.9	48.8	1,252.2	1,752.2	WMAIN-4613(1)	6.9	Passed
056-052	53.9	48.4	1,251.2	1,751.2	WMAIN-4613(1)	5.7	Passed
056-053	54.1	48.4	1,251.6	1,751.6	WMAIN-1154(1)	11.2	Passed
081-001	48.1	44.9	1,251.8	1,751.8	WMAIN-7660(2)	5.7	Passed
081-002	47.8	43.9	1,250.0	1,750.0	WMAIN-7658(1)(1)	5.7	Passed
081-003	47.8	44.9	1,252.4	1,752.4	WMAIN-7658(1)(1)	8.3	Passed
081-004	47.8	45.3	1,259.4	1,759.4	WMAIN-7656(1)(1)	8.8	Passed
081-005	47.6	43.1	1,250.5	1,750.5	WMAIN-7820(2)	9.3	Passed
081-006	47.9	43.9	1,253.4	1,753.4	WMAIN-7653(1)	5.8	Passed
081-007	48	39.8	1,251.3	1,751.3	WMAIN-7644(2)	11.2	Passed
081-008	48	43.4	1,250.8	1,750.8	WMAIN-7646(2)	11.2	Passed
081-009	47.9	44.6	1,250.0	1,750.0	WMAIN-7656(2)	6.5	Passed
081-010	47.6	41.9	1,253.5	1,753.5	WMAIN-7655	7.7	Passed
081-011	46.8	39.8	1,251.6	1,751.6	WMAIN-7655	7.8	Passed
081-012	47.2	40.5	1,251.8	1,751.8	WMAIN-7655	7.5	Passed
081-013	47.6	42.1	1,251.0	1,751.0	WMAIN-7655	6.2	Passed
081-014	47.7	41.8	1,250.5	1,750.5	WMAIN-7812(2)	11.2	Passed
081-015	47.8	44.3	1,250.0	1,750.0	WMAIN-7649(2)(2)	7.2	Passed
081-016	47.7	44.1	1,253.0	1,753.0	WMAIN-7649(1)	6.5	Passed
081-017	47.6	44	1,250.5	1,750.5	WMAIN-7651	5.8	Passed
114-001	55	20	3,500.0	3,730.2	WMAIN-3778	10	Passed
114-002	55.3	20	3,500.0	3,704.7	WMAIN-3778	9.9	Passed
114-003	55.2	20	3,506.9	3,630.8	WMAIN-3778	9.6	Passed
114-004	55.1	20	3,537.4	3,622.0	WMAIN-3778	9.5	Passed
114-005	54.8	20	3,500.0	3,546.1	WMAIN-3778	9.4	Passed
114-006	54.7	20	3,500.0	3,523.5	WMAIN-3778	9.4	Passed
114-007	54.6	20	3,500.0	3,505.2	WMAIN-3778	9.3	Passed
114-008	54.6	23.1	3,500.0	3,490.3	WMAIN-2575(2)(1)	8.8	Failed
114-009	54.4	20	3,500.0	3,474.0	WMAIN-3778	9.3	Residual Pressure Failed
114-010	54.1	20	3,500.0	3,456.2	WMAIN-3778	9.2	Residual Pressure Failed
114-011	53.9	20	3,500.0	3,445.6	WMAIN-3778	9.2	Residual Pressure Failed
114-012	53.8	20	3,500.0	3,445.9	WMAIN-3778	9.2	Residual Pressure Failed
114-013	53.8	20	3,500.0	3,453.3	WMAIN-3778	9.2	Residual Pressure Failed
114-014	53.7	20	3,500.0	3,461.7	WMAIN-3778	9.2	Residual Pressure Failed
114-015	53.5	20	3,500.0	3,473.1	WMAIN-3778	9.3	Residual Pressure Failed
114-016	53.5	23.1	3,500.0	3,495.5	WMAIN-2575(2)(1)	8.8	Failed
114-017	53.7	20	3,500.0	3,528.9	WMAIN-3778	9.4	Passed
114-018	53.9	20	3,500.0	3,573.8	WMAIN-3778	9.5	Passed
114-019	53.8	20	3,500.0	3,611.9	WMAIN-3778	9.5	Passed
114-020	53.6	20	3,500.0	3,680.2	WMAIN-3778	9.9	Passed
114-021	53.5	20	3,500.0	3,722.4	WMAIN-3778	9.9	Passed
114-022	53.6	20	3,500.0	3,802.5	WMAIN-3778	10.1	Passed
114-023	53.5	20	3,500.0	3,880.6	WMAIN-3778	10.2	Passed
114-024	53.7	20	3,500.0	3,986.8	WMAIN-3778	10.5	Passed
114-025	53.5	45.6	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-027	53.8	46.4	1,250.1	1,750.1	WMAIN-5897	5.7	Passed
114-028	53.8	46.5	1,250.3	1,750.3	WMAIN-5897	5.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
114-029	53.6	46.5	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-030	54.7	20	3,500.0	3,763.4	WMAIN-3778	10	Passed
114-031	54.5	20	3,500.0	3,809.8	WMAIN-3778	10.1	Passed
114-032	54.2	20	3,500.0	3,865.7	WMAIN-3778	10.2	Passed
114-033	53.8	20	3,500.0	3,929.0	WMAIN-3778	10.3	Passed
114-034	53.5	20.2	3,500.0	4,000.0	WMAIN-3778	10.5	Passed
114-035	53.5	22.2	3,500.0	4,000.0	WMAIN-3778	10.5	Passed
114-036	53.5	45.9	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-037	53.6	45.9	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-038	53.5	45.9	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-039	53.6	46.1	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-040	53.8	46.2	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-041	54.2	46.5	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-042	54.4	46.8	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-043	54.6	47	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-044	54.7	47.2	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-045	54.9	47.4	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-046	55	47.7	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
114-047	55.3	48	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-001	53.9	46.9	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-002	53.9	47.1	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-003	53.9	47.3	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-004	53.9	47.5	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-005	53.9	47.8	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-006	54	48.1	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-007	54.1	48.5	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-008	54.2	48.9	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
124-009	54.3	49.3	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-001	53.8	51	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
125-002	53.7	50.5	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
125-003	53.5	50.2	1,250.0	1,750.0	WMAIN-5897	5.6	Passed
125-004	54	50.4	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-005	54.7	51	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-006	54.5	50	1,250.5	1,750.5	WMAIN-5897	5.7	Passed
125-007	54.7	41.1	3,500.8	4,000.8	WMAIN-3778	10.5	Passed
125-008	54.5	49.2	1,253.1	1,753.1	WMAIN-0759(1)	8.8	Passed
125-009	54.2	47.8	1,250.5	1,750.5	WMAIN-0774(2)	6.3	Passed
125-010	54	48.2	1,250.5	1,750.5	WMAIN-0771(1)	6.3	Passed
125-011	54.2	48.6	1,252.8	1,752.8	WMAIN-0780(1)	7.8	Passed
125-012	54.1	48.6	1,250.9	1,750.9	WMAIN-0765	6.3	Passed
125-013	53.8	47.5	1,250.5	1,750.5	WMAIN-0765	6.4	Passed
125-014	54.2	50.4	1,250.5	1,750.5	WMAIN-5897	5.7	Passed
125-015	54	50.4	1,251.0	1,751.0	WMAIN-5897	5.7	Passed
125-016	54	50.5	1,250.2	1,750.2	WMAIN-5897	5.7	Passed
125-017	53.9	50.6	1,252.7	1,752.7	WMAIN-5897	5.7	Passed
125-018	53.7	50.5	1,250.7	1,750.7	WMAIN-5897	5.7	Passed
125-019	53.6	50.2	1,251.0	1,751.0	WMAIN-5897	5.7	Passed
125-020	53.5	48.5	1,251.7	1,751.7	WMAIN-5897	5.7	Passed
125-021	53.3	49.1	1,251.0	1,751.0	WMAIN-1731(1)	5.8	Passed
125-022	53.5	49.6	1,250.0	1,750.0	WMAIN-0794(2)(2)	8	Passed
125-023	53.4	50.1	1,250.7	1,750.7	WMAIN-1734(1)	8	Passed
125-024	52.8	50	1,250.7	1,750.7	WMAIN-5897	5.7	Passed
125-025	52.5	47.8	1,251.0	1,751.0	WMAIN-5897	5.7	Passed
125-026	52.4	43.2	2,500.0	3,000.0	WMAIN-1636(1)	10	Passed
125-027	52.8	49.7	1,254.1	1,754.1	WMAIN-5897	5.7	Passed
125-028	53	49.1	1,250.7	1,750.7	WMAIN-5897	5.7	Passed
125-029	52.8	48	1,255.2	1,755.2	WMAIN-1677(1)	5.8	Passed
125-030	52.6	49.4	1,255.1	1,755.1	WMAIN-5897	5.7	Passed
125-031	52.2	35.4	3,503.1	4,003.1	WMAIN-1649(1)	13.9	Passed
125-032	52.4	46.5	1,250.9	1,750.9	WMAIN-1650(2)	11.2	Passed
125-033	52.4	47.9	1,250.7	1,750.7	WMAIN-1654(2)	7.5	Passed
125-034	53.4	46.3	2,500.6	3,000.6	WMAIN-3778	8.5	Passed
125-035	52.4	45.3	2,500.0	3,000.0	WMAIN-3778	8.5	Passed
125-036	52.8	47.9	1,251.2	1,751.2	WMAIN-1701(1)	8.5	Passed
125-037	53.1	46.3	1,273.8	1,773.8	WMAIN-1701(1)	5.9	Passed
125-038	53.5	38.7	2,500.9	3,000.9	WMAIN-1692(2)	12.7	Passed
125-039	53	44.2	1,253.1	1,753.1	WMAIN-1678(2)	5.7	Passed
125-040	52.5	44.5	1,250.0	1,750.0	WMAIN-1678(2)	7	Passed
125-041	52.5	47.2	1,252.5	1,752.5	WMAIN-1678(2)	8.7	Passed
125-042	52.2	48.7	1,253.0	1,753.0	WMAIN-5897	5.7	Passed
125-043	52.2	47.5	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-044	52.3	42.1	1,251.2	1,751.2	WMAIN-1596(2)	11.2	Passed
125-045	52.4	48.6	1,251.4	1,751.4	WMAIN-1660(1)	8.5	Passed
125-046	52.4	49	1,250.7	1,750.7	WMAIN-5897	5.7	Passed
125-047	52.3	49.1	1,250.5	1,750.5	WMAIN-5897	5.7	Passed
125-048	52.2	49.1	1,250.2	1,750.2	WMAIN-5897	5.7	Passed
125-049	52.1	49.3	1,250.0	1,750.0	WMAIN-5897	5.8	Passed
125-050	52.1	49.3	1,250.2	1,750.2	WMAIN-5897	5.8	Passed
125-051	52.1	43.5	3,500.0	4,000.0	WMAIN-3778	10.7	Passed
125-055	53.1	47.7	1,252.9	1,752.9	WMAIN-1699(2)	5.7	Passed
125-057	53.2	47.3	1,252.1	1,752.1	WMAIN-0302(2)	9.3	Passed
125-058	53.5	47.6	1,250.0	1,750.0	WMAIN-0303(2)	9.2	Passed
125-059	53.5	49	1,251.4	1,751.4	WMAIN-0791(1)	7.8	Passed
125-060	53.6	50.4	1,256.5	1,756.5	WMAIN-5897	5.7	Passed
125-061	53.7	50.1	1,250.7	1,750.7	WMAIN-0787(2)	7.5	Passed
125-062	53.6	49.5	1,253.5	1,753.5	WMAIN-0794(1)	7.4	Passed
125-063	53.8	50.6	1,253.3	1,753.3	WMAIN-5897	5.7	Passed
125-064	53.7	46.8	1,251.8	1,751.8	WMAIN-0796(2)	11.2	Passed
125-065	53.9	43.1	1,252.3	1,752.3	WMAIN-0798(2)	11.2	Passed
125-066	53.7	46.9	1,250.6	1,750.6	WMAIN-0804	6.2	Passed
125-067	53.9	43.3	1,252.3	1,752.3	WMAIN-0800(2)	11.2	Passed
125-068	53.7	47.1	1,250.4	1,750.4	WMAIN-1682	6.7	Passed
125-069	54	49.8	1,250.0	1,750.0	WMAIN-0833(2)	9.1	Passed
125-070	53.7	47.6	1,252.4	1,752.4	WMAIN-0833(1)(2)	5.9	Passed
125-071	53.5	47	1,251.2	1,751.2	WMAIN-0840	7.4	Passed
125-072	53.9	47.7	1,250.5	1,750.5	WMAIN-0840	7.9	Passed
125-073	53.9	49.3	1,251.5	1,751.5	WMAIN-0519(1)	8.1	Passed
125-074	53.7	48.6	1,250.7	1,750.7	WMAIN-0504(2)	7.5	Passed
125-075	53.4	47.3	1,251.3	1,751.3	WMAIN-0517(1)	7.2	Passed
125-076	53.5	47.6	1,250.9	1,750.9	WMAIN-0511(2)	7.7	Passed
125-077	53.6	49.9	1,250.9	1,750.9	WMAIN-0503(1)	8.2	Passed
125-078	53.6	48.1	1,250.0	1,750.0	WMAIN-0823(2)	8.6	Passed
125-079	53.4	45.6	1,252.7	1,752.7	WMAIN-0823(1)(2)	7.2	Passed
125-080	52.1	49.3	1,250.0	1,750.0	WMAIN-5897	5.8	Passed
125-083	53.1	44.7	1,251.1	1,751.1	WMAIN-0303(1)(2)	6.4	Passed
125-084	52.5	43	1,251.5	1,751.5	WMAIN-0393(2)	11.2	Passed
125-085	52.4	34	1,250.5	1,750.5	WMAIN-0393(2)	11.2	Passed
125-086	52.3	49.7	1,251.6	1,751.6	WMAIN-5897	5.7	Passed
125-087	51.7	41.3	3,502.2	2,350.1	WMAIN-0397	15	Velocity Failed
125-088	51.5	43.5	3,500.0	4,000.0	WMAIN-3778	10.6	Passed
125-089	51.4	49.1	1,250.8	1,750.8	WMAIN-5897	5.7	Passed
125-090	53.5	51.2	1,250.2	1,750.2	WMAIN-5897	5.6	Passed
125-091	52.8	50.5	1,250.0	1,750.0	WMAIN-5897	5.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
125-092	54.3	41.7	1,252.6	1,752.6	WMAIN-0523	11.2	Passed
125-093	53.9	47.8	1,251.4	1,751.4	WMAIN-0533	5.8	Passed
125-094	53.8	46.9	1,251.3	1,751.3	WMAIN-0533	7.4	Passed
125-095	54	48.3	1,250.6	1,750.6	WMAIN-0532(1)	8.9	Passed
125-096	52.3	48.4	1,250.1	1,750.1	WMAIN-5897	5.7	Passed
125-097	51.4	47.3	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-098	51.2	47	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-099	51.3	47	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-100	51.7	47.3	1,251.8	1,751.8	WMAIN-0218(2)	8.2	Passed
125-101	51.7	46.5	1,251.4	1,751.4	WMAIN-0210(2)	6.9	Passed
125-102	52	46.5	1,250.0	1,750.0	WMAIN-0200(2)(2)	6.5	Passed
125-103	52.2	46.5	1,254.0	1,754.0	WMAIN-0233	6.3	Passed
125-104	52.3	44.3	1,253.2	1,753.2	WMAIN-0169(2)	7.2	Passed
125-105	52.6	43.9	1,252.2	1,752.2	WMAIN-0182	6.3	Passed
125-106	52.5	45.4	1,252.6	1,752.6	WMAIN-0171(2)	8.3	Passed
125-107	52.2	46	1,251.2	1,751.2	WMAIN-0182	6.1	Passed
125-108	52.3	46.1	1,250.0	1,750.0	WMAIN-0185	6.7	Passed
125-109	52	45.5	1,251.2	1,751.2	WMAIN-0191(2)	7.4	Passed
125-110	52	43.6	1,251.0	1,751.0	WMAIN-5897	5.7	Passed
125-111	51.6	45.5	1,250.9	1,750.9	WMAIN-0208(2)	7.1	Passed
125-112	51.4	41.4	1,250.0	1,750.0	WMAIN-0146	11.2	Passed
125-113	51.3	41.5	1,254.0	1,754.0	WMAIN-0152	7	Passed
125-114	51.5	41	1,254.0	1,754.0	WMAIN-0152	6.2	Passed
125-115	52	41.8	1,250.9	1,750.9	WMAIN-0160(1)	6.6	Passed
125-116 125-116	51.8	44	1,252.3	1,752.3	WMAIN-0160(1)	8.5	Passed
125-117	51.6	44.6	1,253.8	1,753.8	WMAIN-0162(2)	5.9	Passed
125-118	51.4	44.7	1,256.0	1,756.0	WMAIN-7495(1)	6.5	Passed
125-119	51.5	44.8	1,250.0	1,750.0	WMAIN-7495(2)(2)	6.4	Passed
125-120	51.5	44.3	1,253.8	1,753.8	WMAIN-7494(2)	11.2	Passed
125-121	51.9	44.8	1,253.9	1,753.9	WMAIN-7481(2)	6.5	Passed
125-122	51.6	47.1	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
125-123	51.7	47.1	1,254.4	1,754.4	WMAIN-5897	5.7	Passed
125-124	52.2	47.7	1,252.3	1,752.3	WMAIN-5897	5.7	Passed
125-125	51.8	45.2	1,250.0	1,750.0	WMAIN-0221	6.9	Passed
125-126	52.2	46.6	1,252.1	1,752.1	WMAIN-7480(1)(1)(1)	8.2	Passed
125-127	52.3	45.6	1,250.0	1,750.0	WMAIN-7480(1)(1)(1)	6.5	Passed
125-128	52.5	45.9	1,250.0	1,750.0	WMAIN-7703	6.9	Passed
125-129	52.8	45.3	1,255.4	1,755.4	WMAIN-7575(1)	7.2	Passed
125-130	52.6	47.3	1,250.6	1,750.6	WMAIN-7576(1)	6.7	Passed
125-131	52.5	46.6	1,250.5	1,750.5	WMAIN-7577(2)	5.9	Passed
125-132	52.4	44.8	1,252.0	1,752.0	WMAIN-7579(2)	6.8	Passed
125-133	52.5	45	1,252.8	1,752.8	WMAIN-7580(1)	6.8	Passed
125-134	52.7	47.1	1,251.5	1,751.5	WMAIN-7581(1)	7	Passed
125-135	52.8	47.5	1,251.0	1,751.0	WMAIN-7572(2)	6.6	Passed
125-136	53	45.6	1,253.9	1,753.9	WMAIN-7574(2)	7.4	Passed
125-137	53.1	45	1,255.1	1,755.1	WMAIN-7574(2)	6	Passed
125-138	53.4	49.6	1,254.2	1,754.2	WMAIN-5897	5.7	Passed
125-139	53.1	49.1	1,253.6	1,753.6	WMAIN-5897	5.7	Passed
125-140	53.2	46.6	1,255.2	1,755.2	WMAIN-7586(2)	7.2	Passed
125-141	52.9	48.8	1,251.5	1,751.5	WMAIN-5897	5.7	Passed
125-142	53.1	45.8	1,256.7	1,756.7	WMAIN-5897	5.7	Passed
125-143	52.8	48.6	1,251.5	1,751.5	WMAIN-5897	5.7	Passed
125-144	52.9	46.3	1,256.4	1,756.4	WMAIN-7587(1)	7.3	Passed
125-145	52.6	47.1	1,250.3	1,750.3	WMAIN-7704(2)	8.4	Passed
125-146	52.6	45.9	1,253.7	1,753.7	WMAIN-7702	6.5	Passed
125-147	52.5	47.9	1,250.0	1,750.0	WMAIN-7702	6.5	Passed
125-148	52.6	45.9	1,254.8	1,754.8	WMAIN-7702	6.2	Passed
125-149	52.5	47.9	1,255.2	1,755.2	WMAIN-5897	5.7	Passed
125-150	52.7	45.8	1,251.1	1,751.1	WMAIN-7707(1)	6.7	Passed
125-151	52.8	44.4	1,254.9	1,754.9	WMAIN-7610(2)	6.4	Passed
125-152	53.1	44.8	1,253.8	1,753.8	WMAIN-7609(1)	6.7	Passed
125-153	52.9	46.3	1,250.9	1,750.9	WMAIN-7609(1)	8.9	Passed
125-154	52.5	45.3	1,252.9	1,752.9	WMAIN-7708(2)	6.4	Passed
125-155	51.8	45	1,252.2	1,752.2	WMAIN-7479(1)(1)	6.1	Passed
125-156	51.3	39.1	1,253.4	1,753.4	WMAIN-7494(2)	11.2	Passed
126-001	52.9	40.4	3,500.0	3,855.1	WMAIN-5938(2)(2)	15	Passed
126-005	53.3	49.7	1,259.0	1,759.0	WMAIN-5938(1)(1)	7.6	Passed
126-006	52.3	49	1,250.5	1,750.5	WMAIN-5897	5.7	Passed
126-007	52.7	48.8	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
126-008	53.2	48.1	1,250.3	1,750.3	WMAIN-1563(1)	9.2	Passed
126-009	53.3	48.7	1,253.3	1,753.3	WMAIN-5897	5.7	Passed
126-010	51.2	46.4	1,250.0	1,750.0	WMAIN-5897	5.7	Passed
126-011	52.3	45.3	1,253.1	1,753.1	WMAIN-1580(2)	6.2	Passed
126-012	52.6	46.4	1,250.5	1,750.5	WMAIN-1578(1)	7.8	Passed
126-013	51.2	46.2	1,252.3	1,752.3	WMAIN-5897	5.7	Passed
126-014	50.7	45.3	1,250.0	1,750.0	WMAIN-1560(2)(2)	7.8	Passed
126-015	50.4	44.7	1,250.8	1,750.8	WMAIN-1560(1)	6.1	Passed
126-016	50.1	42.2	1,250.0	1,750.0	WMAIN-1555(2)(2)	6.6	Passed
126-017	50.4	42.5	1,252.2	1,752.2	WMAIN-1553	6.7	Passed
126-018	50.9	45.5	1,250.1	1,750.1	WMAIN-1533(1)	7.5	Passed
126-019	51.2	45.7	1,252.3	1,752.3	WMAIN-1548(2)	8.8	Passed
126-020	51.5	43.6	1,251.3	1,751.3	WMAIN-1539(1)	11.2	Passed
126-021	51.7	46.1	1,250.0	1,750.0	WMAIN-1570(2)	7	Passed
126-022	52.3	46.4	1,250.8	1,750.8	WMAIN-1620(1)	6.1	Passed
126-023	52.3	45.4	1,251.8	1,751.8	WMAIN-1620(1)	6.5	Passed
126-024	52.3	45.6	1,250.3	1,750.3	WMAIN-0755(1)	7.9	Passed
126-025	52.5	44.5	1,254.4	1,754.4	WMAIN-1620(1)	7.1	Passed
126-026	52.2	45.5	1,254.1	1,754.1	WMAIN-1620(1)	7	Passed
126-027	52.3	45	1,252.1	1,752.1	WMAIN-1620(1)	7.3	Passed
126-028	52.2	47.9	1,250.3	1,750.3	WMAIN-1620(1)	8.5	Passed
126-029	50.8	45.5	1,253.1	1,753.1	WMAIN-1572(1)	8.9	Passed
126-030	53.1	45.9	1,250.6	1,750.6	WMAIN-0751(1)	11.2	Passed
126-031	52.9	44.5	1,251.1	1,751.1	WMAIN-0746(2)	7.3	Passed
126-032	53	44	1,253.3	1,753.3	WMAIN-1563(1)	6.5	Passed
126-033	53.2	44.9	1,253.2	1,753.2	WMAIN-0744(1)	6.4	Passed
126-034	52.9	43.4	1,250.0	1,750.0	WMAIN-0732	6.6	Passed
126-035	51.8	42.1	1,255.4	1,755.4	WMAIN-0731(1)	6.3	Passed
126-036	51	43.9	1,250.8	1,750.8	WMAIN-0731(1)	9	Passed
126-037	53.4	46.1	1,250.0	1,750.0	WMAIN-0744(2)(2)	8.2	Passed
126-038	52.1	43.6	3,500.0	4,000.0	WMAIN-3778	10.7	Passed
126-041	52.5	41.6	3,500.7	3,758.1	WMAIN-2665(2)	15	Passed
126-042	50.6	44.7	1,250.3	1,750.3	WMAIN-0492(2)	7.6	Passed
126-043	49.1	38.7	1,252.2	1,752.2	WMAIN-0488	11.2	Passed
126-044	49.5	43	1,251.1	1,751.1	WMAIN-0499(2)	6.5	Passed
126-045	49.9	41.5	1,252.3	1,752.3	WMAIN-0486	6.2	Passed
126-046	50	39.7	1,251.8	1,751.8	WMAIN-0479	11.2	Passed
126-047	49.9	42	1,251.6	1,751.6	WMAIN-0481(1)	7.1	Passed
126-048	51.9	43.9	1,252.4	1,752.4	WMAIN-0261	7.3	Passed
126-049	51.8	45	1,252.2	1,752.2	WMAIN-0298	7.6	Passed
126-050	51.6	43.8	1,254.7	1,754.7	WMAIN-1620(1)	6.7	Passed
126-051	51.7	44.3	1,254.5	1,754.5	WMAIN-0297(1)	6.8	Passed
126-052	51.4	42.4	1,252.7	1,752.7	WMAIN-1620(1)	6.9	Passed
126-053	51.3	42.9	1,252.6	1,752.6	WMAIN-0257(1)	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
126-054	51.3	44.9	1,250.9	1,750.9	WMAIN-0263(1)	6.3	Passed
126-055	51.7	42.9	1,250.0	1,750.0	WMAIN-0250(2)	6.9	Passed
126-056	51.4	42	1,255.8	1,755.8	WMAIN-5897	5.7	Passed
126-057	51.3	42.6	1,250.0	1,750.0	WMAIN-0252(1)(1)	7	Passed
126-058	51.2	43.7	1,252.2	1,752.2	WMAIN-0252(1)(1)	8	Passed
126-059	53.2	43.6	1,250.5	1,750.5	WMAIN-7500(2)	11.2	Passed
126-060	53.2	38.1	1,251.1	1,751.1	WMAIN-7500(2)	11.2	Passed
126-061	52.8	36.8	1,250.3	1,750.3	WMAIN-7500(2)	11.2	Passed
126-062	50.4	35.2	3,500.0	4,000.0	WMAIN-7879(1)	11.3	Passed
127-001	49.6	41.5	1,250.0	1,750.0	WMAIN-7877	5	Passed
134-001	55.1	29.1	3,500.0	4,000.0	WMAIN-0867(2)	11.4	Passed
134-002	55.2	20	5,000.0	4,487.3	WMAIN-0867(2)	12.8	Residual Pressure Failed
134-003	55.5	24.2	3,503.6	4,003.6	WMAIN-0867(2)	11.4	Passed
134-004	56	20	5,000.0	4,107.1	WMAIN-0867(2)	11.7	Residual Pressure Failed
134-027	54.8	34.1	3,500.0	4,000.0	WMAIN-0867(2)	11.4	Passed
134-030	54.1	42.3	3,500.0	4,000.0	WMAIN-0868(2)(2)	8.9	Passed
134-031	54.3	41.8	3,500.0	4,000.0	WMAIN-0867(1)	11.4	Passed
137-001	49.8	41.4	1,250.0	1,750.0	WMAIN-7877	5	Passed
139-001	45.1	44.5	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
139-002	45.1	45	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
145-001	53.9	40.7	3,511.3	4,011.3	WMAIN-3712(2)	11.5	Passed
145-003	54	44.2	2,500.0	3,000.0	WMAIN-3712(2)	8.6	Passed
145-004	54	20	5,000.0	5,122.0	WMAIN-3712(2)	14.7	Passed
145-005	54	47.3	1,250.0	1,750.0	WMAIN-3712(2)	5.1	Passed
145-006	53.8	20	5,000.0	3,961.4	WMAIN-3712(2)	11.4	Residual Pressure Failed
145-007	53.1	20	5,013.4	3,716.6	WMAIN-3712(2)	10.6	Residual Pressure Failed
145-012	53.8	45.3	3,500.0	4,000.0	WMAIN-3712(1)	11.5	Passed
145-013	54.2	49	2,503.7	3,003.7	WMAIN-0349	5.5	Passed
145-014	54.7	52.2	1,250.0	1,750.0	WMAIN-5897	5	Passed
145-015	55.7	53.1	1,250.0	1,750.0	WMAIN-5897	5	Passed
145-016	55.8	53.4	1,250.0	1,750.0	WMAIN-5897	5	Passed
145-017	54	51.2	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
145-018	54.5	38.6	3,505.8	4,005.8	WMAIN-0867(2)	11.4	Passed
145-019	54.7	35.7	3,500.0	4,000.0	WMAIN-0867(2)	11.4	Passed
145-020	54.1	43.8	3,500.0	4,000.0	WMAIN-5897	6	Passed
149-001	46.8	45.3	1,250.0	1,750.0	WMAIN-5897	4.8	Passed
149-002	46.7	45.2	1,250.0	1,750.0	WMAIN-4407	4.8	Passed
150-001	45.3	38.9	3,502.8	4,002.8	WMAIN-0467(1)(1)	6.7	Passed
150-002	45.6	43.6	1,250.0	1,750.0	WMAIN-5897	4.8	Passed
150-003	46	44	1,250.7	1,750.7	WMAIN-5897	4.8	Passed
150-004	46.1	44	1,250.0	1,750.0	WMAIN-5897	4.8	Passed
150-005	45.9	43.7	1,250.6	1,750.6	WMAIN-5897	4.8	Passed
150-006	46.4	44.2	1,250.1	1,750.1	WMAIN-5897	4.8	Passed
150-007	46.5	44.5	1,250.0	1,750.0	WMAIN-4407	4.8	Passed
150-008	45.9	44.3	1,250.0	1,750.0	WMAIN-4407	5	Passed
150-009	44.5	43.5	1,250.0	1,750.0	WMAIN-0471(2)	5.7	Passed
156-001	53.9	48.2	1,250.0	1,750.0	WMAIN-1071	6.6	Passed
156-002	56.5	45.9	3,500.0	4,000.0	WMAIN-1071	13.3	Passed
156-003	56.5	45.8	3,500.0	4,000.0	WMAIN-1071	13.5	Passed
156-004	56.5	46.2	3,500.0	4,000.0	WMAIN-1071	13.9	Passed
156-005	56.5	44.6	3,500.0	4,000.0	WMAIN-1071	13.8	Passed
156-006	56.5	44.5	3,500.0	4,000.0	WMAIN-1071	14	Passed
156-007	56.5	44.4	3,503.9	4,003.9	WMAIN-1071	14.3	Passed
156-008	55.9	42	3,500.0	2,350.1	WMAIN-7917(1)(2)	15	Velocity Failed
156-009	56.1	46.6	3,500.0	2,350.1	WMAIN-7917(1)(1)	15	Velocity Failed
156-010	54.3	35.9	3,500.0	3,753.5	WMAIN-7920(2)	15	Passed
156-011	56.5	46.4	3,500.0	3,984.7	WMAIN-1071	15	Passed
156-012	54.4	38	3,507.0	3,968.3	WMAIN-1071	15	Passed
156-013	54.2	32.3	3,500.0	3,959.4	WMAIN-1071	15	Passed
156-014	54.2	34.2	3,500.6	3,886.7	WMAIN-7923(2)	15	Passed
156-015	54.6	45.3	3,500.0	3,209.3	WMAIN-7925(2)(2)	15	Velocity Failed
156-016	54.3	44.4	3,500.6	2,350.1	WMAIN-7919(1)	15	Velocity Failed
156-017	54.4	39	3,500.0	2,349.5	WMAIN-7919(1)	15	Velocity Failed
156-018	55	37.9	3,500.0	2,349.5	WMAIN-7922(1)	15	Velocity Failed
156-019	55.7	46.6	3,500.6	2,350.1	WMAIN-7922(1)	15	Velocity Failed
156-020	56.4	46.8	3,500.0	3,837.0	WMAIN-1071	15	Passed
156-021	56.5	46.2	3,500.0	4,000.0	WMAIN-1071	14.3	Passed
156-022	54.1	48.9	1,250.0	1,750.0	WMAIN-1071	6.6	Passed
156-023	56.1	51.5	1,250.0	1,750.0	WMAIN-1071	6.6	Passed
156-024	56.5	41.2	3,500.0	4,000.0	WMAIN-1071	14.6	Passed
156-025	56.5	43.7	3,500.0	4,000.0	WMAIN-1071	14.6	Passed
156-026	56.5	45.8	3,500.0	4,000.0	WMAIN-1071	14.6	Passed
156-029	56.5	46.4	3,500.0	4,000.0	WMAIN-1071	14.8	Passed
156-030	56.5	46.6	3,500.0	3,938.8	WMAIN-1071	15	Passed
156-031	56.5	47.4	3,500.0	3,856.2	WMAIN-1071	15	Passed
156-032	56.3	48.8	3,500.0	3,637.5	WMAIN-1071	15	Passed
156-033	54.6	48.4	3,500.0	3,409.1	WMAIN-1071	15	Velocity Failed
156-034	56.6	44.3	3,500.0	4,000.0	WMAIN-1071	13.2	Passed
156-035	56.6	42	3,500.0	4,000.0	WMAIN-1071	13.3	Passed
156-036	56.6	41.7	3,500.0	4,000.0	WMAIN-1071	13.4	Passed
156-037	56.6	42.7	3,500.0	4,000.0	WMAIN-1071	13.4	Passed
156-038	56.6	43	3,500.0	4,000.0	WMAIN-1071	13.5	Passed
156-039	56.5	42.1	3,516.4	4,016.4	WMAIN-1071	13.4	Passed
156-040	56.4	44.9	3,500.0	2,350.1	WMAIN-7837	15	Velocity Failed
156-041	51.6	39	5,001.3	5,501.3	WMAIN-0690(2)	10.6	Passed
156-042	52.6	50.3	1,250.0	1,750.0	WMAIN-5897	5	Passed
156-043	54.1	48.6	2,504.1	3,004.1	WMAIN-5897	5.2	Passed
156-044	53.7	45.3	3,500.0	4,000.0	WMAIN-0308	6.5	Passed
156-046	56.5	46.5	3,500.0	4,000.0	WMAIN-1071	12.7	Passed
161-001	44.3	37.5	3,500.0	3,672.0	WMAIN-3226	15	Passed
167-001	56	49.2	1,250.0	1,750.0	WMAIN-2347(2)	11.2	Passed
167-002	56	53.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-003	55.6	52.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-004	56.2	52.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-005	56.4	53.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-006	58	54.9	1,251.6	1,751.6	WMAIN-5897	4.9	Passed
167-007	58.6	55.1	1,250.7	1,750.7	WMAIN-4236(2)	8	Passed
167-008	58.5	55.3	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
167-009	57.2	47.9	1,252.1	1,752.1	WMAIN-4266(2)	11.2	Passed
167-010	57.2	54.1	1,251.4	1,750.9	WMAIN-5897	4.9	Passed
167-011	56.8	53.5	1,252.0	1,751.5	WMAIN-5897	4.9	Passed
167-012	56.2	52.4	1,251.3	1,751.3	WMAIN-3834(2)	8.2	Passed
167-013	56.4	51.3	1,252.3	1,751.8	WMAIN-3843(1)	9	Passed
167-014	58.3	53.6	1,251.3	1,751.3	WMAIN-4245(2)	11.2	Passed
167-015	58.6	50.9	1,252.8	1,752.8	WMAIN-4252	6.8	Passed
167-016	58.6	50.8	1,250.0	1,750.0	WMAIN-4241(1)	6.5	Passed
167-017	58.4	52.5	1,253.1	1,752.6	WMAIN-4241(1)	8.5	Passed
167-018	58.1	51.3	1,250.9	1,750.4	WMAIN-4263(1)	11.2	Passed
167-019	56.3	51.1	1,255.4	1,755.4	WMAIN-3851(1)	6.5	Passed
167-020	56	52	1,250.0	1,750.0	WMAIN-3829(2)(2)	8.5	Passed
167-021	55.8	50.8	1,254.1	1,754.1	WMAIN-3829(1)	6	Passed
167-022	56.1	51.7	1,251.8	1,751.8	WMAIN-3847(1)	7.7	Passed
167-023	56.7	51.6	1,250.7	1,750.7	WMAIN-3837(2)	6.4	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
167-024	56.4	51.5	1,254.2	1,754.2	WMAIN-3844(1)	5.6	Passed
167-025	55.7	43.8	3,503.9	4,003.9	WMAIN-1071	10.4	Passed
167-026	56.2	53.1	1,250.5	1,750.5	WMAIN-5897	4.9	Passed
167-027	56.4	53.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-028	56.4	53.6	1,250.6	1,750.6	WMAIN-5897	4.9	Passed
167-029	56.6	52.8	1,251.1	1,750.6	WMAIN-6221(2)	7.8	Passed
167-030	57.2	53.9	1,253.1	1,752.6	WMAIN-5897	4.9	Passed
167-031	57	54	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-032	56.6	53.3	1,251.9	1,751.9	WMAIN-5897	4.9	Passed
167-033	56.5	51.4	1,250.9	1,750.4	WMAIN-6217	6	Passed
167-034	56.3	50.1	1,250.7	1,750.7	WMAIN-3581(2)	7.3	Passed
167-035	56.3	49.4	1,255.5	1,755.0	WMAIN-6227(1)	5.7	Passed
167-036	56.4	50.8	1,251.4	1,750.9	WMAIN-6227(1)	7.8	Passed
167-037	56.5	51.1	1,252.0	1,751.5	WMAIN-3580	6.1	Passed
167-038	57.9	52.7	1,251.4	1,751.4	WMAIN-6146(2)	8.9	Passed
167-039	56.6	49.8	1,250.0	1,749.5	WMAIN-3843(1)	6.9	Passed
167-040	58	54.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-041	57.1	53.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-042	56.7	52.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-043	57.6	53.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-044	57.8	53.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-045	57.6	52.5	1,250.0	1,750.0	WMAIN-1846(1)	5	Passed
167-046	57.8	52.1	1,251.4	1,751.4	WMAIN-1896(2)	6.6	Passed
167-047	58	52.8	1,251.4	1,751.4	WMAIN-1879(1)	7.2	Passed
167-048	57.6	52.2	1,250.8	1,750.8	WMAIN-1892(1)	6.3	Passed
167-049	57.7	51	1,251.1	1,751.1	WMAIN-1835(1)	7.2	Passed
167-050	58	53.3	1,250.2	1,750.2	WMAIN-1829(2)	8	Passed
167-051	58.1	53.3	1,251.4	1,751.4	WMAIN-1871(2)	5.9	Passed
167-052	58.4	53.9	1,251.8	1,751.8	WMAIN-1856(1)	7.2	Passed
167-053	58.3	51.7	1,252.7	1,752.7	WMAIN-1853	6	Passed
167-054	57.9	51.7	1,252.5	1,752.5	WMAIN-0683(2)	7	Passed
167-055	57.6	52.1	1,252.0	1,752.0	WMAIN-1810(1)	5.8	Passed
167-056	57.9	53.8	1,251.1	1,751.1	WMAIN-1884(2)	8.3	Passed
167-057	57.7	53.7	1,251.0	1,750.5	WMAIN-0681(2)	8.9	Passed
167-058	57.8	53.1	1,253.6	1,753.6	WMAIN-1826(1)	8.1	Passed
167-059	57.7	50.9	1,255.1	1,755.1	WMAIN-1820	5.8	Passed
167-060	58.3	53.1	1,250.7	1,750.7	WMAIN-1816(2)	8.5	Passed
167-061	57.4	51.5	1,251.9	1,751.9	WMAIN-1815(1)	11.2	Passed
167-063	57.5	53.8	1,252.7	1,752.7	WMAIN-7510(1)	9	Passed
167-064	56.5	52.1	1,252.4	1,752.4	WMAIN-1336(1)	7.6	Passed
167-065	56.6	51.9	1,251.3	1,751.3	WMAIN-1344(1)	7.1	Passed
167-066	57.8	51.7	1,250.7	1,750.7	WMAIN-1862	6	Passed
167-067	56.8	52.5	1,250.1	1,750.1	WMAIN-1071	5.2	Passed
167-068	56.6	53.3	1,250.0	1,750.0	WMAIN-1071	5.2	Passed
167-069	56.2	53.3	1,250.8	1,750.8	WMAIN-1071	5.5	Passed
167-070	56.4	53.3	1,250.0	1,750.0	WMAIN-1071	5.4	Passed
167-071	56.3	44.7	3,500.0	4,000.0	WMAIN-1071	11	Passed
167-072	56	44	3,500.0	4,000.0	WMAIN-1071	10.7	Passed
167-073	57.7	52.8	1,252.4	1,752.4	WMAIN-7509(2)	8	Passed
167-074	58	49.1	1,252.3	1,752.3	WMAIN-7511(2)	11.2	Passed
167-075	58	54.4	1,251.7	1,751.7	WMAIN-1071	5	Passed
167-076	56.8	52.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-077	57	53.1	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-078	56.7	49.5	1,250.5	1,750.5	WMAIN-8006(2)	6.8	Passed
167-079	57	52.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-080	56.7	52.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-081	55.6	49.7	1,250.0	1,750.0	WMAIN-8003(2)	7	Passed
167-082	56.9	52.3	1,253.0	1,753.0	WMAIN-5897	4.9	Passed
167-083	56.7	49.4	1,252.6	1,752.6	WMAIN-8007(1)	6.6	Passed
167-084	57	52.3	1,250.6	1,750.6	WMAIN-5897	4.9	Passed
167-085	57.1	52.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-086	57.2	52.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
167-087	56.9	51.5	1,250.5	1,750.5	WMAIN-7994(2)	7.3	Passed
167-088	57.1	49.9	1,251.0	1,751.0	WMAIN-7964(2)	6.6	Passed
167-089	57.3	50.3	1,250.0	1,750.0	WMAIN-8002	7.1	Passed
167-090	57.3	51.6	1,250.0	1,750.0	WMAIN-7990(1)	6.2	Passed
167-091	56.7	49.9	1,250.6	1,750.6	WMAIN-7996	6.1	Passed
167-092	57	50.5	1,250.0	1,750.0	WMAIN-7974(1)	7.2	Passed
167-093	57.2	49.5	1,250.0	1,750.0	WMAIN-7969(1)	6.7	Passed
167-094	57.3	49.4	1,250.0	1,750.0	WMAIN-7986	7	Passed
167-095	56.7	47.2	1,250.0	1,750.0	WMAIN-7984(2)	7.4	Passed
167-096	56.8	47.9	1,250.0	1,750.0	WMAIN-7980	6	Passed
167-097	57	49.1	1,250.0	1,750.0	WMAIN-7982(2)	6.2	Passed
167-098	57.1	49.6	1,250.0	1,750.0	WMAIN-7972(1)	7.4	Passed
167-099	56.9	48.8	1,250.0	1,750.0	WMAIN-7977(2)	6.3	Passed
167-100	56.7	46.6	1,250.0	1,750.0	WMAIN-7968	6.6	Passed
168-001	54.6	51.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-002	54.6	51.8	1,250.8	1,750.8	WMAIN-5897	4.9	Passed
168-003	54.5	52	1,251.3	1,751.3	WMAIN-5897	4.9	Passed
168-004	54.3	52	1,252.0	1,752.0	WMAIN-5897	4.9	Passed
168-005	54.7	52.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-006	54.7	52.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-007	54	51.5	1,252.1	1,752.1	WMAIN-5897	4.9	Passed
168-008	52.7	50.3	1,251.5	1,751.5	WMAIN-5897	4.9	Passed
168-009	52.4	45.4	3,500.0	4,000.0	WMAIN-4221(2)	8.5	Passed
168-010	55.9	53.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-011	55.6	53	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-012	55.2	52.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-013	54.9	52.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-014	55.1	52.3	1,250.3	1,750.3	WMAIN-2313(1)	6.9	Passed
168-015	54.9	51.7	1,250.5	1,750.5	WMAIN-2315(1)	6.3	Passed
168-016	54.7	50.5	1,252.4	1,752.4	WMAIN-2565(2)	6.3	Passed
168-017	54.6	51.6	1,253.8	1,753.8	WMAIN-2554(1)	8.4	Passed
168-018	54.6	51.6	1,250.0	1,750.0	WMAIN-2554(2)(2)	8.5	Passed
168-019	54.6	50.2	1,253.8	1,753.8	WMAIN-2557(1)	5.7	Passed
168-020	54.8	49.2	1,250.0	1,750.0	WMAIN-2563(2)	7.6	Passed
168-021	55.2	48.2	1,255.2	1,755.2	P-85	5.9	Passed
168-022	55.1	48.7	1,255.0	1,755.0	WMAIN-2559(2)	7.1	Passed
168-023	54.8	51.6	1,250.7	1,750.7	WMAIN-2303(2)	7.3	Passed
168-024	54.5	49.4	1,254.0	1,754.0	WMAIN-2295	6.1	Passed
168-025	54.7	51.5	1,251.4	1,751.4	WMAIN-2288(2)	6.5	Passed
168-026	54.8	51.5	1,250.0	1,750.0	WMAIN-2296(2)(2)	7	Passed
168-027	55.1	51.3	1,250.9	1,750.9	WMAIN-2317(1)	6.5	Passed
168-028	55.2	51.8	1,253.0	1,753.0	WMAIN-2322(2)	7.6	Passed
168-029	54.8	51.1	1,251.8	1,751.8	WMAIN-2566(2)	6.5	Passed
168-030	54.9	50.2	1,252.1	1,752.1	WMAIN-2338(2)	7.8	Passed
168-031	55.3	48.4	1,252.5	1,752.5	WMAIN-2546(2)	6.3	Passed
168-032	55.7	49.6	1,251.7	1,751.7	WMAIN-2333(1)	7.4	Passed
168-033	55.8	52	1,250.6	1,750.6	WMAIN-2342(1)	7.5	Passed
168-034	55.3	50	1,251.3	1,751.3	WMAIN-2340(1)	6.6	Passed
168-035	55.4	52.5	1,250.6	1,750.6	WMAIN-2327(1)	6.7	Passed
168-036	55.2	51.2	1,253.5	1,753.5	WMAIN-2542(1)	5.9	Passed
168-037	53	49.6	1,250.0	1,750.0	WMAIN-7532	8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
168-038	54.4	52.7	1,250.4	1,750.4	WMAIN-5897	4.9	Passed
168-039	54.8	50	1,251.5	1,751.1	WMAIN-0020(1)	9	Passed
168-040	55	47.7	1,252.5	1,752.0	WMAIN-0033	6.7	Passed
168-041	54.9	47.5	1,251.4	1,750.9	WMAIN-0033	6.5	Passed
168-042	54.7	48.1	1,251.8	1,751.8	WMAIN-0013	7.2	Passed
168-043	54.5	49.8	1,251.1	1,751.1	WMAIN-0028	6	Passed
168-044	54.4	48.5	1,254.0	1,754.0	WMAIN-0033	6.3	Passed
168-045	54.7	48.9	1,250.0	1,750.0	WMAIN-0033	6.7	Passed
168-046	54.2	51.7	1,254.1	1,754.1	WMAIN-5897	4.9	Passed
168-047	54.2	51.6	1,250.2	1,750.2	WMAIN-0039(2)	5	Passed
168-048	54.1	51.4	1,255.8	1,755.8	WMAIN-5897	4.9	Passed
168-049	54.7	51.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-050	54.7	50.9	1,250.7	1,750.7	WMAIN-7464(2)	7.2	Passed
168-051	54.7	50.7	1,251.2	1,751.2	WMAIN-7547	6.6	Passed
168-052	54.5	50.2	1,252.4	1,752.4	WMAIN-7468(1)	6.3	Passed
168-053	54.2	48	1,254.3	1,754.3	WMAIN-7467(2)	7.4	Passed
168-054	54.1	47	1,250.8	1,750.8	WMAIN-7467(2)	5.7	Passed
168-055	54.2	48.1	1,254.0	1,754.0	WMAIN-7465(1)	7.6	Passed
168-056	54.3	51.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-057	54.4	51.9	1,251.3	1,751.3	WMAIN-5897	4.9	Passed
168-058	54.6	50.7	1,253.0	1,753.0	WMAIN-7549(1)(1)	8.8	Passed
168-059	53.8	48.3	1,250.0	1,750.0	WMAIN-7549(1)(1)	5.8	Passed
168-060	52.7	45.1	3,500.0	4,000.0	WMAIN-7639	7.8	Passed
168-061	54.3	49.3	1,253.4	1,753.4	WMAIN-7548(1)	5.9	Passed
168-062	54.2	49.3	1,251.3	1,751.3	WMAIN-7550(1)	6.3	Passed
168-063	53.5	51	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-064	54.7	50.7	1,250.3	1,750.3	WMAIN-7552(1)	5.9	Passed
168-065	53.8	51.1	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-066	53.6	50.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-067	54	42.5	1,250.0	1,750.0	WMAIN-8165(2)(2)	11.2	Passed
168-068	54.6	49	1,250.0	1,750.0	WMAIN-8165(2)(2)	11.2	Passed
168-069	54.7	50.3	1,252.1	1,752.1	WMAIN-8175(1)	11.2	Passed
168-070	54.7	44.2	1,250.0	1,750.0	WMAIN-8175(1)	11.2	Passed
168-071	54.5	51.6	1,251.9	1,751.9	WMAIN-5897	4.9	Passed
168-072	54.2	48	1,254.6	1,754.6	WMAIN-7471	6.5	Passed
168-073	54.4	49.8	1,251.2	1,751.2	WMAIN-7471	7.5	Passed
168-074	54.1	46.6	1,251.1	1,751.1	WMAIN-7602(1)	11.2	Passed
168-075	54.3	50.8	1,250.8	1,750.8	WMAIN-0039(2)	5	Passed
168-076	54.1	46.6	1,251.5	1,751.5	WMAIN-7603	6.6	Passed
168-077	54.2	49.8	1,252.0	1,752.0	WMAIN-0039(2)	5	Passed
168-078	53.9	46.7	1,253.3	1,753.3	WMAIN-7594(1)	6.8	Passed
168-079	54.4	50.2	1,252.8	1,752.8	WMAIN-8171(2)	5.8	Passed
168-080	54.2	49.7	1,251.1	1,751.1	WMAIN-8172	6.5	Passed
168-081	53.8	44.6	1,250.0	1,750.0	WMAIN-8174(2)	11.2	Passed
168-082	53.4	50.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-083	53.8	51	1,250.3	1,750.3	WMAIN-5897	4.9	Passed
168-084	54	51.1	1,253.5	1,753.5	WMAIN-5897	4.9	Passed
168-085	53.7	48	1,251.6	1,751.6	WMAIN-7597(1)	6.5	Passed
168-086	53.5	43.9	1,250.0	1,750.0	WMAIN-8168(1)	11.2	Passed
168-087	53.3	49.6	1,253.2	1,753.2	WMAIN-8168(1)	11.2	Passed
168-088	53	49.6	1,251.0	1,751.0	WMAIN-5897	4.9	Passed
168-089	52.7	49	1,250.7	1,750.7	WMAIN-5897	4.9	Passed
168-090	52.8	48.6	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-091	53	48.1	1,250.8	1,750.8	WMAIN-7595(2)	7	Passed
168-092	53.2	46.7	1,252.2	1,752.2	WMAIN-7596(1)	6.5	Passed
168-093	53.4	46.9	1,251.1	1,751.1	WMAIN-7592(2)	6.6	Passed
168-094	52.8	47.4	1,251.9	1,751.9	WMAIN-7588	5	Passed
168-095	52.6	50.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-096	53	50.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-097	54.5	51	1,251.0	1,751.0	WMAIN-8154(1)	7.5	Passed
168-098	54.7	51	1,253.9	1,753.9	WMAIN-8151(1)	5.9	Passed
168-099	54.4	50.5	1,250.8	1,750.8	WMAIN-8155(2)	6.6	Passed
168-100	54.5	51.5	1,250.0	1,750.0	WMAIN-8148(1)	6.1	Passed
168-101	54.7	50.9	1,252.4	1,752.4	WMAIN-8150(1)	5.7	Passed
168-102	54.8	51.8	1,250.0	1,750.0	WMAIN-8144(1)	6.3	Passed
168-103	54.9	51.4	1,250.5	1,750.5	WMAIN-7767	5.9	Passed
168-104	54.8	52.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-105	54.6	52.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
168-106	54.4	51.3	1,251.0	1,751.0	WMAIN-8156(1)	8.1	Passed
168-107	54.6	51.4	1,250.0	1,750.0	WMAIN-8149(1)	7	Passed
168-108	54.7	51.6	1,250.0	1,750.0	WMAIN-8152(1)	7	Passed
168-109	54.9	51.1	1,251.9	1,751.9	WMAIN-7765(1)	6.2	Passed
168-110	55	51.5	1,250.2	1,750.2	WMAIN-7782(2)	5.8	Passed
168-111	55	50.7	1,250.0	1,750.0	WMAIN-7764(2)	7	Passed
168-112	54.9	51.4	1,251.3	1,751.3	WMAIN-7769(2)	5.8	Passed
168-113	54.7	51.2	1,253.2	1,753.2	WMAIN-7773(1)	8.1	Passed
168-114	54.5	50.9	1,250.0	1,750.0	WMAIN-8153(1)	6.9	Passed
168-115	54.5	50.2	1,250.0	1,750.0	WMAIN-7774	6.2	Passed
168-116	54.6	51.3	1,251.1	1,751.1	WMAIN-7776(2)	7.3	Passed
168-117	54.5	51.4	1,254.2	1,754.2	WMAIN-7780(1)	8.8	Passed
168-118	54.6	50.5	1,254.5	1,754.5	WMAIN-7764(1)(1)	7.1	Passed
168-119	54.6	51.1	1,250.9	1,750.9	WMAIN-7777(1)	6.4	Passed
168-120	54.6	50.1	1,250.0	1,750.0	WMAIN-7779	6.1	Passed
169-001	52.6	50.1	1,250.5	1,750.5	WMAIN-0058(1)	9.4	Passed
169-002	53.7	51.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-003	53.3	50.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-004	52.6	50.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-005	52.2	49.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-006	51.1	48.5	1,250.0	1,750.0	WMAIN-5897	4.8	Passed
169-007	51	48.4	1,250.4	1,750.4	WMAIN-5897	4.8	Passed
169-008	50.9	48.4	1,250.0	1,750.0	WMAIN-5897	4.8	Passed
169-009	50.8	48.4	1,250.0	1,750.0	WMAIN-3760	4.8	Passed
169-010	53.2	50.8	1,250.4	1,750.4	WMAIN-5897	4.9	Passed
169-011	52.9	45.5	3,500.0	4,000.0	WMAIN-0699(2)(2)	7.8	Passed
169-012A	54.4	49.5	1,250.0	1,750.0	WMAIN-3113(2)	6.8	Passed
169-012B	54	50.3	1,250.0	1,750.0	WMAIN-3125(2)	7.8	Passed
169-014	54.5	34.2	3,516.9	4,016.9	WMAIN-3113(1)(1)	14.9	Passed
169-015	53.4	50.5	1,250.3	1,750.3	WMAIN-3128(1)	7.4	Passed
169-016	52.4	50.1	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-017	53.1	50.7	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-018	53.2	50.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-019	54	50	1,252.0	1,752.0	WMAIN-3097(1)	8.8	Passed
169-020	54	47.2	1,252.0	1,752.0	WMAIN-3094(2)	11.2	Passed
169-021	53.7	45.9	1,250.0	1,750.0	WMAIN-3093(2)(2)	7.5	Passed
169-022	52.6	44.1	1,255.8	1,755.8	WMAIN-3119(1)	6.5	Passed
169-023	52.7	43.9	1,252.0	1,752.0	WMAIN-3086(2)	11.2	Passed
169-024	53.2	47.6	1,251.2	1,751.2	WMAIN-3119(1)	7	Passed
169-025	53.8	49.2	1,252.3	1,752.3	WMAIN-3104	5.9	Passed
169-026	53.9	50.3	1,253.2	1,753.2	WMAIN-3111(2)	6.9	Passed
169-027	52.9	50.6	1,250.9	1,750.9	WMAIN-5897	4.9	Passed
169-028	52.7	50.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-029	52.5	47.3	1,250.0	1,750.0	WMAIN-3055(2)(2)	8.2	Passed
169-030	51.8	44.1	1,252.5	1,752.5	WMAIN-3044	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
169-031	50.7	42.3	1,251.3	1,751.3	WMAIN-3046	6.9	Passed
169-032	51.1	43	1,251.9	1,751.9	WMAIN-3046	6.7	Passed
169-033	52.7	47.1	1,253.6	1,753.6	WMAIN-3055(1)	7.3	Passed
169-034	52.8	48.4	1,254.0	1,754.0	WMAIN-3060(2)	7.7	Passed
169-035	52.8	50.6	1,250.2	1,750.2	WMAIN-5897	4.9	Passed
169-036	52.8	49.9	1,250.9	1,750.9	WMAIN-3108(1)	6.9	Passed
169-037	52.9	49.2	1,251.8	1,751.8	WMAIN-3063(1)	6.2	Passed
169-038	53.1	49.9	1,250.3	1,750.3	WMAIN-3048(1)	11.2	Passed
169-042	52.7	48.4	1,250.0	1,750.0	WMAIN-7532	6.5	Passed
169-043	52.5	33.5	3,500.0	4,000.0	WMAIN-7535	13.6	Passed
169-044	52.5	35.6	3,500.0	4,000.0	WMAIN-0907(1)	14.9	Passed
169-045	52.5	37.6	3,500.0	3,748.1	WMAIN-0911(1)	15	Passed
169-046	52.4	36	3,500.0	3,893.5	WMAIN-0913(1)	15	Passed
169-047	52.5	36	3,500.6	4,000.6	WMAIN-0921(2)	13.7	Passed
169-048	52.6	38	3,500.0	3,455.3	WMAIN-0918(1)	15	Velocity Failed
169-049	53.1	30.4	3,502.2	4,002.2	WMAIN-0918(2)	13.1	Passed
169-050	53.3	35.6	3,500.0	3,689.0	WMAIN-0915(2)	15	Passed
169-051	52.9	36.6	3,500.0	3,926.8	WMAIN-0934	15	Passed
169-052	52.6	36.2	3,500.0	4,000.0	WMAIN-0923(2)	14	Passed
169-053	52.4	39.6	3,500.0	4,000.0	WMAIN-1316(2)	13.2	Passed
169-054	52.5	42.3	3,501.2	3,255.7	WMAIN-1312(1)	15	Velocity Failed
169-055	52.5	35.1	3,500.0	4,000.0	WMAIN-1312(1)	13.3	Passed
169-056	52.5	41.4	3,500.0	3,357.2	WMAIN-1312(2)(2)(2)	15	Velocity Failed
169-057	52.6	38.5	3,500.0	3,520.5	WMAIN-1261(2)	15	Passed
169-058	52.6	32.7	3,500.0	4,000.0	WMAIN-1261(2)	13	Passed
169-059	52.9	34	3,505.8	4,005.8	WMAIN-0906(1)	14.3	Passed
169-060	53.2	35	3,500.0	3,711.4	WMAIN-0941(1)	15	Passed
169-061	53.4	30.7	3,500.0	4,000.0	WMAIN-0937	13.1	Passed
169-062	53.4	37.9	3,500.0	3,501.8	WMAIN-0937	15	Passed
169-063	52.6	32	3,500.0	3,732.1	WMAIN-1272(2)(2)	15	Passed
169-064	53	42.4	3,500.0	3,112.2	WMAIN-1272(2)(2)	15	Velocity Failed
169-065	52.7	36.1	3,500.0	4,000.0	WMAIN-1267(1)	13	Passed
169-067	52.8	39.9	3,500.0	3,244.9	WMAIN-1278(2)	15	Velocity Failed
169-068	52.8	32.6	3,500.0	3,700.5	WMAIN-1279	15	Passed
169-069	52.4	25.9	3,500.0	4,000.0	WMAIN-1273	13.2	Passed
169-070	52.7	46.5	2,500.0	3,000.0	WMAIN-1280	6.5	Passed
169-071	52.7	43.2	2,500.0	2,345.9	WMAIN-1288(1)	15	Velocity Failed
169-072	52.7	38.9	3,500.0	4,000.0	WMAIN-1284(1)	12.8	Passed
169-073	52.6	40.3	2,500.0	3,000.0	WMAIN-1286	11.3	Passed
169-075	52.5	31.3	3,500.0	4,000.0	WMAIN-1297	13.7	Passed
169-076	52.5	33.7	3,501.1	3,866.1	WMAIN-1297	15	Passed
169-077	52.5	34.7	3,500.4	3,778.8	WMAIN-1297	15	Passed
169-078	52.4	36.7	3,500.0	4,000.0	WMAIN-1309(2)	13.6	Passed
169-079	52.4	34.4	3,500.0	4,000.0	WMAIN-1305(1)	14.1	Passed
169-080	52.4	38.7	3,500.0	3,608.8	WMAIN-1303(1)	15	Passed
169-081	52.4	49.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-082	51.5	48.9	1,250.0	1,750.0	WMAIN-5897	4.8	Passed
169-083	51.3	49	1,250.0	1,750.0	WMAIN-3760	4.9	Passed
169-084	50.8	47.2	1,250.2	1,750.2	WMAIN-0724(2)	11.2	Passed
169-085	50.9	40.3	1,251.2	1,751.2	WMAIN-0724(2)	11.2	Passed
169-088	53.5	49.9	1,251.2	1,751.2	WMAIN-0085(1)	9.6	Passed
169-089	53	49.4	1,250.4	1,750.4	WMAIN-0058(1)	5.7	Passed
169-090	53.5	48.6	1,253.3	1,753.3	WMAIN-0078(1)	6.1	Passed
169-091	53.4	49.3	1,252.0	1,752.0	WMAIN-0075(2)	7.8	Passed
169-092	53.4	49.4	1,250.3	1,750.3	WMAIN-0090(2)	5.8	Passed
169-093	53.5	48.7	1,254.6	1,754.6	WMAIN-0092(2)	5.8	Passed
169-094	53.3	45.8	1,250.3	1,750.3	WMAIN-0063	11.2	Passed
169-095	53.5	47.4	1,250.0	1,750.0	WMAIN-0065	5.7	Passed
169-096	53.5	48.1	1,254.0	1,754.0	WMAIN-0085(1)	7.2	Passed
169-097	53.4	48.7	1,251.0	1,751.0	WMAIN-7828(1)	7	Passed
169-098	53.6	47.3	1,250.8	1,750.8	WMAIN-7825(1)	11.2	Passed
169-099	53.4	48.1	1,250.5	1,750.5	WMAIN-7823(1)	11.2	Passed
169-100	53.3	50.5	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
169-101	53.2	49.2	1,251.4	1,751.4	WMAIN-7629(2)	5.6	Passed
169-102	53	50	1,250.0	1,750.0	WMAIN-7634(2)	5	Passed
169-103	53	48.9	1,251.0	1,751.0	WMAIN-7628(1)	7.9	Passed
169-104	53.1	48.6	1,252.1	1,752.1	WMAIN-7626(2)	6.6	Passed
169-105	52.9	47.8	1,250.2	1,750.2	WMAIN-7618(2)	8.4	Passed
169-106	52.8	45.8	1,250.5	1,750.5	WMAIN-7618(2)	6.5	Passed
169-107	52.6	45.3	1,253.4	1,753.4	WMAIN-7618(2)	5.7	Passed
169-108	52.7	45.6	1,250.6	1,750.6	WMAIN-7623(2)	11.2	Passed
169-109	52.7	47.7	1,251.3	1,751.3	WMAIN-7635	5.9	Passed
169-110	52.6	48.9	1,250.0	1,750.0	WMAIN-7634(2)	5	Passed
169-111	52.5	44.1	3,500.0	4,000.0	WMAIN-0699(2)(2)	6.2	Passed
169-112	52.7	44.3	3,500.0	4,000.0	WMAIN-0699(1)(1)	6.7	Passed
169-114	52.8	43.3	3,500.0	3,049.5	WMAIN-0927(2)(2)	15	Velocity Failed
169-115	52.8	33.5	3,500.0	4,000.0	WMAIN-0927(2)(2)	14.9	Passed
169-116	52.8	35.2	3,500.0	3,842.8	WMAIN-0933	15	Passed
170-001	49.3	47	1,251.0	1,751.0	WMAIN-4073(1)	8	Passed
170-002	49.9	47.2	1,251.2	1,751.2	WMAIN-4100(2)	7.7	Passed
170-003	50	47	1,252.3	1,752.3	WMAIN-4102(2)	7.9	Passed
170-004	49.9	47.2	1,251.2	1,751.2	WMAIN-4125(1)	7.2	Passed
170-005	49.8	47	1,250.7	1,750.7	WMAIN-4110(1)	6.4	Passed
170-006	49.7	46.8	1,251.7	1,751.7	WMAIN-4130(1)	6.9	Passed
170-007	49.8	45.9	1,252.2	1,752.2	WMAIN-4154(1)	5.7	Passed
170-008	49.9	47.4	1,251.8	1,751.8	WMAIN-4154(1)	8.9	Passed
170-009	50.1	48.1	1,251.1	1,751.1	WMAIN-3760	5.1	Passed
170-010	50	46.2	1,254.2	1,754.2	WMAIN-4156(1)	5.8	Passed
170-011	50.3	47.9	1,255.9	1,755.9	WMAIN-4096(1)(1)	9.3	Passed
170-012	50.5	46.5	1,250.0	1,750.0	WMAIN-4096(1)(1)	6.1	Passed
170-013	51	47.8	1,250.0	1,750.0	WMAIN-4096(2)(2)	7.8	Passed
170-014	51.2	48.5	1,250.6	1,750.6	WMAIN-4082(1)	6	Passed
170-015	51.1	47.6	1,252.5	1,752.5	WMAIN-4086(1)	5.9	Passed
170-016	50.3	47.9	1,251.0	1,751.0	WMAIN-4068(1)	8.3	Passed
170-017	51	48.6	1,251.1	1,751.1	WMAIN-4079(1)	7.9	Passed
170-018	50.6	48.3	1,252.1	1,752.1	WMAIN-3760	5	Passed
170-019	50.2	48	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
170-020	49.7	47.1	1,254.3	1,754.3	WMAIN-4149(1)(1)	8.6	Passed
170-021	49.6	45.9	1,250.0	1,750.0	WMAIN-4149(1)(1)	5.7	Passed
170-022	49.5	46.7	1,251.3	1,751.3	WMAIN-4123(1)	6.3	Passed
170-023	49.1	46.8	1,256.2	1,756.2	WMAIN-7506(1)(1)	9.2	Passed
170-024	49.1	47.1	1,252.8	1,752.8	WMAIN-3760	5.1	Passed
170-025	49.3	46.1	1,255.4	1,755.4	WMAIN-4141(1)	7.7	Passed
170-026	49.6	45.6	1,250.0	1,750.0	WMAIN-4141(1)	5.9	Passed
170-027	49.3	47.2	1,251.4	1,751.4	WMAIN-3760	5.1	Passed
170-028	49.4	47.5	1,251.2	1,751.2	WMAIN-3760	5.1	Passed
170-029	48.9	47	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
170-030	48.8	46.8	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
170-031	48.4	45.2	1,251.2	1,751.2	WMAIN-3898(1)	7.8	Passed
170-032	48.1	42.5	1,250.0	1,750.0	WMAIN-3904	6.9	Passed
170-033	47.8	44.5	1,252.0	1,752.0	WMAIN-3912(2)	5.7	Passed
170-034	47.7	44.1	1,255.0	1,755.0	WMAIN-3906(1)	9	Passed
170-035	47.7	44.6	1,251.0	1,751.0	WMAIN-1081(2)	7.5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-036	47.2	43.6	1,251.1	1,751.1	WMAIN-3885(1)	9.3	Passed
170-037	47.4	44.8	1,250.8	1,750.8	WMAIN-3867(1)	8.1	Passed
170-038	48.4	44.4	1,252.8	1,752.8	WMAIN-3868(1)	9.1	Passed
170-039	48.8	42.9	1,250.0	1,750.0	WMAIN-3867(1)	6.4	Passed
170-040	48.9	43.2	1,250.6	1,750.6	WMAIN-3862(1)	7.7	Passed
170-041	48.8	45	1,252.9	1,752.9	WMAIN-3865(2)(2)	5.7	Passed
170-042	51.4	49.2	1,252.5	1,752.5	WMAIN-3760	5	Passed
170-043	51.4	48.6	1,253.6	1,753.6	WMAIN-4183(1)	8.9	Passed
170-044	51.4	49.2	1,251.0	1,751.0	WMAIN-3760	5	Passed
170-045	50.1	46.2	1,251.1	1,694.2	WMAIN-4206(2)	15	Passed
170-046	49.2	46.5	1,251.0	1,751.0	WMAIN-4158(1)	9.3	Passed
170-047	49.8	45.9	1,253.8	1,753.8	WMAIN-4197(2)	6.5	Passed
170-048	51	47.2	1,253.4	1,753.4	WMAIN-4199(2)	6.7	Passed
170-049	50.7	46.3	1,251.7	586.1	WMAIN-4164(1)	15	Velocity Failed
170-050	51.1	46.5	1,250.0	1,750.0	WMAIN-4183(1)	5.9	Passed
170-051	50.1	46	1,251.3	1,751.3	WMAIN-4178	6.9	Passed
170-052	48.9	43.6	1,253.4	1,753.4	WMAIN-4204(2)	7.8	Passed
170-053	48.7	45.7	1,252.7	1,752.7	WMAIN-4209(1)	8.5	Passed
170-054	49.4	43.2	1,254.3	1,754.3	WMAIN-0655(2)	7	Passed
170-055	49.4	42.6	1,251.7	1,751.7	WMAIN-0655(2)	5.7	Passed
170-056	49.3	42.1	1,251.0	1,751.0	WMAIN-3909(1)	11.2	Passed
170-057	48.2	42.8	1,251.3	1,751.3	WMAIN-3885(1)	7.8	Passed
170-058	48.8	46.6	1,250.0	1,750.0	WMAIN-3865(2)(2)	9.1	Passed
170-059	48.9	47.3	1,250.0	1,750.0	WMAIN-3760	5.2	Passed
170-060	48.9	41.2	1,254.1	1,754.1	WMAIN-3875	7	Passed
170-061	49.1	47.5	1,251.2	1,751.2	WMAIN-3760	5.2	Passed
170-062	50.4	46	1,250.0	1,750.0	WMAIN-1026(2)(2)	6.1	Passed
170-063	50.9	47.5	1,255.5	1,755.5	WMAIN-1026(1)	7.8	Passed
170-064	50	45.9	1,253.0	1,753.0	WMAIN-1012(1)	6.1	Passed
170-065	49.2	42.5	3,517.2	4,017.2	WMAIN-1021(1)(1)	6.6	Passed
170-066	49.1	44.1	1,254.7	1,754.7	WMAIN-4158(1)	6	Passed
170-067	49.4	45.5	1,250.8	1,750.8	WMAIN-2282(2)	8	Passed
170-068	49.4	47.1	1,250.0	1,750.0	WMAIN-3760	5	Passed
170-069	49.4	47.3	1,250.5	1,750.5	WMAIN-3760	5	Passed
170-070	51.3	48.5	1,250.2	1,750.2	WMAIN-4769(1)	7.8	Passed
170-071	51.2	46.9	1,250.5	1,750.5	WMAIN-4762	6.8	Passed
170-072	51.3	47.9	1,250.9	1,750.9	WMAIN-4757(1)	7.8	Passed
170-073	51.3	47.3	1,250.7	1,750.7	WMAIN-4771(1)	6	Passed
170-074	51.3	48	1,251.2	1,751.2	WMAIN-6162(2)	5.7	Passed
170-075	50.7	47.4	1,250.7	1,750.7	WMAIN-4790(2)	5.6	Passed
170-076	50.8	45.4	1,250.6	1,750.6	WMAIN-4786(2)	11.2	Passed
170-077	51.1	46.5	1,251.7	1,751.7	WMAIN-4759	6.6	Passed
170-078	50.9	43.5	1,250.0	1,750.0	WMAIN-4759	7	Passed
170-079	51.2	44.7	1,252.8	1,752.8	WMAIN-4780	7.4	Passed
170-080	51	48.8	1,250.2	1,750.2	WMAIN-3760	5	Passed
170-081	49.8	47.9	1,250.6	1,750.6	WMAIN-3760	5	Passed
170-082	49.3	46.1	1,250.6	1,750.6	WMAIN-3176(1)	5.6	Passed
170-083	49	44.1	1,251.7	1,751.7	WMAIN-3192(2)	6.9	Passed
170-084	49.3	42.2	1,251.1	1,751.1	WMAIN-3194(1)	11.2	Passed
170-085	48.7	42.7	1,251.4	1,751.4	WMAIN-3197(1)	7.4	Passed
170-086	48.6	44.8	1,250.0	1,750.0	WMAIN-3142(2)(2)	8.3	Passed
170-087	49.3	44.3	1,254.9	1,754.9	WMAIN-3142(1)	6	Passed
170-088	49.8	45	1,250.4	1,750.4	WMAIN-3139(2)	11.2	Passed
170-089	50.2	46.3	1,250.0	1,750.0	WMAIN-3148(2)(2)	8.1	Passed
170-090	51.1	46.8	1,251.3	1,751.3	WMAIN-3148(1)	6.3	Passed
170-091	51.1	46.9	1,250.0	1,750.0	WMAIN-3151(2)	6.7	Passed
170-092	51.2	45.7	1,251.4	1,751.4	WMAIN-3163(1)	7.7	Passed
170-093	51.2	44.7	1,251.2	1,751.2	WMAIN-3154	7	Passed
170-094	50.8	44.6	1,252.7	1,752.7	WMAIN-3154	7.3	Passed
170-095	50.6	47	1,251.9	1,751.9	WMAIN-3151(1)(1)	8.4	Passed
170-096	50.4	44.3	1,251.9	1,751.9	WMAIN-3168(2)	6.4	Passed
170-097	49.8	42.8	1,251.4	1,751.4	WMAIN-3173(1)	11.2	Passed
170-098	50.5	48.3	1,250.0	1,750.0	WMAIN-3760	5	Passed
170-099	50.7	48.6	1,250.3	1,750.3	WMAIN-3760	4.9	Passed
170-100	47.9	44.7	1,252.2	1,752.2	WMAIN-7233(1)	7.9	Passed
170-101	48.5	44.9	1,250.0	1,750.0	WMAIN-7236(2)(2)	8.4	Passed
170-102	48.7	43.8	1,250.0	1,750.0	WMAIN-7236(2)(2)	6.6	Passed
170-103	48.8	43.7	1,250.0	1,750.0	WMAIN-7236(1)(1)(1)	6	Passed
170-104	49	45.1	1,257.9	1,757.9	WMAIN-7236(1)(1)(1)	8	Passed
170-105	48.8	43.1	1,252.2	1,752.2	WMAIN-3585	5.6	Passed
170-106	48.7	43.6	1,251.8	1,751.8	WMAIN-2585(1)(2)	7	Passed
170-107	48.8	45.2	1,250.0	1,750.0	WMAIN-2585(2)	8.7	Passed
170-108	48.8	44.8	1,253.0	1,753.0	WMAIN-3595(2)	6.4	Passed
170-109	49	45.8	1,252.8	1,752.8	WMAIN-3590(1)	9.6	Passed
170-110	49.1	43.3	1,250.0	1,750.0	WMAIN-3590(1)	7.3	Passed
170-111	49.2	42.6	1,252.2	1,752.2	WMAIN-3590(1)	5.7	Passed
170-112	48.8	42.7	1,250.8	1,750.8	WMAIN-6241(1)	11.2	Passed
170-113	48.7	44.4	1,250.6	1,750.6	WMAIN-0992(2)	8.5	Passed
170-124	49.1	46.3	2,528.0	3,028.0	WMAIN-6247(1)	6.6	Passed
170-125	49.2	44.5	2,517.5	3,017.5	WMAIN-3584(1)(1)	6.2	Passed
170-126	49.2	43.7	2,500.0	3,000.0	WMAIN-3584(1)(1)	5.7	Passed
170-127	49.6	46.3	1,251.4	1,751.4	WMAIN-6276(1)	7.9	Passed
170-128	49.5	44.6	1,251.5	1,320.2	WMAIN-6214(1)	15	Passed
170-129	49.3	45.4	1,251.5	1,751.5	WMAIN-1054(1)	7.2	Passed
170-130	49.4	46.3	1,250.0	1,750.0	WMAIN-6273(2)	8.3	Passed
170-131	49.6	45.2	1,255.6	1,755.6	WMAIN-6273(1)(2)	5.7	Passed
170-132	49.8	46.9	1,250.2	1,750.2	WMAIN-4074(2)	6.4	Passed
170-133	49.8	47	1,252.4	1,752.4	WMAIN-6269(1)	7.6	Passed
170-134	49.7	45.6	1,251.4	1,751.4	WMAIN-3803(1)	9	Passed
170-135	49.3	42.9	1,251.3	1,751.3	WMAIN-3806	6.1	Passed
170-136	49.4	45.3	1,252.5	1,752.5	WMAIN-3797(2)	9.1	Passed
170-137	49	47	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
170-138	49	47.1	1,252.5	1,752.5	WMAIN-4407	5.1	Passed
170-139	48.9	47.1	1,250.8	1,750.8	WMAIN-4407	5.1	Passed
170-140	49.3	44.3	1,255.6	1,755.6	WMAIN-3812(1)	7	Passed
170-141	49.5	43.9	1,251.6	1,751.6	WMAIN-3808(1)(2)	5.8	Passed
170-142	49.7	44.9	1,251.0	1,751.0	WMAIN-3808(1)(2)	7.1	Passed
170-143	49.7	46.3	1,250.0	1,750.0	WMAIN-3808(2)	8.5	Passed
170-144	48.4	46.6	1,251.0	1,751.0	WMAIN-4407	5.1	Passed
170-145	49	47.3	1,253.1	1,753.1	WMAIN-4407	5.2	Passed
170-146	49.2	47.4	1,250.0	1,750.0	WMAIN-4407	5.2	Passed
170-147	49.3	47.2	1,251.5	1,751.5	WMAIN-3790(1)	8.6	Passed
170-148	49.2	47.5	1,250.9	1,750.9	WMAIN-4407	5.2	Passed
170-149	49	47	1,252.2	1,752.2	WMAIN-6235(1)	8.8	Passed
170-150	50.8	48.6	1,250.0	1,750.0	WMAIN-3760	4.9	Passed
170-151	51.2	48.9	1,250.0	1,750.0	WMAIN-3760	4.9	Passed
170-152	49.1	46.8	1,250.0	1,750.0	WMAIN-3591(2)	7.2	Passed
170-153	48.9	47.4	1,253.2	1,753.2	WMAIN-3760	5.2	Passed
170-154	49.5	43.1	1,251.0	1,751.0	WMAIN-3803(1)	6.4	Passed
170-155	50.7	48.7	1,250.5	1,750.5	WMAIN-3760	4.9	Passed
170-156	49.5	45.8	1,250.2	1,750.2	WMAIN-3137(2)	7.3	Passed
170-157	51.2	42.4	3,500.0	4,000.0	WMAIN-0050	6.8	Passed
170-158	49.4	46.6	1,250.0	1,750.0	WMAIN-3760	5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-159	48.7	47.1	1,250.3	1,750.3	WMAIN-3760	5.2	Passed
171-001	46.9	39.7	2,500.0	3,000.0	WMAIN-7144	7.2	Passed
171-002	47	34.7	3,500.0	4,000.0	WMAIN-7144	9.6	Passed
171-016	47.4	34.3	3,500.0	4,000.0	WMAIN-7144	7.9	Passed
171-017	47.8	25.6	5,000.0	5,500.0	WMAIN-7144	10	Passed
171-018	48	27.1	5,002.5	5,502.5	WMAIN-3764	9.9	Passed
171-019	48.1	28.1	5,000.7	5,500.7	WMAIN-3764	10.2	Passed
171-020	48.2	29.5	5,001.9	5,501.9	WMAIN-3764	10.6	Passed
171-021	48.4	31.7	5,006.3	5,287.7	WMAIN-0429B(1)	15	Passed
171-023	48.4	20	5,000.0	5,211.7	WMAIN-0429B(1)	14.8	Passed
171-024	48.4	25.2	5,000.0	5,281.3	WMAIN-0429B(1)	15	Passed
171-026	49.4	39	5,000.0	5,500.0	WMAIN-3759(1)(2)	12.8	Passed
171-027	50.1	48.4	2,500.0	3,000.0	WMAIN-3759(2)	9.9	Passed
171-028	49.1	48.3	1,250.0	1,750.0	WMAIN-3760	6.4	Passed
171-029	48.4	47.3	1,250.0	1,750.0	WMAIN-3760	6.1	Passed
171-030	48.1	46.7	1,250.0	1,750.0	WMAIN-3760	5.8	Passed
171-031	48	46.5	1,250.0	1,750.0	WMAIN-3760	5.6	Passed
171-032	47.9	46.4	1,250.0	1,750.0	WMAIN-3760	5.5	Passed
171-033	47.9	46.4	1,258.8	1,758.8	WMAIN-3760	5.5	Passed
171-034	48	45.6	2,500.0	3,000.0	WMAIN-3760	6.2	Passed
171-035	48.3	45.8	2,512.9	3,012.9	WMAIN-3760	6.1	Passed
171-036	48.6	47.2	1,250.0	1,750.0	WMAIN-3760	5.2	Passed
171-037	48.2	45.7	1,250.2	1,750.2	WMAIN-1499(2)	7.1	Passed
171-038	48.5	43.6	1,252.2	1,752.2	WMAIN-1474(2)	9.2	Passed
171-039	48.9	42.1	1,253.5	1,753.5	WMAIN-1472	7.2	Passed
171-040	48.8	42.2	1,250.0	1,750.0	WMAIN-1472	6.9	Passed
171-041	48.6	43.3	1,254.1	1,754.1	WMAIN-1482(2)	7.1	Passed
171-042	48.7	42.4	1,251.0	1,751.0	WMAIN-1414(2)	11.2	Passed
171-043	48.7	42.9	1,252.1	1,752.1	WMAIN-1411(1)	11.2	Passed
171-044	48.5	45.3	1,250.0	1,750.0	WMAIN-1391A(1)	6	Passed
171-045	48.4	44.9	1,252.2	1,752.2	WMAIN-1501(1)	6.9	Passed
171-046	48.1	43	1,253.3	1,753.3	WMAIN-1466(1)	6.1	Passed
171-047	48.1	40.4	1,252.3	1,752.3	WMAIN-1490(1)	11.2	Passed
171-048	48.1	38.7	1,251.9	1,751.9	WMAIN-1487(2)	11.2	Passed
171-049	47.8	38.5	1,258.2	1,758.2	WMAIN-1485(2)	6.6	Passed
171-050	47.7	39.4	1,254.1	1,754.1	WMAIN-1483(1)	8	Passed
171-051	47.7	37.9	1,252.9	1,752.9	WMAIN-1449	6.6	Passed
171-052	47.8	40.4	1,251.2	1,751.2	WMAIN-1447(2)	9.1	Passed
171-053	47.7	40.2	1,255.5	1,755.5	WMAIN-1444(1)(1)	7.7	Passed
171-054	47.7	39.5	1,250.0	1,750.0	WMAIN-1458(2)	6.3	Passed
171-055	47.8	41.3	1,251.1	1,751.1	WMAIN-1458(2)	6.3	Passed
171-056	47.9	42.8	1,251.9	1,751.9	WMAIN-1458(2)	6.7	Passed
171-057	48.3	44.9	1,251.0	1,751.0	WMAIN-1458(2)	8.6	Passed
171-058	48.2	44.7	1,253.1	1,753.1	WMAIN-1434(1)(1)	7.9	Passed
171-059	48.1	46.1	1,250.3	1,750.3	WMAIN-1524(1)	9	Passed
171-060	50.2	49.2	2,500.0	3,000.0	WMAIN-3761	10	Passed
171-061	49.3	48.1	1,250.0	1,750.0	WMAIN-3760	5.8	Passed
171-062	49	47.6	1,250.4	1,750.4	WMAIN-3760	5.5	Passed
171-063	48.8	46.7	1,250.5	1,750.5	WMAIN-1497(1)	8	Passed
171-064	48.6	44.3	1,250.8	1,750.8	WMAIN-1422(2)	7.4	Passed
171-065	48.6	43.4	1,252.2	1,752.2	WMAIN-1524(1)	6	Passed
171-066	48.6	44.4	1,250.0	1,750.0	WMAIN-1434(2)	6.5	Passed
171-067	48.6	38	2,503.8	2,348.6	WMAIN-1437(1)	15	Velocity Failed
171-068	48.3	43	1,257.3	1,757.3	WMAIN-1524(1)	7.2	Passed
171-069	48.4	44.7	1,250.2	1,750.2	WMAIN-1515(1)	7.5	Passed
171-070	48.4	43.1	1,251.1	1,751.1	WMAIN-1418(2)	11.2	Passed
171-071	48.4	44.5	1,252.0	1,752.0	WMAIN-1509	6.5	Passed
171-072	48.6	44.5	1,252.2	1,752.2	WMAIN-1405(1)	7.6	Passed
171-073	48.7	43	1,254.5	1,754.5	WMAIN-1408	7.2	Passed
171-074	49	42.9	1,251.7	1,751.7	WMAIN-1403	6.7	Passed
171-075	48.7	45.5	1,250.2	1,750.2	WMAIN-1396(1)	7.8	Passed
171-076	48.7	47.1	1,250.0	1,750.0	WMAIN-3760	5.3	Passed
171-077	48.9	47.3	1,250.0	1,750.0	WMAIN-3760	5.2	Passed
171-078	48.7	47	1,250.0	1,750.0	WMAIN-3760	5.2	Passed
171-079	47.3	34.1	3,508.6	4,008.6	WMAIN-7144	8.3	Passed
171-086	48.3	41.6	1,251.2	1,751.2	WMAIN-7493	11.2	Passed
171-087	48.2	38.5	1,251.0	1,751.0	WMAIN-7493	11.2	Passed
171-088	48.4	32	5,000.0	5,500.0	WMAIN-3764	11.2	Passed
171-089	49.1	45.6	1,250.4	1,750.4	WMAIN-7885(2)	8	Passed
171-090	49.1	46.6	1,250.0	1,750.0	WMAIN-7888(1)	6.5	Passed
171-091	49.1	45.4	1,250.4	1,750.4	WMAIN-7884(1)	7	Passed
171-092	50.1	46.2	1,250.0	1,750.0	WMAIN-8047(2)	6.7	Passed
171-093	50.8	50.4	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
171-094	49.4	45.7	1,251.6	1,751.6	WMAIN-8019	5.8	Passed
171-095	49.1	44.3	1,250.7	1,750.7	WMAIN-7885(2)	5.9	Passed
171-096	50.3	47.5	1,251.4	1,751.4	WMAIN-8045(2)	6.5	Passed
171-097	49.9	47.3	1,250.9	1,750.9	WMAIN-8043(1)	6.4	Passed
171-098	49.3	46.1	1,252.8	1,752.8	WMAIN-8019	5.9	Passed
171-099	49	46.4	1,250.8	1,750.8	WMAIN-7892(1)	6.4	Passed
171-100	50.5	49.8	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
171-101	49.8	47.1	1,250.6	1,750.6	WMAIN-8019	6.5	Passed
171-102	49.8	46.8	1,252.3	1,752.3	WMAIN-8019	6.1	Passed
171-103	49.2	42.6	1,251.5	1,751.5	WMAIN-7893(1)	11.2	Passed
171-104	49.1	45.2	1,250.3	1,750.3	WMAIN-7895(2)	7.4	Passed
171-105	48.7	42.2	1,250.2	1,750.2	WMAIN-8136(2)	11.2	Passed
171-106	48.9	43	1,251.4	1,751.4	WMAIN-8135	6.4	Passed
171-107	49.2	38.8	1,251.7	1,751.7	WMAIN-8134	11.2	Passed
171-108	49	45.1	1,251.3	1,751.3	WMAIN-8132(1)	7.9	Passed
171-109	48.6	44.7	1,257.6	1,757.6	WMAIN-8140(2)(2)	5.9	Passed
171-110	48.5	45.6	1,250.0	1,750.0	WMAIN-8140(2)(2)	8.3	Passed
171-111	48.7	46.1	1,250.6	1,750.6	WMAIN-7903(1)	6	Passed
171-112	49	46.5	1,251.8	1,751.8	WMAIN-7897(2)	7	Passed
171-113	49.2	46.6	1,251.6	1,751.6	WMAIN-7898(2)	6.1	Passed
171-114	49.4	47.1	1,250.4	1,750.4	WMAIN-8019	6.3	Passed
171-115	49.8	48.8	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
171-116	49.1	46.1	1,253.1	1,753.1	WMAIN-8040(1)	7.9	Passed
171-117	49.1	47.9	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
171-118	48.4	44.7	1,253.3	1,753.3	WMAIN-8037(1)	6.1	Passed
171-119	48.7	46.1	1,251.8	1,751.8	WMAIN-7900(2)	6.2	Passed
171-120	48.7	41.9	1,251.1	1,751.1	WMAIN-7901(2)	11.2	Passed
171-121	48.3	44.8	1,252.3	1,752.3	WMAIN-8130(2)	6.3	Passed
171-122	48.5	45.5	1,250.0	1,750.0	WMAIN-8139(2)	6.7	Passed
171-123	48.4	45.9	1,250.8	1,750.8	WMAIN-7906(2)	5.8	Passed
171-124	48.5	46	1,250.4	1,750.4	WMAIN-7907(2)	6.4	Passed
171-125	48.2	44.7	1,253.3	1,753.3	WMAIN-8033(1)	6.1	Passed
171-126	48.3	47	1,250.0	1,750.0	WMAIN-4407	5.3	Passed
171-127	47.9	44.8	1,251.2	1,751.2	WMAIN-8032(2)	7.3	Passed
171-128	48.5	46	1,251.1	1,751.1	WMAIN-7908(2)	6	Passed
171-129	48.2	44.9	1,250.0	1,750.0	WMAIN-7909(2)	7.2	Passed
171-130	48.4	44.9	1,253.7	1,753.7	WMAIN-7909(1)(1)	6.2	Passed
171-131	47.5	46.1	1,250.0	1,750.0	WMAIN-4407	5.2	Passed
171-132	47.9	46.4	1,250.0	1,750.0	WMAIN-4407	5.2	Passed
171-133	48.2	46.6	1,250.0	1,750.0	WMAIN-4407	5.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
171-134	48	46.3	1,250.2	1,750.2	WMAIN-4407	5.2	Passed
171-135	48.2	45.2	1,253.8	1,753.8	WMAIN-7905(2)	6.3	Passed
171-136	47.9	46.2	1,250.0	1,750.0	WMAIN-4407	5.2	Passed
171-137	47.9	46.1	1,250.0	1,750.0	WMAIN-4407	5.2	Passed
171-138	47.9	46.1	1,251.9	1,751.9	WMAIN-4407	5.2	Passed
171-139	48.2	46.4	1,252.2	1,752.2	WMAIN-4407	5.2	Passed
171-140	48.3	42.8	1,250.8	1,750.8	WMAIN-8015	11.2	Passed
171-141	48.7	47	1,250.6	1,750.6	WMAIN-4407	5.2	Passed
180-001	47.9	45.8	1,252.6	1,752.6	WMAIN-4407	5.1	Passed
180-002	47.5	45.3	1,250.7	1,750.7	WMAIN-4407	5.1	Passed
180-003	48.7	46.4	1,252.0	1,752.0	WMAIN-4407	5.1	Passed
180-004	48.6	42.7	1,250.0	1,750.0	WMAIN-0104(1)	11.2	Passed
180-005	49.2	46.9	1,251.5	1,751.5	WMAIN-4407	5.1	Passed
180-006	48.9	45.4	1,250.9	1,750.9	WMAIN-7522(2)	7.6	Passed
180-007	49.2	46.5	1,250.3	1,750.3	WMAIN-3760	5.1	Passed
180-008	49.5	46.7	1,250.0	1,750.0	WMAIN-7506(2)	8.5	Passed
180-009	49.9	47.8	1,251.7	1,751.7	WMAIN-3760	5.1	Passed
180-010	51.2	48.8	1,251.8	1,751.8	WMAIN-3760	5	Passed
180-011	50.4	46.5	1,250.0	1,750.0	WMAIN-0096	11.2	Passed
180-012	49.4	46.7	1,252.0	1,752.0	WMAIN-7507(1)	9	Passed
180-013	49.7	45.1	1,256.3	1,756.3	WMAIN-7526(1)(1)	5.9	Passed
180-014	50.4	47.3	1,250.0	1,750.0	WMAIN-7526(2)	8.5	Passed
180-015	49.4	45	1,254.5	1,754.5	WMAIN-7476(1)	6.5	Passed
180-016	49.2	45.1	1,250.0	1,750.0	WMAIN-7506(1)(2)(2)	5.8	Passed
180-017	48.6	41.1	1,252.0	1,752.0	WMAIN-7521	11.2	Passed
180-018	49	42.7	1,252.5	1,752.5	WMAIN-7478(2)	7.4	Passed
180-019	48.7	41.5	1,252.6	1,752.6	WMAIN-7502(2)	5.9	Passed
180-020	47.9	42.2	1,251.3	1,751.3	WMAIN-7502(2)	7.9	Passed
180-021	47.8	40.9	1,253.2	1,753.2	WMAIN-0107	6.5	Passed
180-022	47.4	42.9	1,251.9	1,751.9	WMAIN-7524(2)	8.7	Passed
180-023	50.4	43	1,250.0	1,750.0	WMAIN-7670(2)	6.2	Passed
180-024	49.9	42.9	1,254.4	1,754.4	WMAIN-7661(1)	6.8	Passed
180-025	49.4	42.8	1,251.6	1,751.6	WMAIN-7683	6.2	Passed
180-026	50.3	43.9	1,253.1	1,753.1	WMAIN-7565(1)	6.8	Passed
180-027	50.7	44	1,255.3	1,755.3	WMAIN-7560(2)	6.4	Passed
180-028	50.9	45.3	1,251.2	1,751.2	WMAIN-7561(1)	7.9	Passed
180-029	51.2	48.5	1,250.0	1,750.0	WMAIN-3760	5	Passed
180-030	51.6	45.6	1,250.6	1,750.6	WMAIN-7670(2)	8.2	Passed
180-031	51.7	46.2	1,252.4	1,752.4	WMAIN-7669(1)	6.3	Passed
180-032	51.1	44.9	1,252.1	1,752.1	WMAIN-7683	6	Passed
180-033	51.7	46.3	1,251.3	1,751.3	WMAIN-7668(1)	6.3	Passed
180-034	51.6	46	1,252.9	1,752.9	WMAIN-7666(1)	8.2	Passed
180-035	51.7	46.5	1,250.9	1,750.9	WMAIN-7569(2)	6.7	Passed
180-036	51.7	46.6	1,251.9	1,751.9	WMAIN-7566(1)	6.8	Passed
180-037	51.6	46.7	1,251.0	1,751.0	WMAIN-7563(2)	9	Passed
180-038	51.3	44.7	1,252.7	1,752.7	WMAIN-7563(2)	6.2	Passed
180-039	51.6	47.9	1,250.8	1,750.8	WMAIN-7693(1)	6.1	Passed
180-040	51.6	48.5	1,252.4	1,752.4	WMAIN-3760	5	Passed
180-041	51.8	48.8	1,252.9	1,752.9	WMAIN-3760	5	Passed
180-042	51.2	48.2	1,250.3	1,750.3	WMAIN-3760	5	Passed
180-043	51.3	46.3	1,251.0	1,751.0	WMAIN-7674	7	Passed
180-044	51.5	48.6	1,250.2	1,750.2	WMAIN-3760	5	Passed
180-045	51.5	48.7	1,251.9	1,751.9	WMAIN-3760	5	Passed
180-046	51.4	48.8	1,251.3	1,751.3	WMAIN-3760	5	Passed
180-047	51.3	47.3	1,252.6	1,752.6	WMAIN-7556(1)	7.6	Passed
180-048	51.3	47.1	1,250.4	1,750.4	WMAIN-7682(2)	7.1	Passed
180-049	51.3	48.2	1,250.5	1,750.5	WMAIN-7690(1)	8.9	Passed
180-050	51.2	46.8	1,250.5	1,750.5	WMAIN-7684(2)	5.9	Passed
180-051	50.9	45.5	1,253.7	1,753.7	WMAIN-7685(1)	5.9	Passed
180-052	49.5	45.9	1,250.2	1,750.2	WMAIN-3760	5	Passed
180-053	49.2	41.5	1,254.1	1,754.1	WMAIN-7798	5.7	Passed
180-054	50.5	43.6	1,250.0	1,750.0	WMAIN-7798	7.1	Passed
180-055	50	45.9	1,250.5	1,750.5	WMAIN-3760	5	Passed
180-056	50	43.4	1,250.3	1,750.3	WMAIN-7793	7.4	Passed
180-057	50.7	45.9	1,251.5	1,751.5	WMAIN-7792(2)	5.6	Passed
180-058	51.4	46.1	1,251.6	1,751.6	WMAIN-7803(2)	6.3	Passed
180-059	51.3	46.9	1,250.0	1,750.0	WMAIN-7686(2)(2)	6.5	Passed
180-060	51.2	46.7	1,250.3	1,750.3	WMAIN-7686(1)	6.4	Passed
180-061	51.1	45.7	1,250.8	1,750.8	WMAIN-7687(1)	8	Passed
180-062	51.2	45.8	1,251.7	1,751.7	WMAIN-7689	5.9	Passed
180-063	51.2	46.7	1,251.0	1,751.0	WMAIN-7555(2)	5.9	Passed
180-064	50.8	44.5	1,251.7	1,751.7	WMAIN-7749	6.7	Passed
180-065	50.7	43.5	1,251.3	1,751.3	WMAIN-7756(1)	6.8	Passed
180-066	50.8	43.4	1,251.5	1,751.5	WMAIN-7687(1)	6.8	Passed
180-067	51.2	42.9	1,252.8	1,752.8	WMAIN-7751(2)	8.2	Passed
180-068	51.5	43.6	1,252.9	1,752.9	WMAIN-7800(1)	7.5	Passed
180-069	51.5	45.2	1,250.0	1,750.0	WMAIN-7802	6.1	Passed
180-070	51.5	45.6	1,253.0	1,753.0	WMAIN-7805(1)	7.4	Passed
180-071	51.4	43.5	1,251.3	1,751.3	WMAIN-7806	7.5	Passed
180-072	51.5	46.5	1,250.0	1,750.0	WMAIN-3760	5	Passed
180-073	51.5	42.6	1,254.4	1,754.4	WMAIN-7806	6.6	Passed
180-074	51.5	42.3	1,256.3	1,756.3	WMAIN-7800(1)	6	Passed
180-075	51.5	42.9	1,252.4	1,752.4	WMAIN-7800(1)	6.9	Passed
180-076	51.1	40.7	1,253.0	1,753.0	WMAIN-7687(1)	6.8	Passed
180-077	50.7	40	1,257.6	1,757.6	WMAIN-7687(1)	6.7	Passed
180-078	50.6	39.1	1,253.1	1,753.1	WMAIN-7755	11.2	Passed
180-079	50.4	41.7	1,252.9	1,752.9	WMAIN-7758(1)	7.9	Passed
H-384	48	44.9	1,251.1	1,751.1	WMAIN-4407	5.1	Passed
H-385	49.1	43.1	1,250.3	1,750.3	WMAIN-7896	11.2	Passed
H-386	49.1	43.4	1,250.0	1,750.0	WMAIN-7886	11.2	Passed
J-3	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-10	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
TEMP391	54.7	52.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP392	53.7	51.3	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP393	54.2	51.9	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP394	54.3	52.1	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP395	54.7	52.5	1,250.0	1,750.0	P-84(2)	5.6	Passed
TEMP396	53.1	50.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP397	52.8	50.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP398	52.6	50.2	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP399	53.7	52.8	1,250.5	1,750.5	P-112(1)	5.5	Passed
TEMP400	52.7	42.1	2,500.0	3,000.0	WMAIN-8247	14.5	Passed
TEMP401	52.7	39.9	2,500.0	3,000.0	WMAIN-8247	13.4	Passed
TEMP402	52.6	26.9	3,500.0	3,953.1	WMAIN-8247	15	Passed
TEMP403	52.6	47.5	1,250.0	1,750.0	WMAIN-8240(2)	8	Passed
TEMP404	52.7	48.8	1,250.0	1,750.0	WMAIN-8240(1)	9.1	Passed
TEMP405	52.7	48.6	1,250.0	1,750.0	WMAIN-8250(1)	7.3	Passed
TEMP406	52.7	48.1	1,250.0	1,750.0	WMAIN-8242	5.9	Passed
TEMP407	52.8	48.3	1,250.0	1,750.0	WMAIN-8250(2)	6.5	Passed
TEMP408	49.9	46.1	1,250.0	1,750.0	WMAIN-8214(1)	7.2	Passed
TEMP409	50.2	41.9	1,250.0	1,750.0	WMAIN-8208(1)(1)	11.2	Passed
TEMP410	50.2	46.1	1,250.0	1,750.0	WMAIN-8213(2)	6.4	Passed
TEMP411	50.3	46	1,250.0	1,750.0	WMAIN-8217(2)	6.1	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
TEMP412	50.1	46.1	1,250.0	1,750.0	WMAIN-8216(1)	7	Passed
TEMP413	50.2	45.6	1,250.0	1,750.0	WMAIN-8221(1)(1)(2)	6.7	Passed
TEMP414	50.2	46.6	1,250.0	1,750.0	WMAIN-8220(2)	8.1	Passed
TEMP415	50.3	45.4	1,250.0	1,750.0	WMAIN-8220(2)	5.7	Passed
TEMP416	50.2	46.7	1,250.0	1,750.0	WMAIN-8212(2)	6.9	Passed
TEMP417	50.1	47.2	1,250.0	1,750.0	WMAIN-8219(2)	5.7	Passed
TEMP418	49.9	46.1	1,250.0	1,750.0	WMAIN-8206(1)	7.9	Passed
TEMP419	50	45.6	1,250.0	1,750.0	WMAIN-8206(2)	6.8	Passed
TEMP420	50.2	45.4	1,250.0	1,750.0	WMAIN-8210(2)	5.9	Passed
TEMP421	49.8	47.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP422	50.2	45.9	1,250.0	1,750.0	WMAIN-8210(2)	7	Passed
TEMP423	49.9	47.8	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP424	46.1	43.9	1,250.9	1,750.9	WMAIN-5897	4.9	Passed
TEMP425	46.5	43.8	1,250.0	1,750.0	WMAIN-8193(1)	6.1	Passed
TEMP426	46.9	44.1	1,250.0	1,750.0	WMAIN-8196(1)	6	Passed
TEMP427	56.9	33.2	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP428	56.7	35	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP429	56.7	38	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP430	56.5	40.6	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP431	56.5	43.4	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP432	56.5	46.2	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP433	56.5	47.1	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP434	56.5	49.2	2,500.0	3,000.0	WMAIN-1071	9.6	Passed
TEMP435	50.3	46.5	1,250.0	1,750.0	WMAIN-8211(1)	6.2	Passed
TEMP436	50.1	48.4	1,250.0	1,750.0	WMAIN-5897	4.9	Passed
TEMP437	48.1	44.6	1,250.1	1,750.1	WMAIN-8014(1)	6.4	Passed
TEMP438	48.6	45.8	1,250.0	1,750.0	WMAIN-8313(2)	7.1	Passed
TEMP439	48.8	45.4	1,250.0	1,750.0	WMAIN-8318(1)	6.1	Passed
TEMP440	48.8	46	1,250.0	1,750.0	WMAIN-8317(2)	6.5	Passed
TEMP441	48.3	44.2	1,250.0	1,750.0	WMAIN-8315(2)	7	Passed
TEMP442	47.9	39.8	1,250.0	1,750.0	WMAIN-8316	11.2	Passed
TEMP443	48.2	44	1,250.5	1,750.5	WMAIN-8129(1)	6.7	Passed
TEMP444	50.1	45.9	1,250.0	1,750.0	WMAIN-8221(1)(1)(1)	7.4	Passed
TEMP445	54.5	51.7	1,250.0	1,750.0	WMAIN-8309(1)	5.9	Passed
TEMP446	54.5	51.1	1,250.0	1,750.0	WMAIN-8310(1)	6.9	Passed
TEMP447	54.7	50.3	1,250.0	1,750.0	WMAIN-8308	6.5	Passed
TEMP448	54.6	50.7	1,250.0	1,750.0	WMAIN-8305(2)	5.6	Passed
TEMP449	54.7	50.4	1,250.0	1,750.0	WMAIN-8304(2)	6.9	Passed
TEMP450	54.7	51.6	1,250.0	1,750.0	WMAIN-8301(1)	7.2	Passed
TEMP451	54.7	51.2	1,250.0	1,750.0	WMAIN-8302(1)	6.1	Passed
TEMP452	54.8	51.5	1,250.0	1,750.0	WMAIN-8300(1)	6.5	Passed
TEMP453	54.6	50.6	1,250.0	1,750.0	WMAIN-8297(2)	5.6	Passed
TEMP454	54.6	50.4	1,250.0	1,750.0	WMAIN-8299(2)	6.4	Passed
TEMP455	54.3	50.2	1,250.0	1,750.0	WMAIN-8296(1)	6.8	Passed
TEMP456	54	50.2	1,250.0	1,750.0	WMAIN-8294(2)	6.1	Passed
TEMP457	54.3	51	1,250.0	1,750.0	WMAIN-8293(2)	6.6	Passed
TEMP458	54.6	51.8	1,250.0	1,750.0	WMAIN-8292(2)	7.8	Passed
TEMP459	54.5	50.8	1,250.0	1,750.0	WMAIN-8290(1)	5.6	Passed
TEMP460	54.3	50.7	1,250.0	1,750.0	WMAIN-8291(1)	6.1	Passed
TEMP461	54	50.2	1,250.0	1,750.0	WMAIN-8288(2)	5.9	Passed
TEMP462	54.4	51.5	1,250.0	1,750.0	WMAIN-8289(1)	6.6	Passed
TEMP463	54.3	51.2	1,250.0	1,750.0	WMAIN-8283(2)	8.3	Passed
TEMP464	53.9	50.7	1,250.0	1,750.0	WMAIN-8286(1)	6.7	Passed
TEMP465	54.2	50.2	1,250.0	1,750.0	WMAIN-8282(1)(1)	7.5	Passed
TEMP466	53.5	50.3	1,250.0	1,750.0	WMAIN-8284(1)	8.1	Passed
TEMP467	53.7	49.5	1,250.0	1,750.0	WMAIN-8282(2)	7	Passed
TEMP468	54.3	48.4	1,250.0	1,750.0	WMAIN-8281	7.6	Passed
TEMP469	54.1	45.7	1,250.0	1,750.0	WMAIN-8279(2)	11.2	Passed
TEMP470	54.2	47.4	1,250.0	1,750.0	WMAIN-8281	6.4	Passed
TEMP471	53.8	48.6	1,250.0	1,750.0	WMAIN-8278(1)	8.2	Passed
TEMP472	54.1	47.6	1,250.0	1,750.0	WMAIN-8278(2)	6.8	Passed
TEMP473	54.3	47.2	1,250.0	1,750.0	WMAIN-8278(2)	5.8	Passed
TEMP474	50.3	28.7	3,500.0	4,000.0	WMAIN-8322	13	Passed
TEMP475	50.3	32	3,500.0	3,803.4	WMAIN-8323(2)	15	Passed
TEMP476	48.1	43.8	1,251.8	1,751.8	WMAIN-0101	6.3	Passed

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5047	47.3	0	0	49.2	49.2	0	49.2
J-5049	47.3	0	0	48.1	48.7	0	48.1
J-5050	37.2	10.9	5.3	46.8	54.2	10.9	46.8
J-5053	47.3	0	0	48.1	48.7	0	48.1
J-5055	38.2	0	0	47.7	50.8	0	47.7
J-5056	52.1	0	0	50.5	53.4	0	51.9
J-5057	52.1	0	0	50.5	53.4	0	51.9
J-5058	38.9	0.6	0.3	46.6	50.2	0.6	46.6
J-5059	38.9	0	0	46.6	50.2	0	46.6
J-5060	46.9	0	0	48.3	48.9	0	48.3
J-5062	31.4	1.6	0.8	49.3	53.2	1.6	49.3
J-5063	31.4	6.9	3.3	49.3	53.2	6.9	49.3
J-5068	36.4	0	0	47.3	51	0	47.3
J-5069	32.5	0	0	53.7	53.9	0	53.7
J-5070	38.7	0	0	49.1	51.2	0	49.1
J-5071	40.8	0	0	45.9	49.4	0	45.9
J-5072	40.8	0	0	45.9	49.4	0	45.9
J-5073	41.8	0	0	45.4	48.9	0	45.4
J-5074	41.8	0	0	45.4	48.9	0	45.4
J-5075	38.9	0	0	46.6	50.2	0	46.6
J-5076	38.9	0	0	46.6	50.2	0	46.6
J-5078	27.9	4.7	2.3	49.8	54.5	4.7	49.8
J-5079	32.5	0	0	53.7	53.9	0	53.7
J-5080	50.4	0	0	42.3	45.4	0	42.3
J-5081	50.4	0	0	42.3	45.4	0	42.3
J-5082	41.1	0	0	46.3	49.4	0	46.3
J-5084	41.2	1	0.5	46.2	49.4	1	46.2
J-5085	41.1	3	1.4	46.2	49.4	3	46.2
J-5086	36	0.8	0.4	47.5	51.2	0.8	47.5
J-5087	36	0.4	0.2	47.5	51.2	0.4	47.5
J-5093	33.4	0	0	48.4	52.2	0	48.4
J-5094	33.4	2.2	1.1	48.4	52.2	2.2	48.4
J-5095	39	0	0	46.6	50.1	0	46.6
J-5096	39	17.2	8.3	46.6	50.1	17.2	46.6
J-5098	32.8	0	0	48.7	52.8	0	48.7
J-5100	37	0	0	47.4	51	0	47.4
J-5101	37	0.3	0.1	47.4	51	0.3	47.4
J-5104	32.1	1.8	0.9	48.9	52.9	1.8	48.9
J-5105	32.1	0.4	0.2	48.9	52.9	0.4	48.9
J-5106	32.7	0	0	48.5	52.5	0	48.5
J-5107	32.7	3	1.4	48.5	52.5	3	48.5
J-5108	37.9	0	0	47.1	50.6	0	47.1
J-5109	37.9	0	0	47.1	50.6	0	47.1
J-5110	37.4	5.8	2.8	46.9	50.5	5.8	46.9
J-5112	37.4	0.1	0	47	50.7	0.1	47
J-5113	37.4	2	1	47	50.7	2	47
J-5116	32.4	2.4	1.2	49	52.5	2.4	49
J-5118	40.5	0	0	46.2	49.4	0	46.2
J-5119	32.5	1.4	0.7	49	52.8	1.4	49
J-5120	32.5	1.9	0.9	49	52.8	1.9	49
J-5121	32.3	0	0	48.8	52.5	0	48.8
J-5122	32.3	0	0	48.8	52.5	0	48.8
J-5123	38.9	0	0	46.6	50.2	0	46.6
J-5124	38.9	1.5	0.7	46.6	50.2	1.5	46.6
J-5125	33.1	0	0	49.2	52.3	0	49.2
J-5126	47.1	0	0	49.2	49.3	0	49.2
J-5128	48.7	0	0	43.1	46.2	0	43.1
J-5129	37.5	0.6	0.3	47.2	50.8	0.6	47.2
J-5133	37.9	0.3	0.2	47.1	50.6	0.3	47.1
J-5134	37.9	0	0	47.1	50.6	0	47.1
J-5135	33	0	0	49.3	52.9	0	49.3
J-5136	33	0	0	49.3	52.9	0	49.3
J-5137	24.7	0	0	49.6	55.3	0	49.6
J-5138	24.7	0	0	49.6	55.3	0	49.6
J-5139	22.8	0	0	50.8	56.4	0	50.8
J-5140	22.8	0	0	50.8	56.4	0	50.8
J-5141	37.3	0	0	49	51.6	0	49
J-5142	37.3	0	0	49	51.6	0	49
J-5143	32.9	0	0	49.3	52.9	0	49.3
J-5144	40.5	0	0	46.6	49.7	0	46.6
J-5145	40.5	0	0	46.6	49.7	0	46.6
J-5146	37.3	0	0	49	51.6	0	49
J-5147	37.3	0	0	49	51.6	0	49
J-5148	27.3	0	0	48.5	54.2	0	48.5
J-5149	27.3	0	0	48.5	54.2	0	48.5
J-5157	27.7	8.5	4.1	50.7	54.7	8.5	50.7
J-5158	27.7	0	0	50.7	54.7	0	50.7
J-5159	36.9	0	0	47.5	51.1	0	47.5
J-5161	41.4	0	0	45.8	49.2	0	45.8
J-5162	42.8	1.4	0.7	45.6	48.7	1.4	45.6
J-5163	41.7	0	0	45.6	49	0	45.6
J-5165	35.2	2.2	1.1	48	51.8	2.2	48
J-5166	37.9	0.3	0.2	47.1	50.6	0.3	47.1
J-5167	37.9	4.1	2	47.1	50.6	4.1	47.1
J-5168	43.7	5.3	2.6	45.1	48.3	5.3	45.1
J-5169	43.7	0	0	45.1	48.3	0	45.1
J-5170	27.4	0	0	51.4	55.7	0	51.4
J-5171	37.4	1.4	0.7	46.6	50.7	1.4	46.6
J-5172	37.4	1.7	0.8	46.6	50.7	1.7	46.6
J-5173	32.5	0	0	53.7	54	0	53.7
J-5174	41.1	3.5	1.7	45.9	49.3	3.5	45.9
J-5175	41.1	0.2	0.1	45.8	49.3	0.2	45.8
J-5176	36.2	0	0	47.1	51.1	0	47.1
J-5177	36.2	1.4	0.7	47.1	51.1	1.4	47.1
J-5178	37.4	3.5	1.7	46.7	50.7	3.5	46.7
J-5179	37.4	3.1	1.5	46.7	50.7	3.1	46.7
J-5183	30.9	0	0	49.6	53.7	0	49.6
J-5185	18.8	0	0	52.1	58.1	0	52.1
J-5191	32.4	0	0	48.7	52.6	0	48.7
J-5192	32.4	0.5	0.2	48.7	52.6	0.5	48.7
J-5195	37.6	10.4	5	47.2	50.8	10.4	47.2
J-5196	37.6	0	0	47.2	50.8	0	47.2
J-5197	37.8	1.5	0.7	47	50.6	1.5	47
J-5199	47.4	0	0	43.5	46.7	0	43.5
J-5200	47.4	0	0	43.5	46.7	0	43.5
J-5201	37	0	0	47.4	51	0	47.4
J-5202	34.2	0	0	48.6	52.3	0	48.6
J-5205	32.7	1.5	0.7	48.5	52.5	1.5	48.5
J-5206	37.4	0.4	0.2	46.7	50.7	0.4	46.7
J-5207	37.4	0.6	0.3	46.7	50.7	0.6	46.7
J-5208	37.5	0	0	47.8	51	0	47.8
J-5209	37.5	0	0	47.8	51	0	47.8

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5213	32.1	0	0	48.9	52.9	0	48.9
J-5214	32.1	1.7	0.8	48.9	52.9	1.7	48.9
J-5215	32.6	7.1	3.4	48.7	52.7	7.1	48.7
J-5216	32.6	0.8	0.4	48.7	52.7	0.8	48.7
J-5217	32.5	0	0	48.7	52.6	0	48.7
J-5218	36.7	3.7	1.8	47.2	50.8	3.7	47.2
J-5219	36.7	2.3	1.1	47.2	50.8	2.3	47.2
J-5220	37.4	4.2	2	46.7	50.7	4.2	46.7
J-5221	51.1	17.2	8.3	42	45.1	17.2	42
J-5222	51.1	0.7	0.3	42	45.1	0.7	42
J-5223	27.8	0	0	50.6	54.6	0	50.6
J-5224	27.8	38.5	18.5	50.6	54.6	38.5	50.6
J-5225	33.4	0.8	0.4	48.4	52.2	0.8	48.4
J-5226	40.2	0.8	0.4	46.5	49.8	0.8	46.5
J-5227	40.2	20.5	9.9	46.5	49.8	20.5	46.5
J-5228	22.5	0	0	50.7	56.3	0	50.7
J-5229	22.5	0	0	50.7	56.3	0	50.7
J-5230	22.2	0	0	51.6	56.8	0	51.6
J-5231	22.2	42.3	20.3	51.6	56.8	42.3	51.6
J-5232	31.9	0	0	49.3	53.3	0	49.3
J-5233	31.9	0.4	0.2	49.3	53.3	0.4	49.3
J-5234	37.4	1.2	0.6	46.7	50.7	1.2	46.7
J-5235	37.4	1.1	0.5	46.7	50.7	1.1	46.7
J-5236	37.4	0.5	0.2	46.7	50.7	0.5	46.7
J-5237	37.4	0	0	46.7	50.7	0	46.7
J-5238	33.1	1.7	0.8	48.6	52.5	1.7	48.6
J-5239	33.1	0	0	48.6	52.5	0	48.6
J-5240	37.7	0	0	47.1	50.7	0	47.1
J-5241	37.7	2	0.9	47.1	50.7	2	47.1
J-5242	38.4	0	0	47.1	50.5	0	47.1
J-5243	38.4	5.2	2.5	47.1	50.5	5.2	47.1
J-5244	22.2	0	0	51.6	56.8	0	51.6
J-5245	37.2	0	0	48.6	51.5	0	48.6
J-5246	37.3	0	0	48.6	51.4	0	48.6
J-5247	47	0	0	43.7	46.9	0	43.7
J-5248	47	0	0	43.7	46.9	0	43.7
J-5249	37.2	0	0	48.6	51.5	0	48.6
J-5250	37.3	0	0	48.6	51.5	0	48.6
J-5251	32.3	3.4	1.6	49	52.9	3.4	49
J-5252	32.3	1.3	0.6	49	52.9	1.3	49
J-5253	36.1	1.6	0.8	47.2	51.1	1.6	47.2
J-5254	36.1	2.1	1	47.2	51.1	2.1	47.2
J-5255	26.6	0	0	48.8	54.5	0	48.8
J-5256	26.6	0	0	48.8	54.5	0	48.8
J-5257	37.9	0.7	0.3	47.1	50.6	0.7	47.1
J-5258	37.9	1.9	0.9	47.1	50.6	1.9	47.1
J-5259	33.5	0	0	45.5	51.4	0	45.5
J-5260	33.5	0	0	45.5	51.4	0	45.5
J-5261	33.5	0	0	45.5	51.4	0	45.5
J-5262	19.6	0	0	51.5	57.7	0	51.5
J-5263	19.6	0	0	51.5	57.7	0	51.5
J-5264	20.1	5.9	2.8	51.6	57.5	5.9	51.6
J-5265	20.1	2.4	1.2	51.6	57.5	2.4	51.6
J-5266	33.2	0	0	49.1	52.3	0	49.1
J-5267	20.2	0.7	0.3	51.5	57.5	0.7	51.5
J-5268	19.3	4.7	2.3	51.9	57.9	4.7	51.9
J-5269	41	2.7	1.3	45.9	49.3	2.7	45.9
J-5270	37.7	0	0	47.1	50.7	0	47.1
J-5271	37.7	0	0	47.1	50.7	0	47.1
J-5272	32.3	3.1	1.5	49	52.9	3.1	49
J-5273	32.3	0	0	49	52.9	0	49
J-5274	34.3	0	0	49.2	52.5	0	49.2
J-5275	34.3	0	0	49.2	52.5	0	49.2
J-5276	34.2	0	0	49.2	52.6	0	49.2
J-5277	34.2	0	0	49.2	52.6	0	49.2
J-5280	36.8	3.7	1.8	47.6	51.1	3.7	47.6
J-5281	36.8	0.7	0.3	47.6	51.1	0.7	47.6
J-5282	26.3	0.7	0.3	48.9	54.6	0.7	48.9
J-5283	26.3	1	0.5	48.9	54.6	1	48.9
J-5284	31.7	0	0	48.8	53.2	0	48.8
J-5286	28.5	0	0	50.1	54.6	0	50.1
J-5289	38.9	2.9	1.4	46.6	50.2	2.9	46.6
J-5290	37.4	0	0	46.8	50.7	0	46.8
J-5291	37.4	0.7	0.3	46.8	50.7	0.7	46.8
J-5292	42	0	0	45.8	49	0	45.8
J-5293	42	6.4	3.1	45.8	49	6.4	45.8
J-5294	39.7	0.7	0.3	46.9	50.1	0.7	46.9
J-5296	38	2.1	1	49.4	51.5	2.1	49.4
J-5297	38	1.4	0.7	49.4	51.5	1.4	49.4
J-5298	41.7	0.8	0.4	45.4	48.9	0.8	45.4
J-5299	41.7	2.1	1	45.4	48.9	2.1	45.4
J-5300	41.9	0.7	0.3	45.9	49	0.7	45.9
J-5301	41.9	7.6	3.7	45.9	49	7.6	45.9
J-5302	37.7	0.3	0.2	47.2	50.7	0.3	47.2
J-5303	37.7	5	2.4	47.2	50.8	5	47.2
J-5305	46.1	7.5	3.6	43.9	47.2	7.5	43.9
J-5306	46.1	0	0	43.9	47.2	0	43.9
J-5307	33.4	0	0	48.4	52.4	0	48.4
J-5308	33.5	12	5.8	48.4	52.3	12	48.4
J-5309	37.4	0	0	46.7	50.7	0	46.7
J-5312	32.4	1.3	0.6	48.7	52.4	1.3	48.7
J-5313	32.5	0	0	48.7	52.4	0	48.7
J-5315	32.7	0	0	49	52.9	0	49
J-5316	41.5	17.4	8.4	45.6	49.1	17.4	45.6
J-5317	41.5	0	0	45.6	49.1	0	45.6
J-5318	40.5	2.6	1.2	46.6	49.7	2.6	46.6
J-5319	32.8	8.1	3.9	53.2	53.7	8.1	53.2
J-5320	32.8	0.7	0.3	53.2	53.7	0.7	53.2
J-5321	38.2	1.3	0.6	47	50.5	1.3	47
J-5322	38.2	0	0	47	50.5	0	47
J-5324	44.7	2	1	44.6	47.8	2	44.6
J-5325	44.7	7	3.4	44.6	47.8	7	44.6
J-5326	38	0.6	0.3	49.8	51.5	0.6	49.8
J-5327	38	0	0	49.8	51.5	0	49.8
J-5328	37.8	2	1	47	50.6	2	47
J-5329	43	0	0	45.3	48.6	0	45.3
J-5330	43	1	0.5	45.4	48.6	1	45.4
J-5331	39.3	0	0	47.1	50.3	0	47.1
J-5332	39.3	0	0	47.1	50.3	0	47.1
J-5333	38.1	1	0.5	48.3	51.1	1	48.3
J-5334	38.1	0.7	0.3	48.3	51.1	0.7	48.3
J-5335	47	0	0	43.7	46.9	0	43.7

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5336	32.4	0	0	48.9	52.6	0	48.9
J-5337	32.4	0	0	48.9	52.6	0	48.9
J-5338	33.1	0.9	0.5	48.5	52.3	0.9	48.5
J-5339	33.1	0.2	0.1	48.5	52.3	0.2	48.5
J-5340	32.7	0.4	0.2	48.7	52.5	0.4	48.7
J-5341	32.7	0.2	0.1	48.7	52.5	0.2	48.7
J-5343	32.3	3	1.4	49	52.9	3	49
J-5347	32.2	0	0	48.9	52.8	0	48.9
J-5348	32.1	0	0	48.9	52.9	0	48.9
J-5349	41.4	0	0	45.7	49.1	0	45.7
J-5350	36.3	3.4	1.6	47.1	51.1	3.4	47.1
J-5351	43.3	0	0	45	48.4	0	45
J-5352	43.2	1.9	0.9	45.1	48.4	1.9	45.1
J-5356	24.8	0	0	49.6	55.3	0	49.6
J-5357	47.1	0	0	49.2	49.3	0	49.2
J-5358	47.5	0	0	43.6	46.7	0	43.6
J-5359	47.5	5.4	2.6	43.6	46.7	5.4	43.6
J-5361	46.3	0	0	44	47.2	0	44
J-5362	46.3	0	0	44	47.2	0	44
J-5363	40.8	0	0	45.9	49.4	0	45.9
J-5364	40.8	0	0	45.9	49.4	0	45.9
J-5365	32.9	0.3	0.1	49.3	53	0.3	49.3
J-5371	32.4	0.7	0.3	48.5	52.5	0.7	48.5
J-5372	32.4	5.6	2.7	48.5	52.5	5.6	48.5
J-5374	40.9	6.5	3.1	45.9	49.4	6.5	45.9
J-5375	40.9	1.8	0.9	45.9	49.4	1.8	45.9
J-5376	37.4	0	0	48.9	51.5	0	48.9
J-5377	37.4	0	0	48.9	51.5	0	48.9
J-5381	44.5	0	0	50.1	50.3	0	50.1
J-5382	44.4	0	0	50.1	50.3	0	50.1
J-5383	39.7	0.9	0.4	46.9	50.1	0.9	46.9
J-5384	39.8	0.8	0.4	46.9	50	0.8	46.9
J-5387	38.2	2.8	1.4	47	50.5	2.8	47
J-5389	41.2	1	0.5	46.1	49.4	1	46.1
J-5390	41.2	0	0	46.1	49.4	0	46.1
J-5391	36.3	7.2	3.5	47.5	51.3	7.2	47.5
J-5392	36.3	2.5	1.2	47.5	51.3	2.5	47.5
J-5393	32.2	0.7	0.3	49	52.9	0.7	49
J-5394	32.2	1.4	0.7	49	52.9	1.4	49
J-5395	47	0.6	0.3	43.7	46.8	0.6	43.7
J-5398	36.8	1.3	0.6	46.9	50.9	1.3	46.9
J-5399	37	0	0	46.8	50.8	0	46.8
J-5400	44.6	0	0	44.7	47.9	0	44.7
J-5401	44.6	3.2	1.5	44.6	47.9	3.2	44.6
J-5402	37.8	2.1	1	46.5	50.4	2.1	46.5
J-5403	37.8	0	0	46.5	50.4	0	46.5
J-5404	29.4	2.9	1.4	47.3	53.2	2.9	47.3
J-5405	29.4	0	0	47.3	53.2	0	47.3
J-5406	43	0	0	45.3	48.6	0	45.3
J-5408	42	0.9	0.4	45.8	49	0.9	45.8
J-5409	31.4	0	0	49.3	53.4	0	49.3
J-5410	31.6	0	0	49.2	53.3	0	49.2
J-5411	37.6	0	0	47	50.7	0	47
J-5412	37.6	0	0	47	50.7	0	47
J-5413	24.7	0	0	49.8	55.4	0	49.8
J-5415	32.5	0	0	49.4	53.1	0	49.4
J-5416	32.5	0	0	49.4	53.1	0	49.4
J-5417	33.5	0.4	0.2	48.4	52.2	0.4	48.4
J-5418	37.5	0	0	46.5	50.7	0	46.5
J-5419	37.5	3.9	1.9	46.6	50.7	3.9	46.6
J-5420	43	23.9	11.5	45.4	48.6	23.9	45.4
J-5421	43.1	0	0	45.4	48.6	0	45.4
J-5422	37.5	4.1	2	47	50.6	4.1	47
J-5423	37.5	2.7	1.3	47	50.6	2.7	47
J-5424	43	5.1	2.4	45.2	48.5	5.1	45.2
J-5425	43	4.7	2.3	45.2	48.5	4.7	45.2
J-5426	37.4	2.1	1	47.8	51	2.1	47.8
J-5427	37.4	0	0	47.8	51	0	47.8
J-5428	36.3	0	0	47.4	51	0	47.4
J-5429	36.2	2.5	1.2	47.4	51	2.5	47.4
J-5430	34	3.2	1.5	48.1	52.1	3.2	48.1
J-5431	34.1	1.6	0.8	48.1	52	1.6	48.1
J-5432	25.2	0.6	0.3	49.4	55.1	0.6	49.4
J-5433	25.2	0	0	49.4	55.1	0	49.4
J-5434	37.4	9.2	4.4	46.6	50.7	9.2	46.6
J-5435	37.4	0.9	0.5	46.6	50.7	0.9	46.6
J-5436	43.2	0.4	0.2	45	48.4	0.4	45
J-5437	43.2	0	0	45	48.4	0	45
J-5438	31.8	1.4	0.7	46.4	52.2	1.4	46.4
J-5439	31.7	0.7	0.3	46.4	52.3	0.7	46.4
J-5440	46.7	5	2.4	43.8	47	5	43.8
J-5441	46.7	0	0	43.8	47	0	43.8
J-5442	37.4	1.8	0.9	46.6	50.7	1.8	46.6
J-5443	37.5	4.9	2.3	46.6	50.7	4.9	46.6
J-5444	32.4	0	0	48.9	53	0	48.9
J-5445	32.5	0	0	48.9	52.9	0	48.9
J-5446	37.8	17.1	8.2	46.9	50.4	17.1	46.9
J-5447	37.8	0	0	46.9	50.4	0	46.9
J-5448	33.4	0.8	0.4	51.6	53	0.8	51.6
J-5449	33.4	4.2	2	51.6	53	4.2	51.6
J-5450	39.5	0	0	47.1	50.2	0	47.1
J-5451	39.5	0.6	0.3	47.1	50.2	0.6	47.1
J-5452	31.3	1.4	0.7	49.2	53.1	1.4	49.2
J-5453	31.3	6.8	3.3	49.2	53.2	6.8	49.2
J-5454	35.5	0	0	47.7	51.3	0	47.7
J-5455	35.5	0	0	47.7	51.3	0	47.7
J-5456	30.4	4.3	2.1	49.6	53.6	4.3	49.6
J-5457	30.4	9	4.3	49.6	53.6	9	49.6
J-5458	31.3	0.5	0.3	49.2	53.1	0.5	49.2
J-5459	31.4	0.3	0.1	49.2	53.1	0.3	49.2
J-5460	41.6	0.5	0.3	46.1	49.3	0.5	46.1
J-5461	41.6	0.6	0.3	46.1	49.3	0.6	46.1
J-5462	35.5	0	0	47.7	51.2	0	47.7
J-5463	37.4	0.7	0.3	46.7	50.6	0.7	46.7
J-5464	37.4	3.6	1.7	46.7	50.6	3.6	46.7
J-5465	33.4	0	0	48.6	52.4	0	48.6
J-5466	33.5	5.3	2.5	48.5	52.4	5.3	48.5
J-5468	32.5	0	0	49.3	53.1	0	49.3
J-5470	37.5	1	0.5	47.2	50.8	1	47.2
J-5471	24	4.9	2.4	52.4	56.1	4.9	52.4
J-5472	24	83.4	40.1	52.4	56.1	83.4	52.4
J-5473	37.8	0	0	46.9	50.4	0	46.9

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5474	37.8	0	0	46.9	50.4	0	46.9
J-5475	30	1.3	0.6	49.8	53.7	1.3	49.8
J-5476	30.1	34.5	16.6	49.8	53.7	34.5	49.8
J-5477	40.9	1	0.5	45.9	49.4	1	45.9
J-5478	40.9	0.3	0.2	45.8	49.3	0.3	45.8
J-5479	28.7	5.2	2.5	50.3	54.3	5.2	50.3
J-5480	28.7	3.1	1.5	50.3	54.3	3.1	50.3
J-5481	37.4	1.3	0.6	47.2	50.8	1.3	47.2
J-5483	37.6	0	0	47.5	50.9	0	47.5
J-5484	37.6	6.8	3.3	47.5	50.9	6.8	47.5
J-5485	34.6	1.4	0.7	48.1	51.9	1.4	48.1
J-5486	34.5	2.8	1.4	48.1	52	2.8	48.1
J-5487	40.2	0.3	0.1	46.5	49.8	0.3	46.5
J-5488	37.4	1.6	0.8	46.6	50.8	1.6	46.6
J-5489	37.4	9.8	4.7	46.6	50.8	9.8	46.6
J-5491	41.5	2.5	1.2	48.3	50.1	2.5	48.3
J-5492	41.5	1.4	0.7	48.3	50.1	1.4	48.3
J-5493	30.1	1.5	0.7	48.8	53.3	1.5	48.8
J-5494	30.1	2.1	1	48.8	53.3	2.1	48.8
J-5496	31.6	1.3	0.6	48.5	52.8	1.3	48.5
J-5497	31.6	2.1	1	48.5	52.8	2.1	48.5
J-5498	32.5	2.6	1.2	48.7	52.7	2.6	48.7
J-5499	32.6	5	2.4	48.7	52.7	5	48.7
J-5500	32.5	1.5	0.7	48.7	52.6	1.5	48.7
J-5501	32.5	2.1	1	48.7	52.6	2.1	48.7
J-5502	34.4	0	0	48.5	52.2	0	48.5
J-5503	40.4	0	0	46.6	49.8	0	46.6
J-5504	40.3	0	0	46.6	49.8	0	46.6
J-5505	32.4	3.1	1.5	48.6	52.4	3.1	48.6
J-5506	32.4	2.2	1	48.6	52.4	2.2	48.6
J-5507	41.1	6.4	3.1	46.2	49.4	6.4	46.2
J-5508	32.5	8.2	3.9	46	51.9	8.2	46
J-5509	32.6	1.2	0.6	45.9	51.8	1.2	45.9
J-5511	33	0.9	0.4	48.5	52.4	0.9	48.5
J-5512	37.3	3.1	1.5	46.6	50.7	3.1	46.6
J-5513	37.3	10.8	5.2	46.6	50.6	10.8	46.6
J-5514	24.7	0	0	49.6	55.3	0	49.6
J-5515	44.5	0	0	50.1	50.3	0	50.1
J-5516	24.7	0	0	49.6	55.3	0	49.6
J-5517	32	1.1	0.5	48.9	52.8	1.1	48.9
J-5518	32	0	0	48.9	52.8	0	48.9
J-5519	35	3.1	1.5	47.8	51.7	3.1	47.8
J-5520	35.1	3	1.4	47.8	51.7	3	47.8
J-5521	27.2	9.7	4.7	49.7	54.5	9.7	49.7
J-5522	27.2	0.7	0.3	49.7	54.5	0.7	49.7
J-5524	27.8	0	0	50.7	54.9	0	50.7
J-5525	38.4	1	0.5	47.6	50.7	1	47.6
J-5526	38.4	2.9	1.4	47.6	50.7	2.9	47.6
J-5527	32.3	0	0	49	52.9	0	49
J-5528	32.3	2.9	1.4	49	52.9	2.9	49
J-5530	23.9	0	0	52.5	56.1	0	52.5
J-5531	23.8	0	0	52.5	56.2	0	52.5
J-5532	32.3	2.6	1.3	49.1	52.9	2.6	49.1
J-5533	32.3	2.9	1.4	49.1	52.9	2.9	49.1
J-5534	32.4	0	0	48.9	52.6	0	48.9
J-5535	32.4	4.9	2.4	48.9	52.6	4.9	48.9
J-5536	37.6	2.9	1.4	47	50.7	2.9	47
J-5537	37.5	3	1.4	46.5	50.7	3	46.5
J-5538	37.3	0	0	47.3	50.9	0	47.3
J-5540	41.1	0	0	46.2	49.5	0	46.2
J-5541	36.7	7.7	3.7	47.3	51.1	7.7	47.3
J-5542	36.6	2.2	1.1	47.3	51.1	2.2	47.3
J-5546	31.3	0	0	48	52.8	0	48
J-5547	31.3	2.3	1.1	48	52.8	2.3	48
J-5549	37.7	0.7	0.3	46.5	50.5	0.7	46.5
J-5550	42.2	4.5	2.2	45.5	48.9	4.5	45.5
J-5551	42.2	1	0.5	45.5	48.8	1	45.5
J-5552	37.9	2.2	1.1	47.1	50.6	2.2	47.1
J-5553	38	1.2	0.6	47	50.6	1.2	47
J-5554	37.5	3.1	1.5	47.2	50.8	3.1	47.2
J-5555	37.5	1.2	0.6	47.2	50.8	1.2	47.2
J-5557	42	0.5	0.3	45.8	49	0.5	45.8
J-5558	42.1	2.4	1.2	45.7	49	2.4	45.7
J-5559	31.2	0	0	48.7	52.9	0	48.7
J-5560	31.3	4	1.9	48.6	52.9	4	48.6
J-5561	35.9	0	0	47.4	51.3	0	47.4
J-5562	36	2.3	1.1	47.4	51.3	2.3	47.4
J-5563	25.1	0	0	50.6	55.8	0	50.6
J-5564	25.1	0	0	50.6	55.8	0	50.6
J-5565	25.1	0	0	50.6	55.8	0	50.6
J-5566	37.9	2	1	47.1	50.6	2	47.1
J-5567	37.9	0	0	47.1	50.6	0	47.1
J-5568	37.4	0	0	46.8	50.7	0	46.8
J-5569	52.5	0	0	44	44.7	0	44
J-5570	52.5	0	0	44	44.7	0	44
J-5572	31.9	0.7	0.3	48.9	52.9	0.7	48.9
J-5573	31.9	0.7	0.3	48.9	52.9	0.7	48.9
J-5574	32.2	0.7	0.3	48.8	52.8	0.7	48.8
J-5575	32.3	1.4	0.7	48.8	52.8	1.4	48.8
J-5576	39.9	3.4	1.6	46.3	49.8	3.4	46.3
J-5578	38.4	0	0	46.6	50.3	0	46.6
J-5579	38.3	10.4	5	46.7	50.3	10.4	46.7
J-5580	37.4	0.9	0.4	46.6	50.8	0.9	46.6
J-5581	37.4	9.8	4.7	46.6	50.8	9.8	46.6
J-5582	37.5	0	0	46.7	50.6	0	46.7
J-5583	37.4	0.4	0.2	46.7	50.7	0.4	46.7
J-5584	46.6	0	0	45.7	47.8	0	45.7
J-5585	47	2.6	1.2	45.6	47.7	2.6	45.6
J-5587	41.7	0	0	45.8	49.1	0	45.8
J-5588	41.8	4	1.9	45.7	49.1	4	45.7
J-5591	32.3	0	0	49	52.9	0	49
J-5592	32.3	1.5	0.7	46	52	1.5	46
J-5593	32.3	4.2	2	46	52	4.2	46
J-5594	32.6	1.3	0.6	48.7	52.6	1.3	48.7
J-5595	32.6	2.1	1	48.7	52.6	2.1	48.7
J-5596	33.3	0	0	48.7	52.7	0	48.7
J-5597	33.2	0	0	48.7	52.7	0	48.7
J-5598	43	0	0	45.4	48.6	0	45.4
J-5599	43.1	0.7	0.3	45.4	48.6	0.7	45.4
J-5601	29.8	7	3.4	47.1	53	7	47.1
J-5602	29.7	4.1	1.9	47.1	53.1	4.1	47.1
J-5603	43	0	0	45.4	48.7	0	45.4

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5604	43	0.6	0.3	45.4	48.6	0.6	45.4
J-5606	37.8	0.6	0.3	47.1	50.7	0.6	47.1
J-5607	37.6	1.5	0.7	47.2	50.8	1.5	47.2
J-5608	37.6	14.5	7	47.2	50.8	14.5	47.2
J-5610	41.8	0	0	45.8	49.1	0	45.8
J-5611	36.9	2.9	1.4	47	50.9	2.9	47
J-5612	36.9	6.6	3.2	47	50.9	6.6	47
J-5613	36.1	6.7	3.2	47.5	51.2	6.7	47.5
J-5614	23.6	0	0	49.7	55.9	0	49.7
J-5615	24.7	0	0	49.2	55.5	0	49.2
J-5616	21	0	0	50.9	57.1	0	50.9
J-5617	20.9	42	20.2	50.9	57.1	42	50.9
J-5618	29.1	1.1	0.5	47.4	53.3	1.1	47.4
J-5619	29.2	6.2	3	47.4	53.3	6.2	47.4
J-5620	42.7	15	7.2	45.6	48.8	15	45.6
J-5621	42.7	0.7	0.3	45.6	48.8	0.7	45.6
J-5622	32.7	1.4	0.7	48.6	52.6	1.4	48.6
J-5623	33	2.1	1	48.5	52.5	2.1	48.5
J-5625	37.4	0	0	47.5	50.9	0	47.5
J-5626	37.4	0.7	0.4	47.5	50.9	0.7	47.5
J-5627	36.9	0	0	47.1	50.7	0	47.1
J-5628	36.9	3.4	1.7	47	50.6	3.4	47
J-5629	31	2.6	1.3	46.6	52.5	2.6	46.6
J-5630	30.9	2.7	1.3	46.6	52.6	2.7	46.6
J-5631	30.5	1	0.5	46.8	52.7	1	46.8
J-5632	30.5	3	1.4	46.8	52.8	3	46.8
J-5633	32.4	0	0	48.7	52.6	0	48.7
J-5634	32.4	1.3	0.6	48.7	52.6	1.3	48.7
J-5635	31.3	0	0	49.3	53.4	0	49.3
J-5636	44.2	0	0	44.9	48.1	0	44.9
J-5637	44.3	1	0.5	44.9	48.1	1	44.9
J-5638	32.5	0.7	0.3	48.8	52.9	0.7	48.8
J-5639	32.5	0.7	0.3	48.8	53	0.7	48.8
J-5640	20.3	0.1	0.1	51.1	57.4	0.1	51.1
J-5641	20.4	0	0	51.1	57.3	0	51.1
J-5642	36.8	2.8	1.4	47.1	51	2.8	47.1
J-5643	36.9	1.2	0.6	47	50.9	1.2	47
J-5645	31.8	2.4	1.2	49	53	2.4	49
J-5646	31.8	2.4	1.2	49	53	2.4	49
J-5648	26.9	0	0	48.7	54.4	0	48.7
J-5649	26.9	0	0	48.7	54.4	0	48.7
J-5650	27.2	0	0	48.6	54.3	0	48.6
J-5651	27.2	0	0	48.6	54.2	0	48.6
J-5652	32.3	1.4	0.7	47.6	52.4	1.4	47.6
J-5653	32.4	2	1	47.6	52.3	2	47.6
J-5654	37.9	0	0	48.9	51.4	0	48.9
J-5655	38	71.5	34.4	48.9	51.4	71.5	48.9
J-5656	28	0.7	0.3	51.5	54.4	0.7	51.5
J-5657	28	2.1	1	51.5	54.4	2.1	51.5
J-5658	41.1	0.9	0.5	46.1	49.4	0.9	46.1
J-5659	41.2	0	0	46.1	49.4	0	46.1
J-5660	21.4	1.9	0.9	50.7	56.9	1.9	50.7
J-5661	21.3	2.3	1.1	50.7	56.9	2.3	50.7
J-5662	32.3	0.7	0.3	48	52.4	0.7	48
J-5663	32.3	5.4	2.6	48.2	52.4	5.4	48.2
J-5664	29.9	1.3	0.6	48.9	53.4	1.3	48.9
J-5665	29.8	2.1	1	49	53.5	2.1	49
J-5667	37.8	8.4	4	47.1	50.6	8.4	47.1
J-5668	37.7	0	0	46.9	50.7	0	46.9
J-5669	37.7	1.2	0.6	46.9	50.6	1.2	46.9
J-5670	33.4	1.4	0.7	48.3	52.3	1.4	48.3
J-5671	33.5	1.4	0.7	48.3	52.3	1.4	48.3
J-5672	43.5	4.1	2	45	48.3	4.1	45
J-5673	43.5	3.9	1.9	45	48.3	3.9	45
J-5674	29.3	0	0	50	54	0	50
J-5675	29.4	0	0	50	54	0	50
J-5676	41.8	0	0	45.8	49.1	0	45.8
J-5677	33.2	0	0	48.4	52.4	0	48.4
J-5678	33.3	2.1	1	48.4	52.4	2.1	48.4
J-5679	42	0.5	0.3	45.8	49	0.5	45.8
J-5680	42.7	0	0	45.5	48.7	0	45.5
J-5681	42.7	0.4	0.2	45.5	48.7	0.4	45.5
J-5682	30.5	0	0	49.6	53.6	0	49.6
J-5683	30.5	3.8	1.8	49.6	53.5	3.8	49.6
J-5684	44.2	0.5	0.2	44.9	48.1	0.5	44.9
J-5685	44.6	0	0	44.7	47.9	0	44.7
J-5687	32.1	0.9	0.4	48.9	52.8	0.9	48.9
J-5688	37.4	0	0	47	50.7	0	47
J-5689	38	0.8	0.4	46.5	50.4	0.8	46.5
J-5690	38	0.8	0.4	46.5	50.4	0.8	46.5
J-5691	37.6	1.4	0.7	46.8	50.6	1.4	46.8
J-5692	37.6	3	1.4	46.8	50.6	3	46.8
J-5693	27.7	0.7	0.3	51.4	54.5	0.7	51.4
J-5694	27.8	2.1	1	51.3	54.5	2.1	51.3
J-5695	37.2	2.5	1.2	47	50.8	2.5	47
J-5696	37.2	29.6	14.2	47	50.8	29.6	47
J-5697	30.7	1.6	0.8	49.6	53.7	1.6	49.6
J-5698	30.7	0.7	0.3	49.6	53.7	0.7	49.6
J-5699	32.8	0	0	48.7	52.8	0	48.7
J-5700	32.7	0	0	48.7	52.8	0	48.7
J-5701	46.1	0	0	44.1	47.3	0	44.1
J-5702	46.1	0	0	44	47.2	0	44
J-5703	45.9	5.8	2.8	44.1	47.3	5.8	44.1
J-5704	46	0	0	44.1	47.3	0	44.1
J-5706	28	3.9	1.9	50.9	55	3.9	50.9
J-5707	23	0	0	50.8	56.4	0	50.8
J-5708	23.1	0	0	50.8	56.4	0	50.8
J-5709	39.7	0	0	47	50.1	0	47
J-5710	31	5.8	2.8	47.6	52.7	5.8	47.6
J-5711	31	0	0	47.6	52.8	0	47.6
J-5712	27.1	2.6	1.2	50.7	54.9	2.6	50.7
J-5713	27.4	0	0	50.3	54.7	0	50.3
J-5714	42.7	0	0	45.5	48.7	0	45.5
J-5715	42.8	3.7	1.8	45.4	48.7	3.7	45.4
J-5717	42.6	0	0	45.5	48.8	0	45.5
J-5719	43.1	0	0	45.4	48.6	0	45.4
J-5720	34.4	3.5	1.7	47.9	51.9	3.5	47.9
J-5721	34.4	2.1	1	47.9	51.9	2.1	47.9
J-5722	42.5	0	0	45.7	48.9	0	45.7
J-5723	42.5	0	0	45.7	48.9	0	45.7
J-5724	33.1	0	0	48.8	52.8	0	48.8
J-5726	43.5	0	0	45.1	48.4	0	45.1

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5727	43.6	3.2	1.6	45.1	48.3	3.2	45.1
J-5729	37.4	1.4	0.7	47.4	50.9	1.4	47.4
J-5730	20.7	1.6	0.8	51	57.2	1.6	51
J-5731	21.3	0	0	50.7	56.9	0	50.7
J-5732	33.3	8.8	4.2	48.6	52.5	8.8	48.6
J-5733	42.8	0	0	45.3	48.6	0	45.3
J-5734	42.8	3.2	1.6	45.3	48.6	3.2	45.3
J-5735	47.8	0	0	46.7	48	0	46.7
J-5736	47.8	1	0.5	46.7	48	1	46.7
J-5737	32.9	0.5	0.3	48.8	52.7	0.5	48.8
J-5738	32.6	2.8	1.4	49	52.8	2.8	49
J-5739	25.2	0	0	49.5	55.1	0	49.5
J-5741	33.3	1.3	0.6	48.6	52.5	1.3	48.6
J-5742	33.6	2.5	1.2	48.4	52.3	2.5	48.4
J-5743	30	0.3	0.1	47	53	0.3	47
J-5744	30.1	0.8	0.4	47	52.9	0.8	47
J-5745	38.2	1.1	0.5	47	50.5	1.1	47
J-5746	38.2	0.6	0.3	47	50.5	0.6	47
J-5747	32.4	3.3	1.6	49	52.5	3.3	49
J-5748	32.4	5.3	2.6	49	52.6	5.3	49
J-5749	32.4	0.7	0.3	48.7	52.7	0.7	48.7
J-5750	32.3	2.1	1	48.8	52.8	2.1	48.8
J-5751	22.7	0	0	50.8	56.5	0	50.8
J-5753	46.2	4.4	2.1	44	47.2	4.4	44
J-5754	42.5	3.2	1.5	45.4	48.8	3.2	45.4
J-5755	42.5	5.3	2.5	45.4	48.7	5.3	45.4
J-5756	29.7	0	0	49.5	53.6	0	49.5
J-5757	29.8	0	0	49.8	53.8	0	49.8
J-5759	42.8	0.5	0.3	45.3	48.6	0.5	45.3
J-5760	42.8	8.2	3.9	45.3	48.6	8.2	45.3
J-5762	37.8	2.6	1.2	47.2	50.7	2.6	47.2
J-5764	37.4	1.9	0.9	46.7	50.7	1.9	46.7
J-5765	32.5	6	2.9	48.8	52.8	6	48.8
J-5766	32.7	0.3	0.2	48.7	52.7	0.3	48.7
J-5767	32.7	0	0	48.8	52.8	0	48.8
J-5768	38.1	1	0.5	46.4	50.4	1	46.4
J-5769	38.1	1.8	0.9	46.4	50.4	1.8	46.4
J-5771	23.2	0	0	51.4	56.6	0	51.4
J-5772	23.3	0	0	51.4	56.5	0	51.4
J-5773	23.2	0	0	51.4	56.5	0	51.4
J-5774	37.5	0	0	47.2	50.6	0	47.2
J-5775	37.6	2.1	1	47.2	50.6	2.1	47.2
J-5777	35.6	0.2	0.1	47.6	51.2	0.2	47.6
J-5778	35.7	0	0	47.6	51.2	0	47.6
J-5780	38.9	3.4	1.6	46.7	50.2	3.4	46.7
J-5781	32.3	1.3	0.6	49	52.6	1.3	49
J-5782	39.1	2.2	1.1	46.6	50	2.2	46.6
J-5783	39.1	1.1	0.5	46.6	50	1.1	46.6
J-5784	50.3	2.2	1.1	42.3	45.4	2.2	42.3
J-5785	50.5	0	0	42.2	45.3	0	42.2
J-5786	50.2	0	0	42.4	45.5	0	42.4
J-5787	35.2	4.7	2.3	48	51.7	4.7	48
J-5788	24.1	0	0	49.9	55.6	0	49.9
J-5789	24.2	60	28.9	49.8	55.5	60	49.8
J-5790	29.8	0	0	47.5	53.1	0	47.5
J-5791	29.7	3.3	1.6	47.6	53.2	3.3	47.6
J-5792	36.2	7.5	3.6	47.2	51.2	7.5	47.2
J-5794	43	0	0	45.4	48.6	0	45.4
J-5795	42.9	0	0	45.5	48.7	0	45.5
J-5796	43.2	0	0	45.4	48.6	0	45.4
J-5797	43.1	0.9	0.4	45.4	48.6	0.9	45.4
J-5798	34.6	0.7	0.3	48.3	51.7	0.7	48.3
J-5799	34.7	1.6	0.8	48.2	51.7	1.6	48.2
J-5800	30.9	0	0	49.7	53.7	0	49.7
J-5801	31.1	0	0	49.7	53.6	0	49.7
J-5802	34.4	2.2	1.1	47.9	51.7	2.2	47.9
J-5803	34.5	3.3	1.6	47.9	51.7	3.3	47.9
J-5804	27.1	0	0	51	54.7	0	51
J-5805	27	0	0	51.1	54.8	0	51.1
J-5806	40.5	3.3	1.6	46.5	49.7	3.3	46.5
J-5807	32.3	2.9	1.4	49	52.9	2.9	49
J-5808	32.9	2.6	1.3	48.9	52.7	2.6	48.9
J-5809	37.9	3.8	1.9	46.4	50.5	3.8	46.4
J-5810	37.9	3	1.4	46.4	50.5	3	46.4
J-5811	42.7	4.3	2	45.4	48.7	4.3	45.4
J-5812	42.7	4.6	2.2	45.3	48.7	4.6	45.3
J-5813	43	0.3	0.1	45.5	48.7	0.3	45.5
J-5814	42.9	0.5	0.3	45.5	48.7	0.5	45.5
J-5815	47	5.3	2.6	43.7	46.9	5.3	43.7
J-5816	22.3	0	0	51.2	56.7	0	51.2
J-5817	22.2	1.3	0.6	51.2	56.7	1.3	51.2
J-5818	37.4	3.1	1.5	46.7	50.7	3.1	46.7
J-5820	38.6	0.4	0.2	46.6	50.2	0.4	46.6
J-5821	38.4	0.3	0.2	46.6	50.3	0.3	46.6
J-5822	34.9	5.4	2.6	48.2	51.6	5.4	48.2
J-5823	34.9	0.2	0.1	48.2	51.6	0.2	48.2
J-5825	43	0.9	0.4	45.4	48.6	0.9	45.4
J-5826	38	0	0	47.4	50.7	0	47.4
J-5827	38	3.2	1.6	47.4	50.7	3.2	47.4
J-5828	46.1	20.9	10.1	46.7	48.4	20.9	46.7
J-5829	46.2	0	0	46.7	48.4	0	46.7
J-5830	33.1	2.2	1	48.5	52.3	2.2	48.5
J-5831	33.2	0.7	0.3	48.5	52.3	0.7	48.5
J-5832	33.1	2.3	1.1	48.5	52.3	2.3	48.5
J-5833	33.2	3.2	1.6	48.5	52.2	3.2	48.5
J-5834	43.2	0	0	45.4	48.6	0	45.4
J-5835	43.3	7.3	3.5	45.3	48.5	7.3	45.3
J-5836	43.7	0	0	45.2	48.4	0	45.2
J-5837	43.8	0.8	0.4	45.1	48.3	0.8	45.1
J-5838	32.8	0	0	49	52.9	0	49
J-5839	31.7	4.3	2.1	48.4	52.7	4.3	48.4
J-5840	31.7	1	0.5	48.4	52.7	1	48.4
J-5841	47.1	0	0	48.2	48.8	0	48.2
J-5842	47.2	0	0	48	48.7	0	48
J-5843	47.3	0	0	48	48.7	0	48
J-5844	32.6	3.9	1.9	47.4	52.2	3.9	47.4
J-5845	32.5	1.3	0.6	47.5	52.2	1.3	47.5
J-5846	37.6	0	0	46.7	50.3	0	46.7
J-5847	37.6	6.8	3.3	46.8	50.3	6.8	46.8
J-5848	33	0.8	0.4	48.6	52.3	0.8	48.6
J-5849	33	0.3	0.1	48.6	52.3	0.3	48.6
J-5850	31.1	0	0	47.5	52.7	0	47.5

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5851	31.4	0.7	0.3	49.3	53.4	0.7	49.3
J-5852	31.5	2.7	1.3	49.2	53.4	2.7	49.2
J-5853	27	0	0	48.7	54.4	0	48.7
J-5854	27.1	0	0	48.6	54.3	0	48.6
J-5855	42.3	2.1	1	45.5	48.8	2.1	45.5
J-5856	42.3	1.8	0.9	45.5	48.8	1.8	45.5
J-5857	37.9	0	0	46.8	50.5	0	46.8
J-5858	37.9	8.1	3.9	46.7	50.5	8.1	46.7
J-5859	41.4	0	0	46	49.3	0	46
J-5861	37.4	1.8	0.9	47	50.8	1.8	47
J-5862	37.4	0.5	0.3	47	50.8	0.5	47
J-5863	38	0.2	0.1	46.4	50.3	0.2	46.4
J-5864	41.8	3.1	1.5	45.4	48.9	3.1	45.4
J-5865	41.6	3.2	1.5	45.5	49	3.2	45.5
J-5866	38.5	0.2	0.1	46.6	50.3	0.2	46.6
J-5867	33.3	0	0	51.2	53	0	51.2
J-5868	33.4	11.8	5.7	51.2	53	11.8	51.2
J-5869	37.8	4.2	2	46.9	50.6	4.2	46.9
J-5870	47	23.6	11.4	46.7	48.2	23.6	46.7
J-5871	47.1	0	0	46.7	48.2	0	46.7
J-5872	39.9	0	0	46.8	50	0	46.8
J-5873	39.8	0	0	46.8	50	0	46.8
J-5874	22.3	0	0	51.2	56.7	0	51.2
J-5875	31.3	4.2	2	49.2	53.2	4.2	49.2
J-5876	31.3	0	0	49.2	53.2	0	49.2
J-5877	36.2	2.4	1.2	47.2	51	2.4	47.2
J-5878	35.8	5.7	2.7	47.3	51.2	5.7	47.3
J-5880	32.3	0	0	49.1	53.1	0	49.1
J-5881	50.9	3.5	1.7	42	45.2	3.5	42
J-5882	51.6	0	0	41.8	44.9	0	41.8
J-5884	45.3	12	5.8	44.3	47.6	12	44.3
J-5885	41.1	0	0	46.3	49.4	0	46.3
J-5886	44.9	58.9	28.3	44.5	47.8	58.9	44.5
J-5887	44.8	1	0.5	44.6	47.8	1	44.6
J-5888	34	2.5	1.2	48.1	51.9	2.5	48.1
J-5889	34.1	2.5	1.2	48	51.9	2.5	48
J-5891	32.3	3.5	1.7	49.1	53.1	3.5	49.1
J-5892	32.5	1.4	0.7	48.8	52.6	1.4	48.8
J-5893	32.4	6.1	2.9	48.8	52.6	6.1	48.8
J-5894	35.9	2.8	1.3	47.3	51.1	2.8	47.3
J-5895	35.6	5.1	2.5	47.4	51.3	5.1	47.4
J-5896	36.6	38.8	18.7	46.9	50.9	38.8	46.9
J-5897	36.8	1.1	0.6	46.8	50.8	1.1	46.8
J-5899	32.6	0	0	45.8	51.8	0	45.8
J-5901	27.7	0.7	0.3	50.7	55	0.7	50.7
J-5902	27.5	5.5	2.7	50.8	55.1	5.5	50.8
J-5905	33.3	0.7	0.4	45.6	51.5	0.7	45.6
J-5906	34.3	0	0	49.2	52.5	0	49.2
J-5907	34.4	0	0	49.2	52.5	0	49.2
J-5908	42.8	3.8	1.8	45.3	48.6	3.8	45.3
J-5909	47.8	8.6	4.2	46.6	47.9	8.6	46.6
J-5910	36.9	6.9	3.3	47.6	51.1	6.9	47.6
J-5911	47.5	1	0.5	43.6	46.7	1	43.6
J-5912	47.5	1.9	0.9	43.6	46.7	1.9	43.6
J-5913	27.1	3.2	1.5	51	55	3.2	51
J-5914	27.2	0.7	0.3	50.9	55	0.7	50.9
J-5915	32.6	0	0	48.9	52.4	0	48.9
J-5916	32.5	2	1	48.9	52.4	2	48.9
J-5917	37.9	1.9	0.9	46.5	50.5	1.9	46.5
J-5918	37.9	13.1	6.3	46.6	50.5	13.1	46.6
J-5919	32.3	1	0.5	49	52.9	1	49
J-5920	32.8	0	0	48.6	52.6	0	48.6
J-5921	30.2	17.4	8.3	49.7	53.6	17.4	49.7
J-5922	30.2	0.1	0.1	49.7	53.6	0.1	49.7
J-5923	37.4	0.8	0.4	47	50.8	0.8	47
J-5924	36.4	0	0	47.4	51	0	47.4
J-5926	32.6	1.9	0.9	48.7	52.4	1.9	48.7
J-5927	32.7	0	0	48.6	52.3	0	48.6
J-5928	27.2	0.9	0.4	50.9	54.9	0.9	50.9
J-5929	27.3	0	0	50.9	54.9	0	50.9
J-5931	32.7	1.6	0.8	48.6	52.5	1.6	48.6
J-5932	32.6	12.1	5.8	48.7	52.5	12.1	48.7
J-5933	36.8	2.7	1.3	47.2	50.9	2.7	47.2
J-5934	36.8	13.2	6.3	47.2	50.9	13.2	47.2
J-5935	32.6	0	0	45.8	51.8	0	45.8
J-5936	30.8	0.5	0.2	49.4	53.6	0.5	49.4
J-5937	31	0	0	49.3	53.5	0	49.3
J-5938	40.4	2.8	1.4	46.6	49.8	2.8	46.6
J-5939	44	1	0.5	44.9	48.2	1	44.9
J-5940	44	0	0	44.9	48.1	0	44.9
J-5941	44	0	0	44.9	48.2	0	44.9
J-5943	36.1	5.7	2.7	47.5	51.1	5.7	47.5
J-5945	32.2	0.2	0.1	49.9	53	0.2	49.9
J-5946	32.2	1.8	0.9	49.9	53	1.8	49.9
J-5947	37.8	1.7	0.8	49.7	51.5	1.7	49.7
J-5948	38.3	1.6	0.8	49.4	51.3	1.6	49.4
J-5949	32.2	30.2	14.5	50.2	53.1	30.2	50.2
J-5950	32.3	0.9	0.4	50.2	53	0.9	50.2
J-5952	37.4	3.6	1.7	46.9	50.6	3.6	46.9
J-5953	37.4	2.4	1.2	46.9	50.6	2.4	46.9
J-5954	31.4	7.3	3.5	49.2	53.2	7.3	49.2
J-5955	42.3	1.4	0.7	45.5	48.8	1.4	45.5
J-5956	42.3	1.2	0.6	45.5	48.8	1.2	45.5
J-5957	26.6	90.4	43.5	49.9	54.8	90.4	49.9
J-5958	26.5	0	0	49.9	54.8	0	49.9
J-5959	24.3	0	0	49.9	55.5	0	49.9
J-5960	23.9	0	0	50	55.7	0	50
J-5961	24.2	0	0	49.9	55.6	0	49.9
J-5962	23.9	171.9	82.7	50.1	55.7	171.9	50.1
J-5963	29.2	0.7	0.4	50.4	54.1	0.7	50.4
J-5964	29.2	27.2	13.1	50.4	54.2	27.2	50.4
J-5966	47.5	4.8	2.3	43.7	46.7	4.8	43.7
J-5967	47.5	0.8	0.4	43.7	46.7	0.8	43.7
J-5968	31.5	0.8	0.4	48.3	52.8	0.8	48.3
J-5969	31.5	7.7	3.7	48.2	52.7	7.7	48.2
J-5970	33.2	1.8	0.9	48.4	52.2	1.8	48.4
J-5971	33	3.1	1.5	48.5	52.3	3.1	48.5
J-5972	32.2	3.7	1.8	49	52.9	3.7	49
J-5974	37.6	1.3	0.6	47.2	50.7	1.3	47.2
J-5975	37.6	1.1	0.5	47.2	50.8	1.1	47.2
J-5978	30.2	3.9	1.9	46.9	52.9	3.9	46.9
J-5979	32.7	0	0	49	52.9	0	49

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5980	32.4	0	0	49.1	53.1	0	49.1
J-5981	26.6	0	0	49.9	55	0	49.9
J-5982	27.6	1.2	0.6	49.4	54.5	1.2	49.4
J-5983	21.2	0.8	0.4	50.7	57	0.8	50.7
J-5984	21.1	1	0.5	50.8	57	1	50.8
J-5985	33.6	2	1	48.2	52.1	2	48.2
J-5986	33.2	0.5	0.3	48.4	52.3	0.5	48.4
J-5987	33	9.7	4.7	48.5	52.5	9.7	48.5
J-5988	37	0	0	48.7	51.6	0	48.7
J-5989	37.1	0	0	48.7	51.5	0	48.7
J-5990	32	2.4	1.2	49	53	2.4	49
J-5991	32.1	0.5	0.2	49	52.9	0.5	49
J-5992	37.4	2	1	47.4	50.9	2	47.4
J-5993	37.4	0	0	47.4	50.9	0	47.4
J-5994	29.9	3.8	1.8	47.5	53.1	3.8	47.5
J-5995	29.9	1.8	0.9	47.5	53.1	1.8	47.5
J-5996	52.4	0	0	43.9	44.7	0	43.9
J-5997	33.1	0.8	0.4	48.8	52.7	0.8	48.8
J-5998	33	2.4	1.1	48.8	52.8	2.4	48.8
J-5999	37.4	0.2	0.1	47.5	50.9	0.2	47.5
J-6000	37.5	0.8	0.4	47.4	50.9	0.8	47.4
J-6001	28	0	0	50.5	54.4	0	50.5
J-6002	28.1	7.8	3.7	50.5	54.4	7.8	50.5
J-6003	45.5	0.7	0.3	47	48.7	0.7	47
J-6004	45.4	2	0.9	47	48.7	2	47
J-6005	21.2	1.2	0.6	50.8	57	1.2	50.8
J-6006	21.2	3.1	1.5	50.8	57	3.1	50.8
J-6007	37.4	1.9	0.9	47.1	50.7	1.9	47.1
J-6008	37.3	1.8	0.9	47.1	50.7	1.8	47.1
J-6009	20.9	0.7	0.3	50.9	57.1	0.7	50.9
J-6010	20.9	0	0	50.9	57.1	0	50.9
J-6012	42.4	0.9	0.5	45.2	48.7	0.9	45.2
J-6013	42.4	7.1	3.4	45.2	48.7	7.1	45.2
J-6014	32.5	0.5	0.3	45.9	51.8	0.5	45.9
J-6015	50.7	0	0	42.2	45.3	0	42.2
J-6016	42.2	1.4	0.7	45.2	48.7	1.4	45.2
J-6017	41.7	2	0.9	45.5	49	2	45.5
J-6018	50.5	0	0	42.3	45.4	0	42.3
J-6019	37.8	2.3	1.1	47	50.5	2.3	47
J-6020	37.8	1.7	0.8	47	50.5	1.7	47
J-6021	35.7	1.3	0.6	47.5	51.4	1.3	47.5
J-6024	32.1	0.6	0.3	47.1	52.3	0.6	47.1
J-6025	31.5	0.2	0.1	47.2	52.5	0.2	47.2
J-6026	31.8	7.5	3.6	49.4	53.3	7.5	49.4
J-6027	42.4	2.8	1.3	45.3	48.7	2.8	45.3
J-6028	42.3	3.1	1.5	45.3	48.7	3.1	45.3
J-6029	26.9	2.5	1.2	49.8	54.7	2.5	49.8
J-6030	26.9	2.1	1	49.8	54.7	2.1	49.8
J-6031	37.2	2.4	1.2	46.7	50.7	2.4	46.7
J-6032	37.2	2.9	1.4	46.7	50.7	2.9	46.7
J-6033	41.7	1.7	0.8	45.9	49.1	1.7	45.9
J-6034	38.2	1.7	0.8	46.9	50.4	1.7	46.9
J-6035	38.3	1.9	0.9	46.9	50.4	1.9	46.9
J-6036	20.7	0.9	0.4	50.9	57.2	0.9	50.9
J-6037	20.6	3	1.4	51	57.2	3	51
J-6038	27.6	5.1	2.5	50.7	54.6	5.1	50.7
J-6040	41.8	2.3	1.1	45.7	48.9	2.3	45.7
J-6041	42	2.4	1.2	45.6	48.8	2.4	45.6
J-6042	42.4	2.1	1	45.2	48.7	2.1	45.2
J-6043	42.3	2.1	1	45.3	48.8	2.1	45.3
J-6044	30	0.3	0.2	49.9	54	0.3	49.9
J-6045	30.4	2	1	49.7	53.9	2	49.7
J-6046	35.5	6.7	3.2	47.6	51.5	6.7	47.6
J-6048	32.6	0	0	48.8	52.9	0	48.8
J-6049	32.8	3.9	1.9	48.7	52.8	3.9	48.7
J-6050	36.8	0.1	0.1	47.3	50.9	0.1	47.3
J-6051	36.8	1.9	0.9	47.3	50.9	1.9	47.3
J-6052	30.6	3.2	1.5	49.6	53.8	3.2	49.6
J-6053	37.4	0.8	0.4	47.4	50.9	0.8	47.4
J-6055	38.9	2.4	1.2	46.5	50.1	2.4	46.5
J-6056	38.8	8.5	4.1	46.5	50.1	8.5	46.5
J-6057	30.3	2.8	1.3	49.6	53.6	2.8	49.6
J-6059	35.6	6.6	3.2	47.6	51.5	6.6	47.6
J-6060	35.8	2.8	1.3	47.5	51.4	2.8	47.5
J-6061	30.9	2.9	1.4	48.4	53	2.9	48.4
J-6062	30.8	1.4	0.7	48.4	53	1.4	48.4
J-6063	31.8	3.6	1.7	49.4	53.3	3.6	49.4
J-6064	32.3	2.5	1.2	49.2	53.1	2.5	49.2
J-6065	37.4	0	0	46.8	50.7	0	46.8
J-6066	37.4	0.2	0.1	46.8	50.7	0.2	46.8
J-6068	24.1	0.6	0.3	51.2	56.2	0.6	51.2
J-6069	24.2	0.7	0.3	51.2	56.2	0.7	51.2
J-6070	22.1	3.4	1.6	50.8	56.7	3.4	50.8
J-6071	22.2	4.6	2.2	50.8	56.7	4.6	50.8
J-6072	31.9	4	1.9	49	53	4	49
J-6073	31.6	2.1	1	49.1	53.1	2.1	49.1
J-6075	37.4	0	0	47.4	50.9	0	47.4
J-6076	31.7	2.4	1.1	48.6	52.7	2.4	48.6
J-6077	31.8	1.9	0.9	48.6	52.7	1.9	48.6
J-6078	30	7.4	3.6	47.4	53.1	7.4	47.4
J-6079	39.7	1.4	0.7	46.8	50	1.4	46.8
J-6080	37.2	1.4	0.7	50.3	51.8	1.4	50.3
J-6081	37	2.3	1.1	50.4	51.9	2.3	50.4
J-6082	26.7	2.4	1.2	49.8	54.7	2.4	49.8
J-6083	26.8	2.1	1	49.8	54.7	2.1	49.8
J-6084	34.5	1.6	0.8	48.4	51.8	1.6	48.4
J-6085	34.5	6.9	3.3	48.4	51.8	6.9	48.4
J-6086	33.1	2	1	45.7	51.6	2	45.7
J-6087	33.3	6.3	3	45.6	51.5	6.3	45.6
J-6088	42.4	2	1	45.4	48.8	2	45.4
J-6089	42.3	2.2	1.1	45.4	48.8	2.2	45.4
J-6090	32.6	2.8	1.3	48.7	52.7	2.8	48.7
J-6091	33.3	5.6	2.7	48.4	52.4	5.6	48.4
J-6092	20.5	1.5	0.7	51	57.3	1.5	51
J-6093	20.5	2	1	51	57.3	2	51
J-6094	31.8	1.4	0.7	49.1	52.7	1.4	49.1
J-6095	32.1	4	1.9	49	52.6	4	49
J-6096	34.4	1.7	0.8	48.2	51.7	1.7	48.2
J-6097	34.6	6.1	2.9	48.1	51.7	6.1	48.1
J-6098	47.2	2.6	1.3	47.2	48.4	2.6	47.2
J-6099	47.3	0.7	0.3	47.2	48.3	0.7	47.2
J-6100	36.4	9.1	4.4	47.7	51.3	9.1	47.7

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6101	36.1	1.2	0.6	47.3	51.3	1.2	47.3
J-6102	36.2	13.4	6.5	47.3	51.2	13.4	47.3
J-6103	37.7	14.1	6.8	46.7	50.3	14.1	46.7
J-6105	40.9	3.1	1.5	45.8	49.3	3.1	45.8
J-6106	40.3	4.4	2.1	46.1	49.6	4.4	46.1
J-6107	34.6	6.2	3	45.1	51	6.2	45.1
J-6108	34.9	1.4	0.7	45	50.9	1.4	45
J-6109	32.3	11.8	5.7	48.9	52.9	11.8	48.9
J-6110	32.3	1	0.5	49	52.9	1	49
J-6111	31	6.1	2.9	46.8	52.6	6.1	46.8
J-6112	31.1	0.6	0.3	46.7	52.5	0.6	46.7
J-6113	41.2	8.1	3.9	48.4	50.2	8.1	48.4
J-6115	38	0.7	0.3	46.7	50.4	0.7	46.7
J-6116	29.1	9.9	4.8	50.1	54.1	9.9	50.1
J-6117	29.1	0.5	0.2	50.1	54.1	0.5	50.1
J-6118	32.9	0.2	0.1	48.9	52.8	0.2	48.9
J-6119	39.8	4	1.9	49	50.7	4	49
J-6120	39.9	1.4	0.7	49	50.6	1.4	49
J-6121	37.5	0	0	46.7	50.7	0	46.7
J-6122	37.4	5.7	2.7	46.8	50.7	5.7	46.8
J-6123	47.5	1.6	0.8	43.7	46.7	1.6	43.7
J-6124	35.7	0	0	47.6	51.2	0	47.6
J-6125	44.3	0	0	50.1	50.3	0	50.1
J-6126	37.3	3.4	1.6	50	51.7	3.4	50
J-6127	37.2	1.8	0.9	50	51.8	1.8	50
J-6128	37.6	0	0	47.5	50.9	0	47.5
J-6129	37.4	0	0	47.6	51	0	47.6
J-6130	47.3	2.5	1.2	46.9	48.2	2.5	46.9
J-6131	47.4	3	1.4	46.9	48.1	3	46.9
J-6132	32.4	0.2	0.1	49	52.6	0.2	49
J-6133	32.4	3.6	1.7	49	52.6	3.6	49
J-6134	32.3	3.4	1.6	48.3	52.4	3.4	48.3
J-6135	32.3	3.2	1.5	48.3	52.4	3.2	48.3
J-6136	30.7	3	1.4	49.4	53.4	3	49.4
J-6137	30.8	0.7	0.3	49.4	53.4	0.7	49.4
J-6138	34.2	0.3	0.1	48.2	51.8	0.3	48.2
J-6139	34.4	0.9	0.4	48.2	51.7	0.9	48.2
J-6140	32.6	0.9	0.4	45.9	51.8	0.9	45.9
J-6141	21	0.5	0.2	50.8	57	0.5	50.8
J-6142	20.5	0	0	51	57.3	0	51
J-6143	36.3	0.7	0.3	47.1	51.1	0.7	47.1
J-6144	42.6	2.3	1.1	45.4	48.7	2.3	45.4
J-6146	29.8	3.9	1.9	49.9	53.9	3.9	49.9
J-6147	29.7	2.7	1.3	49.9	53.9	2.7	49.9
J-6148	41.4	0.4	0.2	46.2	49.2	0.4	46.2
J-6149	41.4	16.9	8.1	46.2	49.3	16.9	46.2
J-6150	32.3	5.2	2.5	49	52.9	5.2	49
J-6151	41.2	1.1	0.5	46.2	49.3	1.1	46.2
J-6152	41.3	8.9	4.3	46.2	49.3	8.9	46.2
J-6153	32.3	0	0	49.1	52.9	0	49.1
J-6154	37.4	5.4	2.6	46.7	50.4	5.4	46.7
J-6155	37.6	112.5	54.1	46.5	50.3	112.5	46.5
J-6156	30.9	36.1	17.3	49.4	53.3	36.1	49.4
J-6158	29.2	2.2	1.1	47.4	53.3	2.2	47.4
J-6159	29	2.8	1.3	47.4	53.4	2.8	47.4
J-6160	27.3	2.2	1	51.9	54.6	2.2	51.9
J-6161	27.3	3.1	1.5	52	54.7	3.1	52
J-6162	29.2	0.3	0.1	50.1	54	0.3	50.1
J-6163	29.4	2.3	1.1	50	54	2.3	50
J-6164	43	0	0	45.3	48.6	0	45.3
J-6165	20.5	1.4	0.7	51	57.3	1.4	51
J-6167	45.7	4.7	2.3	47.9	49	4.7	47.9
J-6168	29.5	0.5	0.2	47.3	53.2	0.5	47.3
J-6169	29.3	7.3	3.5	47.3	53.3	7.3	47.3
J-6170	29.9	1	0.5	47.1	53	1	47.1
J-6171	29.8	0.8	0.4	47.1	53.1	0.8	47.1
J-6172	43.3	2.1	1	47.4	49.4	2.1	47.4
J-6173	43.2	3.1	1.5	47.4	49.4	3.1	47.4
J-6174	47.4	0.7	0.3	46.7	48.1	0.7	46.7
J-6175	47.4	0.7	0.3	46.7	48.1	0.7	46.7
J-6176	23.5	0.4	0.2	50.7	56.3	0.4	50.7
J-6177	23.5	8.8	4.3	50.7	56.3	8.8	50.7
J-6179	45.6	4.1	2	47.9	49	4.1	47.9
J-6180	37.4	0	0	47	50.6	0	47
J-6181	44.1	8.4	4	45.1	48.1	8.4	45.1
J-6182	44.4	0.8	0.4	45	48	0.8	45
J-6183	23.8	2.3	1.1	51.2	56.2	2.3	51.2
J-6184	29.1	3.4	1.6	50.2	54.1	3.4	50.2
J-6185	28.1	8.3	4	50.6	54.5	8.3	50.6
J-6186	31.5	3	1.4	49.2	53.2	3	49.2
J-6188	32.5	0.6	0.3	48.7	52.7	0.6	48.7
J-6189	43.1	10.2	4.9	47.5	49.3	10.2	47.5
J-6190	43.1	518.4	249.3	47.5	49.3	518.4	47.5
J-6191	41.7	2.1	1	45.5	49	2.1	45.5
J-6192	28.4	0.4	0.2	50.2	54.6	0.4	50.2
J-6193	28.4	9.3	4.5	50.2	54.6	9.3	50.2
J-6194	19.6	9.4	4.5	51.8	57.8	9.4	51.8
J-6195	18.9	5.5	2.7	52.1	58	5.5	52.1
J-6196	37.8	4.6	2.2	46.8	50.5	4.6	46.8
J-6197	37.7	3.3	1.6	46.9	50.5	3.3	46.9
J-6198	32.8	1.1	0.5	45.8	51.8	1.1	45.8
J-6199	42.7	1.4	0.7	47.4	49.4	1.4	47.4
J-6200	42.8	9.7	4.7	47.4	49.4	9.7	47.4
J-6201	32.7	0	0	49.2	53	0	49.2
J-6203	45.3	2.1	1	44.5	47.6	2.1	44.5
J-6204	45.6	8.4	4	44.3	47.5	8.4	44.3
J-6205	44.5	5.4	2.6	44.9	47.9	5.4	44.9
J-6206	44.8	57.6	27.7	44.7	47.8	57.6	44.7
J-6207	27.4	0.7	0.3	50.8	55.1	0.7	50.8
J-6208	27.3	0.7	0.4	50.8	55.1	0.7	50.8
J-6209	47.1	0.4	0.2	43.6	46.8	0.4	43.6
J-6210	40.8	1.7	0.8	45.9	49.3	1.7	45.9
J-6211	40.8	0.4	0.2	45.9	49.4	0.4	45.9
J-6212	32.7	0	0	49.1	53	0	49.1
J-6213	32.7	0	0	49.1	53	0	49.1
J-6214	37.4	0	0	46.9	50.7	0	46.9
J-6215	30.9	2.2	1	49.3	53.6	2.2	49.3
J-6216	30.9	1.1	0.5	49.3	53.6	1.1	49.3
J-6217	29.3	1	0.5	50	54.3	1	50
J-6218	29	3.1	1.5	50.1	54.4	3.1	50.1
J-6219	22.9	2	1	51.4	56.4	2	51.4
J-6220	24.1	2.3	1.1	51	55.9	2.3	51

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6221	42.3	1.6	0.8	45.2	48.7	1.6	45.2
J-6222	42.2	0	0	45.2	48.7	0	45.2
J-6223	27.5	4.6	2.2	50.8	55.1	4.6	50.8
J-6224	27.5	0.9	0.4	50.8	55.1	0.9	50.8
J-6225	27.8	1.2	0.6	51.9	54.4	1.2	51.9
J-6226	27.8	3.2	1.6	51.9	54.4	3.2	51.9
J-6227	34.1	2.2	1.1	48.7	52	2.2	48.7
J-6228	34.1	2.6	1.3	48.7	52	2.6	48.7
J-6229	37.9	1	0.5	46.6	50.4	1	46.6
J-6230	27.3	2.7	1.3	52.4	54.6	2.7	52.4
J-6231	27.2	1.3	0.6	52.5	54.7	1.3	52.5
J-6232	30.8	6.9	3.3	46.8	52.7	6.9	46.8
J-6233	31.2	1.9	0.9	46.7	52.5	1.9	46.7
J-6234	28.1	4.2	2	50.5	54.5	4.2	50.5
J-6235	28.4	11.9	5.7	50.4	54.3	11.9	50.4
J-6236	40.2	6.4	3.1	46.7	49.9	6.4	46.7
J-6237	40.3	1.7	0.8	46.7	49.8	1.7	46.7
J-6238	28	1.6	0.8	50.5	54.4	1.6	50.5
J-6239	37.6	0.5	0.2	47.2	50.8	0.5	47.2
J-6240	43.5	0	0	45.2	48.4	0	45.2
J-6241	37.4	1.1	0.5	47.4	50.9	1.1	47.4
J-6242	37.7	0.7	0.3	47.1	50.7	0.7	47.1
J-6243	37.9	9.6	4.6	47	50.6	9.6	47
J-6244	37.5	3.2	1.6	47.3	50.8	3.2	47.3
J-6245	27.4	0	0	49	54.3	0	49
J-6246	27.4	0	0	49	54.3	0	49
J-6247	38.2	3.2	1.6	46.7	50.3	3.2	46.7
J-6248	38.2	5.5	2.6	46.7	50.3	5.5	46.7
J-6249	27.4	0	0	49	54.3	0	49
J-6250	38.5	0.6	0.3	47.4	50.6	0.6	47.4
J-6251	27.4	2.8	1.3	49.7	54.5	2.8	49.7
J-6252	27.5	5.5	2.6	49.6	54.4	5.5	49.6
J-6253	28.8	0.5	0.2	50.2	54.5	0.5	50.2
J-6254	28.8	3.4	1.6	50.2	54.5	3.4	50.2
J-6256	30.8	0.6	0.3	49.6	53.7	0.6	49.6
J-6257	44.1	0.7	0.3	47.3	49	0.7	47.3
J-6258	44.7	0	0	47	48.8	0	47
J-6259	38.7	2.8	1.3	46.5	50.1	2.8	46.5
J-6260	38.6	2.8	1.3	46.5	50.1	2.8	46.5
J-6261	22.3	0.7	0.4	50.2	56.5	0.7	50.2
J-6262	21.9	4.4	2.1	50.4	56.7	4.4	50.4
J-6263	39.9	1.3	0.6	48.9	50.7	1.3	48.9
J-6264	39.9	0.5	0.2	48.9	50.7	0.5	48.9
J-6265	45.9	0.2	0.1	44	47.3	0.2	44
J-6266	45.3	5.5	2.7	44.3	47.6	5.5	44.3
J-6267	47.1	0.5	0.3	43.6	46.8	0.5	43.6
J-6268	47.2	2.3	1.1	43.6	46.7	2.3	43.6
J-6269	41.6	5.4	2.6	45.7	49.1	5.4	45.7
J-6270	47.2	3.6	1.8	46.5	48.1	3.6	46.5
J-6271	47.3	2.8	1.3	46.4	48	2.8	46.4
J-6272	28.1	1.1	0.5	47.9	53.8	1.1	47.9
J-6273	28.1	2.6	1.2	47.9	53.8	2.6	47.9
J-6275	42.5	2.5	1.2	45.2	48.7	2.5	45.2
J-6276	27.8	0.4	0.2	50.7	55	0.4	50.7
J-6277	27.5	4.5	2.2	50.8	55.1	4.5	50.8
J-6278	31	2.7	1.3	49.3	53.3	2.7	49.3
J-6279	45.7	3.7	1.8	43.2	47.1	3.7	43.2
J-6280	44.1	1.2	0.6	43.9	47.8	1.2	43.9
J-6281	44.6	1.8	0.8	44.7	47.9	1.8	44.7
J-6282	44.4	3.5	1.7	44.8	47.9	3.5	44.8
J-6283	31.6	3.2	1.5	48.3	52.7	3.2	48.3
J-6284	31.2	3.7	1.8	48.4	52.9	3.7	48.4
J-6285	40.5	5.8	2.8	45.9	49.4	5.8	45.9
J-6286	42.3	5.1	2.5	45.5	48.8	5.1	45.5
J-6287	42.3	2.1	1	45.5	48.8	2.1	45.5
J-6288	41.9	1	0.5	45.4	48.9	1	45.4
J-6289	41.7	3.9	1.9	45.6	49	3.9	45.6
J-6290	37.7	3	1.4	46.7	50.6	3	46.7
J-6291	47.5	0.4	0.2	46.3	47.8	0.4	46.3
J-6292	47.4	9.1	4.4	46.3	47.9	9.1	46.3
J-6293	31.4	3.4	1.7	49.3	53.4	3.4	49.3
J-6294	31.2	0.4	0.2	49.4	53.5	0.4	49.4
J-6295	32.8	4.9	2.4	48.5	52.5	4.9	48.5
J-6296	32.6	4.7	2.3	48.7	52.6	4.7	48.7
J-6298	47.1	5.2	2.5	46.6	48.1	5.2	46.6
J-6299	36.9	2.8	1.3	47.3	50.9	2.8	47.3
J-6300	25.8	3.8	1.8	50.6	55.5	3.8	50.6
J-6301	25.7	2.8	1.3	50.7	55.6	2.8	50.7
J-6302	37.7	0.2	0.1	47.1	50.7	0.2	47.1
J-6303	46.9	5.5	2.6	46	47.7	5.5	46
J-6304	42.9	1.7	0.8	47.7	49.5	1.7	47.7
J-6305	35.7	1.2	0.6	44.6	50.5	1.2	44.6
J-6306	35.8	0.9	0.4	44.5	50.4	0.9	44.5
J-6307	33.4	1.4	0.7	45.6	51.5	1.4	45.6
J-6308	34.3	3.2	1.5	45.2	51.1	3.2	45.2
J-6309	32.6	5.3	2.5	48.4	52.4	5.3	48.4
J-6310	32.8	2.6	1.3	48.4	52.3	2.6	48.4
J-6311	29.5	0.7	0.4	50	53.9	0.7	50
J-6312	29.9	0.9	0.5	49.9	53.8	0.9	49.9
J-6313	36.3	1.1	0.5	47.4	51.2	1.1	47.4
J-6314	35.5	2.2	1.1	47.7	51.6	2.2	47.7
J-6315	47.3	0	0	48.1	48.7	0	48.1
J-6316	38.2	2.8	1.3	46.8	50.3	2.8	46.8
J-6317	38.4	3.3	1.6	46.7	50.2	3.3	46.7
J-6318	31	1.3	0.6	49.5	53.6	1.3	49.5
J-6319	28.5	1.6	0.8	50.5	54.5	1.6	50.5
J-6320	29.7	2.1	1	49.9	53.9	2.1	49.9
J-6321	33.8	11	5.3	48.4	52	11	48.4
J-6322	33.7	0.9	0.4	48.4	52	0.9	48.4
J-6323	27.8	0.6	0.3	51.7	54.4	0.6	51.7
J-6324	27.9	3.6	1.7	51.5	54.4	3.6	51.5
J-6325	30.2	0.4	0.2	49.4	53.4	0.4	49.4
J-6326	30.2	4.5	2.2	49.3	53.4	4.5	49.3
J-6327	36.6	1.3	0.6	47.4	51.2	1.3	47.4
J-6328	36.6	4.3	2.1	47.5	51.2	4.3	47.5
J-6329	27	1.4	0.7	50.7	55.2	1.4	50.7
J-6330	26.9	3.9	1.9	50.8	55.3	3.9	50.8
J-6331	32.6	6.5	3.1	49.1	53	6.5	49.1
J-6332	37.4	12.7	6.1	48.9	51.5	12.7	48.9
J-6333	42.1	1	0.5	45.9	49	1	45.9
J-6334	42	0.6	0.3	45.9	49.1	0.6	45.9
J-6335	26.8	1.7	0.8	50.8	55.3	1.7	50.8

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6336	30.8	2.2	1.1	49.5	53.7	2.2	49.5
J-6337	42.7	2.8	1.3	47.6	49.5	2.8	47.6
J-6338	42.7	5.5	2.6	47.7	49.5	5.5	47.7
J-6339	32.7	3.9	1.9	45.9	51.8	3.9	45.9
J-6340	41.5	3.8	1.8	46.1	49.3	3.8	46.1
J-6341	34.6	1.7	0.8	47.8	51.9	1.7	47.8
J-6342	34.3	0.7	0.3	47.9	52	0.7	47.9
J-6343	31.8	2	1	48.9	53.2	2	48.9
J-6344	31.9	0.4	0.2	48.9	53.2	0.4	48.9
J-6345	39.6	5.4	2.6	49.1	50.8	5.4	49.1
J-6346	39.8	0.4	0.2	49	50.7	0.4	49
J-6347	37	3.5	1.7	46.8	50.8	3.5	46.8
J-6348	36.6	4.4	2.1	47	51	4.4	47
J-6349	36.8	0	0	47.3	50.9	0	47.3
J-6350	36.8	0.4	0.2	47.3	50.9	0.4	47.3
J-6351	42.9	4.7	2.3	45.2	48.5	4.7	45.2
J-6352	34.3	3.2	1.5	48.6	51.9	3.2	48.6
J-6353	34.3	1.7	0.8	48.8	52	1.7	48.8
J-6354	32.6	0.9	0.5	48.8	52.6	0.9	48.8
J-6355	32.6	4	1.9	48.7	52.5	4	48.7
J-6356	37.4	1.9	0.9	47.4	50.9	1.9	47.4
J-6358	33.4	1.7	0.8	48.3	52.3	1.7	48.3
J-6359	33.5	1.5	0.7	48.3	52.2	1.5	48.3
J-6360	36.8	2.4	1.2	47.2	50.8	2.4	47.2
J-6361	36.9	2.8	1.3	47.2	50.8	2.8	47.2
J-6362	32.2	13.8	6.7	49	52.9	13.8	49
J-6363	27.4	2.9	1.4	51.7	54.6	2.9	51.7
J-6364	37.4	0	0	46.7	50.6	0	46.7
J-6365	37.5	6.3	3	46.6	50.6	6.3	46.6
J-6366	39.7	4.4	2.1	46.3	49.8	4.4	46.3
J-6367	40.3	3.5	1.7	46.1	49.6	3.5	46.1
J-6368	40.8	4.1	2	46.4	49.6	4.1	46.4
J-6369	34.3	6	2.9	48.2	51.8	6	48.2
J-6370	37.9	5.6	2.7	46.8	50.4	5.6	46.8
J-6371	37.8	2.8	1.4	46.8	50.5	2.8	46.8
J-6372	26.5	0.4	0.2	51.3	55	0.4	51.3
J-6373	26.4	0	0	51.3	55	0	51.3
J-6374	45.7	1.1	0.5	47.9	49	1.1	47.9
J-6375	45.7	6.2	3	47.9	49	6.2	47.9
J-6376	30.1	1	0.5	49.8	53.5	1	49.8
J-6377	29.9	6.1	2.9	49.9	53.6	6.1	49.9
J-6378	27.6	22.7	10.9	52	54.5	22.7	52
J-6379	38	1.6	0.8	48.4	51.2	1.6	48.4
J-6380	32.9	2.6	1.2	48.9	52.8	2.6	48.9
J-6381	32.7	11.4	5.5	48.9	52.9	11.4	48.9
J-6382	39.9	3.5	1.7	46.3	49.8	3.5	46.3
J-6383	40	0.5	0.2	46.2	49.8	0.5	46.2
J-6385	45.4	1	0.5	47	48.7	1	47
J-6386	37.3	1.4	0.7	46.6	50.8	1.4	46.6
J-6387	37.4	3	1.4	46.6	50.7	3	46.6
J-6388	40.9	1.3	0.6	45.9	49.4	1.3	45.9
J-6389	40.8	4.6	2.2	45.9	49.4	4.6	45.9
J-6390	40.7	0.9	0.4	45.9	49.4	0.9	45.9
J-6391	40.9	1.9	0.9	45.8	49.3	1.9	45.8
J-6392	27.2	3.7	1.8	52.2	54.7	3.7	52.2
J-6393	40.6	4.1	2	46	49.5	4.1	46
J-6394	37.4	7.7	3.7	46.7	50.7	7.7	46.7
J-6395	42.8	3.6	1.7	47.9	49.7	3.6	47.9
J-6396	43	1.4	0.7	47.9	49.6	1.4	47.9
J-6397	27.5	8.4	4.1	50.9	55.1	8.4	50.9
J-6398	41.2	5.7	2.7	45.8	49.3	5.7	45.8
J-6399	33.8	3.5	1.7	48.2	52.1	3.5	48.2
J-6400	33.6	4.4	2.1	48.3	52.2	4.4	48.3
J-6401	31.9	0.7	0.3	47.9	52.5	0.7	47.9
J-6402	32	2.1	1	47.8	52.5	2.1	47.8
J-6404	43.3	0.9	0.4	45.4	48.4	0.9	45.4
J-6405	43.2	13.2	6.4	45.4	48.5	13.2	45.4
J-6406	41.8	6.1	2.9	46	49.2	6.1	46
J-6407	32.3	1.1	0.5	48.8	52.8	1.1	48.8
J-6408	32.4	2.9	1.4	48.8	52.7	2.9	48.8
J-6409	28	1.4	0.7	49.3	54.2	1.4	49.3
J-6410	28.1	4.4	2.1	49.3	54.2	4.4	49.3
J-6411	32.8	1.7	0.8	48.6	52.4	1.7	48.6
J-6412	32.7	1.9	0.9	48.6	52.5	1.9	48.6
J-6413	45.1	0.5	0.2	47.6	49	0.5	47.6
J-6414	45.1	6.2	3	47.6	49	6.2	47.6
J-6415	27.4	1.6	0.8	50.3	55	1.6	50.3
J-6416	27.4	4.4	2.1	50.3	55	4.4	50.3
J-6418	27.8	3.7	1.8	50.5	55	3.7	50.5
J-6419	27.2	3.9	1.9	50.6	55.1	3.9	50.6
J-6420	30.7	0.9	0.4	49.5	53.7	0.9	49.5
J-6421	30.6	6.9	3.3	49.6	53.8	6.9	49.6
J-6422	32.4	4.7	2.3	48.8	52.6	4.7	48.8
J-6423	33.1	0	0	48.5	52.3	0	48.5
J-6424	33.3	8.3	4	48.4	52.2	8.3	48.4
J-6425	37.4	0	0	47.3	50.9	0	47.3
J-6426	37.4	0.6	0.3	47.3	50.9	0.6	47.3
J-6427	19.5	3.8	1.8	51.7	57.8	3.8	51.7
J-6428	19.4	3	1.4	51.7	57.8	3	51.7
J-6430	27.9	0.6	0.3	50.6	54.5	0.6	50.6
J-6431	42.3	2.1	1	48.1	49.9	2.1	48.1
J-6432	42.1	0.4	0.2	48.1	50	0.4	48.1
J-6433	42	1.1	0.5	47.4	49.7	1.1	47.4
J-6434	42	2.1	1	47.5	49.7	2.1	47.5
J-6435	47.5	3.5	1.7	43.5	46.6	3.5	43.5
J-6436	47.3	5.6	2.7	43.5	46.7	5.6	43.5
J-6437	42.1	4	1.9	45.9	49	4	45.9
J-6438	32.4	3.6	1.7	48.6	52.5	3.6	48.6
J-6439	41.3	0.3	0.2	45.9	49.1	0.3	45.9
J-6441	47.5	0	0	43.6	46.7	0	43.6
J-6442	41.1	0.5	0.2	45.8	49.3	0.5	45.8
J-6443	41	2.4	1.2	45.9	49.3	2.4	45.9
J-6444	34.1	0.9	0.4	48.1	52.1	0.9	48.1
J-6445	38	2.9	1.4	49.8	51.5	2.9	49.8
J-6446	37.9	4.6	2.2	49.9	51.5	4.6	49.9
J-6447	34.1	4.2	2	48.2	52.1	4.2	48.2
J-6449	37.4	0.7	0.3	49.9	51.7	0.7	49.9
J-6450	37.7	2.1	1	49.8	51.6	2.1	49.8
J-6451	29.1	0.4	0.2	50.2	54.1	0.4	50.2
J-6453	27.2	9.8	4.7	50.7	55.2	9.8	50.7
J-6454	42.1	2.1	1	45.4	48.8	2.1	45.4
J-6455	22.6	1.2	0.6	50.2	56.4	1.2	50.2

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6456	21.9	3.9	1.9	50.5	56.7	3.9	50.5
J-6457	38.3	2.8	1.3	49.7	51.3	2.8	49.7
J-6458	38	4.6	2.2	49.8	51.5	4.6	49.8
J-6459	29.1	3.4	1.6	50.1	54.4	3.4	50.1
J-6460	29.5	38	18.3	49.9	54.2	38	49.9
J-6462	27.7	3.3	1.6	50.5	54.9	3.3	50.5
J-6463	47.9	2.9	1.4	47.2	48.1	2.9	47.2
J-6464	48.2	2.6	1.2	47	48	2.6	47
J-6465	22.4	0	0	50.2	56.5	0	50.2
J-6466	45.9	4	1.9	44	47.3	4	44
J-6467	42.3	2	1	48	49.8	2	48
J-6468	42.1	2.1	1	48.1	49.9	2.1	48.1
J-6469	47.4	0.9	0.4	47.8	48.6	0.9	47.8
J-6470	47.4	0	0	47.9	48.6	0	47.9
J-6471	34.7	9.5	4.6	48	51.6	9.5	48
J-6472	47.5	2.6	1.2	43.6	46.6	2.6	43.6
J-6473	47.5	13.9	6.7	43.6	46.6	13.9	43.6
J-6474	33.3	7.6	3.7	48.4	52.4	7.6	48.4
J-6475	33.3	3.3	1.6	48.4	52.4	3.3	48.4
J-6476	32.4	0.8	0.4	47.6	52.3	0.8	47.6
J-6477	32.3	3.4	1.6	47.6	52.3	3.4	47.6
J-6478	38.3	2.9	1.4	49.2	51.3	2.9	49.2
J-6479	38.1	2.5	1.2	49.3	51.4	2.5	49.3
J-6480	22.7	0.9	0.4	50.1	56.3	0.9	50.1
J-6481	21.9	7.6	3.7	50.5	56.7	7.6	50.5
J-6482	37	5.2	2.5	47.2	50.8	5.2	47.2
J-6483	37.1	2	1	47.2	50.8	2	47.2
J-6484	38	1.3	0.6	49.8	51.5	1.3	49.8
J-6485	38.2	2.3	1.1	49.7	51.4	2.3	49.7
J-6486	32.3	4.2	2	48.6	52.5	4.2	48.6
J-6487	32.1	4.7	2.3	48.6	52.6	4.7	48.6
J-6488	39.1	3.8	1.8	46.8	50.2	3.8	46.8
J-6489	39.9	0	0	46.4	49.9	0	46.4
J-6490	31.3	0	0	49.3	53.4	0	49.3
J-6492	44.4	0.5	0.3	47.4	49.1	0.5	47.4
J-6493	44.2	2.6	1.2	47.4	49.2	2.6	47.4
J-6494	37.9	5.9	2.9	47.1	50.6	5.9	47.1
J-6495	38.1	3	1.5	47	50.6	3	47
J-6496	47.8	1.8	0.9	43.5	46.6	1.8	43.5
J-6498	36.9	1.4	0.7	50.4	52	1.4	50.4
J-6499	28.4	3	1.5	49.3	54.1	3	49.3
J-6500	28.5	3.9	1.9	49.2	54	3.9	49.2
J-6501	33.2	0	0	48.8	52.7	0	48.8
J-6502	42.8	1.5	0.7	45.3	48.6	1.5	45.3
J-6503	42.7	0.9	0.4	45.4	48.7	0.9	45.4
J-6504	40.2	1.9	0.9	45.5	49.5	1.9	45.5
J-6505	39.6	7.2	3.5	45.8	49.7	7.2	45.8
J-6507	45.5	5.3	2.6	47.2	48.7	5.3	47.2
J-6508	35.4	3	1.4	44.7	50.6	3	44.7
J-6509	42.7	5	2.4	47.4	49.5	5	47.4
J-6510	32	1.4	0.7	46.3	52.1	1.4	46.3
J-6511	27.9	3.9	1.9	49.5	54.2	3.9	49.5
J-6512	28.6	5.6	2.7	49.2	53.9	5.6	49.2
J-6513	42.7	8.3	4	45.3	48.6	8.3	45.3
J-6514	47.6	1.8	0.9	43.7	46.6	1.8	43.7
J-6515	39.5	1.7	0.8	46.2	49.7	1.7	46.2
J-6516	39.1	3.9	1.9	46.4	49.9	3.9	46.4
J-6517	32	0.9	0.4	48.2	52.6	0.9	48.2
J-6518	31.3	4.3	2.1	49	52.9	4.3	49
J-6519	31.4	2.1	1	48.9	52.9	2.1	48.9
J-6520	29.5	10.7	5.2	50	53.9	10.7	50
J-6521	32.6	1	0.5	48.7	52.4	1	48.7
J-6522	37.4	0.7	0.3	46.9	50.5	0.7	46.9
J-6523	35.1	2.1	1	47.7	51.6	2.1	47.7
J-6524	35.2	8.7	4.2	47.6	51.5	8.7	47.6
J-6525	38.9	2.7	1.3	49.4	51.2	2.7	49.4
J-6526	39.7	3.8	1.9	46.4	49.9	3.8	46.4
J-6528	30.5	1.2	0.6	48.1	53.1	1.2	48.1
J-6529	29.6	2.3	1.1	48.5	53.5	2.3	48.5
J-6530	38	0	0	47.4	50.7	0	47.4
J-6531	41.6	1.9	0.9	45	48.9	1.9	45
J-6532	32.5	2	1	46	51.9	2	46
J-6533	32.4	3.9	1.9	46.1	51.9	3.9	46.1
J-6534	38.4	5.7	2.7	46.6	50.2	5.7	46.6
J-6535	38.3	0.5	0.3	46.6	50.3	0.5	46.6
J-6536	32.3	4.1	2	49	52.5	4.1	49
J-6537	32.3	14.1	6.8	48.8	52.5	14.1	48.8
J-6538	28.3	0	0	50.4	54.4	0	50.4
J-6539	28.4	5.5	2.6	50.4	54.3	5.5	50.4
J-6540	25.9	0.7	0.3	49.1	54.8	0.7	49.1
J-6541	26	4.6	2.2	49	54.7	4.6	49
J-6542	30.6	5.5	2.6	49.2	53.2	5.5	49.2
J-6543	30.6	4.5	2.2	49.1	53.2	4.5	49.1
J-6544	38	2.9	1.4	49.3	51.4	2.9	49.3
J-6545	47.5	3.1	1.5	43.6	46.7	3.1	43.6
J-6546	39.4	0.5	0.2	47	50.2	0.5	47
J-6547	41.7	6.2	3	46	49.1	6.2	46
J-6548	41.7	0.9	0.4	46	49.1	0.9	46
J-6549	41.9	5.1	2.5	45.4	48.9	5.1	45.4
J-6550	41.9	3.3	1.6	45.4	48.9	3.3	45.4
J-6551	37.3	1.9	0.9	46.6	50.7	1.9	46.6
J-6552	27.3	1	0.5	52.1	54.6	1	52.1
J-6553	26.8	3.2	1.5	52.4	54.9	3.2	52.4
J-6554	26.3	3	1.4	48.9	54.6	3	48.9
J-6555	33.8	0.7	0.3	48.2	52.2	0.7	48.2
J-6556	47.5	2.3	1.1	43.6	46.7	2.3	43.6
J-6557	34.6	2.8	1.3	47.9	51.9	2.8	47.9
J-6558	35.2	1.6	0.8	47.6	51.6	1.6	47.6
J-6559	27	1.2	0.6	51	54.8	1.2	51
J-6560	26.8	1.3	0.6	51.1	54.8	1.3	51.1
J-6561	29.5	1.4	0.7	49.1	53.6	1.4	49.1
J-6562	28.8	2.3	1.1	49.3	53.9	2.3	49.3
J-6563	31.9	0.5	0.2	49	53.2	0.5	49
J-6564	32.1	0.4	0.2	48.9	53.1	0.4	48.9
J-6565	32.2	4.1	2	48.9	52.9	4.1	48.9
J-6566	42.6	3	1.5	45.7	48.7	3	45.7
J-6567	42.5	7	3.4	45.7	48.8	7	45.7
J-6568	35.8	1.4	0.7	47.5	51.1	1.4	47.5
J-6569	32.4	13.5	6.5	48.9	52.8	13.5	48.9
J-6570	33	6.9	3.3	48.7	52.6	6.9	48.7
J-6571	47.6	5	2.4	43.5	46.6	5	43.5
J-6572	47.5	5.3	2.5	43.5	46.6	5.3	43.5

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6573	47.6	2.3	1.1	43.5	46.6	2.3	43.5
J-6574	47.5	0	0	43.5	46.6	0	43.5
J-6575	26.3	5.9	2.8	48.9	54.6	5.9	48.9
J-6576	26.4	4.4	2.1	48.8	54.6	4.4	48.8
J-6577	47.5	2.3	1.1	43.5	46.6	2.3	43.5
J-6578	47.5	0	0	43.6	46.7	0	43.6
J-6579	47.5	2.8	1.4	43.5	46.6	2.8	43.5
J-6580	47.6	5.3	2.5	43.5	46.6	5.3	43.5
J-6581	28	9.6	4.6	48	53.8	9.6	48
J-6584	39.2	3.8	1.8	46.5	50.1	3.8	46.5
J-6585	39.2	6.6	3.2	46.6	50.1	6.6	46.6
J-6586	36.6	2.7	1.3	47.4	51	2.7	47.4
J-6587	36.6	3.4	1.6	47.4	51	3.4	47.4
J-6588	30.1	2.5	1.2	48.8	53.3	2.5	48.8
J-6589	42.3	0	0	45.7	48.9	0	45.7
J-6590	42.3	0	0	45.7	48.9	0	45.7
J-6591	37.3	6.5	3.1	46.7	50.7	6.5	46.7
J-6592	41	8	3.8	47.8	50.2	8	47.8
J-6593	41.6	8.1	3.9	47.6	49.9	8.1	47.6
J-6594	32.4	3.2	1.5	50.8	53.2	3.2	50.8
J-6595	32.4	2	1	50.7	53.2	2	50.7
J-6596	33.3	2.2	1.1	51.6	53.1	2.2	51.6
J-6597	32.9	5.1	2.5	52.4	53.5	5.1	52.4
J-6598	30.1	0	0	49.7	53.7	0	49.7
J-6599	32.5	30.9	14.8	48.5	52.4	30.9	48.5
J-6600	20.5	5.5	2.7	51	57.3	5.5	51
J-6601	40.7	1	0.5	46.1	49.5	1	46.1
J-6602	40.9	3.6	1.7	46	49.4	3.6	46
J-6603	33.1	1.2	0.6	48.5	52.4	1.2	48.5
J-6604	33	0.8	0.4	48.6	52.4	0.8	48.6
J-6605	37.3	0	0	46.9	50.5	0	46.9
J-6606	37.3	2.9	1.4	47	50.6	2.9	47
J-6607	46.1	2.6	1.3	47	48.5	2.6	47
J-6609	32.6	3.5	1.7	48.7	52.6	3.5	48.7
J-6610	33.8	2.9	1.4	48.2	52.1	2.9	48.2
J-6611	32.8	6.8	3.3	48.6	52.4	6.8	48.6
J-6612	42.6	3	1.5	45.6	48.7	3	45.6
J-6613	42.5	8.4	4	45.6	48.7	8.4	45.6
J-6614	45.5	1.6	0.8	47.2	48.7	1.6	47.2
J-6615	37.5	10.4	5	46.6	50.6	10.4	46.6
J-6616	37.6	3.8	1.8	46.6	50.6	3.8	46.6
J-6618	42.3	3.3	1.6	45.5	48.7	3.3	45.5
J-6619	32.6	2.3	1.1	48.8	52.8	2.3	48.8
J-6620	32.9	7	3.4	49.3	53	7	49.3
J-6621	33.2	7.1	3.4	49.1	52.8	7.1	49.1
J-6622	39.2	4.2	2	46.6	50.1	4.2	46.6
J-6623	39.2	3.4	1.6	46.5	50.1	3.4	46.5
J-6624	31.9	1.1	0.5	49	53	1.1	49
J-6625	43.8	1.5	0.7	47	49.1	1.5	47
J-6626	44.6	2.8	1.3	46.6	48.7	2.8	46.6
J-6627	32.8	1.2	0.6	48.8	52.7	1.2	48.8
J-6628	33.4	3.3	1.6	48.5	52.4	3.3	48.5
J-6629	37.1	0.9	0.4	47	50.8	0.9	47
J-6630	37.2	0	0	46.9	50.8	0	46.9
J-6631	37.6	12.4	6	46.8	50.6	12.4	46.8
J-6632	37.6	4.3	2.1	46.8	50.6	4.3	46.8
J-6633	32.4	91.3	43.9	48.4	52.4	91.3	48.4
J-6634	32.4	4.2	2	48.4	52.4	4.2	48.4
J-6635	42.4	2.8	1.3	47.9	49.7	2.8	47.9
J-6636	42.6	3	1.4	47.9	49.7	3	47.9
J-6637	38.3	1.3	0.6	46.3	50	1.3	46.3
J-6638	35.7	5.3	2.6	47.4	51.4	5.3	47.4
J-6639	42.2	0	0	45.7	48.9	0	45.7
J-6640	27.3	6.1	2.9	49.7	54.5	6.1	49.7
J-6641	27.3	3.5	1.7	49.7	54.5	3.5	49.7
J-6642	32.2	5.4	2.6	49.2	53.1	5.4	49.2
J-6643	33.3	0.3	0.1	48.5	52.4	0.3	48.5
J-6644	42.4	6.9	3.3	45.2	48.7	6.9	45.2
J-6646	44	0	0	45	48.2	0	45
J-6648	42.6	3.2	1.6	47.9	49.7	3.2	47.9
J-6649	33.2	9.7	4.7	48.6	52.5	9.7	48.6
J-6651	45.7	1.1	0.5	48.2	49.1	1.1	48.2
J-6652	45.7	3.9	1.9	48	49.1	3.9	48
J-6654	37.3	2.4	1.1	46.6	50.7	2.4	46.6
J-6655	27.8	2.9	1.4	51.4	54.4	2.9	51.4
J-6656	27.9	1.4	0.7	51.3	54.4	1.4	51.3
J-6657	43.7	2.4	1.2	45.4	48.3	2.4	45.4
J-6661	41.8	8.6	4.1	48.3	50.1	8.6	48.3
J-6662	26.1	2.3	1.1	49.9	55	2.3	49.9
J-6664	21.5	3.8	1.8	51.6	57.1	3.8	51.6
J-6665	21.2	5.3	2.5	51.7	57.2	5.3	51.7
J-6666	38.1	3.1	1.5	46.6	50.4	3.1	46.6
J-6667	37.8	15.3	7.4	46.7	50.6	15.3	46.7
J-6668	31.2	5.8	2.8	49.5	53.5	5.8	49.5
J-6669	31.6	0	0	49.3	53.3	0	49.3
J-6670	24.1	0	0	50.4	56	0	50.4
J-6671	24.3	0	0	50.4	55.9	0	50.4
J-6673	42.1	2.4	1.1	45.9	49	2.4	45.9
J-6674	32.4	3.8	1.8	48.9	52.8	3.8	48.9
J-6675	37.9	1.9	0.9	47	50.7	1.9	47
J-6676	37.9	9.7	4.6	47.1	50.7	9.7	47.1
J-6677	39.6	5.1	2.5	46.6	50	5.1	46.6
J-6678	37.4	1.2	0.6	47.2	50.8	1.2	47.2
J-6679	37.4	1.4	0.7	47	50.8	1.4	47
J-6680	44.9	3.8	1.8	48.6	49.5	3.8	48.6
J-6681	45	0	0	49	49.7	0	49
J-6682	34.9	0.4	0.2	47.7	51.7	0.4	47.7
J-6683	38.4	4.4	2.1	49.6	51.3	4.4	49.6
J-6684	45.4	2.4	1.2	46.6	48.4	2.4	46.6
J-6685	45.9	2.6	1.3	46.4	48.2	2.6	46.4
J-6686	29.5	3.2	1.5	47.3	53.2	3.2	47.3
J-6687	29	3.5	1.7	47.5	53.4	3.5	47.5
J-6688	26.6	0	0	51.3	54.9	0	51.3
J-6689	32.8	4.3	2.1	48.6	52.5	4.3	48.6
J-6690	33.1	4.6	2.2	48.5	52.5	4.6	48.5
J-6691	30.2	1.1	0.5	49.7	53.6	1.1	49.7
J-6692	30.2	6.6	3.2	49.7	53.6	6.6	49.7
J-6693	30.6	3.8	1.8	49.6	53.8	3.8	49.6
J-6694	31.5	1.1	0.5	49.2	53.4	1.1	49.2
J-6695	37.2	7.8	3.8	46.9	50.5	7.8	46.9
J-6696	28.1	1.7	0.8	49.5	54.3	1.7	49.5
J-6697	28.1	2.9	1.4	49.4	54.3	2.9	49.4

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6698	37.2	1.1	0.5	46.9	50.5	1.1	46.9
J-6699	37.4	6.3	3	46.9	50.4	6.3	46.9
J-6700	37.4	6.3	3	46.9	50.4	6.3	46.9
J-6701	37.5	2.7	1.3	47.2	50.8	2.7	47.2
J-6702	37.5	2.7	1.3	47.2	50.8	2.7	47.2
J-6704	45.6	0.3	0.2	45	47.5	0.3	45
J-6705	32.5	3.8	1.8	47.5	52.3	3.8	47.5
J-6706	37.4	2.2	1.1	46.6	50.8	2.2	46.6
J-6707	43.2	24.2	11.6	45.9	48.8	24.2	45.9
J-6708	42.9	0	0	45.9	48.9	0	45.9
J-6709	35.9	1.1	0.5	47.4	51.3	1.1	47.4
J-6710	26.1	0.7	0.3	49	54.7	0.7	49
J-6711	26.2	1.1	0.6	48.9	54.7	1.1	48.9
J-6712	44.1	0	0	45.9	48.6	0	45.9
J-6713	43.8	0	0	46.3	48.8	0	46.3
J-6714	37.6	1.3	0.6	49.8	51.6	1.3	49.8
J-6715	37.2	1.1	0.5	50	51.8	1.1	50
J-6716	38.6	7.4	3.5	46.6	50.2	7.4	46.6
J-6717	38.7	4.8	2.3	46.6	50.2	4.8	46.6
J-6718	37.4	6.9	3.3	46.7	50.7	6.9	46.7
J-6719	37.4	3.6	1.7	46.7	50.7	3.6	46.7
J-6720	32.2	4.3	2.1	48.9	52.8	4.3	48.9
J-6721	37.2	14.4	6.9	47.2	50.7	14.4	47.2
J-6722	38.8	7.6	3.7	46.6	50.2	7.6	46.6
J-6723	37.6	3.4	1.6	47.1	50.6	3.4	47.1
J-6724	37.8	3.1	1.5	47	50.5	3.1	47
J-6725	26.8	2	1	49.9	54.7	2	49.9
J-6726	26.7	4.3	2.1	49.9	54.7	4.3	49.9
J-6727	32.1	0.9	0.4	48.6	52.6	0.9	48.6
J-6728	31.1	1.4	0.7	49.1	53	1.4	49.1
J-6730	21	3.1	1.5	50.8	57.1	3.1	50.8
J-6731	42.4	4.6	2.2	45.3	48.7	4.6	45.3
J-6732	42.2	4.9	2.3	45.4	48.8	4.9	45.4
J-6733	30	0.4	0.2	47.3	53	0.4	47.3
J-6734	30	3.2	1.6	47.3	53	3.2	47.3
J-6735	32.1	1	0.5	48.6	52.6	1	48.6
J-6736	32.3	3.6	1.7	48.5	52.5	3.6	48.5
J-6737	31.7	2.7	1.3	49	53	2.7	49
J-6739	28.1	1.5	0.7	50.7	54.6	1.5	50.7
J-6740	27.8	2.7	1.3	50.8	54.6	2.7	50.8
J-6741	26.4	3.6	1.7	48.8	54.6	3.6	48.8
J-6742	39.4	0	0	48.5	50.8	0	48.5
J-6743	39.3	2.1	1	48.5	50.8	2.1	48.5
J-6744	37.6	1.3	0.6	46.7	50.6	1.3	46.7
J-6745	22	0.6	0.3	50.8	56.7	0.6	50.8
J-6746	21.4	11.9	5.7	51.1	57	11.9	51.1
J-6747	37.9	1.3	0.6	49.3	51.5	1.3	49.3
J-6748	37.8	2.5	1.2	49.4	51.5	2.5	49.4
J-6749	34	1.2	0.6	48.1	52.1	1.2	48.1
J-6750	38.3	5.7	2.8	47	50.5	5.7	47
J-6751	32.1	2.1	1	48.1	52.5	2.1	48.1
J-6752	32.3	2.8	1.4	48	52.4	2.8	48
J-6753	49.7	0.2	0.1	46.6	47.4	0.2	46.6
J-6754	31.6	1.4	0.7	48.3	52.7	1.4	48.3
J-6755	38	4.5	2.2	47.1	50.6	4.5	47.1
J-6757	36.1	9.1	4.4	47.2	51.1	9.1	47.2
J-6758	39.5	3.3	1.6	46.4	49.8	3.3	46.4
J-6759	39.4	3.1	1.5	46.4	49.9	3.1	46.4
J-6760	39.6	2.2	1.1	45.8	49.7	2.2	45.8
J-6761	39.8	4.1	2	45.7	49.6	4.1	45.7
J-6762	36.1	1.8	0.9	47.2	51.2	1.8	47.2
J-6763	37.6	4	1.9	46.5	50.5	4	46.5
J-6764	37.2	0	0	47.5	51	0	47.5
J-6765	37.5	0	0	47.4	50.9	0	47.4
J-6766	47.2	2.4	1.2	46.2	47.8	2.4	46.2
J-6767	47.5	1.3	0.6	46.1	47.7	1.3	46.1
J-6768	32.7	5.2	2.5	48.6	52.6	5.2	48.6
J-6769	40.9	0	0	46.4	49.6	0	46.4
J-6770	31.3	1.6	0.8	49.3	53.5	1.6	49.3
J-6771	31.5	4	1.9	49.2	53.4	4	49.2
J-6772	32.1	4.7	2.3	48.7	52.6	4.7	48.7
J-6773	32.1	5.1	2.5	48.7	52.5	5.1	48.7
J-6774	31.9	4.9	2.3	49.7	53.4	4.9	49.7
J-6775	32	2.8	1.3	49.6	53.3	2.8	49.6
J-6776	31.7	7.8	3.8	49.1	53	7.8	49.1
J-6777	28.2	0	0	49	54.2	0	49
J-6778	28	0	0	49.1	54.3	0	49.1
J-6779	30.9	5.4	2.6	49.4	53.3	5.4	49.4
J-6780	31.2	2.7	1.3	49.3	53.2	2.7	49.3
J-6781	37.4	2.9	1.4	46.7	50.7	2.9	46.7
J-6782	32.2	2.3	1.1	48.6	52.5	2.3	48.6
J-6783	32.1	3.1	1.5	48.6	52.6	3.1	48.6
J-6784	36.8	3.9	1.9	46.9	50.8	3.9	46.9
J-6785	36	6	2.9	47.2	51.2	6	47.2
J-6786	39	3.3	1.6	46.7	50.1	3.3	46.7
J-6787	39.2	4	1.9	46.5	50	4	46.5
J-6788	37.6	1.8	0.9	47.4	50.8	1.8	47.4
J-6789	37.7	1.7	0.8	47.4	50.8	1.7	47.4
J-6790	32.7	0	0	48.7	52.5	0	48.7
J-6791	33	4.1	2	48.5	52.3	4.1	48.5
J-6792	37.8	1.2	0.6	48.4	51.2	1.2	48.4
J-6793	26.7	1	0.5	51.2	54.9	1	51.2
J-6794	45.3	4.3	2.1	47.1	48.8	4.3	47.1
J-6795	47.4	1.6	0.8	46.6	48	1.6	46.6
J-6796	47.2	2.8	1.3	43.8	46.8	2.8	43.8
J-6797	29.2	2.4	1.1	49	53.7	2.4	49
J-6798	29.5	3.3	1.6	49	53.6	3.3	49
J-6799	34.7	10.2	4.9	47.7	51.7	10.2	47.7
J-6800	34.8	3.7	1.8	47.7	51.7	3.7	47.7
J-6801	40.6	2.3	1.1	45.9	49.5	2.3	45.9
J-6802	40.2	2.2	1	46.1	49.6	2.2	46.1
J-6803	38	1.5	0.7	47	50.6	1.5	47
J-6804	36.1	2	1	47.2	51.2	2	47.2
J-6805	37.5	2.5	1.2	47.2	50.8	2.5	47.2
J-6806	37.5	9.6	4.6	47.1	50.7	9.6	47.1
J-6807	43.2	7.9	3.8	45.5	48.5	7.9	45.5
J-6808	43.7	4.1	2	45.2	48.3	4.1	45.2
J-6809	38	5.9	2.8	46.9	50.5	5.9	46.9
J-6810	38.1	0.2	0.1	46.9	50.5	0.2	46.9
J-6811	27.8	2.8	1.4	51.4	54.4	2.8	51.4
J-6812	47.2	2.9	1.4	43.6	46.8	2.9	43.6
J-6813	37.6	1.1	0.5	47.2	50.8	1.1	47.2

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6814	27.3	5.1	2.5	51.1	54.9	5.1	51.1
J-6815	31.4	5.8	2.8	49.2	53.2	5.8	49.2
J-6816	31.6	3.2	1.5	49.1	53.1	3.2	49.1
J-6817	37.5	3.1	1.5	47.4	50.9	3.1	47.4
J-6818	37.4	7.5	3.6	47.4	50.9	7.5	47.4
J-6819	32.4	1.8	0.8	48.9	52.8	1.8	48.9
J-6820	32.1	1.4	0.7	49	53	1.4	49
J-6821	37.7	0.7	0.4	47.3	50.8	0.7	47.3
J-6822	37.8	6.1	2.9	47.2	50.7	6.1	47.2
J-6823	40.1	4.6	2.2	46.2	49.7	4.6	46.2
J-6824	40.3	1.7	0.8	46.1	49.6	1.7	46.1
J-6825	38.8	2.3	1.1	49.3	51.1	2.3	49.3
J-6826	38.5	2.5	1.2	49.4	51.2	2.5	49.4
J-6827	34.5	7.9	3.8	48.5	52.2	7.9	48.5
J-6828	34	3.1	1.5	48.8	52.5	3.1	48.8
J-6829	41.8	1.2	0.6	45.7	49	1.2	45.7
J-6830	22	0.5	0.2	50.5	56.7	0.5	50.5
J-6831	20.9	2.2	1.1	51	57.1	2.2	51
J-6832	39.7	0.5	0.2	48.6	50.7	0.5	48.6
J-6833	40.4	3	1.4	48.3	50.4	3	48.3
J-6834	29.1	2.8	1.4	47.4	53.3	2.8	47.4
J-6835	28.5	7.7	3.7	47.6	53.6	7.7	47.6
J-6836	32.7	3.6	1.7	49.3	53	3.6	49.3
J-6837	32.7	3.2	1.6	48.6	52.4	3.2	48.6
J-6838	32.4	5.3	2.5	48.7	52.5	5.3	48.7
J-6839	37.3	0	0	47.6	51	0	47.6
J-6840	46.4	1.2	0.6	44.1	47.2	1.2	44.1
J-6841	45.9	2	1	44.3	47.3	2	44.3
J-6842	22	0	0	51.4	56.8	0	51.4
J-6843	22.1	0	0	51.4	56.8	0	51.4
J-6844	45.8	2.8	1.3	46.9	48.6	2.8	46.9
J-6845	22.1	0	0	51.5	56.8	0	51.5
J-6846	39.3	0.8	0.4	46.5	49.9	0.8	46.5
J-6847	22.4	0	0	51	56.6	0	51
J-6848	31.8	10.5	5	49	53	10.5	49
J-6850	42.8	2.2	1.1	45.1	48.6	2.2	45.1
J-6851	42.4	10.8	5.2	45.3	48.7	10.8	45.3
J-6852	41.3	2.9	1.4	45.9	49.3	2.9	45.9
J-6853	32.7	1.4	0.7	48.7	52.7	1.4	48.7
J-6854	32.8	0	0	48.6	52.6	0	48.6
J-6855	33	2.1	1	48.5	52.4	2.1	48.5
J-6856	33.5	1.5	0.7	48.3	52.2	1.5	48.3
J-6857	32.2	1.3	0.6	48.4	52.5	1.3	48.4
J-6858	32.1	2.1	1	48.5	52.5	2.1	48.5
J-6859	25.2	1.4	0.7	49.4	55.1	1.4	49.4
J-6860	25.1	6.9	3.3	49.4	55.2	6.9	49.4
J-6861	37.4	17.7	8.5	46.9	50.5	17.7	46.9
J-6862	37.3	0	0	46.7	50.4	0	46.7
J-6863	32	4.9	2.3	48.4	52.6	4.9	48.4
J-6864	23.2	0	0	51.2	56.4	0	51.2
J-6865	22.3	5.5	2.6	51.5	56.7	5.5	51.5
J-6866	44.1	8.9	4.3	47.1	49.1	8.9	47.1
J-6867	44.2	2.7	1.3	47	49	2.7	47
J-6868	37.6	14.6	7	47.2	50.7	14.6	47.2
J-6869	38	1.3	0.6	46.9	50.4	1.3	46.9
J-6870	27.6	0.7	0.3	50.9	55.3	0.7	50.9
J-6871	26.3	0.3	0.2	50.8	55.4	0.3	50.8
J-6872	26.4	2.2	1.1	50.8	55.4	2.2	50.8
J-6873	32.6	2.5	1.2	49	52.9	2.5	49
J-6874	42.5	8.1	3.9	45.2	48.7	8.1	45.2
J-6875	39	6.7	3.2	48.9	51	6.7	48.9
J-6876	39.6	2.7	1.3	48.6	50.7	2.7	48.6
J-6877	42.3	1.7	0.8	45.5	48.8	1.7	45.5
J-6878	31.2	3.2	1.5	49.3	53.5	3.2	49.3
J-6879	32.4	4.8	2.3	49	52.9	4.8	49
J-6880	32.3	4.8	2.3	49	52.9	4.8	49
J-6881	34.7	4.1	2	47.8	51.8	4.1	47.8
J-6882	33.3	0	0	48.7	52.7	0	48.7
J-6883	32.3	4.4	2.1	49	52.9	4.4	49
J-6884	43.9	2	1	45.2	48.2	2	45.2
J-6885	37.5	3	1.4	47.3	50.8	3	47.3
J-6886	45.9	2.9	1.4	44.3	47.3	2.9	44.3
J-6887	45	4.6	2.2	44.7	47.8	4.6	44.7
J-6888	35.8	0	0	47.6	51.1	0	47.6
J-6889	42.3	3.9	1.9	45.4	48.8	3.9	45.4
J-6890	32.4	2.7	1.3	48.6	52.5	2.7	48.6
J-6891	32.3	3.4	1.6	48.7	52.5	3.4	48.7
J-6892	44.6	3.3	1.6	47.3	49	3.3	47.3
J-6893	46.1	0.5	0.2	47.3	48.7	0.5	47.3
J-6894	46	0.4	0.2	47.4	48.7	0.4	47.4
J-6895	37.4	6.4	3.1	46.6	50.7	6.4	46.6
J-6896	22.9	10.9	5.2	51.1	56.6	10.9	51.1
J-6897	22.4	2.3	1.1	51.3	56.7	2.3	51.3
J-6898	25.5	0.5	0.3	51	55.8	0.5	51
J-6899	25.7	6.8	3.3	51	55.7	6.8	51
J-6900	32.2	18.4	8.9	48.7	52.5	18.4	48.7
J-6901	36.8	4.4	2.1	50.1	52	4.4	50.1
J-6902	31.6	3.3	1.6	49.1	53	3.3	49.1
J-6903	31.3	0.2	0.1	49.2	53.2	0.2	49.2
J-6904	31.9	1.1	0.5	49.1	53	1.1	49.1
J-6905	41.5	4.2	2	45.7	49.1	4.2	45.7
J-6906	27.5	0.7	0.3	50.9	55.1	0.7	50.9
J-6907	27.6	1.9	0.9	50.8	55.1	1.9	50.8
J-6908	30.4	3.2	1.6	49.7	53.4	3.2	49.7
J-6909	30.6	2.6	1.2	49.6	53.2	2.6	49.6
J-6910	33	0.3	0.1	48.7	52.6	0.3	48.7
J-6912	27.6	7.4	3.6	50.2	54.9	7.4	50.2
J-6913	38.5	3.7	1.8	49.6	51.3	3.7	49.6
J-6914	47.4	3.6	1.7	46.4	48	3.6	46.4
J-6915	47.3	4	1.9	46.4	48	4	46.4
J-6916	33.8	8	3.8	48.2	52	8	48.2
J-6917	32.4	6.1	3	48.5	52.5	6.1	48.5
J-6918	32.3	7.3	3.5	48.5	52.5	7.3	48.5
J-6919	32.2	4.3	2.1	48.8	52.8	4.3	48.8
J-6920	32.5	4.1	2	48.7	52.7	4.1	48.7
J-6921	37.3	3.2	1.5	47.1	50.7	3.2	47.1
J-6922	32.3	4.9	2.3	48.7	52.6	4.9	48.7
J-6923	32.3	2.2	1.1	48.7	52.6	2.2	48.7
J-6924	37.8	7.1	3.4	46.5	50.5	7.1	46.5
J-6925	37.4	3.5	1.7	46.7	50.6	3.5	46.7
J-6926	38.1	6.1	2.9	47	50.5	6.1	47
J-6927	37.9	1.3	0.6	47	50.6	1.3	47

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6928	31.6	5.1	2.4	48.6	52.8	5.1	48.6
J-6929	30.5	3.7	1.8	49.7	53.3	3.7	49.7
J-6930	30.1	3.2	1.5	49.8	53.5	3.2	49.8
J-6931	42.5	2.1	1	47.3	49.5	2.1	47.3
J-6932	42.7	7.8	3.8	47.2	49.4	7.8	47.2
J-6933	35	2.9	1.4	47.6	51.6	2.9	47.6
J-6934	35.9	3.1	1.5	47.2	51.2	3.1	47.2
J-6935	31.1	3.2	1.6	49.4	53	3.2	49.4
J-6936	30.7	1.4	0.7	49.5	53.2	1.4	49.5
J-6937	46.8	24.5	11.8	43.9	47	24.5	43.9
J-6938	46.8	1.6	0.8	43.8	47	1.6	43.8
J-6939	31.5	3.2	1.5	49.2	52.9	3.2	49.2
J-6940	31.2	1.4	0.7	49.3	53	1.4	49.3
J-6941	28.1	3.8	1.8	50.3	54.8	3.8	50.3
J-6943	28.5	1.3	0.6	47.9	53.7	1.3	47.9
J-6944	29.7	9.6	4.6	47.4	53.2	9.6	47.4
J-6945	29.8	1.8	0.9	48.8	53.5	1.8	48.8
J-6946	29.3	3.3	1.6	49	53.7	3.3	49
J-6947	29.8	2.7	1.3	49	53.5	2.7	49
J-6948	29.1	3.5	1.7	49.3	53.8	3.5	49.3
J-6949	26.7	0.4	0.2	50.7	55.3	0.4	50.7
J-6950	26.6	1.9	0.9	50.7	55.3	1.9	50.7
J-6952	37.4	3.5	1.7	46.6	50.7	3.5	46.6
J-6953	32	2.2	1.1	48.9	52.9	2.2	48.9
J-6954	32.4	2.9	1.4	48.8	52.7	2.9	48.8
J-6955	29.2	0	0	50	54	0	50
J-6956	47.2	0	0	48	48.7	0	48
J-6957	19.1	0.2	0.1	51.7	57.9	0.2	51.7
J-6958	18.3	8.2	4	52.2	58.3	8.2	52.2
J-6959	26.2	1.7	0.8	49	54.7	1.7	49
J-6960	28.3	2.3	1.1	48	53.7	2.3	48
J-6961	30.1	4.6	2.2	47.2	53	4.6	47.2
J-6962	44	10.9	5.2	47.5	49.2	10.9	47.5
J-6963	44.6	3.7	1.8	47.2	48.9	3.7	47.2
J-6964	32.6	3.7	1.8	48.7	52.6	3.7	48.7
J-6965	31.4	13.6	6.5	49.3	53.1	13.6	49.3
J-6966	33.7	8.3	4	48.4	52.3	8.3	48.4
J-6967	42.3	2.3	1.1	45.6	48.9	2.3	45.6
J-6968	41.3	4.5	2.2	45.9	49.1	4.5	45.9
J-6969	41.4	2	1	45.9	49.1	2	45.9
J-6970	27.6	1.4	0.7	49.4	54.5	1.4	49.4
J-6971	28.4	9	4.3	50.4	54.7	9	50.4
J-6972	21.1	0.5	0.2	51.2	57.1	0.5	51.2
J-6974	30.2	0	0	49.7	53.7	0	49.7
J-6975	38.9	0.4	0.2	47.2	50.4	0.4	47.2
J-6976	27.9	2.1	1	48	53.9	2.1	48
J-6977	21.7	8.9	4.3	51	56.9	8.9	51
J-6978	22.6	0.7	0.3	50.6	56.5	0.7	50.6
J-6979	42.5	3.2	1.5	45.4	48.7	3.2	45.4
J-6980	32.3	3.9	1.9	48.5	52.5	3.9	48.5
J-6981	32.3	8.7	4.2	48.5	52.5	8.7	48.5
J-6982	43.4	4.9	2.4	47.3	49.3	4.9	47.3
J-6983	43	17.9	8.6	47.5	49.5	17.9	47.5
J-6984	37	1.1	0.5	46.8	50.8	1.1	46.8
J-6985	37	5.5	2.6	46.8	50.8	5.5	46.8
J-6986	45.6	3.1	1.5	46.9	48.6	3.1	46.9
J-6987	42.8	0	0	45.4	48.7	0	45.4
J-6988	21.2	8.7	4.2	51.1	57.1	8.7	51.1
J-6989	32.9	3.7	1.8	48.5	52.4	3.7	48.5
J-6990	32.5	2.1	1	48.7	52.6	2.1	48.7
J-6992	47.6	48.7	23.4	43.4	46.6	48.7	43.4
J-6993	28.3	8.7	4.2	49.1	54	8.7	49.1
J-6994	29.6	9.5	4.6	50	53.9	9.5	50
J-6995	31.5	0.9	0.4	48.3	52.8	0.9	48.3
J-6996	31.4	1.9	0.9	48.1	52.7	1.9	48.1
J-6997	31.5	4.7	2.3	48.1	52.7	4.7	48.1
J-6998	41.3	0.9	0.4	46.1	49.3	0.9	46.1
J-6999	41.4	14.4	6.9	46	49.3	14.4	46
J-7000	32.3	2.2	1	48.7	52.6	2.2	48.7
J-7001	31.8	5.5	2.7	49	53	5.5	49
J-7002	30.6	3.8	1.8	49.5	53.5	3.8	49.5
J-7003	37.9	2.7	1.3	49.1	51.4	2.7	49.1
J-7004	38.6	3.2	1.5	48.8	51.1	3.2	48.8
J-7005	48.5	0	0	43	46.2	0	43
J-7007	41.9	4.8	2.3	45.7	49	4.8	45.7
J-7008	38.9	2.4	1.2	46.4	50	2.4	46.4
J-7009	39.1	2.2	1	46.3	49.9	2.2	46.3
J-7010	28.6	3.7	1.8	50.5	54.1	3.7	50.5
J-7011	28.8	3.1	1.5	50.4	54	3.1	50.4
J-7012	37.1	8.3	4	46.8	53.3	8.3	46.8
J-7013	25	12.6	6.1	50.5	55.6	12.6	50.5
J-7014	30.6	1.4	0.7	49.7	53.8	1.4	49.7
J-7015	38.2	1.5	0.7	46.9	50.4	1.5	46.9
J-7016	37.9	10.4	5	47	50.5	10.4	47
J-7017	29.4	1.6	0.8	49	53.6	1.6	49
J-7018	29.3	10.5	5.1	49	53.6	10.5	49
J-7019	42.7	0.8	0.4	45.5	48.7	0.8	45.5
J-7020	38.7	3.9	1.9	46.7	50.2	3.9	46.7
J-7021	31.9	2	1	48.6	52.6	2	48.6
J-7022	31.9	2.8	1.3	48.6	52.6	2.8	48.6
J-7023	31.6	19.3	9.3	49.1	53.1	19.3	49.1
J-7024	38.6	3.8	1.8	46.8	50.3	3.8	46.8
J-7025	31.5	2.1	1	49.1	53.1	2.1	49.1
J-7026	46.4	35.5	17.1	43.9	47.1	35.5	43.9
J-7027	37.5	3.1	1.5	47.1	50.6	3.1	47.1
J-7028	37.2	1	0.5	46.7	50.7	1	46.7
J-7029	33.9	0.1	0	48.2	52	0.1	48.2
J-7030	32.9	0	0	48.8	52.8	0	48.8
J-7031	32.7	0	0	48.9	52.9	0	48.9
J-7032	28.9	2.3	1.1	50.3	54	2.3	50.3
J-7033	29.2	3.1	1.5	50.2	53.9	3.1	50.2
J-7034	43	3	1.4	45.5	48.5	3	45.5
J-7035	43.8	2.3	1.1	45.1	48.2	2.3	45.1
J-7036	44.3	2.5	1.2	46.6	48.8	2.5	46.6
J-7037	43.4	3.6	1.7	47	49.2	3.6	47
J-7038	32.7	2.2	1.1	48.6	52.6	2.2	48.6
J-7039	32.8	0.8	0.4	48.8	52.7	0.8	48.8
J-7040	32.4	6.2	3	49	52.9	6.2	49
J-7042	42.1	0.9	0.4	45.7	48.9	0.9	45.7
J-7043	40.4	0.4	0.2	46.6	49.8	0.4	46.6
J-7044	45.8	0.4	0.2	47.7	48.9	0.4	47.7
J-7045	45.7	5.1	2.4	47.9	49	5.1	47.9

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7046	25.3	0.7	0.3	50.4	55.4	0.7	50.4
J-7047	25.6	3	1.5	50.3	55.2	3	50.3
J-7048	39.9	3.2	1.5	46.2	49.7	3.2	46.2
J-7049	39.5	3.9	1.9	46.4	49.9	3.9	46.4
J-7050	38.1	1.4	0.7	46.9	50.4	1.4	46.9
J-7051	32.2	3.4	1.6	48.4	52.5	3.4	48.4
J-7052	32.2	10.4	5	48.4	52.5	10.4	48.4
J-7053	38.9	1.8	0.9	46.7	50.2	1.8	46.7
J-7054	32.4	3.9	1.9	50.7	53.1	3.9	50.7
J-7055	46.9	2.1	1	43.8	46.9	2.1	43.8
J-7056	40.8	3.8	1.8	48	50.2	3.8	48
J-7057	37.4	9.1	4.4	46.7	50.7	9.1	46.7
J-7058	38	4.8	2.3	46.7	50.4	4.8	46.7
J-7059	47.3	3.4	1.6	46.6	48	3.4	46.6
J-7060	47.8	4.6	2.2	46.4	47.9	4.6	46.4
J-7061	28.2	0.6	0.3	50.5	54.7	0.6	50.5
J-7062	28.1	0	0	50.5	54.7	0	50.5
J-7063	46.3	2.8	1.4	44.2	47.2	2.8	44.2
J-7065	31	9.2	4.4	49.4	53.3	9.2	49.4
J-7066	31.3	13	6.3	49.2	53.1	13	49.2
J-7067	33.2	4.6	2.2	51.3	53.1	4.6	51.3
J-7068	33.2	6	2.9	51.3	53	6	51.3
J-7069	27.7	4.1	2	51.4	54.5	4.1	51.4
J-7070	32.8	5.3	2.6	48.6	52.5	5.3	48.6
J-7071	33	2	1	48.5	52.4	2	48.5
J-7072	29.9	1.7	0.8	49.6	53.5	1.7	49.6
J-7073	29.6	1.1	0.5	49.7	53.6	1.1	49.7
J-7074	27.2	4.8	2.3	49.7	54.6	4.8	49.7
J-7075	26.8	3.5	1.7	49.9	54.7	3.5	49.9
J-7076	31.9	3.6	1.7	48.4	52.6	3.6	48.4
J-7077	32.3	3	1.4	48.3	52.5	3	48.3
J-7078	44.9	4.7	2.3	44.8	47.8	4.7	44.8
J-7079	45.6	2	1	44.5	47.5	2	44.5
J-7080	40.6	1.8	0.8	46.3	49.6	1.8	46.3
J-7081	41.3	0	0	45.6	49	0	45.6
J-7082	41.1	16	7.7	45.7	49.1	16	45.7
J-7084	35.7	4.4	2.1	47.4	51.4	4.4	47.4
J-7085	33.9	5.5	2.6	48.2	52.1	5.5	48.2
J-7086	31.8	5.3	2.6	48.3	52.6	5.3	48.3
J-7087	44.5	4.5	2.1	45	48	4.5	45
J-7088	45.1	1.3	0.6	44.8	47.7	1.3	44.8
J-7089	43.8	7.6	3.6	47.1	49.2	7.6	47.1
J-7090	44.2	5.3	2.6	47	49	5.3	47
J-7091	35.7	2.6	1.2	47.9	51.5	2.6	47.9
J-7092	34.2	5.7	2.7	48.5	52.2	5.7	48.5
J-7093	37.4	1.6	0.8	46.6	50.7	1.6	46.6
J-7094	37.5	3.8	1.8	46.6	50.6	3.8	46.6
J-7095	25.6	5.4	2.6	49.2	54.9	5.4	49.2
J-7096	38.9	7	3.4	49	51.1	7	49
J-7097	31.4	2.2	1.1	49.2	53.1	2.2	49.2
J-7098	31.4	3.4	1.6	49.2	53.1	3.4	49.2
J-7099	32.7	1.3	0.6	48.6	52.6	1.3	48.6
J-7100	32.5	3.4	1.6	48.7	52.7	3.4	48.7
J-7101	32.5	16.8	8.1	48.7	52.7	16.8	48.7
J-7102	32.3	3.4	1.6	48.8	52.8	3.4	48.8
J-7103	31.9	4	1.9	49	52.9	4	49
J-7104	32	3.4	1.6	48.9	52.9	3.4	48.9
J-7105	32.2	2	1	48.8	52.8	2	48.8
J-7106	32.1	3.4	1.6	48.9	52.8	3.4	48.9
J-7107	33.3	1.4	0.7	51.8	53.2	1.4	51.8
J-7108	30.8	6.7	3.2	48.9	53.1	6.7	48.9
J-7109	42.3	13.4	6.4	45.6	48.9	13.4	45.6
J-7110	38.8	7.4	3.6	46.5	50.1	7.4	46.5
J-7111	32.4	7.7	3.7	48.8	52.6	7.7	48.8
J-7112	45.9	3.5	1.7	46.1	48.2	3.5	46.1
J-7113	46.7	2.3	1.1	45.7	47.8	2.3	45.7
J-7114	33	8.4	4.1	48.6	52.4	8.4	48.6
J-7115	38.4	4.4	2.1	49.4	51.3	4.4	49.4
J-7116	40.2	3.3	1.6	48.6	50.5	3.3	48.6
J-7117	37.1	9.5	4.6	46.7	50.7	9.5	46.7
J-7118	32.4	1.9	0.9	47.2	52.2	1.9	47.2
J-7119	36.9	5.4	2.6	50.1	51.9	5.4	50.1
J-7120	41.5	2	1	48.4	50.2	2	48.4
J-7121	41.7	8.2	3.9	48.3	50.1	8.2	48.3
J-7122	40.2	5.8	2.8	46.6	49.8	5.8	46.6
J-7123	28.2	0	0	50.5	54.4	0	50.5
J-7124	29.2	1.9	0.9	50.5	54.4	1.9	50.5
J-7125	38.1	0	0	46.6	50.3	0	46.6
J-7126	27.1	4.2	2	51.4	54.7	4.2	51.4
J-7127	27.4	2.8	1.3	51.3	54.6	2.8	51.3
J-7128	31.7	6.8	3.3	49.2	53.1	6.8	49.2
J-7129	32.2	2	1	49.1	53	2	49.1
J-7130	32.3	5	2.4	49.1	52.9	5	49.1
J-7131	31.8	4	1.9	49.1	53.3	4	49.1
J-7132	32.3	8	3.8	48.9	53	8	48.9
J-7133	32.3	2.3	1.1	48.5	52.5	2.3	48.5
J-7134	38	7.2	3.5	49.4	51.5	7.2	49.4
J-7135	38	5.1	2.4	49.4	51.5	5.1	49.4
J-7136	38	1.3	0.6	49.8	51.5	1.3	49.8
J-7137	38.1	1.6	0.8	49.7	51.4	1.6	49.7
J-7138	32.4	1.9	0.9	48.2	52.4	1.9	48.2
J-7139	32.4	5.8	2.8	48.2	52.4	5.8	48.2
J-7140	43.7	0	0	45.6	48.6	0	45.6
J-7141	43.7	0	0	45.6	48.5	0	45.6
J-7142	30.4	0.7	0.3	47.2	52.9	0.7	47.2
J-7143	30.5	3.7	1.8	47	52.8	3.7	47
J-7144	23.8	14	6.7	50.6	56.1	14	50.6
J-7145	23.6	5	2.4	50.7	56.2	5	50.7
J-7146	26.3	0.5	0.3	50	54.9	0.5	50
J-7147	26.4	7.5	3.6	50	54.9	7.5	50
J-7149	44.1	6.3	3	47.2	49	6.3	47.2
J-7150	42.2	6	2.9	45.4	48.8	6	45.4
J-7151	32.4	0.6	0.3	49.3	53.1	0.6	49.3
J-7152	32.4	5.6	2.7	49.4	53.2	5.6	49.4
J-7153	37	2.6	1.2	46.9	50.8	2.6	46.9
J-7154	37	2.1	1	46.9	50.8	2.1	46.9
J-7155	36.8	17.2	8.3	47.3	50.9	17.2	47.3
J-7156	39.3	2.6	1.3	48.8	50.9	2.6	48.8
J-7157	38.7	2.9	1.4	49	51.1	2.9	49
J-7158	32.4	3.5	1.7	49.5	53.2	3.5	49.5
J-7159	42.4	1.5	0.7	47.7	49.6	1.5	47.7
J-7160	42.4	3.6	1.7	47.7	49.6	3.6	47.7

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7161	37.4	2.1	1	46.9	50.8	2.1	46.9
J-7162	39.4	2	1	49	50.8	2	49
J-7163	38.1	2	1	49.6	51.4	2	49.6
J-7164	33.1	1.6	0.8	48.5	52.3	1.6	48.5
J-7165	33	7.2	3.5	48.5	52.3	7.2	48.5
J-7166	43.6	3.5	1.7	47.6	49.3	3.5	47.6
J-7167	44.7	3.3	1.6	47.1	48.8	3.3	47.1
J-7168	32.3	3.2	1.5	48.8	52.8	3.2	48.8
J-7169	29	4.7	2.3	50.2	54.2	4.7	50.2
J-7170	43.5	4.4	2.1	47	49.1	4.4	47
J-7171	43.6	9.3	4.5	47	49	9.3	47
J-7172	47.6	0.3	0.1	47.3	48.3	0.3	47.3
J-7173	47.5	9.8	4.7	47.1	48.3	9.8	47.1
J-7174	36.1	7.3	3.5	47.2	51.1	7.3	47.2
J-7176	37.4	5.4	2.6	46.6	50.8	5.4	46.6
J-7177	37.4	10.4	5	46.6	50.8	10.4	46.6
J-7178	31.3	2.1	1	48.1	52.8	2.1	48.1
J-7179	30.8	5.3	2.5	48.3	53	5.3	48.3
J-7180	45.7	5.3	2.5	44.4	47.4	5.3	44.4
J-7181	45.7	4.3	2.1	44.4	47.4	4.3	44.4
J-7182	42.1	3	1.5	45.9	49	3	45.9
J-7183	42.1	3.2	1.5	45.8	48.9	3.2	45.8
J-7185	36.5	2.3	1.1	44.2	50.1	2.3	44.2
J-7186	37.4	0.2	0.1	47	50.7	0.2	47
J-7187	37.5	1.7	0.8	47	50.6	1.7	47
J-7188	41.7	0.7	0.3	46	49.2	0.7	46
J-7189	36.7	3.7	1.8	47	51	3.7	47
J-7190	37.2	2.8	1.3	50.2	51.8	2.8	50.2
J-7191	37.1	5.3	2.6	50.3	51.9	5.3	50.3
J-7192	32.3	4.1	2	47.6	52.3	4.1	47.6
J-7193	32.7	1.4	0.7	47.4	52.2	1.4	47.4
J-7195	48	6.4	3.1	46.5	47.8	6.4	46.5
J-7196	26.8	6.2	3	50.7	55.3	6.2	50.7
J-7197	26.5	3.7	1.8	50.8	55.4	3.7	50.8
J-7198	45.9	1.8	0.9	46.8	48.5	1.8	46.8
J-7199	18.3	3.1	1.5	52.2	58.3	3.1	52.2
J-7200	18.9	8.7	4.2	52	58	8.7	52
J-7201	24.2	0	0	49.9	55.5	0	49.9
J-7202	24.5	0	0	49.8	55.4	0	49.8
J-7203	40.7	3.5	1.7	48	50.3	3.5	48
J-7204	31.2	1.6	0.8	49.4	53.2	1.6	49.4
J-7205	29.5	15	7.2	50	53.9	15	50
J-7207	26.5	4.2	2	50.7	55.4	4.2	50.7
J-7208	45.1	2.1	1	48.3	49.4	2.1	48.3
J-7209	45.7	4.3	2.1	48.1	49.1	4.3	48.1
J-7210	36.8	1.6	0.8	47.1	51	1.6	47.1
J-7211	43.3	9.4	4.5	44.2	48.1	9.4	44.2
J-7212	41.7	3.1	1.5	48.2	50	3.1	48.2
J-7213	42.9	8.8	4.2	45.2	48.6	8.8	45.2
J-7215	34.6	4.8	2.3	48.5	51.8	4.8	48.5
J-7216	34.7	2.1	1	48.4	51.7	2.1	48.4
J-7217	26	10.8	5.2	50	55	10.8	50
J-7218	27.3	6.4	3.1	49.5	54.5	6.4	49.5
J-7219	37.3	2.3	1.1	46.9	50.5	2.3	46.9
J-7220	37.4	1.2	0.6	46.6	50.8	1.2	46.6
J-7221	37.4	5.1	2.4	46.6	50.8	5.1	46.6
J-7222	51.8	0	0	41.7	44.8	0	41.7
J-7223	34.9	6.5	3.1	47.7	51.8	6.5	47.7
J-7224	30.4	10.7	5.1	47	52.8	10.7	47
J-7225	30.4	9.2	4.4	47.1	52.8	9.2	47.1
J-7226	46	1.6	0.8	47.2	48.7	1.6	47.2
J-7227	32	3.5	1.7	48.9	52.9	3.5	48.9
J-7228	32.5	10.8	5.2	48.7	52.7	10.8	48.7
J-7229	19.4	7.4	3.5	51.8	57.8	7.4	51.8
J-7231	33.4	2.7	1.3	51.7	53.1	2.7	51.7
J-7232	31.8	7.4	3.6	47.9	52.6	7.4	47.9
J-7233	28.6	0.8	0.4	50.3	54.1	0.8	50.3
J-7234	28.4	4.2	2	50.4	54.2	4.2	50.4
J-7235	31.9	3.3	1.6	48.7	52.7	3.3	48.7
J-7236	32.2	6.9	3.3	48.6	52.6	6.9	48.6
J-7237	33.2	0	0	48.8	52.7	0	48.8
J-7238	27.6	8	3.9	50.8	55	8	50.8
J-7239	32	16.4	7.9	48.5	52.6	16.4	48.5
J-7240	26.7	1.6	0.8	51.2	54.9	1.6	51.2
J-7241	40.4	3.9	1.9	46	49.4	3.9	46
J-7242	39.6	6	2.9	46.3	49.7	6	46.3
J-7243	32.5	2.1	1	48.8	52.8	2.1	48.8
J-7244	42.9	35.7	17.2	45.3	48.6	35.7	45.3
J-7245	28.9	0.7	0.3	50.2	54.2	0.7	50.2
J-7246	28.8	3.8	1.8	50.2	54.2	3.8	50.2
J-7247	36.6	3.6	1.7	47.3	50.9	3.6	47.3
J-7248	38.2	3	1.5	46.3	50.3	3	46.3
J-7249	37.4	2.8	1.3	46.7	50.6	2.8	46.7
J-7250	33	8.4	4	48.5	52.4	8.4	48.5
J-7251	33.6	6.9	3.3	48.2	52.2	6.9	48.2
J-7252	42.1	0	0	45.9	49	0	45.9
J-7253	42	0	0	46.2	49.2	0	46.2
J-7254	37.4	5.4	2.6	46.9	50.7	5.4	46.9
J-7255	33	8.1	3.9	48.8	52.3	8.1	48.8
J-7257	45.4	7.6	3.7	47.1	48.7	7.6	47.1
J-7259	37.4	3.8	1.8	47.1	50.6	3.8	47.1
J-7260	37.2	4.3	2.1	47.2	50.8	4.3	47.2
J-7261	37.1	2.1	1	47.2	50.8	2.1	47.2
J-7262	47.4	1.1	0.5	46.6	48	1.1	46.6
J-7263	47.4	5.2	2.5	46.6	48	5.2	46.6
J-7264	37.3	13.1	6.3	46.9	50.8	13.1	46.9
J-7265	38.6	4.6	2.2	46.3	50.2	4.6	46.3
J-7266	32.5	8.9	4.3	48.9	52.5	8.9	48.9
J-7268	28.2	4.5	2.2	49.5	54.1	4.5	49.5
J-7269	27.5	5.1	2.4	49.7	54.4	5.1	49.7
J-7270	34.8	6.6	3.2	47.7	51.6	6.6	47.7
J-7271	35.4	7.8	3.8	47.5	51.4	7.8	47.5
J-7272	36.9	4.6	2.2	47.3	50.9	4.6	47.3
J-7273	36.7	4.4	2.1	47.4	50.9	4.4	47.4
J-7274	43.3	27.4	13.2	44.3	48.1	27.4	44.3
J-7275	38.4	4.1	2	46.6	50.2	4.1	46.6
J-7276	38.2	7.3	3.5	46.7	50.3	7.3	46.7
J-7277	41.1	0.7	0.4	46	49.3	0.7	46
J-7278	29.7	4.3	2.1	49.1	53.5	4.3	49.1
J-7279	29.8	8.4	4	49.1	53.5	8.4	49.1
J-7280	39.5	4.9	2.4	46.4	49.8	4.9	46.4
J-7281	39.1	4	1.9	46.6	50	4	46.6

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7282	42.5	1.9	0.9	47.7	49.6	1.9	47.7
J-7283	42.1	6.3	3	47.9	49.7	6.3	47.9
J-7284	38	5	2.4	46.7	50.4	5	46.7
J-7285	22.2	0	0	51.9	56.9	0	51.9
J-7286	30.7	2	1	49.7	53.8	2	49.7
J-7287	30.9	3.8	1.8	49.7	53.7	3.8	49.7
J-7288	25	4.1	2	51	55.9	4.1	51
J-7289	47.6	2.3	1.1	43.6	46.6	2.3	43.6
J-7290	47.5	4.4	2.1	43.6	46.7	4.4	43.6
J-7291	31.9	3.2	1.5	49.1	53.2	3.2	49.1
J-7292	19.4	20.5	9.9	51.7	57.8	20.5	51.7
J-7293	18.9	1.8	0.9	52	58	1.8	52
J-7294	41.6	8.6	4.1	45.6	49.1	8.6	45.6
J-7295	32.2	4.4	2.1	48.6	52.5	4.4	48.6
J-7296	32.5	0.7	0.3	48.5	52.4	0.7	48.5
J-7297	37.1	3.4	1.6	50.3	51.9	3.4	50.3
J-7298	35.8	4.1	2	44.6	50.4	4.1	44.6
J-7300	43.6	8.6	4.1	45	48.3	8.6	45
J-7301	43.6	0	0	45	48.3	0	45
J-7302	37.4	0.4	0.2	50.3	51.7	0.4	50.3
J-7303	37.7	1.6	0.8	50.1	51.6	1.6	50.1
J-7304	41.8	1.5	0.7	45.5	48.9	1.5	45.5
J-7305	42	10.4	5	45.4	48.8	10.4	45.4
J-7306	31.5	5.6	2.7	49.3	52.9	5.6	49.3
J-7307	32.1	2.6	1.3	49	52.6	2.6	49
J-7308	40.4	2	1	46.1	49.6	2	46.1
J-7309	28	0	0	50.6	54.5	0	50.6
J-7311	38.5	0.8	0.4	46.5	50.3	0.8	46.5
J-7312	28.6	3.8	1.8	49.2	54	3.8	49.2
J-7314	38.1	1.8	0.9	46.9	50.4	1.8	46.9
J-7315	37.7	4.5	2.2	46.5	50.6	4.5	46.5
J-7316	42.8	8.2	3.9	45.3	48.6	8.2	45.3
J-7317	28.9	6.5	3.1	48	53.6	6.5	48
J-7318	35.2	3.5	1.7	47.6	51.5	3.5	47.6
J-7319	35.8	7.4	3.6	47.3	51.2	7.4	47.3
J-7320	37.5	7.7	3.7	47	50.7	7.7	47
J-7321	31.9	4.7	2.2	48.7	52.7	4.7	48.7
J-7322	42.5	4.4	2.1	47.5	49.6	4.4	47.5
J-7323	44.1	1.4	0.7	46.9	49	1.4	46.9
J-7324	17.5	2.3	1.1	53.3	58.8	2.3	53.3
J-7325	18.1	3.6	1.7	53	58.6	3.6	53
J-7326	38.5	3.7	1.8	46.7	50.2	3.7	46.7
J-7327	38.8	3.3	1.6	46.5	50.1	3.3	46.5
J-7328	20.9	1.7	0.8	50.9	57.1	1.7	50.9
J-7329	32	3.3	1.6	47.8	52.5	3.3	47.8
J-7330	30	8.4	4	49	53.4	8.4	49
J-7331	29.9	10.8	5.2	48.9	53.4	10.8	48.9
J-7332	27.5	1.6	0.8	49.7	54.4	1.6	49.7
J-7333	27.2	2.3	1.1	49.7	54.6	2.3	49.7
J-7334	38.9	10.3	5	46.4	50	10.3	46.4
J-7335	20.3	4.1	2	51.3	57.4	4.1	51.3
J-7336	27.2	8.8	4.2	51	55	8.8	51
J-7337	27.2	6.8	3.3	50.9	55	6.8	50.9
J-7338	32.5	6.3	3	48.5	52.4	6.3	48.5
J-7339	32.6	2.7	1.3	48.4	52.4	2.7	48.4
J-7340	33.9	2.3	1.1	48.4	52	2.3	48.4
J-7341	34	4.2	2	48.4	51.9	4.2	48.4
J-7342	48.2	1.6	0.8	46.9	48	1.6	46.9
J-7343	32.4	5.5	2.6	48.8	52.7	5.5	48.8
J-7344	31.8	2.7	1.3	49	53	2.7	49
J-7345	42.4	11	5.3	45.5	48.8	11	45.5
J-7346	28	5	2.4	49.5	54.2	5	49.5
J-7347	27.5	2.2	1	49.7	54.4	2.2	49.7
J-7348	39.6	4.5	2.2	45.6	49.6	4.5	45.6
J-7349	31.4	11.9	5.7	48.1	52.8	11.9	48.1
J-7350	37.6	5	2.4	46.9	50.6	5	46.9
J-7351	37.7	4.4	2.1	46.8	50.5	4.4	46.8
J-7352	41.3	5.9	2.8	46.1	49.3	5.9	46.1
J-7353	41.5	5	2.4	46	49.2	5	46
J-7354	31.5	1.6	0.8	47.3	52.5	1.6	47.3
J-7356	32.6	2.4	1.2	48.7	52.5	2.4	48.7
J-7357	32.4	8.9	4.3	48.8	52.6	8.9	48.8
J-7358	35.2	3.2	1.5	47.7	51.6	3.2	47.7
J-7359	35	6.5	3.1	47.9	51.8	6.5	47.9
J-7360	33.6	1.6	0.8	48.5	52.4	1.6	48.5
J-7361	33.7	3	1.4	48.4	52.3	3	48.4
J-7362	32.4	7.6	3.7	48.8	52.6	7.6	48.8
J-7363	32.4	8.1	3.9	48.8	52.6	8.1	48.8
J-7364	19.6	4.6	2.2	51.6	57.7	4.6	51.6
J-7365	43.8	3.2	1.5	47.2	49.2	3.2	47.2
J-7366	43.4	5.3	2.6	47.3	49.3	5.3	47.3
J-7367	19.4	3.5	1.7	51.8	57.8	3.5	51.8
J-7368	18.8	3.9	1.9	52.1	58.1	3.9	52.1
J-7369	37.4	0	0	47.3	50.9	0	47.3
J-7370	19.4	7.5	3.6	51.7	57.8	7.5	51.7
J-7371	19.5	3	1.4	51.7	57.8	3	51.7
J-7372	29.1	3.7	1.8	49.1	53.7	3.7	49.1
J-7373	33.7	3.1	1.5	51.3	52.9	3.1	51.3
J-7374	33.4	3.9	1.9	51.4	53	3.9	51.4
J-7375	30.6	4.4	2.1	47.3	52.8	4.4	47.3
J-7376	33.9	4.2	2	48.4	51.9	4.2	48.4
J-7377	36	8.5	4.1	47.2	52	8.5	47.2
J-7378	36.8	2.9	1.4	46.8	51.5	2.9	46.8
J-7379	35.6	7.3	3.5	47.5	51.4	7.3	47.5
J-7380	37.3	4.1	2	46.7	50.7	4.1	46.7
J-7381	33.6	8	3.9	48.3	52.1	8	48.3
J-7382	32.9	4.4	2.1	48.6	52.4	4.4	48.6
J-7383	39	1.4	0.7	46.4	50	1.4	46.4
J-7384	33.8	6.1	2.9	48.4	52.3	6.1	48.4
J-7385	38.6	3.6	1.7	46.8	50.3	3.6	46.8
J-7386	32.4	3.5	1.7	48.7	52.8	3.5	48.7
J-7387	19	7.7	3.7	51.9	58	7.7	51.9
J-7388	46	6.9	3.3	47.5	48.8	6.9	47.5
J-7389	45.9	3	1.4	47.6	48.9	3	47.6
J-7390	36.5	9	4.3	47.7	51.3	9	47.7
J-7391	36.5	9.6	4.6	47.8	51.3	9.6	47.8
J-7392	43.3	0.8	0.4	44.3	48.2	0.8	44.3
J-7393	30.5	3.2	1.6	47	52.8	3.2	47
J-7394	29.8	6.8	3.3	47.3	53.1	6.8	47.3
J-7395	45	5.5	2.6	47.2	48.9	5.5	47.2
J-7396	32.7	8.2	4	50.5	53	8.2	50.5
J-7397	32.7	4	1.9	50.8	53.1	4	50.8

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7398	33.1	3.4	1.6	48.5	52.4	3.4	48.5
J-7399	28.6	1.1	0.5	50.3	54.1	1.1	50.3
J-7400	27.1	5.5	2.7	48.5	54.3	5.5	48.5
J-7401	27.5	7.6	3.6	48.3	54.1	7.6	48.3
J-7402	33.8	8.9	4.3	45.4	51.3	8.9	45.4
J-7403	32	3.3	1.6	48.7	52.6	3.3	48.7
J-7404	42.6	3.9	1.9	48	49.8	3.9	48
J-7405	38.3	7.6	3.6	46.9	50.5	7.6	46.9
J-7406	38.6	0.3	0.2	46.8	50.3	0.3	46.8
J-7408	31	5.4	2.6	47	52.6	5.4	47
J-7409	37.4	6.3	3	47.1	50.8	6.3	47.1
J-7410	37.6	3.1	1.5	46.6	50.6	3.1	46.6
J-7411	37.6	3.5	1.7	46.6	50.6	3.5	46.6
J-7412	27.4	4	1.9	49.5	54.4	4	49.5
J-7413	27.8	5.6	2.7	49.3	54.3	5.6	49.3
J-7414	42.4	1.8	0.9	45.7	48.8	1.8	45.7
J-7415	33.7	1.6	0.8	48.7	52.4	1.6	48.7
J-7416	34.7	13.6	6.5	48.2	52	13.6	48.2
J-7417	37.5	5.1	2.5	47.2	50.8	5.1	47.2
J-7418	44.6	5.2	2.5	46.4	48.6	5.2	46.4
J-7419	42.3	4.2	2	48.2	49.9	4.2	48.2
J-7420	42.1	4.1	2	48.3	50	4.1	48.3
J-7421	26.5	5.4	2.6	50	54.9	5.4	50
J-7422	26.4	2	1	50	54.9	2	50
J-7423	37.5	11.5	5.5	47.2	50.8	11.5	47.2
J-7424	33.3	4	1.9	48.6	52.5	4	48.6
J-7425	32.4	3.3	1.6	48.8	52.7	3.3	48.8
J-7426	32.4	4.6	2.2	48.8	52.7	4.6	48.8
J-7427	31.8	5.8	2.8	48.4	52.7	5.8	48.4
J-7428	32	8.5	4.1	48.3	52.5	8.5	48.3
J-7429	37.8	4.1	2	47.1	50.5	4.1	47.1
J-7430	37.3	2.2	1.1	47.3	50.7	2.2	47.3
J-7431	47.1	2.5	1.2	46.7	48.1	2.5	46.7
J-7432	42	6.7	3.2	45.8	49	6.7	45.8
J-7433	41.9	5	2.4	45.8	49	5	45.8
J-7434	36.5	6.9	3.3	47	52.4	6.9	47
J-7435	27.2	6.2	3	50.4	55.1	6.2	50.4
J-7436	27.2	3.8	1.8	50.4	55	3.8	50.4
J-7438	41.6	2.5	1.2	46	49.2	2.5	46
J-7439	37.4	0.7	0.3	47.2	50.9	0.7	47.2
J-7440	26.9	3.9	1.9	50.5	55.2	3.9	50.5
J-7441	26.8	141.8	68.2	50.5	55.2	141.8	50.5
J-7442	26.9	3.9	1.9	50.8	55.3	3.9	50.8
J-7443	41.7	3.6	1.7	45.5	49	3.6	45.5
J-7444	42.1	5.2	2.5	45.3	48.8	5.2	45.3
J-7445	30.5	2.3	1.1	49.5	53.5	2.3	49.5
J-7446	42.2	2.5	1.2	45.7	48.8	2.5	45.7
J-7447	27.9	1.7	0.8	49.3	54.2	1.7	49.3
J-7448	27.9	2.5	1.2	49.3	54.2	2.5	49.3
J-7449	41	1.1	0.5	45.8	49.2	1.1	45.8
J-7450	37	6.2	3	47.2	50.8	6.2	47.2
J-7452	32.3	4.6	2.2	48.7	52.5	4.6	48.7
J-7453	27.4	1.7	0.8	49.7	54.5	1.7	49.7
J-7454	30.5	2.1	1	47	52.8	2.1	47
J-7455	31.8	10.5	5	46.2	52.2	10.5	46.2
J-7456	31.4	2.3	1.1	46.4	52.3	2.3	46.4
J-7457	44.8	1	0.5	43.6	47.5	1	43.6
J-7458	46.2	7.1	3.4	43	46.9	7.1	43
J-7459	38.3	6.9	3.3	49.2	51.3	6.9	49.2
J-7460	37	29.1	14	46.9	50.9	29.1	46.9
J-7461	29.4	0.7	0.3	50.4	54.3	0.7	50.4
J-7462	27.5	2.7	1.3	51.2	55.1	2.7	51.2
J-7463	27.3	10	4.8	48.4	54.2	10	48.4
J-7464	27	3.8	1.8	48.5	54.3	3.8	48.5
J-7465	32.5	4.7	2.3	48.8	52.6	4.7	48.8
J-7466	27.6	3.6	1.7	50.3	54.9	3.6	50.3
J-7467	27.3	5.8	2.8	50.4	55	5.8	50.4
J-7468	40.6	16.4	7.9	45.9	49.3	16.4	45.9
J-7469	40.8	0	0	45.9	49.2	0	45.9
J-7470	27	3.1	1.5	48.6	54.3	3.1	48.6
J-7471	27	1.2	0.6	48.6	54.3	1.2	48.6
J-7472	37.3	4.1	2	47	50.8	4.1	47
J-7473	37.2	5.3	2.6	47	50.8	5.3	47
J-7474	29.6	8.9	4.3	47.2	53.1	8.9	47.2
J-7475	31.4	11.5	5.5	46.4	52.4	11.5	46.4
J-7476	31.7	1.2	0.6	46.3	52.2	1.2	46.3
J-7477	19.2	10.4	5	51.9	57.9	10.4	51.9
J-7478	47.9	2.5	1.2	43.2	46.4	2.5	43.2
J-7479	37.1	11.1	5.3	46.7	51.8	11.1	46.7
J-7480	37.1	5.1	2.5	46.7	51	5.1	46.7
J-7481	26.8	3.7	1.8	48.7	54.4	3.7	48.7
J-7482	27	12.3	5.9	48.6	54.3	12.3	48.6
J-7483	19.9	6	2.9	52.2	57.8	6	52.2
J-7484	18.8	3.2	1.6	52.7	58.3	3.2	52.7
J-7485	29.3	3	1.4	47.3	53.3	3	47.3
J-7486	27.5	11.8	5.7	49.6	54.4	11.8	49.6
J-7487	32.7	2.6	1.2	48.4	52.4	2.6	48.4
J-7488	34	8.3	4	48.1	52.1	8.3	48.1
J-7489	32.1	5.5	2.6	48.9	52.9	5.5	48.9
J-7490	32.2	6.1	2.9	48.9	52.8	6.1	48.9
J-7491	27.3	7.2	3.5	50.9	54.9	7.2	50.9
J-7492	32.1	1.4	0.7	48.8	52.8	1.4	48.8
J-7493	35.5	9.1	4.4	47.5	51.4	9.1	47.5
J-7495	36.1	5.9	2.8	47.3	51.1	5.9	47.3
J-7496	36.6	13.5	6.5	47	50.9	13.5	47
J-7497	33.2	0.7	0.3	48.7	52.2	0.7	48.7
J-7498	46.6	3.4	1.6	44	47.1	3.4	44
J-7499	47.6	0.7	0.3	44	46.6	0.7	44
J-7500	47.5	9.4	4.5	43.9	46.7	9.4	43.9
J-7501	30.9	1.4	0.7	49.4	53.3	1.4	49.4
J-7502	33	3.2	1.6	51.3	53.1	3.2	51.3
J-7503	41.4	2.2	1	48.1	50	2.2	48.1
J-7504	42.8	7.9	3.8	47.5	49.4	7.9	47.5
J-7505	33.4	3.3	1.6	48.3	52.3	3.3	48.3
J-7506	33.6	6.8	3.3	48.2	52.2	6.8	48.2
J-7507	31	3.4	1.7	49.4	53.3	3.4	49.4
J-7508	32.4	6.6	3.2	48.7	52.7	6.6	48.7
J-7509	26.2	8.3	4	50.1	55	8.3	50.1
J-7510	27.3	7.8	3.8	51.9	54.6	7.8	51.9
J-7511	36.8	7.3	3.5	46.9	50.8	7.3	46.9
J-7512	32.3	3.9	1.9	48.7	52.6	3.9	48.7
J-7513	32.4	12.5	6	48.7	52.5	12.5	48.7

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7514	33	3.8	1.9	51.3	53.1	3.8	51.3
J-7515	36.9	3.5	1.7	46.8	51.3	3.5	46.8
J-7517	32.9	3.2	1.6	48.6	52.6	3.2	48.6
J-7518	35.8	5	2.4	47.3	51.4	5	47.3
J-7519	35.7	11.5	5.5	47.3	51.6	11.5	47.3
J-7520	30.7	3.9	1.9	49.4	53.4	3.9	49.4
J-7521	34.2	3.6	1.7	48.3	52.1	3.6	48.3
J-7522	31.4	5.2	2.5	46.4	52.3	5.2	46.4
J-7523	30.9	3.6	1.7	46.6	52.6	3.6	46.6
J-7524	34.6	10.7	5.2	47.5	51.8	10.7	47.5
J-7525	39.9	6.8	3.3	48.3	50.6	6.8	48.3
J-7526	39.4	2.4	1.2	48.5	50.8	2.4	48.5
J-7527	31.5	3.3	1.6	48.2	52.7	3.3	48.2
J-7528	31.2	3.8	1.8	48.4	52.9	3.8	48.4
J-7529	45.2	21.4	10.3	44.4	47.6	21.4	44.4
J-7530	38.5	5.2	2.5	46.5	50.2	5.2	46.5
J-7531	42.5	7.9	3.8	45.4	48.7	7.9	45.4
J-7532	43.6	1.4	0.7	47.2	49.3	1.4	47.2
J-7533	27.3	0	0	49.2	54.4	0	49.2
J-7534	35.5	2	1	47.5	51.4	2	47.5
J-7536	27.7	3	1.4	51.3	54.5	3	51.3
J-7537	40.6	1.1	0.5	46	49.3	1.1	46
J-7538	40.5	0	0	46	49.3	0	46
J-7539	45.8	11	5.3	47.5	48.8	11	47.5
J-7540	47	3.8	1.8	46.8	48.2	3.8	46.8
J-7541	39.1	1.1	0.5	49.3	51	1.1	49.3
J-7543	38.8	3.9	1.9	46.7	50.1	3.9	46.7
J-7544	32.9	3.2	1.6	51.4	53.2	3.2	51.4
J-7545	32.8	3.8	1.8	51.4	53.2	3.8	51.4
J-7546	32.3	3.5	1.7	48.7	52.5	3.5	48.7
J-7547	32.3	9.9	4.7	48.7	52.5	9.9	48.7
J-7548	19.4	7.2	3.4	51.7	57.8	7.2	51.7
J-7549	19.4	4.9	2.4	51.7	57.8	4.9	51.7
J-7551	32.4	3.5	1.7	48.5	52.4	3.5	48.5
J-7552	32.4	7.9	3.8	48.5	52.5	7.9	48.5
J-7553	32.2	2.6	1.3	47.8	52.4	2.6	47.8
J-7554	32.8	8	3.9	48.6	52.5	8	48.6
J-7555	32.6	6.9	3.3	48.7	52.5	6.9	48.7
J-7556	30.5	7.7	3.7	49.6	53.3	7.7	49.6
J-7557	28.7	1.4	0.7	50.3	54.6	1.4	50.3
J-7558	32	6.1	2.9	48.3	52.6	6.1	48.3
J-7559	33.8	5.7	2.7	48.4	51.9	5.7	48.4
J-7560	45.7	0	0	48.6	49.3	0	48.6
J-7561	32.5	4.1	2	48.8	52.6	4.1	48.8
J-7562	33.8	12.4	6	48.4	52	12.4	48.4
J-7563	32.9	10.2	4.9	51.9	53.3	10.2	51.9
J-7564	40.8	3.4	1.6	45.9	49.2	3.4	45.9
J-7565	41.2	10.9	5.2	45.8	49.1	10.9	45.8
J-7566	43.1	4.2	2	45.2	48.5	4.2	45.2
J-7567	47.4	5.1	2.4	45.5	47.5	5.1	45.5
J-7568	45.7	7.2	3.5	48	49	7.2	48
J-7569	37.4	3.8	1.8	47	50.8	3.8	47
J-7570	37.7	7.2	3.5	47	50.7	7.2	47
J-7571	32.4	2.8	1.3	48.8	52.6	2.8	48.8
J-7572	27.7	2.8	1.3	50.4	54.9	2.8	50.4
J-7573	38	2.9	1.4	49.7	51.4	2.9	49.7
J-7574	37.9	5.5	2.7	49.7	51.5	5.5	49.7
J-7575	37.3	6.8	3.3	46.7	50.7	6.8	46.7
J-7576	38.1	7	3.4	46.4	50.4	7	46.4
J-7577	39.3	4.2	2	45.9	49.8	4.2	45.9
J-7578	38.8	3.7	1.8	46.1	50.1	3.7	46.1
J-7579	37	4.4	2.1	47.2	50.8	4.4	47.2
J-7580	40.9	0.2	0.1	45.8	49.2	0.2	45.8
J-7581	40.2	1.9	0.9	46.1	49.5	1.9	46.1
J-7582	45.7	3.3	1.6	47.4	48.8	3.3	47.4
J-7583	37.4	4.5	2.2	50.1	51.7	4.5	50.1
J-7584	42.4	2.3	1.1	45.3	48.7	2.3	45.3
J-7585	42.3	9.1	4.4	45.4	48.8	9.1	45.4
J-7586	31.1	4.6	2.2	49.4	53.1	4.6	49.4
J-7587	27.3	3.6	1.7	49.7	54.5	3.6	49.7
J-7588	27.4	1.9	0.9	49.6	54.4	1.9	49.6
J-7589	27.7	4.2	2	50.3	54.9	4.2	50.3
J-7590	27.8	4.3	2.1	50.2	54.8	4.3	50.2
J-7591	38.3	2.8	1.4	49.3	51.3	2.8	49.3
J-7592	36	11.5	5.5	47.2	51.2	11.5	47.2
J-7593	36.3	4.9	2.3	47.1	51.1	4.9	47.1
J-7594	27.4	1.2	0.6	48.5	54.2	1.2	48.5
J-7595	37.4	10.3	5	46.6	50.7	10.3	46.6
J-7597	32.7	4.2	2	50.7	53	4.2	50.7
J-7598	32.7	0	0	50.7	53.1	0	50.7
J-7599	21.6	2	1	50.6	56.8	2	50.6
J-7600	28	4	1.9	50.6	54.9	4	50.6
J-7601	41.8	0.7	0.3	45.5	49	0.7	45.5
J-7602	42.1	6.7	3.2	45.4	48.8	6.7	45.4
J-7603	27.6	7.1	3.4	50.6	55	7.1	50.6
J-7604	27.8	7.8	3.7	50.7	55	7.8	50.7
J-7605	19.8	6	2.9	51.6	57.7	6	51.6
J-7606	45.1	2.1	1	48.1	49.3	2.1	48.1
J-7607	37.7	5.3	2.6	47	50.5	5.3	47
J-7608	32.4	8.2	4	48.8	52.7	8.2	48.8
J-7609	44.5	2.4	1.1	45	48	2.4	45
J-7610	45	3.5	1.7	47.2	48.9	3.5	47.2
J-7611	44.9	4.3	2.1	47.3	49	4.3	47.3
J-7612	18.2	2.2	1.1	52.2	58.3	2.2	52.2
J-7613	32.4	10.9	5.2	48.8	52.6	10.9	48.8
J-7614	30.9	6.5	3.1	48.9	53	6.5	48.9
J-7615	31	4.4	2.1	48.8	53	4.4	48.8
J-7616	29.9	3.4	1.6	47.5	53.1	3.4	47.5
J-7617	26.5	5.2	2.5	51.3	55	5.2	51.3
J-7618	26.1	3.9	1.9	49	54.7	3.9	49
J-7619	30.8	2.8	1.4	46.7	52.6	2.8	46.7
J-7620	30.6	5.3	2.5	46.8	52.7	5.3	46.8
J-7621	32.1	3.1	1.5	48.9	52.6	3.1	48.9
J-7622	42.7	2.8	1.4	45.5	48.7	2.8	45.5
J-7623	39.5	8.9	4.3	46.4	49.8	8.9	46.4
J-7624	39.8	8.6	4.2	46.3	49.7	8.6	46.3
J-7625	37.6	7.5	3.6	49.6	51.6	7.5	49.6
J-7626	40.2	4.5	2.2	48.4	50.5	4.5	48.4
J-7627	41.9	4.7	2.3	45.5	49	4.7	45.5
J-7628	36.3	4.1	2	47.1	51.1	4.1	47.1
J-7629	37.1	4.4	2.1	46.8	50.8	4.4	46.8
J-7630	28.7	3	1.4	50.2	54.5	3	50.2

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7631	28.6	8.3	4	50.3	54.6	8.3	50.3
J-7632	46.4	6.4	3.1	47.6	48.7	6.4	47.6
J-7633	46.7	7.2	3.5	47.4	48.5	7.2	47.4
J-7634	45.6	6.9	3.3	48.1	49.1	6.9	48.1
J-7635	37.4	2.8	1.3	46.7	50.7	2.8	46.7
J-7636	32.3	6.6	3.2	48.7	52.5	6.6	48.7
J-7637	47.7	3	1.4	47	48.2	3	47
J-7638	23.1	5	2.4	50.8	56.4	5	50.8
J-7639	46.6	9.3	4.5	47.3	48.5	9.3	47.3
J-7640	46.4	3.8	1.8	47.4	48.6	3.8	47.4
J-7641	31	2.5	1.2	48.5	53	2.5	48.5
J-7642	27.4	2.8	1.3	50.3	55	2.8	50.3
J-7643	28.1	12	5.8	50.5	54.3	12	50.5
J-7644	27	2.6	1.3	51	54.7	2.6	51
J-7645	26	2.4	1.1	50.8	55.5	2.4	50.8
J-7646	32.5	8.1	3.9	48.7	52.7	8.1	48.7
J-7647	42	5.9	2.9	45.8	49	5.9	45.8
J-7648	41.6	3.8	1.8	46	49.2	3.8	46
J-7649	27.4	3.5	1.7	49.5	54.5	3.5	49.5
J-7650	27.5	3.2	1.5	49.5	54.4	3.2	49.5
J-7651	28.1	4.6	2.2	50.3	54.8	4.6	50.3
J-7652	27.6	4.5	2.2	50.4	54.9	4.5	50.4
J-7653	27.9	4.6	2.2	50.3	54.8	4.6	50.3
J-7654	34.5	4.3	2.1	48.1	51.7	4.3	48.1
J-7655	36.2	3.7	1.8	47.4	50.9	3.7	47.4
J-7656	35.6	3.3	1.6	47.6	51.2	3.3	47.6
J-7657	31.6	2.5	1.2	48.5	52.7	2.5	48.5
J-7658	27.6	9.7	4.7	52.2	54.5	9.7	52.2
J-7659	27.4	2.8	1.4	52.6	54.6	2.8	52.6
J-7660	45.8	5.4	2.6	44.3	47.4	5.4	44.3
J-7661	46.5	7.8	3.8	43.9	47.1	7.8	43.9
J-7662	27.7	3.1	1.5	50.4	54.9	3.1	50.4
J-7663	28.5	2.4	1.1	49.4	54	2.4	49.4
J-7664	28.3	1.8	0.9	49.5	54.1	1.8	49.5
J-7665	27.5	3.2	1.6	49.4	54.4	3.2	49.4
J-7666	27.7	5.7	2.7	49.3	54.3	5.7	49.3
J-7667	32.3	7.9	3.8	48.7	52.6	7.9	48.7
J-7668	32.3	8.1	3.9	48.7	52.6	8.1	48.7
J-7669	34.1	5.3	2.6	48	51.9	5.3	48
J-7670	37.1	8.6	4.1	46.7	52.4	8.6	46.7
J-7671	30.6	9	4.3	48.9	53.2	9	48.9
J-7672	30.4	6.9	3.3	48.9	53.2	6.9	48.9
J-7673	28.5	4.5	2.1	49.3	54	4.5	49.3
J-7674	41.3	9.9	4.8	46.2	49.3	9.9	46.2
J-7675	41.3	7.7	3.7	46.2	49.3	7.7	46.2
J-7676	32.5	6.8	3.3	48.8	52.6	6.8	48.8
J-7678	35.2	8.6	4.2	47.6	51.5	8.6	47.6
J-7679	47.2	2.9	1.4	43.7	46.8	2.9	43.7
J-7680	47.5	3.6	1.7	43.6	46.7	3.6	43.6
J-7681	39.2	3.5	1.7	46	49.9	3.5	46
J-7682	38.5	8.7	4.2	46.3	50.2	8.7	46.3
J-7683	40.9	15.8	7.6	45.8	49.2	15.8	45.8
J-7684	40.7	0	0	45.9	49.3	0	45.9
J-7685	32.2	3.6	1.7	49.6	53.3	3.6	49.6
J-7686	31.9	2.8	1.3	48.9	52.9	2.8	48.9
J-7687	32.4	4.2	2	48.8	52.6	4.2	48.8
J-7688	32.4	3.9	1.9	48.8	52.6	3.9	48.8
J-7689	36.1	0	0	47.6	51.4	0	47.6
J-7690	37.1	2.8	1.3	46.9	50.8	2.8	46.9
J-7691	28.8	6	2.9	50.3	54.3	6	50.3
J-7692	27.8	6.3	3	50.7	54.7	6.3	50.7
J-7693	37.4	0.8	0.4	46.6	50.7	0.8	46.6
J-7694	37.4	5.3	2.6	46.6	50.7	5.3	46.6
J-7695	32.4	8.2	3.9	48.8	52.6	8.2	48.8
J-7696	32.3	12.3	5.9	48.8	52.8	12.3	48.8
J-7697	32.6	3.3	1.6	48.7	52.7	3.3	48.7
J-7698	32.2	5.8	2.8	48.9	52.8	5.8	48.9
J-7699	47.4	3.2	1.5	45.6	47.6	3.2	45.6
J-7700	44.9	6.3	3	46.7	48.7	6.3	46.7
J-7701	31.2	2.6	1.3	49.2	53.2	2.6	49.2
J-7702	27.4	2.7	1.3	52.2	54.6	2.7	52.2
J-7703	26.5	17.4	8.4	52.5	55	17.4	52.5
J-7704	37.7	8	3.8	46.9	50.7	8	46.9
J-7705	37.5	16.9	8.1	46.5	50.6	16.9	46.5
J-7706	43.4	16	7.7	47.3	49.3	16	47.3
J-7707	32.5	4.8	2.3	50.7	53.1	4.8	50.7
J-7708	30.3	10	4.8	49.2	53.3	10	49.2
J-7709	33.7	5.4	2.6	48.2	52	5.4	48.2
J-7710	33.9	5.3	2.5	48.1	52	5.3	48.1
J-7711	32.1	0.8	0.4	48.9	52.9	0.8	48.9
J-7712	27.4	8.3	4	50.8	55.1	8.3	50.8
J-7713	28	5.2	2.5	50.6	54.8	5.2	50.6
J-7714	32.4	3.9	1.9	47.6	52.3	3.9	47.6
J-7715	32.4	6.2	3	47.6	52.3	6.2	47.6
J-7716	27.3	4.6	2.2	50.6	55.1	4.6	50.6
J-7717	43.5	2.5	1.2	47.3	49.3	2.5	47.3
J-7718	31.5	3.4	1.6	49.1	53.1	3.4	49.1
J-7719	24.3	0.9	0.4	49.9	55.5	0.9	49.9
J-7720	23.1	5.3	2.6	50.9	56.4	5.3	50.9
J-7721	22.8	3.3	1.6	51	56.5	3.3	51
J-7722	32.5	1.8	0.9	50.7	53.1	1.8	50.7
J-7723	29.8	1.5	0.7	49.4	53.5	1.5	49.4
J-7724	29.7	1.3	0.6	49.5	53.6	1.3	49.5
J-7725	51.2	0	0	45.9	46.8	0	45.9
J-7726	19.6	9	4.3	51.6	57.7	9	51.6
J-7727	19.5	6.3	3	51.7	57.8	6.3	51.7
J-7728	19.2	4.8	2.3	51.8	57.9	4.8	51.8
J-7729	42.2	9.5	4.6	47.7	49.7	9.5	47.7
J-7730	42.4	0.7	0.3	47.7	49.6	0.7	47.7
J-7731	26.1	3.9	1.9	50.8	55.5	3.9	50.8
J-7732	41	0	0	45.7	49.1	0	45.7
J-7733	38.3	5.5	2.6	46.9	50.3	5.5	46.9
J-7734	43.9	1.9	0.9	47.1	49.1	1.9	47.1
J-7736	29.3	5.6	2.7	50.1	53.8	5.6	50.1
J-7737	46.3	4.5	2.2	47.2	48.6	4.5	47.2
J-7738	39.5	2.9	1.4	45.9	49.8	2.9	45.9
J-7739	45.4	6	2.9	44.4	47.5	6	44.4
J-7740	45.8	10.3	4.9	44.2	47.4	10.3	44.2
J-7741	44.7	1.8	0.9	47.3	49	1.8	47.3
J-7742	45.5	0.5	0.2	44.3	47.5	0.5	44.3
J-7743	44.6	21.1	10.1	44.7	47.9	21.1	44.7
J-7744	30.9	2	1	49.4	53.3	2	49.4

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7745	29.1	11.5	5.5	47.4	53.3	11.5	47.4
J-7746	21.5	5.2	2.5	50.6	56.8	5.2	50.6
J-7747	21.2	5.3	2.5	50.7	57	5.3	50.7
J-7748	28	3.3	1.6	50.9	54.3	3.3	50.9
J-7749	28.4	2.3	1.1	50.8	54.2	2.3	50.8
J-7750	47.4	7.7	3.7	43.5	46.7	7.7	43.5
J-7751	34.3	3.4	1.6	47.9	51.8	3.4	47.9
J-7752	33.6	7.7	3.7	48.3	52.1	7.7	48.3
J-7753	33.7	8.8	4.2	48.2	52.1	8.8	48.2
J-7754	37.6	7	3.4	49.5	51.6	7	49.5
J-7755	29.1	8.5	4.1	49.1	53.7	8.5	49.1
J-7756	18.8	2.7	1.3	52	58.1	2.7	52
J-7757	41.5	4.2	2	48.2	50.1	4.2	48.2
J-7758	41.7	4.5	2.2	48.1	50	4.5	48.1
J-7759	27.8	2.6	1.2	50.2	54.8	2.6	50.2
J-7760	29.6	5.4	2.6	48.7	53.5	5.4	48.7
J-7761	31.4	2.4	1.1	47.9	52.7	2.4	47.9
J-7762	28.1	1.7	0.8	50.7	54.3	1.7	50.7
J-7763	37.4	4.1	2	46.6	50.7	4.1	46.6
J-7764	33.7	5.3	2.6	51.2	52.9	5.3	51.2
J-7765	43	7.5	3.6	45	48.4	7.5	45
J-7766	43	6.7	3.2	45	48.4	6.7	45
J-7767	47.4	3.5	1.7	46.6	48	3.5	46.6
J-7768	44	8.7	4.2	47.1	49.1	8.7	47.1
J-7769	37.5	9	4.3	46.6	50.7	9	46.6
J-7770	26.9	12.1	5.8	49.8	54.7	12.1	49.8
J-7771	26.9	4.9	2.4	49.8	54.7	4.9	49.8
J-7772	39	1.7	0.8	46.6	50	1.7	46.6
J-7773	46.3	9.6	4.6	45.9	48	9.6	45.9
J-7774	30	7.7	3.7	49.7	54	7.7	49.7
J-7775	32.4	3.8	1.8	49.4	53.2	3.8	49.4
J-7776	28	4.7	2.3	50.5	54.9	4.7	50.5
J-7777	25.6	0.6	0.3	49.2	54.9	0.6	49.2
J-7778	26.1	0.6	0.3	49	54.7	0.6	49
J-7779	31.4	2.7	1.3	49.2	53.2	2.7	49.2
J-7780	37.6	8.1	3.9	47	50.6	8.1	47
J-7781	31.4	1.9	0.9	49.2	52.9	1.9	49.2
J-7782	31.2	5.1	2.5	46.5	52.4	5.1	46.5
J-7783	27.1	17.7	8.5	48.5	54.3	17.7	48.5
J-7784	26.9	123.1	59.2	48.6	54.4	123.1	48.6
J-7785	32.2	1.3	0.6	48.9	52.8	1.3	48.9
J-7786	26.5	3.8	1.8	48.8	54.5	3.8	48.8
J-7787	27.7	4	1.9	50.8	55	4	50.8
J-7788	37.3	5.3	2.5	46.9	50.8	5.3	46.9
J-7789	37.4	2.8	1.4	46.9	50.7	2.8	46.9
J-7790	37.2	16.6	8	46.9	50.8	16.6	46.9
J-7791	41.8	2.2	1.1	48.2	50	2.2	48.2
J-7792	28	5.8	2.8	49.6	54.2	5.8	49.6
J-7793	27.6	6.4	3.1	49.4	54.4	6.4	49.4
J-7794	18.9	5.1	2.5	52.7	58.2	5.1	52.7
J-7795	18.1	2.8	1.3	53	58.6	2.8	53
J-7796	28	2	1	49.5	54.2	2	49.5
J-7797	20.9	4.2	2	50.9	57.1	4.2	50.9
J-7798	33.5	1.9	0.9	48.3	52.1	1.9	48.3
J-7799	32.5	12.5	6	48.7	52.7	12.5	48.7
J-7800	22.8	8.4	4	51	56.5	8.4	51
J-7801	20.9	3.8	1.8	51.8	57.4	3.8	51.8
J-7802	29.6	3.4	1.6	47.2	53.1	3.4	47.2
J-7803	27.4	5.9	2.8	50.9	54.9	5.9	50.9
J-7804	27.3	4.6	2.2	50.9	55	4.6	50.9
J-7805	29.4	3.3	1.6	50	54.1	3.3	50
J-7806	27.5	1.4	0.7	50.3	54.9	1.4	50.3
J-7807	27.7	3.8	1.8	50.2	54.8	3.8	50.2
J-7808	48.2	11.1	5.3	43.3	46.4	11.1	43.3
J-7809	34.7	1.4	0.7	47.8	51.6	1.4	47.8
J-7810	32.4	1.7	0.8	48.5	52.5	1.7	48.5
J-7811	50.1	6.2	3	42.5	45.5	6.2	42.5
J-7812	51.5	12.2	5.9	41.9	45	12.2	41.9
J-7813	31.8	5.1	2.5	47.9	52.6	5.1	47.9
J-7814	47.5	2.1	1	43.6	46.7	2.1	43.6
J-7815	31.5	4.8	2.3	49.1	53.1	4.8	49.1
J-7816	27.8	3.7	1.8	51	54.4	3.7	51
J-7817	28.6	9.6	4.6	50.6	54.1	9.6	50.6
J-7818	28.6	10.7	5.1	50.6	54.1	10.7	50.6
J-7819	27.1	3.6	1.7	50.4	55.1	3.6	50.4
J-7820	48.1	1.8	0.9	43.3	46.4	1.8	43.3
J-7821	41.5	7.5	3.6	46.1	49.2	7.5	46.1
J-7822	41.6	2.8	1.4	46	49.1	2.8	46
J-7823	28	7.5	3.6	49.4	54.2	7.5	49.4
J-7824	32.8	1.5	0.7	48.4	52.3	1.5	48.4
J-7825	32.7	23.1	11.1	48.4	52.3	23.1	48.4
J-7826	29.3	10.2	4.9	49	53.7	10.2	49
J-7827	36.3	12	5.8	47.1	51.3	12	47.1
J-7828	37.2	7.3	3.5	46.8	50.7	7.3	46.8
J-7829	41.3	11.4	5.5	45.7	49.1	11.4	45.7
J-7830	26.8	7.5	3.6	48.7	54.4	7.5	48.7
J-7831	26.7	5	2.4	48.8	54.5	5	48.8
J-7832	41.8	9.5	4.6	48	49.9	9.5	48
J-7833	41.3	3.7	1.8	48.2	50.1	3.7	48.2
J-7834	32.3	2.4	1.2	48.9	53	2.4	48.9
J-7835	37.8	2.2	1.1	50	51.6	2.2	50
J-7836	37.5	2.7	1.3	50.1	51.7	2.7	50.1
J-7837	34.3	6.5	3.1	48	51.9	6.5	48
J-7838	30.2	4.6	2.2	49.8	53.4	4.6	49.8
J-7839	30.1	26.4	12.7	49.9	53.5	26.4	49.9
J-7840	38.4	3.2	1.5	49.6	51.3	3.2	49.6
J-7841	32.1	4.9	2.4	48.9	53.1	4.9	48.9
J-7842	37.1	3.8	1.8	47	50.9	3.8	47
J-7843	37.1	2.4	1.1	46.9	50.8	2.4	46.9
J-7844	48.3	0.5	0.2	43.2	46.3	0.5	43.2
J-7845	30	4.2	2	49.8	54	4.2	49.8
J-7846	29.5	5.6	2.7	50.1	54.2	5.6	50.1
J-7847	18.5	5.9	2.8	52.9	58.4	5.9	52.9
J-7848	22.4	4.8	2.3	51.2	56.7	4.8	51.2
J-7849	32.5	6.1	2.9	48.5	52.4	6.1	48.5
J-7850	28.8	3.4	1.7	50.3	54.5	3.4	50.3
J-7851	43.1	0	0	45.4	48.6	0	45.4
J-7852	28.2	5.6	2.7	50.8	54.3	5.6	50.8
J-7853	42.1	2.6	1.2	45.9	49	2.6	45.9
J-7854	42.2	8.1	3.9	45.8	48.9	8.1	45.8
J-7855	46.8	3.2	1.5	43.8	47	3.2	43.8
J-7856	42.8	4.4	2.1	49.3	50.3	4.4	49.3

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7857	43.2	1.9	0.9	49.1	50.2	1.9	49.1
J-7858	28	2.6	1.3	48.3	53.9	2.6	48.3
J-7859	27.6	5.6	2.7	48.4	54.1	5.6	48.4
J-7860	28.5	6.6	3.2	48	53.7	6.6	48
J-7861	29.1	8	3.9	47.8	53.4	8	47.8
J-7862	46.6	5.5	2.6	45.9	47.9	5.5	45.9
J-7863	28.3	7.5	3.6	48	53.7	7.5	48
J-7864	41.5	2.5	1.2	46.1	49.2	2.5	46.1
J-7865	26.6	7.3	3.5	48.7	54.5	7.3	48.7
J-7866	26.9	5.5	2.6	48.6	54.4	5.5	48.6
J-7867	21.2	6.1	2.9	50.7	57	6.1	50.7
J-7868	27	12.1	5.8	48.6	54.3	12.1	48.6
J-7869	31.5	2.5	1.2	48.1	52.7	2.5	48.1
J-7870	32.1	1.7	0.8	50.9	53.3	1.7	50.9
J-7871	45.8	1.4	0.7	47.2	48.7	1.4	47.2
J-7872	45.8	4.7	2.3	47.5	48.8	4.7	47.5
J-7873	30.4	9.1	4.4	49.8	53.9	9.1	49.8
J-7874	29.5	4.4	2.1	47.7	53.3	4.4	47.7
J-7875	28.5	3.5	1.7	48.1	53.7	3.5	48.1
J-7876	28.2	2.5	1.2	49.3	54.1	2.5	49.3
J-7877	28.1	7	3.4	49.4	54.2	7	49.4
J-7878	42.9	6.1	3	47.7	49.5	6.1	47.7
J-7879	42.3	8.1	3.9	45.4	48.8	8.1	45.4
J-7880	27.4	4.6	2.2	48.6	54.2	4.6	48.6
J-7881	27.7	7.3	3.5	48.4	54	7.3	48.4
J-7882	41.6	3.8	1.9	45.9	49.2	3.8	45.9
J-7883	47.9	5.8	2.8	43.4	46.5	5.8	43.4
J-7884	42.2	4.4	2.1	45.9	48.9	4.4	45.9
J-7885	42.5	23.9	11.5	45.7	48.9	23.9	45.7
J-7886	37.7	2.5	1.2	47	50.5	2.5	47
J-7887	37.1	6.4	3.1	47	50.9	6.4	47
J-7888	37.1	8	3.8	46.9	50.8	8	46.9
J-7889	37.2	13.9	6.7	46.9	50.8	13.9	46.9
J-7890	40.4	6.6	3.2	46	49.5	6.6	46
J-7891	39	10.3	4.9	46.6	50.1	10.3	46.6
J-7892	37.8	2.2	1.1	49.4	51.5	2.2	49.4
J-7893	37.9	3.5	1.7	49.4	51.5	3.5	49.4
J-7894	26.3	7.4	3.6	48.9	54.6	7.4	48.9
J-7895	42.4	7.1	3.4	45.3	48.7	7.1	45.3
J-7896	43.1	10.4	5	47.5	49.4	10.4	47.5
J-7897	43.3	13.9	6.7	47.5	49.3	13.9	47.5
J-7898	37.4	6.8	3.3	43.8	49.7	6.8	43.8
J-7899	23.9	0	0	50	55.7	0	50
J-7900	22.5	10.8	5.2	50.7	56.3	10.8	50.7
J-7901	42.1	4.7	2.3	45.6	48.9	4.7	45.6
J-7902	27	7.1	3.4	49.8	54.6	7.1	49.8
J-7903	45.6	6.3	3	44.3	47.4	6.3	44.3
J-7904	40.3	4.3	2.1	46.1	49.6	4.3	46.1
J-7905	26.5	2.9	1.4	51.4	55	2.9	51.4
J-7906	34.9	1.6	0.8	47.7	51.7	1.6	47.7
J-7907	35	6	2.9	47.6	51.7	6	47.6
J-7908	29.2	3.2	1.5	50.2	53.8	3.2	50.2
J-7909	28.9	5	2.4	50.3	54	5	50.3
J-7910	31.9	0.8	0.4	49	53.2	0.8	49
J-7911	37.2	2.2	1.1	46.8	50.7	2.2	46.8
J-7912	32.3	1.4	0.7	48.7	52.6	1.4	48.7
J-7913	26.6	4.1	2	48.7	54.5	4.1	48.7
J-7914	31	3.7	1.8	49.4	53.4	3.7	49.4
J-7915	30.5	6	2.9	49.6	53.6	6	49.6
J-7916	37.3	3.4	1.6	49.9	51.7	3.4	49.9
J-7917	27.7	7.1	3.4	49.5	54.4	7.1	49.5
J-7918	27.5	14.2	6.8	49.6	54.4	14.2	49.6
J-7919	42.8	7.5	3.6	45.6	48.6	7.5	45.6
J-7920	25.7	8.9	4.3	49.2	54.9	8.9	49.2
J-7921	26	7.7	3.7	49.1	54.8	7.7	49.1
J-7922	45.1	2.7	1.3	44.6	47.7	2.7	44.6
J-7923	45	2.1	1	44.6	47.7	2.1	44.6
J-7924	36.4	5.6	2.7	47.3	51.2	5.6	47.3
J-7925	36.1	12.9	6.2	47.4	51.3	12.9	47.4
J-7926	37.3	4.6	2.2	46.9	50.8	4.6	46.9
J-7927	43.1	0	0	45.3	48.5	0	45.3
J-7929	38.6	0.1	0.1	47.3	50.5	0.1	47.3
J-7930	38.3	3.8	1.8	49.2	51.3	3.8	49.2
J-7931	30.2	4.7	2.3	48.9	53.3	4.7	48.9
J-7932	27.3	3.9	1.9	49.6	54.5	3.9	49.6
J-7933	42.5	4.7	2.3	47.7	49.6	4.7	47.7
J-7934	32.3	14.9	7.2	48.4	52.5	14.9	48.4
J-7935	29.6	2.1	1	47.2	53.1	2.1	47.2
J-7936	27.7	12.8	6.2	49.5	54.3	12.8	49.5
J-7937	27.8	8	3.8	49.5	54.3	8	49.5
J-7938	39.1	8.4	4	49	51	8.4	49
J-7939	43.3	1.4	0.7	47.2	49.2	1.4	47.2
J-7940	30.1	3.6	1.7	49.6	53.9	3.6	49.6
J-7941	30.7	4.9	2.4	48.8	53.1	4.9	48.8
J-7942	27	6.7	3.2	50.7	55.2	6.7	50.7
J-7943	27	4.5	2.2	48.5	54.3	4.5	48.5
J-7944	37	7.7	3.7	46.8	53.4	7.7	46.8
J-7945	28	2.6	1.2	49.4	54.3	2.6	49.4
J-7946	48	4.7	2.3	46.4	47.8	4.7	46.4
J-7947	48.2	2.4	1.1	46.4	47.7	2.4	46.4
J-7948	27.7	9.4	4.5	49.5	54.3	9.4	49.5
J-7949	27.5	5	2.4	49.6	54.4	5	49.6
J-7950	20.8	5.1	2.4	51.9	57.4	5.1	51.9
J-7951	38.8	5.6	2.7	49.4	51.1	5.6	49.4
J-7952	28.1	4.4	2.1	49.3	54.2	4.4	49.3
J-7953	28.1	7.3	3.5	49.3	54.2	7.3	49.3
J-7954	27.7	5.9	2.8	49.5	54.3	5.9	49.5
J-7955	31.6	3.9	1.9	46.3	52.3	3.9	46.3
J-7956	32.4	3.1	1.5	48.5	52.5	3.1	48.5
J-7957	27.3	5.2	2.5	50.7	55.1	5.2	50.7
J-7958	32.3	6.2	3	48.7	52.5	6.2	48.7
J-7959	28.9	3.4	1.6	47.5	53.4	3.4	47.5
J-7960	34	3.6	1.7	48.1	52.1	3.6	48.1
J-7961	34	4	1.9	48.1	52.1	4	48.1
J-7962	26.6	2.4	1.1	50.4	55.2	2.4	50.4
J-7963	26.8	5.1	2.5	50.4	55.2	5.1	50.4
J-7964	44.5	4.2	2	47.4	49.1	4.2	47.4
J-7965	33.3	4.5	2.2	48.3	52.3	4.5	48.3
J-7966	42.5	3.5	1.7	45.7	48.8	3.5	45.7
J-7967	46.1	4.7	2.3	47.5	48.8	4.7	47.5
J-7968	40	0.3	0.2	46.2	49.6	0.3	46.2
J-7969	32.4	3.2	1.5	48.7	52.5	3.2	48.7

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7970	30.4	4	1.9	46.9	52.8	4	46.9
J-7971	30.9	5.3	2.6	49.3	53.6	5.3	49.3
J-7972	34.9	4	1.9	48.3	51.6	4	48.3
J-7973	31.5	6.7	3.2	49.1	53.1	6.7	49.1
J-7974	37.3	7.8	3.7	49.9	51.7	7.8	49.9
J-7975	38	3.8	1.8	49.1	51.4	3.8	49.1
J-7976	37.4	3.4	1.6	46.6	50.7	3.4	46.6
J-7977	37.1	8.4	4	46.7	50.8	8.4	46.7
J-7978	33.8	4.1	2	48.2	52.1	4.1	48.2
J-7979	27.5	2.8	1.3	50.8	55.1	2.8	50.8
J-7980	27.6	8.1	3.9	50.7	55	8.1	50.7
J-7981	36.7	3.3	1.6	46.9	50.9	3.3	46.9
J-7982	35	18.2	8.7	47.9	51.5	18.2	47.9
J-7983	43.9	6.2	3	48.8	49.8	6.2	48.8
J-7984	32.5	4.2	2	48.7	52.7	4.2	48.7
J-7985	37.5	4.4	2.1	46.9	50.7	4.4	46.9
J-7986	42	5.9	2.9	48.1	49.9	5.9	48.1
J-7987	36.4	8.9	4.3	47.5	51.1	8.9	47.5
J-7988	26.8	11.4	5.5	49.9	54.7	11.4	49.9
J-7989	26.8	7	3.4	49.9	54.7	7	49.9
J-7990	37.2	6.5	3.1	46.9	50.8	6.5	46.9
J-7991	43.4	4.8	2.3	47.4	49.2	4.8	47.4
J-7992	25.6	7	3.4	49.2	54.9	7	49.2
J-7993	42.2	3.9	1.9	45.8	48.9	3.9	45.8
J-7994	43.6	3.3	1.6	45.3	48.4	3.3	45.3
J-7995	43.3	6.4	3.1	45.4	48.5	6.4	45.4
J-7996	35.2	4.2	2	47.7	51.6	4.2	47.7
J-7997	36.3	4.7	2.3	47.2	51.1	4.7	47.2
J-7998	47.5	8.1	3.9	43.6	46.7	8.1	43.6
J-7999	22.3	0	0	51.3	56.7	0	51.3
J-8000	48	4.5	2.2	43.3	46.5	4.5	43.3
J-8001	47.3	4.3	2	43.6	46.8	4.3	43.6
J-8003	37.3	2.3	1.1	47	50.7	2.3	47
J-8004	40.5	2.1	1	48.3	50.4	2.1	48.3
J-8005	21.9	3.6	1.7	50.4	56.7	3.6	50.4
J-8006	28.2	3.5	1.7	50.6	54.6	3.5	50.6
J-8007	32	10.1	4.9	48.9	52.9	10.1	48.9
J-8008	28.6	10.1	4.9	50.6	54.1	10.1	50.6
J-8009	36.4	8.9	4.3	47.4	51	8.9	47.4
J-8010	27.3	5.8	2.8	48.4	54.2	5.8	48.4
J-8011	46.4	5.3	2.5	46.8	48.4	5.3	46.8
J-8012	46.4	13.8	6.6	46.8	48.4	13.8	46.8
J-8013	42.4	2.1	1	45.8	48.8	2.1	45.8
J-8014	43	2.4	1.2	45.5	48.6	2.4	45.5
J-8015	28	9.3	4.5	50.1	54.7	9.3	50.1
J-8016	27.2	0	0	48.6	54.2	0	48.6
J-8018	27.3	9.1	4.4	50.5	55	9.1	50.5
J-8019	43.7	3.5	1.7	46.8	49	3.5	46.8
J-8020	27.4	6.9	3.3	49.5	54.5	6.9	49.5
J-8021	27.3	2.6	1.2	50.9	55	2.6	50.9
J-8022	43.7	5.2	2.5	48.9	49.9	5.2	48.9
J-8023	32.1	11	5.3	48.9	52.8	11	48.9
J-8024	46.4	10.8	5.2	47.3	48.6	10.8	47.3
J-8025	36.2	7.2	3.5	47.1	52.4	7.2	47.1
J-8026	41.5	6	2.9	46.1	49.2	6	46.1
J-8027	31.5	3.8	1.8	49.2	53.1	3.8	49.2
J-8028	24.1	0	0	51.2	56.2	0	51.2
J-8029	23.8	0	0	51.3	56.4	0	51.3
J-8030	36.7	0	0	47.1	50.7	0	47.1
J-8031	36.9	0	0	47	50.6	0	47
J-8032	38.5	3.6	1.7	49.7	51.3	3.6	49.7
J-8033	40.4	5.1	2.5	48.9	50.5	5.1	48.9
J-8034	42.3	3.3	1.6	47.9	49.6	3.3	47.9
J-8035	42	10	4.8	48	49.7	10	48
J-8036	32.3	3.4	1.6	47.8	52.4	3.4	47.8
J-8037	41.8	4.3	2.1	45.8	49.1	4.3	45.8
J-8038	37.8	2	1	50	51.6	2	50
J-8039	42.4	2.4	1.2	45.1	48.5	2.4	45.1
J-8040	42.3	33.2	16	45.1	48.5	33.2	45.1
J-8041	37.8	7.2	3.5	49.9	51.6	7.2	49.9
J-8042	37.5	4.6	2.2	50.1	51.7	4.6	50.1
J-8043	41.8	4.3	2.1	45.8	49.1	4.3	45.8
J-8044	32.4	4.6	2.2	50.3	53	4.6	50.3
J-8045	32.4	6.5	3.1	50	52.9	6.5	50
J-8046	34.1	2.3	1.1	48	52	2.3	48
J-8047	27.1	3.2	1.6	50.5	55.1	3.2	50.5
J-8048	19.5	2	1	51.8	57.8	2	51.8
J-8049	31.7	10.4	5	46.3	52.2	10.4	46.3
J-8050	33.5	13.4	6.5	48.5	52.4	13.4	48.5
J-8051	31.1	3.6	1.7	48.3	52.9	3.6	48.3
J-8052	37.4	3	1.4	49.9	51.7	3	49.9
J-8053	37.5	3.5	1.7	49.8	51.6	3.5	49.8
J-8054	45.8	1.6	0.7	47.5	48.9	1.6	47.5
J-8055	43.8	7.1	3.4	45.1	48.2	7.1	45.1
J-8056	29	4.3	2.1	47.5	53.4	4.3	47.5
J-8057	28.6	5.2	2.5	47.7	53.6	5.2	47.7
J-8058	45.9	0.9	0.4	47.1	48.7	0.9	47.1
J-8059	27.4	0.7	0.3	50.8	55.1	0.7	50.8
J-8060	27.6	12.5	6	49.6	54.4	12.5	49.6
J-8061	38.6	3	1.4	49.1	51.2	3	49.1
J-8062	38.9	6	2.9	49.1	51.1	6	49.1
J-8063	33.1	2.5	1.2	48.2	52.2	2.5	48.2
J-8064	33	7.5	3.6	48.3	52.2	7.5	48.3
J-8065	29	3.3	1.6	50.6	54.5	3.3	50.6
J-8066	29.9	3.7	1.8	50.2	54.1	3.7	50.2
J-8067	27.5	8.6	4.1	50.3	54.9	8.6	50.3
J-8068	40.5	0.9	0.5	46	49.4	0.9	46
J-8069	40.2	3.5	1.7	46.1	49.5	3.5	46.1
J-8070	42.9	3	1.4	47.2	49.3	3	47.2
J-8071	43.7	5.3	2.6	47.4	49.2	5.3	47.4
J-8072	42.6	4.6	2.2	47.9	49.7	4.6	47.9
J-8073	36.9	1.4	0.7	47	50.9	1.4	47
J-8076	32.2	4.7	2.2	48.5	52.5	4.7	48.5
J-8077	33	3.3	1.6	45.8	51.7	3.3	45.8
J-8078	47.5	6.5	3.1	43.4	46.6	6.5	43.4
J-8079	26.7	1.4	0.7	48.8	54.5	1.4	48.8
J-8080	30.3	2.2	1.1	47.3	52.9	2.2	47.3
J-8081	29.9	3.5	1.7	47.4	53.1	3.5	47.4
J-8082	21.9	1.6	0.8	50.4	56.7	1.6	50.4
J-8083	31.5	4.5	2.2	49.5	53.4	4.5	49.5
J-8084	37.3	1.4	0.7	46.9	50.8	1.4	46.9
J-8085	30.7	1.3	0.6	46.8	52.7	1.3	46.8

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8086	27.8	4.5	2.2	48	53.9	4.5	48
J-8087	45.5	4.7	2.2	47.3	48.8	4.7	47.3
J-8088	47.4	0.4	0.2	46	47.7	0.4	46
J-8089	37.3	3.6	1.7	47.3	51	3.6	47.3
J-8090	36.6	3.5	1.7	47.6	51.3	3.5	47.6
J-8091	27	0.7	0.3	48.6	54.3	0.7	48.6
J-8092	26.9	1.9	0.9	48.6	54.4	1.9	48.6
J-8093	26.4	4.1	2	48.8	54.6	4.1	48.8
J-8094	33	5.2	2.5	48.9	52.7	5.2	48.9
J-8095	28.8	22.2	10.7	49.2	53.9	22.2	49.2
J-8096	29.1	13.6	6.5	49.1	53.8	13.6	49.1
J-8097	34.4	0.7	0.3	48.1	52	0.7	48.1
J-8098	43.5	4.1	2	47.7	49.5	4.1	47.7
J-8099	32.3	3.3	1.6	48.8	52.8	3.3	48.8
J-8100	34	3.8	1.8	48.1	52	3.8	48.1
J-8101	28.3	2.4	1.1	49.5	54.1	2.4	49.5
J-8102	37.1	6.6	3.2	50.2	51.8	6.6	50.2
J-8103	46.1	6.1	2.9	46.3	48.1	6.1	46.3
J-8104	30.1	4.2	2	47.1	52.9	4.2	47.1
J-8105	31.8	7.6	3.7	46.3	52.2	7.6	46.3
J-8106	38.1	18.1	8.7	46.4	50.4	18.1	46.4
J-8107	41.3	14.7	7.1	46.2	49.4	14.7	46.2
J-8109	33.5	1.9	0.9	45.5	51.4	1.9	45.5
J-8110	38.2	0	0	47.1	50.6	0	47.1
J-8111	37.9	4.9	2.4	49.1	51.4	4.9	49.1
J-8112	44.5	2.7	1.3	47.4	49.1	2.7	47.4
J-8113	38.7	9.8	4.7	49.2	51.2	9.8	49.2
J-8114	41.8	10.4	5	46	49.1	10.4	46
J-8115	42.2	60.5	29.1	45.8	49	60.5	45.8
J-8116	27.1	2.4	1.1	48.5	54.3	2.4	48.5
J-8117	27.8	4.2	2	48.2	54	4.2	48.2
J-8118	28.1	1.6	0.8	48.1	53.8	1.6	48.1
J-8119	42.1	8.9	4.3	45.4	48.9	8.9	45.4
J-8120	42.5	6.6	3.2	45.3	48.7	6.6	45.3
J-8121	40.5	1	0.5	48.5	50.4	1	48.5
J-8122	40.4	13.8	6.6	48.6	50.5	13.8	48.6
J-8123	34.9	15.7	7.5	47.7	51.6	15.7	47.7
J-8124	34.6	6	2.9	47.9	51.8	6	47.9
J-8125	42.5	8.5	4.1	45.6	48.8	8.5	45.6
J-8126	42.3	9.2	4.4	45.7	48.9	9.2	45.7
J-8127	30.1	5.9	2.9	49.8	54	5.9	49.8
J-8128	29.8	1.6	0.8	50	54.1	1.6	50
J-8129	27.3	8.5	4.1	50.9	55	8.5	50.9
J-8130	35.1	4.2	2	44.9	50.8	4.2	44.9
J-8131	32.7	5.8	2.8	48.6	52.6	5.8	48.6
J-8132	42.2	2.9	1.4	45.9	48.9	2.9	45.9
J-8133	30.4	9	4.3	46.8	52.8	9	46.8
J-8134	30.4	7.7	3.7	46.8	52.8	7.7	46.8
J-8135	44.8	3.4	1.6	44.6	47.8	3.4	44.6
J-8136	47.4	4.2	2	46.7	48.1	4.2	46.7
J-8137	31.2	2.1	1	46.5	52.4	2.1	46.5
J-8138	33.8	10.7	5.2	48.1	52.1	10.7	48.1
J-8139	41.7	19.3	9.3	47.6	49.9	19.3	47.6
J-8140	41.2	15.3	7.4	47.8	50.1	15.3	47.8
J-8141	38.6	14.8	7.1	46.7	50.3	14.8	46.7
J-8142	41.5	1.4	0.7	45.8	49	1.4	45.8
J-8143	43.2	2.9	1.4	45.5	48.5	2.9	45.5
J-8144	42.6	18.3	8.8	45.6	48.8	18.3	45.6
J-8145	29.3	5	2.4	47.4	53.3	5	47.4
J-8146	32.4	0.9	0.4	49.1	52.9	0.9	49.1
J-8147	32.7	3.6	1.7	49	52.8	3.6	49
J-8148	22.5	0	0	50.7	56.3	0	50.7
J-8149	38	6.9	3.3	49.3	51.4	6.9	49.3
J-8150	44.7	0.4	0.2	44.7	47.8	0.4	44.7
J-8151	34	21.3	10.2	48.3	51.9	21.3	48.3
J-8152	33.4	3.7	1.8	48.6	52.5	3.7	48.6
J-8153	22.7	4.5	2.1	51.1	56.6	4.5	51.1
J-8154	30.7	3.7	1.8	46.7	52.6	3.7	46.7
J-8155	46.8	3.4	1.6	46.2	47.9	3.4	46.2
J-8156	46.2	6.3	3	46.4	48.2	6.3	46.4
J-8157	45.3	7.9	3.8	47.1	48.8	7.9	47.1
J-8158	35.1	8.7	4.2	47.9	51.8	8.7	47.9
J-8159	35.5	7.8	3.7	47.7	51.6	7.8	47.7
J-8160	30.5	8.1	3.9	49.8	53.8	8.1	49.8
J-8161	22.6	0	0	50.7	56.3	0	50.7
J-8162	46.9	6.2	3	47.2	48.4	6.2	47.2
J-8165	32.5	0	0	49.4	53.1	0	49.4
J-8166	29.8	1.5	0.7	49.1	53.5	1.5	49.1
J-8167	27.6	3.3	1.6	50.9	54.6	3.3	50.9
J-8168	20.9	1.4	0.7	51.1	57.2	1.4	51.1
J-8169	42.6	6.8	3.3	47.3	49.5	6.8	47.3
J-8170	42.2	0	0	47.4	49.6	0	47.4
J-8171	31.8	9.5	4.6	46.3	52.2	9.5	46.3
J-8172	32.4	2.1	1	46	51.9	2.1	46
J-8174	44.4	6.9	3.3	47.8	49.3	6.9	47.8
J-8175	35.2	2.7	1.3	44.8	50.7	2.7	44.8
J-8176	27.1	2.9	1.4	49.8	54.6	2.9	49.8
J-8177	45.9	5.5	2.7	47.6	48.9	5.5	47.6
J-8178	45.7	4.4	2.1	47.7	48.9	4.4	47.7
J-8179	21.8	4	1.9	51.4	57	4	51.4
J-8180	39.3	9.8	4.7	46.5	49.9	9.8	46.5
J-8181	39.7	9.8	4.7	46.3	49.8	9.8	46.3
J-8182	43.6	6.2	3	45.2	48.3	6.2	45.2
J-8183	39.8	9.2	4.4	48.3	50.7	9.2	48.3
J-8184	37.6	1.7	0.8	47	50.7	1.7	47
J-8185	27.8	10.9	5.2	50.7	54.4	10.9	50.7
J-8186	30.6	24.4	11.7	47.2	52.8	24.4	47.2
J-8187	35.7	2.1	1	47.3	51.4	2.1	47.3
J-8188	37.4	12.3	5.9	46.6	50.6	12.3	46.6
J-8189	37.4	8.6	4.1	46.7	50.6	8.6	46.7
J-8190	42.5	3.9	1.9	45.6	48.7	3.9	45.6
J-8192	27.1	4.5	2.2	52.3	54.7	4.5	52.3
J-8193	32.4	5.5	2.7	48.6	52.7	5.5	48.6
J-8194	32.4	1	0.5	48.5	52.7	1	48.5
J-8195	42.5	12.5	6	45.5	48.7	12.5	45.5
J-8196	42.7	14.3	6.9	45.4	48.6	14.3	45.4
J-8197	46.9	1.9	0.9	46.6	48.1	1.9	46.6
J-8198	46.4	5.2	2.5	46.7	48.3	5.2	46.7
J-8199	44.8	6.8	3.3	47.3	49	6.8	47.3
J-8200	44.4	2.1	1	47.4	49.2	2.1	47.4
J-8201	37.2	6.3	3	50.3	51.9	6.3	50.3
J-8202	27.3	2.9	1.4	50.9	54.9	2.9	50.9

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8203	44.3	4	1.9	44.8	48	4	44.8
J-8204	37.4	2.4	1.1	47.1	50.7	2.4	47.1
J-8205	32.7	8.2	3.9	45.9	51.8	8.2	45.9
J-8206	42.3	4.4	2.1	45.8	48.8	4.4	45.8
J-8207	33.8	9.5	4.6	45.4	51.3	9.5	45.4
J-8208	20	4.1	1.9	52.2	57.8	4.1	52.2
J-8209	26.6	0	0	50.8	55.3	0	50.8
J-8210	46.4	0	0	45.2	47.2	0	45.2
J-8211	28	3.5	1.7	51.1	54.4	3.5	51.1
J-8212	32.3	8.5	4.1	48.5	52.5	8.5	48.5
J-8213	37.8	4.1	2	49.4	51.5	4.1	49.4
J-8214	22.4	2.4	1.2	51.2	56.8	2.4	51.2
J-8215	29.9	3.7	1.8	50.1	54.1	3.7	50.1
J-8216	37.8	6.3	3.1	49.8	51.5	6.3	49.8
J-8217	42	2.8	1.3	45.9	49	2.8	45.9
J-8218	40.8	6.5	3.1	45.3	49.2	6.5	45.3
J-8219	42.8	12.2	5.9	47.3	49.5	12.2	47.3
J-8220	42.3	15.3	7.4	47.4	49.6	15.3	47.4
J-8221	41.9	3.1	1.5	45.9	49	3.1	45.9
J-8222	41.9	2.8	1.4	45.9	49	2.8	45.9
J-8223	27.8	27.2	13.1	50.5	54.5	27.2	50.5
J-8224	43.7	3.6	1.7	45.1	48.3	3.6	45.1
J-8225	44.1	15.6	7.5	44.9	48.1	15.6	44.9
J-8226	28.5	2.7	1.3	47.7	53.6	2.7	47.7
J-8227	28.1	13	6.2	47.9	53.8	13	47.9
J-8228	27.9	2.1	1	49.7	54.3	2.1	49.7
J-8229	43.2	3.3	1.6	45.3	48.5	3.3	45.3
J-8230	17.9	8.3	4	53.1	58.7	8.3	53.1
J-8232	41.5	2.1	1	45.5	48.9	2.1	45.5
J-8233	33.1	0.7	0.3	48.5	52.4	0.7	48.5
J-8234	47.5	3.8	1.8	43.4	46.6	3.8	43.4
J-8235	33.1	4.2	2	48.7	52.6	4.2	48.7
J-8237	23.9	0	0	50.1	55.7	0	50.1
J-8238	23.4	15.4	7.4	50.3	55.9	15.4	50.3
J-8239	39.9	3	1.5	48.9	50.6	3	48.9
J-8240	44	7.4	3.6	47.6	49.3	7.4	47.6
J-8241	32.9	5.1	2.4	48.5	52.5	5.1	48.5
J-8243	27.3	2.2	1	50.9	55	2.2	50.9
J-8244	41.4	4.6	2.2	47.9	49.9	4.6	47.9
J-8245	45.2	2.8	1.3	47.3	48.9	2.8	47.3
J-8246	38.1	4.9	2.3	49.1	51.4	4.9	49.1
J-8247	32.4	2.1	1	48.6	52.5	2.1	48.6
J-8248	40.3	4.6	2.2	48.8	50.5	4.6	48.8
J-8249	30.4	4.8	2.3	49.9	53.9	4.8	49.9
J-8250	32.6	6.6	3.2	48.9	52.9	6.6	48.9
J-8251	41.8	0.7	0.3	45.4	48.9	0.7	45.4
J-8252	40.6	2.1	1	45.9	49.4	2.1	45.9
J-8253	37.7	6.2	3	49.5	51.6	6.2	49.5
J-8254	27.3	0	0	48.5	54.2	0	48.5
J-8255	42.5	3.5	1.7	45.2	48.7	3.5	45.2
J-8256	27.9	6.5	3.1	49.4	54.2	6.5	49.4
J-8257	32.7	0	0	49	52.9	0	49
J-8258	31.3	14.4	6.9	49	53	14.4	49
J-8259	21.9	5.8	2.8	50.4	56.7	5.8	50.4
J-8260	32.4	3.9	1.9	46.1	51.9	3.9	46.1
J-8261	28.5	0.7	0.3	47.7	53.6	0.7	47.7
J-8263	44.1	50.9	24.5	44.9	48.1	50.9	44.9
J-8264	18.9	4.8	2.3	51.9	58	4.8	51.9
J-8265	29.2	0.3	0.1	50.2	53.9	0.3	50.2
J-8266	29.5	2.7	1.3	50	53.8	2.7	50
J-8267	30.2	2.1	1	49.8	53.9	2.1	49.8
J-8268	37.8	4.4	2.1	49.4	51.5	4.4	49.4
J-8269	38.6	10.9	5.2	46.1	50.1	10.9	46.1
J-8270	43.6	7.8	3.7	44.8	48.2	7.8	44.8
J-8271	43.6	11.4	5.5	44.8	48.2	11.4	44.8
J-8272	38.7	5	2.4	46.7	50.3	5	46.7
J-8273	27.6	7.1	3.4	50.6	55	7.1	50.6
J-8274	38.6	3.6	1.8	46.6	50.2	3.6	46.6
J-8276	23.4	0	0	50.3	55.9	0	50.3
J-8277	23.2	0	0	50.4	56	0	50.4
J-8278	42.2	2.3	1.1	47.9	49.7	2.3	47.9
J-8279	40.8	10.1	4.8	48.4	50.3	10.1	48.4
J-8280	27.7	4.6	2.2	48.1	54	4.6	48.1
J-8281	47	0	0	43.7	46.9	0	43.7
J-8282	32.3	0	0	48.8	52.8	0	48.8
J-8283	32.8	0	0	49.5	53.1	0	49.5
J-8284	26.5	5.1	2.5	48.8	54.5	5.1	48.8
J-8285	37.8	5.3	2.5	46.5	50.5	5.3	46.5
J-8286	37.9	7.3	3.5	46.5	50.5	7.3	46.5
J-8287	30.8	4.6	2.2	49.5	53.4	4.6	49.5
J-8288	37.9	0	0	47.7	50.9	0	47.7
J-8289	31.5	2.1	1	49.2	52.9	2.1	49.2
J-8290	27.8	3.9	1.9	49.7	54.5	3.9	49.7
J-8291	33.4	1.4	0.7	48.3	52.2	1.4	48.3
J-8292	32.5	10.4	5	48.9	52.5	10.4	48.9
J-8293	32.1	0.9	0.4	48.4	52.5	0.9	48.4
J-8294	38.2	3.8	1.8	49.2	51.4	3.8	49.2
J-8295	41	7.4	3.6	47.8	50.1	7.4	47.8
J-8296	41.6	7.2	3.4	48.2	50	7.2	48.2
J-8297	42.3	4.7	2.3	47.9	49.7	4.7	47.9
J-8298	47.1	3.9	1.9	43.7	46.8	3.9	43.7
J-8299	46.1	4.9	2.3	46.9	48.5	4.9	46.9
J-8300	27.4	10	4.8	49.6	54.4	10	49.6
J-8301	29.5	17.4	8.4	49.9	53.9	17.4	49.9
J-8302	46.9	8.6	4.1	46.6	48.2	8.6	46.6
J-8303	22.2	0	0	51.7	56.8	0	51.7
J-8304	22.2	0	0	51.6	56.8	0	51.6
J-8305	31.2	8.8	4.3	49.4	53	8.8	49.4
J-8306	38.5	1.4	0.7	46.8	50.3	1.4	46.8
J-8307	47.4	13.5	6.5	46.4	48	13.5	46.4
J-8308	47.3	8.2	4	46.4	48	8.2	46.4
J-8309	38.8	2.4	1.2	47.2	50.4	2.4	47.2
J-8310	38.2	7.2	3.4	47.5	50.7	7.2	47.5
J-8311	28.4	13	6.3	49.2	54	13	49.2
J-8312	27.8	8.8	4.2	49.5	54.3	8.8	49.5
J-8313	44.6	12.7	6.1	44.6	47.8	12.7	44.6
J-8314	42.3	16.2	7.8	45.7	48.9	16.2	45.7
J-8315	34.2	5.1	2.5	45.2	51.1	5.1	45.2
J-8316	46.5	3.7	1.8	46.8	48.4	3.7	46.8
J-8317	30.3	4.7	2.3	49.6	53.6	4.7	49.6
J-8318	46.4	2.8	1.3	46.6	48.3	2.8	46.6
J-8319	39.7	1.8	0.9	46.4	49.9	1.8	46.4

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8320	39.7	1.8	0.9	46.4	49.9	1.8	46.4
J-8322	31.9	6.5	3.1	49	52.7	6.5	49
J-8323	43.1	0	0	45.4	48.6	0	45.4
J-8324	42.6	0	0	45.7	48.8	0	45.7
J-8325	44.3	3.7	1.8	47.1	49	3.7	47.1
J-8326	44.2	3.2	1.5	47.2	49.1	3.2	47.2
J-8327	41.1	7.9	3.8	45	49	7.9	45
J-8328	39.1	6.3	3	46.3	49.9	6.3	46.3
J-8329	31.8	5.4	2.6	49.3	53.3	5.4	49.3
J-8330	37.7	1.6	0.8	47.4	50.8	1.6	47.4
J-8331	43.1	2.5	1.2	47.8	49.6	2.5	47.8
J-8332	30.6	2.1	1	48.7	53.1	2.1	48.7
J-8333	49.4	1.2	0.6	45.9	47.2	1.2	45.9
J-8335	37.5	4.9	2.4	47	50.7	4.9	47
J-8336	40.2	2.4	1.2	48.4	50.5	2.4	48.4
J-8337	31.3	4.7	2.3	49.9	53.6	4.7	49.9
J-8338	37.3	0	0	47.3	50.9	0	47.3
J-8339	26.7	3.8	1.8	49.9	54.8	3.8	49.9
J-8340	39.5	8.3	4	46.3	49.8	8.3	46.3
J-8341	39.1	2.1	1	46.5	50	2.1	46.5
J-8342	48.8	5.4	2.6	46.1	47.5	5.4	46.1
J-8344	43.5	4.1	2	45.2	48.3	4.1	45.2
J-8345	29.9	4.7	2.3	49.9	53.5	4.7	49.9
J-8346	47.4	1.2	0.6	46	47.7	1.2	46
J-8347	38.2	5	2.4	49.2	51.3	5	49.2
J-8348	46.1	5.7	2.7	47.6	48.8	5.7	47.6
J-8349	45.5	2.1	1	47.8	49.1	2.1	47.8
J-8350	43.2	3.5	1.7	47	49.3	3.5	47
J-8351	32.9	5.7	2.7	48.8	52.7	5.7	48.8
J-8352	37.5	14.4	6.9	49	51.5	14.4	49
J-8353	43.6	1.8	0.9	47.5	49.4	1.8	47.5
J-8354	43.9	1.1	0.6	47.5	49.3	1.1	47.5
J-8355	34.8	10.6	5.1	48.3	52	10.6	48.3
J-8356	42	5.9	2.9	45.9	49	5.9	45.9
J-8357	41.7	5.2	2.5	46	49.1	5.2	46
J-8358	32.2	12.2	5.9	48.8	52.5	12.2	48.8
J-8360	32.9	0	0	49	52.9	0	49
J-8361	37.2	7.5	3.6	46.9	50.8	7.5	46.9
J-8362	28.8	4.6	2.2	49.2	53.9	4.6	49.2
J-8363	35	3.5	1.7	47.6	51.7	3.5	47.6
J-8364	42.2	4.2	2	45.8	48.9	4.2	45.8
J-8365	42	9.9	4.8	45.7	49	9.9	45.7
J-8366	32.4	10.7	5.2	48.3	52.4	10.7	48.3
J-8367	31.5	0	0	49.2	53	0	49.2
J-8368	36.6	1.4	0.7	47.2	51.1	1.4	47.2
J-8369	42.8	2.4	1.1	45.1	48.5	2.4	45.1
J-8370	43.3	4.4	2.1	44.9	48.3	4.4	44.9
J-8372	37.9	0.3	0.1	49.4	51.4	0.3	49.4
J-8373	32.5	2.8	1.3	48.5	52.4	2.8	48.5
J-8374	37	3.7	1.8	47	50.9	3.7	47
J-8375	32.7	2.9	1.4	48.5	52.4	2.9	48.5
J-8376	37.1	4.3	2.1	47.2	50.8	4.3	47.2
J-8377	30.3	3.6	1.7	49.7	53.4	3.6	49.7
J-8378	30.8	2.2	1	49.5	53.2	2.2	49.5
J-8379	38.6	5.3	2.6	49.5	51.2	5.3	49.5
J-8380	32	2.1	1	48.9	52.9	2.1	48.9
J-8381	37.5	3.9	1.9	48.6	51.4	3.9	48.6
J-8382	43.6	5.8	2.8	47.9	49.5	5.8	47.9
J-8383	44.3	6.1	2.9	47.8	49.3	6.1	47.8
J-8384	32.3	8.3	4	49	52.5	8.3	49
J-8385	26	1.4	0.7	50.1	55	1.4	50.1
J-8386	22.3	0	0	51	56.7	0	51
J-8387	34.9	2.8	1.3	47.7	51.6	2.8	47.7
J-8388	22.2	0	0	51.6	56.8	0	51.6
J-8389	32.3	7.8	3.7	49.5	53.2	7.8	49.5
J-8390	45.9	2.1	1	47	48.6	2.1	47
J-8391	44.7	6.2	3	47.4	49	6.2	47.4
J-8392	44.6	2.8	1.3	43.7	47.6	2.8	43.7
J-8393	27.7	4.5	2.2	48.1	54	4.5	48.1
J-8394	38.2	0	0	48.3	51.1	0	48.3
J-8395	25.1	0.7	0.3	49.4	55.1	0.7	49.4
J-8397	38.7	2	1	46.8	50.3	2	46.8
J-8398	45.2	9.5	4.6	47.5	48.9	9.5	47.5
J-8399	28.1	2.8	1.3	50.6	54.6	2.8	50.6
J-8400	27.6	3.7	1.8	49.5	54.4	3.7	49.5
J-8401	18.5	5	2.4	52.8	58.4	5	52.8
J-8402	31.8	1.4	0.7	48.2	52.6	1.4	48.2
J-8403	44	7.4	3.6	47.1	49.1	7.4	47.1
J-8404	44.6	6.4	3.1	46.8	48.8	6.4	46.8
J-8405	30.8	4.9	2.3	48.4	53	4.9	48.4
J-8406	35	2.7	1.3	47.6	51.6	2.7	47.6
J-8407	38.8	5.6	2.7	46.8	50.2	5.6	46.8
J-8408	44	2.2	1.1	44.8	48.1	2.2	44.8
J-8409	23.2	0	0	50.4	56	0	50.4
J-8410	24.6	5	2.4	51.1	56	5	51.1
J-8413	33.4	2	1	48.3	52.3	2	48.3
J-8414	33.9	9	4.3	48.4	52.2	9	48.4
J-8415	32.5	0.4	0.2	48.7	52.7	0.4	48.7
J-8416	27.6	1.4	0.7	49.5	54.4	1.4	49.5
J-8417	41.4	5.1	2.4	48.2	50.1	5.1	48.2
J-8418	41.1	5.5	2.6	45.1	49.1	5.5	45.1
J-8419	30.7	2.8	1.4	48.3	53.1	2.8	48.3
J-8420	45.9	4.1	2	46.8	48.5	4.1	46.8
J-8421	41.3	7.5	3.6	46.2	49.4	7.5	46.2
J-8422	26.9	6	2.9	49.8	54.7	6	49.8
J-8423	44.2	3.8	1.8	47.2	49.1	3.8	47.2
J-8424	32.1	6.4	3.1	48.6	52.5	6.4	48.6
J-8425	35	2.9	1.4	47.6	51.7	2.9	47.6
J-8426	41.2	1.7	0.8	48.3	50.2	1.7	48.3
J-8428	41.7	6.8	3.3	45.8	49	6.8	45.8
J-8429	33.3	5.9	2.9	49.1	52.8	5.9	49.1
J-8430	37.4	2.1	1	46.7	50.7	2.1	46.7
J-8431	37.2	5.7	2.8	46.8	50.7	5.7	46.8
J-8432	28.8	2.4	1.1	47.6	53.5	2.4	47.6
J-8433	42.1	0.7	0.3	45.8	48.9	0.7	45.8
J-8435	42	0	0	45.6	48.8	0	45.6
J-8436	29.4	4.7	2.3	49.9	54.2	4.7	49.9
J-8437	29.9	9.5	4.6	49.9	53.8	9.5	49.9
J-8438	30.7	2.1	1	49.3	53.2	2.1	49.3
J-8439	30.1	1.4	0.7	48.8	53.3	1.4	48.8
J-8440	26.7	0.9	0.4	49.9	54.8	0.9	49.9
J-8441	28.3	10	4.8	50.5	54.8	10	50.5

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8442	38.5	50.5	24.3	48.7	51.2	50.5	48.7
J-8443	31	1.4	0.7	49.4	53.3	1.4	49.4
J-8444	42.9	4	1.9	48	49.7	4	48
J-8445	31.1	1.4	0.7	49.4	53	1.4	49.4
J-8446	42.9	4.6	2.2	48	49.7	4.6	48
J-8447	42.4	6.9	3.3	48.2	49.9	6.9	48.2
J-8449	30.4	5.1	2.5	49.7	53.5	5.1	49.7
J-8450	47.6	1.7	0.8	43.6	46.6	1.7	43.6
J-8451	36.8	3	1.4	50.2	52	3	50.2
J-8452	40.6	16.8	8.1	46	49.5	16.8	46
J-8453	43.1	6	2.9	44.9	48.4	6	44.9
J-8454	38.7	3.3	1.6	46.1	50.1	3.3	46.1
J-8455	37.4	1.6	0.7	46.6	50.7	1.6	46.6
J-8456	43	5.5	2.7	47.9	49.6	5.5	47.9
J-8457	44.9	3.2	1.6	44.6	47.8	3.2	44.6
J-8458	32.5	10.1	4.9	47.4	52.2	10.1	47.4
J-8459	32.1	5	2.4	48.2	52.5	5	48.2
J-8460	32.4	11.5	5.5	48.1	52.4	11.5	48.1
J-8461	42.1	0	0	45.2	48.6	0	45.2
J-8462	42.2	0	0	45.2	48.6	0	45.2
J-8463	31.4	14.9	7.2	48.1	52.7	14.9	48.1
J-8464	31.1	2.1	1	49.3	53.2	2.1	49.3
J-8465	31.2	2.8	1.3	49.2	53.2	2.8	49.2
J-8466	49	13.9	6.7	42.8	46	13.9	42.8
J-8467	32.6	0	0	47.2	52.2	0	47.2
J-8468	40.2	5.4	2.6	46.6	49.9	5.4	46.6
J-8469	39.9	1.7	0.8	46.8	50	1.7	46.8
J-8470	32.7	14.3	6.9	48.6	52.6	14.3	48.6
J-8471	27.5	20.5	9.9	50.8	54.9	20.5	50.8
J-8472	27.1	1.3	0.6	50.9	55	1.3	50.9
J-8473	38.8	2.2	1.1	46.8	50.2	2.2	46.8
J-8474	34.2	9.5	4.6	48.4	52.2	9.5	48.4
J-8475	33.2	5.8	2.8	48.8	52.6	5.8	48.8
J-8476	32.9	1.4	0.7	48.6	52.4	1.4	48.6
J-8478	28.9	0.7	0.3	47.8	53.5	0.7	47.8
J-8479	36.5	9.2	4.4	47	51	9.2	47
J-8480	32.3	11.8	5.7	48.8	52.7	11.8	48.8
J-8481	42.3	0	0	45.7	48.9	0	45.7
J-8482	27.4	37.5	18	48.4	54.1	37.5	48.4
J-8483	18.4	10.5	5.1	52.1	58.2	10.5	52.1
J-8485	44.2	8.4	4.1	47.5	49.2	8.4	47.5
J-8486	19.3	4.3	2.1	51.9	57.9	4.3	51.9
J-8487	31.7	2.8	1.3	49	53	2.8	49
J-8488	38.5	1.7	0.8	47.1	50.5	1.7	47.1
J-8489	37.4	5.2	2.5	46.7	50.7	5.2	46.7
J-8490	33	7	3.4	48.5	52.3	7	48.5
J-8491	45.5	0.7	0.3	47.8	49	0.7	47.8
J-8493	38.2	3.4	1.6	46.7	50.3	3.4	46.7
J-8494	41.6	5.9	2.8	45.9	49.1	5.9	45.9
J-8495	41.4	0	0	46	49.1	0	46
J-8496	25	0	0	51	55.9	0	51
J-8497	34.7	5	2.4	48	51.6	5	48
J-8498	42.2	0	0	47.3	49.6	0	47.3
J-8499	38.3	0.4	0.2	46.9	50.3	0.4	46.9
J-8500	38.2	9.3	4.5	46.7	50.4	9.3	46.7
J-8501	42.3	9	4.3	47.6	49.7	9	47.6
J-8502	37.7	5	2.4	47.2	50.7	5	47.2
J-8503	41.6	2.6	1.2	47.8	49.9	2.6	47.8
J-8504	40.8	2.5	1.2	45.9	49.4	2.5	45.9
J-8505	27.3	8.1	3.9	50.9	55	8.1	50.9
J-8506	38.3	2.3	1.1	46.7	50.2	2.3	46.7
J-8507	26.4	2.7	1.3	50.7	55.4	2.7	50.7
J-8509	38.5	1.4	0.7	46.5	50.2	1.4	46.5
J-8510	38	5.8	2.8	46.8	50.4	5.8	46.8
J-8512	30.2	3	1.4	49.7	53.6	3	49.7
J-8513	29.7	0.7	0.3	49.5	53.6	0.7	49.5
J-8514	34.6	4	1.9	47.9	51.7	4	47.9
J-8515	27.4	5	2.4	52.5	54.6	5	52.5
J-8516	49.9	4	1.9	45.7	47	4	45.7
J-8517	29.9	1.4	0.7	49.9	53.5	1.4	49.9
J-8518	17.8	5	2.4	53.2	58.7	5	53.2
J-8519	41.5	4.8	2.3	45.8	49	4.8	45.8
J-8520	24.3	0	0	50.7	55.9	0	50.7
J-8521	36.1	6.6	3.2	47.3	51.2	6.6	47.3
J-8522	32.6	7	3.4	48.6	52.4	7	48.6
J-8523	29.1	0.4	0.2	50	53.8	0.4	50
J-8524	17.8	6.7	3.2	53.1	58.7	6.7	53.1
J-8525	32.2	3	1.4	48.8	52.8	3	48.8
J-8526	34.6	9.5	4.6	48	51.9	9.5	48
J-8527	37.3	8.2	4	46.8	50.7	8.2	46.8
J-8528	30	2.7	1.3	47.2	53	2.7	47.2
J-8529	46.9	5.1	2.5	46.6	48.1	5.1	46.6
J-8530	32.6	2.1	1	50.2	52.9	2.1	50.2
J-8532	42.8	2.1	1	45.5	48.6	2.1	45.5
J-8533	41.6	0	0	45.5	48.9	0	45.5
J-8534	43.4	2.1	1	45.3	48.4	2.1	45.3
J-8535	38.8	1.6	0.8	47	50.4	1.6	47
J-8536	30.7	1.4	0.7	49.5	53.3	1.4	49.5
J-8537	31.4	35.1	16.9	49.2	53	35.1	49.2
J-8540	46.8	3.6	1.7	43.9	47	3.6	43.9
J-8541	47.5	22.8	11	43.5	46.6	22.8	43.5
J-8544	42.2	7	3.4	45.7	49	7	45.7
J-8545	26.9	0	0	49.5	54.6	0	49.5
J-8546	29.7	2.1	1	49.5	53.6	2.1	49.5
J-8547	22.3	3.7	1.8	51.2	56.8	3.7	51.2
J-8548	38.8	2.4	1.2	46.1	50.1	2.4	46.1
J-8549	27.2	1.4	0.7	50.9	54.9	1.4	50.9
J-8551	27.9	1.3	0.6	49.2	54.2	1.3	49.2
J-8553	27.7	0.7	0.3	49.3	54.3	0.7	49.3
J-8554	43.3	0	0	45.3	48.5	0	45.3
J-8556	22.1	1.7	0.8	51.3	56.9	1.7	51.3
J-8557	42.3	10.9	5.3	45.2	48.7	10.9	45.2
J-8558	44	20.1	9.7	44.9	48.1	20.1	44.9
J-8559	37.1	1.4	0.7	46.9	50.8	1.4	46.9
J-8560	30.1	1.5	0.7	50.1	54.1	1.5	50.1
J-8561	42.9	1.4	0.7	47.6	49.4	1.4	47.6
J-8562	42.3	5.4	2.6	45.3	48.7	5.4	45.3
J-8563	44.9	2.2	1.1	44.5	47.8	2.2	44.5
J-8564	26.3	3.6	1.7	48.9	54.6	3.6	48.9
J-8565	46.4	7.3	3.5	43.8	47.1	7.3	43.8
J-8566	42.4	6.3	3	45.8	48.8	6.3	45.8
J-8567	28.9	4	1.9	47.6	53.5	4	47.6

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8568	27.7	5.7	2.7	49.5	54.3	5.7	49.5
J-8569	46	4.2	2	44.2	47.3	4.2	44.2
J-8571	30.7	2.8	1.3	49.5	53.4	2.8	49.5
J-8572	47.3	9.8	4.7	43.6	46.7	9.8	43.6
J-8573	27.4	2.8	1.3	50.9	55	2.8	50.9
J-8574	29.8	4.1	2	47.1	53.1	4.1	47.1
J-8575	38.9	2.3	1.1	47.1	50.4	2.3	47.1
J-8576	38.2	2.2	1	47.4	50.7	2.2	47.4
J-8577	32.4	2.8	1.3	48.5	52.5	2.8	48.5
J-8578	36.8	12	5.8	47.1	50.7	12	47.1
J-8579	28.4	3.3	1.6	50.4	54.2	3.3	50.4
J-8580	22.4	3.7	1.8	51.2	56.7	3.7	51.2
J-8581	26.3	0	0	49	54.7	0	49
J-8582	37.7	1.7	0.8	47.1	50.5	1.7	47.1
J-8583	30	15.5	7.4	50.4	54.2	15.5	50.4
J-8584	44	1.3	0.6	45	48.1	1.3	45
J-8585	39.1	11.8	5.7	47	50.3	11.8	47
J-8587	33.3	10.7	5.2	48.4	52.6	10.7	48.4
J-8588	44.1	3.3	1.6	47.7	49.3	3.3	47.7
J-8589	44.5	0.2	0.1	47.5	49.1	0.2	47.5
J-8590	38.8	7.1	3.4	46.4	50.1	7.1	46.4
J-8591	17.7	4.1	2	53.2	58.7	4.1	53.2
J-8592	44.1	0	0	44.9	48.1	0	44.9
J-8593	47.5	4.1	2	43.8	46.7	4.1	43.8
J-8595	32.1	2.8	1.3	48.9	52.9	2.8	48.9
J-8596	26.3	4.3	2.1	48.9	54.6	4.3	48.9
J-8597	26.5	0	0	49.2	54.7	0	49.2
J-8598	26.8	5.1	2.4	49.9	54.7	5.1	49.9
J-8601	30.9	0.8	0.4	49.4	53.3	0.8	49.4
J-8602	42.4	0	0	45.6	48.8	0	45.6
J-8603	42.9	0	0	45.4	48.6	0	45.4
J-8604	32.2	11.6	5.6	48.7	52.5	11.6	48.7
J-8605	27.9	3.3	1.6	50.7	54.4	3.3	50.7
J-8606	27.2	0	0	48.6	54.2	0	48.6
J-8607	30.2	10.7	5.2	49.7	53.6	10.7	49.7
J-8609	47.4	0	0	47.5	48.5	0	47.5
J-8610	27.3	6.1	2.9	51	54.9	6.1	51
J-8611	29.2	5.4	2.6	50.2	54.1	5.4	50.2
J-8612	36.1	7.9	3.8	47.3	51.2	7.9	47.3
J-8614	46.6	0.3	0.2	43.9	47	0.3	43.9
J-8615	45.7	9.4	4.5	46.5	48.3	9.4	46.5
J-8618	27	4.4	2.1	49.8	54.6	4.4	49.8
J-8619	27.3	0	0	48.6	54.2	0	48.6
J-8620	38.1	8.3	4	46.7	50.4	8.3	46.7
J-8621	42.1	0	0	46	49.1	0	46
J-8623	30.1	2.9	1.4	49.8	54	2.9	49.8
J-8624	42.9	5.7	2.8	47.5	49.6	5.7	47.5
J-8626	39.6	1.4	0.7	46.8	50.1	1.4	46.8
J-8627	34	6.3	3	48.3	51.9	6.3	48.3
J-8628	34.3	2.8	1.3	48.2	51.8	2.8	48.2
J-8629	32.3	7.5	3.6	48.7	52.5	7.5	48.7
J-8630	32.2	0.7	0.3	48.8	52.5	0.7	48.8
J-8631	31.3	0	0	49.2	53.2	0	49.2
J-8633	30.1	4.6	2.2	47.1	52.9	4.6	47.1
J-8634	47.5	3.1	1.5	43.4	46.6	3.1	43.4
J-8636	27.3	12.4	6	49.5	54.4	12.4	49.5
J-8637	20.7	3.3	1.6	51.9	57.5	3.3	51.9
J-8638	42.3	4.3	2.1	45.5	48.7	4.3	45.5
J-8639	42.3	3.1	1.5	45.5	48.7	3.1	45.5
J-8640	38.1	1.8	0.9	47.5	50.8	1.8	47.5
J-8641	37.4	3.8	1.8	47	50.7	3.8	47
J-8642	37.2	5.2	2.5	46.8	50.5	5.2	46.8
J-8643	41.7	8	3.9	45.8	49	8	45.8
J-8644	37.4	7.1	3.4	46.3	50.6	7.1	46.3
J-8645	41.3	0.1	0	45.6	49	0.1	45.6
J-8646	42	0.7	0.3	45.6	48.8	0.7	45.6
J-8648	37.5	6	2.9	47.3	50.8	6	47.3
J-8649	30.3	4.7	2.3	49.8	53.9	4.7	49.8
J-8651	36.1	7.1	3.4	47.3	51.2	7.1	47.3
J-8652	38.8	8.6	4.1	48.7	51	8.6	48.7
J-8653	45.5	11.4	5.5	47	48.7	11.4	47
J-8654	31.5	3.8	1.8	49.5	53.4	3.8	49.5
J-8655	27.4	1.7	0.8	50.1	54.9	1.7	50.1
J-8656	34	5.6	2.7	48.6	52	5.6	48.6
J-8657	29	2.1	1	50.1	54.1	2.1	50.1
J-8658	32.4	9.2	4.4	48.5	52.4	9.2	48.5
J-8659	30.1	0.7	0.3	49.8	54	0.7	49.8
J-8660	22.2	0	0	51.4	56.8	0	51.4
J-8661	45.9	6.6	3.2	46.8	48.4	6.6	46.8
J-8662	44.8	3	1.4	46.4	48.4	3	46.4
J-8663	39.6	6.8	3.3	46.8	50.1	6.8	46.8
J-8664	39.9	3.3	1.6	46.7	50	3.3	46.7
J-8665	39.4	0.8	0.4	46.9	50.2	0.8	46.9
J-8666	37.5	0.7	0.3	46.8	50.7	0.7	46.8
J-8667	37.6	2.1	1	46.6	50.6	2.1	46.6
J-8668	31.9	3.2	1.6	49	52.7	3.2	49
J-8670	31.6	2.1	1	48.6	52.7	2.1	48.6
J-8671	47.5	1.4	0.7	46.3	47.9	1.4	46.3
J-8672	33.3	1	0.5	48.5	52.4	1	48.5
J-8673	34.3	0.8	0.4	48.1	52	0.8	48.1
J-8674	32.5	0.7	0.3	47.4	52.2	0.7	47.4
J-8675	37.6	13.2	6.3	47.7	51	13.2	47.7
J-8676	40.2	2	0.9	48.4	50.4	2	48.4
J-8679	40.1	5.2	2.5	46.6	49.9	5.2	46.6
J-8680	27.5	16.4	7.9	49.5	54.4	16.4	49.5
J-8681	28.6	11	5.3	49.3	54	11	49.3
J-8682	40.7	3.4	1.6	45.9	49.4	3.4	45.9
J-8685	32.5	50.6	24.3	49	52.5	50.6	49
J-8686	27.1	4.5	2.2	49.7	54.6	4.5	49.7
J-8689	25.5	9.6	4.6	50.8	55.7	9.6	50.8
J-8691	20.6	6	2.9	52	57.5	6	52
J-8692	28.3	1.1	0.5	50.5	54.2	1.1	50.5
J-8694	31.6	2.1	1	48.6	52.8	2.1	48.6
J-8695	30.1	13	6.3	46.9	52.9	13	46.9
J-8696	19.9	51.6	24.8	51.4	57.5	51.6	51.4
J-8697	47	0.7	0.3	47.5	48.5	0.7	47.5
J-8698	32.1	6.7	3.2	46.1	52.1	6.7	46.1
J-8699	26.8	0	0	51.2	54.9	0	51.2
J-8700	40.2	4.4	2.1	46.1	49.5	4.4	46.1
J-8701	28.2	10.3	4.9	47.8	53.7	10.3	47.8
J-8702	45	1.2	0.6	44.5	47.7	1.2	44.5
J-8703	22.5	0	0	50.7	56.3	0	50.7

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8704	23.3	0	0	50.3	56	0	50.3
J-8705	25	0	0	49.6	55.2	0	49.6
J-8706	28.2	2.3	1.1	50.3	54.7	2.3	50.3
J-8708	31.7	3.2	1.5	49.1	52.8	3.2	49.1
J-8709	25.1	0	0	49.5	55.2	0	49.5
J-8710	30	1.1	0.5	49.9	54	1.1	49.9
J-8711	36.3	6.3	3	47.1	51.1	6.3	47.1
J-8712	39	0	0	47.2	50.3	0	47.2
J-8713	25.8	1.2	0.6	51.6	55.3	1.2	51.6
J-8715	37.5	6.4	3.1	46.7	50.6	6.4	46.7
J-8716	38.1	7.1	3.4	49.7	51.4	7.1	49.7
J-8717	35.6	4.3	2.1	47.4	51.4	4.3	47.4
J-8718	41.2	0	0	45.9	49.2	0	45.9
J-8719	28	3.1	1.5	50.5	54.5	3.1	50.5
J-8720	36.5	6.9	3.3	47.2	50.8	6.9	47.2
J-8722	27.3	60.3	29	51.1	54.6	60.3	51.1
J-8723	30.2	1.1	0.5	47.2	52.9	1.1	47.2
J-8724	27.9	2.2	1.1	50.7	54.7	2.2	50.7
J-8725	28.1	2.8	1.4	50.6	54.7	2.8	50.6
J-8726	37.2	4.9	2.4	46.7	50.9	4.9	46.7
J-8727	38.4	16.3	7.8	47.6	50.7	16.3	47.6
J-8728	36.1	5.7	2.7	47.3	51.2	5.7	47.3
J-8729	26.3	119.5	57.5	51.3	55	119.5	51.3
J-8731	29.5	1.8	0.9	50	54.2	1.8	50
J-8732	33.1	4.1	2	48.5	52.3	4.1	48.5
J-8733	32.9	21.3	10.2	48.5	52.4	21.3	48.5
J-8734	22	100.9	48.5	51.2	56.8	100.9	51.2
J-8735	43.6	9.3	4.5	47.4	49.2	9.3	47.4
J-8736	38.9	5.5	2.7	48.9	51.1	5.5	48.9
J-8737	41.8	3.2	1.5	45.9	49	3.2	45.9
J-8738	27.9	6.4	3.1	48.1	53.9	6.4	48.1
J-8740	43.7	4.2	2	47.2	49.2	4.2	47.2
J-8741	43.1	6.5	3.1	47.6	49.5	6.5	47.6
J-8742	37.5	0.6	0.3	49.4	51.6	0.6	49.4
J-8743	36.3	6.2	3	47.3	50.9	6.2	47.3
J-8744	17.6	5	2.4	53.2	58.8	5	53.2
J-8746	47.2	12.2	5.9	45.5	47.7	12.2	45.5
J-8747	42.3	4.2	2	45.5	48.7	4.2	45.5
J-8748	42.8	0	0	50.4	50.8	0	50.4
J-8749	37.5	4.5	2.2	49.6	51.6	4.5	49.6
J-8750	37.1	6.5	3.1	46.9	50.8	6.5	46.9
J-8751	32.4	2.2	1.1	48.6	52.6	2.2	48.6
J-8753	37.4	0.1	0	46.6	50.7	0.1	46.6
J-8754	36.7	2.8	1.3	47.6	51.2	2.8	47.6
J-8755	41.9	9	4.3	48.2	49.8	9	48.2
J-8757	38.4	2.7	1.3	47.6	50.7	2.7	47.6
J-8758	27.9	7.8	3.8	50.6	54.6	7.8	50.6
J-8761	45.8	0	0	49	49.5	0	49
J-8762	30.4	1.7	0.8	49.6	53.8	1.7	49.6
J-8763	26	0	0	49.1	54.8	0	49.1
J-8765	27.7	10.1	4.9	48.3	54	10.1	48.3
J-8766	28.4	8	3.9	48	53.7	8	48
J-8767	47.5	0	0	43.5	46.7	0	43.5
J-8768	28.2	0.4	0.2	50.7	54.9	0.4	50.7
J-8769	47.4	2.9	1.4	46.9	48.2	2.9	46.9
J-8771	46.9	15.7	7.6	45	47.5	15.7	45
J-8772	30.9	3	1.5	49.3	53.3	3	49.3
J-8774	29	0	0	50.2	54.4	0	50.2
J-8775	42.4	0	0	45	48.5	0	45
J-8776	41.8	0	0	45.3	48.7	0	45.3
J-8777	29.8	5.4	2.6	47.4	53.1	5.4	47.4
J-8778	21.6	3.6	1.7	50.9	56.9	3.6	50.9
J-8779	30.4	6.1	3	49.6	53.5	6.1	49.6
J-8783	47.2	0	0	47.9	48.6	0	47.9
J-8785	34.5	3.7	1.8	48	51.8	3.7	48
J-8786	27.2	0	0	50.9	54.9	0	50.9
J-8787	34.7	0	0	48.9	52.3	0	48.9
J-8788	37.4	0.2	0.1	48.2	51.3	0.2	48.2
J-8791	32.3	23.2	11.2	48.8	53	23.2	48.8
J-8793	28.3	3	1.4	50.2	54.7	3	50.2
J-8795	30.5	0	0	50.1	54	0	50.1
J-8796	33.7	2.9	1.4	48.3	52.1	2.9	48.3
J-8799	38.8	6.3	3	46.6	50.2	6.3	46.6
J-8800	37.6	5.6	2.7	46.8	50.6	5.6	46.8
J-8801	24	5.6	2.7	52.5	56.1	5.6	52.5
J-8802	37.4	4.2	2	46.7	50.7	4.2	46.7
J-8803	37.3	0	0	49.6	51.7	0	49.6
J-8804	38.2	2.3	1.1	47.7	50.8	2.3	47.7
J-8805	38.6	2.8	1.3	46.6	50.2	2.8	46.6
J-8806	37.5	1.3	0.6	47	50.7	1.3	47
J-8807	34.5	2.1	1	47.8	51.7	2.1	47.8
J-8808	28.7	2.1	1	49.3	53.9	2.1	49.3
J-8810	41.5	4.5	2.2	45.6	49	4.5	45.6
J-8811	38.7	1.4	0.7	48.5	51	1.4	48.5
J-8812	43.6	14.1	6.8	47.4	49.3	14.1	47.4
J-8813	37.5	6.3	3.1	47.7	51	6.3	47.7
J-8814	39.4	0.3	0.1	47	50.2	0.3	47
J-8815	32.2	0	0	48.4	52.5	0	48.4
J-8816	47.6	8.4	4	43.5	46.6	8.4	43.5
J-8817	42.5	0	0	45.7	48.9	0	45.7
J-8819	32.3	9.1	4.4	48.7	52.5	9.1	48.7
J-8821	42.5	0	0	45.1	48.5	0	45.1
J-8822	39.8	0.7	0.3	46	49.7	0.7	46
J-8826	41.8	0	0	45.2	48.7	0	45.2
J-8829	40	6.4	3.1	46.4	49.8	6.4	46.4
J-8831	33.4	3.1	1.5	45.5	51.5	3.1	45.5
J-8832	23.5	0.3	0.1	52.6	56.3	0.3	52.6
J-8833	25.6	1.8	0.9	51.6	55.5	1.8	51.6
J-8834	26.6	15.8	7.6	51.2	55.6	15.8	51.2
J-8838	37.8	0.6	0.3	46.9	50.4	0.6	46.9
J-8848	48.1	0	0	45.3	46.5	0	45.3
J-8851	42.1	1.1	0.5	46	49.1	1.1	46
J-8852	33.4	1	0.5	45.6	51.5	1	45.6
J-8853	33.1	11.5	5.5	48.6	52.5	11.5	48.6
J-8854	27.5	14.4	6.9	50.8	54.7	14.4	50.8
J-8863	47.9	1.8	0.8	43.7	46.5	1.8	43.7
J-8864	47.5	0.3	0.1	44.3	46.7	0.3	44.3
J-8865	47.6	1.2	0.6	44.8	46.7	1.2	44.8
J-8871	46.7	24.4	11.7	43.8	47	24.4	43.8
J-8897	38.2	0	0	47.7	50.8	0	47.7
J-8898	47.1	0	0	49.2	49.3	0	49.2
J-8915	46.7	1.5	0.7	44	47	1.5	44

		2030 MDD				2030 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8916	46.7	0.6	0.3	44	47	0.6	44
J-8917	46.6	1.1	0.5	44	47.1	1.1	44
J-8918	45.6	3.1	1.5	44.6	47.5	3.1	44.6
J-8919	45.6	0.4	0.2	44.7	47.5	0.4	44.7
J-8920	33.2	0	0	49	52.8	0	49
J-8921	33.2	0	0	49	52.8	0	49
J-8922	37	0	0	47.1	50.7	0	47.1
J-8923	37	0	0	47.1	50.7	0	47.1
J-8924	22.3	0	0	51	56.7	0	51
J-8925	22.4	0	0	51	56.6	0	51
J-8926	22.3	0	0	51	56.6	0	51
J-8927	22.3	0	0	51	56.7	0	51
J-8928	22.1	0	0	51	56.7	0	51
J-8929	22	0	0	51	56.7	0	51
J-8930	36.2	0	0	47.4	51	0	47.4
J-8931	36.2	0	0	47.4	51	0	47.4
J-8932	22.3	0	0	51.1	56.7	0	51.1
J-8933	22.3	0	0	51.1	56.7	0	51.1
J-8934	21.9	0	0	51	56.8	0	51
J-8935	21.9	0	0	51	56.8	0	51
J-8936	22.3	0	0	50.9	56.6	0	50.9
J-8937	22.3	0	0	50.9	56.6	0	50.9
J-8938	22	0	0	50.9	56.7	0	50.9
J-8940	35.5	1.2	0.6	47.7	51.3	1.2	47.7
J-8941	35.5	0	0	47.7	51.2	0	47.7
J-8942	22.3	0	0	51.1	56.7	0	51.1
J-8943	32.6	0	0	49.2	53	0	49.2
J-8944	32.6	0	0	49.2	53	0	49.2
J-8945	22.2	0	0	50.9	56.7	0	50.9
J-8946	22.3	0	0	51	56.6	0	51
J-8947	22.4	0	0	50.9	56.6	0	50.9
J-8948	37.3	0	0	46.9	50.5	0	46.9
J-8949	37.3	0	0	46.9	50.5	0	46.9
J-8950	32.6	0	0	49.3	53.1	0	49.3
J-8951	32.6	0	0	49.2	53	0	49.2
J-8952	32.7	0	0	49.3	53	0	49.3
J-8953	32.8	0	0	49.2	53	0	49.2
J-8956	36	0	0	47.4	51	0	47.4
J-8957	21.8	0	0	51	56.8	0	51
J-8958	30.3	1	0.5	49.5	53.8	1	49.5
J-8959	46.7	0.8	0.4	44	47	0.8	44
J-8963	33.8	0	0	48.4	52.3	0	48.4
J-8964	32.7	0	0	48.9	52.7	0	48.9
J-8965	36.2	0	0	47.4	51	0	47.4
J-8966	27.3	3	1.4	50.7	55.1	3	50.7
J-8967	27.3	1.7	0.8	50.7	55.1	1.7	50.7
J-8968	36.8	0	0	47.2	50.8	0	47.2
J-8969	37.2	0	0	47	50.6	0	47
J-8970	35.9	1.3	0.6	47.5	51.1	1.3	47.5
J-8971	28	0.1	0.1	50.5	54.8	0.1	50.5
J-8972	27.8	3.9	1.9	50.5	54.9	3.9	50.5
J-8974	36.4	0	0	47.3	51	0	47.3
J-8975	36.5	4.2	2	47.3	50.9	4.2	47.3
J-8976	46	3.1	1.5	44.4	47.3	3.1	44.4
J-8977	45.3	4	1.9	47.2	48.8	4	47.2
J-8978	45.5	2.8	1.3	47.2	48.7	2.8	47.2
J-8979	27.4	3	1.4	50.7	55.1	3	50.7
J-8980	27.7	3.9	1.9	50.5	55	3.9	50.5
J-8981	28	4.3	2.1	50.4	54.8	4.3	50.4
J-8982	28.6	4.1	2	50.2	54.6	4.1	50.2
J-8983	29.3	2.6	1.3	49.9	54.3	2.6	49.9
J-8984	27.6	4.7	2.3	50.6	55	4.7	50.6
J-8985	27.3	3.5	1.7	50.7	55.1	3.5	50.7
J-8986	27.3	3.4	1.6	50.7	55.1	3.4	50.7
J-8987	28.6	3.3	1.6	50.2	54.6	3.3	50.2
J-8988	28.4	2.7	1.3	50.3	54.6	2.7	50.3
J-8989	29.9	3.3	1.6	49.7	54	3.3	49.7
J-8990	28.6	3.1	1.5	50.2	54.6	3.1	50.2
J-8991	36.3	0	0	47.4	51	0	47.4
J-8992	36.2	0	0	47.4	51	0	47.4
J-8993	36.1	0	0	47.5	51.1	0	47.5
J-8994	29.2	2.4	1.2	50	54.3	2.4	50
J-8995	28.8	3.2	1.5	50.1	54.5	3.2	50.1
J-8996	28.9	3	1.4	50.1	54.4	3	50.1
J-8997	28.2	3.9	1.9	50.4	54.7	3.9	50.4
J-8998	28	4.8	2.3	50.4	54.8	4.8	50.4
J-9000	46.4	3.5	1.7	46.8	48.3	3.5	46.8
J-9001	27.4	3.7	1.8	50.7	55.1	3.7	50.7
J-9002	28.1	3.6	1.8	50.4	54.8	3.6	50.4
J-9003	34	3.5	1.7	48.3	51.9	3.5	48.3
J-9004	34.3	0	0	48.2	51.8	0	48.2
J-9006	28.5	3.6	1.7	50.3	54.6	3.6	50.3
J-9007	44.8	4.3	2.1	47.4	49	4.3	47.4
J-9009	36.3	0	0	47.4	51	0	47.4
J-9010	36.2	0	0	47.4	51	0	47.4
J-9011	28.4	3.3	1.6	50.3	54.6	3.3	50.3
J-9012	27.8	3.3	1.6	50.5	54.9	3.3	50.5
J-9014	39.2	0.3	0.1	46.6	50.1	0.3	46.6
J-9015	38.9	0	0	46.7	50.2	0	46.7
J-9016	33.3	0	0	49	52.8	0	49
J-9017	45.6	1.8	0.9	45	47.5	1.8	45
J-9018	36.6	16.2	7.8	47.3	50.9	16.2	47.3
J-9019	36.2	0	0	47.5	51.1	0	47.5
J-9020	36.1	0	0	47.5	51.1	0	47.5
J-9021	43.6	2.7	1.3	47.9	49.5	2.7	47.9
J-9022	36.3	0	0	47.4	51	0	47.4
J-9023	44.1	3.2	1.6	47.6	49.2	3.2	47.6
J-9024	43.8	2.4	1.1	47.8	49.4	2.4	47.8
J-9038	38.3	0	0	49.2	51.3	0	49.2
J-9041	21.6	0	0	50.5	56.8	0	50.5
J-9067	27.5	0	0	50	54.9	0	50
J-9099	22.9	0	0	52.8	56.6	0	52.8
J-9120	27.3	0	0	50	54.9	0	50
J-9129	45.2	0	0	47.6	49	0	47.6
J-9153	48.5	0	0	43.3	46.2	0	43.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
HS-3	J-9099	H-295	8	150	0.08	0.3	0.4	0.8	0.3	0.8
HS-4	H-295	H-300	8	150	0.04	0.14	0.3	0.5	0.14	0.5
HS-5	H-300	H-287	8	150	0.02	0.09	0.2	0.4	0.09	0.4
HS-6	H-287	H-351	8	150	0.04	0.15	0.3	0.5	0.15	0.5
HS-7	H-295	H-434	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-8	H-434	H-366	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-9	H-366	H-357	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-10	H-300	H-366	8	150	0	0	0	0	0	0
HS-11	H-252	H-357	8	150	0	0	0	0	0	0
HS-12	H-357	H-433	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-13	H-433	H-287	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-14	J-5286	H-344	12	150	0.01	0.03	0.2	0.3	0.03	0.3
HS-15	H-344	J-5284	12	150	0.12	0.45	0.6	1.3	0.45	1.3
HS-16	J-6564	H-222	12	150	0	0.07	0.1	0.5	0.07	0.5
HS-17	H-222	169-110	12	150	0.01	0.1	0.1	0.6	0.1	0.6
HS-18	H-309	H-297	8	150	0	0	0	0	0	0
HS-19	H-297	H-212	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-20	H-212	H-213	8	150	0	0	0	0	0	0
HS-21	J-9067	H-330	8	150	0.11	0.37	0.5	0.9	0.37	0.9
HS-22	H-330	H-332	8	150	0.02	0.08	0.2	0.4	0.08	0.4
HS-23	H-332	H-205	8	150	0.02	0.08	0.2	0.4	0.08	0.4
HS-24	H-205	H-436	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-25	H-436	H-212	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-26	J-9120	H-313	8	150	0.09	0.29	0.4	0.8	0.29	0.8
HS-27	H-313	H-308	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-28	H-308	H-297	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-29	H-330	H-313	8	150	0.04	0.13	0.3	0.5	0.13	0.5
HS-30	H-308	H-205	8	150	0.01	0.02	0.1	0.2	0.02	0.2
HS-31	J-9129	H-289	8	150	0.42	0.92	1	1.5	0.92	1.5
HS-32	H-289	H-352	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-33	H-352	H-292	8	150	0	0	0	0	0	0
HS-34	H-289	H-257	8	150	0.31	0.67	0.8	1.2	0.67	1.2
HS-35	H-257	H-386	8	150	0.67	1.46	1.2	1.9	1.46	1.9
HS-36	H-385	H-293	8	150	0.28	0.6	0.8	1.2	0.6	1.2
HS-37	H-293	H-257	8	150	0.09	0.2	0.4	0.6	0.2	0.6
HS-38	H-352	H-225	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-39	H-225	H-293	8	150	0.62	1.36	1.2	1.8	1.36	1.8
HS-40	J-6413	H-225	8	150	0.46	0.97	1	1.5	0.97	1.5
HS-41	J-8938	H-394	12	150	0.07	0.3	0.5	1	0.3	1
HS-42	H-394	H-216	12	150	0.07	0.3	0.5	1	0.3	1
HS-43	J-6762	J-5098	12	150	0.07	0.33	0.5	1.1	0.09	0.5
HS-44	J-9162	H-253	12	150	0.08	0.33	0.5	1.1	0.33	1.1
HS-45	H-222	J-9238	4	152.5	0.17	0.68	0.4	0.8	0.68	0.8
HS-46	H-294	H-219	8	150	0	0.02	0	0.2	0.01	0.1
HS-47	H-219	H-236	8	150	0	0.01	0	0.1	0.01	0.1
HS-48	H-219	H-246	8	150	0	0.01	0	0.1	0	0.1
HS-49	H-246	H-228	8	150	0	0	0	0.1	0	0.1
HS-50	H-228	H-376	8	150	0	0	0	0.1	0	0.1
HS-51	H-376	H-285	8	150	0	0	0	0.1	0	0.1
HS-52	H-285	H-365	8	150	0	0	0	0	0	0
HS-53	H-246	H-341	8	150	0	0.01	0	0.1	0.01	0.1
HS-54	H-341	H-322	8	150	0	0.04	0.1	0.3	0.04	0.3
HS-55	H-341	H-285	8	150	0	0	0	0.1	0	0.1
HS-56	H-322	H-237	12	150	0.05	0.25	0.4	0.9	0.25	0.9
HS-57	H-237	J-8372	12	150	0.1	0.45	0.6	1.3	0.45	1.3
HS-58	H-322	H-372	12	150	0.02	0.07	0.2	0.5	0.07	0.5
HS-59	H-322	H-321	8	150	0.07	0.27	0.4	0.8	0.27	0.8
HS-60	H-321	H-231	8	150	0.07	0.27	0.4	0.8	0.27	0.8
HS-61	H-231	H-237	8	150	0.07	0.27	0.4	0.8	0.27	0.8
HS-62	H-372	H-256	8	150	0.19	0.69	0.6	1.3	0.69	1.3
HS-63	H-321	H-256	8	150	0.25	0.93	0.7	1.5	0.93	1.5
HS-64	H-236	H-372	12	150	0	0	0	0.1	0	0.1
HS-65	H-256	H-239	8	150	0.78	2.92	1.3	2.7	2.92	2.7
HS-66	H-239	H-303	8	150	1.31	5.05	1.8	3.7	5.05	3.7
HS-67	H-239	H-206	8	150	0.1	0.41	0.4	0.9	0.41	0.9
HS-68	H-206	H-299	8	150	0.02	0.1	0.2	0.4	0.1	0.4
HS-69	H-206	H-298	8	150	0.03	0.13	0.2	0.5	0.13	0.5
HS-70	H-298	H-211	8	150	0.03	0.13	0.2	0.5	0.13	0.5
HS-71	H-211	H-334	8	150	0.33	1.3	0.8	1.8	1.3	1.8
HS-72	H-334	H-226	8	150	0.08	0.29	0.4	0.8	0.29	0.8
HS-73	H-211	J-8676	8	150	0.8	3.23	1.4	2.9	3.23	2.9
HS-74	H-299	H-211	8	150	0.04	0.16	0.3	0.6	0.16	0.6
HS-75	H-226	H-324	8	150	0.08	0.29	0.4	0.8	0.29	0.8
HS-76	H-324	H-291	8	150	0.08	0.29	0.4	0.8	0.29	0.8
HS-77	H-291	H-303	8	150	0.33	1.3	0.8	1.8	1.3	1.8
HS-78	H-324	H-255	8	150	0	0	0	0	0	0
HS-79	H-291	H-334	8	150	0.11	0.43	0.5	1	0.43	1
HS-80	H-236	H-221	8	150	0	0	0	0	0	0
HS-81	H-221	H-349	8	150	0	0	0	0	0	0
HS-82	H-236	H-312	12	150	0	0	0	0	0	0
HS-83	H-312	H-349	8	150	0	0	0	0	0	0
HS-84	H-219	H-399	8	150	0	0	0	0.1	0	0
HS-85	H-399	H-312	8	150	0	0	0	0.1	0	0
HS-86	H-233	H-377	8	150	0	0.03	0	0.2	0.02	0.2
HS-87	H-377	H-294	8	150	0	0.02	0	0.2	0.01	0.1
HS-88	H-377	H-318	8	150	0	0	0	0	0	0
HS-89	H-233	J-9038	8	150	0	0.03	0	0.2	0.02	0.2
HS-90	H-302	H-240	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-91	H-240	H-328	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-92	H-328	H-333	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-93	H-340	H-238	8	150	0.14	0.53	0.5	1.1	0.53	1.1
HS-94	H-238	H-305	8	150	0.06	0.22	0.3	0.7	0.22	0.7
HS-95	H-305	H-333	8	150	0.06	0.22	0.3	0.7	0.22	0.7
HS-96	H-240	H-323	8	150	0	0	0	0	0	0
HS-97	H-328	H-327	8	150	0	0	0	0	0	0
HS-98	H-220	H-301	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-99	H-333	H-220	8	150	0.01	0.06	0.2	0.3	0.06	0.3
HS-100	H-305	H-367	8	150	0	0	0	0	0	0
HS-101	H-238	H-362	8	150	0.02	0.08	0.2	0.4	0.08	0.4
HS-102	H-362	H-244	8	150	0.05	0.18	0.3	0.6	0.18	0.6
HS-103	H-244	H-277	8	150	0.05	0.18	0.3	0.6	0.18	0.6
HS-104	H-277	H-302	8	150	0.05	0.18	0.3	0.6	0.18	0.6
HS-105	H-251	H-362	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-106	H-244	H-243	8	150	0	0	0	0	0	0
HS-107	H-277	H-314	8	150	0	0	0	0	0	0
HS-108	H-350	H-281	12	150	0.03	0.13	0.3	0.7	0.13	0.7
HS-109	H-281	H-329	12	150	0.01	0.03	0.1	0.3	0.03	0.3
HS-110	H-350	H-268	12	150	0	0.01	0.1	0.1	0.01	0.1
HS-111	H-350	H-302	8	150	0.09	0.36	0.4	0.9	0.36	0.9
HS-112	H-369	H-353	12	150	0.03	0.12	0.3	0.6	0.12	0.6
HS-113	H-353	H-350	12	150	0.04	0.15	0.3	0.7	0.15	0.7
HS-114	H-215	H-207	12	150	0.04	0.17	0.4	0.7	0.17	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
HS-115	H-207	H-369	12	150	0.03	0.12	0.3	0.6	0.12	0.6
HS-116	H-302	H-301	8	150	0	0	0	0	0	0
HS-117	H-281	H-251	8	150	0.09	0.33	0.4	0.8	0.33	0.8
HS-118	H-251	H-340	8	150	0.13	0.5	0.5	1.1	0.5	1.1
HS-119	H-340	J-6141	8	150	0.32	1.22	0.8	1.7	1.22	1.7
HS-120	H-209	H-207	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-121	H-224	H-250	8	150	0	0.02	0.1	0.2	0.02	0.2
HS-122	H-209	H-258	8	150	0.04	0.14	0.3	0.5	0.14	0.5
HS-123	H-258	H-250	8	150	0.04	0.14	0.3	0.5	0.14	0.5
HS-124	H-288	H-317	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-125	H-250	H-317	8	150	0.06	0.23	0.3	0.7	0.23	0.7
HS-126	H-317	H-353	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-127	H-364	H-310	8	150	0.02	0.08	0.2	0.4	0.08	0.4
HS-128	H-310	H-208	8	150	0	0	0	0	0	0
HS-129	H-208	H-316	8	150	0	0	0	0	0	0
HS-130	H-310	H-331	8	150	0.02	0.1	0.2	0.4	0.1	0.4
HS-131	H-331	H-316	8	150	0.03	0.11	0.2	0.5	0.11	0.5
HS-132	H-316	H-342	8	150	0.03	0.13	0.2	0.5	0.13	0.5
HS-133	H-317	H-342	8	150	0.03	0.13	0.2	0.5	0.13	0.5
HS-134	H-307	H-209	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-135	H-343	H-290	8	150	0.08	0.33	0.4	0.8	0.33	0.8
HS-136	H-315	H-326	8	150	0.09	0.34	0.4	0.9	0.34	0.9
HS-137	H-229	H-340	8	150	0.02	0.1	0.2	0.4	0.1	0.4
HS-138	H-229	H-325	8	150	0.13	0.52	0.5	1.1	0.52	1.1
HS-139	H-325	J-9041	8	150	0.12	0.45	0.5	1	0.45	1
HS-140	H-326	H-260	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-141	H-315	H-370	8	150	0.01	0.02	0.1	0.2	0.02	0.2
HS-142	H-319	H-214	8	150	0	0	0	0	0	0
HS-143	H-326	H-229	8	150	0.05	0.2	0.3	0.6	0.2	0.6
HS-144	H-325	H-259	8	150	0	0	0	0.1	0	0.1
HS-145	H-290	H-319	8	150	0.08	0.33	0.4	0.8	0.33	0.8
HS-146	H-319	H-315	8	150	0.09	0.36	0.4	0.9	0.36	0.9
HS-147	H-358	H-331	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-148	H-331	H-374	8	150	0.07	0.28	0.4	0.8	0.28	0.8
HS-149	H-374	H-329	8	150	0.07	0.28	0.4	0.8	0.28	0.8
HS-150	H-329	H-343	8	150	0.12	0.46	0.5	1	0.46	1
HS-151	J-5263	H-259	12	150	0.15	0.57	0.7	1.5	0.57	1.5
HS-152	H-259	H-260	12	150	0.14	0.55	0.7	1.4	0.55	1.4
HS-153	H-260	H-370	12	150	0.12	0.47	0.6	1.3	0.47	1.3
HS-154	H-370	H-214	12	150	0.11	0.41	0.6	1.2	0.41	1.2
HS-155	H-214	H-227	12	150	0.11	0.43	0.6	1.2	0.43	1.2
HS-156	H-227	H-306	12	150	0.1	0.38	0.6	1.2	0.38	1.2
HS-157	H-306	H-358	12	150	0.07	0.28	0.5	1	0.28	1
HS-158	H-358	H-364	12	150	0.07	0.25	0.5	0.9	0.25	0.9
HS-159	H-364	H-288	12	150	0.09	0.35	0.5	1.1	0.35	1.1
HS-160	H-288	H-224	12	150	0.08	0.32	0.5	1.1	0.32	1.1
HS-161	H-224	H-307	12	150	0.09	0.36	0.5	1.1	0.36	1.1
HS-162	H-307	H-215	12	150	0.11	0.43	0.6	1.3	0.43	1.3
HS-163	H-306	H-329	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-164	H-227	H-343	8	150	0	0.02	0.1	0.2	0.02	0.2
HS-165	J-5565	H-395	12	150	0	0	0	0.1	0	0.1
HS-166	H-395	H-274	12	150	0.13	0.42	0.6	1.2	0.42	1.2
HS-167	H-344	H-396	12	150	0.19	0.67	0.8	1.6	0.67	1.6
HS-168	H-396	H-274	12	150	0.19	0.67	0.8	1.6	0.67	1.6
HS-169	H-215	H-389	12	150	0.33	1.32	1.1	2.3	1.32	2.3
HS-171	H-216	H-391	12	150	0.07	0.29	0.5	1	0.29	1
HS-172	H-391	H-279	12	150	0.07	0.29	0.5	1	0.29	1
HS-173	H-279	H-392	12	150	0.02	0.11	0.2	0.6	0.11	0.6
HS-174	H-392	J-8696	12	150	0	0.01	0	0.1	0.01	0.1
HS-175	H-215	H-390	12	150	0.05	0.22	0.4	0.9	0.22	0.9
HS-176	H-390	H-279	12	150	0.18	0.7	0.8	1.6	0.7	1.6
HS-177	J-8778	H-393	12	150	0.1	0.41	0.6	1.2	0.41	1.2
HS-178	H-393	H-279	12	150	0.1	0.41	0.6	1.2	0.41	1.2
HS-179	J-5222	H-414	12	152.5	0.02	0.09	0.2	0.6	0.09	0.6
HS-180	H-414	H-415	12	152.5	0.02	0.09	0.2	0.6	0.09	0.6
HS-181	H-415	H-339	12	152.5	0.02	0.09	0.2	0.6	0.09	0.6
HS-182(1)	H-339	J-9231	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
HS-182(2)	J-9231	H-278	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
HS-183	H-272	H-242	12	150	0.03	0.1	0.3	0.6	0.1	0.6
HS-184(1)	H-242	J-9222	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-184(2)	J-9222	H-339	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-185	H-272	H-320	12	150	0.01	0.03	0.1	0.3	0.03	0.3
HS-186	H-320	H-278	12	150	0.01	0.05	0.2	0.4	0.05	0.4
HS-187	H-384	H-359	12	150	0	0	0	0	0	0
HS-188	J-8183	J-6592	12	150	0.02	0.12	0.3	0.6	0.12	0.6
HS-193	J-5935	H-247	12	150	0.15	0.58	0.7	1.5	0.58	1.5
HS-194	H-247	H-428	12	150	0.05	0.2	0.4	0.8	0.2	0.8
HS-195(1)	H-428	J-9234	12	150	0.05	0.2	0.4	0.8	0.2	0.8
HS-195(2)	J-9234	H-230	16	152.5	0.01	0.05	0.2	0.5	0.05	0.5
HS-215(1)	J-6155	J-9230	12	150	0.01	0.04	0.2	0.3	0.04	0.3
HS-215(2)	J-9230	H-388	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-224	H-230	H-427	12	150	0.01	0.03	0.1	0.3	0.03	0.3
HS-225(1)	H-427	J-9273	12	150	0.01	0.03	0.1	0.3	0.03	0.3
HS-225(2)(1)	J-9273	H-338	12	150	0.01	0.03	0.1	0.3	0.03	0.3
HS-225(2)(2)	H-338	H-425	12	150	0.08	0.32	0.5	1.1	0.32	1.1
HS-226	H-425	H-275	12	150	0.08	0.32	0.5	1.1	0.32	1.1
HS-227	J-5260	H-275	12	150	0.08	0.32	0.5	1.1	0.32	1.1
HS-230	J-6637	H-296	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-249	J-8871	H-416	12	150	0.02	0.06	0.2	0.4	0.06	0.4
HS-250	H-416	H-242	12	150	0.02	0.06	0.2	0.4	0.06	0.4
HS-285	H-338	H-426	12	150	0.03	0.11	0.3	0.6	0.11	0.6
HS-286	H-426	H-373	12	150	0	0	0	0.1	0	0.1
HS-291	H-247	H-338	8	150	0.03	0.13	0.2	0.5	0.13	0.5
HS-299	J-5143	H-398	12	150	0	0	0	0.1	0	0.1
HS-300	H-398	H-397	12	150	0	0	0	0.1	0	0.1
P-72	J-5535	J-5125	16	152.5	0	1.25	0	2.7	1.25	2.7
P-84(1)	J-5170	TEMP395	8	152.5	5.35	6.04	3.9	4.1	5.67	4
P-84(2)	TEMP395	J-7238	8	152.5	5.35	6.04	3.9	4.1	5.67	4
P-85	J-6870	J-5170	8	152.5	3.41	5.2	3	3.8	5.2	3.8
P-88	J-5546	J-5346	18	152.5	0	0	0	0	0	0
P-93	J-5165	J-5502	12	152.5	0.27	0.63	1	1.6	0.63	1.6
P-94	J-5502	J-5202	12	152.5	0.06	0.15	0.5	0.7	0.15	0.7
P-110	J-5161	J-5163	12	152.5	0.11	0.17	0.6	0.8	0.17	0.8
P-111	J-5269	J-5161	10	152.5	0.15	0.22	0.6	0.8	0.18	0.7
P-112(1)	J-5069	TEMP399	12	152.5	0.59	2.12	1.5	3	2.12	3
P-112(2)	TEMP399	J-5320	12	152.5	0.59	2.11	1.5	3	2.11	3
P-113	J-5069	J-5079	12	152.5	1.1	4.02	2.1	4.3	4.02	4.3
P-114	J-5049	J-8873	16	130	0	0	0	0	0	0
P-115	J-6315	J-5047	16	130	0	0	0	0	0	0
P-116	J-5373	J-5053	16	130	0	0	0	0	0	0
P-118	J-5060	J-6315	16	130	0	0	0	0	0	0
WMAIN-0002	J-7435	J-7436	8	152.5	0	0	0	0	0	0

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0003	169-043	J-5098	12	152.5	0.07	0.32	0.5	1.1	0.09	0.5
WMAIN-0005	J-7440	J-7441	8	152.5	0.09	0.36	0.4	0.9	0.36	0.9
WMAIN-0007(1)	J-7440	168-041	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-0007(2)	168-041	168-040	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-0009(1)	J-7435	168-042	8	152.5	0.08	0.27	0.4	0.8	0.27	0.8
WMAIN-0009(2)	168-042	J-7440	8	152.5	0.07	0.26	0.4	0.8	0.26	0.8
WMAIN-0010	J-5357	J-5126	30	152.5	0.3	0.7	1.9	2.9	0.7	2.9
WMAIN-0013	J-7590	J-7435	8	152.5	0.09	0.32	0.4	0.8	0.32	0.8
WMAIN-0015	168-040	J-7207	8	152.5	0	0	0	0	0	0
WMAIN-0018	J-8047	168-040	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-0020(1)	J-7819	168-039	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-0020(2)	168-039	J-8047	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-0021(1)	J-8015	168-044	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-0021(2)(1)	168-044	168-045	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-0021(2)(2)	168-045	J-7819	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-0022	J-7590	J-8015	8	152.5	0.06	0.2	0.3	0.6	0.2	0.6
WMAIN-0026(1)	J-7589	168-043	8	152.5	0.27	0.96	0.8	1.5	0.96	1.5
WMAIN-0026(2)	168-043	J-7590	8	152.5	0.27	0.95	0.8	1.5	0.95	1.5
WMAIN-0028	J-6193	J-7589	8	152.5	0.28	0.99	0.8	1.6	0.99	1.6
WMAIN-0032	J-5420	J-5421	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0033	J-7806	J-7819	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-0034	052-006	J-5068	6	140	0	0	0	0	0	0
WMAIN-0035(1)	J-6193	168-046	12	152.5	0.02	0.1	0.2	0.6	0.1	0.6
WMAIN-0035(2)	168-046	J-8793	12	152.5	0.02	0.1	0.2	0.6	0.09	0.6
WMAIN-0039(1)	J-6192	168-047	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-0039(2)	168-047	J-6193	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-0040	J-8442	J-8183	12	152.5	0.32	0.87	1.1	1.9	0.87	1.9
WMAIN-0043	J-5655	J-8442	12	152.5	0.28	0.75	1	1.7	0.75	1.7
WMAIN-0045	J-5654	J-5655	12	152.5	0.23	0.6	0.9	1.5	0.6	1.5
WMAIN-0047(1)	J-8352	170-157	12	152.5	0.23	0.6	0.9	1.5	0.6	1.5
WMAIN-0047(2)	170-157	J-5654	12	152.5	0.23	0.6	0.9	1.5	0.6	1.5
WMAIN-0049	J-6332	J-8352	12	152.5	0.22	0.57	0.9	1.5	0.57	1.5
WMAIN-0050	J-6332	J-5377	12	152.5	0.21	0.54	0.9	1.4	0.54	1.4
WMAIN-0051	J-8140	J-8183	12	152.5	0.17	0.43	0.8	1.3	0.43	1.3
WMAIN-0053	J-8139	J-8140	12	152.5	0.18	0.45	0.8	1.3	0.45	1.3
WMAIN-0054(1)	J-8220	170-158	12	152.5	0.2	0.51	0.8	1.4	0.51	1.4
WMAIN-0054(2)	170-158	J-8139	12	152.5	0.19	0.49	0.8	1.4	0.49	1.4
WMAIN-0056	J-8219	J-8220	12	152.5	0.21	0.54	0.9	1.4	0.54	1.4
WMAIN-0058(1)	J-8250	169-001	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-0058(2)	169-001	J-6669	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-0063	J-6256	169-094	8	152.5	0	0	0	0	0	0
WMAIN-0064	169-094	J-5183	8	152.5	0	0	0	0	0	0
WMAIN-0065	J-6256	J-7014	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-0068(1)	J-8160	169-096	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-0068(2)(1)	169-096	169-095	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-0068(2)(2)	169-095	J-6256	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-0070	J-6336	J-6318	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0073	J-6336	J-5698	8	152.5	0.02	0.22	0.2	0.7	0.22	0.7
WMAIN-0075(1)	J-8649	169-091	8	152.5	0.01	0.13	0.1	0.5	0.13	0.5
WMAIN-0075(2)	169-091	J-6336	8	152.5	0.01	0.12	0.1	0.5	0.12	0.5
WMAIN-0078(1)	J-6668	169-090	8	152.5	0.01	0.16	0.1	0.6	0.16	0.6
WMAIN-0078(2)	169-090	J-8649	8	152.5	0.01	0.15	0.1	0.6	0.15	0.6
WMAIN-0080(1)	J-6668	169-089	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-0080(2)	169-089	J-6669	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-0083	J-7873	J-6668	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-0085(1)	J-7873	169-088	8	152.5	0.01	0.1	0.2	0.4	0.1	0.4
WMAIN-0085(2)	169-088	J-8160	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-0087	J-6318	J-6294	8	152.5	0.01	0.17	0.1	0.6	0.17	0.6
WMAIN-0090(1)	J-7014	169-092	8	152.5	0.03	0.29	0.2	0.8	0.29	0.8
WMAIN-0090(2)	169-092	J-6318	8	152.5	0.03	0.29	0.2	0.8	0.29	0.8
WMAIN-0092(1)	J-7873	169-093	8	152.5	0.01	0.13	0.2	0.5	0.13	0.5
WMAIN-0092(2)	169-093	J-7014	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-0094	J-7286	J-7873	8	152.5	0.15	0.76	0.6	1.3	0.76	1.3
WMAIN-0096	J-6113	180-011	8	152.5	0	0	0	0	0	0
WMAIN-0097	J-8346	H-384	12	152.5	0	0	0	0	0	0
WMAIN-0098(1)	J-8661	180-001	12	152.5	0.2	0.38	0.8	1.2	0.38	1.2
WMAIN-0098(2)(1)	180-001	J-8088	12	152.5	0.19	0.38	0.8	1.2	0.38	1.2
WMAIN-0098(2)(2)	J-8088	J-8346	12	152.5	0.45	0.85	1.3	1.8	0.85	1.8
WMAIN-0101	J-8155	J-8156	8	152.5	0.14	0.26	0.5	0.8	0.26	0.8
WMAIN-0103(1)	J-8156	TEMP476	8	152.5	0.12	0.23	0.5	0.7	0.23	0.7
WMAIN-0103(2)	TEMP476	J-6257	8	152.5	0.12	0.22	0.5	0.7	0.22	0.7
WMAIN-0104(1)	J-6257	180-004	8	152.5	0	0	0	0	0	0
WMAIN-0104(2)	180-004	J-6258	8	152.5	0	0	0	0	0	0
WMAIN-0105	J-6648	J-6257	8	152.5	0.12	0.22	0.5	0.7	0.22	0.7
WMAIN-0107	J-6304	J-6648	8	152.5	0.27	0.5	0.8	1.1	0.5	1.1
WMAIN-0111(1)	J-6189	180-007	12	152.5	0.14	0.56	0.7	1.5	0.56	1.5
WMAIN-0111(2)	180-007	J-6190	12	152.5	0.14	0.56	0.7	1.5	0.56	1.5
WMAIN-0112	J-7991	J-6189	12	152.5	0.19	0.45	0.8	1.3	0.45	1.3
WMAIN-0124(1)	J-8155	180-002	12	152.5	0.44	0.84	1.3	1.8	0.84	1.8
WMAIN-0124(2)	180-002	J-8346	12	152.5	0.45	0.85	1.3	1.8	0.85	1.8
WMAIN-0126(1)	J-6648	180-003	12	152.5	0.3	0.57	1.1	1.5	0.57	1.5
WMAIN-0126(2)	180-003	J-8155	12	152.5	0.3	0.58	1.1	1.5	0.58	1.5
WMAIN-0128(1)	J-7991	180-005	12	152.5	0.23	0.44	0.9	1.3	0.44	1.3
WMAIN-0128(2)	180-005	J-6648	12	152.5	0.23	0.45	0.9	1.3	0.45	1.3
WMAIN-0131	J-8297	J-7991	12	152.5	0	0.07	0	0.5	0.02	0.3
WMAIN-0134	J-8296	J-8297	12	152.5	0	0.1	0	0.6	0.01	0.1
WMAIN-0136(1)	J-8248	180-009	12	152.5	0	0.07	0	0.5	0.01	0.1
WMAIN-0136(2)	180-009	J-8296	12	152.5	0	0.08	0	0.5	0.01	0.1
WMAIN-0140	J-6113	J-8248	12	152.5	0	0.17	0	0.8	0.17	0.8
WMAIN-0143	J-7283	J-6113	12	152.5	0	0.16	0	0.7	0.16	0.7
WMAIN-0145	J-7282	J-7283	12	152.5	0	0.23	0	0.9	0.23	0.9
WMAIN-0146	J-5592	J-5593	8	152.5	0	0	0	0	0	0
WMAIN-0147	125-112	J-5593	8	152.5	0	0	0	0	0	0
WMAIN-0152	J-7455	J-5592	8	152.5	0	0	0	0	0	0
WMAIN-0153(1)	J-7620	125-114	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0153(2)	125-114	J-8698	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0155(1)	J-8698	125-113	8	152.5	0	0	0	0	0	0
WMAIN-0155(2)	125-113	J-5592	8	152.5	0	0	0	0	0	0
WMAIN-0156(1)	J-7619	125-115	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0156(2)	125-115	J-7620	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0160(1)	J-7522	125-116 125-116	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0160(2)	125-116 125-116	J-7619	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0162(1)	J-7455	125-117	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-0162(2)	125-117	J-7522	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0166	J-5601	J-5602	8	152.5	0	0	0	0	0	0
WMAIN-0167(1)	J-5602	125-105	8	152.5	0	0	0	0	0	0
WMAIN-0167(2)	125-105	J-5618	8	152.5	0	0	0	0	0	0
WMAIN-0168	J-5618	J-5619	8	152.5	0	0	0	0	0	0
WMAIN-0169(1)	J-5601	125-104	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0169(2)	125-104	J-7970	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0171(1)	J-5619	125-106	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0171(2)	125-106	J-6170	8	152.5	0	0.01	0	0.1	0.01	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0173(1)	J-7970	125-107	8	152.5	0	0	0	0	0	0
WMAIN-0173(2)	125-107	J-6170	8	152.5	0	0	0	0	0	0
WMAIN-0175	J-8154	J-5629	8	152.5	0	0	0	0	0	0
WMAIN-0176	J-5629	J-5630	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0177(1)	J-5630	125-110	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0177(2)	125-110	J-5631	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0178	J-5631	J-5632	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0180	J-6171	J-6168	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-0182	J-6170	J-6171	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0185	J-6171	J-5743	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0186(1)	J-5743	125-108	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0186(2)	125-108	J-5744	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0187	J-5744	J-5978	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0189	J-5632	J-5978	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0191(1)	J-5978	125-109	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0191(2)	125-109	J-8154	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0199	J-7970	J-7523	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0200(1)	J-7224	125-103	8	152.5	0.13	0.51	0.5	1.1	0.51	1.1
WMAIN-0200(2)(1)	125-103	125-102	8	152.5	0.12	0.48	0.5	1	0.48	1
WMAIN-0200(2)(2)	125-102	J-7523	8	152.5	0.12	0.48	0.5	1	0.48	1
WMAIN-0202	J-7522	J-7523	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-0204	J-8154	J-7782	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0206	J-7523	J-7782	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-0208(1)	J-7455	125-111	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0208(2)	125-111	J-7456	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0210(1)	J-7782	125-101	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-0210(2)	125-101	J-7456	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-0218(1)	J-7456	125-100	8	152.5	0.05	0.19	0.3	0.6	0.19	0.6
WMAIN-0218(2)	125-100	J-7955	8	152.5	0.05	0.18	0.3	0.6	0.18	0.6
WMAIN-0220(1)	J-7955	125-099	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-0220(2)	125-099	J-5899	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-0221	J-8137	J-7955	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0225	J-6014	J-5899	12	152.5	0.07	0.28	0.5	1	0.28	1
WMAIN-0227	J-6140	J-6014	12	130	0.1	0.37	0.5	1	0.37	1
WMAIN-0229	J-5899	J-5935	12	152.5	0.14	0.56	0.7	1.5	0.56	1.5
WMAIN-0230(1)(1)	J-8528	125-096	12	152.5	0.09	0.34	0.5	1.1	0.34	1.1
WMAIN-0230(1)(2)	125-096	125-097	12	152.5	0.09	0.34	0.5	1.1	0.34	1.1
WMAIN-0230(2)(1)	125-097	125-098	12	152.5	0.08	0.33	0.5	1.1	0.33	1.1
WMAIN-0230(2)(2)	125-098	J-6140	12	152.5	0.07	0.28	0.5	1	0.28	1
WMAIN-0233	J-7224	J-7225	8	152.5	0.15	0.57	0.6	1.2	0.57	1.2
WMAIN-0235	J-5433	J-5739	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0237	J-5432	J-5433	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0240	J-5259	J-5260	12	130	0.11	0.42	0.5	1.1	0.42	1.1
WMAIN-0242	J-5259	J-5261	12	130	0	0	0	0	0	0
WMAIN-0243	J-5509	J-8852	8	152.5	0	0	0	0	0	0
WMAIN-0245	J-5508	J-5509	8	152.5	0	0	0	0	0	0
WMAIN-0246	J-5438	J-5439	8	130	0.06	0.24	0.3	0.6	0.24	0.6
WMAIN-0247(1)	J-5905	J-8831	12	130	0.08	0.31	0.4	0.9	0.31	0.9
WMAIN-0247(2)	J-8831	J-5259	12	130	0.11	0.42	0.5	1.1	0.42	1.1
WMAIN-0250(1)(1)	J-5508	126-056	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-0250(1)(2)	126-056	126-055	8	152.5	0.03	0.14	0.3	0.5	0.14	0.5
WMAIN-0250(2)	126-055	J-8260	8	152.5	0.03	0.14	0.3	0.5	0.14	0.5
WMAIN-0252(1)(1)	J-8831	126-058	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-0252(1)(2)	126-058	126-057	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-0252(2)	126-057	J-5508	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-0253	J-6532	J-6533	8	152.5	0	0	0	0	0	0
WMAIN-0255(1)	J-6533	126-052	8	152.5	0.04	0.16	0.3	0.6	0.16	0.6
WMAIN-0255(2)	126-052	J-6510	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-0256	J-6510	J-5438	8	152.5	0.05	0.18	0.3	0.6	0.18	0.6
WMAIN-0257(1)	J-8260	126-053	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-0257(2)	126-053	J-6533	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-0260(1)	J-6111	126-048	8	152.5	0.05	0.2	0.3	0.6	0.2	0.6
WMAIN-0260(2)	126-048	J-5439	8	152.5	0.05	0.18	0.3	0.6	0.18	0.6
WMAIN-0261	J-7143	J-6111	8	152.5	0.06	0.22	0.3	0.7	0.22	0.7
WMAIN-0262	J-6111	J-6112	8	152.5	0	0	0	0	0	0
WMAIN-0263(1)	J-8105	126-054	8	152.5	0	0	0	0	0	0
WMAIN-0263(2)	126-054	J-8260	8	152.5	0	0	0	0	0	0
WMAIN-0265(1)	J-6712	014-013	12	152.5	1.28	3.03	2.3	3.7	3.03	3.7
WMAIN-0265(2)	014-013	J-6713	12	152.5	1.28	3.03	2.3	3.7	3.03	3.7
WMAIN-0267	J-6713	J-8812	12	152.5	1.28	3.03	2.3	3.7	3.03	3.7
WMAIN-0268	014-017	014-016	16	152.5	0.2	0.51	1	1.7	0.51	1.7
WMAIN-0272(1)	J-6704	J-9017	12	152.5	0.27	2.9	1	3.6	2.9	3.6
WMAIN-0272(2)	J-9017	033-010	12	152.5	0.17	1.5	0.8	2.5	1.5	2.5
WMAIN-0274	149-001	J-6704	12	152.5	0.27	2.9	1	3.6	2.9	3.6
WMAIN-0275	J-5996	149-002	12	152.5	0.27	2.9	1	3.6	2.9	3.6
WMAIN-0277	J-5056	J-5057	16	152.5	0	0	0	0	0	0
WMAIN-0278A(1)	LAPS 16" PRV	139-002	16	152.5	0.17	1.84	0.9	3.4	1.84	3.4
WMAIN-0278A(2)(1)	139-002	139-001	16	152.5	0.17	1.84	0.9	3.4	1.84	3.4
WMAIN-0278A(2)(2)	139-001	J-5569	16	152.5	0.17	1.84	0.9	3.4	1.84	3.4
WMAIN-0278B	J-5057	LAPS 16" PRV	16	152.5	0.17	1.84	0.9	3.3	1.84	3.3
WMAIN-0279	J-5112	J-5113	6	140	0	0.35	0	0.7	0.35	0.7
WMAIN-0280(1)	036-052	029-001	6	140	0.14	0.59	0.4	0.9	0.59	0.9
WMAIN-0280(2)	029-001	J-5411	6	140	0.14	0.61	0.4	0.9	0.61	0.9
WMAIN-0282(1)	J-6717	H-555	6	140	0.05	0.13	0.2	0.4	0.08	0.3
WMAIN-0282(2)	H-555	J-5411	6	140	0.04	0.11	0.2	0.4	0.06	0.3
WMAIN-0284(1)	J-6049	J-8250	12	152.5	0.11	0.39	0.6	1.2	0.39	1.2
WMAIN-0284(2)	J-8250	J-7286	12	152.5	0.11	0.48	0.6	1.4	0.48	1.4
WMAIN-0285(1)	J-7391	021-036	12	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-0285(2)	021-036	J-8754	12	152.5	0	0.02	0	0.3	0	0.1
WMAIN-0286(1)	J-8754	021-049	12	152.5	0	0.02	0	0.3	0	0.1
WMAIN-0286(2)	021-049	J-5762	12	152.5	0	0.02	0	0.3	0	0.1
WMAIN-0288	J-6290	J-5691	6	140	0.03	0.89	0.2	1.1	0.89	1.1
WMAIN-0289	J-5691	J-5692	6	140	0.03	0.91	0.2	1.1	0.91	1.1
WMAIN-0291(1)	J-8560	169-002	12	152.5	0.19	0.65	0.8	1.6	0.65	1.6
WMAIN-0291(2)	169-002	J-8795	12	152.5	0.19	0.65	0.8	1.6	0.65	1.6
WMAIN-0292	J-7286	J-8560	12	152.5	0.19	0.64	0.8	1.6	0.64	1.6
WMAIN-0294(1)(1)	J-6631	028-021	6	140	0.05	0.16	0.2	0.5	0.1	0.3
WMAIN-0294(1)(2)	028-021	028-045	6	140	0.01	0.09	0.1	0.3	0.02	0.2
WMAIN-0294(2)	028-045	J-5692	6	140	0.01	0.09	0.1	0.3	0.02	0.2
WMAIN-0296(1)	J-7952	056-013	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0296(2)	056-013	J-7945	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-0297(1)	J-8105	126-051	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-0297(2)(1)	126-051	126-050	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-0297(2)(2)(1)	126-050	126-049	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-0297(2)(2)(2)	126-049	J-6233	8	152.5	0.04	0.18	0.3	0.6	0.18	0.6
WMAIN-0298	J-6232	J-6233	8	152.5	0.05	0.18	0.3	0.6	0.18	0.6
WMAIN-0300(1)	J-7118	125-089	12	152.5	0.15	0.68	0.7	1.6	0.68	1.6
WMAIN-0300(2)	125-089	J-8467	12	152.5	0.15	0.68	0.7	1.6	0.68	1.6
WMAIN-0302(1)	J-7874	125-057	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-0302(2)	125-057	J-7881	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-0303(1)(1)	J-7875	125-083	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0303(1)(2)	125-083	125-058	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0303(2)	125-058	J-7880	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0307(1)(1)	J-6002	024-029	12	152.5	0	0.27	0	1	0.03	0.3
WMAIN-0307(1)(2)	024-029	156-044	12	152.5	0	0.28	0.1	1	0.03	0.3
WMAIN-0307(2)(1)	156-044	024-028	12	152.5	0	0.28	0.1	1	0.03	0.3
WMAIN-0307(2)(2)	024-028	J-8854	12	152.5	0	0.28	0.1	1	0.03	0.3
WMAIN-0308	J-6001	J-6002	12	152.5	0	0.27	0	1	0.02	0.3
WMAIN-0312	J-7881	J-7317	8	152.5	0.13	0.49	0.5	1.1	0.49	1.1
WMAIN-0315	J-7880	J-7881	8	152.5	0.05	0.21	0.3	0.7	0.21	0.7
WMAIN-0319	J-5530	J-5531	12	152.5	0	0	0	0	0	0
WMAIN-0320	040-003	J-8801	12	152.5	0	0.13	0	0.7	0.12	0.6
WMAIN-0322(1)	J-8722	J-9225	12	152.5	0	0.14	0	0.7	0.14	0.7
WMAIN-0322(2)	J-9225	040-003	12	152.5	0	0.13	0	0.7	0.12	0.6
WMAIN-0323	J-5804	J-5805	12	152.5	0	0.02	0	0.2	0	0
WMAIN-0324	J-5805	J-6688	12	152.5	0	0.02	0	0.2	0	0
WMAIN-0327	J-5710	J-5711	8	152.5	0	0	0	0	0	0
WMAIN-0331	J-7317	J-5791	8	152.5	0.12	0.44	0.5	1	0.44	1
WMAIN-0333	J-7248	J-8269	12	152.5	0	0.19	0	0.8	0.02	0.2
WMAIN-0335(1)	J-8467	055-032	12	140	0.17	0.8	0.7	1.6	0.8	1.6
WMAIN-0335(2)	055-032	J-8458	12	140	0.17	0.8	0.7	1.6	0.8	1.6
WMAIN-0337(1)	J-7248	J-9274	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-0337(2)	J-9274	J-7249	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0338(1)	J-8269	010-046	16	152.5	0	0.03	0	0.4	0	0.1
WMAIN-0338(2)(1)	010-046	011-012	16	152.5	0	0.03	0	0.4	0	0.1
WMAIN-0338(2)(2)	011-012	J-5213	16	152.5	0	0.03	0	0.4	0	0.1
WMAIN-0340	J-6662	056-041	12	152.5	0.11	0.4	0.6	1.2	0.4	1.2
WMAIN-0341(1)	J-8339	056-044	12	152.5	0.03	0.16	0.3	0.8	0.16	0.8
WMAIN-0341(2)	056-044	J-5958	12	152.5	0.03	0.16	0.3	0.8	0.16	0.8
WMAIN-0344(1)	J-7046	056-018	12	152.5	0.07	0.3	0.5	1.1	0.3	1.1
WMAIN-0344(2)	056-018	J-6662	12	152.5	0.07	0.3	0.5	1.1	0.3	1.1
WMAIN-0345	056-005	J-8545	12	152.5	0.05	0.2	0.4	0.8	0.2	0.8
WMAIN-0348(1)(1)	J-8269	011-013	8	152.5	0	0.11	0	0.5	0.05	0.3
WMAIN-0348(1)(2)	011-013	011-014	8	152.5	0	0.12	0	0.5	0.06	0.3
WMAIN-0348(2)	011-014	J-6984	8	152.5	0	0.12	0	0.5	0.06	0.3
WMAIN-0349	J-6001	J-6038	12	152.5	0	0.14	0	0.7	0.14	0.7
WMAIN-0351(1)	J-6430	025-011	12	152.5	0.01	0.13	0.2	0.7	0.04	0.3
WMAIN-0351(2)	025-011	J-6001	12	152.5	0.01	0.13	0.2	0.7	0.04	0.3
WMAIN-0354(1)	J-7146	056-022	12	152.5	0.02	0.14	0.3	0.7	0.14	0.7
WMAIN-0354(2)	056-022	J-7046	12	152.5	0.02	0.14	0.3	0.7	0.14	0.7
WMAIN-0355	J-5569	J-5996	12	152.5	0.27	2.9	1	3.6	2.9	3.6
WMAIN-0357	J-8210	149-001	12	152.5	0.27	2.9	1	3.6	2.9	3.6
WMAIN-0358	149-002	J-8210	12	152.5	0.27	2.9	1	3.6	2.9	3.6
WMAIN-0361(1)	J-5646	023-014	6	152.5	0	0.05	0	0.3	0	0
WMAIN-0361(2)	023-014	J-8282	6	152.5	0	0.04	0	0.2	0	0
WMAIN-0363	J-8805	J-8806	2	120	0.07	0.17	0.1	0.2	0.14	0.2
WMAIN-0365	J-6716	J-6717	6	140	0.04	0.31	0.2	0.6	0.31	0.6
WMAIN-0368	J-7311	J-5820	6	140	0.11	0.27	0.4	0.6	0.27	0.6
WMAIN-0369	J-5112	J-7311	6	140	0.11	0.27	0.4	0.6	0.27	0.6
WMAIN-0371(1)	J-5113	J-8806	6	140	0.14	0.58	0.4	0.9	0.58	0.9
WMAIN-0371(2)	J-8806	036-052	6	140	0.13	0.57	0.4	0.9	0.57	0.9
WMAIN-0372	J-5820	J-5821	6	140	0.02	0.22	0.1	0.5	0.22	0.5
WMAIN-0374(1)(1)	J-5821	029-006	6	140	0.02	0.22	0.1	0.5	0.22	0.5
WMAIN-0374(1)(2)	029-006	J-8805	6	140	0.02	0.23	0.1	0.5	0.23	0.5
WMAIN-0374(2)	J-8805	J-6716	6	140	0.03	0.27	0.2	0.6	0.27	0.6
WMAIN-0375	J-7952	J-7953	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0377	J-6409	J-7945	8	152.5	0	0	0	0.1	0	0
WMAIN-0379(1)	J-6409	056-017	8	152.5	0.24	0.39	0.7	0.9	0.39	0.9
WMAIN-0379(2)	056-017	J-6410	8	152.5	0.24	0.39	0.7	0.9	0.39	0.9
WMAIN-0381(1)	J-6410	056-016	8	152.5	0.08	0.12	0.4	0.5	0.12	0.5
WMAIN-0381(2)	056-016	J-7953	8	152.5	0.07	0.11	0.4	0.5	0.11	0.5
WMAIN-0384(1)	J-7945	056-012	8	152.5	0	0	0	0	0	0
WMAIN-0384(2)	056-012	J-8416	8	152.5	0	0	0	0	0	0
WMAIN-0387	J-5403	J-5549	1	152.5	0.13	0.49	0.1	0.3	0.49	0.3
WMAIN-0388	J-5402	J-5403	2	152.5	0.03	0.13	0.1	0.2	0.13	0.2
WMAIN-0389(1)	J-5710	125-051	12	152.5	0.54	2.16	1.4	3.1	2.16	3.1
WMAIN-0389(2)(1)	125-051	126-038	12	152.5	0.55	2.2	1.5	3.1	2.2	3.1
WMAIN-0389(2)(2)	126-038	J-5546	12	152.5	0.55	2.2	1.5	3.1	2.2	3.1
WMAIN-0392	J-7874	J-7875	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0393(1)	J-7408	125-084	8	152.5	0	0	0	0	0	0
WMAIN-0393(2)	125-084	J-7874	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0395	125-085	J-7408	8	152.5	0	0	0	0	0	0
WMAIN-0397	J-7354	125-087	8	152.5	0	0	0	0	0	0
WMAIN-0398	J-5546	J-5547	12	152.5	0.55	2.2	1.5	3.1	2.2	3.1
WMAIN-0401	J-5710	J-5850	8	152.5	0	0	0	0	0	0
WMAIN-0405	J-7317	J-7858	12	152.5	0.3	1.14	1	2.2	1.14	2.2
WMAIN-0407(1)	125-086	125-024	12	152.5	0.58	2.22	1.5	3.1	2.22	3.1
WMAIN-0407(2)	125-024	J-7317	12	152.5	0.58	2.22	1.5	3.1	2.22	3.1
WMAIN-0409(1)	J-6024	J-7354	12	152.5	0.59	2.25	1.5	3.1	2.25	3.1
WMAIN-0409(2)	J-7354	J-6025	12	152.5	0.58	2.23	1.5	3.1	2.23	3.1
WMAIN-0410	J-6025	125-086	12	152.5	0.58	2.23	1.5	3.1	2.23	3.1
WMAIN-0412(1)	J-7118	125-088	12	152.5	0.59	2.25	1.5	3.1	2.25	3.1
WMAIN-0412(2)	125-088	J-6024	12	152.5	0.59	2.25	1.5	3.1	2.25	3.1
WMAIN-0413	J-6528	J-7118	12	152.5	0.18	0.57	0.8	1.5	0.57	1.5
WMAIN-0414(1)(1)	J-8636	125-090	12	152.5	0.05	0.13	0.4	0.7	0.12	0.6
WMAIN-0414(1)(2)	125-090	125-091	12	152.5	0.05	0.13	0.4	0.7	0.12	0.6
WMAIN-0414(2)	125-091	J-6528	12	152.5	0.05	0.13	0.4	0.7	0.12	0.6
WMAIN-0415(1)(1)	J-8458	055-031	12	140	0.07	0.34	0.4	1	0.34	1
WMAIN-0415(1)(2)	055-031	055-033	12	140	0.07	0.35	0.5	1	0.35	1
WMAIN-0415(2)	055-033	J-5547	12	140	0.07	0.35	0.5	1	0.35	1
WMAIN-0418	J-5958	J-7146	12	152.5	0.01	0.08	0.2	0.5	0.08	0.5
WMAIN-0421	J-6528	J-6529	12	152.5	0.05	0.21	0.4	0.9	0.21	0.9
WMAIN-0423	J-5845	J-8458	8	152.5	0.2	0.86	0.6	1.4	0.86	1.4
WMAIN-0429A	171-024	171-023	12	152.5	0	0	0	0	0	0
WMAIN-0429B(1)	J-6469	171-021	12	152.5	0	0	0	0	0	0
WMAIN-0429B(2)	171-021	171-024	12	152.5	0	0	0	0	0	0
WMAIN-0430	J-6534	J-6535	8	152.5	0	0	0	0	0	0
WMAIN-0431	J-6382	J-5226	4	140	1.27	3.82	1.1	1.9	3.82	1.9
WMAIN-0432	J-5826	J-5827	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0434(1)	J-5525	020-010	12	152.5	0.32	1.56	1.1	2.6	1.56	2.6
WMAIN-0434(2)	020-010	J-5526	12	152.5	0.33	1.56	1.1	2.6	1.56	2.6
WMAIN-0435	J-8330	J-5626	12	152.5	0.03	0.23	0.3	0.9	0.23	0.9
WMAIN-0438(1)	J-5526	020-018	16	152.5	0	0.09	0.1	0.7	0.07	0.6
WMAIN-0438(2)	020-018	J-8727	16	152.5	0	0.09	0.1	0.7	0.07	0.6
WMAIN-0439(1)(1)	J-8727	J-8757	16	152.5	0	0.08	0.1	0.6	0.06	0.5
WMAIN-0439(1)(2)	J-8757	020-019	16	152.5	0	0.07	0.1	0.6	0.05	0.5
WMAIN-0439(2)	020-019	J-8804	16	152.5	0	0.07	0.1	0.6	0.05	0.5
WMAIN-0441(1)	J-8804	020-020	16	152.5	0	0.07	0.1	0.6	0.05	0.5
WMAIN-0441(2)(1)	020-020	014-019	16	152.5	0	0.07	0.1	0.6	0.05	0.5
WMAIN-0441(2)(2)	014-019	J-5450	16	152.5	0	0.07	0.1	0.6	0.05	0.5
WMAIN-0442	J-5827	J-5525	12	152.5	0.23	1.06	0.9	2.1	1.06	2.1
WMAIN-0445	J-8330	J-5827	12	152.5	0.2	0.93	0.8	1.9	0.93	1.9
WMAIN-0448(1)(1)	J-6817	J-6788	12	152.5	0.13	0.43	0.7	1.3	0.43	1.3
WMAIN-0448(1)(2)	J-6788	020-008	12	152.5	0.09	0.29	0.6	1	0.29	1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0448(2)	020-008	J-8330	12	152.5	0.09	0.29	0.6	1	0.29	1
WMAIN-0450A	J-8288	J-8897	16	152.5	0.04	0.48	0.4	1.6	0.48	1.6
WMAIN-0450B	J-8897	J-5055	16	152.5	0.04	0.48	0.4	1.6	0.48	1.6
WMAIN-0453	J-5209	J-8288	16	152.5	0.04	0.48	0.4	1.6	0.48	1.6
WMAIN-0455	J-5208	J-5209	10	152.5	0.36	1.46	1	2.2	1.46	2.2
WMAIN-0457	J-5116	J-6536	12	152.5	0	0.27	0.1	1	0.04	0.4
WMAIN-0461	J-5116	J-5916	16	152.5	0.02	0.4	0.3	1.5	0.4	1.5
WMAIN-0462	J-5916	J-6521	12	152.5	0.08	1.63	0.5	2.6	1.63	2.6
WMAIN-0467(1)(1)	J-5784	150-001	12	152.5	0.06	0.61	0.4	1.5	0.61	1.5
WMAIN-0467(1)(2)(1)	150-001	J-9153	12	152.5	0.06	0.62	0.4	1.6	0.62	1.6
WMAIN-0467(1)(2)(2)	J-9153	150-002	12	152.5	0.06	0.62	0.4	1.6	0.62	1.6
WMAIN-0467(2)	150-002	J-8863	12	152.5	0.06	0.62	0.4	1.6	0.62	1.6
WMAIN-0468(1)(1)	J-8863	150-003	12	152.5	0.06	0.62	0.4	1.6	0.62	1.6
WMAIN-0468(1)(2)(1)	150-003	J-7499	12	152.5	0.06	0.63	0.4	1.6	0.63	1.6
WMAIN-0468(1)(2)(2)	J-7499	150-004	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0468(2)	150-004	J-8864	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0469(1)	J-8865	150-006	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0469(2)(1)	150-006	150-007	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0469(2)(2)	150-007	J-8848	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0470(1)	J-8864	150-005	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0470(2)	150-005	J-8865	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0471(1)(1)	J-8848	150-008	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0471(1)(2)	150-008	150-009	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0471(2)	150-009	J-5569	12	152.5	0.12	1.37	0.6	2.4	1.37	2.4
WMAIN-0472	J-5569	J-5570	12	152.5	0	0	0	0	0	0
WMAIN-0474	J-6270	J-6271	8	152.5	0	0	0	0	0	0
WMAIN-0476	J-7140	J-6712	12	152.5	1.28	3.03	2.3	3.7	3.03	3.7
WMAIN-0477(1)	J-7140	014-014	16	152.5	0.02	0.04	0.3	0.4	0.03	0.4
WMAIN-0477(2)	014-014	J-7141	16	152.5	0.02	0.04	0.3	0.4	0.03	0.4
WMAIN-0479	J-6508	126-046	8	152.5	0	0	0	0	0	0
WMAIN-0481(1)	J-8130	126-047	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0481(2)	126-047	J-6305	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0483	J-6305	J-6306	12	152.5	0	0	0	0	0	0
WMAIN-0484(1)	J-7898	126-045	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0484(2)	126-045	J-6305	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0486	J-7185	J-7898	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0488	J-7298	126-043	8	152.5	0	0	0	0	0	0
WMAIN-0490	J-6308	J-8175	8	152.5	0	0	0	0	0	0
WMAIN-0491	J-8077	J-6308	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0492(1)	J-6307	126-042	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0492(2)	126-042	J-6308	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0495	J-6508	J-6108	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0497	J-7185	J-6508	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0499(1)	J-7298	126-044	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0499(2)	126-044	J-7185	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0501	J-6308	J-7298	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-0503(1)	J-7943	125-077	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-0503(2)	125-077	J-7464	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-0504(1)	J-7913	125-074	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0504(2)	125-074	J-7464	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0506	J-6576	J-7913	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-0510	J-7464	J-7400	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0511(1)	J-7463	125-076	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0511(2)	125-076	J-7464	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0514	J-7401	J-7463	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0517(1)	J-7400	125-075	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0517(2)	125-075	J-7401	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0519(1)	J-6576	125-073	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-0519(2)	125-073	J-7400	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-0520	J-6575	J-6576	8	152.5	0.07	0.28	0.4	0.8	0.28	0.8
WMAIN-0522(1)	J-7992	125-092	8	152.5	0	0	0	0	0	0
WMAIN-0522(2)	125-092	J-8395	8	152.5	0	0	0	0	0	0
WMAIN-0523	J-7894	J-7992	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0524(1)	J-7831	125-093	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0524(2)	125-093	J-7894	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0526(1)	J-7830	125-094	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0526(2)	125-094	J-7831	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0530	J-7618	J-7830	8	152.5	0	0	0	0	0	0
WMAIN-0532(1)	J-6541	125-095	8	152.5	0	0	0	0	0	0
WMAIN-0532(2)	125-095	J-7618	8	152.5	0	0	0	0	0	0
WMAIN-0533	J-6540	J-6541	8	152.5	0	0	0	0	0	0
WMAIN-0535	J-6541	J-7831	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0536	J-7095	J-7894	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0539	J-5298	J-5299	12	152.5	0	0	0	0	0	0
WMAIN-0542(1)	J-8682	036-043	12	152.5	0	0.04	0	0.4	0.02	0.2
WMAIN-0542(2)	036-043	J-5298	12	152.5	0	0.05	0	0.4	0.01	0.2
WMAIN-0544	J-6016	J-5298	12	152.5	0	0.05	0	0.4	0.01	0.2
WMAIN-0545(1)	J-5075	J-5123	6	130	0	0	0	0	0	0
WMAIN-0545(2)	J-5123	J-5076	6	130	0	0	0	0	0	0
WMAIN-0546	J-6016	J-6221	12	152.5	0.03	0.04	0.3	0.4	0.04	0.4
WMAIN-0548	J-6016	J-6017	12	152.5	0	0.09	0	0.5	0.09	0.5
WMAIN-0549(1)	J-6017	029-005	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-0549(2)	029-005	J-7048	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-0550	J-7048	J-8141	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-0552(1)	J-8141	036-044	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-0552(2)	036-044	J-6494	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-0553	J-6494	J-5667	12	152.5	0	0.05	0	0.4	0.05	0.4
WMAIN-0555	J-5271	J-5241	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-0556(1)	J-5667	036-035	12	152.5	0	0.04	0	0.4	0.04	0.4
WMAIN-0556(2)	036-035	J-5270	12	152.5	0	0.04	0	0.4	0.04	0.4
WMAIN-0558(1)	J-5133	029-008	12	152.5	0.04	0.15	0.4	0.7	0.07	0.5
WMAIN-0558(2)	029-008	J-5289	12	152.5	0.04	0.15	0.4	0.7	0.07	0.5
WMAIN-0559(1)	J-5289	029-002	12	152.5	0.01	0.09	0.2	0.6	0.02	0.2
WMAIN-0559(2)	029-002	J-5271	12	152.5	0.01	0.09	0.2	0.5	0.01	0.2
WMAIN-0562(1)	J-8141	029-004	6	140	0	0.13	0	0.4	0	0.1
WMAIN-0562(2)	029-004	J-6242	6	140	0	0.16	0	0.4	0.01	0.1
WMAIN-0564	J-7048	J-7049	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-0566	J-6017	J-6191	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-0567(1)	J-8251	J-5299	8	140	0	0	0	0	0	0
WMAIN-0567(2)(1)	J-5299	036-042	8	140	0	0	0	0	0	0
WMAIN-0567(2)(2)	036-042	J-8252	8	140	0	0	0	0	0	0
WMAIN-0568(1)	J-5071	J-5364	8	130	0	0	0	0	0	0
WMAIN-0568(2)	J-5364	J-5072	8	130	0	0	0	0	0	0
WMAIN-0569(1)	J-5073	J-8251	8	130	0	0	0	0	0	0
WMAIN-0569(2)	J-8251	J-5074	8	130	0	0	0	0	0	0
WMAIN-0570	J-5123	J-5124	6	130	0	0	0	0	0	0
WMAIN-0571	J-5240	J-5241	6	140	0	0	0	0	0	0
WMAIN-0572	J-5926	J-5927	8	140	0	0	0	0	0	0
WMAIN-0575	J-6521	J-5312	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-0579(1)(1)(1)	J-8813	020-026	16	152.5	0	0.11	0	0.7	0.11	0.7
WMAIN-0579(1)(1)(2)	020-026	020-025	16	152.5	0	0.12	0	0.8	0.12	0.8
WMAIN-0579(1)(2)(1)	020-025	020-024	16	152.5	0	0.12	0	0.8	0.12	0.8

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0579(1)(2)(2)	020-024	020-023	16	152.5	0	0.12	0	0.8	0.12	0.8
WMAIN-0579(2)	020-023	J-5209	16	152.5	0	0.12	0	0.8	0.12	0.8
WMAIN-0581	J-5915	J-5916	12	152.5	0	0	0	0	0	0
WMAIN-0588(1)	J-6599	J-5926	12	152.5	0.06	0.84	0.4	1.8	0.84	1.8
WMAIN-0588(2)	J-5926	J-6521	12	152.5	0.06	0.84	0.5	1.8	0.84	1.8
WMAIN-0589	J-5121	J-5122	6	130	0	0	0	0	0	0
WMAIN-0591	J-5526	J-5055	16	152.5	0.04	0.71	0.4	2	0.71	2
WMAIN-0592(1)	J-8801	J-5530	12	152.5	0	0.31	0	1.1	0.31	1.1
WMAIN-0592(2)(1)(1)	J-5530	145-016	12	152.5	0	0.31	0	1.1	0.31	1.1
WMAIN-0592(2)(1)(2)(1)	145-016	J-9099	12	152.5	0	0.31	0	1.1	0.31	1.1
WMAIN-0592(2)(1)(2)(2)	J-9099	145-015	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0592(2)(2)	145-015	J-8832	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0593(1)(1)	J-6038	145-013	12	152.5	0	0.14	0	0.7	0.14	0.7
WMAIN-0593(1)(2)	145-013	145-014	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0593(2)	145-014	J-8833	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0594	J-8832	J-8833	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0597	J-5784	J-5785	16	152.5	0	0.04	0.1	0.4	0.04	0.4
WMAIN-0598	J-5785	J-6015	12	152.5	0	0	0	0	0	0
WMAIN-0599	J-5786	J-5784	16	152.5	0	0.04	0.1	0.4	0.04	0.4
WMAIN-0600	J-5784	J-6018	16	152.5	0	0	0	0	0	0
WMAIN-0601(1)	J-8272	020-013	4	140	0	0.03	0	0.1	0.02	0.1
WMAIN-0601(2)	020-013	J-8397	4	140	0.12	0.41	0.3	0.6	0.41	0.6
WMAIN-0603(1)	J-7530	036-047	6	140	0.07	0.23	0.3	0.5	0.13	0.4
WMAIN-0603(2)	036-047	J-8493	6	140	0.05	0.2	0.2	0.5	0.09	0.3
WMAIN-0604(1)	J-8590	036-056	8	152.5	0	0	0	0	0	0
WMAIN-0604(2)	036-056	J-7530	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0606	J-6367	J-6393	6	140	0.09	0.24	0.3	0.6	0.24	0.6
WMAIN-0607	J-5745	J-5746	6	130	0.09	0.46	0.3	0.7	0.46	0.7
WMAIN-0609	J-5340	J-5341	4	152.5	0.01	0.09	0.1	0.3	0.05	0.2
WMAIN-0611	J-5338	J-5339	4	152.5	0	0.1	0	0.3	0.1	0.3
WMAIN-0613	J-5336	J-5337	4	152.5	0.03	0.1	0.2	0.3	0.1	0.3
WMAIN-0615	J-5857	J-5858	6	140	0.18	1	0.5	1.2	1	1.2
WMAIN-0617(1)(1)	J-7125	H-520	6	140	0.05	0.51	0.2	0.8	0.1	0.3
WMAIN-0617(1)(2)	H-520	H-511	6	140	0.05	0.51	0.2	0.8	0.1	0.3
WMAIN-0617(2)	H-511	J-5858	6	140	0.06	0.53	0.3	0.8	0.11	0.4
WMAIN-0618	028-019	J-8106	8	140	0	0.06	0	0.3	0	0.1
WMAIN-0621	J-6494	036-053	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0624(1)(1)	J-8720	053-040	8	140	0.01	0.06	0.1	0.3	0.02	0.2
WMAIN-0624(1)(2)	053-040	053-052	8	140	0.02	0.07	0.1	0.3	0.03	0.2
WMAIN-0624(2)(1)	053-052	053-051	8	140	0.02	0.07	0.1	0.3	0.03	0.2
WMAIN-0624(2)(2)	053-051	J-5110	8	140	0.02	0.07	0.1	0.3	0.03	0.2
WMAIN-0626(1)(1)	J-8743	053-054	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0626(1)(2)	053-054	053-053	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0626(2)	053-053	J-8720	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0629(1)	J-6994	024-021	8	152.5	0	0	0	0	0	0
WMAIN-0629(2)	024-021	J-8607	8	152.5	0	0	0	0.1	0	0
WMAIN-0630(1)	J-6183	156-020	12	152.5	0.05	0.29	0.4	1	0.29	1
WMAIN-0630(2)	156-020	J-7285	12	152.5	0.05	0.29	0.4	1	0.29	1
WMAIN-0632	010-035	J-7169	6	152.5	0	0	0	0.1	0	0.1
WMAIN-0633	J-5568	J-5291	6	140	0	0	0	0	0	0
WMAIN-0636	J-6676	J-5762	16	152.5	0.13	0.58	0.8	1.8	0.58	1.8
WMAIN-0638	J-5281	J-6764	12	140	0.14	0.9	0.7	1.7	0.9	1.7
WMAIN-0641(1)	J-7390	021-025	12	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-0641(2)	021-025	J-7391	12	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-0643	J-5762	J-5302	16	152.5	0.16	0.55	0.9	1.7	0.55	1.7
WMAIN-0644	J-6764	J-6839	12	140	0.17	0.7	0.7	1.5	0.7	1.5
WMAIN-0645(1)	J-6839	020-022	10	140	0.42	1.71	1	2.2	1.71	2.2
WMAIN-0645(2)	020-022	J-5208	10	140	0.42	1.71	1	2.2	1.71	2.2
WMAIN-0648	J-5174	J-6602	6	140	0.09	0.27	0.3	0.6	0.27	0.6
WMAIN-0649	J-6852	J-5174	4	140	0.31	0.93	0.5	0.9	0.93	0.9
WMAIN-0650	J-5174	J-5175	4	140	1.61	4.69	1.2	2.1	4.69	2.1
WMAIN-0651(1)	J-8656	053-043	6	140	0.08	0.27	0.3	0.6	0.27	0.6
WMAIN-0651(2)	053-043	J-6227	6	140	0.09	0.31	0.3	0.6	0.31	0.6
WMAIN-0654	J-6205	J-6206	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0655(1)	J-8501	170-054	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-0655(2)	170-054	J-5584	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-0657	J-6670	J-6671	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-0659(1)	J-5707	167-072	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-0659(2)	167-072	J-6670	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-0660(1)(1)	J-6847	167-070	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-0660(1)(2)	167-070	167-071	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-0660(2)	167-071	J-5707	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-0663	J-5707	J-5708	12	152.5	0	0	0	0	0	0
WMAIN-0665	167-075	J-7229	12	152.5	0.1	0.43	0.6	1.3	0.43	1.3
WMAIN-0667	J-6746	J-5264	12	152.5	0.08	0.34	0.5	1.1	0.34	1.1
WMAIN-0668	J-5264	J-5265	12	152.5	0.05	0.23	0.4	0.9	0.23	0.9
WMAIN-0670	J-5265	J-5268	12	152.5	0.12	0.5	0.6	1.4	0.5	1.4
WMAIN-0671	J-7370	J-7371	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0674	J-7229	J-7200	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0677(1)	J-5268	J-7368	12	152.5	0.06	0.26	0.5	1	0.26	1
WMAIN-0677(2)	J-7368	167-075	12	152.5	0.1	0.44	0.6	1.3	0.44	1.3
WMAIN-0680	J-7229	J-7370	12	152.5	0.04	0.15	0.3	0.7	0.15	0.7
WMAIN-0681(1)	J-7364	167-057	8	152.5	0.1	0.4	0.4	1	0.4	1
WMAIN-0681(2)	167-057	J-7229	8	152.5	0.1	0.41	0.4	1	0.41	1
WMAIN-0683(1)	J-8264	167-054	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-0683(2)	167-054	J-7364	8	152.5	0.04	0.16	0.3	0.6	0.16	0.6
WMAIN-0686(1)	J-6745	167-069	12	152.5	0.31	1.43	1.1	2.4	1.43	2.4
WMAIN-0686(2)	167-069	J-5751	12	152.5	0.31	1.43	1.1	2.4	1.43	2.4
WMAIN-0687	J-6745	J-6746	12	152.5	0.08	0.39	0.5	1.2	0.39	1.2
WMAIN-0688(1)(1)	J-8778	167-067	12	152.5	0.1	0.4	0.6	1.2	0.4	1.2
WMAIN-0688(1)(2)	167-067	167-068	12	152.5	0.1	0.4	0.6	1.2	0.4	1.2
WMAIN-0688(2)	167-068	J-6745	12	152.5	0.1	0.4	0.6	1.2	0.4	1.2
WMAIN-0690(1)	J-8751	156-041	12	152.5	0	0.3	0.1	1.1	0.05	0.4
WMAIN-0690(2)	156-041	J-5107	12	152.5	0	0.31	0.1	1.1	0.05	0.4
WMAIN-0692(1)	J-8854	156-043	12	152.5	0	0.29	0.1	1	0.04	0.4
WMAIN-0692(2)(1)	156-043	024-027	12	152.5	0	0.3	0.1	1.1	0.04	0.4
WMAIN-0692(2)(2)(1)	024-027	156-042	12	152.5	0	0.3	0.1	1.1	0.04	0.4
WMAIN-0692(2)(2)(2)	156-042	J-8751	12	152.5	0	0.3	0.1	1.1	0.04	0.4
WMAIN-0695	J-8283	J-5415	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-0697	J-8165	J-7151	12	152.5	0.09	0.29	0.6	1	0.29	1
WMAIN-0698	J-5232	J-5233	12	152.5	0.13	0.56	0.7	1.5	0.56	1.5
WMAIN-0699(1)(1)	J-7151	169-112	12	152.5	0.15	0.46	0.7	1.3	0.46	1.3
WMAIN-0699(1)(2)	169-112	169-111	12	152.5	0.15	0.46	0.7	1.3	0.46	1.3
WMAIN-0699(2)(1)	169-111	169-011	12	152.5	0.15	0.46	0.7	1.3	0.46	1.3
WMAIN-0699(2)(2)	169-011	J-5232	12	152.5	0.15	0.46	0.7	1.3	0.46	1.3
WMAIN-0702(1)	J-5233	169-010	12	152.5	0.16	0.49	0.7	1.4	0.49	1.4
WMAIN-0702(2)	169-010	J-6490	12	152.5	0.16	0.49	0.7	1.4	0.49	1.4
WMAIN-0704	J-5415	J-8165	12	152.5	0.21	0.66	0.9	1.6	0.66	1.6
WMAIN-0706	169-081	J-8283	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-0707	169-082	J-5275	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-0708(1)	J-5377	169-083	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1
WMAIN-0708(2)	169-083	J-5141	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0711	J-5376	J-5377	12	152.5	0	0	0	0	0	0
WMAIN-0715	J-6004	J-6892	8	152.5	0.24	0.5	0.7	1.1	0.5	1.1
WMAIN-0716	J-6395	J-6396	8	152.5	0.21	0.48	0.7	1	0.48	1
WMAIN-0718(1)	J-8394	169-009	12	152.5	0.48	1.54	1.3	2.5	1.54	2.5
WMAIN-0718(2)	169-009	J-8811	12	152.5	0.48	1.54	1.3	2.5	1.54	2.5
WMAIN-0720	J-5333	J-5334	8	152.5	0	0	0	0	0	0
WMAIN-0721	J-6379	J-5333	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0724(1)	J-5333	169-084	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0724(2)	169-084	J-8394	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0726	J-6792	J-6379	8	152.5	0	0	0	0	0	0
WMAIN-0728(1)	J-8381	169-085	8	152.5	0	0	0	0	0	0
WMAIN-0728(2)	169-085	J-6379	8	152.5	0	0	0	0	0	0
WMAIN-0731(1)	J-6339	126-036	8	152.5	0	0	0	0	0	0
WMAIN-0731(2)	126-036	J-7402	8	152.5	0	0	0	0	0	0
WMAIN-0732	J-8226	J-8227	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0735	J-8393	J-6339	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0737	J-6339	J-6307	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0739(1)	J-7402	126-035	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0739(2)(1)	126-035	126-034	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0739(2)(2)	126-034	J-8226	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0741(1)	J-8227	126-032	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0741(2)	126-032	J-6687	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0744(1)	J-8227	126-033	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0744(2)(1)	126-033	126-037	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0744(2)(2)	126-037	J-8393	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0746(1)	J-6687	126-031	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-0746(2)	126-031	J-6273	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0749	J-6273	J-8393	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-0751(1)	J-6273	126-030	8	152.5	0	0	0	0	0	0
WMAIN-0751(2)	126-030	J-6976	8	152.5	0	0	0	0	0	0
WMAIN-0752	J-6272	J-6273	8	152.5	0.06	0.22	0.3	0.7	0.22	0.7
WMAIN-0753	J-6686	J-6687	8	152.5	0	0	0	0	0	0
WMAIN-0755(1)	J-7393	126-024	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-0755(2)	126-024	J-7394	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-0756(1)	J-7394	126-025	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-0756(2)	126-025	J-8633	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-0757(1)	J-8633	126-027	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-0757(2)	126-027	J-7143	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-0759(1)	J-6860	125-008	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-0759(2)	125-008	J-7777	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0760	J-7920	J-7921	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0762(1)	J-7921	125-012	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0762(2)	125-012	J-6959	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0765	J-6959	J-6710	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0768(1)	J-7786	125-013	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0768(2)	125-013	J-8079	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0771(1)	J-7778	125-010	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0771(2)	125-010	J-7786	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0772	J-8079	J-6959	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0774(1)	J-7777	125-009	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0774(2)	125-009	J-7778	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0777	J-6860	J-7920	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0780(1)	J-7920	125-011	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0780(2)	125-011	J-7778	8	152.5	0	0	0	0	0	0
WMAIN-0782	J-7786	J-7921	8	152.5	0	0	0	0	0	0
WMAIN-0785	J-8765	J-8766	8	152.5	0	0	0	0	0	0
WMAIN-0786	J-7594	J-7880	8	152.5	0.08	0.33	0.4	0.9	0.33	0.9
WMAIN-0787(1)	J-7868	125-061	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-0787(2)	125-061	J-7482	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-0791(1)	J-7482	125-059	8	152.5	0.08	0.31	0.4	0.8	0.31	0.8
WMAIN-0791(2)	125-059	J-7594	8	152.5	0.08	0.32	0.4	0.8	0.32	0.8
WMAIN-0792(1)	J-7482	125-060	12	152.5	0.05	0.2	0.4	0.8	0.2	0.8
WMAIN-0792(2)	125-060	J-7858	12	152.5	0.05	0.21	0.4	0.9	0.21	0.9
WMAIN-0794(1)	J-7868	125-062	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0794(2)(1)	125-062	125-022	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-0794(2)(2)	125-022	J-7859	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-0796(1)	J-8284	125-064	8	152.5	0	0	0	0	0	0
WMAIN-0796(2)	125-064	J-8092	8	152.5	0	0	0	0	0	0
WMAIN-0798(1)	J-8564	125-065	8	152.5	0	0	0	0	0	0
WMAIN-0798(2)	125-065	J-8091	8	152.5	0	0	0	0	0	0
WMAIN-0800(1)	J-8596	125-067	8	152.5	0	0	0	0	0	0
WMAIN-0800(2)	125-067	J-7471	8	152.5	0	0	0	0	0	0
WMAIN-0802(1)	J-7470	125-068	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0802(2)	125-068	J-7471	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0804	J-8092	J-7481	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0807(1)	J-7471	125-066	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0807(2)	125-066	J-8091	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0809	J-8091	J-8092	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0811	J-7866	J-7868	8	152.5	0.05	0.21	0.3	0.7	0.21	0.7
WMAIN-0812	J-7943	J-7865	12	152.5	0.08	0.3	0.5	1	0.3	1
WMAIN-0817(1)	J-7865	125-063	12	152.5	0.05	0.18	0.4	0.8	0.18	0.8
WMAIN-0817(2)	125-063	J-7481	12	152.5	0.05	0.18	0.4	0.8	0.18	0.8
WMAIN-0820	J-7481	J-7482	12	152.5	0.07	0.26	0.5	1	0.26	1
WMAIN-0821(1)	J-8738	125-138	12	152.5	0.11	0.41	0.6	1.2	0.41	1.2
WMAIN-0821(2)	125-138	J-7943	12	152.5	0.11	0.42	0.6	1.3	0.42	1.3
WMAIN-0823(1)(1)	J-8765	125-079	8	152.5	0	0	0	0	0	0
WMAIN-0823(1)(2)	125-079	125-078	8	152.5	0	0	0	0.1	0	0
WMAIN-0823(2)	125-078	J-7866	8	152.5	0	0	0	0.1	0	0
WMAIN-0825	J-7783	J-7784	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0828	J-6741	J-8010	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0829(1)	J-8093	125-072	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0829(2)	125-072	J-6741	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0833(1)(1)	J-7784	125-070	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-0833(1)(2)	125-070	125-069	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-0833(2)	125-069	J-6711	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-0835	J-7783	J-8093	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0837(1)	J-8010	125-071	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0837(2)	125-071	J-7783	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0839	J-5282	J-5283	8	152.5	0	0	0	0	0	0
WMAIN-0840	J-5283	J-6741	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-0841	J-6160	J-6161	8	152.5	0	1.44	0.1	1.9	1.44	1.9
WMAIN-0843	J-6225	J-6226	8	152.5	0	0.19	0	0.6	0.19	0.6
WMAIN-0844(1)	J-7658	040-018	8	152.5	0	0.39	0.1	0.9	0.39	0.9
WMAIN-0844(2)	040-018	J-7702	8	152.5	0	0.37	0	0.9	0.37	0.9
WMAIN-0846(1)(1)(1)	J-8523	041-034	12	152.5	0	0.42	0	1.3	0.37	1.2
WMAIN-0846(1)(1)(2)	041-034	J-7399	12	152.5	0	0.42	0	1.3	0.37	1.2
WMAIN-0846(1)(2)(1)	J-7399	041-035	12	152.5	0	0.29	0	1	0.26	1
WMAIN-0846(1)(2)(2)	041-035	J-8579	12	152.5	0	0.29	0	1	0.26	1
WMAIN-0846(2)	J-8579	J-8692	12	152.5	0	0.33	0	1.1	0.31	1.1
WMAIN-0847(1)(1)	J-8692	041-036	12	152.5	0	0.33	0	1.1	0.31	1.1
WMAIN-0847(1)(2)	041-036	041-037	12	152.5	0	0.34	0	1.1	0.32	1.1
WMAIN-0847(2)	041-037	J-8605	12	152.5	0	0.34	0	1.1	0.32	1.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0848(1)	040-035	041-038	12	152.5	0	0.02	0	0.2	0	0
WMAIN-0848(2)	041-038	J-5804	12	152.5	0	0.02	0	0.2	0	0
WMAIN-0850(1)(1)(1)	J-8713	145-018	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-0850(1)(1)(2)	145-018	145-019	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-0850(1)(2)	145-019	134-027	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-0850(2)(1)	134-027	134-001	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-0850(2)(2)(1)	134-001	134-002	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-0850(2)(2)(2)	134-002	J-5471	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-0852(1)	J-6231	040-022	8	152.5	0	3.41	0.1	3	3.41	3
WMAIN-0852(2)	040-022	J-6392	8	152.5	0	3.4	0.1	3	3.4	3
WMAIN-0857	J-7073	J-8523	12	152.5	0	0.41	0	1.3	0.37	1.2
WMAIN-0858(1)	J-8699	145-017	12	152.5	0.02	0.29	0.3	1	0.25	1
WMAIN-0858(2)	145-017	J-8722	12	152.5	0.02	0.29	0.3	1	0.25	1
WMAIN-0861(1)	J-5471	134-003	12	152.5	0	0	0	0	0	0
WMAIN-0861(2)	134-003	134-004	12	152.5	0	0	0	0	0	0
WMAIN-0863	J-8605	040-035	12	152.5	0	0.02	0	0.2	0	0
WMAIN-0865(1)	J-6688	040-037	12	152.5	0.02	0.29	0.3	1	0.25	1
WMAIN-0865(2)(1)	040-037	145-020	12	152.5	0.02	0.29	0.3	1	0.25	1
WMAIN-0865(2)(2)	145-020	J-8699	12	152.5	0.02	0.29	0.3	1	0.25	1
WMAIN-0867(1)	J-6688	134-031	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-0867(2)	134-031	J-8713	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-0868(1)	J-6373	041-050	12	152.5	0.01	0.14	0.2	0.7	0.14	0.7
WMAIN-0868(2)(1)	041-050	134-030	12	152.5	0.01	0.14	0.2	0.7	0.14	0.7
WMAIN-0868(2)(2)	134-030	J-6688	12	152.5	0.01	0.14	0.2	0.7	0.14	0.7
WMAIN-0870	J-7072	J-7073	12	152.5	0	0.41	0	1.2	0.37	1.2
WMAIN-0871	J-5330	J-7622	16	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-0872	J-5406	J-5330	8	152.5	0.15	0.53	0.6	1.1	0.53	1.1
WMAIN-0876	J-6585	J-8397	6	152.5	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-0878	J-6584	J-8320	6	152.5	0	0	0	0	0	0
WMAIN-0879	J-5576	020-017	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0880	020-017	J-6382	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0882(1)(1)	J-5504	019-006	16	152.5	0.03	0.18	0.3	1	0.16	0.9
WMAIN-0882(1)(2)	019-006	J-7043	16	152.5	0.03	0.18	0.3	1	0.16	0.9
WMAIN-0882(2)	J-7043	J-5938	16	152.5	0.02	0.17	0.3	0.9	0.14	0.9
WMAIN-0883	J-5938	J-5507	16	152.5	0.02	0.17	0.3	0.9	0.14	0.9
WMAIN-0885	J-5144	J-5145	8	152.5	0	0	0	0	0	0
WMAIN-0886	J-5144	J-5503	8	152.5	0.02	0.25	0.2	0.7	0.25	0.7
WMAIN-0887	J-5503	J-5504	8	152.5	0.02	0.25	0.2	0.7	0.25	0.7
WMAIN-0891(1)	J-8114	019-046	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0891(2)(1)	019-046	J-9299	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0891(2)(2)	J-9299	J-8115	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0893(1)	J-8107	J-9296	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-0893(2)	J-9296	J-8114	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-0895(1)	J-6368	019-040	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-0895(2)(1)	019-040	J-9267	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-0895(2)(2)	J-9267	J-8107	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-0896	J-5144	J-5318	8	152.5	0.02	0.25	0.2	0.7	0.25	0.7
WMAIN-0897	J-5318	J-6368	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-0898	J-5383	J-5384	2	152.5	0.77	2.98	0.6	1.2	2.98	1.2
WMAIN-0900(1)	J-5227	020-016	8	140	0	0.03	0	0.2	0	0.1
WMAIN-0900(2)	020-016	J-5487	8	140	0	0.03	0	0.2	0	0.1
WMAIN-0901(1)(1)	J-5487	J-9327	8	140	0	0.03	0	0.2	0	0.1
WMAIN-0901(1)(2)	J-9327	019-001	8	140	0	0.03	0	0.2	0	0.1
WMAIN-0901(2)	019-001	J-7080	8	140	0	0.03	0	0.2	0	0.1
WMAIN-0903	J-7237	J-6882	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-0906(1)	J-6026	169-059	8	152.5	0.07	0.2	0.4	0.6	0.2	0.6
WMAIN-0906(2)	169-059	J-6063	8	152.5	0.08	0.23	0.4	0.7	0.23	0.7
WMAIN-0907(1)	J-7030	169-044	8	152.5	0.46	0.89	1	1.5	0.89	1.5
WMAIN-0907(2)	169-044	J-5767	8	152.5	0.46	0.89	1	1.5	0.89	1.5
WMAIN-0911(1)	J-7030	169-045	8	152.5	0.05	0.1	0.3	0.5	0.1	0.4
WMAIN-0911(2)	169-045	J-7031	8	152.5	0.05	0.1	0.3	0.5	0.1	0.4
WMAIN-0913(1)	J-5596	169-046	8	152.5	0.05	0.1	0.3	0.5	0.1	0.4
WMAIN-0913(2)	169-046	J-7031	8	152.5	0.05	0.1	0.3	0.5	0.1	0.4
WMAIN-0915(1)(1)	J-8654	169-049	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-0915(1)(2)	169-049	169-050	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-0915(2)	169-050	J-5801	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-0918(1)	J-7030	169-048	8	152.5	0.05	0.1	0.3	0.5	0.1	0.5
WMAIN-0918(2)	169-048	J-8654	8	152.5	0.05	0.1	0.3	0.5	0.1	0.5
WMAIN-0921(1)	J-5997	169-047	8	152.5	0.08	0.16	0.4	0.6	0.16	0.6
WMAIN-0921(2)	169-047	J-7030	8	152.5	0.08	0.15	0.4	0.6	0.15	0.6
WMAIN-0923(1)	J-5880	169-052	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0923(2)	169-052	J-5998	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0927(1)	J-6642	169-115	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-0927(2)(1)	169-115	169-114	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-0927(2)(2)	169-114	J-5980	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-0928	J-5891	J-6642	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-0929	169-116	J-5891	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-0933	J-5880	169-116	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-0934	169-051	J-5880	8	152.5	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-0936	J-5801	169-051	8	152.5	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-0937	J-5800	J-5801	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0938(1)	169-061	169-062	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0938(2)	169-062	J-5800	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0941(1)	J-6026	169-060	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0941(2)	169-060	169-061	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0943	J-5980	J-6026	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0945	J-5979	J-5980	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0946	J-5979	J-6118	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0948(1)	J-6968	035-043	8	152.5	0.02	0.06	0.2	0.4	0.05	0.3
WMAIN-0948(2)	035-043	J-8428	8	152.5	0.02	0.07	0.2	0.4	0.05	0.3
WMAIN-0949(1)	J-6969	035-036	8	152.5	0.01	0.05	0.2	0.3	0.03	0.2
WMAIN-0949(2)	035-036	J-8646	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-0950	J-6968	J-6969	8	152.5	0.08	0.22	0.4	0.7	0.16	0.6
WMAIN-0954	J-8519	J-6968	8	152.5	0.03	0.06	0.2	0.3	0.05	0.3
WMAIN-0957(1)	J-6439	035-035	8	152.5	0.14	0.42	0.5	1	0.3	0.8
WMAIN-0957(2)	035-035	J-6969	8	152.5	0.14	0.42	0.5	1	0.3	0.8
WMAIN-0961(1)	J-6845	156-005	10	152.5	0	0	0	0.1	0	0.1
WMAIN-0961(2)	156-005	J-8660	10	152.5	0	0	0	0.1	0	0.1
WMAIN-0964	J-5874	J-5816	10	152.5	0.1	0.62	0.5	1.4	0.62	1.4
WMAIN-0965(1)	J-6777	156-001	12	152.5	0	0	0	0	0	0
WMAIN-0965(2)	156-001	J-6778	12	152.5	0	0	0	0	0	0
WMAIN-0966	J-5230	J-5231	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0967(1)(1)	J-5231	156-023	12	152.5	0	0	0	0.1	0	0.1
WMAIN-0967(1)(2)	156-023	156-022	12	152.5	0	0	0	0	0	0
WMAIN-0967(2)	156-022	J-6777	12	152.5	0	0	0	0	0	0
WMAIN-0968(1)	J-8388	156-024	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0968(2)	156-024	J-5244	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0969	J-5244	J-5230	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0970(1)	J-5874	156-046	12	152.5	0.28	1.71	1	2.7	1.71	2.7
WMAIN-0970(2)	156-046	J-8933	12	152.5	0.28	1.71	1	2.7	1.71	2.7
WMAIN-0971(1)	J-7999	156-002	12	152.5	0.12	0.75	0.7	1.7	0.75	1.7
WMAIN-0971(2)	156-002	J-5874	12	152.5	0.12	0.75	0.7	1.7	0.75	1.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0972(1)	J-8660	156-003	12	152.5	0.12	0.75	0.7	1.7	0.75	1.7
WMAIN-0972(2)	156-003	J-7999	12	152.5	0.12	0.75	0.7	1.7	0.75	1.7
WMAIN-0974	J-8304	J-6864	12	152.5	0	0	0	0.1	0	0.1
WMAIN-0976(1)(1)	J-8304	156-021	12	152.5	0.13	0.8	0.7	1.8	0.8	1.8
WMAIN-0976(1)(2)	156-021	156-004	12	152.5	0.13	0.8	0.7	1.8	0.8	1.8
WMAIN-0976(2)	156-004	J-8660	12	152.5	0.13	0.8	0.7	1.8	0.8	1.8
WMAIN-0978(1)(1)	J-8304	156-026	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0978(1)(2)	156-026	156-025	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0978(2)	156-025	J-8388	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0979(1)(1)	J-8303	156-011	12	152.5	0.18	1.03	0.8	2	1.03	2
WMAIN-0979(1)(2)	156-011	156-029	12	152.5	0.18	1.03	0.8	2	1.03	2
WMAIN-0979(2)	156-029	J-8304	12	152.5	0.18	1.03	0.8	2	1.03	2
WMAIN-0980(1)(1)	J-7285	156-031	12	152.5	0.18	1.03	0.8	2	1.03	2
WMAIN-0980(1)(2)	156-031	156-030	12	152.5	0.18	1.03	0.8	2	1.03	2
WMAIN-0980(2)	156-030	J-8303	12	152.5	0.18	1.03	0.8	2	1.03	2
WMAIN-0981(1)	156-033	156-032	12	152.5	0.38	2.18	1.2	3.1	2.18	3.1
WMAIN-0981(2)	156-032	J-7285	12	152.5	0.38	2.18	1.2	3.1	2.18	3.1
WMAIN-0985	J-5713	156-033	12	152.5	0.38	2.18	1.2	3.1	2.18	3.1
WMAIN-0986(1)(1)	J-5634	038-004	16	140	0.01	0.48	0.1	1.5	0.48	1.5
WMAIN-0986(1)(2)(1)	038-004	043-050	16	140	0.01	0.48	0.1	1.5	0.48	1.5
WMAIN-0986(1)(2)(2)	043-050	J-5336	16	140	0.01	0.48	0.1	1.5	0.48	1.5
WMAIN-0986(2)	J-5336	J-5534	16	140	0	0.47	0.1	1.5	0.47	1.5
WMAIN-0988(1)	J-6570	021-003	8	140	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-0988(2)	021-003	J-8672	8	140	0.01	0.07	0.1	0.3	0.07	0.3
WMAIN-0989	J-8672	J-8673	8	140	0	0.04	0.1	0.2	0.04	0.2
WMAIN-0991	J-5289	J-5124	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-0992(1)	J-7089	170-113	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0992(2)	170-113	J-7090	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0996	J-6657	033-010	12	152.5	0.17	1.5	0.8	2.5	1.5	2.5
WMAIN-0998	J-8222	J-6567	16	152.5	0.08	0.21	0.6	1	0.21	1
WMAIN-1000(1)	J-8221	034-021	16	152.5	0.09	0.19	0.7	1	0.19	1
WMAIN-1000(2)	034-021	J-8222	16	152.5	0.09	0.19	0.7	1	0.19	1
WMAIN-1002(1)	J-8737	034-022	16	152.5	0.1	0.22	0.7	1.1	0.22	1.1
WMAIN-1002(2)	034-022	J-8221	16	152.5	0.1	0.22	0.7	1.1	0.22	1.1
WMAIN-1003(1)	053-013	053-014	6	140	0.01	0.09	0.1	0.3	0.04	0.2
WMAIN-1003(2)	053-014	J-6138	6	140	0.02	0.12	0.1	0.4	0.07	0.3
WMAIN-1004	J-6214	J-5861	6	140	0.26	1.38	0.6	1.4	1.38	1.4
WMAIN-1006(1)	J-5308	022-005	6	140	0.18	0.46	0.5	0.8	0.45	0.8
WMAIN-1006(2)	022-005	J-6555	6	140	0.18	0.45	0.5	0.8	0.44	0.8
WMAIN-1007	J-5272	H-507	2	140	0.3	1.16	0.3	0.6	1.16	0.6
WMAIN-1008	J-5919	J-6150	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-1009(1)	J-8255	035-020	8	140	0.05	0.1	0.3	0.4	0.06	0.3
WMAIN-1009(2)(1)	035-020	J-5163	8	140	0.05	0.1	0.3	0.4	0.07	0.3
WMAIN-1009(2)(2)	J-5163	J-5317	8	140	0.53	0.93	1	1.4	0.93	1.4
WMAIN-1012(1)	J-6200	170-064	8	152.5	0	0.03	0.1	0.2	0.01	0.2
WMAIN-1012(2)	170-064	J-8113	8	152.5	0	0.03	0.1	0.2	0.02	0.2
WMAIN-1015	J-7159	J-7160	8	152.5	0	0	0	0	0	0
WMAIN-1016	J-7159	J-7933	12	152.5	0.14	0.46	0.7	1.3	0.46	1.3
WMAIN-1018(1)	J-7730	170-069	12	152.5	0.13	0.45	0.7	1.3	0.45	1.3
WMAIN-1018(2)	170-069	J-7159	12	152.5	0.14	0.45	0.7	1.3	0.45	1.3
WMAIN-1021(1)(1)	J-6200	170-065	12	152.5	0.07	0.24	0.5	0.9	0.24	0.9
WMAIN-1021(1)(2)	170-065	170-068	12	152.5	0.08	0.28	0.5	1	0.28	1
WMAIN-1021(2)	170-068	J-7730	12	152.5	0.08	0.28	0.5	1	0.28	1
WMAIN-1023	J-6199	J-6200	12	152.5	0.1	0.26	0.6	1	0.26	1
WMAIN-1026(1)	J-8113	170-063	8	152.5	0.08	0.23	0.4	0.7	0.23	0.7
WMAIN-1026(2)(1)	170-063	170-062	8	152.5	0.09	0.26	0.4	0.8	0.26	0.8
WMAIN-1026(2)(2)	170-062	J-8279	8	152.5	0.09	0.26	0.4	0.8	0.26	0.8
WMAIN-1027	J-5455	J-6568	12	140	0	0.01	0	0.1	0	0
WMAIN-1028(1)	J-7070	038-037	8	140	0	0.56	0	1	0	0
WMAIN-1028(2)	038-037	J-7071	8	140	0	0.55	0.1	1	0	0.1
WMAIN-1031(1)	J-5113	036-051	6	140	0.02	0.24	0.2	0.6	0.03	0.2
WMAIN-1031(2)(1)	036-051	036-032	6	140	0.02	0.23	0.1	0.5	0.03	0.2
WMAIN-1031(2)(2)(1)	036-032	J-9329	6	140	0.02	0.23	0.1	0.5	0.03	0.2
WMAIN-1031(2)(2)(2)	J-9329	J-5857	6	140	0.02	0.23	0.1	0.5	0.03	0.2
WMAIN-1033(1)	J-8500	036-034	8	140	0.07	0.3	0.3	0.7	0.3	0.7
WMAIN-1033(2)	036-034	J-5857	8	140	0.06	0.28	0.3	0.7	0.28	0.7
WMAIN-1036	J-7404	J-6395	8	152.5	0.2	0.46	0.7	1	0.46	1
WMAIN-1038(1)	J-6467	170-154	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1038(2)	170-154	J-6636	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1040(1)	J-6636	170-135	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1040(2)	170-135	J-7878	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1042	J-7791	J-7986	8	152.5	0.03	0.08	0.3	0.4	0.08	0.4
WMAIN-1043	J-8072	J-7986	8	152.5	0.03	0.06	0.2	0.4	0.06	0.4
WMAIN-1045	J-8446	J-8447	8	152.5	0.25	0.49	0.7	1.1	0.49	1.1
WMAIN-1048	J-7419	J-7420	6	152.5	0	0	0	0	0	0
WMAIN-1050(1)	J-8071	170-138	12	152.5	0.36	0.68	1.2	1.6	0.68	1.6
WMAIN-1050(2)	170-138	J-7166	12	152.5	0.37	0.69	1.2	1.6	0.69	1.6
WMAIN-1052	J-7166	J-6962	12	152.5	0.38	0.7	1.2	1.7	0.7	1.7
WMAIN-1054(1)	J-8098	170-129	8	152.5	0.22	0.5	0.7	1.1	0.5	1.1
WMAIN-1054(2)	170-129	J-6396	8	152.5	0.21	0.48	0.7	1.1	0.48	1.1
WMAIN-1055(1)	J-8382	170-148	12	152.5	0	0.01	0	0.1	0	0
WMAIN-1055(2)	170-148	J-8588	12	152.5	0	0.01	0	0.1	0	0
WMAIN-1060(2)(1)(1)(2)	J-9023	J-9024	12	152.5	0.03	0.09	0.3	0.5	0.09	0.5
WMAIN-1060(2)(1)(2)	J-9024	170-146	12	152.5	0.01	0.04	0.2	0.3	0.03	0.3
WMAIN-1060(2)(2)(1)	170-146	J-9021	12	152.5	0.01	0.04	0.2	0.3	0.03	0.3
WMAIN-1062(1)	J-8661	170-144	12	152.5	0.06	0.12	0.4	0.6	0.12	0.6
WMAIN-1062(2)	170-144	J-8391	12	152.5	0.06	0.13	0.4	0.7	0.13	0.7
WMAIN-1064	J-6362	J-6674	6	140	0	0	0	0.1	0	0
WMAIN-1065	J-5757	026-013	12	140	0.02	0.14	0.2	0.6	0.1	0.5
WMAIN-1067	J-6624	J-5687	4	140	0	0.52	0	0.6	0.38	0.5
WMAIN-1068	J-5677	J-5678	6	140	0	0	0	0	0	0
WMAIN-1070	J-5713	009-039	12	152.5	0	0	0	0	0	0
WMAIN-1071	J-5712	J-5713	8	152.5	2.74	15.72	2.7	6.9	15.72	6.9
WMAIN-1072	168-038	J-5524	12	152.5	0	0.13	0	0.7	0.01	0.1
WMAIN-1074(1)	J-5447	052-005	12	152.5	0.08	0.3	0.5	1	0.25	0.9
WMAIN-1074(2)	052-005	J-5473	12	152.5	0.08	0.3	0.5	1	0.25	0.9
WMAIN-1075	J-5493	J-5494	6	152.5	0	0	0	0	0	0
WMAIN-1076	J-5496	J-5497	6	140	0	0	0	0	0	0
WMAIN-1077(1)	J-5372	042-021	12	140	0.06	0.19	0.4	0.7	0.19	0.7
WMAIN-1077(2)	042-021	J-8212	12	140	0.06	0.19	0.4	0.7	0.19	0.7
WMAIN-1078	J-5371	J-5372	12	140	0.11	0.32	0.6	1	0.32	1
WMAIN-1079	J-5500	J-5501	6	140	0	0	0	0	0	0
WMAIN-1080(1)	J-5464	037-042	6	140	0.09	0.39	0.3	0.7	0.15	0.4
WMAIN-1080(2)	037-042	J-6364	6	140	0.08	0.37	0.3	0.7	0.13	0.4
WMAIN-1081(1)	J-7036	170-035	8	152.5	0.52	1.29	1.1	1.8	1.29	1.8
WMAIN-1081(2)	170-035	J-5584	8	152.5	0.53	1.3	1.1	1.8	1.3	1.8
WMAIN-1083	J-6840	J-6841	8	152.5	0	0	0	0	0	0
WMAIN-1084(1)	J-7498	034-043	8	152.5	0.07	0.11	0.4	0.5	0.11	0.5
WMAIN-1084(2)	034-043	J-8569	8	152.5	0.06	0.1	0.4	0.5	0.1	0.5
WMAIN-1085	J-8569	J-7923	8	152.5	0.06	0.09	0.3	0.4	0.09	0.4
WMAIN-1088(1)	J-6886	034-042	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-1088(2)	034-042	J-7923	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1091	J-6386	J-6387	6	140	0	0	0	0	0	0
WMAIN-1093	J-6551	J-6386	6	140	0.01	0.45	0.1	0.8	0.03	0.2
WMAIN-1095(1)	J-7221	037-050	6	140	0.01	0.52	0.1	0.8	0.01	0.1
WMAIN-1095(2)	037-050	J-6386	6	140	0.02	0.49	0.1	0.8	0.02	0.1
WMAIN-1098(1)	J-7839	039-057	8	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-1098(2)	039-057	J-8445	8	152.5	0	0.03	0	0.3	0.03	0.2
WMAIN-1100	J-7817	J-7818	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-1102(1)	J-7306	039-055	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1102(2)	039-055	J-7307	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1105(1)	J-6929	039-058	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1105(2)	039-058	J-8445	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-1106	J-7307	J-8305	8	152.5	0	0.3	0	0.8	0.28	0.8
WMAIN-1107	J-7816	J-7817	8	152.5	0	0.65	0	1.2	0.63	1.2
WMAIN-1108(1)	J-7817	040-027	8	152.5	0	0.36	0	0.9	0.34	0.9
WMAIN-1108(2)	040-027	J-7838	8	152.5	0	0.34	0	0.9	0.32	0.8
WMAIN-1110	J-7838	J-7306	8	152.5	0	0	0	0.1	0	0
WMAIN-1113(1)(1)	J-7839	040-006	8	152.5	0	0.1	0	0.4	0.09	0.4
WMAIN-1113(1)(2)	040-006	040-005	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-1113(2)	040-005	J-7908	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-1115(1)	J-7838	039-056	8	152.5	0	0.34	0	0.9	0.32	0.8
WMAIN-1115(2)	039-056	J-7839	8	152.5	0	0.33	0	0.9	0.32	0.8
WMAIN-1116(1)	J-7556	039-053	8	152.5	0	0.07	0	0.4	0.02	0.2
WMAIN-1116(2)	039-053	J-8265	8	152.5	0	0.08	0	0.4	0.02	0.2
WMAIN-1119(1)	J-7908	J-8345	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-1119(2)	J-8345	J-8517	8	152.5	0	0	0	0	0	0
WMAIN-1121(1)	J-8345	039-059	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-1121(2)	039-059	J-6929	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1123	J-6929	J-6930	6	152.5	0	0	0	0	0	0
WMAIN-1124(1)(1)	J-8311	041-001	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1124(1)(2)(1)	041-001	041-002	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1124(1)(2)(2)	041-002	041-003	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1124(2)	041-003	J-7333	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1127	J-7902	J-7988	12	152.5	0.01	0.06	0.2	0.4	0.06	0.4
WMAIN-1129(1)	J-7988	041-011	12	152.5	0.01	0.07	0.2	0.5	0.07	0.5
WMAIN-1129(2)	041-011	J-7771	12	152.5	0.01	0.07	0.2	0.5	0.07	0.5
WMAIN-1133(1)	J-7988	041-006	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1133(2)	041-006	J-7989	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1134	J-8598	J-7989	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1136	J-6640	J-6641	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-1139(1)	J-6640	041-009	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1139(2)(1)	041-009	041-010	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1139(2)(2)	041-010	J-8598	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1142	J-6082	J-6083	6	152.5	0	0	0	0	0	0
WMAIN-1145	J-6029	J-6030	6	152.5	0	0	0	0	0	0
WMAIN-1147(1)	J-6029	056-052	8	152.5	0.03	0.15	0.2	0.6	0.15	0.6
WMAIN-1147(2)	056-052	J-6082	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-1149	J-6082	J-7421	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-1152	J-7421	J-7422	8	152.5	0	0	0	0	0	0
WMAIN-1154(1)	J-7421	056-053	8	152.5	0	0	0	0	0	0
WMAIN-1154(2)	056-053	J-8385	8	152.5	0	0	0	0	0	0
WMAIN-1157(1)	J-8221	047-007	8	152.5	0.02	0.09	0.2	0.4	0.08	0.4
WMAIN-1157(2)(1)	047-007	047-008	8	152.5	0.02	0.09	0.2	0.4	0.08	0.4
WMAIN-1157(2)(2)	047-008	J-7822	8	152.5	0.02	0.09	0.2	0.4	0.08	0.4
WMAIN-1158	J-6151	J-6152	8	152.5	0	0	0	0	0	0
WMAIN-1160(1)	J-6152	047-015	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-1160(2)	047-015	J-6547	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1163	J-6547	J-6548	8	152.5	0	0	0	0	0	0
WMAIN-1165(1)	J-6547	047-016	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1165(2)	047-016	J-8364	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-1167	J-8356	J-8364	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1170	J-7675	J-8026	8	152.5	0	0	0	0	0	0
WMAIN-1172	J-6897	J-6664	12	152.5	0.12	0.46	0.6	1.3	0.46	1.3
WMAIN-1173	J-8496	J-6898	12	152.5	0.36	1.19	1.2	2.2	1.19	2.2
WMAIN-1174(1)	J-8029	168-010	12	152.5	0.36	1.19	1.2	2.2	1.19	2.2
WMAIN-1174(2)(1)	168-010	168-011	12	152.5	0.36	1.19	1.2	2.2	1.19	2.2
WMAIN-1174(2)(2)	168-011	J-8496	12	152.5	0.36	1.19	1.2	2.2	1.19	2.2
WMAIN-1175(1)	J-6896	J-5771	12	152.5	0.61	1.97	1.5	2.9	1.97	2.9
WMAIN-1175(2)	J-5771	J-8029	12	152.5	0.61	1.97	1.5	2.9	1.97	2.9
WMAIN-1177	J-7238	168-038	12	152.5	0	0.26	0	1	0	0.1
WMAIN-1178(1)(1)	J-8209	168-013	12	152.5	0.19	0.85	0.8	1.8	0.85	1.8
WMAIN-1178(1)(2)	168-013	TEMP391	12	152.5	0.19	0.85	0.8	1.8	0.85	1.8
WMAIN-1178(2)	TEMP391	J-7238	12	152.5	0.2	0.86	0.8	1.9	0.86	1.9
WMAIN-1181	J-6871	J-8209	12	152.5	0.19	0.85	0.8	1.8	0.85	1.8
WMAIN-1183(1)	J-6898	168-012	12	152.5	0.2	0.69	0.8	1.6	0.69	1.6
WMAIN-1183(2)	168-012	J-6871	12	152.5	0.2	0.69	0.8	1.6	0.69	1.6
WMAIN-1185(1)	J-7801	167-032	12	152.5	0.03	0.12	0.3	0.6	0.12	0.6
WMAIN-1185(2)	167-032	J-6665	12	152.5	0.03	0.12	0.3	0.6	0.12	0.6
WMAIN-1188(1)	J-7205	009-001	8	152.5	0	0.15	0	0.6	0.15	0.6
WMAIN-1188(2)	009-001	J-8437	8	152.5	0	0.14	0	0.5	0.14	0.5
WMAIN-1189(1)	J-7507	009-013	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-1189(2)	009-013	J-7508	8	152.5	0.04	0.13	0.3	0.5	0.12	0.5
WMAIN-1191	J-7508	J-7336	8	152.5	0.05	0.1	0.3	0.4	0.09	0.4
WMAIN-1195(1)	J-8611	009-027	8	152.5	0.01	0.12	0.1	0.5	0.11	0.5
WMAIN-1195(2)	009-027	J-6903	8	152.5	0.01	0.11	0.1	0.5	0.1	0.5
WMAIN-1197(1)	J-8131	009-028	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-1197(2)	009-028	J-6903	8	152.5	0.01	0.1	0.1	0.4	0.09	0.4
WMAIN-1200(1)	J-7491	009-029	8	152.5	0.03	0.05	0.2	0.3	0.05	0.3
WMAIN-1200(2)	009-029	J-8202	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-1202	J-7336	J-7337	8	152.5	0.02	0.2	0.2	0.7	0.19	0.6
WMAIN-1205(1)	J-7336	009-014	8	152.5	0.02	0.06	0.2	0.3	0.02	0.2
WMAIN-1205(2)	009-014	J-7491	8	152.5	0.03	0.06	0.2	0.3	0.03	0.2
WMAIN-1207(1)	J-7491	009-015	8	152.5	0	0	0	0	0	0
WMAIN-1207(2)	009-015	J-7492	8	152.5	0	0	0	0	0	0
WMAIN-1209	J-7508	J-7984	8	152.5	0	0	0	0	0	0
WMAIN-1211	J-7507	J-8287	8	152.5	0	0	0	0	0	0
WMAIN-1212	J-6902	J-6903	8	152.5	0	0	0	0	0	0
WMAIN-1215	J-8131	J-8241	8	152.5	0	0	0	0	0	0
WMAIN-1216	J-5897	J-7117	8	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-1217(1)	J-6933	010-008	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1217(2)	010-008	J-5897	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1221(1)	J-8100	010-007	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1221(2)	010-007	J-6933	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-1222	J-6785	J-7490	12	152.5	0	0.2	0	0.8	0.07	0.5
WMAIN-1223	J-6784	J-6785	12	152.5	0	0.15	0	0.7	0.04	0.4
WMAIN-1225	J-7398	J-6784	12	152.5	0	0.12	0	0.6	0.02	0.2
WMAIN-1227(1)	J-8099	010-002	12	152.5	0	0.1	0.1	0.6	0	0.1
WMAIN-1227(2)	010-002	J-7398	12	152.5	0	0.1	0.1	0.6	0	0.1
WMAIN-1230	J-7398	J-8023	8	152.5	0.01	0.08	0.2	0.4	0.05	0.3
WMAIN-1232(1)	J-8099	010-004	8	152.5	0.01	0.08	0.1	0.4	0.06	0.4
WMAIN-1232(2)	010-004	J-8100	8	152.5	0	0.08	0.1	0.4	0.06	0.3
WMAIN-1233	J-5896	J-5897	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-1236(1)	J-6776	023-021	8	152.5	0	0.01	0	0.2	0	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1236(2)	023-021	023-025	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1239(1)(1)	J-7815	023-032	8	152.5	0	0.13	0	0.5	0.02	0.2
WMAIN-1239(1)(2)	023-032	023-022	8	152.5	0	0.14	0	0.5	0.03	0.2
WMAIN-1239(2)	023-022	J-8027	8	152.5	0	0.14	0	0.5	0.03	0.2
WMAIN-1241	J-6776	J-5645	10	152.5	0	0.06	0	0.4	0.01	0.2
WMAIN-1243	J-8027	J-6776	10	152.5	0	0.03	0	0.3	0	0.1
WMAIN-1246(1)	J-8027	023-023	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1246(2)	023-023	J-6815	8	152.5	0	0.01	0	0.1	0	0
WMAIN-1248(1)	J-6815	023-024	8	152.5	0	0.01	0	0.1	0	0
WMAIN-1248(2)	023-024	023-025	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1249	J-6815	J-6816	6	152.5	0	0	0	0	0	0
WMAIN-1252(1)	J-8023	023-027	8	152.5	0	0.05	0.1	0.3	0.03	0.2
WMAIN-1252(2)	023-027	J-8027	8	152.5	0	0.04	0.1	0.3	0.02	0.2
WMAIN-1254	J-8367	J-6156	8	152.5	0	0.08	0	0.4	0.04	0.3
WMAIN-1255(1)(1)	J-7251	027-005	8	152.5	0	0.18	0.1	0.6	0.01	0.1
WMAIN-1255(1)(2)	027-005	027-004	8	152.5	0	0.18	0.1	0.6	0.01	0.1
WMAIN-1255(2)	027-004	J-8733	8	152.5	0	0.18	0.1	0.6	0.01	0.1
WMAIN-1256(1)(1)	J-8733	027-003	8	152.5	0	0.13	0.1	0.5	0.03	0.2
WMAIN-1256(1)(2)	027-003	J-9332	8	152.5	0	0.13	0	0.5	0.04	0.3
WMAIN-1256(2)(1)	J-9332	027-002	8	152.5	0	0.13	0	0.5	0.04	0.3
WMAIN-1256(2)(2)	027-002	J-5517	8	152.5	0	0.13	0	0.5	0.04	0.3
WMAIN-1259(1)(1)	J-5517	027-055	16	140	0	0.21	0.1	1	0	0.1
WMAIN-1259(1)(2)	027-055	J-5192	16	140	0	0.21	0.1	1	0	0.1
WMAIN-1259(2)	J-5192	J-5511	16	140	0	0.21	0.1	1	0	0.1
WMAIN-1261(1)	J-8257	169-057	8	152.5	0.06	0.18	0.4	0.6	0.18	0.6
WMAIN-1261(2)	169-057	J-5979	8	152.5	0.06	0.18	0.4	0.6	0.18	0.6
WMAIN-1265(1)	J-6064	169-058	8	152.5	0.06	0.18	0.4	0.6	0.18	0.6
WMAIN-1265(2)	169-058	J-8257	8	152.5	0.06	0.18	0.4	0.6	0.18	0.6
WMAIN-1267(1)	J-6064	169-065	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1267(2)	169-065	J-6213	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1269	J-6063	J-6064	8	152.5	0	0	0	0	0	0
WMAIN-1272(1)	J-8360	169-063	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1272(2)(1)	169-063	169-064	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1272(2)(2)	169-064	J-6063	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1273	169-069	J-8360	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1274	169-068	169-069	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1275	J-5468	169-068	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1278(1)	J-6201	J-8944	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1278(2)	J-8944	169-067	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1279	169-067	J-5468	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1280	169-070	J-8165	10	152.5	0.08	0.23	0.5	0.8	0.23	0.8
WMAIN-1282	J-6201	169-070	10	152.5	0.08	0.23	0.5	0.8	0.23	0.8
WMAIN-1284(1)	J-6213	169-072	8	152.5	0.3	0.88	0.8	1.5	0.88	1.5
WMAIN-1284(2)	169-072	J-6201	8	152.5	0.3	0.88	0.8	1.5	0.88	1.5
WMAIN-1286	J-6212	J-6213	8	152.5	0.09	0.27	0.4	0.8	0.27	0.8
WMAIN-1288(1)	J-6212	169-071	8	152.5	0	0	0	0	0	0
WMAIN-1288(2)	169-071	J-6331	8	152.5	0	0	0	0	0	0
WMAIN-1290	J-5315	J-6212	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1292	169-073	J-5315	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1293	J-5838	169-073	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1296(1)	169-077	169-076	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1296(2)(1)	169-076	169-075	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1296(2)(2)	169-075	J-5838	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1297	J-5724	169-077	8	152.5	0.08	0.23	0.4	0.7	0.23	0.7
WMAIN-1299	J-6501	J-5724	8	152.5	0.08	0.23	0.4	0.7	0.23	0.7
WMAIN-1302(1)	J-8791	TEMP398	12	152.5	0.09	0.27	0.5	1	0.27	1
WMAIN-1302(2)	TEMP398	J-6490	12	152.5	0.1	0.32	0.6	1.1	0.32	1.1
WMAIN-1303(1)	J-5597	169-080	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-1303(2)	169-080	J-6882	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-1305(1)	J-6501	169-079	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-1305(2)	169-079	J-7237	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-1309(1)	J-6118	169-078	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1309(2)	169-078	J-6501	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1312(1)	J-5998	169-054	8	152.5	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-1312(2)(1)	169-054	169-055	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-1312(2)(2)(1)	169-055	169-056	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-1312(2)(2)(2)	169-056	J-6118	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-1313	J-5997	J-5998	8	152.5	0.08	0.27	0.4	0.8	0.27	0.8
WMAIN-1316(1)	J-5597	169-053	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1316(2)	169-053	J-5997	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1317	J-5596	J-5597	8	152.5	0.03	0.27	0.2	0.8	0.27	0.8
WMAIN-1320	J-5232	J-5596	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-1322(1)	J-5319	054-005	8	152.5	3.15	11.31	2.9	5.8	11.31	5.8
WMAIN-1322(2)	054-005	J-6597	8	152.5	3.14	11.29	2.9	5.8	11.29	5.8
WMAIN-1323	J-5319	J-5320	12	152.5	0.59	2.11	1.5	3	2.11	3
WMAIN-1328	J-5069	J-5173	12	152.5	0	0	0	0	0	0
WMAIN-1329	030-037	J-5717	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1332	J-5715	030-037	6	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1334(1)	J-6194	167-066	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1334(2)	167-066	J-6195	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-1335	J-6070	J-6071	8	152.5	0.13	0.4	0.5	1	0.4	1
WMAIN-1336(1)	J-6071	167-064	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-1336(2)	167-064	J-6978	8	152.5	0.08	0.23	0.4	0.7	0.23	0.7
WMAIN-1339	J-6988	J-6977	8	152.5	0	0.03	0.1	0.2	0.02	0.2
WMAIN-1341	J-6988	J-6070	8	152.5	0.12	0.38	0.5	0.9	0.38	0.9
WMAIN-1344(1)	J-6977	167-065	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-1344(2)	167-065	J-6978	8	152.5	0.08	0.22	0.4	0.7	0.22	0.7
WMAIN-1345(1)	J-6128	013-027	6	130	0	0	0	0	0	0
WMAIN-1345(2)	013-027	J-6129	6	130	0	0	0	0	0	0
WMAIN-1347	J-6437	J-8206	6	152.5	0	0	0	0	0	0
WMAIN-1348	J-5300	J-5301	8	152.5	0	0	0	0	0	0
WMAIN-1349	J-5301	J-6437	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1351(1)	J-8217	047-003	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1351(2)	047-003	J-6437	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1352	J-8217	J-7966	8	152.5	0.07	0.21	0.4	0.7	0.21	0.7
WMAIN-1355(1)	J-7822	047-004	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-1355(2)	047-004	J-8217	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-1358(1)	J-7966	J-5162	12	152.5	0.01	0.02	0.2	0.2	0.02	0.2
WMAIN-1358(2)(1)	J-5162	047-002	12	152.5	0.01	0.02	0.2	0.2	0.02	0.2
WMAIN-1358(2)(2)	047-002	J-7919	12	152.5	0.01	0.02	0.2	0.2	0.02	0.2
WMAIN-1360(1)	J-6567	048-001	12	152.5	0.02	0.03	0.2	0.3	0.03	0.3
WMAIN-1360(2)(1)	048-001	047-001	12	152.5	0.02	0.03	0.2	0.3	0.02	0.3
WMAIN-1360(2)(2)	047-001	J-7966	12	152.5	0.02	0.03	0.2	0.3	0.02	0.3
WMAIN-1362	J-6807	J-6808	8	152.5	0	0	0	0	0	0
WMAIN-1364	J-7966	J-6807	8	152.5	0.02	0.19	0.2	0.6	0.19	0.6
WMAIN-1366(1)	J-6807	048-005	8	152.5	0.03	0.23	0.2	0.7	0.23	0.7
WMAIN-1366(2)(1)	048-005	048-003	8	152.5	0.03	0.25	0.2	0.7	0.25	0.7
WMAIN-1366(2)(2)	048-003	J-8143	8	152.5	0.03	0.25	0.2	0.7	0.25	0.7
WMAIN-1367	J-6884	J-8143	8	152.5	0.03	0.26	0.3	0.8	0.26	0.8
WMAIN-1369(1)	J-6657	048-002	8	152.5	0.16	1.1	0.6	1.6	1.1	1.6
WMAIN-1369(2)	048-002	J-6884	8	152.5	0.15	1.09	0.6	1.6	1.09	1.6
WMAIN-1371(1)	J-6181	048-004	8	152.5	0.05	0.32	0.3	0.8	0.32	0.8

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1371(2)	048-004	J-6884	8	152.5	0.05	0.33	0.3	0.9	0.33	0.9
WMAIN-1374	J-6181	J-6182	8	152.5	0	0	0	0	0	0
WMAIN-1375	J-6205	J-6181	8	152.5	0.04	0.28	0.3	0.8	0.28	0.8
WMAIN-1378(1)	J-7919	048-007	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1378(2)	048-007	J-6205	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1380(1)	J-8356	047-005	8	152.5	0.06	0.19	0.3	0.6	0.19	0.6
WMAIN-1380(2)	047-005	J-7919	8	152.5	0.06	0.2	0.4	0.6	0.2	0.6
WMAIN-1382	J-6405	J-7919	12	152.5	0	0	0	0	0	0
WMAIN-1384(1)	J-6404	047-006	12	152.5	0	0	0	0	0	0
WMAIN-1384(2)	047-006	J-6405	12	152.5	0	0	0	0	0	0
WMAIN-1387	J-6405	J-8566	8	152.5	0	0	0	0	0	0
WMAIN-1390(1)	J-6405	048-006	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1390(2)	048-006	J-6205	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1391A(1)	J-6794	171-044	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-1391A(2)	171-044	J-6003	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-1391B	J-6003	J-6004	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-1393	J-6892	J-8423	8	152.5	0.78	1.57	1.4	2	1.57	2
WMAIN-1396(1)	J-6892	171-075	8	152.5	0.19	0.39	0.6	0.9	0.39	0.9
WMAIN-1396(2)	171-075	J-6492	8	152.5	0.2	0.39	0.6	0.9	0.39	0.9
WMAIN-1398(1)	J-6493	171-074	8	152.5	0.03	0.05	0.2	0.3	0.05	0.3
WMAIN-1398(2)	171-074	J-8240	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-1400(1)	J-8240	171-073	8	152.5	0.03	0.07	0.3	0.4	0.07	0.4
WMAIN-1400(2)	171-073	J-7741	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-1403	J-6492	J-6493	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-1405(1)	J-7395	171-072	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-1405(2)	171-072	J-6492	8	152.5	0.09	0.19	0.4	0.6	0.19	0.6
WMAIN-1406	J-7395	J-6385	8	152.5	0.25	0.55	0.7	1.1	0.55	1.1
WMAIN-1408	J-7741	J-7395	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-1411(1)	J-8199	171-043	8	152.5	0	0	0	0	0	0
WMAIN-1411(2)	171-043	J-8200	8	152.5	0	0	0	0	0	0
WMAIN-1413	J-6794	J-8199	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1414(1)	J-7964	171-042	8	152.5	0	0	0	0	0	0
WMAIN-1414(2)	171-042	J-7611	8	152.5	0	0	0	0	0	0
WMAIN-1417	171-071	J-8245	8	152.5	0	0	0	0	0	0
WMAIN-1418(1)	J-8087	171-070	8	152.5	0	0	0	0	0	0
WMAIN-1418(2)	171-070	J-8058	8	152.5	0	0	0	0	0	0
WMAIN-1421	J-7226	J-7582	8	152.5	0	0	0	0	0	0
WMAIN-1422(1)	J-8054	171-064	8	152.5	0.16	0.35	0.6	0.9	0.35	0.9
WMAIN-1422(2)	171-064	J-6893	8	152.5	0.16	0.35	0.6	0.9	0.35	0.9
WMAIN-1424(1)	J-7388	171-065	8	152.5	0.17	0.38	0.6	0.9	0.38	0.9
WMAIN-1424(2)	171-065	J-8054	8	152.5	0.17	0.36	0.6	0.9	0.36	0.9
WMAIN-1428	J-8177	J-7388	8	152.5	0.19	0.42	0.6	1	0.42	1
WMAIN-1430	J-8348	J-8177	8	152.5	0.12	0.28	0.5	0.8	0.28	0.8
WMAIN-1432	J-8177	J-8178	8	152.5	0	0	0	0	0	0
WMAIN-1434(1)(1)	J-8162	171-058	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-1434(1)(2)	171-058	171-066	8	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-1434(2)	171-066	J-8177	8	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-1437(1)	J-8348	171-067	8	152.5	0	0	0	0	0	0
WMAIN-1437(2)	171-067	J-8349	8	152.5	0	0	0	0	0	0
WMAIN-1439(1)	J-7173	171-068	8	152.5	0.16	0.39	0.6	0.9	0.39	0.9
WMAIN-1439(2)	171-068	J-8348	8	152.5	0.14	0.34	0.5	0.9	0.34	0.9
WMAIN-1441(1)	J-8302	171-051	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-1441(2)	171-051	J-8671	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-1444(1)(1)	J-8307	171-053	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-1444(1)(2)	171-053	171-054	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-1444(2)	171-054	J-8011	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-1446	J-6915	J-8307	8	152.5	0.08	0.19	0.4	0.6	0.19	0.6
WMAIN-1447(1)	J-8302	171-052	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-1447(2)	171-052	J-6915	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-1449	J-6915	171-056	8	152.5	0.19	0.49	0.6	1.1	0.49	1.1
WMAIN-1451	J-6914	J-6915	8	152.5	0	0	0	0	0	0
WMAIN-1453	J-8011	J-8012	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1457	J-8316	J-8011	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-1458(1)	171-056	171-057	8	152.5	0.61	1.55	1.2	2	1.55	2
WMAIN-1458(2)	171-057	J-7737	8	152.5	0.62	1.57	1.2	2	1.57	2
WMAIN-1460(1)	J-6270	171-055	8	152.5	0.15	0.35	0.6	0.9	0.35	0.9
WMAIN-1460(2)	171-055	171-056	8	152.5	0.15	0.36	0.6	0.9	0.36	0.9
WMAIN-1463	J-8316	J-6270	8	152.5	0.14	0.32	0.5	0.8	0.32	0.8
WMAIN-1466(1)	J-8653	171-046	8	152.5	0.3	0.61	0.8	1.2	0.61	1.2
WMAIN-1466(2)	171-046	J-8316	8	152.5	0.31	0.64	0.8	1.2	0.64	1.2
WMAIN-1468	J-8112	J-7610	8	152.5	0	0	0	0	0	0
WMAIN-1471(1)(1)	J-8485	171-039	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1471(1)(2)	171-039	171-040	8	152.5	0	0	0	0	0	0
WMAIN-1471(2)	171-040	J-8112	8	152.5	0	0	0	0	0	0
WMAIN-1472	J-8157	J-7198	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-1474(1)	J-8485	171-038	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1474(2)	171-038	J-8157	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1476	J-7611	J-8199	8	152.5	0	0	0	0.1	0	0
WMAIN-1478	J-7610	J-7611	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1482(1)	J-8157	171-041	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1482(2)	171-041	J-7610	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1483(1)	J-8308	171-050	8	152.5	0.01	0.03	0.2	0.2	0.03	0.2
WMAIN-1483(2)	171-050	J-8671	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-1485(1)	J-8012	171-049	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-1485(2)	171-049	J-8308	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-1487(1)	J-8299	171-048	8	152.5	0	0	0	0	0	0
WMAIN-1487(2)	171-048	J-8012	8	152.5	0	0	0	0	0	0
WMAIN-1490(1)	J-8011	171-047	8	152.5	0	0	0	0	0	0
WMAIN-1490(2)	171-047	J-8390	8	152.5	0	0	0	0	0	0
WMAIN-1493	J-8307	J-8308	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1495	J-7388	J-7389	8	152.5	0	0	0	0	0	0
WMAIN-1497(1)	J-8491	171-063	8	152.5	0.32	0.96	0.8	1.5	0.96	1.5
WMAIN-1497(2)	171-063	J-6894	8	152.5	0.32	0.95	0.8	1.5	0.95	1.5
WMAIN-1499(1)	J-7198	171-037	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-1499(2)	171-037	J-5828	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-1501(1)	J-8653	171-045	8	152.5	0.06	0.12	0.3	0.5	0.12	0.5
WMAIN-1501(2)	171-045	J-7198	8	152.5	0.06	0.12	0.3	0.5	0.12	0.5
WMAIN-1504	J-6794	J-8653	8	152.5	0.09	0.18	0.4	0.6	0.18	0.6
WMAIN-1507	J-6385	J-6004	8	152.5	0.08	0.21	0.4	0.7	0.21	0.7
WMAIN-1509	171-071	J-6385	8	152.5	0.57	1.31	1.1	1.8	1.31	1.8
WMAIN-1511	J-8058	171-071	8	152.5	0.58	1.36	1.2	1.8	1.36	1.8
WMAIN-1513	J-7226	J-8058	8	152.5	0.6	1.42	1.2	1.9	1.42	1.9
WMAIN-1515(1)	J-6894	171-069	8	152.5	0.62	1.47	1.2	1.9	1.47	1.9
WMAIN-1515(2)	171-069	J-7226	8	152.5	0.62	1.47	1.2	1.9	1.47	1.9
WMAIN-1517	J-6893	J-6894	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-1519	J-7737	J-6893	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-1520	J-8162	J-7737	8	152.5	0.43	0.98	1	1.5	0.98	1.5
WMAIN-1521	J-7173	J-8162	8	152.5	0.6	1.41	1.2	1.9	1.41	1.9
WMAIN-1524(1)	J-7172	171-059	8	152.5	1.3	3.11	1.8	2.9	3.11	2.9
WMAIN-1524(2)	171-059	J-7173	8	152.5	1.3	3.1	1.8	2.9	3.1	2.9
WMAIN-1526(1)	J-6651	171-062	12	152.5	0.83	1.89	1.8	2.8	1.89	2.8
WMAIN-1526(2)	171-062	J-8491	12	152.5	0.83	1.89	1.8	2.8	1.89	2.8

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1527	J-7560	J-6651	12	152.5	1.52	3.47	2.5	3.9	3.47	3.9
WMAIN-1528	J-8491	171-076	12	152.5	0.54	1.14	1.4	2.2	1.14	2.2
WMAIN-1530(1)(1)	171-076	J-9129	12	152.5	0.54	1.14	1.4	2.2	1.14	2.2
WMAIN-1530(1)(2)	J-9129	171-077	12	152.5	0.87	1.86	1.9	2.8	1.86	2.8
WMAIN-1530(2)	171-077	J-8589	12	152.5	0.87	1.86	1.9	2.8	1.86	2.8
WMAIN-1533(1)	J-6086	126-018	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-1533(2)	126-018	J-6087	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-1535	J-8205	J-6086	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-1537	J-6198	J-5905	12	152.5	0.06	0.23	0.4	0.9	0.23	0.9
WMAIN-1539(1)	J-8171	126-020	8	152.5	0	0	0	0	0	0
WMAIN-1539(2)	126-020	J-8172	8	152.5	0	0	0	0	0	0
WMAIN-1543	J-6107	J-6108	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1544	J-6087	J-6107	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1546	J-6198	J-6086	12	152.5	0.04	0.15	0.3	0.7	0.15	0.7
WMAIN-1548(1)	J-8171	126-019	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-1548(2)	126-019	J-6198	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-1551	J-8105	J-8171	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-1553	J-6087	J-8315	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1555(1)	J-8315	126-017	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1555(2)(1)	126-017	126-016	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1555(2)(2)	126-016	J-8130	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1559	J-6107	J-8130	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1560(1)	J-6107	126-015	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1560(2)(1)	126-015	126-014	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-1560(2)(2)	126-014	J-8109	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-1563(1)	J-6581	126-008	8	152.5	0.06	0.23	0.3	0.7	0.23	0.7
WMAIN-1563(2)	126-008	J-6272	8	152.5	0.06	0.23	0.3	0.7	0.23	0.7
WMAIN-1566	J-7143	J-6232	8	152.5	0.11	0.45	0.5	1	0.45	1
WMAIN-1570(1)(1)	J-8104	126-022	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1570(1)(2)	126-022	126-021	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1570(2)	126-021	J-8105	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1572(1)	J-8207	126-029	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1572(2)	126-029	J-8085	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1575	J-8205	J-8085	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-1578(1)	J-8085	126-012	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1578(2)	126-012	J-8086	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1580(1)	J-8086	126-011	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1580(2)	126-011	J-8077	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-1581(1)	J-6232	126-026	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-1581(2)	126-026	J-7393	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-1583(1)	J-7393	126-023	8	152.5	0.06	0.23	0.3	0.7	0.23	0.7
WMAIN-1583(2)	126-023	J-8104	8	152.5	0.06	0.22	0.3	0.7	0.22	0.7
WMAIN-1585	J-8104	J-8205	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-1587(1)	J-8205	126-013	12	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1587(2)	126-013	J-8109	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1589	J-8109	J-8207	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-1591	J-8207	J-8077	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-1594(1)	J-6581	126-009	12	152.5	0.04	0.15	0.4	0.7	0.15	0.7
WMAIN-1594(2)(1)	126-009	126-010	12	152.5	0.04	0.15	0.3	0.7	0.15	0.7
WMAIN-1594(2)(2)	126-010	J-8077	12	152.5	0.04	0.15	0.3	0.7	0.15	0.7
WMAIN-1595	J-8567	J-6581	12	152.5	0.08	0.31	0.5	1.1	0.31	1.1
WMAIN-1596(1)	J-6961	125-044	8	152.5	0	0	0	0	0	0
WMAIN-1596(2)	125-044	J-7454	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1598(1)(1)	J-8766	125-039	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1598(1)(2)	125-039	125-040	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1598(2)	125-040	J-8777	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1600(1)	J-7533	125-001	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1600(2)	125-001	J-8545	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1602(1)(1)	J-8597	125-003	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1602(1)(2)	125-003	J-6245	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1602(2)	J-6245	J-6249	12	152.5	0.22	0.81	0.9	1.8	0.81	1.8
WMAIN-1603(1)	125-005	125-004	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1603(2)	125-004	J-8597	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1605	J-6859	J-6860	8	152.5	0.06	0.2	0.3	0.7	0.2	0.7
WMAIN-1615(1)	J-5710	125-050	12	152.5	0.53	2.14	1.4	3	2.14	3
WMAIN-1615(2)(1)(1)	125-050	125-080	12	152.5	0.53	2.14	1.4	3	2.14	3
WMAIN-1615(2)(1)(2)	125-080	125-049	12	152.5	0.53	2.14	1.4	3	2.14	3
WMAIN-1615(2)(2)	125-049	J-7375	12	152.5	0.53	2.14	1.4	3	2.14	3
WMAIN-1617(1)	J-7142	125-048	12	152.5	0.38	1.5	1.2	2.5	1.5	2.5
WMAIN-1617(2)	125-048	J-7375	12	152.5	0.38	1.5	1.2	2.5	1.5	2.5
WMAIN-1620(1)	J-7142	126-028	8	152.5	0.52	2.04	1.1	2.3	2.04	2.3
WMAIN-1620(2)	126-028	J-7143	8	152.5	0.52	2.03	1.1	2.3	2.03	2.3
WMAIN-1623(1)	J-8723	125-046	12	152.5	0.06	0.23	0.4	0.9	0.23	0.9
WMAIN-1623(2)	125-046	J-8528	12	152.5	0.06	0.23	0.4	0.9	0.23	0.9
WMAIN-1624(1)	J-8723	125-047	12	152.5	0.14	0.57	0.7	1.5	0.57	1.5
WMAIN-1624(2)	125-047	J-7142	12	152.5	0.14	0.57	0.7	1.5	0.57	1.5
WMAIN-1625	J-5790	J-5791	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1628(1)	J-7860	125-028	8	152.5	0.05	0.22	0.3	0.7	0.22	0.7
WMAIN-1628(2)	125-028	J-7861	8	152.5	0.06	0.22	0.3	0.7	0.22	0.7
WMAIN-1630	J-7861	J-5995	8	152.5	0.11	0.43	0.5	1	0.43	1
WMAIN-1632(1)	J-5791	125-025	8	152.5	0.08	0.31	0.4	0.8	0.31	0.8
WMAIN-1632(2)	125-025	J-5994	8	152.5	0.08	0.3	0.4	0.8	0.3	0.8
WMAIN-1634	J-5994	J-5995	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-1636(1)	J-5995	125-026	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1636(2)	125-026	J-6078	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1638	J-6078	J-7616	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1640	J-7616	J-8081	8	152.5	0.08	0.33	0.4	0.9	0.33	0.9
WMAIN-1643	J-8081	J-6734	8	152.5	0.08	0.3	0.4	0.8	0.3	0.8
WMAIN-1646	J-5994	J-6078	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1649(1)	J-7375	125-031	8	152.5	0.14	0.58	0.5	1.2	0.58	1.2
WMAIN-1649(2)	125-031	J-7616	8	152.5	0.13	0.55	0.5	1.1	0.55	1.1
WMAIN-1650(1)	J-8080	125-032	8	152.5	0	0	0	0	0	0
WMAIN-1650(2)	125-032	J-8081	8	152.5	0	0	0	0	0	0
WMAIN-1652	J-6733	J-6734	8	152.5	0	0	0	0	0	0
WMAIN-1654(1)	J-6734	125-033	8	152.5	0.07	0.28	0.4	0.8	0.28	0.8
WMAIN-1654(2)	125-033	J-6944	8	152.5	0.07	0.28	0.4	0.8	0.28	0.8
WMAIN-1656	J-6960	J-6961	8	152.5	0	0	0	0	0	0
WMAIN-1660(1)	J-8528	125-045	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1660(2)(1)	125-045	125-043	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1660(2)(2)	125-043	J-7454	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1661	J-7454	J-7225	8	152.5	0.04	0.16	0.3	0.6	0.16	0.6
WMAIN-1665(1)	J-7861	125-027	12	152.5	0.04	0.15	0.4	0.7	0.15	0.7
WMAIN-1665(2)	125-027	J-7858	12	152.5	0.04	0.16	0.4	0.7	0.16	0.7
WMAIN-1667(1)	J-6944	125-030	12	152.5	0.05	0.19	0.4	0.8	0.19	0.8
WMAIN-1667(2)	125-030	J-7861	12	152.5	0.05	0.2	0.4	0.8	0.2	0.8
WMAIN-1670	J-6943	J-6944	12	152.5	0.09	0.35	0.6	1.1	0.35	1.1
WMAIN-1671(1)	J-7225	125-042	12	152.5	0.05	0.18	0.4	0.8	0.18	0.8
WMAIN-1671(2)(1)	125-042	125-035	12	152.5	0.05	0.18	0.4	0.8	0.18	0.8
WMAIN-1671(2)(2)	125-035	J-6943	12	152.5	0.05	0.18	0.4	0.8	0.18	0.8
WMAIN-1673	J-7860	J-7859	8	152.5	0	0	0	0	0	0
WMAIN-1677(1)	J-7863	125-029	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-1677(2)	125-029	J-7860	8	152.5	0.05	0.2	0.3	0.7	0.2	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1678(1)	J-8777	125-041	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1678(2)	125-041	J-7863	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1682	J-6554	J-7470	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1684(1)	J-8723	126-006	12	152.5	0.08	0.32	0.5	1.1	0.32	1.1
WMAIN-1684(2)(1)	126-006	126-007	12	152.5	0.08	0.32	0.5	1.1	0.32	1.1
WMAIN-1684(2)(2)	126-007	J-8567	12	152.5	0.08	0.32	0.5	1.1	0.32	1.1
WMAIN-1686(1)	J-6943	125-034	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1686(2)	125-034	J-8723	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1689	J-7863	J-6943	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-1691	J-8118	J-7863	8	152.5	0	0	0	0.1	0	0
WMAIN-1692(1)	J-8482	125-038	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1692(2)	125-038	J-8116	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1694(1)	J-8116	125-020	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1694(2)	125-020	J-8117	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-1696(1)	J-8482	125-037	8	152.5	0	0	0	0	0	0
WMAIN-1696(2)	125-037	J-8478	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1699(1)	J-8117	125-055	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-1699(2)	125-055	J-8118	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-1701(1)	J-8118	125-036	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1701(2)	125-036	J-8478	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1702(1)	J-7866	125-019	12	152.5	0	0	0	0.1	0	0.1
WMAIN-1702(2)	125-019	J-8116	12	152.5	0	0	0	0.1	0	0.1
WMAIN-1704(1)	J-7865	125-018	12	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1704(2)	125-018	J-7866	12	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-1706(1)	J-6575	125-017	12	152.5	0	0	0	0	0	0
WMAIN-1706(2)	125-017	J-7865	12	152.5	0	0	0	0.1	0	0.1
WMAIN-1708	J-5283	J-6575	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-1710(1)	J-6554	125-016	12	152.5	0.02	0.09	0.3	0.5	0.09	0.5
WMAIN-1710(2)	125-016	J-5283	12	152.5	0.02	0.09	0.3	0.5	0.09	0.5
WMAIN-1713(1)	J-6711	J-9229	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-1713(2)	J-9229	J-6554	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-1716	J-6710	J-6711	12	152.5	0.04	0.15	0.4	0.7	0.15	0.7
WMAIN-1718(1)	J-6540	125-015	12	152.5	0.03	0.09	0.3	0.6	0.09	0.6
WMAIN-1718(2)	125-015	J-6710	12	152.5	0.03	0.09	0.3	0.6	0.09	0.6
WMAIN-1719(1)	J-7095	125-014	12	152.5	0.03	0.09	0.3	0.6	0.09	0.6
WMAIN-1719(2)	125-014	J-6540	12	152.5	0.03	0.09	0.3	0.6	0.09	0.6
WMAIN-1720	J-6859	J-7095	12	152.5	0.04	0.14	0.4	0.7	0.14	0.7
WMAIN-1723(1)	J-7719	125-007	12	152.5	0.08	0.28	0.5	1	0.28	1
WMAIN-1723(2)	125-007	J-6859	12	152.5	0.08	0.27	0.5	1	0.27	1
WMAIN-1726(1)	J-5432	125-006	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1726(2)	125-006	J-7719	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1728(1)	056-041	J-9186	12	152.5	0.11	0.4	0.6	1.2	0.4	1.2
WMAIN-1728(2)	J-9186	J-8545	12	152.5	0.11	0.4	0.6	1.2	0.4	1.2
WMAIN-1729(1)	J-7719	J-5959	12	152.5	0.1	0.35	0.6	1.1	0.35	1.1
WMAIN-1729(2)(1)	J-5959	J-5961	12	152.5	0.1	0.35	0.6	1.1	0.35	1.1
WMAIN-1729(2)(2)	J-5961	J-5413	12	152.5	0.18	0.68	0.8	1.6	0.68	1.6
WMAIN-1730	J-5413	125-005	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-1731(1)	J-7859	125-021	8	152.5	0.08	0.3	0.4	0.8	0.3	0.8
WMAIN-1731(2)	125-021	J-8117	8	152.5	0.08	0.29	0.4	0.8	0.29	0.8
WMAIN-1734(1)	J-7858	125-023	8	152.5	0.16	0.63	0.6	1.2	0.63	1.2
WMAIN-1734(2)	125-023	J-7859	8	152.5	0.16	0.62	0.6	1.2	0.62	1.2
WMAIN-1735(1)	J-6819	022-049	8	152.5	0.02	0.08	0.2	0.4	0.06	0.3
WMAIN-1735(2)	022-049	J-6820	8	152.5	0.02	0.08	0.2	0.4	0.06	0.3
WMAIN-1738	J-5766	J-6819	8	152.5	0.02	0.08	0.2	0.4	0.06	0.3
WMAIN-1739	J-5294	019-047	8	152.5	0	0	0	0	0	0
WMAIN-1740	019-047	J-6546	8	152.5	0	0	0	0	0	0
WMAIN-1741	J-7043	J-5384	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1742(1)	J-5384	J-8814	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1742(2)	J-8814	J-6546	8	152.5	0	0	0	0	0	0
WMAIN-1744	J-6546	J-6975	8	152.5	0	0	0	0	0	0
WMAIN-1746(1)	H-498	J-8851	8	152.5	0.17	0.42	0.6	1	0.42	1
WMAIN-1746(2)	J-8851	J-8621	8	152.5	0.44	0.98	1	1.5	0.98	1.5
WMAIN-1749	J-5471	J-5472	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-1750(1)	J-8494	047-018	12	152.5	0	0	0	0	0	0
WMAIN-1750(2)	047-018	J-8495	12	152.5	0	0	0	0	0	0
WMAIN-1752	J-5941	018-052	8	152.5	0	0	0	0	0	0
WMAIN-1754	J-5939	J-5940	8	152.5	0	0	0	0	0	0
WMAIN-1755(1)(1)(1)(1)	J-8871	017-024	12	152.5	0.02	0.07	0.3	0.5	0.07	0.5
WMAIN-1755(1)(1)(1)(2)	017-024	017-023	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1755(1)(1)(2)	017-023	017-022	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1755(1)(2)	017-022	017-021	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1755(2)(1)	017-021	017-020	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1755(2)(2)	017-020	J-7844	12	152.5	0.02	0.08	0.3	0.5	0.08	0.5
WMAIN-1757(1)	J-8449	009-025	12	152.5	0.02	0.42	0.2	1.3	0.42	1.3
WMAIN-1757(2)	009-025	J-8786	12	152.5	0.02	0.42	0.2	1.3	0.42	1.3
WMAIN-1759(1)	J-6185	009-035	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1759(2)(1)	009-035	009-034	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1759(2)(2)	009-034	J-8449	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1761	J-6184	J-6185	8	152.5	0	0	0	0	0	0
WMAIN-1763	J-5598	J-5599	2	152.5	0	0.02	0	0.1	0.02	0.1
WMAIN-1764	J-5794	J-5795	2	152.5	0	0	0	0	0	0
WMAIN-1765	J-5603	J-5604	2	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1766	J-5813	J-5814	2	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1767	015-026	J-5825	2	152.5	0.01	0.03	0	0.1	0.03	0.1
WMAIN-1768	J-5834	J-5835	2	152.5	0.33	1.28	0.4	0.7	1.28	0.7
WMAIN-1769	J-5796	J-5797	2	152.5	0.01	0.03	0	0.1	0.03	0.1
WMAIN-1770	J-5836	J-5837	2	152.5	0.01	0.02	0	0.1	0.02	0.1
WMAIN-1771	J-5636	J-5637	2	152.5	0.01	0.03	0	0.1	0.03	0.1
WMAIN-1772	J-5684	J-5685	2	152.5	0	0	0	0	0	0
WMAIN-1773	J-5620	J-5621	2	152.5	0	0.02	0	0.1	0.02	0.1
WMAIN-1774	J-5722	J-5723	8	152.5	0	0	0	0	0	0
WMAIN-1777	J-5421	J-5719	8	152.5	0	0	0	0	0	0
WMAIN-1778(1)	J-5421	015-021	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1778(2)	015-021	J-6240	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1779(1)	015-024	J-5620	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1779(2)(1)	J-5620	015-023	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1779(2)(2)	015-023	J-8817	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1781(1)(1)	J-6646	J-5636	8	152.5	0	0	0	0	0	0
WMAIN-1781(1)(2)	J-5636	J-5684	8	152.5	0	0	0	0	0	0
WMAIN-1781(2)	J-5684	015-024	8	152.5	0	0	0	0	0	0
WMAIN-1782(1)	J-7851	J-5834	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1782(2)(1)	J-5834	J-5796	8	152.5	0	0	0	0	0	0
WMAIN-1782(2)(2)(1)	J-5796	J-5836	8	152.5	0	0	0	0	0	0
WMAIN-1782(2)(2)(2)(1)	J-5836	015-025	8	152.5	0	0	0	0	0	0
WMAIN-1782(2)(2)(2)(2)	015-025	J-6646	8	152.5	0	0	0	0	0	0
WMAIN-1784(1)	J-5420	J-5598	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(1)	J-5598	J-5794	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(1)(1)	J-5794	015-027	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(1)(2)	015-027	J-5603	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(2)(1)	J-5603	J-5813	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(2)(2)(1)	J-5813	015-026	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(2)(2)(2)	015-026	J-7851	8	152.5	0	0.01	0	0.1	0	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1785(1)(1)	J-8326	J-8423	12	152.5	0.26	0.7	1	1.7	0.7	1.7
WMAIN-1785(1)(2)	J-8423	170-059	12	152.5	0.04	0.18	0.4	0.8	0.18	0.8
WMAIN-1785(2)	170-059	J-8353	12	152.5	0.04	0.18	0.4	0.8	0.18	0.8
WMAIN-1788	J-5828	J-5829	8	152.5	0	0	0	0	0	0
WMAIN-1789(1)	J-5828	171-035	16	152.5	0.56	1.25	1.8	2.7	1.25	2.7
WMAIN-1789(2)(1)	171-035	171-036	16	152.5	0.55	1.22	1.7	2.7	1.22	2.7
WMAIN-1789(2)(2)	171-036	J-8812	16	152.5	0.55	1.22	1.7	2.7	1.22	2.7
WMAIN-1791(1)(1)	J-7172	171-030	16	152.5	0.56	1.29	1.8	2.8	1.29	2.8
WMAIN-1791(1)(2)	171-030	171-031	16	152.5	0.56	1.29	1.8	2.8	1.29	2.8
WMAIN-1791(2)(1)	171-031	171-032	16	152.5	0.56	1.29	1.8	2.8	1.29	2.8
WMAIN-1791(2)(2)	171-032	J-5870	16	152.5	0.56	1.29	1.8	2.8	1.29	2.8
WMAIN-1794(1)	J-5870	171-033	16	152.5	0.55	1.26	1.7	2.7	1.26	2.7
WMAIN-1794(2)(1)	171-033	171-034	16	152.5	0.54	1.24	1.7	2.7	1.24	2.7
WMAIN-1794(2)(2)	171-034	J-5828	16	152.5	0.54	1.24	1.7	2.7	1.24	2.7
WMAIN-1796	J-5870	J-5871	8	152.5	0	0	0	0	0	0
WMAIN-1798	J-5842	J-5843	8	152.5	0	0	0	0	0	0
WMAIN-1799(1)	J-5060	J-5842	16	152.5	0.85	1.98	2.2	3.5	1.98	3.5
WMAIN-1799(2)	J-5842	J-6956	16	152.5	0.85	1.98	2.2	3.5	1.98	3.5
WMAIN-1800(1)	J-6956	171-029	16	152.5	0.85	1.98	2.2	3.5	1.98	3.5
WMAIN-1800(2)	171-029	J-7172	16	152.5	0.85	1.98	2.2	3.5	1.98	3.5
WMAIN-1803	J-5060	J-5841	8	152.5	0	0	0	0	0	0
WMAIN-1805(1)	J-5382	171-028	16	152.5	0.85	1.98	2.2	3.5	1.98	3.5
WMAIN-1805(2)	171-028	J-5060	16	152.5	0.85	1.98	2.2	3.5	1.98	3.5
WMAIN-1808	J-6427	J-6428	8	152.5	0	0	0	0	0	0
WMAIN-1810(1)	J-7364	167-055	8	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-1810(2)	167-055	J-6427	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-1811(1)	J-8483	167-053	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1811(2)	167-053	J-8264	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-1813	037-005	J-5934	12	140	0	0.03	0	0.3	0	0.1
WMAIN-1815(1)	J-7605	167-061	8	152.5	0	0	0	0	0	0
WMAIN-1815(2)	167-061	J-8168	8	152.5	0	0	0	0	0	0
WMAIN-1816(1)	J-7477	167-060	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-1816(2)	167-060	J-7199	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-1819(1)	J-7477	167-059	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1819(2)	167-059	J-7756	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-1820	J-7293	J-7756	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-1823	J-7199	J-7200	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-1826(1)	J-7200	167-058	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-1826(2)	167-058	J-7293	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1828	J-7605	J-7199	8	152.5	0.07	0.31	0.4	0.8	0.31	0.8
WMAIN-1829(1)	J-7292	167-050	8	152.5	0.07	0.3	0.4	0.8	0.3	0.8
WMAIN-1829(2)	167-050	J-7293	8	152.5	0.07	0.31	0.4	0.8	0.31	0.8
WMAIN-1832	J-7726	J-7292	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1835(1)	J-7292	167-049	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1835(2)	167-049	J-7728	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1836	J-7726	J-7727	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1838	J-7727	J-7728	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-1840(1)	J-5168	031-022	16	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-1840(2)(1)	031-022	018-015	16	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-1840(2)(2)	018-015	J-5329	16	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-1842	J-5267	J-5268	8	152.5	0	0	0	0	0	0
WMAIN-1844	J-5268	J-7605	8	152.5	0.09	0.36	0.4	0.9	0.36	0.9
WMAIN-1846(1)	J-6957	167-045	12	152.5	0	0	0	0.1	0	0
WMAIN-1846(2)	167-045	J-8696	12	152.5	0	0	0	0.1	0	0
WMAIN-1847(1)(1)	167-041	167-077	12	152.5	0.32	1.1	1.1	2.1	1.1	2.1
WMAIN-1847(1)(2)	167-077	167-042	12	152.5	0.32	1.1	1.1	2.1	1.1	2.1
WMAIN-1847(2)(1)	167-042	J-9224	12	152.5	0.32	1.09	1.1	2.1	1.09	2.1
WMAIN-1847(2)(2)	J-9224	J-6830	12	152.5	0.32	1.09	1.1	2.1	1.09	2.1
WMAIN-1848	J-6972	167-041	12	152.5	0.32	1.1	1.1	2.1	1.1	2.1
WMAIN-1850	J-7387	J-6958	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-1853	J-6958	J-8483	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-1856(1)	J-6958	167-052	8	152.5	0.09	0.37	0.4	0.9	0.37	0.9
WMAIN-1856(2)	167-052	J-7549	8	152.5	0.09	0.39	0.4	0.9	0.39	0.9
WMAIN-1860	J-6746	J-6977	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-1862	J-6746	J-6194	8	152.5	0.03	0.15	0.3	0.5	0.15	0.5
WMAIN-1864	J-5265	J-6988	8	152.5	0.14	0.51	0.5	1.1	0.51	1.1
WMAIN-1869	167-075	J-5185	8	152.5	0	0	0	0	0	0
WMAIN-1871(1)	J-7371	167-051	8	152.5	0.08	0.35	0.4	0.9	0.35	0.9
WMAIN-1871(2)	167-051	J-7612	8	152.5	0.08	0.34	0.4	0.9	0.34	0.9
WMAIN-1873	J-7612	J-7387	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1877	J-7293	J-7371	8	152.5	0	0	0	0	0	0
WMAIN-1879(1)	J-7335	167-047	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-1879(2)	167-047	J-7612	8	152.5	0.01	0.06	0.2	0.4	0.06	0.4
WMAIN-1881	J-7548	J-7387	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1884(1)	J-7549	167-056	8	152.5	0.05	0.21	0.3	0.7	0.21	0.7
WMAIN-1884(2)	167-056	J-7370	8	152.5	0.05	0.22	0.3	0.7	0.22	0.7
WMAIN-1887	J-6957	J-6958	8	152.5	0.3	1.14	0.8	1.7	1.14	1.7
WMAIN-1889	J-7549	J-6427	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1892(1)	J-6831	167-048	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-1892(2)	167-048	J-7726	8	152.5	0.03	0.15	0.2	0.6	0.15	0.6
WMAIN-1895	J-7335	J-6831	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-1896(1)	J-7548	167-046	8	152.5	0	0	0	0.1	0	0
WMAIN-1896(2)	167-046	J-7335	8	152.5	0	0	0	0.1	0	0
WMAIN-1900	J-5262	J-5263	12	152.5	0.14	0.56	0.7	1.5	0.56	1.5
WMAIN-1902(1)	J-5262	167-044	12	152.5	0.03	0.15	0.3	0.7	0.15	0.7
WMAIN-1902(2)	167-044	J-6957	12	152.5	0.03	0.15	0.3	0.7	0.15	0.7
WMAIN-1904(1)(1)	J-6830	167-076	12	152.5	0.12	0.42	0.6	1.3	0.42	1.3
WMAIN-1904(1)(2)	167-076	167-043	12	152.5	0.12	0.42	0.6	1.3	0.42	1.3
WMAIN-1904(2)	167-043	J-5262	12	152.5	0.12	0.42	0.6	1.3	0.42	1.3
WMAIN-1906	J-6830	J-6831	8	152.5	0.05	0.32	0.3	0.8	0.32	0.8
WMAIN-1909(1)	J-6439	J-8718	16	140	0	0.09	0	0.6	0.02	0.3
WMAIN-1909(2)(1)	J-8718	035-044	16	140	0.16	0.37	0.8	1.3	0.34	1.2
WMAIN-1909(2)(2)	035-044	J-8494	16	140	0.16	0.37	0.8	1.3	0.34	1.2
WMAIN-1913	J-6041	J-7042	8	152.5	0.34	0.73	0.9	1.3	0.67	1.3
WMAIN-1914(1)	J-8638	035-039	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1914(2)	035-039	J-8639	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-1916(1)	J-8643	035-038	8	152.5	0	0.01	0.1	0.2	0.01	0.1
WMAIN-1916(2)	035-038	J-8638	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-1918(1)	J-8643	035-037	8	152.5	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-1918(2)	035-037	J-8646	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-1920	J-8639	J-6618	8	152.5	0	0	0	0	0	0
WMAIN-1922	J-8747	J-8639	8	152.5	0.02	0.03	0.2	0.3	0.03	0.2
WMAIN-1924	J-6041	J-8747	8	152.5	0.06	0.13	0.3	0.5	0.12	0.5
WMAIN-1925(1)	J-6040	035-041	8	152.5	0.12	0.27	0.5	0.8	0.25	0.7
WMAIN-1925(2)	035-041	J-6041	8	152.5	0.13	0.28	0.5	0.8	0.25	0.7
WMAIN-1926(1)	J-8142	J-8519	8	152.5	0	0	0	0	0	0
WMAIN-1926(2)(1)	J-8519	035-042	8	152.5	0.03	0.07	0.2	0.4	0.06	0.4
WMAIN-1926(2)(2)	035-042	J-6040	8	152.5	0.03	0.08	0.3	0.4	0.07	0.4
WMAIN-1929	J-8428	J-6040	8	152.5	0.03	0.07	0.2	0.4	0.06	0.4
WMAIN-1932	J-8643	J-8428	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-1936(1)	J-8428	035-040	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-1936(2)	035-040	J-8747	8	152.5	0.01	0.03	0.2	0.2	0.03	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1937	J-8799	J-8800	2	140	0.24	0.92	0.3	0.6	0.92	0.6
WMAIN-1938(1)	J-7818	040-028	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-1938(2)	040-028	J-8008	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-1946(1)	J-6641	041-024	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-1946(2)	041-024	J-7486	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-1947(1)	J-7587	041-028	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1947(2)	041-028	J-7588	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1948	J-8311	J-8312	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-1949	J-5566	J-5567	6	152.5	0	0	0	0	0	0
WMAIN-1950(1)	J-5533	021-013	10	140	0.02	0.18	0.2	0.7	0.18	0.7
WMAIN-1950(2)	021-013	J-6879	10	140	0.02	0.18	0.2	0.6	0.18	0.6
WMAIN-1951(1)	J-8146	021-014	6	140	0.02	0.21	0.1	0.5	0.21	0.5
WMAIN-1951(2)	021-014	J-6153	6	140	0.02	0.2	0.1	0.5	0.2	0.5
WMAIN-1952	J-7091	J-8355	4	140	0.08	0.55	0.2	0.7	0.55	0.7
WMAIN-1954	J-6334	J-6406	3	140	0.02	0.07	0.1	0.2	0.07	0.2
WMAIN-1955	J-6406	J-6236	3	140	0.02	0.17	0.1	0.3	0.17	0.3
WMAIN-1956	J-6880	J-6627	6	140	0.11	0.3	0.4	0.6	0.3	0.6
WMAIN-1957	J-5527	J-5591	4	140	0.03	0.42	0.1	0.6	0.42	0.6
WMAIN-1958	J-5591	J-5807	4	140	0.03	0.42	0.1	0.6	0.42	0.6
WMAIN-1959	J-6162	J-6163	6	152.5	0	0	0	0	0	0
WMAIN-1960	J-6447	021-001	6	152.5	0	0	0	0	0	0
WMAIN-1961	J-5108	J-5109	6	140	0	0	0	0	0	0
WMAIN-1962(1)(1)(1)	J-7161	J-9306	6	140	0.15	0.95	0.4	1.2	0.95	1.2
WMAIN-1962(1)(1)(2)	J-9306	028-040	6	140	0.15	0.96	0.4	1.2	0.96	1.2
WMAIN-1962(1)(2)	028-040	028-042	6	140	0.15	0.96	0.4	1.2	0.96	1.2
WMAIN-1962(2)	028-042	J-6679	6	140	0.15	0.96	0.4	1.2	0.96	1.2
WMAIN-1963(1)	028-044	028-031	6	140	0	0.06	0	0.3	0.05	0.2
WMAIN-1963(2)	028-031	J-6591	6	140	0	0.06	0	0.3	0.05	0.2
WMAIN-1966(1)	J-7852	040-031	8	152.5	0	0.29	0	0.8	0.28	0.8
WMAIN-1966(2)	040-031	J-7748	8	152.5	0	0.29	0	0.8	0.28	0.8
WMAIN-1968	J-5460	J-5461	6	140	0.1	0.22	0.3	0.5	0.22	0.5
WMAIN-1969	J-5465	J-5466	6	130	0	0.13	0.1	0.4	0.13	0.4
WMAIN-1970	J-5436	J-5437	8	140	0.12	0.31	0.5	0.8	0.31	0.8
WMAIN-1971(1)	J-5430	027-030	6	140	0.01	0.16	0.1	0.4	0.06	0.3
WMAIN-1971(2)(1)	027-030	027-029	6	140	0.01	0.15	0.1	0.4	0.05	0.2
WMAIN-1971(2)(2)	027-029	J-5216	6	140	0.01	0.15	0.1	0.4	0.05	0.2
WMAIN-1973	J-6444	J-5431	6	140	0.06	0.19	0.3	0.5	0.13	0.4
WMAIN-1974	J-5387	J-5322	6	140	0.01	0.1	0.1	0.4	0.03	0.2
WMAIN-1975	J-5251	J-5252	6	140	0.1	0.29	0.3	0.6	0.26	0.6
WMAIN-1976	J-5272	J-5273	4	140	0	0.15	0	0.3	0.15	0.3
WMAIN-1978	J-5272	J-5972	6	130	0	0.01	0	0.1	0	0
WMAIN-1980(1)	J-5519	021-002	6	140	0.06	0.4	0.3	0.7	0.4	0.7
WMAIN-1980(2)	021-002	J-5520	6	140	0.06	0.4	0.3	0.7	0.4	0.7
WMAIN-1981(1)	J-5732	022-027	6	140	0	0	0	0	0	0
WMAIN-1981(2)	022-027	J-8097	6	140	0	0	0	0	0	0
WMAIN-1982(1)	J-7376	053-015	6	140	0.01	0.03	0.1	0.2	0.02	0.1
WMAIN-1982(2)	053-015	J-6138	6	140	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-1984	J-5434	J-5435	8	140	0	0.14	0	0.5	0.06	0.3
WMAIN-1986	J-7057	J-5435	8	140	0.01	0.14	0.1	0.5	0.14	0.5
WMAIN-1987	J-5234	J-5235	8	140	0	0.11	0.1	0.4	0.08	0.4
WMAIN-1988	J-5235	J-7057	8	140	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-1989(1)	J-5566	029-017A	2	130	0.05	0.17	0.1	0.2	0.11	0.2
WMAIN-1989(2)	029-017A	J-5470	2	130	0	0.02	0	0.1	0.01	0
WMAIN-1990(1)	J-5567	029-027	6	140	0.05	0.17	0.3	0.5	0.14	0.4
WMAIN-1990(2)	029-027	J-5166	6	140	0.06	0.17	0.3	0.5	0.14	0.4
WMAIN-1992(1)	J-7748	040-036	8	152.5	0	0.31	0	0.8	0.31	0.8
WMAIN-1992(2)	040-036	J-7816	8	152.5	0	0.32	0	0.8	0.32	0.8
WMAIN-1994	J-8147	J-5808	10	140	0.04	0.25	0.3	0.8	0.25	0.8
WMAIN-1995(1)	J-7425	023-030	10	152.5	0.02	0.27	0.2	0.9	0.08	0.5
WMAIN-1995(2)	023-030	J-7426	10	152.5	0.02	0.27	0.2	0.9	0.08	0.5
WMAIN-1997	J-7278	J-7279	8	140	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-1998(1)	J-7941	042-008	8	140	0.12	0.92	0.5	1.4	0.92	1.4
WMAIN-1998(2)	042-008	J-5559	8	140	0.12	0.93	0.5	1.4	0.93	1.4
WMAIN-2002	J-7278	J-7941	8	140	0.06	0.47	0.3	1	0.47	1
WMAIN-2004(1)(1)	J-7279	042-006	8	140	0.02	0.27	0.2	0.7	0.27	0.7
WMAIN-2004(1)(2)	042-006	042-053	8	140	0.02	0.26	0.2	0.7	0.26	0.7
WMAIN-2004(2)	042-053	J-7330	8	140	0.02	0.26	0.2	0.7	0.26	0.7
WMAIN-2005	J-7239	J-7934	6	140	0.03	0.14	0.2	0.4	0.14	0.4
WMAIN-2007	J-7138	J-8366	8	140	0.05	0.32	0.3	0.8	0.32	0.8
WMAIN-2009(1)	J-7139	042-060	8	140	0.03	0.25	0.2	0.7	0.25	0.7
WMAIN-2009(2)	042-060	J-7077	8	140	0.03	0.26	0.2	0.7	0.26	0.7
WMAIN-2011(1)	J-7077	042-061	8	140	0.04	0.29	0.3	0.7	0.29	0.7
WMAIN-2011(2)	042-061	J-7051	8	140	0.04	0.3	0.3	0.7	0.3	0.7
WMAIN-2014	J-7051	J-7052	8	140	0.12	0.6	0.5	1.1	0.6	1.1
WMAIN-2017(1)	J-7138	042-059	8	140	0	0.04	0	0.2	0.01	0.1
WMAIN-2017(2)	042-059	J-7139	8	140	0	0.04	0	0.2	0.01	0.1
WMAIN-2019	J-7076	J-7077	6	140	0	0	0	0	0	0
WMAIN-2022(1)	J-8460	042-058	8	152.5	0.05	0.29	0.3	0.8	0.29	0.8
WMAIN-2022(2)	042-058	J-7138	8	152.5	0.06	0.33	0.3	0.9	0.33	0.9
WMAIN-2026	J-6928	J-7051	6	140	0.05	0.29	0.2	0.6	0.26	0.6
WMAIN-2029	J-5839	J-7139	6	140	0.09	0.65	0.3	1	0.65	1
WMAIN-2031(1)	J-7810	043-003	8	140	0.14	0.63	0.5	1.1	0.63	1.1
WMAIN-2031(2)	043-003	J-7934	8	140	0.14	0.62	0.5	1.1	0.62	1.1
WMAIN-2034(1)	J-7558	042-057	8	152.5	0	0.06	0	0.3	0.04	0.3
WMAIN-2034(2)	042-057	J-8460	8	152.5	0	0.06	0	0.3	0.04	0.3
WMAIN-2035(1)	J-8459	042-056	8	152.5	0.05	0.41	0.3	1	0.41	1
WMAIN-2035(2)	042-056	J-8460	8	152.5	0.06	0.43	0.3	1	0.43	1
WMAIN-2036	J-8036	J-7553	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-2039	J-7330	J-7331	8	140	0.11	1.13	0.4	1.5	1.13	1.5
WMAIN-2041(1)	J-8036	042-049	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-2041(2)	042-049	J-6061	8	152.5	0.02	0.15	0.2	0.6	0.15	0.6
WMAIN-2043(1)(1)	J-7331	042-051	8	152.5	0.01	0.16	0.1	0.6	0.16	0.6
WMAIN-2043(1)(2)	042-051	042-050	8	152.5	0.01	0.14	0.1	0.5	0.14	0.5
WMAIN-2043(2)	042-050	J-8036	8	152.5	0.01	0.14	0.1	0.5	0.14	0.5
WMAIN-2047(1)(1)	J-7330	042-054	8	152.5	0.04	0.36	0.3	0.9	0.36	0.9
WMAIN-2047(1)(2)	042-054	042-055	8	152.5	0.05	0.39	0.3	0.9	0.39	0.9
WMAIN-2047(2)	042-055	J-8459	8	152.5	0.05	0.39	0.3	0.9	0.39	0.9
WMAIN-2049(1)(1)(1)	J-7331	041-020	8	140	0.04	0.41	0.3	0.9	0.41	0.9
WMAIN-2049(1)(1)(2)	041-020	042-052	8	140	0.02	0.39	0.2	0.9	0.39	0.9
WMAIN-2049(1)(2)	042-052	042-048	8	140	0.04	0.39	0.2	0.9	0.39	0.9
WMAIN-2049(2)	042-048	J-6798	8	140	0.04	0.39	0.2	0.9	0.39	0.9
WMAIN-2052	J-6061	J-6798	8	152.5	0.01	0.13	0.2	0.5	0.13	0.5
WMAIN-2055(1)	J-6797	042-047	8	152.5	0.13	1.38	0.5	1.9	1.38	1.9
WMAIN-2055(2)	042-047	J-7312	8	152.5	0.13	1.38	0.5	1.9	1.38	1.9
WMAIN-2057	J-6061	J-6062	6	152.5	0	0	0	0	0	0
WMAIN-2059	J-5664	J-5493	6	152.5	0.01	0.11	0.1	0.4	0.11	0.4
WMAIN-2062(1)	J-7528	042-034	6	152.5	0.02	0.14	0.2	0.4	0.14	0.4
WMAIN-2062(2)	042-034	J-5493	6	152.5	0.02	0.13	0.1	0.4	0.13	0.4
WMAIN-2063(1)	J-7641	042-041	8	152.5	0.07	0.55	0.4	1.1	0.55	1.1
WMAIN-2063(2)	042-041	J-7086	8	152.5	0.07	0.56	0.4	1.1	0.56	1.1
WMAIN-2065	J-7528	J-7641	8	152.5	0.09	0.66	0.4	1.2	0.66	1.2
WMAIN-2067(1)	J-7527	042-035	8	152.5	0.05	0.4	0.3	1	0.4	1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2067(2)	042-035	J-7528	8	152.5	0.05	0.41	0.3	1	0.41	1
WMAIN-2070	J-5840	J-7086	8	140	0.1	0.75	0.4	1.2	0.75	1.2
WMAIN-2072(1)	J-7086	042-042	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2072(2)	042-042	J-6751	6	152.5	0	0	0	0.1	0	0.1
WMAIN-2073	J-6751	J-6752	6	152.5	0	0	0	0	0	0
WMAIN-2074(1)	J-7931	042-033	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2074(2)	042-033	J-7641	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2076(1)	J-7553	042-037	8	152.5	0.06	0.53	0.4	1.1	0.53	1.1
WMAIN-2076(2)	042-037	J-7527	8	152.5	0.07	0.54	0.4	1.1	0.54	1.1
WMAIN-2080(1)	J-7672	042-032	8	140	0.11	0.87	0.4	1.3	0.87	1.3
WMAIN-2080(2)	042-032	J-7931	8	140	0.11	0.86	0.4	1.3	0.86	1.3
WMAIN-2081	J-6947	J-7931	8	152.5	0.06	0.56	0.3	1.1	0.56	1.1
WMAIN-2084(1)	J-6588	J-9284	6	152.5	0	0	0	0.1	0	0.1
WMAIN-2084(2)	J-9284	J-8439	6	152.5	0	0	0	0	0	0
WMAIN-2086	J-6947	J-6948	6	152.5	0	0	0	0	0	0
WMAIN-2087(1)	J-6588	055-017	12	152.5	0.06	0.48	0.5	1.4	0.48	1.4
WMAIN-2087(2)	055-017	J-6561	12	152.5	0.06	0.48	0.5	1.4	0.48	1.4
WMAIN-2089	J-6561	J-6562	12	152.5	0.02	0.18	0.3	0.8	0.18	0.8
WMAIN-2092(1)	J-6562	055-016	12	152.5	0.05	0.43	0.4	1.3	0.43	1.3
WMAIN-2092(2)	055-016	J-8101	12	152.5	0.05	0.43	0.4	1.3	0.43	1.3
WMAIN-2094(1)	J-6517	J-9283	6	152.5	0	0	0	0	0	0
WMAIN-2094(2)	J-9283	J-6754	6	152.5	0	0	0	0	0	0
WMAIN-2095	J-5220	J-5178	8	140	0.01	0.3	0.1	0.7	0.3	0.7
WMAIN-2096	J-5178	J-5179	8	140	0	0.25	0.1	0.7	0.25	0.7
WMAIN-2097(1)	J-5179	028-025	8	140	0	0.24	0.1	0.7	0.24	0.7
WMAIN-2097(2)	028-025	J-5234	8	140	0	0.24	0.1	0.7	0.24	0.7
WMAIN-2098	J-5417	J-5094	12	140	0.04	0.43	0.3	1.2	0.18	0.7
WMAIN-2101	J-5197	029-031	6	130	0.06	0.2	0.2	0.5	0.13	0.4
WMAIN-2102	J-5197	J-6927	6	130	0.16	0.83	0.4	1	0.83	1
WMAIN-2103	J-5100	J-5101	6	152.5	0.07	0.21	0.3	0.6	0.14	0.5
WMAIN-2104	J-5101	J-5201	6	152.5	0.24	0.77	0.6	1.1	0.52	0.9
WMAIN-2106	J-5119	J-5120	10	140	0	0.07	0	0.4	0.07	0.4
WMAIN-2107	J-5104	J-5105	16	140	0	0.12	0.1	0.7	0.01	0.2
WMAIN-2109	J-6150	J-6910	4	140	0	0	0	0	0	0
WMAIN-2110	J-5195	J-5196	6	152.5	0.03	0.08	0.2	0.3	0.06	0.3
WMAIN-2113	J-5321	J-5322	6	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-2115	J-5236	J-5237	12	110	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-2116	J-6627	J-6628	6	140	0.09	0.33	0.3	0.7	0.33	0.7
WMAIN-2117(1)	J-6628	J-8673	6	140	0.07	0.23	0.3	0.5	0.23	0.5
WMAIN-2117(2)	J-8673	J-5519	6	140	0	0.07	0.1	0.3	0.01	0.1
WMAIN-2118(1)	J-6619	J-9325	4	140	0.05	0.12	0.2	0.3	0.11	0.3
WMAIN-2118(2)	J-9325	J-5527	4	140	0.05	0.12	0.2	0.3	0.11	0.3
WMAIN-2120(1)	J-7361	022-026	10	140	0.02	0.15	0.2	0.6	0.07	0.4
WMAIN-2120(2)	022-026	J-7384	10	140	0.02	0.15	0.2	0.6	0.07	0.4
WMAIN-2121	J-7384	J-6966	10	140	0.01	0.08	0.1	0.4	0.02	0.2
WMAIN-2122	J-8361	J-5291	6	140	0.01	0.15	0.1	0.4	0.15	0.4
WMAIN-2123	J-8351	J-5238	10	140	0	0.04	0	0.3	0.04	0.3
WMAIN-2124(1)	J-8050	021-019	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2124(2)(1)	021-019	021-020	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-2124(2)(2)	021-020	J-7924	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-2125	J-7924	021-031	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-2126	021-031	J-5290	6	140	0.01	0.16	0.1	0.4	0.16	0.4
WMAIN-2127	J-5290	J-5291	6	140	0.01	0.16	0.1	0.4	0.16	0.4
WMAIN-2128	J-6569	J-6570	6	140	0	0.13	0	0.4	0.01	0.1
WMAIN-2130	J-5430	J-5431	6	140	0.03	0.24	0.2	0.6	0.14	0.4
WMAIN-2131	J-6398	J-6905	6	140	0.09	0.4	0.3	0.7	0.4	0.7
WMAIN-2133	J-5955	J-5956	8	140	0.07	0.22	0.3	0.6	0.21	0.6
WMAIN-2135	J-7385	J-6366	6	140	0.02	0.15	0.1	0.4	0.15	0.4
WMAIN-2136	J-6391	J-6388	6	140	0.04	0.11	0.2	0.4	0.11	0.4
WMAIN-2138	J-6390	J-6391	6	140	0.06	0.2	0.3	0.5	0.2	0.5
WMAIN-2140	029-029	J-6244	6	140	0	0.03	0	0.2	0	0
WMAIN-2142	J-6244	J-7423	6	140	0.04	0.12	0.2	0.4	0.1	0.3
WMAIN-2144	J-5587	J-5588	4	140	0.61	1.83	0.7	1.3	1.83	1.3
WMAIN-2146	J-5975	J-5470	6	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-2148	J-6750	J-5321	6	130	0	0.05	0	0.2	0.01	0.1
WMAIN-2149	J-6926	J-6803	6	140	0.09	0.49	0.3	0.8	0.49	0.8
WMAIN-2151	J-6809	J-6810	6	140	0.12	0.65	0.4	0.9	0.65	0.9
WMAIN-2152(1)	J-6121	028-034	6	140	0.26	1.38	0.6	1.4	1.38	1.4
WMAIN-2152(2)	028-034	J-6214	6	140	0.26	1.38	0.6	1.4	1.38	1.4
WMAIN-2153	J-8152	J-8094	6	140	0.1	0.41	0.3	0.7	0.41	0.7
WMAIN-2155(1)	J-7161	028-039	6	140	0.14	0.92	0.4	1.1	0.92	1.1
WMAIN-2155(2)	028-039	J-6065	6	140	0.14	0.91	0.4	1.1	0.91	1.1
WMAIN-2157	J-5481	028-043	6	130	0.01	0.32	0.1	0.6	0.32	0.6
WMAIN-2158	J-6302	J-5197	6	130	0.01	0.33	0.1	0.6	0.33	0.6
WMAIN-2159(1)	028-043	J-9309	6	130	0.01	0.32	0.1	0.6	0.32	0.6
WMAIN-2159(2)	J-9309	J-6302	6	130	0.01	0.33	0.1	0.6	0.33	0.6
WMAIN-2161	J-6495	J-5745	6	130	0.08	0.44	0.3	0.7	0.44	0.7
WMAIN-2162	J-6885	J-6821	6	140	0	0.11	0	0.4	0	0
WMAIN-2164(1)	J-6822	020-004	6	140	0.09	0.3	0.3	0.6	0.24	0.5
WMAIN-2164(2)(1)	020-004	029-033	6	140	0.09	0.29	0.3	0.6	0.24	0.5
WMAIN-2164(2)(2)	029-033	J-5322	6	140	0.09	0.29	0.3	0.6	0.24	0.5
WMAIN-2166	J-6789	J-6530	6	140	0.18	0.81	0.5	1.1	0.81	1.1
WMAIN-2168(1)	J-6530	020-009	6	140	0.18	0.81	0.5	1.1	0.81	1.1
WMAIN-2168(2)	020-009	J-5826	6	140	0.18	0.81	0.5	1.1	0.81	1.1
WMAIN-2169	J-5826	J-7929	6	140	0.04	0.22	0.2	0.5	0.22	0.5
WMAIN-2170(1)	J-6584	020-015	6	152.5	0.04	0.14	0.2	0.4	0.14	0.4
WMAIN-2170(2)	020-015	J-6585	6	152.5	0.04	0.14	0.2	0.4	0.14	0.4
WMAIN-2172	J-6623	J-6584	6	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-2174	J-6677	J-5383	2	120	1.03	4	0.5	1.1	4	1.1
WMAIN-2175(1)(1)	J-7122	J-9300	6	140	0	0.09	0	0.3	0.09	0.3
WMAIN-2175(1)(2)	J-9300	019-004	6	140	0	0.08	0	0.3	0.08	0.3
WMAIN-2175(2)	019-004	J-5873	6	140	0	0.08	0	0.3	0.08	0.3
WMAIN-2177	J-6340	J-5084	6	140	0	0.04	0	0.2	0	0
WMAIN-2178	J-5084	J-5085	6	140	0	0.03	0	0.2	0	0
WMAIN-2179(1)	J-8126	J-9268	6	140	0	0.02	0	0.1	0	0
WMAIN-2179(2)	J-9268	J-6340	6	140	0	0.02	0	0.1	0	0
WMAIN-2180	J-6769	J-6237	6	140	0	0	0	0	0	0
WMAIN-2182	J-6241	J-6053	6	140	0	0.17	0	0.5	0.17	0.5
WMAIN-2183	J-6053	021-037	6	140	0	0.16	0	0.4	0.16	0.4
WMAIN-2186(1)	J-6426	021-010	8	140	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-2186(2)	021-010	J-5100	8	140	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-2187	J-5201	J-5538	12	140	0	0	0	0	0	0
WMAIN-2188	J-5626	J-5999	8	140	0.14	0.41	0.5	0.9	0.34	0.8
WMAIN-2189	J-6153	J-5532	6	140	0.04	0.32	0.2	0.6	0.32	0.6
WMAIN-2191	J-6879	J-5343	10	140	0	0.09	0	0.4	0.09	0.4
WMAIN-2193	J-8235	J-6879	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-2195	J-5808	J-5737	10	140	0.03	0.19	0.2	0.7	0.19	0.7
WMAIN-2196	J-5737	J-5738	10	140	0.03	0.19	0.2	0.7	0.19	0.7
WMAIN-2198	J-6629	J-6630	8	140	0	0	0	0	0	0
WMAIN-2200	J-6313	J-6314	6	130	0	0.23	0.1	0.5	0.23	0.5
WMAIN-2201	J-6314	J-5485	6	130	0.11	0.52	0.3	0.8	0.52	0.8
WMAIN-2202	J-5485	J-5486	6	130	0.05	0.32	0.2	0.6	0.32	0.6

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2203	J-5486	J-5466	6	130	0.05	0.29	0.2	0.6	0.29	0.6
WMAIN-2205	J-5643	J-6629	8	140	0.05	0.19	0.3	0.6	0.19	0.6
WMAIN-2206(1)	J-5642	021-005	8	140	0	0.03	0	0.2	0.03	0.2
WMAIN-2206(2)	021-005	J-5643	8	140	0	0.03	0	0.2	0.03	0.2
WMAIN-2208	J-6046	J-6021	6	140	0	0.18	0	0.5	0.18	0.5
WMAIN-2209	J-6021	J-5561	6	140	0	0.19	0	0.5	0.19	0.5
WMAIN-2210	J-5561	J-5562	6	140	0	0.12	0	0.4	0.12	0.4
WMAIN-2211(1)	J-5562	J-9335	6	140	0	0.14	0	0.4	0.14	0.4
WMAIN-2211(2)(1)	J-9335	J-9313	6	140	0	0.15	0	0.4	0.15	0.4
WMAIN-2211(2)(2)	J-9313	J-5642	6	140	0	0.15	0	0.4	0.15	0.4
WMAIN-2213	J-6649	J-6046	6	140	0.04	0.13	0.2	0.4	0.11	0.4
WMAIN-2215(1)	J-6649	021-008	6	130	0	0.13	0.1	0.4	0.13	0.4
WMAIN-2215(2)	021-008	J-5465	6	130	0	0.13	0.1	0.4	0.13	0.4
WMAIN-2216(1)(1)	J-7486	041-025	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2216(1)(2)	041-025	041-026	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-2216(2)	041-026	J-8312	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-2217(1)	J-8312	041-027	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-2217(2)	041-027	J-7588	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2218	J-7588	J-7486	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-2219	J-6797	J-6798	8	152.5	0.07	0.78	0.4	1.4	0.78	1.4
WMAIN-2221(1)	J-5535	038-005	16	140	0	0.22	0	1	0.19	0.9
WMAIN-2221(2)	038-005	J-7164	16	140	0	0.22	0	1	0.19	0.9
WMAIN-2222(1)	J-7164	J-5338	16	140	0	0.1	0	0.6	0.07	0.5
WMAIN-2222(2)	J-5338	J-6423	16	140	0	0.09	0	0.6	0.07	0.5
WMAIN-2224	J-5848	J-5849	16	140	0	0.13	0	0.7	0	0
WMAIN-2225	J-7895	J-8255	8	140	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-2227(1)	J-7585	030-012	6	140	0.06	0.18	0.3	0.5	0.18	0.5
WMAIN-2227(2)	030-012	J-7879	6	140	0.07	0.19	0.3	0.5	0.19	0.5
WMAIN-2228(1)	J-7879	030-013	6	140	0.12	0.36	0.4	0.7	0.36	0.7
WMAIN-2228(2)	030-013	J-6889	6	140	0.12	0.37	0.4	0.7	0.37	0.7
WMAIN-2230	J-6351	J-6889	8	140	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-2231	J-6106	J-7904	6	140	0	0	0	0	0	0
WMAIN-2232(1)	J-7904	030-014	6	140	0.02	0.06	0.1	0.3	0.06	0.3
WMAIN-2232(2)	030-014	J-5478	6	140	0.02	0.07	0.2	0.3	0.07	0.3
WMAIN-2234	J-6289	J-7294	8	140	0.08	0.22	0.4	0.6	0.22	0.6
WMAIN-2235	027-017	J-7744	8	140	0.01	0.12	0.1	0.4	0.02	0.2
WMAIN-2237	J-6722	J-5058	6	140	0.28	1.02	0.6	1.2	1.02	1.2
WMAIN-2238	J-6868	J-6805	6	140	0.02	0.35	0.1	0.7	0.35	0.7
WMAIN-2240(1)	J-6805	029-016	6	140	0.14	0.68	0.4	1	0.68	1
WMAIN-2240(2)	029-016	J-6806	6	140	0.14	0.65	0.4	0.9	0.65	0.9
WMAIN-2241	J-6806	028-029	6	140	0.22	0.87	0.5	1.1	0.87	1.1
WMAIN-2242	028-046	J-6631	6	140	0.26	1.37	0.6	1.4	1.37	1.4
WMAIN-2243(1)	J-6631	028-028	6	140	0.05	0.64	0.2	0.9	0.64	0.9
WMAIN-2243(2)	028-028	J-6632	6	140	0.05	0.63	0.2	0.9	0.63	0.9
WMAIN-2245(1)	J-6744	028-027	6	110	0.07	0.93	0.2	0.9	0.93	0.9
WMAIN-2245(2)	028-027	J-6718	6	110	0.06	0.9	0.2	0.9	0.9	0.9
WMAIN-2246	J-6718	J-6719	6	140	0.11	0.88	0.4	1.1	0.88	1.1
WMAIN-2248(1)	J-5818	028-033	8	140	0.14	0.52	0.5	1	0.52	1
WMAIN-2248(2)	028-033	J-6066	8	140	0.15	0.53	0.5	1	0.53	1
WMAIN-2249	J-5058	J-5289	6	140	0.28	1.03	0.6	1.2	1.03	1.2
WMAIN-2250(1)	J-5579	036-050	8	140	0.01	0.17	0.1	0.5	0.17	0.5
WMAIN-2250(2)	036-050	J-8500	8	140	0.01	0.16	0.1	0.5	0.16	0.5
WMAIN-2253(1)	J-6056	036-037	8	140	0.02	0.17	0.2	0.5	0.17	0.5
WMAIN-2253(2)	036-037	J-5579	8	140	0.01	0.12	0.1	0.5	0.12	0.5
WMAIN-2254	J-6281	J-6282	8	152.5	0.09	0.21	0.4	0.7	0.21	0.7
WMAIN-2256(1)	J-8584	034-027	8	152.5	0	0	0	0	0	0
WMAIN-2256(2)	034-027	J-6281	8	152.5	0	0	0	0	0	0
WMAIN-2259(1)	J-7740	034-032	8	152.5	0.04	0.07	0.3	0.4	0.07	0.4
WMAIN-2259(2)	034-032	J-8001	8	152.5	0.05	0.09	0.3	0.4	0.09	0.4
WMAIN-2261	J-8001	J-7883	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-2262	J-7883	J-7855	8	152.5	0.04	0.1	0.3	0.4	0.1	0.4
WMAIN-2264(1)	J-5087	037-048	8	140	0.18	0.74	0.6	1.2	0.74	1.2
WMAIN-2264(2)	037-048	J-6523	8	140	0.18	0.73	0.6	1.2	0.73	1.2
WMAIN-2265(1)	J-6609	037-001	12	140	0	0.31	0.1	1	0.03	0.3
WMAIN-2265(2)	037-001	J-6355	12	140	0	0.31	0.1	1	0.03	0.3
WMAIN-2266(1)	J-6423	038-006	16	140	0	0.06	0	0.5	0.04	0.4
WMAIN-2266(2)	038-006	J-5848	16	140	0	0.06	0	0.5	0.04	0.4
WMAIN-2268	J-7553	J-8051	8	152.5	0.04	0.47	0.3	1	0.47	1
WMAIN-2270(1)	J-8051	042-039	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-2270(2)	042-039	J-6945	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-2271	J-6945	J-7372	8	152.5	0.01	0.14	0.2	0.5	0.14	0.5
WMAIN-2272(1)	J-7372	042-040	8	152.5	0.01	0.13	0.1	0.5	0.13	0.5
WMAIN-2272(2)	042-040	J-6797	8	152.5	0.01	0.13	0.1	0.5	0.13	0.5
WMAIN-2274(1)	J-7211	012-065	8	152.5	0	0	0	0	0	0
WMAIN-2274(2)	012-065	J-8073	8	152.5	0	0	0	0	0	0
WMAIN-2276(1)	J-8129	009-032	12	152.5	0	0.46	0	1.3	0.01	0.2
WMAIN-2276(2)	009-032	J-8243	12	152.5	0	0.47	0	1.3	0.01	0.1
WMAIN-2278(1)	J-7205	009-002	8	152.5	0.01	0.07	0.1	0.4	0.02	0.2
WMAIN-2278(2)	009-002	J-8610	8	152.5	0.01	0.09	0.1	0.4	0.04	0.3
WMAIN-2280(1)	J-6965	009-009	8	152.5	0.01	0.05	0.2	0.3	0.03	0.3
WMAIN-2280(2)(1)	009-009	009-005	8	152.5	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-2280(2)(2)	009-005	J-6739	8	152.5	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-2282(1)	J-7729	170-067	8	152.5	0.06	0.2	0.3	0.7	0.2	0.7
WMAIN-2282(2)	170-067	J-7730	8	152.5	0.06	0.21	0.4	0.7	0.21	0.7
WMAIN-2286(1)	J-7729	170-066	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-2286(2)	170-066	J-7939	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-2287	J-8998	J-6418	8	152.5	0.02	0.2	0.2	0.7	0.02	0.2
WMAIN-2288(1)	J-6453	168-025	8	152.5	0.09	0.16	0.4	0.6	0.16	0.6
WMAIN-2288(2)	168-025	J-8273	8	152.5	0.09	0.16	0.4	0.6	0.16	0.6
WMAIN-2290	J-8273	J-6418	8	152.5	0.14	0.34	0.5	0.9	0.34	0.9
WMAIN-2293	J-6418	J-7776	8	152.5	0.65	0.87	1.2	1.4	0.87	1.4
WMAIN-2295	J-7776	J-8441	8	152.5	0.29	0.41	0.8	1	0.41	1
WMAIN-2296(1)	J-6335	168-103	8	152.5	0.18	0.45	0.6	1	0.45	1
WMAIN-2296(2)(1)	168-103	168-026	8	152.5	0.18	0.45	0.6	1	0.45	1
WMAIN-2296(2)(2)	168-026	J-7957	8	152.5	0.18	0.45	0.6	1	0.45	1
WMAIN-2298	J-7957	J-7603	8	152.5	0.15	0.29	0.6	0.8	0.29	0.8
WMAIN-2301	J-7603	J-7604	8	152.5	0.99	1.48	1.6	1.9	1.48	1.9
WMAIN-2303(1)	J-7604	168-023	8	152.5	1.01	1.52	1.6	2	1.52	2
WMAIN-2303(2)	168-023	J-6870	8	152.5	1.02	1.53	1.6	2	1.53	2
WMAIN-2309(1)	J-8441	168-024	8	152.5	0.32	0.46	0.8	1	0.46	1
WMAIN-2309(2)	168-024	J-6870	8	152.5	0.33	0.49	0.9	1.1	0.49	1.1
WMAIN-2311	J-6872	J-7196	8	152.5	0.12	0.26	0.5	0.8	0.16	0.6
WMAIN-2313(1)	J-6871	168-014	8	152.5	0	0.1	0	0.4	0.1	0.4
WMAIN-2313(2)	168-014	J-6872	8	152.5	0	0.1	0	0.4	0.1	0.4
WMAIN-2315(1)	J-7196	168-015	8	152.5	0.04	0.27	0.3	0.8	0.27	0.8
WMAIN-2315(2)	168-015	J-7197	8	152.5	0.04	0.27	0.3	0.8	0.27	0.8
WMAIN-2317(1)	J-7197	168-027	8	152.5	0.18	0.53	0.6	1.1	0.53	1.1
WMAIN-2317(2)	168-027	J-7731	8	152.5	0.18	0.53	0.6	1.1	0.53	1.1
WMAIN-2318	J-6950	J-7197	8	152.5	0.03	0.11	0.3	0.5	0.07	0.4
WMAIN-2320	J-8507	J-7731	8	152.5	0	0	0	0	0	0
WMAIN-2322(1)	J-7963	168-028	8	152.5	0.04	0.22	0.3	0.7	0.22	0.7
WMAIN-2322(2)	168-028	J-7645	8	152.5	0.04	0.23	0.3	0.7	0.23	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2325	J-6899	J-7645	8	152.5	0.03	0.09	0.2	0.4	0.06	0.3
WMAIN-2327(1)	J-6898	168-035	8	152.5	0.24	0.68	0.7	1.3	0.68	1.3
WMAIN-2327(2)	168-035	J-6899	8	152.5	0.24	0.68	0.7	1.3	0.68	1.3
WMAIN-2329	J-6300	J-6301	8	152.5	0	0	0	0	0	0
WMAIN-2331	J-8410	J-8689	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-2333(1)	J-7288	168-032	8	152.5	0.06	0.19	0.3	0.6	0.19	0.6
WMAIN-2333(2)	168-032	J-8410	8	152.5	0.06	0.2	0.4	0.7	0.2	0.7
WMAIN-2334	J-7962	J-7963	8	152.5	0.43	1.35	1	1.8	1.35	1.8
WMAIN-2338(1)	J-6300	168-030	8	152.5	0.15	0.47	0.6	1	0.47	1
WMAIN-2338(2)	168-030	J-7962	8	152.5	0.15	0.48	0.6	1.1	0.48	1.1
WMAIN-2340(1)	J-7288	168-034	8	152.5	0.14	0.42	0.5	1	0.42	1
WMAIN-2340(2)	168-034	J-6300	8	152.5	0.14	0.43	0.5	1	0.43	1
WMAIN-2342(1)	J-6068	168-033	8	152.5	0.33	1.03	0.9	1.6	1.03	1.6
WMAIN-2342(2)	168-033	J-7288	8	152.5	0.34	1.03	0.9	1.6	1.03	1.6
WMAIN-2344	J-6068	J-6069	12	152.5	0	0	0	0	0	0
WMAIN-2346(1)	J-8029	167-002	12	152.5	0.05	0.14	0.4	0.7	0.14	0.7
WMAIN-2346(2)	167-002	J-6068	12	152.5	0.05	0.14	0.4	0.7	0.14	0.7
WMAIN-2347(1)	J-8028	167-001	8	152.5	0	0	0	0	0	0
WMAIN-2347(2)	167-001	J-8029	8	152.5	0	0	0	0	0	0
WMAIN-2349	J-8524	J-8547	8	152.5	0	0	0	0	0	0
WMAIN-2352(1)	J-5818	J-9242	6	140	0.12	0.79	0.4	1.1	0.79	1.1
WMAIN-2352(2)	J-9242	J-6121	6	140	0.12	0.79	0.4	1.1	0.79	1.1
WMAIN-2353	J-5862	J-5923	6	140	0.13	0.83	0.4	1.1	0.83	1.1
WMAIN-2354(1)(1)	J-5923	J-9307	6	140	0.14	0.85	0.4	1.1	0.85	1.1
WMAIN-2354(1)(2)	J-9307	028-035	6	140	0.14	0.85	0.4	1.1	0.85	1.1
WMAIN-2354(2)	028-035	J-5668	6	140	0.14	0.85	0.4	1.1	0.85	1.1
WMAIN-2355	J-5668	J-5669	6	140	0.14	0.85	0.4	1.1	0.85	1.1
WMAIN-2356(1)	J-7530	036-055	6	140	0.17	0.35	0.5	0.7	0.26	0.6
WMAIN-2356(2)	036-055	J-5578	6	140	0.17	0.36	0.5	0.7	0.27	0.6
WMAIN-2357	J-5578	J-5579	6	140	0.17	0.36	0.5	0.7	0.27	0.6
WMAIN-2359(1)	J-7042	035-045	12	152.5	0.06	0.16	0.4	0.8	0.11	0.6
WMAIN-2359(2)	035-045	034-014	12	152.5	0.06	0.16	0.4	0.8	0.11	0.6
WMAIN-2361(1)	J-8494	034-010	12	152.5	0.01	0.06	0.2	0.4	0.03	0.3
WMAIN-2361(2)	034-010	J-7042	12	152.5	0.01	0.06	0.2	0.4	0.03	0.3
WMAIN-2363(1)	J-8494	034-003	16	140	0.12	0.27	0.7	1.1	0.26	1.1
WMAIN-2363(2)(1)	034-003	034-004	16	140	0.12	0.27	0.7	1.1	0.27	1.1
WMAIN-2363(2)(2)	034-004	J-8737	16	140	0.12	0.27	0.7	1.1	0.27	1.1
WMAIN-2365	J-8013	J-8014	8	152.5	0	0	0	0	0	0
WMAIN-2368(1)	J-8013	033-008	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-2368(2)	033-008	J-7995	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-2370(1)(1)	J-6473	032-022	8	140	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2370(1)(2)	032-022	032-020	8	140	0	0	0	0.1	0	0.1
WMAIN-2370(2)(1)	032-020	032-013	8	140	0	0	0	0.1	0	0.1
WMAIN-2370(2)(2)	032-013	J-8816	8	140	0	0	0	0.1	0	0.1
WMAIN-2371	031-023	J-5884	8	140	0.08	0.21	0.4	0.6	0.21	0.6
WMAIN-2373	J-6269	J-5588	4	140	0.21	0.64	0.4	0.7	0.64	0.7
WMAIN-2374(1)	J-6829	030-043	6	140	0.04	0.13	0.2	0.4	0.13	0.4
WMAIN-2374(2)	030-043	J-5587	6	140	0.04	0.13	0.2	0.4	0.13	0.4
WMAIN-2375(1)	J-5436	030-008	8	140	0.2	0.56	0.6	1	0.56	1
WMAIN-2375(2)	030-008	J-6351	8	140	0.21	0.56	0.6	1.1	0.56	1.1
WMAIN-2377(1)	J-8502	J-9289	4	152.5	0.09	0.24	0.3	0.5	0.24	0.5
WMAIN-2377(2)	J-9289	J-7904	4	152.5	0.12	0.31	0.3	0.5	0.31	0.5
WMAIN-2379	J-6105	J-6106	6	140	0	0	0	0	0	0
WMAIN-2380(1)	J-7308	030-026	6	140	0.05	0.18	0.2	0.5	0.18	0.5
WMAIN-2380(2)	030-026	J-6390	6	140	0.06	0.19	0.3	0.5	0.19	0.5
WMAIN-2383(1)	J-7294	030-015	8	140	0.02	0.07	0.2	0.3	0.06	0.3
WMAIN-2383(2)	030-015	J-6905	8	140	0.03	0.08	0.2	0.4	0.07	0.3
WMAIN-2384	J-5956	J-6144	8	140	0.07	0.19	0.3	0.6	0.19	0.6
WMAIN-2386(1)	J-6889	031-001	8	140	0.13	0.34	0.5	0.8	0.34	0.8
WMAIN-2386(2)	031-001	J-5955	8	140	0.13	0.34	0.5	0.8	0.34	0.8
WMAIN-2387(1)(1)	J-6383	J-9328	6	130	0.06	0.18	0.2	0.4	0.18	0.4
WMAIN-2387(1)(2)	J-9328	029-036	6	130	0.06	0.18	0.2	0.4	0.18	0.4
WMAIN-2387(2)	029-036	J-6823	6	130	0.06	0.18	0.2	0.4	0.18	0.4
WMAIN-2389	J-5553	J-7385	6	140	0	0.09	0	0.3	0.09	0.3
WMAIN-2392	J-6868	J-6926	2	130	0.05	0.15	0.1	0.2	0.1	0.2
WMAIN-2393	029-031	J-5328	6	140	0.05	0.17	0.2	0.5	0.12	0.4
WMAIN-2394	J-5328	J-6809	6	140	0.05	0.16	0.2	0.4	0.11	0.4
WMAIN-2396	J-5095	J-5096	6	140	0	0.04	0	0.2	0	0
WMAIN-2398(1)	J-5096	029-039	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-2398(2)(1)	029-039	029-038	6	140	0.01	0.07	0.1	0.3	0.07	0.3
WMAIN-2398(2)(2)	029-038	J-6243	6	140	0.01	0.07	0.1	0.3	0.07	0.3
WMAIN-2399	J-5270	J-5271	6	140	0	1.21	0	1.3	0.16	0.4
WMAIN-2400	J-5241	J-5536	6	140	0.31	1.05	0.6	1.2	1.05	1.2
WMAIN-2402(1)	J-7423	029-023	6	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-2402(2)	029-023	J-7308	6	140	0.05	0.16	0.2	0.4	0.16	0.4
WMAIN-2404	J-7417	J-7423	6	140	0.02	0.1	0.1	0.3	0.1	0.3
WMAIN-2407	J-6388	J-6389	6	140	0.07	0.22	0.3	0.5	0.22	0.5
WMAIN-2408	J-6927	J-6495	6	130	0.06	0.37	0.3	0.7	0.37	0.7
WMAIN-2410(1)	J-6678	028-041	8	140	0.18	0.59	0.6	1.1	0.59	1.1
WMAIN-2410(2)(1)	028-041	J-9263	8	140	0.18	0.6	0.6	1.1	0.6	1.1
WMAIN-2410(2)(2)	J-9263	J-7369	8	140	0.18	0.6	0.6	1.1	0.6	1.1
WMAIN-2412	J-6678	J-5481	6	140	0.01	0.22	0.1	0.5	0.01	0.1
WMAIN-2414	J-5583	J-5818	8	140	0.27	1.2	0.7	1.6	1.2	1.6
WMAIN-2416	J-5861	J-6679	6	140	0.09	0.29	0.3	0.6	0.29	0.6
WMAIN-2418	J-5171	J-5172	6	140	0	0.08	0	0.3	0.07	0.3
WMAIN-2419	J-6719	028-019	8	140	0	0.09	0	0.4	0	0
WMAIN-2421	J-6555	J-6444	6	140	0.12	0.27	0.4	0.6	0.23	0.5
WMAIN-2423	J-7223	J-6341	8	152.5	0	0	0	0.1	0	0.1
WMAIN-2425	J-6569	J-6362	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-2428(1)(1)	022-020	022-013	4	140	0.01	0.09	0.1	0.3	0.09	0.3
WMAIN-2428(1)(2)	022-013	022-019	4	140	0	0.07	0	0.2	0.06	0.2
WMAIN-2428(2)	022-019	J-6674	4	140	0	0.05	0	0.2	0.04	0.2
WMAIN-2429	J-5252	022-020	4	140	0.02	0.17	0.1	0.4	0.17	0.4
WMAIN-2430	J-7424	J-7360	10	140	0.03	0.17	0.3	0.6	0.09	0.5
WMAIN-2431(1)	J-6570	J-9291	6	140	0.13	0.28	0.4	0.6	0.28	0.6
WMAIN-2431(2)	J-9291	J-5307	6	140	0.12	0.28	0.4	0.6	0.27	0.6
WMAIN-2432	J-5307	J-5308	6	140	0.12	0.28	0.4	0.6	0.26	0.6
WMAIN-2435(1)	J-7887	021-043	6	140	0.02	0.14	0.2	0.4	0.14	0.4
WMAIN-2435(2)	021-043	J-7926	6	140	0.01	0.1	0.1	0.3	0.1	0.3
WMAIN-2437(1)	J-8094	J-9324	10	140	0.06	0.33	0.4	0.9	0.33	0.9
WMAIN-2437(2)	J-9324	J-8147	10	140	0.06	0.32	0.4	0.9	0.32	0.9
WMAIN-2439(1)	J-8152	021-015	6	140	0	0.12	0.1	0.4	0.12	0.4
WMAIN-2439(2)	021-015	J-8146	6	140	0	0.11	0	0.4	0.11	0.4
WMAIN-2440(1)(1)	J-5308	J-9292	8	140	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-2440(1)(2)	J-9292	J-6447	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-2440(2)	J-6447	J-5519	8	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-2442	J-5520	J-6046	6	140	0.07	0.43	0.3	0.8	0.43	0.8
WMAIN-2443	J-5239	J-5732	6	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-2445	J-5120	J-8050	6	140	0	0.01	0	0.1	0	0
WMAIN-2446(1)	J-6100	021-016	4	140	0.17	0.92	0.4	0.9	0.92	0.9
WMAIN-2446(2)(1)	021-016	J-9322	4	140	0.17	0.91	0.4	0.9	0.91	0.9
WMAIN-2446(2)(2)	J-9322	J-7091	4	140	0.17	0.91	0.4	0.9	0.91	0.9

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2447	J-5101	J-6426	8	140	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-2450	J-6356	J-6885	6	140	0.04	0.28	0.2	0.6	0.28	0.6
WMAIN-2451	J-6765	J-5625	8	140	0	0.14	0	0.5	0.14	0.5
WMAIN-2452(1)	J-5625	020-007	8	140	0	0.14	0	0.5	0.14	0.5
WMAIN-2452(2)	020-007	J-5626	8	140	0	0.14	0	0.5	0.14	0.5
WMAIN-2454(1)(1)	J-5999	J-9303	8	140	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-2454(1)(2)	J-9303	020-002	8	140	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-2454(2)	020-002	J-6075	8	140	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-2456	J-6822	J-6818	6	152.5	0.09	0.28	0.4	0.7	0.27	0.6
WMAIN-2458	J-6356	J-6241	6	140	0.06	0.28	0.3	0.6	0.1	0.4
WMAIN-2460(1)	021-037	J-9304	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-2460(2)	J-9304	021-040	6	140	0.11	0.32	0.4	0.6	0.32	0.6
WMAIN-2462(1)(1)	J-6622	J-9014	6	152.5	0	0	0	0.1	0	0.1
WMAIN-2462(1)(2)	J-9014	020-014	6	152.5	0.02	0.07	0.2	0.3	0.07	0.3
WMAIN-2462(2)	020-014	J-6623	6	152.5	0.02	0.07	0.2	0.3	0.07	0.3
WMAIN-2464	J-7053	J-6622	2	140	0.03	0.11	0.1	0.2	0.11	0.2
WMAIN-2465	J-8355	J-5280	8	140	0.17	0.84	0.6	1.3	0.84	1.3
WMAIN-2467	J-5318	J-6237	4	140	0.03	0.05	0.1	0.2	0.04	0.2
WMAIN-2469(1)(1)	J-8421	J-9294	6	140	0.04	0.07	0.2	0.3	0.07	0.3
WMAIN-2469(1)(2)	J-9294	014-018	6	140	0.04	0.07	0.2	0.3	0.06	0.3
WMAIN-2469(2)	014-018	J-6769	6	140	0.04	0.07	0.2	0.3	0.06	0.3
WMAIN-2471(1)	J-6236	014-001	6	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-2471(2)	014-001	J-5709	6	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-2474	J-5451	J-5709	8	140	0.06	0.15	0.3	0.5	0.11	0.4
WMAIN-2477	J-7472	J-7473	8	152.5	0.18	0.72	0.6	1.3	0.72	1.3
WMAIN-2478	J-7472	J-7569	16	140	0.1	0.48	0.6	1.5	0.48	1.5
WMAIN-2480(1)	J-7887	021-044	16	140	0.06	0.3	0.5	1.2	0.3	1.2
WMAIN-2480(2)	021-044	J-7472	16	140	0.06	0.3	0.5	1.2	0.3	1.2
WMAIN-2483	J-6918	J-7810	8	140	0.04	0.2	0.2	0.6	0.08	0.4
WMAIN-2485(1)	J-8658	043-012	6	140	0.09	0.55	0.3	0.9	0.55	0.9
WMAIN-2485(2)	043-012	J-7636	6	140	0.09	0.59	0.3	0.9	0.59	0.9
WMAIN-2488(1)	J-7650	055-039	8	152.5	0.13	0.36	0.5	0.9	0.36	0.9
WMAIN-2488(2)	055-039	J-8020	8	152.5	0.13	0.36	0.5	0.9	0.36	0.9
WMAIN-2491	J-6410	J-6696	8	152.5	0.55	0.89	1.1	1.5	0.89	1.5
WMAIN-2493	J-6696	J-6697	8	152.5	0	0	0	0	0	0
WMAIN-2495(1)	J-7649	056-008	8	152.5	0.25	0.4	0.7	1	0.4	1
WMAIN-2495(2)	056-008	J-6409	8	152.5	0.26	0.42	0.7	1	0.42	1
WMAIN-2498(1)	J-8636	056-009	12	152.5	0.13	0.42	0.7	1.3	0.42	1.3
WMAIN-2498(2)	056-009	J-7649	12	152.5	0.14	0.43	0.7	1.3	0.43	1.3
WMAIN-2500	J-6945	J-6946	8	152.5	0	0	0	0	0	0
WMAIN-2501	J-5664	J-5665	6	152.5	0	0	0	0	0	0
WMAIN-2502(1)	J-7527	042-036	6	152.5	0.01	0.07	0.1	0.3	0.07	0.3
WMAIN-2502(2)	042-036	J-5664	6	152.5	0.01	0.09	0.1	0.3	0.09	0.3
WMAIN-2504(1)	J-7615	042-010	6	140	0	0	0	0.1	0	0.1
WMAIN-2504(2)	042-010	J-8670	6	140	0	0	0	0	0	0
WMAIN-2507(1)	J-7818	040-029	8	152.5	0	0.1	0	0.4	0.09	0.4
WMAIN-2507(2)	040-029	J-8305	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-2509(1)	J-7686	023-031	8	152.5	0	0	0	0	0	0
WMAIN-2509(2)	023-031	J-8487	8	152.5	0	0	0	0	0	0
WMAIN-2510(1)	J-7425	023-029	8	152.5	0	0	0	0	0	0
WMAIN-2510(2)	023-029	J-8595	8	152.5	0	0	0	0	0	0
WMAIN-2512(1)	J-8607	024-022	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2512(2)	024-022	J-5458	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2515(1)	J-6312	024-020	8	152.5	0	0	0	0.1	0	0
WMAIN-2515(2)	024-020	J-6994	8	152.5	0	0	0	0.1	0	0
WMAIN-2517(1)	J-6311	024-023	8	152.5	0	0.09	0	0.4	0.05	0.3
WMAIN-2517(2)	024-023	J-6520	8	152.5	0	0.09	0	0.4	0.05	0.3
WMAIN-2519	J-7204	J-7205	8	152.5	0	0.1	0	0.5	0.1	0.5
WMAIN-2520	J-6451	J-6311	10	152.5	0	0	0	0	0	0
WMAIN-2522(1)	J-6964	009-007	8	152.5	0.03	0.15	0.2	0.6	0.08	0.4
WMAIN-2522(2)	009-007	J-6965	8	152.5	0.03	0.15	0.3	0.6	0.09	0.4
WMAIN-2523(1)	J-8471	009-030	8	152.5	0.01	0.16	0.1	0.6	0.01	0.1
WMAIN-2523(2)	009-030	J-8472	8	152.5	0	0.15	0.1	0.6	0.01	0.1
WMAIN-2526(1)	J-8471	009-031	8	152.5	0.02	0.2	0.2	0.6	0.04	0.3
WMAIN-2526(2)	009-031	J-8243	8	152.5	0.04	0.22	0.3	0.7	0.07	0.4
WMAIN-2528	J-7855	J-6796	8	152.5	0.26	0.53	0.8	1.1	0.53	1.1
WMAIN-2530(1)	J-7661	034-031	8	152.5	0.11	0.18	0.5	0.6	0.18	0.6
WMAIN-2530(2)	034-031	J-7855	8	152.5	0.11	0.19	0.5	0.6	0.19	0.6
WMAIN-2532	J-7740	J-7661	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-2534(1)	J-7739	034-029	8	152.5	0.1	0.22	0.5	0.7	0.22	0.7
WMAIN-2534(2)	034-029	J-7740	8	152.5	0.1	0.23	0.5	0.7	0.23	0.7
WMAIN-2537	J-8135	J-7739	8	152.5	0.04	0.08	0.3	0.4	0.05	0.3
WMAIN-2540	J-6281	J-8135	8	152.5	0.1	0.22	0.4	0.7	0.22	0.7
WMAIN-2542(1)	J-6899	168-036	8	152.5	0.12	0.42	0.5	1	0.42	1
WMAIN-2542(2)	168-036	J-6872	8	152.5	0.12	0.45	0.5	1	0.45	1
WMAIN-2546(1)	J-8689	168-031	8	152.5	0.08	0.25	0.4	0.7	0.25	0.7
WMAIN-2546(2)	168-031	J-7962	8	152.5	0.08	0.27	0.4	0.8	0.27	0.8
WMAIN-2548	J-7645	J-7731	8	152.5	0.17	0.49	0.6	1.1	0.49	1.1
WMAIN-2552	J-8273	J-7957	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-2554(1)	J-7603	168-017	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-2554(2)(1)	168-017	168-018	8	152.5	0	0.07	0	0.4	0.07	0.4
WMAIN-2554(2)(2)	168-018	J-6418	8	152.5	0	0.07	0	0.4	0.07	0.4
WMAIN-2557(1)	J-7604	168-019	8	152.5	0.11	0.15	0.5	0.6	0.15	0.6
WMAIN-2557(2)	168-019	J-7776	8	152.5	0.1	0.13	0.5	0.5	0.13	0.5
WMAIN-2559(1)	J-8834	168-022	8	152.5	0.15	0.24	0.6	0.7	0.24	0.7
WMAIN-2559(2)	168-022	J-6870	8	152.5	0.17	0.27	0.6	0.8	0.27	0.8
WMAIN-2563(1)(1)	J-8834	168-021	8	152.5	0.13	0.18	0.5	0.6	0.18	0.6
WMAIN-2563(1)(2)	168-021	168-020	8	152.5	0.11	0.16	0.5	0.6	0.16	0.6
WMAIN-2563(2)	168-020	J-7604	8	152.5	0.11	0.16	0.5	0.6	0.16	0.6
WMAIN-2565(1)	J-7196	168-016	8	152.5	0.36	0.82	0.9	1.4	0.82	1.4
WMAIN-2565(2)	168-016	J-7603	8	152.5	0.37	0.84	0.9	1.4	0.84	1.4
WMAIN-2566(1)	J-6416	168-029	8	152.5	0.22	0.62	0.7	1.2	0.62	1.2
WMAIN-2566(2)	168-029	J-7963	8	152.5	0.21	0.6	0.7	1.2	0.6	1.2
WMAIN-2569(1)	J-6779	024-026	8	152.5	0	0	0	0	0	0
WMAIN-2569(2)	024-026	J-8443	8	152.5	0	0	0	0	0	0
WMAIN-2572	J-8610	J-6814	8	152.5	0.06	0.51	0.3	1.1	0.41	1
WMAIN-2575(1)	J-7954	J-5078	8	152.5	0.87	1.19	1.4	1.7	1.19	1.7
WMAIN-2575(2)(1)	J-5078	056-015	8	152.5	2.63	4.1	2.6	3.3	4.1	3.3
WMAIN-2575(2)(2)	056-015	J-8290	8	152.5	2.63	4.1	2.6	3.3	4.1	3.3
WMAIN-2576(1)	J-5105	023-005	16	140	0.02	0.15	0.2	0.8	0.03	0.3
WMAIN-2576(2)	023-005	J-6072	16	140	0.01	0.15	0.2	0.8	0.03	0.3
WMAIN-2577(1)(1)	J-6763	010-011	12	152.5	0	0.21	0.1	0.9	0.01	0.2
WMAIN-2577(1)(2)(1)(1)	010-011	011-039	12	152.5	0	0.2	0.1	0.9	0.02	0.2
WMAIN-2577(1)(2)(1)(2)	011-039	011-040	12	152.5	0	0.2	0.1	0.9	0.02	0.2
WMAIN-2577(1)(2)(2)	011-040	J-5863	12	152.5	0	0.2	0.1	0.9	0.02	0.2
WMAIN-2577(2)(1)	J-5863	010-010	12	152.5	0	0.2	0.1	0.8	0.02	0.2
WMAIN-2577(2)(2)(1)	010-010	011-033	12	152.5	0	0.2	0.1	0.8	0.02	0.2
WMAIN-2577(2)(2)(2)	011-033	J-7248	12	152.5	0	0.2	0.1	0.8	0.02	0.2
WMAIN-2578(1)	J-6762	011-041	12	152.5	0.07	0.32	0.5	1.1	0.09	0.5
WMAIN-2578(2)	011-041	J-6763	12	152.5	0.07	0.32	0.5	1.1	0.09	0.5
WMAIN-2579	J-8404	J-7862	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-2581	J-8403	J-8404	8	152.5	0.11	0.28	0.5	0.8	0.28	0.8

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2585(1)(1)	J-6866	170-106	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-2585(1)(2)	170-106	170-107	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-2585(2)	170-107	J-8403	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-2588	J-8325	J-8403	8	152.5	0.3	0.74	0.8	1.3	0.74	1.3
WMAIN-2590(1)	J-6280	012-063	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-2590(2)	012-063	J-7274	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2592(1)	J-6279	012-064	8	152.5	0	0	0	0.1	0	0.1
WMAIN-2592(2)	012-064	J-8392	8	152.5	0	0	0	0	0	0
WMAIN-2593(1)	J-6666	J-9285	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2593(2)	J-9285	J-6667	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2597	J-7990	J-7788	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-2598	J-7843	J-7990	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-2601(1)	J-7264	012-010	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-2601(2)	012-010	J-7265	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-2603(1)	J-7738	011-028	8	152.5	0.04	0.22	0.3	0.7	0.22	0.7
WMAIN-2603(2)	011-028	J-6504	8	152.5	0.04	0.22	0.3	0.7	0.22	0.7
WMAIN-2605	J-7264	J-7788	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-2608(1)	J-7842	012-013	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-2608(2)	012-013	J-7843	8	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-2609(1)(1)	J-7264	012-014	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-2609(1)(2)	012-014	012-015	8	152.5	0.01	0.06	0.2	0.4	0.06	0.4
WMAIN-2609(2)	012-015	J-7842	8	152.5	0.01	0.06	0.2	0.4	0.06	0.4
WMAIN-2612(1)	J-6814	009-003	12	152.5	0.07	0.66	0.5	1.6	0.66	1.6
WMAIN-2612(2)	009-003	J-6740	12	152.5	0.07	0.66	0.5	1.6	0.66	1.6
WMAIN-2613(1)	J-6964	009-008	12	152.5	0.11	0.58	0.6	1.5	0.58	1.5
WMAIN-2613(2)	009-008	J-5963	12	152.5	0.11	0.58	0.6	1.5	0.58	1.5
WMAIN-2616(1)	J-6965	009-006	8	152.5	0.01	0.05	0.2	0.3	0.03	0.2
WMAIN-2616(2)	009-006	J-6739	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-2618	J-6739	J-6740	8	152.5	0.07	0.22	0.4	0.7	0.17	0.6
WMAIN-2621	J-7686	J-7425	10	152.5	0.01	0.25	0.2	0.9	0.07	0.4
WMAIN-2623	J-7815	J-7686	10	152.5	0.01	0.24	0.1	0.8	0.06	0.4
WMAIN-2625	J-7701	J-7815	10	152.5	0.07	0.16	0.4	0.7	0.1	0.5
WMAIN-2627	J-6278	J-7701	10	152.5	0.06	0.15	0.4	0.6	0.09	0.5
WMAIN-2628	J-6137	J-6278	10	152.5	0.05	0.14	0.4	0.6	0.07	0.4
WMAIN-2630(1)	J-5964	024-003	12	152.5	0.01	0.6	0.2	1.5	0.55	1.5
WMAIN-2630(2)(1)	024-003	024-002	12	152.5	0.03	0.5	0.3	1.4	0.4	1.2
WMAIN-2630(2)(2)	024-002	J-7204	12	152.5	0.03	0.5	0.3	1.4	0.4	1.2
WMAIN-2632	J-5963	J-5964	18	110	0.08	0.91	0.5	1.8	0.91	1.8
WMAIN-2635(1)	J-5963	009-004	12	152.5	0.04	1.04	0.4	2.1	1.04	2.1
WMAIN-2635(2)	009-004	J-6814	12	152.5	0.04	1.04	0.4	2.1	1.04	2.1
WMAIN-2636(1)(1)	J-8796	024-005	8	152.5	0.01	0.56	0.1	1.1	0.42	1
WMAIN-2636(1)(2)	024-005	024-004	8	152.5	0.01	0.56	0.1	1.1	0.43	1
WMAIN-2636(2)	024-004	J-5963	8	152.5	0.01	0.56	0.1	1.1	0.43	1
WMAIN-2639(1)	J-5459	024-007	8	152.5	0.01	0.54	0.1	1.1	0.4	0.9
WMAIN-2639(2)(1)	024-007	024-006	8	152.5	0.01	0.54	0.1	1.1	0.4	1
WMAIN-2639(2)(2)	024-006	J-8796	8	152.5	0.01	0.54	0.1	1.1	0.4	1
WMAIN-2640	J-5458	J-5459	10	152.5	0.01	0.05	0.1	0.4	0.05	0.4
WMAIN-2641(1)	J-6780	024-009	8	152.5	0	0.14	0	0.5	0.07	0.4
WMAIN-2641(2)	024-009	J-5459	8	152.5	0	0.14	0	0.5	0.08	0.4
WMAIN-2643	J-6779	J-6780	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-2645	J-8512	J-6779	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-2647	J-6312	J-5458	10	152.5	0	0.03	0.1	0.3	0.03	0.2
WMAIN-2651	J-6311	J-6312	10	152.5	0	0.03	0	0.3	0.02	0.2
WMAIN-2653(1)	J-6520	024-024	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-2653(2)	024-024	J-8512	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-2657	J-8008	J-7852	8	152.5	0	0.26	0	0.8	0.26	0.7
WMAIN-2659	J-8305	J-8008	8	152.5	0	0.11	0	0.5	0.1	0.5
WMAIN-2660	J-6696	J-8290	8	152.5	0.56	0.92	1.1	1.5	0.92	1.5
WMAIN-2662(1)	J-8290	056-014	8	152.5	0.9	1.33	1.5	1.8	1.33	1.8
WMAIN-2662(2)	056-014	J-7917	8	152.5	0.89	1.31	1.5	1.8	1.31	1.8
WMAIN-2665(1)(1)(1)	J-5547	126-041	8	152.5	2.9	10.82	2.8	5.6	10.82	5.6
WMAIN-2665(1)(1)(2)	126-041	J-5945	8	152.5	2.91	10.88	2.8	5.7	10.88	5.7
WMAIN-2665(1)(2)	J-5945	J-5950	8	152.5	2.93	10.93	2.8	5.7	10.93	5.7
WMAIN-2665(2)	J-5950	J-6594	8	152.5	3.12	11.65	2.9	5.9	11.65	5.9
WMAIN-2667	J-7649	J-7650	12	152.5	0.04	0.21	0.4	0.9	0.21	0.9
WMAIN-2669(1)	J-7650	056-006	12	152.5	0.11	0.43	0.6	1.3	0.43	1.3
WMAIN-2669(2)	056-006	J-7954	12	152.5	0.11	0.43	0.6	1.3	0.43	1.3
WMAIN-2670	J-7994	J-7995	8	152.5	0	0	0	0	0	0
WMAIN-2672(1)	J-5324	031-024	8	140	0.09	0.24	0.4	0.7	0.24	0.7
WMAIN-2672(2)	031-024	031-023	8	140	0.08	0.21	0.4	0.6	0.21	0.6
WMAIN-2674(1)	J-6020	036-049	6	140	0	0	0	0	0	0
WMAIN-2674(2)	036-049	J-7050	6	140	0	0	0	0	0	0
WMAIN-2676(1)	J-7595	028-010	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2676(2)	028-010	028-011	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-2679(1)	J-8106	037-047	6	140	0	0.29	0	0.6	0.09	0.3
WMAIN-2679(2)	037-047	J-5463	6	140	0	0.25	0	0.6	0.13	0.4
WMAIN-2680	J-5463	J-5464	6	140	0	0.24	0	0.6	0.14	0.4
WMAIN-2682	J-5418	J-5537	8	140	0	0.24	0.1	0.7	0	0.1
WMAIN-2684	J-6868	J-6722	2	140	0.09	0.26	0.2	0.3	0.2	0.2
WMAIN-2687(1)	J-8500	036-033	6	140	0.12	0.29	0.4	0.6	0.19	0.5
WMAIN-2687(2)	036-033	J-5536	6	140	0.14	0.32	0.4	0.6	0.23	0.5
WMAIN-2690(1)	J-5917	037-046	8	152.5	0	0	0	0	0	0
WMAIN-2690(2)	037-046	J-8430	8	152.5	0	0	0	0	0	0
WMAIN-2692	J-7584	J-7585	6	140	0.07	0.17	0.3	0.5	0.17	0.5
WMAIN-2694(1)	J-6221	036-059	6	152.5	0	0	0	0	0	0
WMAIN-2694(2)	036-059	J-6222	6	152.5	0	0	0	0	0	0
WMAIN-2696	J-7008	J-7009	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2698(1)	J-7701	023-033	8	152.5	0	0	0	0	0	0
WMAIN-2698(2)	023-033	J-8465	8	152.5	0	0	0	0	0	0
WMAIN-2700(1)	J-6278	023-034	6	152.5	0	0	0	0.1	0	0.1
WMAIN-2700(2)	023-034	J-8464	6	152.5	0	0	0	0	0	0
WMAIN-2702(1)	J-6341	027-052	8	152.5	0	0	0	0	0	0
WMAIN-2702(2)	027-052	J-6342	8	152.5	0	0	0	0	0	0
WMAIN-2704(1)	J-7676	038-027	6	140	0	0.04	0.1	0.2	0.02	0.1
WMAIN-2704(2)	038-027	J-5832	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-2705	J-8641	J-5422	6	140	0	0.16	0	0.4	0.16	0.4
WMAIN-2707	J-7569	J-7570	16	140	0.12	0.55	0.7	1.6	0.55	1.6
WMAIN-2710(1)	J-6520	024-025	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-2710(2)	024-025	J-8512	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-2713	J-8607	J-6994	8	152.5	0	0	0	0	0	0
WMAIN-2716	J-6719	J-5220	8	140	0.01	0.24	0.1	0.7	0.24	0.7
WMAIN-2718(1)	J-5499	027-026	12	140	0.01	0.14	0.2	0.6	0.07	0.4
WMAIN-2718(2)	027-026	J-5215	12	140	0.01	0.14	0.2	0.6	0.07	0.4
WMAIN-2721	J-6474	J-5431	4	140	0	0.04	0	0.2	0	0.1
WMAIN-2725(1)	J-6475	027-033	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-2725(2)	027-033	J-6444	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-2726	J-7243	J-6150	2	130	0.04	0.17	0.1	0.2	0.17	0.2
WMAIN-2728	J-5273	J-5919	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-2730	J-5238	J-6966	10	140	0	0.07	0	0.4	0	0.1
WMAIN-2732(1)	J-5119	021-011	10	140	0	0.06	0	0.4	0.06	0.4
WMAIN-2732(2)(1)	021-011	J-9326	10	140	0	0.06	0	0.4	0.06	0.4
WMAIN-2732(2)(2)	J-9326	J-8351	10	140	0	0.06	0	0.4	0.06	0.4

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2733(1)	J-6150	J-9245	2	130	0.1	0.31	0.2	0.3	0.31	0.3
WMAIN-2733(2)	J-9245	J-5119	2	130	0.25	0.75	0.3	0.5	0.75	0.5
WMAIN-2734	021-012	J-6883	4	140	0.02	0.1	0.1	0.3	0.06	0.2
WMAIN-2735	J-6883	J-6880	4	140	0.01	0.05	0.1	0.2	0.02	0.1
WMAIN-2736	J-6879	J-6880	6	140	0.1	0.31	0.3	0.6	0.31	0.6
WMAIN-2738	J-5533	J-6649	6	140	0.1	0.28	0.3	0.6	0.28	0.6
WMAIN-2740	J-5738	J-5532	10	140	0.03	0.18	0.2	0.7	0.18	0.7
WMAIN-2742(1)(1)	J-7925	021-029	6	140	0.01	0.07	0.1	0.3	0.07	0.3
WMAIN-2742(1)(2)	021-029	021-021	6	140	0	0.04	0.1	0.2	0.04	0.2
WMAIN-2742(2)	021-021	J-8235	6	140	0	0.04	0.1	0.2	0.04	0.2
WMAIN-2743(1)	J-8355	021-023	8	140	0.19	0.96	0.6	1.4	0.96	1.4
WMAIN-2743(2)	021-023	J-8094	8	140	0.18	0.94	0.6	1.4	0.94	1.4
WMAIN-2747(1)	J-7390	021-024	6	140	0.17	0.77	0.5	1	0.77	1
WMAIN-2747(2)	021-024	J-7415	6	140	0.14	0.65	0.4	0.9	0.65	0.9
WMAIN-2749(1)(1)	J-7416	021-026	4	140	0.1	0.51	0.3	0.6	0.51	0.6
WMAIN-2749(1)(2)	021-026	J-9266	4	140	0.23	0.99	0.4	0.9	0.99	0.9
WMAIN-2749(2)	J-9266	J-7391	4	140	0.23	0.99	0.4	0.9	0.99	0.9
WMAIN-2752	J-8235	J-8050	2	140	0.01	0.17	0	0.2	0.17	0.2
WMAIN-2754	J-8351	021-018	6	140	0	0.02	0	0.2	0.01	0.1
WMAIN-2756(1)	J-8361	021-030	6	140	0	0.03	0	0.2	0	0
WMAIN-2756(2)	021-030	021-018	6	140	0	0.01	0	0.1	0	0.1
WMAIN-2758(1)	J-6966	022-028	6	140	0	0.08	0	0.3	0.06	0.3
WMAIN-2758(2)	022-028	J-8368	6	140	0	0.06	0.1	0.3	0.04	0.2
WMAIN-2759(1)	J-8374	022-037	6	140	0	0.05	0	0.2	0.05	0.2
WMAIN-2759(2)	022-037	J-8368	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-2762	J-8374	J-8361	6	140	0	0.1	0	0.3	0.08	0.3
WMAIN-2764	J-7360	J-7361	10	140	0.03	0.15	0.2	0.6	0.08	0.4
WMAIN-2765(1)	J-5251	J-8193	2	140	0.32	1.23	0.3	0.7	1.23	0.7
WMAIN-2767	J-5732	J-8853	4	140	0.03	0.12	0.1	0.3	0.12	0.3
WMAIN-2768(1)	J-7424	022-018	10	140	0.18	0.36	0.6	0.9	0.36	0.9
WMAIN-2768(2)	022-018	J-7039	10	140	0.18	0.35	0.6	0.9	0.35	0.9
WMAIN-2769(1)	J-6109	J-9258	10	140	0.28	0.58	0.8	1.2	0.57	1.2
WMAIN-2769(2)	J-9258	J-7039	10	140	0.28	0.59	0.8	1.2	0.58	1.2
WMAIN-2770(1)	J-6904	022-008	6	140	0.04	0.06	0.2	0.3	0.06	0.3
WMAIN-2770(2)	022-008	J-7128	6	140	0.03	0.05	0.2	0.2	0.05	0.2
WMAIN-2771	J-7128	J-5062	4	140	0.13	0.25	0.3	0.4	0.2	0.4
WMAIN-2772	J-5062	J-5063	4	140	0.11	0.23	0.3	0.4	0.16	0.3
WMAIN-2773	J-5063	J-5875	6	140	0.3	0.56	0.6	0.9	0.43	0.8
WMAIN-2774(1)	J-5875	022-003	6	140	0.27	0.52	0.6	0.8	0.39	0.7
WMAIN-2774(2)	022-003	J-5876	6	140	0.27	0.52	0.6	0.8	0.39	0.7
WMAIN-2776(1)	J-5507	019-005	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-2776(2)	019-005	J-7122	6	140	0	0.06	0	0.3	0.05	0.2
WMAIN-2777(1)	J-8125	J-9295	6	140	0	0.02	0	0.1	0	0
WMAIN-2777(2)	J-9295	J-8126	6	140	0	0.01	0	0.1	0	0
WMAIN-2778(1)	J-8144	J-9298	4	140	0.01	0.07	0.1	0.2	0.07	0.2
WMAIN-2778(2)	J-9298	J-8125	4	140	0.01	0.1	0.1	0.3	0.1	0.3
WMAIN-2782(1)	J-7122	J-9282	4	140	0.05	0.14	0.2	0.3	0.14	0.3
WMAIN-2782(2)	J-9282	J-8814	4	140	0.08	0.24	0.2	0.4	0.24	0.4
WMAIN-2783	J-8488	J-6677	2	140	0.03	0.1	0.1	0.2	0.1	0.2
WMAIN-2784	J-6488	J-6677	2	140	0.11	0.44	0.2	0.4	0.44	0.4
WMAIN-2785	J-6488	J-6489	2	140	0	0	0	0	0	0
WMAIN-2786	019-002	J-5084	4	140	0	0	0	0	0	0
WMAIN-2789	J-5806	J-5318	8	140	0.02	0.14	0.2	0.5	0.12	0.5
WMAIN-2790	J-5085	J-5806	8	140	0.02	0.13	0.2	0.5	0.11	0.4
WMAIN-2793(1)(1)	J-8114	019-012	6	140	0.05	0.11	0.2	0.4	0.1	0.3
WMAIN-2793(1)(2)	019-012	019-011	6	140	0	0.31	0.3	0.5	0	0.5
WMAIN-2793(2)	019-011	J-5461	6	140	0.07	0.17	0.3	0.5	0.17	0.5
WMAIN-2796(1)	J-8125	019-009	6	140	0.01	0.06	0.1	0.3	0.05	0.2
WMAIN-2796(2)(1)	019-009	019-008	6	140	0	0.33	0.2	0.3	0	0.3
WMAIN-2796(2)(2)	019-008	J-8114	6	140	0.02	0.1	0.2	0.3	0.08	0.3
WMAIN-2799	J-8126	J-8107	4	140	0.02	0.09	0.1	0.3	0.08	0.2
WMAIN-2802	J-8144	J-8115	4	140	0.03	0.1	0.1	0.3	0.09	0.3
WMAIN-2805	J-8107	J-8421	4	140	0.04	0.09	0.2	0.2	0.09	0.2
WMAIN-2808(1)	J-6340	019-007	4	140	0.01	0.08	0.1	0.2	0.07	0.2
WMAIN-2808(2)	019-007	J-6368	4	140	0.03	0.14	0.1	0.3	0.13	0.3
WMAIN-2811(1)	J-6368	019-010	6	140	0.02	0.05	0.2	0.2	0.04	0.2
WMAIN-2811(2)	019-010	J-6769	6	140	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-2812(1)	J-8115	014-005	6	140	0.08	0.18	0.3	0.5	0.18	0.5
WMAIN-2812(2)	014-005	H-498	6	140	0.15	0.4	0.4	0.7	0.4	0.7
WMAIN-2814	H-498	J-5461	6	140	0.31	0.7	0.6	1	0.7	1
WMAIN-2816(1)(1)	J-5460	J-9297	6	140	0.09	0.18	0.3	0.5	0.18	0.5
WMAIN-2816(1)(2)	J-9297	014-004	6	140	0.09	0.18	0.3	0.5	0.18	0.5
WMAIN-2816(2)	014-004	J-8421	6	140	0.09	0.18	0.3	0.5	0.18	0.5
WMAIN-2818	J-6236	J-6237	2	140	0.15	1.47	0.2	0.7	1.37	0.7
WMAIN-2819	J-6406	J-5460	2	140	0.11	0.4	0.2	0.4	0.4	0.4
WMAIN-2821	J-6333	J-6334	2	140	0.01	0.04	0	0.1	0.04	0.1
WMAIN-2822	J-6673	J-6334	3	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-2823	J-6601	J-7080	6	140	0.53	1.6	0.8	1.5	1.6	1.5
WMAIN-2826(1)	J-5375	030-033	6	140	0.18	0.54	0.5	0.9	0.54	0.9
WMAIN-2826(2)	030-033	J-6601	6	140	0.2	0.59	0.5	0.9	0.59	0.9
WMAIN-2827	J-6601	J-6602	8	140	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-2829	J-5477	J-6391	6	140	0	0.02	0	0.2	0.02	0.2
WMAIN-2831	J-6106	J-6289	3	140	0.03	0.39	0.1	0.5	0.39	0.5
WMAIN-2833	J-5859	J-9251	4	140	0.17	0.53	0.4	0.7	0.52	0.7
WMAIN-2834(1)	J-9251	030-036	4	140	0.1	0.3	0.3	0.5	0.3	0.5
WMAIN-2834(2)	030-036	J-5587	4	140	0.07	0.21	0.2	0.4	0.21	0.4
WMAIN-2836	J-5588	J-5550	4	140	0.09	0.27	0.3	0.5	0.27	0.5
WMAIN-2839	J-5780	J-7024	6	140	0.03	0.12	0.2	0.4	0.07	0.3
WMAIN-2840(1)	J-7423	029-020	6	140	0.03	0.09	0.2	0.3	0.06	0.3
WMAIN-2840(2)	029-020	J-5553	6	140	0.03	0.08	0.2	0.3	0.05	0.2
WMAIN-2843(1)	J-5167	H-501	4	140	0.05	0.16	0.2	0.3	0.1	0.3
WMAIN-2843(2)	H-501	J-5196	4	140	0.02	0.1	0.1	0.3	0.04	0.2
WMAIN-2845(1)	J-5195	J-9319	6	140	0.01	0.04	0.1	0.2	0.02	0.1
WMAIN-2845(2)	J-9319	J-5606	6	140	0.01	0.04	0.1	0.2	0.02	0.1
WMAIN-2846	J-6755	J-5166	6	140	0.01	0.07	0.1	0.3	0.02	0.2
WMAIN-2848	J-6803	J-6755	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-2850	J-5387	J-5566	2	130	0.06	0.18	0.1	0.2	0.16	0.2
WMAIN-2852	J-5321	J-5567	6	140	0.06	0.18	0.3	0.5	0.16	0.4
WMAIN-2855	J-6750	J-6755	4	130	0.06	0.17	0.2	0.3	0.15	0.3
WMAIN-2858(1)	J-6802	029-037	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-2858(2)	029-037	J-6823	6	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-2861	J-6802	J-7024	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-2863	J-5780	J-6823	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-2864	J-5387	J-7405	6	130	0	0.09	0	0.3	0.02	0.1
WMAIN-2867(1)	J-5746	J-9248	6	130	0.03	0.17	0.2	0.4	0.09	0.3
WMAIN-2867(2)	J-9248	J-6750	6	130	0.03	0.17	0.2	0.4	0.09	0.3
WMAIN-2869	J-6495	J-6926	2	130	0.07	0.23	0.1	0.2	0.2	0.2
WMAIN-2872	J-6810	J-6926	6	140	0.07	0.42	0.3	0.7	0.42	0.7
WMAIN-2874(1)	J-6821	J-9249	6	140	0	0	0	0	0	0
WMAIN-2874(2)	J-9249	J-6822	6	140	0	0	0	0	0	0
WMAIN-2876	J-6678	J-6679	6	140	0.44	2.13	0.8	1.8	2.13	1.8
WMAIN-2877	J-6382	J-6383	6	140	0.05	0.16	0.2	0.4	0.16	0.4

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2878	J-6526	J-6382	4	140	0.06	0.2	0.2	0.4	0.2	0.4
WMAIN-2881	J-6622	J-6526	4	140	0.04	0.11	0.2	0.3	0.11	0.3
WMAIN-2883	J-6623	J-8319	6	152.5	0	0	0	0	0	0
WMAIN-2886(1)	J-6817	J-9247	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-2886(2)(1)	J-9247	020-006	8	152.5	0.03	0.09	0.2	0.4	0.08	0.4
WMAIN-2886(2)(2)	020-006	J-6818	8	152.5	0.03	0.09	0.2	0.4	0.08	0.4
WMAIN-2887	J-6000	J-6817	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-2889	J-5992	J-5993	6	140	0	0	0	0	0	0
WMAIN-2890	J-6075	J-5992	6	140	0.12	0.52	0.4	0.8	0.52	0.8
WMAIN-2891	J-6356	020-001	6	140	0.19	0.63	0.5	0.9	0.63	0.9
WMAIN-2892(1)	020-001	J-9264	6	140	0.18	0.59	0.5	0.9	0.59	0.9
WMAIN-2892(2)	J-9264	J-6927	6	140	0.18	0.58	0.5	0.9	0.58	0.9
WMAIN-2896(1)(1)	J-6927	H-540	6	140	0.08	0.22	0.3	0.5	0.22	0.5
WMAIN-2896(1)(2)	H-540	029-025	6	140	0.08	0.22	0.3	0.5	0.22	0.5
WMAIN-2896(2)	029-025	J-6810	6	140	0.08	0.22	0.3	0.5	0.22	0.5
WMAIN-2898(1)(1)	J-6810	H-539	6	140	0.04	0.13	0.2	0.4	0.09	0.3
WMAIN-2898(1)(2)	H-539	H-538	6	140	0.04	0.13	0.2	0.4	0.09	0.3
WMAIN-2898(2)	H-538	J-6805	6	140	0.04	0.13	0.2	0.4	0.09	0.3
WMAIN-2900	J-5606	J-6868	6	140	0.06	0.53	0.3	0.8	0.53	0.8
WMAIN-2901(1)(1)	J-5669	J-9310	6	140	0.11	0.63	0.4	0.9	0.63	0.9
WMAIN-2901(1)(2)	J-9310	029-024	6	140	0.11	0.64	0.4	0.9	0.64	0.9
WMAIN-2901(2)	029-024	J-6809	6	140	0.11	0.64	0.4	0.9	0.64	0.9
WMAIN-2902	J-5869	J-5669	6	140	0.09	0.24	0.3	0.6	0.21	0.5
WMAIN-2905	J-6809	J-6806	6	130	0.04	0.14	0.2	0.4	0.09	0.3
WMAIN-2907	028-046	J-5869	6	140	0.08	0.21	0.3	0.5	0.18	0.5
WMAIN-2909	028-029	028-046	6	140	0.08	0.71	0.3	1	0.71	1
WMAIN-2912	J-5861	J-5862	6	140	0.06	0.51	0.3	0.8	0.51	0.8
WMAIN-2914	J-5862	J-7254	4	140	0.13	0.39	0.3	0.6	0.39	0.6
WMAIN-2915	J-7254	J-6632	4	140	0.08	0.23	0.2	0.4	0.23	0.4
WMAIN-2917	J-6632	J-6744	6	140	0.09	0.81	0.3	1.1	0.81	1.1
WMAIN-2918	J-6122	J-6718	6	140	0.02	0.09	0.2	0.3	0.08	0.3
WMAIN-2922(1)	J-6719	028-026	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-2922(2)(1)	028-026	H-530	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-2922(2)(2)(1)	H-530	H-531	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-2922(2)(2)(2)	H-531	J-5583	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-2924	J-6781	J-5220	6	140	0	0.05	0	0.2	0.03	0.2
WMAIN-2926	J-5179	J-8802	2	130	0	0.05	0	0.1	0.04	0.1
WMAIN-2929(1)(1)	J-5235	H-528	4	140	0	0.06	0	0.2	0.06	0.2
WMAIN-2929(1)(2)(1)	H-528	H-529	4	140	0	0.06	0	0.2	0.06	0.2
WMAIN-2929(1)(2)(2)	H-529	J-9243	4	140	0	0.06	0	0.2	0.06	0.2
WMAIN-2929(2)	J-9243	J-5236	4	140	0	0.06	0	0.2	0.06	0.2
WMAIN-2931	J-6394	J-7057	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-2934	J-5207	028-023	6	140	0	0	0	0	0	0
WMAIN-2936	J-5434	J-8455	4	140	0	0	0	0	0	0
WMAIN-2939	J-8717	J-6591	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2940	J-6591	J-5792	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2941	J-5792	028-037	6	140	0	0	0	0.1	0	0
WMAIN-2943	J-6555	J-6749	6	140	0	0.11	0	0.4	0.04	0.2
WMAIN-2945	J-5430	J-7524	2	140	0.79	3.07	0.5	1.1	3.07	1.1
WMAIN-2947(1)	021-037	021-038	6	140	0.13	0.77	0.4	1	0.77	1
WMAIN-2947(2)	021-038	J-7369	6	140	0.12	0.75	0.4	1	0.75	1
WMAIN-2950(1)	J-7369	021-039	8	140	0.07	0.22	0.3	0.6	0.15	0.5
WMAIN-2950(2)	021-039	J-6425	8	140	0.07	0.22	0.3	0.6	0.15	0.5
WMAIN-2951	J-8338	J-5538	10	140	0	0	0	0	0	0
WMAIN-2955(1)	J-5642	J-9331	4	140	0.03	0.12	0.1	0.3	0.08	0.2
WMAIN-2955(2)(1)	J-9331	H-551	4	140	0.06	0.2	0.2	0.4	0.19	0.4
WMAIN-2955(2)(2)	H-551	J-5485	4	140	0.06	0.2	0.2	0.4	0.19	0.4
WMAIN-2957(1)(1)	J-5466	H-463	4	140	0.04	0.15	0.2	0.3	0.12	0.3
WMAIN-2957(1)(2)	H-463	021-004	4	140	0.03	0.13	0.1	0.3	0.08	0.2
WMAIN-2957(2)	021-004	J-5561	4	140	0.03	0.13	0.1	0.3	0.08	0.2
WMAIN-2959	J-6629	J-6313	6	130	0.24	0.91	0.5	1.1	0.91	1.1
WMAIN-2960	J-6627	J-6649	6	130	0.02	0.23	0.2	0.5	0.23	0.5
WMAIN-2961	J-5527	J-5528	6	152.5	0.02	0.1	0.1	0.4	0.1	0.4
WMAIN-2962(1)	J-5528	021-007	6	152.5	0.02	0.12	0.2	0.4	0.12	0.4
WMAIN-2962(2)	021-007	J-6627	6	152.5	0.03	0.14	0.2	0.4	0.14	0.4
WMAIN-2963	J-6628	J-6619	4	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-2965(1)	J-6643	J-8672	4	140	0	0	0	0	0	0
WMAIN-2965(2)	J-8672	J-6619	4	140	0.06	0.21	0.2	0.4	0.21	0.4
WMAIN-2966(1)	J-5807	021-006	6	130	0	0.05	0	0.2	0.05	0.2
WMAIN-2966(2)	021-006	J-5273	6	130	0	0.05	0	0.2	0.05	0.2
WMAIN-2968(1)	J-5972	022-014	6	140	0.06	0.17	0.3	0.5	0.17	0.5
WMAIN-2968(2)(1)	022-014	J-9260	6	140	0.05	0.15	0.2	0.4	0.15	0.4
WMAIN-2968(2)(2)	J-9260	J-6569	6	140	0.05	0.15	0.2	0.4	0.15	0.4
WMAIN-2969	J-5972	J-5251	6	140	0.07	0.22	0.3	0.5	0.18	0.5
WMAIN-2970(1)	J-5252	J-9259	6	140	0.17	0.42	0.5	0.8	0.42	0.8
WMAIN-2970(2)	J-9259	J-5239	6	140	0.17	0.43	0.5	0.8	0.43	0.8
WMAIN-2972	J-6100	J-5201	12	140	0.01	0.03	0.2	0.3	0.02	0.2
WMAIN-2974	J-6313	J-6100	6	140	0.34	1.66	0.7	1.6	1.66	1.6
WMAIN-2976	J-6100	J-5910	12	152.5	0.04	0.16	0.4	0.7	0.16	0.7
WMAIN-2978	J-7091	J-7092	2	130	0.28	1.09	0.3	0.6	1.09	0.6
WMAIN-2981	J-5626	021-040	8	140	0.06	0.29	0.3	0.7	0.29	0.7
WMAIN-2982(1)	J-5195	029-010	6	140	0.05	0.16	0.2	0.4	0.08	0.3
WMAIN-2982(2)(1)	029-010	J-9255	6	140	0.02	0.1	0.1	0.3	0.03	0.2
WMAIN-2982(2)(2)	J-9255	J-5095	6	140	0.02	0.1	0.1	0.3	0.03	0.2
WMAIN-2986	J-6806	J-6716	2	140	0.11	0.32	0.2	0.3	0.23	0.3
WMAIN-2988(1)	J-5124	029-009	6	140	0	0.02	0.1	0.2	0.02	0.1
WMAIN-2988(2)	029-009	J-5095	6	140	0.01	0.03	0.1	0.2	0.02	0.1
WMAIN-2989(1)(1)	J-6717	029-007	6	140	0.19	0.72	0.5	1	0.72	1
WMAIN-2989(1)(2)	029-007	J-8799	6	140	0.2	0.74	0.5	1	0.74	1
WMAIN-2989(2)	J-8799	J-6722	6	140	0.26	0.93	0.6	1.1	0.93	1.1
WMAIN-2991	J-5096	029-003	4	140	0	0.12	0	0.3	0	0
WMAIN-2992	029-003	J-5667	4	140	0	0.05	0	0.2	0.02	0.1
WMAIN-2994	J-5058	J-5059	6	152.5	0	0	0	0	0	0
WMAIN-2995	J-8644	J-5178	2	130	0.42	1.64	0.3	0.7	1.64	0.7
WMAIN-2997	J-5085	J-5507	6	140	0.06	0.65	0.3	1	0.4	0.7
WMAIN-2998	J-5215	J-5216	6	152.5	0.49	2.16	0.9	2	1.44	1.6
WMAIN-2999	J-5411	J-5412	6	152.5	0.02	0.27	0.1	0.6	0.27	0.6
WMAIN-3000	J-5412	J-5536	6	152.5	0.02	0.27	0.1	0.6	0.27	0.6
WMAIN-3001	J-5470	J-5196	6	152.5	0.02	0.04	0.1	0.2	0.04	0.2
WMAIN-3006(1)	J-8425	027-051	8	152.5	0	0	0	0	0	0
WMAIN-3006(2)	027-051	J-6341	8	152.5	0	0	0	0	0	0
WMAIN-3008	J-6567	J-6657	12	152.5	0.08	0.79	0.5	1.8	0.79	1.8
WMAIN-3010(1)	J-7333	041-029	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-3010(2)	041-029	J-8176	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-3013	J-7748	J-7749	8	152.5	0	0	0	0	0	0
WMAIN-3017(1)	J-8568	041-030	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3017(2)	041-030	J-8176	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3019(1)	J-8422	041-033	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3019(2)	041-033	J-7587	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3022(1)	J-6252	041-031	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3022(2)	041-031	J-8568	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3023	J-8176	J-8422	8	152.5	0	0.03	0.1	0.2	0.03	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3026(1)	J-6251	041-032	8	152.5	0	0	0	0	0	0
WMAIN-3026(2)	041-032	J-6252	8	152.5	0	0	0	0	0	0
WMAIN-3028	J-7587	J-6252	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3029	J-5159	J-5100	6	152.5	0	0	0	0	0	0
WMAIN-3032(1)	028-011	028-014	6	140	0	0.02	0	0.2	0.02	0.1
WMAIN-3032(2)	028-014	J-7769	6	140	0	0.02	0	0.2	0.02	0.2
WMAIN-3036(1)	J-8090	169-032	8	152.5	0	0	0	0	0	0
WMAIN-3036(2)	169-032	J-6620	8	152.5	0	0	0	0	0	0
WMAIN-3037	J-7685	J-6836	8	152.5	0	0	0	0	0	0
WMAIN-3040	J-6827	J-6828	8	152.5	0	0	0	0	0	0
WMAIN-3042(1)	J-6827	169-030	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3042(2)	169-030	J-8089	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3044	J-8429	J-6827	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3046	J-6836	J-8429	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-3048(1)	J-6774	169-038	8	152.5	0	0	0	0	0	0
WMAIN-3048(2)	169-038	J-6775	8	152.5	0	0	0	0	0	0
WMAIN-3049	J-8583	J-8389	8	152.5	0.19	0.6	0.6	1.2	0.6	1.2
WMAIN-3051	J-8337	J-7775	8	152.5	0	0	0	0	0	0
WMAIN-3054(1)	J-8089	169-031	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3054(2)	169-031	J-8090	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3055(1)	J-6620	169-033	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3055(2)(1)	169-033	169-029	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3055(2)(2)	169-029	J-8429	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3058	J-6620	J-6621	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3060(1)	J-6621	169-034	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3060(2)	169-034	J-7158	8	152.5	0	0	0	0.1	0	0
WMAIN-3063(1)	J-7158	169-037	8	152.5	0.13	0.42	0.5	1	0.42	1
WMAIN-3063(2)	169-037	J-7775	8	152.5	0.13	0.4	0.5	1	0.4	1
WMAIN-3066	J-7775	J-7152	8	152.5	0.12	0.36	0.5	0.9	0.36	0.9
WMAIN-3067	J-6836	J-5365	12	152.5	0.06	0.2	0.5	0.8	0.2	0.8
WMAIN-3069(1)	J-8389	169-027	12	152.5	0.04	0.12	0.3	0.6	0.12	0.6
WMAIN-3069(2)(1)	169-027	169-028	12	152.5	0.04	0.12	0.3	0.6	0.12	0.6
WMAIN-3069(2)(2)	169-028	J-6836	12	152.5	0.04	0.12	0.3	0.6	0.12	0.6
WMAIN-3073	J-8389	J-6774	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-3074	J-6774	J-7158	12	152.5	0	0	0	0.1	0	0.1
WMAIN-3076(1)	J-7158	169-035	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-3076(2)	169-035	J-5415	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-3079	J-7287	J-8066	8	152.5	0	0.09	0	0.4	0.09	0.4
WMAIN-3081(1)	J-6049	169-016	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-3081(2)	169-016	J-5699	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-3083	168-037	169-042	8	152.5	0.01	0.52	0.1	1.1	0.03	0.2
WMAIN-3085	J-5767	169-043	12	152.5	0.07	0.32	0.5	1.1	0.09	0.5
WMAIN-3086(1)	J-8329	169-023	8	152.5	0	0	0	0	0	0
WMAIN-3086(2)	169-023	J-6873	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3088	J-6873	J-6381	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3089	J-6380	J-6381	8	152.5	0	0	0	0	0	0
WMAIN-3093(1)	J-6381	169-022	8	152.5	0	0	0	0	0	0
WMAIN-3093(2)(1)	169-022	169-021	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3093(2)(2)	169-021	J-7462	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3094(1)	J-8249	169-020	8	152.5	0	0	0	0	0	0
WMAIN-3094(2)	169-020	J-7461	8	152.5	0	0	0	0	0	0
WMAIN-3097(1)	J-7124	169-019	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-3097(2)	169-019	J-7461	8	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-3099	J-7461	J-7462	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3102	J-8083	J-7462	8	152.5	0	0.01	0	0.1	0	0
WMAIN-3104	J-8215	J-7287	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-3106(1)	J-8065	169-025	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-3106(2)	169-025	J-8215	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-3108(1)	J-7151	169-036	8	152.5	0.07	0.2	0.4	0.7	0.2	0.7
WMAIN-3108(2)	169-036	J-7152	8	152.5	0.07	0.2	0.4	0.7	0.2	0.7
WMAIN-3111(1)	J-7152	169-026	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3111(2)	169-026	J-8583	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3113(1)(1)	J-8583	169-014	8	152.5	0.21	0.67	0.7	1.3	0.67	1.3
WMAIN-3113(1)(2)	169-014	169-012A	8	152.5	0.16	0.52	0.6	1.1	0.52	1.1
WMAIN-3113(2)	169-012A	J-8065	8	152.5	0.16	0.52	0.6	1.1	0.52	1.1
WMAIN-3115	J-8065	J-8066	8	152.5	0.06	0.16	0.3	0.6	0.16	0.6
WMAIN-3119(1)	J-8066	169-024	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-3119(2)	169-024	J-8083	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-3120	J-8083	J-6873	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3123(1)	J-5233	J-9256	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-3123(2)	J-9256	J-7124	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-3125(1)	J-7124	169-012B	8	152.5	0	0.03	0	0.2	0	0
WMAIN-3125(2)	169-012B	J-8066	8	152.5	0	0.03	0	0.2	0	0
WMAIN-3128(1)	J-7286	169-015	8	152.5	0	0.32	0.1	0.8	0.32	0.8
WMAIN-3128(2)	169-015	J-7287	8	152.5	0	0.32	0.1	0.8	0.32	0.8
WMAIN-3130	J-7056	J-8295	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-3134	J-7203	J-7056	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-3136	J-7003	J-7004	8	152.5	0	0	0	0	0	0
WMAIN-3137(1)	J-6593	170-156	8	152.5	0.06	0.31	0.3	0.8	0.31	0.8
WMAIN-3137(2)	170-156	J-6433	8	152.5	0.06	0.32	0.3	0.8	0.32	0.8
WMAIN-3139(1)	J-6592	170-088	8	152.5	0.18	0.88	0.6	1.5	0.88	1.5
WMAIN-3139(2)	170-088	J-6593	8	152.5	0.18	0.89	0.6	1.5	0.89	1.5
WMAIN-3142(1)	J-6593	170-087	8	152.5	0.14	0.35	0.5	0.9	0.35	0.9
WMAIN-3142(2)(1)	170-087	170-086	8	152.5	0.15	0.39	0.6	0.9	0.39	0.9
WMAIN-3142(2)(2)	170-086	J-7036	8	152.5	0.15	0.39	0.6	0.9	0.39	0.9
WMAIN-3144	J-7203	J-6593	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-3146	J-7056	J-6434	8	152.5	0.12	0.37	0.5	0.9	0.37	0.9
WMAIN-3148(1)	J-8246	170-090	8	152.5	0.08	0.2	0.4	0.7	0.2	0.7
WMAIN-3148(2)(1)	170-090	170-089	8	152.5	0.09	0.21	0.4	0.7	0.21	0.7
WMAIN-3148(2)(2)	170-089	J-7056	8	152.5	0.09	0.2	0.4	0.7	0.2	0.7
WMAIN-3151(1)(1)	J-6743	170-095	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-3151(1)(2)	170-095	170-091	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-3151(2)	170-091	J-7975	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-3154	J-6742	J-6743	8	152.5	0.08	0.2	0.4	0.7	0.2	0.7
WMAIN-3156(1)	J-8652	170-094	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3156(2)	170-094	J-6743	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3159	J-8111	J-8652	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-3161(1)	J-7003	170-093	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3161(2)	170-093	J-8111	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3163(1)	J-7975	170-092	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-3163(2)	170-092	J-7003	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-3165	J-8246	J-7975	8	152.5	0.15	0.35	0.6	0.9	0.35	0.9
WMAIN-3168(1)	J-7525	170-096	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-3168(2)	170-096	J-8246	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-3169	J-7525	J-7526	8	152.5	0	0	0	0	0	0
WMAIN-3172	J-8295	J-7525	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-3173(1)	J-8295	170-097	8	152.5	0	0	0	0	0	0
WMAIN-3173(2)	170-097	J-8498	8	152.5	0	0	0	0	0	0
WMAIN-3176(1)	J-8503	170-082	8	152.5	0.08	0.59	0.4	1.2	0.59	1.2
WMAIN-3176(2)	170-082	J-6931	8	152.5	0.08	0.59	0.4	1.2	0.59	1.2
WMAIN-3177	J-6931	J-6932	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-3181	J-6434	J-6931	8	152.5	0.08	0.32	0.4	0.8	0.32	0.8

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3182	J-6433	J-6434	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-3183	J-6932	J-6433	8	152.5	0.1	0.37	0.4	0.9	0.37	0.9
WMAIN-3187	J-8350	J-8169	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-3190	J-8350	J-6932	8	152.5	0.09	0.2	0.4	0.7	0.2	0.7
WMAIN-3192(1)	J-7418	170-083	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-3192(2)	170-083	J-8350	8	152.5	0.05	0.1	0.3	0.5	0.1	0.5
WMAIN-3194(1)	J-8169	170-084	8	152.5	0	0	0	0	0	0
WMAIN-3194(2)	170-084	J-8170	8	152.5	0	0	0	0	0	0
WMAIN-3196	J-8019	J-8169	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-3197(1)	J-7418	170-085	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3197(2)	170-085	J-8019	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3198	J-7036	J-7418	8	152.5	0.13	0.3	0.5	0.8	0.3	0.8
WMAIN-3201	J-7036	J-7037	8	152.5	0	0	0	0	0	0
WMAIN-3202	J-7958	J-7452	6	140	0	0	0	0.1	0	0.1
WMAIN-3205(1)	J-5199	031-026	12	152.5	0.01	0.05	0.2	0.4	0.03	0.3
WMAIN-3205(2)	031-026	J-7478	12	152.5	0.01	0.05	0.2	0.4	0.03	0.3
WMAIN-3206	J-5199	J-5200	8	152.5	0	0	0	0	0	0
WMAIN-3208	J-5281	J-7390	12	152.5	0	0.09	0	0.5	0.09	0.5
WMAIN-3209	020-030	J-5303	16	140	0	0	0	0	0	0
WMAIN-3212	J-7493	037-014	8	140	0	0.03	0.1	0.2	0.03	0.2
WMAIN-3213	022-006	J-7779	6	152.5	0.14	0.3	0.5	0.7	0.22	0.6
WMAIN-3218	J-7723	J-7724	6	140	0.03	0.27	0.2	0.6	0.27	0.6
WMAIN-3219	041-022	J-7770	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-3221(1)	J-5521	041-023	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-3221(2)	041-023	041-022	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-3223	J-5521	J-5522	8	152.5	0	0	0	0	0	0
WMAIN-3226	J-5221	161-001	10	152.5	0	0	0	0	0	0
WMAIN-3227	J-5221	J-5222	12	152.5	0.02	0.09	0.2	0.6	0.09	0.6
WMAIN-3229	J-5785	J-5221	12	152.5	0.02	0.11	0.3	0.6	0.11	0.6
WMAIN-3231	J-5080	J-5785	16	152.5	0	0	0	0.1	0	0.1
WMAIN-3232	J-5080	J-5081	16	152.5	0	0	0	0	0	0
WMAIN-3233	J-5786	J-5080	16	152.5	0	0	0	0.1	0	0.1
WMAIN-3237	032-046	J-5786	16	152.5	0	0.06	0.1	0.5	0.06	0.5
WMAIN-3239	J-5881	032-046	16	152.5	0	0.06	0.1	0.5	0.06	0.5
WMAIN-3240(1)	J-8592	018-010	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3240(2)	018-010	J-6987	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3241	J-9320	029-028	8	152.5	0	0	0	0	0	0
WMAIN-3243(1)(1)	J-5608	J-9317	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3243(1)(2)(1)	J-9317	J-9318	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3243(1)(2)(2)	J-9318	029-042	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3243(2)	029-042	J-5108	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3244	J-5108	J-5133	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3247(1)	J-7252	014-011	8	152.5	1.31	2.92	1.8	2.8	2.92	2.8
WMAIN-3247(2)	014-011	J-7253	8	152.5	1.31	2.92	1.8	2.8	2.92	2.8
WMAIN-3249(1)(1)	015-003	015-010	12	152.5	0.56	1.27	1.5	2.3	1.27	2.3
WMAIN-3249(1)(2)	015-010	015-011	12	152.5	0.55	1.25	1.5	2.3	1.25	2.3
WMAIN-3249(2)	015-011	J-6707	12	152.5	0.55	1.25	1.5	2.3	1.25	2.3
WMAIN-3251(1)	J-7019	019-033	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-3251(2)	019-033	J-7109	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-3252	J-5882	J-7222	8	152.5	0	0	0	0	0	0
WMAIN-3254	023-055	023-056	8	152.5	0	0	0	0	0	0
WMAIN-3256	J-6057	023-055	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3257	028-044	J-5764	6	152.5	0	0.05	0	0.3	0.05	0.2
WMAIN-3259	J-5206	J-5207	12	140	0.01	0.11	0.2	0.6	0.08	0.5
WMAIN-3260	J-5206	J-5309	12	140	0	0	0	0	0	0
WMAIN-3263	J-5398	J-5399	8	152.5	0	0	0	0	0	0
WMAIN-3264	J-5217	J-5191	8	152.5	0	0	0	0	0	0
WMAIN-3265	J-5191	J-5192	8	152.5	0	0	0	0	0	0
WMAIN-3266	027-054	J-5191	8	152.5	0	0	0	0	0	0
WMAIN-3268	J-6955	026-030	12	140	0	0.09	0	0.5	0.03	0.3
WMAIN-3269(1)	J-7245	026-025	8	152.5	0.02	0.06	0.2	0.4	0.03	0.2
WMAIN-3269(2)	026-025	J-5675	8	152.5	0.02	0.06	0.2	0.4	0.03	0.2
WMAIN-3272(1)	J-7246	026-029	6	152.5	0	0.04	0	0.2	0	0.1
WMAIN-3272(2)	026-029	J-6955	6	152.5	0	0.04	0	0.2	0.01	0.1
WMAIN-3276	J-7245	J-7246	6	152.5	0	0.03	0	0.2	0	0
WMAIN-3278	J-5701	J-5702	8	152.5	0	0	0	0	0	0
WMAIN-3280	J-5703	J-5704	8	152.5	0	0	0	0	0	0
WMAIN-3283(1)	031-040	J-9253	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3283(2)	J-9253	J-7026	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3285(1)(1)	J-8811	170-155	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1
WMAIN-3285(1)(2)(1)	170-155	170-150	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1
WMAIN-3285(1)(2)(2)	170-150	170-151	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1
WMAIN-3285(2)	170-151	J-5146	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1
WMAIN-3286(1)(1)	J-8149	170-079	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3286(1)(2)	170-079	170-078	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3286(2)	170-078	J-8736	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3287	J-8736	J-7459	8	152.5	0.01	0.01	0.1	0.2	0.01	0.2
WMAIN-3289	J-6788	J-6789	6	140	0.17	0.78	0.5	1	0.78	1
WMAIN-3290	J-8624	J-7089	8	152.5	0	0	0	0.1	0	0
WMAIN-3293(1)	J-6173	170-111	8	152.5	0	0	0	0.1	0	0
WMAIN-3293(2)	170-111	J-8624	8	152.5	0	0	0	0	0	0
WMAIN-3295	J-5990	J-5991	10	152.5	0.16	0.31	0.7	1	0.31	1
WMAIN-3296	J-5105	J-5687	8	140	0.1	0.22	0.4	0.6	0.19	0.6
WMAIN-3298	J-5881	J-5882	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-3300	J-5986	J-5931	8	140	0	0.11	0.1	0.4	0.02	0.2
WMAIN-3301(1)(1)	J-6992	032-015	8	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-3301(1)(2)	032-015	032-001	8	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-3301(2)	032-001	J-6268	8	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-3303	J-6288	J-6289	8	140	0.06	0.17	0.3	0.6	0.17	0.5
WMAIN-3305	J-8397	020-012	4	140	0.69	2.47	0.8	1.5	2.47	1.5
WMAIN-3306(1)	J-7864	047-011	8	152.5	0	0	0	0	0	0
WMAIN-3306(2)	047-011	J-8026	8	152.5	0	0	0	0	0	0
WMAIN-3307	J-7674	J-7675	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3308(1)(1)	J-8344	034-017	8	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-3308(1)(2)	034-017	034-016	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-3308(2)	034-016	J-8190	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-3309(1)(1)(1)	J-7478	031-031	12	152.5	0.01	0.05	0.2	0.4	0.03	0.3
WMAIN-3309(1)(1)(2)	031-031	031-027	12	152.5	0.01	0.06	0.2	0.4	0.04	0.3
WMAIN-3309(1)(2)(1)(1)	031-027	031-028	12	152.5	0.01	0.06	0.2	0.4	0.04	0.3
WMAIN-3309(1)(2)(1)(2)	031-028	031-041	12	152.5	0.01	0.06	0.2	0.4	0.04	0.3
WMAIN-3309(1)(2)(2)	031-041	031-029	12	152.5	0.01	0.06	0.2	0.4	0.04	0.3
WMAIN-3309(2)	031-029	J-5361	12	152.5	0.01	0.06	0.2	0.4	0.04	0.3
WMAIN-3311(1)	J-5881	032-028	16	140	0	0.05	0.1	0.4	0.05	0.4
WMAIN-3311(2)	032-028	J-7844	16	140	0	0.05	0.1	0.4	0.05	0.4
WMAIN-3313	J-6008	J-6721	8	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-3314(1)	J-7015	J-8473	16	140	0.18	0.62	0.9	1.7	0.62	1.7
WMAIN-3314(2)	J-8473	J-8407	16	140	0.08	0.79	0.6	1.9	0.79	1.9
WMAIN-3316	J-6020	J-7015	16	140	0.12	0.42	0.7	1.4	0.42	1.4
WMAIN-3317(1)	J-6482	045-009	8	140	0.05	0.13	0.3	0.5	0.08	0.4
WMAIN-3317(2)	045-009	J-7187	8	140	0.06	0.14	0.3	0.5	0.09	0.4
WMAIN-3318(1)	J-5953	045-002	6	140	0	0.24	0	0.6	0.02	0.2
WMAIN-3318(2)(1)	045-002	045-003	6	140	0	0.24	0	0.5	0.02	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3318(2)(2)	045-003	052-006	6	140	0	0.24	0	0.5	0.02	0.2
WMAIN-3320(1)(1)(1)	J-5952	H-515	8	140	0.01	0.19	0.1	0.6	0.01	0.1
WMAIN-3320(1)(1)(2)	H-515	044-016	8	140	0.01	0.2	0.1	0.6	0.01	0.1
WMAIN-3320(1)(2)	044-016	044-051	8	140	0.01	0.2	0.1	0.6	0.01	0.1
WMAIN-3320(2)(1)	044-051	H-514	8	140	0.01	0.2	0.1	0.6	0.01	0.1
WMAIN-3320(2)(2)	H-514	J-5613	8	140	0.01	0.2	0.1	0.6	0.01	0.1
WMAIN-3321(1)	J-5429	044-012	8	140	0	0.09	0	0.4	0	0.1
WMAIN-3321(2)(1)	044-012	044-013	8	140	0	0.1	0	0.4	0.01	0.1
WMAIN-3321(2)(2)	044-013	J-5943	8	140	0	0.1	0	0.4	0.01	0.1
WMAIN-3323	J-6321	J-6322	12	140	0	0	0	0	0	0
WMAIN-3324	J-7219	J-6861	12	140	0	0.02	0	0.2	0	0
WMAIN-3326	J-6568	J-5628	12	140	0	0	0	0.1	0	0
WMAIN-3327	J-7497	J-7559	8	140	0.01	0.13	0.1	0.5	0.02	0.2
WMAIN-3328(1)	J-7266	053-003	8	140	0.01	0.08	0.1	0.4	0.01	0.1
WMAIN-3328(2)	053-003	J-7497	8	140	0.01	0.09	0.1	0.4	0.01	0.1
WMAIN-3329(1)	J-8292	044-009	12	140	0	0.31	0	1	0.06	0.4
WMAIN-3329(2)(1)	044-009	044-010	12	140	0	0.31	0	1	0.06	0.4
WMAIN-3329(2)(2)	044-010	J-8497	12	140	0	0.31	0	1	0.06	0.4
WMAIN-3330	J-5748	J-8292	12	140	0	0.18	0.1	0.7	0.03	0.3
WMAIN-3331	J-6133	J-5747	12	140	0.02	0.25	0.2	0.9	0.03	0.3
WMAIN-3332	J-5747	J-5748	12	140	0.02	0.25	0.2	0.9	0.03	0.3
WMAIN-3333(1)	J-6132	044-004	12	140	0.02	0.33	0.2	1	0.04	0.3
WMAIN-3333(2)	044-004	J-6133	12	140	0.02	0.33	0.2	1	0.04	0.3
WMAIN-3334	J-6995	J-5968	12	152.5	0	0.12	0	0.6	0.07	0.5
WMAIN-3336(1)	J-5969	054-030	12	152.5	0.18	0.9	0.8	1.9	0.9	1.9
WMAIN-3336(2)	054-030	J-8463	12	152.5	0.18	0.89	0.8	1.9	0.89	1.9
WMAIN-3337(1)	J-8463	054-025	12	152.5	0.13	0.68	0.7	1.6	0.68	1.6
WMAIN-3337(2)	054-025	J-5547	12	152.5	0.13	0.68	0.7	1.6	0.68	1.6
WMAIN-3339	J-7917	J-7918	8	152.5	0.48	0.65	1	1.2	0.53	1.1
WMAIN-3341	J-7217	J-7218	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3343	J-6499	J-6500	12	152.5	0	0.04	0	0.4	0.04	0.4
WMAIN-3346(1)	J-7770	041-021	8	152.5	0	0	0	0	0	0
WMAIN-3346(2)	041-021	J-8440	8	152.5	0	0	0	0	0	0
WMAIN-3347(1)	J-6773	043-028	8	140	0	0.06	0	0.3	0.05	0.3
WMAIN-3347(2)	043-028	J-6900	8	140	0	0.06	0	0.3	0.05	0.3
WMAIN-3348	J-6076	J-6077	12	152.5	0.09	0.4	0.6	1.2	0.38	1.2
WMAIN-3349	J-5839	J-5840	8	140	0.14	1	0.5	1.4	1	1.4
WMAIN-3350(1)	J-6736	042-024	6	140	0	0	0	0.1	0	0
WMAIN-3350(2)	042-024	J-7551	6	140	0	0	0	0	0	0
WMAIN-3352	J-7052	J-6917	12	140	0.13	0.54	0.6	1.3	0.54	1.3
WMAIN-3354(1)	J-7239	043-004	8	140	0.09	0.43	0.4	0.9	0.43	0.9
WMAIN-3354(2)	043-004	J-6077	8	140	0.09	0.42	0.4	0.9	0.42	0.9
WMAIN-3356	J-7934	J-7239	8	140	0.07	0.33	0.4	0.8	0.33	0.8
WMAIN-3359	J-7512	J-7513	6	140	0.04	0.09	0.2	0.3	0.07	0.3
WMAIN-3360	J-5594	J-5595	6	140	0	0	0	0	0	0
WMAIN-3361(1)	J-5878	044-022	6	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3361(2)	044-022	J-7465	6	140	0	0.01	0	0.1	0	0.1
WMAIN-3363(1)	J-5895	044-018	6	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-3363(2)	044-018	J-7381	6	140	0.02	0.06	0.1	0.3	0.06	0.3
WMAIN-3365	J-7029	J-5225	8	140	0	0.04	0	0.3	0.01	0.1
WMAIN-3367	J-6438	J-5634	12	140	0.65	1.85	1.5	2.6	1.85	2.6
WMAIN-3368(1)	J-5849	J-5340	16	140	0	0.14	0	0.8	0	0
WMAIN-3368(2)	J-5340	J-6790	16	140	0	0.13	0	0.7	0	0
WMAIN-3370	J-5888	J-5889	6	140	0	0	0	0	0	0
WMAIN-3371	J-5802	J-5803	6	140	0	0	0	0	0	0
WMAIN-3372(1)	J-6411	038-029	8	140	0	0.12	0	0.5	0.11	0.4
WMAIN-3372(2)	038-029	J-7356	8	140	0	0.12	0	0.5	0.12	0.5
WMAIN-3373	J-5830	J-5831	6	140	0	0	0	0	0	0
WMAIN-3374	J-5832	J-5833	6	140	0	0	0	0	0	0
WMAIN-3376	J-5931	J-5932	8	140	0.01	0.11	0.1	0.4	0.04	0.2
WMAIN-3378	J-5970	J-5971	6	140	0	0	0	0	0	0
WMAIN-3379	037-014	J-7495	6	140	0.01	0.09	0.1	0.3	0.05	0.2
WMAIN-3381(1)	J-6524	037-015	8	140	0	0.09	0	0.4	0.09	0.4
WMAIN-3381(2)	037-015	J-7493	8	140	0	0.08	0	0.4	0.08	0.4
WMAIN-3382(1)	J-7493	037-013	8	140	0	0.1	0	0.4	0.01	0.1
WMAIN-3382(2)	037-013	J-7495	8	140	0	0.11	0	0.4	0	0.1
WMAIN-3383	J-7495	J-7496	8	140	0	0.23	0.1	0.6	0.01	0.1
WMAIN-3387(1)	J-7977	037-033	6	140	0	0.09	0	0.3	0.01	0.1
WMAIN-3387(2)	037-033	J-6952	6	140	0	0.08	0	0.3	0.03	0.2
WMAIN-3388	J-6364	J-6365	8	140	0	0.25	0	0.7	0.15	0.5
WMAIN-3390	J-6180	J-5953	6	140	0.09	1.31	0.3	1.4	0.58	0.9
WMAIN-3393(1)	J-8620	036-030	6	140	0.04	0.17	0.2	0.5	0.08	0.3
WMAIN-3393(2)	036-030	036-029	6	140	0.02	0.13	0.1	0.4	0.05	0.2
WMAIN-3394	036-029	J-5933	6	140	0.01	0.13	0.1	0.4	0.04	0.2
WMAIN-3396	J-6260	J-7275	6	140	0	0.05	0	0.2	0	0
WMAIN-3398(1)	J-6248	036-021	6	140	0	0.19	0	0.5	0.19	0.5
WMAIN-3398(2)	036-021	J-7886	6	140	0	0.22	0	0.5	0.22	0.5
WMAIN-3400	J-5782	J-5783	8	140	0	0	0	0.1	0	0.1
WMAIN-3401	J-6055	J-6056	8	140	0.12	0.42	0.5	0.9	0.42	0.9
WMAIN-3403(1)	J-5363	J-8682	8	140	0.2	0.29	0.6	0.7	0.29	0.7
WMAIN-3403(2)	J-8682	J-6285	8	140	0	1.07	0.1	1.5	0.03	0.2
WMAIN-3406(1)	J-7765	035-021	8	140	0	0.02	0.1	0.2	0	0.1
WMAIN-3406(2)	035-021	J-8255	8	140	0	0.02	0.1	0.2	0.01	0.1
WMAIN-3407	J-8370	J-7765	8	140	0.02	0.04	0.2	0.3	0.03	0.2
WMAIN-3408	J-5864	J-5865	6	140	0	0	0	0	0	0
WMAIN-3409(1)	J-7444	030-003	8	140	0.03	0.14	0.2	0.5	0.09	0.4
WMAIN-3409(2)	030-003	J-6012	8	140	0.04	0.15	0.2	0.5	0.09	0.4
WMAIN-3411(1)	J-6549	035-027	6	140	0.02	0.06	0.1	0.3	0.06	0.3
WMAIN-3411(2)	035-027	J-7443	6	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-3412	J-7766	J-6850	8	140	0.04	0.12	0.3	0.4	0.11	0.4
WMAIN-3414(1)	J-6732	030-005	6	140	0.03	0.09	0.2	0.3	0.09	0.3
WMAIN-3414(2)	030-005	J-7150	6	140	0.03	0.1	0.2	0.3	0.1	0.3
WMAIN-3416(1)	J-6731	030-004	6	140	0.08	0.23	0.3	0.5	0.23	0.5
WMAIN-3416(2)	030-004	J-6732	6	140	0.08	0.24	0.3	0.5	0.24	0.5
WMAIN-3417(1)	J-6028	030-006	6	140	0.04	0.13	0.2	0.4	0.13	0.4
WMAIN-3417(2)	030-006	J-6851	6	140	0.04	0.14	0.2	0.4	0.14	0.4
WMAIN-3419(1)	J-6874	030-010	6	140	0.08	0.22	0.3	0.5	0.22	0.5
WMAIN-3419(2)	030-010	J-7584	6	140	0.08	0.24	0.3	0.5	0.24	0.5
WMAIN-3421(1)	J-7890	029-013	6	140	0.09	0.21	0.3	0.5	0.21	0.5
WMAIN-3421(2)	029-013	J-7891	6	140	0.09	0.2	0.3	0.5	0.2	0.5
WMAIN-3422(1)	J-7891	029-012	6	140	0.06	0.11	0.3	0.4	0.11	0.4
WMAIN-3422(2)	029-012	J-6242	6	140	0.05	0.11	0.2	0.4	0.1	0.4
WMAIN-3424(1)	J-6243	029-011	6	140	0.01	0.1	0.1	0.3	0.02	0.2
WMAIN-3424(2)	029-011	J-5552	6	140	0.04	0.13	0.2	0.4	0.06	0.3
WMAIN-3426	J-8502	J-6366	6	140	0	0.03	0	0.2	0	0
WMAIN-3428	J-7627	J-5550	6	140	0.19	0.54	0.5	0.9	0.54	0.9
WMAIN-3429(1)	J-6513	030-017	6	140	0.05	0.17	0.2	0.5	0.17	0.5
WMAIN-3429(2)	030-017	J-5733	6	140	0.05	0.17	0.2	0.5	0.17	0.5
WMAIN-3431	J-5734	J-7531	10	140	0.03	0.09	0.3	0.4	0.09	0.4
WMAIN-3433	J-5908	J-5759	6	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-3435(1)	J-6095	039-045	8	152.5	0	0.25	0	0.7	0.22	0.7
WMAIN-3435(2)	039-045	J-7307	8	152.5	0	0.26	0	0.7	0.22	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3437	J-6156	026-004	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3438(1)	J-7066	027-001	16	152.5	0	0.14	0	0.8	0	0.1
WMAIN-3438(2)	027-001	J-5518	16	152.5	0	0.13	0	0.8	0	0.1
WMAIN-3440(1)(1)	J-7065	026-017	16	140	0	0.21	0	1	0	0
WMAIN-3440(1)(2)	026-017	027-011	16	140	0	0.21	0	1	0	0
WMAIN-3440(2)	027-011	J-7066	16	140	0	0.21	0	1	0	0
WMAIN-3441(1)	J-7711	027-022B	16	140	0	0.07	0.1	0.5	0.01	0.2
WMAIN-3441(2)(1)	027-022B	027-031	16	140	0	0.07	0.1	0.5	0.01	0.2
WMAIN-3441(2)(2)	027-031	J-7168	16	140	0	0.07	0.1	0.5	0.01	0.2
WMAIN-3443(1)	J-7094	037-039	6	140	0	0.43	0.1	0.8	0	0.1
WMAIN-3443(2)	037-039	J-5810	6	140	0.01	0.45	0.1	0.8	0.01	0.1
WMAIN-3445	J-5810	J-8106	6	140	0	0.48	0	0.8	0.48	0.8
WMAIN-3447	J-7595	J-5419	4	140	0	0.36	0	0.5	0.02	0.1
WMAIN-3449	028-011	J-6895	6	140	0	0.07	0	0.3	0.02	0.1
WMAIN-3451(1)	J-6895	028-015	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-3451(2)	028-015	J-7693	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-3453	J-7694	J-5234	6	140	0	0.21	0	0.5	0.21	0.5
WMAIN-3455	J-7763	J-5171	6	140	0	0.14	0	0.4	0.09	0.3
WMAIN-3457(1)	J-6474	H-496	8	152.5	0.04	0.1	0.3	0.5	0.08	0.4
WMAIN-3457(2)	H-496	J-6475	8	152.5	0.04	0.1	0.3	0.5	0.08	0.4
WMAIN-3459	J-6475	J-5987	8	152.5	0.02	0.14	0.2	0.5	0.07	0.4
WMAIN-3461(1)	J-5692	028-018	6	140	0	0.74	0.1	1	0.74	1
WMAIN-3461(2)	028-018	J-5688	6	140	0	0.77	0	1	0.77	1
WMAIN-3462	J-6558	J-6638	6	140	0	0.03	0.1	0.2	0.02	0.1
WMAIN-3463	J-6749	J-6557	6	140	0	0.1	0	0.4	0.04	0.2
WMAIN-3465	J-5812	J-5424	8	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3466	J-5811	J-5812	8	140	0	0.04	0.1	0.2	0.04	0.2
WMAIN-3467	J-5855	J-5856	6	140	0	0	0	0	0	0
WMAIN-3468	J-6503	J-7244	8	140	0.08	0.25	0.4	0.7	0.25	0.7
WMAIN-3470(1)	J-7244	030-038	8	140	0.14	0.43	0.5	0.9	0.43	0.9
WMAIN-3470(2)	030-038	J-5406	8	140	0.16	0.49	0.5	1	0.49	1
WMAIN-3471(1)	J-6502	030-032	8	140	0.06	0.18	0.3	0.6	0.18	0.6
WMAIN-3471(2)	030-032	J-6503	8	140	0.06	0.18	0.3	0.6	0.18	0.6
WMAIN-3472	031-046	J-7566	8	140	0.07	0.18	0.3	0.6	0.18	0.6
WMAIN-3473	J-6089	J-7213	6	140	0	0.02	0	0.2	0.01	0.1
WMAIN-3474(1)	J-7213	031-002	6	140	0.05	0.14	0.2	0.4	0.14	0.4
WMAIN-3474(2)	031-002	J-5352	6	140	0.05	0.13	0.2	0.4	0.13	0.4
WMAIN-3475(1)	J-6287	031-006	8	140	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-3475(2)	031-006	J-7345	8	140	0.02	0.11	0.2	0.4	0.11	0.4
WMAIN-3476	J-7316	J-5673	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-3478	J-5672	J-5673	8	140	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-3480	J-5552	J-5553	6	140	0.07	0.23	0.3	0.5	0.23	0.5
WMAIN-3481(1)	J-6366	029-021	6	140	0.08	0.2	0.3	0.5	0.2	0.5
WMAIN-3481(2)	029-021	J-6367	6	140	0.08	0.21	0.3	0.5	0.21	0.5
WMAIN-3482	J-5755	J-7531	6	140	0.01	0.07	0.1	0.3	0.07	0.3
WMAIN-3483	J-5754	J-5755	6	140	0	0.02	0	0.2	0	0.1
WMAIN-3484(1)	030-037	J-9252	4	152.5	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-3484(2)	J-9252	J-5679	4	152.5	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-3488	J-6639	J-5408	16	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-3490(1)	J-8203	018-001	16	140	0	0	0	0.1	0	0.1
WMAIN-3490(2)	018-001	J-5325	16	140	0	0	0	0.1	0	0.1
WMAIN-3492	J-5400	J-5401	8	152.5	0	0	0	0	0	0
WMAIN-3493	J-7109	019-025	12	152.5	0.02	0.03	0.2	0.3	0.03	0.3
WMAIN-3494(1)	018-043	018-041	8	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-3494(2)	018-041	J-5726	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-3496	J-5726	J-5727	16	140	0	0	0	0.1	0	0
WMAIN-3498(1)	J-6987	018-006	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3498(2)	018-006	J-5680	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3499(1)	J-6967	018-007	12	152.5	0.02	0.04	0.2	0.3	0.03	0.3
WMAIN-3499(2)	018-007	J-5681	12	152.5	0.02	0.04	0.2	0.3	0.03	0.3
WMAIN-3501(1)	J-6589	018-008	12	152.5	0.02	0.04	0.2	0.4	0.03	0.3
WMAIN-3501(2)	018-008	J-6590	12	152.5	0.02	0.04	0.2	0.4	0.03	0.3
WMAIN-3502	J-6590	J-6967	12	152.5	0.02	0.04	0.2	0.4	0.03	0.3
WMAIN-3503	J-7024	J-5258	6	140	0.05	0.22	0.2	0.5	0.13	0.4
WMAIN-3504	J-6823	J-6824	6	140	0	0	0	0	0	0
WMAIN-3505	J-5610	J-5676	8	140	0.08	0.26	0.4	0.7	0.26	0.7
WMAIN-3507(1)	J-5676	019-023	8	140	0.03	0.12	0.2	0.4	0.12	0.4
WMAIN-3507(2)	019-023	J-5292	8	140	0.03	0.12	0.2	0.4	0.12	0.4
WMAIN-3508	J-5885	J-5082	4	140	0	0	0	0	0	0
WMAIN-3509(1)	J-8314	019-026	12	152.5	0.03	0.06	0.3	0.4	0.06	0.4
WMAIN-3509(2)(1)	019-026	019-041	12	152.5	0.03	0.07	0.3	0.5	0.07	0.5
WMAIN-3509(2)(2)	019-041	J-8602	12	152.5	0.03	0.07	0.3	0.5	0.07	0.5
WMAIN-3511(1)	J-8602	019-042	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3511(2)	019-042	J-8603	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3512(1)	J-8603	019-043	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3512(2)	019-043	J-8554	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3514	J-8324	J-7252	12	152.5	0.18	0.41	0.8	1.2	0.41	1.2
WMAIN-3517	J-5576	J-6585	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-3518	J-8712	J-6250	8	152.5	0	0.13	0.1	0.5	0.08	0.4
WMAIN-3520	J-5992	J-6241	6	152.5	0.1	0.42	0.4	0.8	0.42	0.8
WMAIN-3522	J-7415	J-7416	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3526	J-7925	J-7924	4	140	0.02	0.17	0.1	0.4	0.17	0.4
WMAIN-3527	J-8159	J-7925	4	140	0.01	0.18	0.1	0.4	0.18	0.4
WMAIN-3529	J-6327	J-6328	4	140	0.15	0.66	0.3	0.7	0.66	0.7
WMAIN-3530(1)	J-6328	021-047	4	140	0.2	0.85	0.4	0.8	0.85	0.8
WMAIN-3530(2)	021-047	J-7439	4	140	0.23	0.95	0.4	0.9	0.95	0.9
WMAIN-3531	J-7409	J-5392	6	140	0.04	0.18	0.2	0.5	0.18	0.5
WMAIN-3533(1)	J-7704	021-035	6	140	0.05	0.18	0.2	0.5	0.18	0.5
WMAIN-3533(2)	021-035	J-7409	6	140	0.04	0.17	0.2	0.5	0.17	0.5
WMAIN-3534(1)	J-7473	012-037	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-3534(2)	012-037	J-7789	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-3536(1)	J-5695	012-017	16	140	0.05	0.26	0.5	1.1	0.26	1.1
WMAIN-3536(2)	012-017	J-7887	16	140	0.05	0.27	0.5	1.1	0.27	1.1
WMAIN-3538(1)	J-5394	022-009	10	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3538(2)	022-009	J-6820	10	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3540(1)	J-6820	H-505	10	152.5	0.02	0.06	0.2	0.4	0.04	0.3
WMAIN-3540(2)	H-505	J-6904	10	152.5	0.02	0.06	0.2	0.4	0.05	0.3
WMAIN-3542	J-5991	J-6109	10	152.5	0.14	0.34	0.6	1	0.3	0.9
WMAIN-3544	J-5687	J-6110	4	140	2.01	3.75	1.4	1.9	3.41	1.8
WMAIN-3545	J-7129	J-7130	6	152.5	0.02	0.12	0.2	0.4	0.09	0.4
WMAIN-3547(1)	J-7040	022-017	6	152.5	0.06	0.18	0.3	0.5	0.15	0.5
WMAIN-3547(2)	022-017	J-7129	6	152.5	0.06	0.19	0.3	0.5	0.16	0.5
WMAIN-3548(1)	J-6059	022-031	6	152.5	0.33	0.75	0.7	1.1	0.75	1.1
WMAIN-3548(2)(1)	022-031	022-032	6	152.5	0.35	0.8	0.7	1.2	0.8	1.2
WMAIN-3548(2)(2)	022-032	J-5787	6	152.5	0.35	0.8	0.7	1.2	0.8	1.2
WMAIN-3550(1)	J-5787	022-048	6	152.5	0.02	0.08	0.2	0.3	0.08	0.3
WMAIN-3550(2)	022-048	J-8474	6	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-3552	J-7521	J-7424	10	152.5	0.29	0.69	0.9	1.5	0.65	1.4
WMAIN-3554	J-6101	J-6102	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-3556	J-6760	J-6761	6	152.5	0.02	0.11	0.2	0.4	0.11	0.4
WMAIN-3558	J-8454	J-6505	8	152.5	0.01	0.15	0.2	0.6	0.15	0.6
WMAIN-3560(1)	J-6073	023-004	16	152.5	0.01	0.13	0.2	0.8	0.02	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3560(2)	023-004	J-5682	16	152.5	0.01	0.12	0.2	0.8	0.02	0.3
WMAIN-3562(1)(1)	J-6974	027-050	16	140	0	0.18	0.1	0.9	0.01	0.2
WMAIN-3562(1)(2)	027-050	026-016	16	140	0	0.18	0.1	0.9	0.01	0.2
WMAIN-3562(2)	026-016	J-6598	16	140	0	0.18	0.1	0.9	0.01	0.2
WMAIN-3563(1)(1)	J-6539	025-002	10	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3563(1)(2)	025-002	025-003	10	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3563(2)	025-003	J-8657	10	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3565	J-7309	025-006	8	152.5	0	0.07	0.1	0.4	0.02	0.2
WMAIN-3566	J-6359	J-8413	16	140	0.02	0.15	0.2	0.8	0.03	0.3
WMAIN-3567(1)(1)(1)	J-8413	023-011	16	140	0.02	0.15	0.2	0.8	0.03	0.3
WMAIN-3567(1)(1)(2)	023-011	J-5347	16	140	0.02	0.15	0.2	0.8	0.03	0.3
WMAIN-3567(1)(2)	J-5347	J-5348	16	140	0.01	0.14	0.2	0.8	0.03	0.3
WMAIN-3567(2)	J-5348	J-5104	16	140	0.01	0.15	0.2	0.8	0.03	0.3
WMAIN-3568	J-7697	J-6690	16	140	0.03	0.14	0.3	0.8	0.04	0.4
WMAIN-3570(1)	J-7696	J-9330	16	140	0.04	0.13	0.4	0.8	0.05	0.4
WMAIN-3570(2)	J-9330	J-7697	16	140	0.04	0.13	0.4	0.8	0.05	0.4
WMAIN-3571(1)	J-8724	010-019	8	152.5	0	0.05	0	0.3	0.03	0.3
WMAIN-3571(2)	010-019	J-8725	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-3573(1)	J-8725	010-021	8	152.5	0	0.07	0	0.4	0.05	0.3
WMAIN-3573(2)	010-021	J-6319	8	152.5	0	0.08	0	0.4	0.06	0.3
WMAIN-3575(1)	J-8437	009-012	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-3575(2)	009-012	J-7507	8	152.5	0.03	0.15	0.2	0.6	0.15	0.6
WMAIN-3577	J-7794	J-7847	8	152.5	0	0	0	0	0	0
WMAIN-3580	J-8580	J-6664	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-3581(1)	J-7720	167-034	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-3581(2)	167-034	J-7721	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-3584(1)(1)	J-6983	170-125	12	152.5	0.24	0.62	0.9	1.6	0.62	1.6
WMAIN-3584(1)(2)	170-125	170-126	12	152.5	0.22	0.56	0.9	1.5	0.56	1.5
WMAIN-3584(2)	170-126	J-8219	12	152.5	0.22	0.56	0.9	1.5	0.56	1.5
WMAIN-3585	J-7717	J-7706	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-3587	J-7706	J-6982	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-3590(1)	J-6982	170-109	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3590(2)(1)	170-109	170-110	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3590(2)(2)	170-110	J-6173	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3591(1)	J-6982	170-152	8	152.5	0	0.08	0.1	0.4	0.06	0.3
WMAIN-3591(2)	170-152	J-6983	8	152.5	0	0.08	0.1	0.4	0.06	0.3
WMAIN-3595(1)	J-7090	170-108	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-3595(2)	170-108	J-6982	8	152.5	0	0.01	0	0.1	0	0
WMAIN-3596	J-7700	J-7768	8	152.5	0.11	0.26	0.5	0.8	0.26	0.8
WMAIN-3598(1)	J-8325	170-159	12	152.5	0.11	0.33	0.6	1.1	0.33	1.1
WMAIN-3598(2)	170-159	J-8326	12	152.5	0.11	0.33	0.6	1.1	0.33	1.1
WMAIN-3599	J-8354	J-8589	12	152.5	0.42	1.08	1.3	2.1	1.08	2.1
WMAIN-3601	J-7268	J-7673	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-3603	J-7673	J-7755	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-3605(1)	J-7332	041-004	8	152.5	0.08	1.02	0.4	1.6	1.02	1.6
WMAIN-3605(2)	041-004	J-7333	8	152.5	0.08	1.02	0.4	1.6	1.02	1.6
WMAIN-3608(1)	J-7269	041-016	8	152.5	0.01	0.1	0.1	0.5	0.1	0.5
WMAIN-3608(2)	041-016	J-7792	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-3610	J-7792	J-8362	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-3611(1)(1)	J-7755	041-018	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-3611(1)(2)	041-018	041-017	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-3611(2)	041-017	J-8362	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-3614	J-7826	J-7755	8	152.5	0.05	0.47	0.3	1	0.47	1
WMAIN-3618(1)	J-7826	041-014	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-3618(2)	041-014	J-8681	8	152.5	0.02	0.15	0.2	0.6	0.15	0.6
WMAIN-3619(1)	J-8681	041-015	8	152.5	0.03	0.32	0.2	0.8	0.32	0.8
WMAIN-3619(2)	041-015	J-7332	8	152.5	0.03	0.3	0.2	0.8	0.3	0.8
WMAIN-3621	J-7018	J-7826	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-3624	J-7332	J-7269	8	152.5	0.02	0.27	0.2	0.8	0.27	0.8
WMAIN-3627(1)	J-7792	041-019	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-3627(2)	041-019	J-7673	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3629	J-7268	J-7269	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-3633(1)	J-7017	041-013	8	152.5	0	0	0	0	0	0
WMAIN-3633(2)	041-013	J-7018	8	152.5	0	0	0	0	0	0
WMAIN-3636	J-8681	J-7018	8	152.5	0.01	0.06	0.1	0.4	0.06	0.4
WMAIN-3638	J-7074	J-7075	8	152.5	0	0	0	0	0	0
WMAIN-3640(1)	J-6641	041-008	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-3640(2)	041-008	J-7074	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3641(1)	J-7989	041-007	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3641(2)	041-007	J-8618	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3644	J-7074	J-8618	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3645(1)(1)	J-7333	J-9228	12	152.5	0.02	0.12	0.2	0.7	0.12	0.7
WMAIN-3645(1)(2)	J-9228	041-005	12	152.5	0.02	0.12	0.2	0.6	0.12	0.6
WMAIN-3645(2)	041-005	J-7902	12	152.5	0.02	0.12	0.2	0.6	0.12	0.6
WMAIN-3648	J-5477	J-5478	6	140	0.12	0.44	0.4	0.8	0.44	0.8
WMAIN-3649	J-5478	J-6398	6	140	0.28	0.79	0.6	1.1	0.79	1.1
WMAIN-3651(1)	J-6408	023-016	6	140	0.01	0.2	0.1	0.5	0.1	0.3
WMAIN-3651(2)	023-016	J-7698	6	140	0.01	0.21	0.1	0.5	0.12	0.4
WMAIN-3652	J-5479	J-5480	12	152.5	0	0.14	0	0.7	0.09	0.5
WMAIN-3653(1)	J-5359	032-036	12	152.5	0	0.02	0	0.2	0	0.1
WMAIN-3653(2)	032-036	J-7289	12	152.5	0	0.02	0	0.2	0	0.1
WMAIN-3655	J-5362	017-001	12	152.5	0	0	0	0.1	0	0.1
WMAIN-3657	J-5361	J-5362	12	152.5	0.01	0.06	0.2	0.4	0.04	0.3
WMAIN-3658	J-5658	J-5659	8	140	0.28	0.87	0.7	1.3	0.87	1.3
WMAIN-3659	J-5659	J-5390	8	140	0.28	0.87	0.7	1.3	0.87	1.3
WMAIN-3660(1)	J-5473	J-8838	12	152.5	0.08	0.3	0.5	1	0.25	0.9
WMAIN-3660(2)	J-8838	J-5474	12	152.5	0	0	0	0	0	0
WMAIN-3661(1)	J-6781	J-8802	12	140	0.03	0.12	0.3	0.6	0.12	0.6
WMAIN-3661(2)	J-8802	J-5236	12	140	0.03	0.12	0.3	0.6	0.12	0.6
WMAIN-3662(1)	J-6565	010-009	12	152.5	0	0.2	0	0.8	0.09	0.5
WMAIN-3662(2)	010-009	J-5214	12	152.5	0	0.2	0	0.8	0.09	0.5
WMAIN-3665	J-5302	J-5303	16	140	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-3666	J-5316	J-5317	8	140	0.53	0.93	1	1.4	0.93	1.4
WMAIN-3667	J-5331	J-5332	12	152.5	0	0	0	0	0	0
WMAIN-3670	J-5613	J-5086	8	140	0.55	3.07	1	2.6	2.18	2.2
WMAIN-3671	J-5247	J-5248	16	140	0	0.01	0	0.2	0.01	0.2
WMAIN-3673	J-5238	J-5239	10	140	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-3675(1)	J-5924	J-9022	12	140	0.03	0.11	0.3	0.5	0.11	0.5
WMAIN-3675(2)	J-9022	J-5428	12	140	0.02	0.26	0.2	0.9	0.13	0.6
WMAIN-3677	J-5253	J-5254	6	140	0	0	0	0	0	0
WMAIN-3678	J-5133	J-5134	12	140	0	0	0	0	0	0
WMAIN-3679	J-5679	J-5292	10	152.5	0.1	0.3	0.5	0.9	0.3	0.9
WMAIN-3681	J-5293	J-5408	16	140	0	0.02	0	0.3	0.02	0.2
WMAIN-3682	J-6084	J-6085	8	140	0.36	1.16	0.8	1.6	1.16	1.6
WMAIN-3683	J-6139	J-6471	6	140	0.11	0.3	0.4	0.6	0.3	0.6
WMAIN-3685	J-6138	J-6139	6	140	0.05	0.26	0.2	0.6	0.16	0.4
WMAIN-3686	J-7255	053-013	6	140	0	0.12	0	0.4	0.04	0.2
WMAIN-3687	J-6134	J-6135	12	152.5	0.07	0.52	0.5	1.4	0.52	1.4
WMAIN-3689	J-7363	J-7613	6	140	0.01	0.09	0.1	0.3	0.02	0.2
WMAIN-3691(1)	J-7114	044-036	8	140	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-3691(2)	044-036	J-7571	8	140	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-3692(1)	J-5093	044-025	8	140	0	0.22	0	0.6	0.04	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3692(2)	044-025	J-6354	8	140	0	0.22	0	0.6	0.04	0.3
WMAIN-3694	J-5422	J-5423	8	140	0	0.03	0	0.2	0.03	0.2
WMAIN-3695	J-5550	J-5551	6	140	0.13	0.38	0.4	0.7	0.38	0.7
WMAIN-3698	J-5167	J-6701	6	140	0.07	0.25	0.3	0.6	0.14	0.4
WMAIN-3699	J-5166	J-5167	6	140	0.12	0.43	0.4	0.8	0.26	0.6
WMAIN-3700(1)	J-5580	028-005	6	140	0	0.04	0	0.2	0	0
WMAIN-3700(2)	028-005	J-6706	6	140	0	0.04	0	0.2	0	0
WMAIN-3702(1)	J-5488	028-004	6	140	0.01	0.11	0.1	0.4	0.01	0.1
WMAIN-3702(2)	028-004	J-5580	6	140	0.01	0.1	0.1	0.4	0.01	0.1
WMAIN-3703	J-6791	J-7753	8	140	0	0.18	0	0.6	0.18	0.6
WMAIN-3704	J-7223	J-7519	12	152.5	0.02	0.53	0.2	1.4	0.02	0.2
WMAIN-3706	J-6727	J-7403	8	152.5	0	0.07	0	0.4	0	0.1
WMAIN-3708	J-6324	J-7069	8	152.5	0	2.3	0	2.4	2.29	2.4
WMAIN-3710	J-5517	J-5518	16	140	0	0.17	0.1	0.8	0.01	0.1
WMAIN-3711	J-5475	J-5476	16	140	0	0.14	0	0.8	0	0.1
WMAIN-3712(1)	J-6001	145-012	12	152.5	0.11	0.44	0.6	1.3	0.44	1.3
WMAIN-3712(2)	145-012	J-6238	12	152.5	0.11	0.44	0.6	1.3	0.44	1.3
WMAIN-3713	J-6238	J-8223	12	152.5	0.11	0.44	0.6	1.3	0.44	1.3
WMAIN-3714	J-5224	J-6538	10	152.5	0	0.01	0	0.1	0	0.1
WMAIN-3715	J-7997	J-7189	16	140	0	0.1	0.1	0.6	0.1	0.6
WMAIN-3716	J-7690	J-7888	16	140	0.03	0.18	0.3	0.9	0.18	0.9
WMAIN-3717(1)	J-7460	011-008	16	140	0.02	0.15	0.3	0.8	0.15	0.8
WMAIN-3717(2)	011-008	J-7690	16	140	0.02	0.15	0.3	0.8	0.15	0.8
WMAIN-3718	J-5612	J-7460	16	140	0.01	0.14	0.2	0.8	0.14	0.8
WMAIN-3719	J-5611	J-5612	16	140	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-3722(1)	J-6922	043-041	8	140	0.05	0.12	0.3	0.5	0.12	0.4
WMAIN-3722(2)	043-041	J-6923	8	140	0.05	0.12	0.3	0.5	0.11	0.4
WMAIN-3723(1)	J-5918	028-017	6	140	0.01	0.77	0.1	1	0.77	1
WMAIN-3723(2)	028-017	J-6290	6	140	0.01	0.77	0.1	1	0.77	1
WMAIN-3724	J-5424	J-5425	8	140	0	0.03	0.1	0.2	0.03	0.2
WMAIN-3726	J-5374	J-5375	6	140	0.39	1.13	0.7	1.3	1.13	1.3
WMAIN-3727	J-5335	J-5248	8	152.5	0.06	0.23	0.4	0.7	0.23	0.7
WMAIN-3729	J-5172	028-007	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3730	J-5498	J-5499	12	152.5	0.02	0.17	0.2	0.8	0.09	0.5
WMAIN-3731	J-5157	J-5158	8	152.5	0	0	0	0	0	0
WMAIN-3732(1)	J-5683	022-002	10	140	0.01	0.05	0.2	0.3	0.03	0.2
WMAIN-3732(2)(1)	022-002	H-504	10	140	0.02	0.05	0.2	0.3	0.03	0.2
WMAIN-3732(2)(2)	H-504	J-5876	10	140	0.01	0.05	0.2	0.3	0.03	0.2
WMAIN-3734	J-5456	J-5457	16	140	0	0.17	0.1	0.8	0.01	0.2
WMAIN-3735	J-5688	J-5112	6	140	0.15	1.11	0.4	1.3	1.11	1.3
WMAIN-3737	J-5257	J-5258	6	140	0.05	0.23	0.2	0.5	0.13	0.4
WMAIN-3740(1)	J-6284	055-018	12	152.5	0.07	0.5	0.5	1.4	0.5	1.4
WMAIN-3740(2)	055-018	J-6588	12	152.5	0.07	0.49	0.5	1.4	0.49	1.4
WMAIN-3742(1)(1)	J-8637	167-005	12	152.5	0.29	0.9	1	1.9	0.9	1.9
WMAIN-3742(1)(2)	167-005	167-004	12	152.5	0.29	0.9	1	1.9	0.9	1.9
WMAIN-3742(2)(1)	167-004	167-003	12	152.5	0.29	0.9	1	1.9	0.9	1.9
WMAIN-3742(2)(2)	167-003	J-5564	12	152.5	0.29	0.9	1	1.9	0.9	1.9
WMAIN-3743	J-6661	J-7120	8	152.5	0.14	0.33	0.5	0.9	0.33	0.9
WMAIN-3746	J-5541	J-5542	6	140	0.19	0.94	0.5	1.2	0.94	1.2
WMAIN-3747	J-5391	J-5392	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-3748	021-012	J-5343	6	140	0	0.02	0.1	0.1	0.01	0.1
WMAIN-3749	J-5426	J-5427	16	152.5	0.02	0.21	0.3	1	0.21	1
WMAIN-3751	J-5741	J-5742	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3753	J-5418	J-5419	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-3755	J-5442	J-5443	8	140	0.01	0.54	0.1	1	0.05	0.3
WMAIN-3756	037-036	J-6952	8	140	0	0.26	0.1	0.7	0.03	0.2
WMAIN-3758(1)	171-060	171-061	12	152.5	1.52	3.47	2.5	3.9	3.47	3.9
WMAIN-3758(2)	171-061	J-7560	12	152.5	1.52	3.47	2.5	3.9	3.47	3.9
WMAIN-3759(1)(1)	J-8761	171-026	12	152.5	0.66	1.58	1.6	2.6	1.58	2.6
WMAIN-3759(1)(2)	171-026	171-027	12	152.5	0.66	1.58	1.6	2.6	1.58	2.6
WMAIN-3759(2)	171-027	J-5381	12	152.5	0.66	1.58	1.6	2.6	1.58	2.6
WMAIN-3760	J-5381	J-5382	16	152.5	2.13	4.93	3.6	5.7	4.93	5.7
WMAIN-3761	J-5382	171-060	12	152.5	1.52	3.47	2.5	3.9	3.47	3.9
WMAIN-3762	J-6470	J-8761	12	152.5	0.66	1.58	1.6	2.6	1.58	2.6
WMAIN-3764	J-6469	J-6470	12	152.5	0.66	1.58	1.6	2.6	1.58	2.6
WMAIN-3765(1)	J-8609	171-088	12	152.5	0.65	1.55	1.6	2.5	1.55	2.5
WMAIN-3765(2)	171-088	J-6469	12	152.5	0.65	1.55	1.6	2.5	1.55	2.5
WMAIN-3767(1)	171-019	171-020	12	152.5	0.65	1.54	1.6	2.5	1.54	2.5
WMAIN-3767(2)	171-020	J-8609	12	152.5	0.65	1.55	1.6	2.5	1.55	2.5
WMAIN-3768(1)	J-8769	171-018	12	152.5	0.64	1.52	1.6	2.5	1.52	2.5
WMAIN-3768(2)	171-018	171-019	12	152.5	0.65	1.53	1.6	2.5	1.53	2.5
WMAIN-3769(1)(1)	J-8746	171-079	12	152.5	0.6	1.4	1.5	2.4	1.4	2.4
WMAIN-3769(1)(2)	171-079	171-016	12	152.5	0.61	1.41	1.5	2.4	1.41	2.4
WMAIN-3769(2)(1)	171-016	171-017	12	152.5	0.63	1.5	1.6	2.5	1.5	2.5
WMAIN-3769(2)(2)	171-017	J-8769	12	152.5	0.64	1.51	1.6	2.5	1.51	2.5
WMAIN-3770(1)	171-001	171-002	12	152.5	0.59	1.36	1.5	2.4	1.36	2.4
WMAIN-3770(2)	171-002	J-8746	12	152.5	0.59	1.36	1.5	2.4	1.36	2.4
WMAIN-3771(1)	J-8323	014-012	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3771(2)	014-012	J-8324	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3773(1)	J-8554	019-044	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3773(2)(1)	019-044	019-045	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3773(2)(2)	019-045	J-8323	12	152.5	0.1	0.16	0.6	0.8	0.16	0.8
WMAIN-3775	J-5305	J-5306	8	152.5	0.01	0.03	0.1	0.3	0.03	0.2
WMAIN-3777	J-5086	J-5087	8	152.5	0	0.97	0.1	1.5	0.97	1.5
WMAIN-3778	J-5662	J-5663	8	152.5	0.97	10.33	1.5	5.5	10.29	5.5
WMAIN-3780	038-059	J-5511	16	140	0	0.38	0.1	1.3	0	0.1
WMAIN-3782	J-8456	J-8098	8	152.5	0.06	0.11	0.3	0.5	0.11	0.5
WMAIN-3784	J-8588	J-8589	12	152.5	0.06	0.15	0.4	0.7	0.15	0.7
WMAIN-3787	J-7166	J-7167	8	152.5	0	0	0	0	0	0
WMAIN-3790(1)	J-8382	170-147	8	152.5	0.55	1.12	1.1	1.7	1.12	1.7
WMAIN-3790(2)	170-147	J-8446	8	152.5	0.55	1.1	1.1	1.6	1.1	1.6
WMAIN-3793	J-8456	J-8446	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-3797(1)	J-7878	170-136	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-3797(2)	170-136	J-8072	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-3798	J-6635	J-6636	6	152.5	0	0	0	0	0	0
WMAIN-3801	J-6467	J-6468	6	152.5	0	0	0	0	0	0
WMAIN-3803(1)	J-7986	170-134	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-3803(2)	170-134	J-6467	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3806	J-8071	J-8072	8	152.5	0.07	0.18	0.4	0.6	0.18	0.6
WMAIN-3808(1)(1)	J-7419	170-142	8	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-3808(1)(2)	170-142	170-143	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3808(2)	170-143	J-8447	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3810(1)	J-8444	170-141	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-3810(2)	170-141	J-7419	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-3812(1)	J-6962	170-140	8	152.5	0.04	0.12	0.3	0.5	0.12	0.5
WMAIN-3812(2)	170-140	J-8444	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-3815	J-6962	J-6963	8	152.5	0	0	0	0	0	0
WMAIN-3817(1)	J-6962	170-139	12	152.5	0.48	0.93	1.4	1.9	0.93	1.9
WMAIN-3817(2)	170-139	J-8391	12	152.5	0.48	0.93	1.4	1.9	0.93	1.9
WMAIN-3819(1)	J-7897	170-024	12	152.5	0.25	0.47	1	1.3	0.47	1.3
WMAIN-3819(2)(1)	170-024	170-137	12	152.5	0.25	0.47	1	1.3	0.47	1.3
WMAIN-3819(2)(2)	170-137	J-8071	12	152.5	0.25	0.47	1	1.3	0.47	1.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3821	J-8712	J-8757	4	140	0.11	0.53	0.3	0.7	0.53	0.7
WMAIN-3822(1)(1)	J-8563	018-037	8	152.5	0	0	0	0	0	0
WMAIN-3822(1)(2)(1)	018-037	018-040	8	152.5	0	0	0	0	0	0
WMAIN-3822(1)(2)(2)	018-040	018-036	8	152.5	0	0	0	0	0	0
WMAIN-3822(2)	018-036	J-5400	8	152.5	0	0	0	0	0	0
WMAIN-3825(1)	J-8203	018-038	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3825(2)	018-038	J-8563	8	152.5	0	0	0	0	0	0
WMAIN-3826	J-6176	J-6177	12	152.5	0	0	0	0	0	0
WMAIN-3829(1)	J-7144	167-021	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-3829(2)(1)	167-021	167-020	8	152.5	0.03	0.12	0.3	0.5	0.12	0.5
WMAIN-3829(2)(2)	167-020	J-6177	8	152.5	0.03	0.12	0.3	0.5	0.12	0.5
WMAIN-3831	J-6177	J-7638	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-3834(1)	J-7145	167-012	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-3834(2)	167-012	J-7638	8	152.5	0.04	0.14	0.3	0.6	0.14	0.6
WMAIN-3836	J-7638	J-7800	8	152.5	0	0	0	0.1	0	0
WMAIN-3837(1)	J-8556	167-023	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-3837(2)	167-023	J-6664	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-3840	J-7800	J-7483	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3843(1)	J-7800	167-013	8	152.5	0	0	0	0	0	0
WMAIN-3843(2)(1)	167-013	167-039	8	152.5	0	0	0	0	0	0
WMAIN-3843(2)(2)	167-039	J-8547	8	152.5	0	0	0	0	0	0
WMAIN-3844(1)	J-7144	167-024	8	152.5	0.07	0.27	0.4	0.8	0.27	0.8
WMAIN-3844(2)	167-024	J-6897	8	152.5	0.08	0.29	0.4	0.8	0.29	0.8
WMAIN-3847(1)	J-7145	167-022	8	152.5	0.03	0.1	0.2	0.5	0.1	0.5
WMAIN-3847(2)	167-022	J-8556	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-3849	J-7144	J-7145	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3851(1)	J-6177	167-019	8	152.5	0.4	1.24	1	1.8	1.24	1.8
WMAIN-3851(2)	167-019	J-6071	8	152.5	0.38	1.18	0.9	1.7	1.18	1.7
WMAIN-3854(1)	167-026	167-025	12	152.5	0.14	0.34	0.7	1.1	0.34	1.1
WMAIN-3854(2)	167-025	J-6671	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-3856(1)	167-026	167-027	12	152.5	0.14	0.34	0.7	1.1	0.34	1.1
WMAIN-3856(2)	167-027	J-6896	12	152.5	0.15	0.37	0.7	1.2	0.37	1.2
WMAIN-3859	J-8353	J-8354	12	152.5	0.42	1.07	1.3	2.1	1.07	2.1
WMAIN-3862(1)	J-7365	170-040	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-3862(2)	170-040	J-7366	8	152.5	0.02	0.03	0.2	0.3	0.03	0.3
WMAIN-3865(1)	J-7768	170-041	8	152.5	0.27	0.63	0.8	1.2	0.63	1.2
WMAIN-3865(2)(1)	170-041	170-058	8	152.5	0.28	0.66	0.8	1.2	0.66	1.2
WMAIN-3865(2)(2)	170-058	J-8326	8	152.5	0.28	0.66	0.8	1.2	0.66	1.2
WMAIN-3867(1)	J-7699	170-037	8	152.5	0.19	0.42	0.6	1	0.42	1
WMAIN-3867(2)	170-037	J-7700	8	152.5	0.19	0.43	0.6	1	0.43	1
WMAIN-3868(1)	J-7700	170-038	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-3868(2)(1)	170-038	170-039	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3868(2)(2)	170-039	J-7734	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3870	J-7734	J-7366	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3872(1)	J-7366	170-060	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-3872(2)	170-060	J-7365	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3875	J-7768	J-7365	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-3879(1)	J-8812	170-153	12	152.5	0.02	0.08	0.2	0.5	0.07	0.5
WMAIN-3879(2)(1)	170-153	171-078	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-3879(2)(2)	171-078	J-8325	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-3882(1)	J-8741	170-061	12	152.5	0.2	0.44	0.8	1.3	0.44	1.3
WMAIN-3882(2)	170-061	J-8353	12	152.5	0.2	0.44	0.9	1.3	0.44	1.3
WMAIN-3883	J-8740	J-8741	12	152.5	0.3	0.73	1	1.7	0.73	1.7
WMAIN-3885(1)	J-7567	170-036	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-3885(2)	170-036	J-7112	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-3887(1)	J-7322	170-055	8	152.5	0.03	0.08	0.3	0.4	0.08	0.4
WMAIN-3887(2)	170-055	J-8501	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-3890(1)	J-7112	170-057	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-3890(2)	170-057	J-7322	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-3891	J-5584	J-5585	8	152.5	0.37	0.94	0.9	1.5	0.94	1.5
WMAIN-3893	J-5585	J-7567	8	152.5	0.18	0.42	0.6	1	0.42	1
WMAIN-3895	J-7567	J-7699	8	152.5	0.4	0.95	0.9	1.5	0.95	1.5
WMAIN-3896	J-7773	J-5585	8	152.5	0.03	0.14	0.3	0.5	0.14	0.5
WMAIN-3898(1)	J-6626	170-031	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-3898(2)	170-031	J-7773	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-3901	J-7699	J-7862	8	152.5	0	0.09	0	0.4	0.04	0.3
WMAIN-3904	J-6625	J-6626	8	152.5	0.05	0.22	0.3	0.7	0.22	0.7
WMAIN-3906(1)	J-7773	170-034	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3906(2)(1)	170-034	170-032	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3906(2)(2)	170-032	J-6626	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3909(1)	J-7322	170-056	8	152.5	0	0	0	0	0	0
WMAIN-3909(2)	170-056	J-7323	8	152.5	0	0	0	0	0	0
WMAIN-3911	J-7112	J-7113	8	152.5	0	0	0	0	0	0
WMAIN-3912(1)	J-8740	170-033	8	152.5	0	0.08	0	0.4	0.06	0.3
WMAIN-3912(2)	170-033	J-7699	8	152.5	0	0.07	0	0.4	0.05	0.3
WMAIN-3918(1)	J-7675	047-014	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3918(2)	047-014	J-6152	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3921	J-6149	J-7674	8	152.5	0	0	0	0	0	0
WMAIN-3922	J-6148	J-6149	8	152.5	0	0	0	0	0	0
WMAIN-3925	J-7822	J-8357	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3927	J-8357	J-6547	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3929	J-6149	J-7821	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3933	J-7821	J-7822	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-3935(1)	J-7821	047-010	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3935(2)	047-010	J-7864	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3936(1)(1)	J-6149	047-013	8	152.5	0	0	0	0	0	0
WMAIN-3936(1)(2)	047-013	047-017	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3936(2)	047-017	J-7821	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3938(1)	J-7674	047-012	8	152.5	0	0	0	0	0	0
WMAIN-3938(2)	047-012	J-7864	8	152.5	0	0	0	0	0	0
WMAIN-3940(1)	J-8356	047-009	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3940(2)	047-009	J-8357	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3942	J-8767	J-5247	16	152.5	0.03	0.07	0.3	0.6	0.07	0.6
WMAIN-3944(1)	J-8281	032-008	16	152.5	0.03	0.07	0.3	0.6	0.07	0.6
WMAIN-3944(2)	032-008	J-8767	16	152.5	0.03	0.07	0.3	0.6	0.07	0.6
WMAIN-3945	J-8572	J-6937	16	152.5	0.02	0.06	0.3	0.5	0.06	0.5
WMAIN-3948(1)	J-7808	033-016	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-3948(2)	033-016	033-017	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-3949(1)(1)	J-8450	033-013	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-3949(1)(2)	033-013	033-014	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-3949(2)	033-014	J-6496	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-3953(1)	J-6796	033-001	16	152.5	0.14	0.2	0.8	1	0.15	0.9
WMAIN-3953(2)	033-001	J-5128	16	152.5	0.14	0.2	0.8	1	0.15	0.9
WMAIN-3956(1)	J-7812	034-046	16	152.5	0.18	0.25	0.9	1.1	0.25	1.1
WMAIN-3956(2)	034-046	J-5128	16	152.5	0.18	0.25	0.9	1.1	0.25	1.1
WMAIN-3958	J-7498	J-6796	16	152.5	0.07	0.13	0.6	0.8	0.07	0.6
WMAIN-3960(1)	J-6840	033-002	16	152.5	0.05	0.1	0.5	0.7	0.05	0.5
WMAIN-3960(2)	033-002	J-7498	16	152.5	0.05	0.1	0.5	0.7	0.05	0.5
WMAIN-3962	J-6886	J-6840	16	152.5	0.05	0.1	0.5	0.7	0.05	0.5
WMAIN-3964(1)	J-7922	034-037	8	152.5	0.12	0.35	0.5	0.9	0.35	0.9
WMAIN-3964(2)	034-037	J-7923	8	152.5	0.12	0.36	0.5	0.9	0.36	0.9
WMAIN-3965	J-6203	J-6204	8	152.5	0	0	0	0	0	0

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3967	J-7034	J-7035	8	152.5	0	0	0	0	0	0
WMAIN-3969(1)	J-8182	034-039	8	152.5	0.03	0.06	0.2	0.4	0.06	0.4
WMAIN-3969(2)	034-039	J-7035	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-3972	J-8182	J-7854	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-3974	J-7854	J-7993	8	152.5	0	0	0	0	0	0
WMAIN-3976	J-6566	J-8132	8	152.5	0	0	0	0	0	0
WMAIN-3979(1)(1)	J-6204	034-036	8	152.5	0.05	0.09	0.3	0.4	0.09	0.4
WMAIN-3979(1)(2)	034-036	034-035	8	152.5	0.05	0.08	0.3	0.4	0.08	0.4
WMAIN-3979(2)	034-035	J-8150	8	152.5	0.05	0.08	0.3	0.4	0.08	0.4
WMAIN-3982	J-8225	J-8150	8	152.5	0	0.02	0	0.2	0	0
WMAIN-3985(1)(1)	J-8225	034-045	8	152.5	0.06	0.1	0.3	0.4	0.1	0.4
WMAIN-3985(1)(2)	034-045	034-044	8	152.5	0.07	0.12	0.4	0.5	0.12	0.5
WMAIN-3985(2)	034-044	J-7922	8	152.5	0.07	0.12	0.4	0.5	0.12	0.5
WMAIN-3987	J-7660	J-7922	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-3989(1)	J-7808	033-015	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-3989(2)	033-015	J-6496	12	152.5	0	0.09	0	0.5	0.09	0.5
WMAIN-3990	J-7995	J-7181	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3993(1)	J-7181	033-009	8	152.5	0.08	0.3	0.4	0.8	0.3	0.8
WMAIN-3993(2)	033-009	J-7063	8	152.5	0.08	0.3	0.4	0.8	0.3	0.8
WMAIN-3995	J-7180	J-7181	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-3997(1)	J-6496	TEMP424	12	152.5	0	0.06	0	0.5	0.06	0.5
WMAIN-3997(2)	TEMP424	J-8915	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-3998	J-6545	J-7998	12	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-4000(1)	J-7998	032-035	12	152.5	0.01	0.03	0.2	0.3	0.02	0.3
WMAIN-4000(2)	032-035	J-5359	12	152.5	0.01	0.04	0.2	0.3	0.03	0.3
WMAIN-4003	J-5359	J-7808	12	152.5	0	0.05	0	0.4	0.05	0.4
WMAIN-4005(1)	J-7680	032-039	8	152.5	0	0	0	0	0	0
WMAIN-4005(2)	032-039	J-7814	8	152.5	0	0	0	0	0	0
WMAIN-4008(1)	J-7811	032-038	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-4008(2)	032-038	J-8540	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-4010	J-8572	J-7812	16	152.5	0.03	0.08	0.4	0.6	0.07	0.6
WMAIN-4012	J-6937	J-6938	16	152.5	0.03	0.08	0.3	0.6	0.08	0.6
WMAIN-4014	J-6938	J-8281	16	152.5	0.03	0.07	0.3	0.6	0.07	0.6
WMAIN-4016(1)	J-7679	032-041	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-4016(2)	032-041	J-7998	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-4019(1)	J-6937	032-045	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-4019(2)	032-045	J-7679	8	152.5	0	0.09	0	0.4	0.09	0.4
WMAIN-4021	J-7289	J-7290	8	152.5	0	0	0	0	0	0
WMAIN-4023	J-7680	J-8540	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4025(1)	J-7679	032-040	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4025(2)	032-040	J-7680	8	152.5	0	0.01	0.1	0.2	0.01	0.1
WMAIN-4026	J-8541	J-6937	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4030(1)	J-8572	032-044	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-4030(2)(1)	032-044	032-043	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-4030(2)(2)	032-043	J-8541	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-4031	J-8298	J-6545	8	152.5	0	0	0	0	0	0
WMAIN-4034(1)	J-6938	032-042	8	152.5	0	0	0	0	0	0
WMAIN-4034(2)	032-042	J-7055	8	152.5	0	0	0	0	0	0
WMAIN-4035(1)	033-017	033-018	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4035(2)	033-018	J-7811	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4038(1)	J-7884	033-012	8	152.5	0.04	0.1	0.3	0.5	0.06	0.4
WMAIN-4038(2)(1)	033-012	033-007	8	152.5	0.05	0.1	0.3	0.5	0.07	0.4
WMAIN-4038(2)(2)	033-007	J-8013	8	152.5	0.05	0.1	0.3	0.5	0.07	0.4
WMAIN-4040	J-6887	J-7180	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4042(1)(1)	J-7180	033-005	8	152.5	0.02	0.04	0.2	0.3	0.02	0.2
WMAIN-4042(1)(2)	033-005	033-006	8	152.5	0.01	0.03	0.2	0.2	0.01	0.2
WMAIN-4042(2)	033-006	J-8013	8	152.5	0.01	0.03	0.2	0.2	0.01	0.2
WMAIN-4045	J-7853	J-7854	8	152.5	0.22	0.41	0.7	1	0.41	1
WMAIN-4046(1)	J-7660	034-030	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-4046(2)	034-030	J-7661	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-4048(1)	J-6566	034-054	16	152.5	0.01	0.05	0.2	0.5	0.01	0.2
WMAIN-4048(2)	034-054	J-6567	16	152.5	0.01	0.05	0.2	0.5	0.01	0.2
WMAIN-4050	J-7884	J-6566	16	152.5	0.01	0.06	0.2	0.5	0.01	0.2
WMAIN-4052	J-7853	J-7884	16	152.5	0	0.04	0.1	0.4	0	0.1
WMAIN-4054(1)	J-6887	033-011	16	152.5	0.03	0.08	0.4	0.6	0.03	0.4
WMAIN-4054(2)(1)	033-011	034-040	16	152.5	0.03	0.08	0.4	0.6	0.03	0.4
WMAIN-4054(2)(2)	034-040	J-7853	16	152.5	0.03	0.08	0.4	0.6	0.03	0.4
WMAIN-4056	J-6886	J-6887	16	152.5	0.02	0.08	0.3	0.6	0.02	0.3
WMAIN-4058	J-6204	J-7660	8	152.5	0.06	0.12	0.3	0.5	0.12	0.5
WMAIN-4060	J-7289	J-7811	12	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4062(1)	J-7811	032-037	12	152.5	0	0.06	0.1	0.4	0	0.1
WMAIN-4062(2)	032-037	J-7812	12	152.5	0	0.06	0.1	0.4	0	0.1
WMAIN-4064	J-5358	J-5359	12	152.5	0	0	0	0	0	0
WMAIN-4066(1)	J-8135	034-028	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-4066(2)	034-028	J-8150	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-4068(1)	J-8336	170-016	8	152.5	0	0.07	0	0.4	0	0.1
WMAIN-4068(2)	170-016	J-6832	8	152.5	0	0.07	0	0.4	0	0
WMAIN-4070	J-8121	J-8122	12	152.5	0.07	0.31	0.5	1.1	0.31	1.1
WMAIN-4071	J-6431	J-6432	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4073(1)	J-8741	170-001	8	152.5	0.07	0.41	0.4	1	0.41	1
WMAIN-4073(2)	170-001	J-6431	8	152.5	0.07	0.42	0.4	1	0.42	1
WMAIN-4074(1)	J-6432	170-132	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4074(2)	170-132	J-6661	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4076	J-8113	J-7591	8	152.5	0.01	0.1	0.1	0.5	0.1	0.5
WMAIN-4079(1)	J-8061	170-017	8	152.5	0.02	0.09	0.2	0.4	0.06	0.4
WMAIN-4079(2)	170-017	J-7135	8	152.5	0.02	0.08	0.2	0.4	0.06	0.3
WMAIN-4080	J-7591	J-7134	8	152.5	0.14	0.55	0.5	1.1	0.55	1.1
WMAIN-4082(1)	J-7134	170-014	8	152.5	0.03	0.42	0.2	1	0.42	1
WMAIN-4082(2)	170-014	J-7135	8	152.5	0.03	0.42	0.2	1	0.42	1
WMAIN-4086(1)	J-7135	170-015	8	152.5	0.01	0.13	0.2	0.5	0.13	0.5
WMAIN-4086(2)	170-015	J-6832	8	152.5	0.01	0.12	0.1	0.5	0.12	0.5
WMAIN-4088	J-6832	J-6833	8	152.5	0	0	0	0	0	0
WMAIN-4090(1)	J-8061	J-5070	12	152.5	0.06	0.29	0.5	1	0.29	1
WMAIN-4090(2)	J-5070	J-8062	12	152.5	0.06	0.29	0.5	1	0.29	1
WMAIN-4091(1)	J-8062	170-018	12	152.5	0.07	0.3	0.5	1.1	0.3	1.1
WMAIN-4091(2)(1)	170-018	170-019	12	152.5	0.07	0.31	0.5	1.1	0.31	1.1
WMAIN-4091(2)(2)	170-019	J-8121	12	152.5	0.07	0.31	0.5	1.1	0.31	1.1
WMAIN-4093	J-8336	J-8061	12	152.5	0.02	0.21	0.3	0.9	0.21	0.9
WMAIN-4096(1)(1)	J-8122	170-011	8	152.5	0.09	0.25	0.4	0.7	0.25	0.7
WMAIN-4096(1)(2)	170-011	170-012	8	152.5	0.08	0.22	0.4	0.7	0.22	0.7
WMAIN-4096(2)(1)	170-012	170-013	8	152.5	0.08	0.22	0.4	0.7	0.22	0.7
WMAIN-4096(2)(2)	170-013	J-7591	8	152.5	0.08	0.22	0.4	0.7	0.22	0.7
WMAIN-4098(1)	J-8503	170-081	12	152.5	0	0.2	0.1	0.8	0.2	0.8
WMAIN-4098(2)	170-081	J-8336	12	152.5	0	0.2	0.1	0.8	0.2	0.8
WMAIN-4100(1)	J-8426	170-002	8	152.5	0.41	0.79	1	1.4	0.79	1.4
WMAIN-4100(2)	170-002	J-7120	8	152.5	0.42	0.8	1	1.4	0.8	1.4
WMAIN-4102(1)	J-8122	170-003	8	152.5	0.22	0.48	0.7	1	0.48	1
WMAIN-4102(2)	170-003	J-8426	8	152.5	0.22	0.49	0.7	1.1	0.49	1.1
WMAIN-4103(1)	J-6625	170-030	12	152.5	0.27	0.61	1	1.5	0.61	1.5
WMAIN-4103(2)(1)	170-030	170-029	12	152.5	0.27	0.61	1	1.5	0.61	1.5
WMAIN-4103(2)(2)	170-029	J-8740	12	152.5	0.27	0.61	1	1.5	0.61	1.5
WMAIN-4105	J-8503	J-6625	12	152.5	0.19	0.4	0.8	1.2	0.4	1.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4108	J-8122	J-8279	12	152.5	0.04	0.26	0.4	1	0.26	1
WMAIN-4110(1)	J-7212	170-005	8	152.5	0.28	0.54	0.8	1.1	0.54	1.1
WMAIN-4110(2)	170-005	J-7791	8	152.5	0.28	0.54	0.8	1.1	0.54	1.1
WMAIN-4113	J-7757	J-7212	8	152.5	0.27	0.59	0.8	1.2	0.59	1.2
WMAIN-4115	J-7896	J-7897	12	152.5	0.2	0.4	0.8	1.2	0.4	1.2
WMAIN-4118	J-6337	J-6338	8	152.5	0	0	0	0	0	0
WMAIN-4121(1)	J-7933	170-028	12	152.5	0	0.23	0	0.9	0.23	0.9
WMAIN-4121(2)	170-028	J-7282	12	152.5	0	0.23	0	0.9	0.23	0.9
WMAIN-4123(1)	J-8278	170-022	8	152.5	0.08	0.25	0.4	0.7	0.25	0.7
WMAIN-4123(2)	170-022	J-7896	8	152.5	0.08	0.26	0.4	0.8	0.26	0.8
WMAIN-4125(1)	J-7757	170-004	8	152.5	0.01	0.07	0.1	0.4	0.04	0.3
WMAIN-4125(2)	170-004	J-8426	8	152.5	0.01	0.07	0.2	0.4	0.05	0.3
WMAIN-4128	J-7757	J-7758	8	152.5	0.06	0.15	0.4	0.6	0.15	0.6
WMAIN-4130(1)	J-7758	170-006	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-4130(2)	170-006	J-8278	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4132	J-7832	J-7933	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-4133	J-7832	J-7833	12	152.5	0.01	0.15	0.1	0.7	0.15	0.7
WMAIN-4136(1)	J-8279	170-009	12	152.5	0.03	0.26	0.3	1	0.26	1
WMAIN-4136(2)	170-009	J-7833	12	152.5	0.03	0.26	0.3	1	0.26	1
WMAIN-4138	J-7212	J-5491	8	152.5	0	0	0	0	0	0
WMAIN-4139	J-5491	J-5492	8	152.5	0	0	0	0	0	0
WMAIN-4141(1)	J-7897	170-025	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-4141(2)(1)	170-025	170-026	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4141(2)(2)	170-026	J-7212	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4144(1)	J-6338	170-027	12	152.5	0.12	0.26	0.7	1	0.26	1
WMAIN-4144(2)	170-027	J-7896	12	152.5	0.13	0.26	0.7	1	0.26	1
WMAIN-4146	J-6338	J-7933	12	152.5	0.12	0.25	0.6	0.9	0.25	0.9
WMAIN-4149(1)(1)	J-7832	170-020	8	152.5	0.07	0.14	0.4	0.5	0.14	0.5
WMAIN-4149(1)(2)	170-020	170-021	8	152.5	0.08	0.16	0.4	0.6	0.16	0.6
WMAIN-4149(2)	170-021	J-8278	8	152.5	0.08	0.16	0.4	0.6	0.16	0.6
WMAIN-4151(1)	J-8417	170-007	8	152.5	0.09	0.19	0.4	0.6	0.19	0.6
WMAIN-4151(2)	170-007	J-7758	8	152.5	0.1	0.2	0.4	0.7	0.2	0.7
WMAIN-4154(1)	J-7833	170-008	8	152.5	0.08	0.16	0.4	0.6	0.16	0.6
WMAIN-4154(2)	170-008	J-8417	8	152.5	0.08	0.17	0.4	0.6	0.17	0.6
WMAIN-4156(1)	J-8279	170-010	8	152.5	0.14	0.31	0.5	0.8	0.31	0.8
WMAIN-4156(2)	170-010	J-7757	8	152.5	0.16	0.34	0.6	0.9	0.34	0.9
WMAIN-4158(1)	J-6509	170-046	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-4158(2)	170-046	J-7939	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-4159	J-5296	J-5297	4	152.5	0	0	0	0.1	0	0.1
WMAIN-4161	J-5297	J-7096	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4164(1)	J-7938	170-049	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4164(2)	170-049	J-8004	4	152.5	0	0	0	0.1	0	0.1
WMAIN-4166	J-7170	J-7171	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4169	J-8244	J-7930	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4171	J-6478	J-8347	4	152.5	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-4173(1)	J-8749	J-9038	12	152.5	0	0.11	0	0.6	0.1	0.6
WMAIN-4173(2)	J-9038	J-8662	12	152.5	0	0.12	0	0.7	0.12	0.7
WMAIN-4174	J-8742	J-8749	12	152.5	0.07	0.42	0.5	1.3	0.42	1.3
WMAIN-4177	J-6478	J-6479	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-4178	J-7930	J-7754	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-4181	J-7754	J-7625	12	152.5	0.14	0.3	0.7	1	0.3	1
WMAIN-4183(1)	J-7754	170-043	8	152.5	0	0.16	0	0.6	0.15	0.6
WMAIN-4183(2)(1)	170-043	170-050	8	152.5	0	0.14	0	0.5	0.13	0.5
WMAIN-4183(2)(2)	170-050	J-6478	8	152.5	0	0.14	0	0.5	0.13	0.5
WMAIN-4185(1)	J-7625	170-044	12	152.5	0.08	0.2	0.5	0.8	0.2	0.8
WMAIN-4185(2)	170-044	J-7626	12	152.5	0.09	0.2	0.5	0.8	0.2	0.8
WMAIN-4187	J-7625	J-7938	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-4190	J-7626	J-6509	12	152.5	0.11	0.26	0.6	1	0.26	1
WMAIN-4193	J-6509	J-6199	12	152.5	0.1	0.26	0.6	1	0.26	1
WMAIN-4195	J-7096	J-7938	8	152.5	0.04	0.12	0.3	0.5	0.12	0.5
WMAIN-4197(1)	J-7096	170-047	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-4197(2)	170-047	J-6509	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-4199(1)	J-7134	170-048	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4199(2)	170-048	J-7096	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-4200(1)	J-8070	170-051	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-4200(2)	170-051	J-7930	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-4204(1)	J-7171	170-052	8	152.5	0.01	0.01	0.1	0.2	0.01	0.2
WMAIN-4204(2)	170-052	J-7625	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4206(1)	J-7171	170-045	6	152.5	0.05	0.13	0.3	0.4	0.13	0.4
WMAIN-4206(2)	170-045	J-7626	6	152.5	0.06	0.14	0.3	0.4	0.14	0.4
WMAIN-4209(1)	J-8662	170-053	8	152.5	0	0.04	0	0.3	0	0.1
WMAIN-4209(2)	170-053	J-8070	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-4211(1)	J-8749	170-042	12	152.5	0.07	0.14	0.5	0.7	0.14	0.7
WMAIN-4211(2)	170-042	J-7754	12	152.5	0.07	0.14	0.5	0.7	0.14	0.7
WMAIN-4214(1)	J-8811	170-080	12	152.5	0.18	0.82	0.8	1.8	0.82	1.8
WMAIN-4214(2)	170-080	J-8742	12	152.5	0.18	0.82	0.8	1.8	0.82	1.8
WMAIN-4215(1)	J-8811	170-099	12	152.5	0.3	0.84	1.1	1.8	0.84	1.8
WMAIN-4215(2)(1)(1)	170-099	J-6742	12	152.5	0.3	0.84	1.1	1.8	0.84	1.8
WMAIN-4215(2)(1)(2)	J-6742	170-098	12	152.5	0.2	0.61	0.8	1.5	0.61	1.5
WMAIN-4215(2)(2)	170-098	J-8503	12	152.5	0.2	0.61	0.8	1.5	0.61	1.5
WMAIN-4217(1)	J-8788	169-007	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4217(2)(1)	169-007	169-008	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4217(2)(2)	169-008	J-8394	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4218(1)	J-8787	169-006	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4218(2)	169-006	J-8788	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4219A(1)(1)	J-5135	169-004	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4219A(1)(2)	169-004	169-005	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4219A(2)	169-005	J-8787	12	152.5	0.47	1.5	1.3	2.5	1.5	2.5
WMAIN-4219B	J-5365	J-5135	12	152.5	0.44	1.42	1.3	2.4	1.42	2.4
WMAIN-4220(1)	J-8795	169-003	12	152.5	0.19	0.65	0.8	1.6	0.65	1.6
WMAIN-4220(2)	169-003	J-5365	12	152.5	0.19	0.65	0.8	1.6	0.65	1.6
WMAIN-4221(1)(1)	J-8762	168-008	12	152.5	0.07	0.38	0.5	1.2	0.38	1.2
WMAIN-4221(1)(2)	168-008	168-009	12	152.5	0.07	0.38	0.5	1.2	0.38	1.2
WMAIN-4221(2)	168-009	J-6049	12	152.5	0.07	0.38	0.5	1.2	0.38	1.2
WMAIN-4223	J-6207	J-6208	12	152.5	0.13	0.59	0.7	1.5	0.59	1.5
WMAIN-4224(1)	J-8706	168-057	12	152.5	0.09	0.33	0.5	1.1	0.33	1.1
WMAIN-4224(2)(1)(1)	168-057	J-8971	12	152.5	0.09	0.34	0.5	1.1	0.34	1.1
WMAIN-4224(2)(1)(2)	J-8971	168-005	12	152.5	0.13	0.58	0.7	1.5	0.58	1.5
WMAIN-4224(2)(2)	168-005	J-6207	12	152.5	0.13	0.58	0.7	1.5	0.58	1.5
WMAIN-4225(1)	J-8793	168-004	12	152.5	0.08	0.33	0.5	1.1	0.33	1.1
WMAIN-4225(2)(1)	168-004	168-056	12	152.5	0.08	0.33	0.5	1.1	0.33	1.1
WMAIN-4225(2)(2)	168-056	J-8706	12	152.5	0.08	0.33	0.5	1.1	0.33	1.1
WMAIN-4226(1)	J-7807	168-003	12	152.5	0.2	0.66	0.8	1.6	0.66	1.6
WMAIN-4226(2)	168-003	J-8793	12	152.5	0.2	0.66	0.8	1.6	0.66	1.6
WMAIN-4227(1)	J-8655	168-002	12	152.5	0.3	1	1	2	1	2
WMAIN-4227(2)	168-002	J-7806	12	152.5	0.3	1	1	2	1	2
WMAIN-4228	J-7806	J-7807	12	152.5	0.2	0.65	0.8	1.6	0.65	1.6
WMAIN-4229(1)	168-001	J-9120	12	152.5	0.28	0.95	1	2	0.95	2
WMAIN-4229(2)(1)	J-9120	J-9067	12	152.5	0.2	0.66	0.8	1.6	0.66	1.6
WMAIN-4229(2)(2)	J-9067	J-8655	12	152.5	0.3	1	1	2	1	2
WMAIN-4230	J-5564	168-001	12	152.5	0.28	0.95	1	2	0.95	2
WMAIN-4232(1)	J-8637	167-006	12	152.5	0	0.02	0	0.2	0.02	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4232(2)	167-006	J-7324	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4235	167-040	J-8637	12	152.5	0.32	1.11	1.1	2.1	1.11	2.1
WMAIN-4236(1)	J-7950	167-007	8	152.5	0.05	0.2	0.3	0.6	0.2	0.6
WMAIN-4236(2)	167-007	J-7324	8	152.5	0.05	0.19	0.3	0.6	0.19	0.6
WMAIN-4239	J-7324	J-8230	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-4241(1)	J-8230	167-017	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4241(2)(1)	167-017	167-016	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4241(2)(2)	167-016	J-8744	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4244	J-7484	J-7801	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-4245(1)	J-8518	167-014	8	152.5	0	0	0	0	0	0
WMAIN-4245(2)	167-014	J-7484	8	152.5	0	0	0	0	0	0
WMAIN-4247	J-7483	J-7484	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-4251(1)	J-8744	167-015	8	152.5	0	0	0	0	0	0
WMAIN-4251(2)	167-015	J-8591	8	152.5	0	0	0	0	0	0
WMAIN-4252	J-8591	J-7847	8	152.5	0	0	0	0	0	0
WMAIN-4255(1)	J-8208	167-010	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4255(2)	167-010	J-7801	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4258(1)	J-7638	167-011	12	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-4258(2)	167-011	J-7801	12	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-4260(1)	J-7324	167-008	12	152.5	0	0	0	0.1	0	0.1
WMAIN-4260(2)	167-008	J-7325	12	152.5	0	0	0	0.1	0	0.1
WMAIN-4262	J-7325	J-8208	12	152.5	0	0	0	0.1	0	0.1
WMAIN-4263(1)	J-7794	167-018	8	152.5	0	0	0	0	0	0
WMAIN-4263(2)	167-018	J-7795	8	152.5	0	0	0	0	0	0
WMAIN-4264	J-8401	J-7325	8	152.5	0	0	0	0	0	0
WMAIN-4266(1)	J-8691	167-009	8	152.5	0	0	0	0	0	0
WMAIN-4266(2)	167-009	J-8208	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4269	J-8230	J-7794	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4270	J-7484	J-7847	8	152.5	0	0	0	0	0	0
WMAIN-4273(1)	J-6664	167-031	12	152.5	0.06	0.24	0.4	0.9	0.24	0.9
WMAIN-4273(2)	167-031	J-6665	12	152.5	0.06	0.24	0.4	0.9	0.24	0.9
WMAIN-4275(1)	J-6896	167-028	12	152.5	0.19	0.73	0.8	1.7	0.73	1.7
WMAIN-4275(2)	167-028	J-6897	12	152.5	0.19	0.73	0.8	1.7	0.73	1.7
WMAIN-4278(1)	J-6512	055-048	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4278(2)	055-048	J-8419	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4280(1)	J-8419	055-047	8	152.5	0.05	0.2	0.3	0.7	0.2	0.7
WMAIN-4280(2)	055-047	J-7761	8	152.5	0.05	0.19	0.3	0.6	0.19	0.6
WMAIN-4282(1)	J-7793	055-052	8	152.5	0.19	0.94	0.6	1.5	0.94	1.5
WMAIN-4282(2)	055-052	J-7760	8	152.5	0.19	0.95	0.6	1.5	0.95	1.5
WMAIN-4284(1)	J-7760	055-046	8	152.5	0.07	0.44	0.4	1	0.43	1
WMAIN-4284(2)	055-046	J-7761	8	152.5	0.07	0.44	0.4	1	0.44	1
WMAIN-4287	J-7761	J-7192	8	152.5	0	0.07	0.1	0.4	0.07	0.4
WMAIN-4289(1)	J-7192	055-045	8	152.5	0	0	0	0	0	0
WMAIN-4289(2)	055-045	J-7193	8	152.5	0	0	0	0	0	0
WMAIN-4291(1)	J-7760	055-053	8	152.5	0	0	0	0	0	0
WMAIN-4291(2)	055-053	J-8674	8	152.5	0	0	0	0	0	0
WMAIN-4292	J-7742	J-7743	12	152.5	0.09	0.23	0.6	0.9	0.23	0.9
WMAIN-4295(1)	J-6282	034-026	12	152.5	0.02	0.09	0.2	0.5	0.04	0.3
WMAIN-4295(2)	034-026	J-7743	12	152.5	0.02	0.09	0.2	0.6	0.04	0.3
WMAIN-4299	J-8000	J-8001	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4301	J-7903	J-8457	6	152.5	0	0	0	0	0	0
WMAIN-4303(1)	J-7812	034-033	12	152.5	0.09	0.21	0.6	0.9	0.21	0.9
WMAIN-4303(2)	034-033	J-8000	12	152.5	0.09	0.2	0.6	0.9	0.2	0.9
WMAIN-4305	J-8000	J-5440	12	152.5	0.08	0.19	0.5	0.8	0.19	0.8
WMAIN-4308(1)	J-7903	034-034	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4308(2)	034-034	J-7742	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4311	J-7739	J-7903	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-4313(1)	J-8020	055-040	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-4313(2)	055-040	J-8680	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-4314(1)	J-6993	055-043	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-4314(2)	055-043	J-8020	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-4316(1)	J-8680	055-044	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-4316(2)	055-044	J-6993	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-4318	J-6529	J-6993	8	152.5	0.11	0.39	0.5	0.9	0.39	0.9
WMAIN-4321(1)	J-8680	055-041	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-4321(2)	055-041	J-7793	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-4323(1)	J-7793	055-042	8	152.5	0.11	0.46	0.5	1	0.46	1
WMAIN-4323(2)	055-042	J-6529	8	152.5	0.1	0.45	0.5	1	0.45	1
WMAIN-4326(1)	J-5844	055-035	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-4326(2)	055-035	J-7192	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-4327	J-5652	J-5653	8	152.5	0	0	0	0	0	0
WMAIN-4329	J-5653	J-6705	8	152.5	0	0	0	0	0	0
WMAIN-4332	J-5844	J-5845	8	152.5	0.01	0.05	0.1	0.3	0.02	0.2
WMAIN-4335(1)	J-7715	055-034	8	152.5	0.03	0.29	0.2	0.8	0.29	0.8
WMAIN-4335(2)	055-034	J-8419	8	152.5	0.03	0.28	0.2	0.8	0.28	0.8
WMAIN-4337	J-7715	J-6705	8	152.5	0.05	0.24	0.3	0.7	0.24	0.7
WMAIN-4339	J-6705	J-5844	8	152.5	0.04	0.21	0.3	0.7	0.21	0.7
WMAIN-4340	J-6522	J-5110	10	152.5	0	0.11	0.1	0.5	0.04	0.3
WMAIN-4342(1)	J-6103	053-064	8	152.5	0	0	0	0.1	0	0
WMAIN-4342(2)	053-064	J-6698	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4344	J-6103	J-6699	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4347	J-5847	J-6700	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4350(1)	J-6695	053-059	10	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-4350(2)	053-059	J-6522	10	152.5	0	0.03	0	0.3	0.01	0.2
WMAIN-4352(1)	J-6103	053-065	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4352(2)	053-065	J-5846	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4355	J-5846	J-5847	10	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4357(1)	J-5847	053-058	10	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4357(2)	053-058	J-6695	10	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4359	J-6861	J-5846	10	152.5	0	0.05	0	0.4	0	0.1
WMAIN-4361(1)(1)	J-6698	053-063	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4361(1)(2)	053-063	053-062	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4361(2)	053-062	J-6699	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4364(1)	J-6699	053-061	8	152.5	0	0.03	0.1	0.2	0.01	0.1
WMAIN-4364(2)	053-061	J-6700	8	152.5	0	0.03	0.1	0.2	0.01	0.1
WMAIN-4365(1)	J-6700	053-060	8	152.5	0	0.09	0.1	0.4	0.03	0.2
WMAIN-4365(2)	053-060	J-6522	8	152.5	0	0.09	0.1	0.4	0.03	0.2
WMAIN-4366	J-8202	J-8131	8	152.5	0.02	0.07	0.2	0.4	0.06	0.4
WMAIN-4368(1)(1)	J-8437	009-010	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-4368(1)(2)	009-010	009-011	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-4368(2)	009-011	J-8611	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-4371	J-8610	J-8611	8	152.5	0.03	0.21	0.2	0.7	0.2	0.7
WMAIN-4373	J-7692	J-7646	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4375	J-7646	J-6920	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4378(1)	J-6920	009-018	8	152.5	0	0	0	0	0	0
WMAIN-4378(2)	009-018	J-7025	8	152.5	0	0	0	0	0	0
WMAIN-4380	J-7692	J-7336	8	152.5	0	0.08	0	0.4	0	0.1
WMAIN-4381	J-6919	J-6920	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4382	J-7691	J-6919	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4385(1)	J-7691	009-016	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4385(2)	009-016	J-7692	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4387(1)	J-6740	009-026	12	152.5	0.02	0.47	0.3	1.3	0.47	1.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4387(2)	009-026	J-8449	12	152.5	0.02	0.47	0.3	1.3	0.47	1.3
WMAIN-4389(1)	J-8786	009-023	12	152.5	0.24	0.82	0.9	1.8	0.82	1.8
WMAIN-4389(2)(1)	009-023	009-024	12	152.5	0.24	0.82	0.9	1.8	0.82	1.8
WMAIN-4389(2)(2)	009-024	J-5712	12	152.5	0.24	0.82	0.9	1.8	0.82	1.8
WMAIN-4392(1)(1)(1)	J-8472	009-021	12	152.5	0.03	0.19	0.3	0.8	0.11	0.6
WMAIN-4392(1)(1)(2)	009-021	J-5913	12	152.5	0.03	0.19	0.3	0.8	0.11	0.6
WMAIN-4392(1)(2)(1)	J-5913	009-022	12	152.5	0.03	0.18	0.3	0.8	0.11	0.6
WMAIN-4392(1)(2)(2)	009-022	J-5928	12	152.5	0.03	0.18	0.3	0.8	0.1	0.6
WMAIN-4392(2)(1)	J-5928	J-8549	12	152.5	0.03	0.18	0.3	0.8	0.1	0.6
WMAIN-4392(2)(2)	J-8549	J-8786	12	152.5	0.02	0.17	0.3	0.8	0.09	0.6
WMAIN-4394(1)	J-7337	009-020	12	152.5	0.02	0.11	0.2	0.6	0.1	0.6
WMAIN-4394(2)	009-020	J-8472	12	152.5	0.02	0.11	0.2	0.6	0.09	0.6
WMAIN-4396(1)	J-8129	009-019	12	152.5	0.01	0.21	0.2	0.9	0.03	0.3
WMAIN-4396(2)	009-019	J-7337	12	152.5	0.01	0.2	0.2	0.9	0.03	0.3
WMAIN-4398	J-7803	J-8129	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-4400(1)	J-5050	027-048	8	152.5	0.2	5.75	0.6	4	0.2	0.6
WMAIN-4400(2)	027-048	J-7944	8	152.5	0.18	5.71	0.6	4	0.18	0.6
WMAIN-4402(1)	J-7944	027-049	8	152.5	0.17	6.19	0.6	4.2	0.17	0.6
WMAIN-4402(2)	027-049	J-7434	8	152.5	0.16	6.15	0.6	4.2	0.16	0.6
WMAIN-4406	J-7012	J-7944	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4407	J-5050	J-7012	8	152.5	0.31	9.88	0.8	5.4	0.31	0.8
WMAIN-4411	J-7480	J-8726	8	152.5	0.01	0.07	0.1	0.4	0.01	0.1
WMAIN-4412	J-5720	J-5721	6	152.5	0	0	0	0	0	0
WMAIN-4413	J-7488	J-5720	8	152.5	0.01	0.2	0.1	0.7	0.01	0.1
WMAIN-4417(1)	J-7555	038-035	8	140	0	0	0	0.1	0	0.1
WMAIN-4417(2)	038-035	J-8807	8	140	0	0	0	0	0	0
WMAIN-4419(1)	J-7960	038-056	12	152.5	0	0.32	0.1	1.1	0	0.1
WMAIN-4419(2)	038-056	J-5720	12	152.5	0	0.33	0.1	1.1	0	0.1
WMAIN-4423(1)	J-7505	038-063	8	152.5	0	0	0	0	0	0
WMAIN-4423(2)	038-063	J-8233	8	152.5	0	0	0	0	0	0
WMAIN-4425(1)	J-7488	038-062	8	152.5	0	0.19	0.1	0.6	0	0.1
WMAIN-4425(2)	038-062	J-7505	8	152.5	0	0.18	0	0.6	0	0
WMAIN-4427	J-7960	J-7961	6	152.5	0	0	0	0	0	0
WMAIN-4431	J-7505	J-7506	8	152.5	0	0.17	0	0.6	0	0
WMAIN-4433(1)	J-7510	040-025	8	152.5	0.01	1.3	0.1	1.8	1.3	1.8
WMAIN-4433(2)	040-025	J-6811	8	152.5	0.01	1.27	0.1	1.8	1.27	1.8
WMAIN-4435	J-8211	J-6811	8	152.5	0	1.21	0.1	1.7	1.21	1.7
WMAIN-4438	J-6655	J-6656	6	152.5	0	0	0	0	0	0
WMAIN-4439	J-6811	J-6655	6	152.5	0	0	0	0	0	0
WMAIN-4440(1)	J-7510	040-023	8	152.5	0	0.54	0	1.1	0.54	1.1
WMAIN-4440(2)	040-023	J-6363	8	152.5	0	0.53	0	1.1	0.53	1.1
WMAIN-4442	J-6392	J-7510	8	152.5	0	3.3	0	3	3.3	3
WMAIN-4444	J-7536	J-6363	8	152.5	0	3.31	0	3	3.31	3
WMAIN-4446(1)	J-8211	040-024	8	152.5	0.02	0.33	0.2	0.9	0.33	0.9
WMAIN-4446(2)	040-024	J-7536	8	152.5	0.03	0.34	0.2	0.9	0.34	0.9
WMAIN-4449(1)	J-7536	040-026	8	152.5	0	1.75	0	2.1	1.71	2.1
WMAIN-4449(2)	040-026	J-7816	8	152.5	0	1.73	0	2.1	1.69	2.1
WMAIN-4453	J-8192	J-6392	8	152.5	0	0	0	0	0	0
WMAIN-4456(1)	J-8605	040-034	8	152.5	0.04	2.48	0.3	2.5	2.48	2.5
WMAIN-4456(2)	040-034	J-8211	8	152.5	0.04	2.51	0.3	2.6	2.51	2.6
WMAIN-4457	J-8686	056-049	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-4459(1)	J-6726	056-048	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-4459(2)	056-048	J-8686	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-4461	056-049	J-7147	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4463(1)	J-7147	056-050	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-4463(2)	056-050	J-6726	8	152.5	0.01	0.07	0.2	0.4	0.07	0.4
WMAIN-4466(1)	J-6725	056-047	8	152.5	0.05	0.22	0.3	0.7	0.22	0.7
WMAIN-4466(2)	056-047	J-6726	8	152.5	0.05	0.22	0.3	0.7	0.22	0.7
WMAIN-4467	J-5957	J-5958	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-4469(1)	J-7146	056-043	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-4469(2)	056-043	J-7147	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-4471(1)	J-6725	056-045	12	152.5	0.01	0.02	0.2	0.3	0.02	0.3
WMAIN-4471(2)	056-045	J-8339	12	152.5	0.01	0.02	0.2	0.3	0.02	0.3
WMAIN-4473	J-7771	J-8339	12	152.5	0.01	0.08	0.1	0.5	0.08	0.5
WMAIN-4476(1)(1)	J-6999	019-027	10	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4476(1)(2)	019-027	019-028	10	152.5	0	0.01	0	0.2	0	0.1
WMAIN-4476(2)	019-028	J-7433	10	152.5	0	0.01	0	0.2	0	0.1
WMAIN-4478(1)	J-7882	019-030	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4478(2)	019-030	J-8043	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4480(1)	J-8043	019-029	8	152.5	0	0	0	0	0	0
WMAIN-4480(2)	019-029	J-7432	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4484	J-7432	J-7433	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4486(1)	J-7433	019-037	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-4486(2)	019-037	J-8544	8	152.5	0	0.03	0	0.2	0.01	0.2
WMAIN-4488(1)	J-8801	040-002	12	152.5	0	0.07	0.1	0.5	0.06	0.4
WMAIN-4488(2)(1)(1)	040-002	J-9216	12	152.5	0.01	0.07	0.1	0.5	0.06	0.5
WMAIN-4488(2)(1)(2)	J-9216	040-001	12	152.5	0.01	0.07	0.1	0.5	0.06	0.5
WMAIN-4488(2)(2)	040-001	J-7905	12	152.5	0.01	0.07	0.1	0.5	0.06	0.5
WMAIN-4491(1)	J-7905	040-009	12	152.5	0	0.13	0	0.7	0.1	0.6
WMAIN-4491(2)	040-009	J-8167	12	152.5	0	0.13	0	0.7	0.1	0.6
WMAIN-4493(1)	J-6226	040-020	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4493(2)	040-020	J-6552	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4496	J-6552	J-6553	8	152.5	0	0	0	0	0	0
WMAIN-4498	J-5656	J-5657	8	152.5	0	0	0	0	0	0
WMAIN-4499(1)	J-6324	040-013	8	152.5	0	0	0	0	0	0
WMAIN-4499(2)	040-013	J-5656	8	152.5	0	0	0	0	0	0
WMAIN-4501	J-6378	J-7658	8	152.5	0	1.14	0	1.7	1.14	1.7
WMAIN-4505(1)(1)	J-7659	J-9235	12	152.5	0	0.39	0	1.2	0.39	1.2
WMAIN-4505(1)(2)	J-9235	040-015	12	152.5	0	3.88	0	4.2	3.88	4.2
WMAIN-4505(2)	040-015	J-6230	12	152.5	0	3.88	0	4.2	3.88	4.2
WMAIN-4507	J-6230	J-6161	8	152.5	0	1.99	0	2.3	1.99	2.3
WMAIN-4510	J-6230	J-6231	12	152.5	0	0.48	0	1.3	0.48	1.3
WMAIN-4511(1)	J-7126	040-010	8	152.5	0	2.14	0	2.3	2.11	2.3
WMAIN-4511(2)	040-010	J-7905	8	152.5	0	2.12	0	2.3	2.1	2.3
WMAIN-4513	J-7069	J-7126	8	152.5	0	2.22	0	2.4	2.2	2.4
WMAIN-4515	J-6323	J-6324	8	152.5	0	2.38	0	2.5	2.38	2.5
WMAIN-4517(1)	J-6161	040-014	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-4517(2)	040-014	J-6323	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-4519	J-6363	J-6160	8	152.5	0	1.42	0	1.9	1.42	1.9
WMAIN-4522(1)	J-8722	040-004	8	152.5	0	5.96	0.1	4.1	5.96	4.1
WMAIN-4522(2)	040-004	J-6230	8	152.5	0	6.02	0.1	4.1	6.02	4.1
WMAIN-4524(1)	J-7658	040-016	8	152.5	0	2.7	0	2.7	2.7	2.7
WMAIN-4524(2)	040-016	J-7659	8	152.5	0	2.71	0	2.7	2.71	2.7
WMAIN-4526	J-7659	J-8515	8	152.5	0	0	0	0	0	0
WMAIN-4528(1)	J-7069	040-012	8	152.5	0	0	0	0	0	0
WMAIN-4528(2)	040-012	J-5693	8	152.5	0	0	0	0	0	0
WMAIN-4529	J-5693	J-5694	8	152.5	0	0	0	0	0	0
WMAIN-4531(1)	J-7126	040-011	8	152.5	0	0	0	0	0	0
WMAIN-4531(2)	040-011	J-7127	8	152.5	0	0	0	0	0	0
WMAIN-4532	J-7702	J-7703	8	152.5	0	0.36	0	0.9	0.36	0.9
WMAIN-4534(1)	J-7703	040-021	8	152.5	0	0.07	0	0.4	0.07	0.4
WMAIN-4534(2)	040-021	J-6552	8	152.5	0	0.05	0	0.3	0.05	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4537(1)	J-7703	040-019	8	152.5	0	0.09	0	0.4	0.09	0.4
WMAIN-4537(2)	040-019	J-6226	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-4540(1)	J-6378	040-017	8	152.5	0	0.19	0	0.6	0.18	0.6
WMAIN-4540(2)	040-017	J-6225	8	152.5	0	0.19	0	0.6	0.18	0.6
WMAIN-4542	J-6323	J-6378	8	152.5	0	1.82	0	2.2	1.81	2.1
WMAIN-4544(1)(1)	J-7217	056-029	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-4544(1)(2)	056-029	056-028	8	152.5	0.03	0.1	0.3	0.5	0.1	0.5
WMAIN-4544(2)	056-028	J-7665	8	152.5	0.03	0.1	0.3	0.5	0.1	0.5
WMAIN-4546	J-8551	056-005	12	152.5	0.05	0.2	0.4	0.8	0.2	0.8
WMAIN-4549(1)	J-7953	056-032	8	152.5	0.22	0.42	0.7	1	0.42	1
WMAIN-4549(2)	056-032	J-7447	8	152.5	0.22	0.41	0.7	1	0.41	1
WMAIN-4550(1)(1)	J-8636	056-010	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-4550(1)(2)	056-010	056-011	12	152.5	0.02	0.1	0.3	0.6	0.1	0.6
WMAIN-4550(2)	056-011	J-8551	12	152.5	0.02	0.1	0.3	0.6	0.1	0.6
WMAIN-4551	J-7665	J-7413	8	152.5	0.23	0.69	0.7	1.3	0.69	1.3
WMAIN-4553	J-7218	J-7666	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4555(1)	J-7666	056-007	8	152.5	0.06	0.19	0.3	0.6	0.19	0.6
WMAIN-4555(2)	056-007	J-8551	8	152.5	0.06	0.18	0.3	0.6	0.18	0.6
WMAIN-4559	J-7447	J-7448	8	152.5	0	0	0	0	0	0
WMAIN-4561(1)	J-7413	056-042	8	152.5	0.21	0.37	0.7	0.9	0.37	0.9
WMAIN-4561(2)	056-042	J-7447	8	152.5	0.21	0.39	0.7	0.9	0.39	0.9
WMAIN-4563(1)	J-7218	056-031	8	152.5	0	0	0	0	0	0
WMAIN-4563(2)	056-031	J-8553	8	152.5	0	0	0	0	0	0
WMAIN-4566(1)	J-7665	056-030	8	152.5	0.1	0.29	0.4	0.8	0.29	0.8
WMAIN-4566(2)	056-030	J-7666	8	152.5	0.09	0.28	0.4	0.8	0.28	0.8
WMAIN-4569	J-6662	J-7217	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-4572(1)	J-7918	056-026	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-4572(2)(1)	056-026	056-027	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-4572(2)(2)	056-027	J-7936	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-4574	J-7953	J-7917	8	152.5	0.08	0.2	0.4	0.7	0.2	0.7
WMAIN-4576	J-7412	J-7413	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-4577	J-7932	J-7918	8	152.5	0.13	0.48	0.5	1.1	0.48	1.1
WMAIN-4581(1)	J-7509	056-024	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-4581(2)(1)	056-024	056-025	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-4581(2)(2)	056-025	J-7932	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-4583(1)	J-7047	056-023	8	152.5	0.06	0.21	0.4	0.7	0.21	0.7
WMAIN-4583(2)	056-023	J-7509	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-4584	J-6220	J-7047	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-4587	J-7918	J-8300	8	152.5	0.01	0.09	0.1	0.4	0.01	0.1
WMAIN-4589	J-7932	J-7412	8	152.5	0.04	0.22	0.3	0.7	0.22	0.7
WMAIN-4592(1)	J-6220	056-019	8	152.5	0.01	0.02	0.2	0.2	0.01	0.2
WMAIN-4592(2)(1)(1)	056-019	056-020	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-4592(2)(1)(2)	056-020	056-021	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-4592(2)(2)	056-021	J-7412	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-4593	J-6219	J-6220	8	152.5	0	0	0	0	0	0
WMAIN-4596(1)	J-7046	J-9269	8	152.5	0.11	0.27	0.5	0.8	0.27	0.8
WMAIN-4596(2)	J-9269	J-7047	8	152.5	0.11	0.28	0.5	0.8	0.28	0.8
WMAIN-4598	J-7509	J-7421	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-4599	J-8400	J-7948	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4603(1)	J-8256	056-037	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-4603(2)	056-037	J-8400	8	152.5	0	0.03	0.1	0.3	0.03	0.3
WMAIN-4605(1)	J-8300	056-035	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4605(2)	056-035	J-7949	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-4607(1)	J-7949	056-040	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-4607(2)	056-040	J-8060	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-4609(1)	056-033	056-034	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-4609(2)	056-034	J-8300	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-4613(1)	J-8300	056-051	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-4613(2)	056-051	J-6029	8	152.5	0.03	0.16	0.2	0.6	0.16	0.6
WMAIN-4614	J-7877	J-7948	12	152.5	0.01	0.08	0.2	0.5	0.08	0.5
WMAIN-4616(1)	J-7948	056-036	12	152.5	0.02	0.11	0.2	0.6	0.11	0.6
WMAIN-4616(2)	056-036	J-7949	12	152.5	0.02	0.1	0.2	0.6	0.1	0.6
WMAIN-4620(1)	J-7949	056-046	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-4620(2)	056-046	J-6725	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-4622(1)	J-7877	056-038	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-4622(2)	056-038	J-8256	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-4624(1)	J-7434	027-045	8	152.5	0.03	0.97	0.2	1.5	0.03	0.2
WMAIN-4624(2)	027-045	J-8025	8	152.5	0.02	0.96	0.2	1.5	0.02	0.2
WMAIN-4626	J-8025	J-7479	8	152.5	0.01	0.94	0.2	1.5	0.01	0.2
WMAIN-4629	J-7434	J-7670	8	152.5	0.03	1.15	0.2	1.7	0.03	0.2
WMAIN-4632(1)	J-7377	027-044	8	152.5	0.14	6.48	0.5	4.3	0.14	0.5
WMAIN-4632(2)	027-044	J-7434	8	152.5	0.14	6.5	0.5	4.3	0.14	0.5
WMAIN-4633(1)	J-7479	027-046	8	152.5	0.13	8.33	0.5	4.9	0.13	0.5
WMAIN-4633(2)	027-046	J-7480	8	152.5	0.12	8.32	0.5	4.9	0.12	0.5
WMAIN-4635	J-7670	J-7479	8	152.5	0.09	4.3	0.4	3.4	0.09	0.4
WMAIN-4637(1)	J-7012	027-047	8	152.5	0.25	9.12	0.7	5.1	0.25	0.7
WMAIN-4637(2)	027-047	J-7670	8	152.5	0.23	9.09	0.7	5.1	0.23	0.7
WMAIN-4640	J-7519	J-7377	8	152.5	0.04	2.49	0.3	2.6	0.04	0.3
WMAIN-4642	J-7377	J-7378	8	152.5	0.02	1.17	0.2	1.7	0.02	0.2
WMAIN-4644(1)	J-6998	019-014	8	152.5	0.03	0.42	0.2	1	0.29	0.8
WMAIN-4644(2)	019-014	J-6999	8	152.5	0.03	0.41	0.2	1	0.29	0.8
WMAIN-4646	J-6999	J-7438	8	152.5	0.01	0.06	0.1	0.3	0.04	0.3
WMAIN-4649(1)	J-7353	019-021	8	152.5	0	0	0	0	0	0
WMAIN-4649(2)	019-021	J-7648	8	152.5	0	0	0	0	0	0
WMAIN-4650(1)	J-7352	019-022	8	152.5	0	0.02	0.1	0.2	0.01	0.2
WMAIN-4650(2)	019-022	J-7353	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4652(1)	J-7352	019-015	8	152.5	0	0.03	0.1	0.2	0.02	0.2
WMAIN-4652(2)	019-015	J-6999	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4655	J-8037	J-8043	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4657	J-7647	J-7432	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4658(1)	J-5558	019-019	8	152.5	0	0.03	0.1	0.2	0.01	0.2
WMAIN-4658(2)	019-019	J-7647	8	152.5	0	0.03	0.1	0.2	0.02	0.2
WMAIN-4660	J-5557	J-5408	8	152.5	0	0.08	0.1	0.4	0.04	0.3
WMAIN-4662	J-5557	J-5558	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4663(1)	J-7353	019-020	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4663(2)	019-020	J-5557	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4664(1)	J-8037	019-018	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4664(2)	019-018	J-7647	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4668(1)	J-7648	019-016	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4668(2)(1)	019-016	019-017	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4668(2)(2)	019-017	J-8037	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4670(1)	J-7438	019-031	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4670(2)	019-031	J-7882	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4672	J-7648	J-7438	8	152.5	0	0.02	0.1	0.2	0.01	0.2
WMAIN-4674(1)	J-7936	055-054	8	152.5	0	0.09	0	0.4	0.09	0.4
WMAIN-4674(2)(1)(1)	055-054	055-050	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-4674(2)(1)(2)	055-050	055-049	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-4674(2)(2)	055-049	J-7823	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-4677	J-7954	J-7936	12	152.5	0	0.09	0	0.5	0.09	0.5
WMAIN-4678	J-7823	J-6512	8	152.5	0	0.17	0.1	0.6	0.17	0.6
WMAIN-4681(1)	J-7823	055-051	8	152.5	0.05	0.19	0.3	0.6	0.19	0.6
WMAIN-4681(2)	055-051	J-7760	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4683	J-5542	J-7320	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-4684	J-7985	J-7472	6	152.5	0	0	0	0	0	0
WMAIN-4687	J-7320	J-8335	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4690(1)	J-7320	021-042	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-4690(2)(1)	021-042	021-045	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-4690(2)(2)	021-045	J-7569	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-4693(1)	J-5911	032-034	12	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4693(2)	032-034	J-6545	12	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-4695	J-6556	J-6441	12	152.5	0.03	0.11	0.3	0.6	0.11	0.6
WMAIN-4697	J-6578	J-6556	12	152.5	0.03	0.12	0.3	0.6	0.12	0.6
WMAIN-4699	J-6577	J-6578	12	152.5	0.02	0.09	0.3	0.5	0.09	0.5
WMAIN-4701	J-6574	J-6577	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-4703	J-6573	J-6574	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-4704	J-7820	J-6573	12	152.5	0.02	0.09	0.3	0.5	0.09	0.5
WMAIN-4706	J-7844	J-7820	12	152.5	0.02	0.09	0.3	0.5	0.09	0.5
WMAIN-4707(1)	J-6556	032-033	8	152.5	0	0	0	0.1	0	0
WMAIN-4707(2)	032-033	J-6472	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4708	J-6472	J-6473	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4709(1)	J-6473	032-024	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-4709(2)	032-024	J-6441	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-4710(1)	J-6577	032-031	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4710(2)	032-031	J-6579	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-4711	J-6579	J-6580	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4712(1)	J-6580	032-032	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4712(2)	032-032	J-6578	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-4713(1)	J-6573	032-029	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4713(2)	032-029	J-6571	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4714	J-6571	J-6572	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-4715(1)	J-6572	032-030	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4715(2)	032-030	J-6574	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4718(1)	J-8418	012-061	6	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4718(2)	012-061	J-8612	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4721	J-8218	J-6504	6	152.5	0	0.02	0	0.1	0.01	0.1
WMAIN-4723	J-5768	J-5769	6	152.5	0	0	0	0	0	0
WMAIN-4724(1)	J-8218	012-060	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4724(2)	012-060	J-5768	6	152.5	0	0	0	0	0	0
WMAIN-4725	J-8418	J-8218	6	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-4728(1)	J-5921	023-050	8	152.5	0	0.14	0	0.5	0.05	0.3
WMAIN-4728(2)(1)	023-050	023-051	8	152.5	0	0.14	0	0.5	0.06	0.3
WMAIN-4728(2)(2)	023-051	J-8601	8	152.5	0	0.14	0	0.5	0.06	0.3
WMAIN-4729(1)	J-8571	023-052	8	152.5	0	0	0	0	0	0
WMAIN-4729(2)	023-052	J-6692	8	152.5	0	0	0	0	0	0
WMAIN-4732	J-6137	J-8601	8	152.5	0	0.04	0	0.3	0	0
WMAIN-4733(1)	J-8317	023-047	8	152.5	0	0	0	0	0	0
WMAIN-4733(2)	023-047	J-6691	8	152.5	0	0	0	0	0	0
WMAIN-4735(1)	J-7520	023-048	8	152.5	0	0	0	0	0	0
WMAIN-4735(2)	023-048	J-7445	8	152.5	0	0	0	0	0	0
WMAIN-4738(1)	J-6136	023-049	8	152.5	0	0	0	0	0	0
WMAIN-4738(2)	023-049	J-7501	8	152.5	0	0	0	0	0	0
WMAIN-4739(1)	J-8601	024-017	8	152.5	0	0.24	0	0.7	0.07	0.4
WMAIN-4739(2)	024-017	024-008	8	152.5	0	0.24	0	0.7	0.07	0.4
WMAIN-4741	J-5921	J-5922	8	152.5	0	0	0	0	0	0
WMAIN-4743	J-6692	J-5921	8	152.5	0	0.1	0	0.5	0.02	0.2
WMAIN-4745	J-6691	J-6692	8	152.5	0	0.08	0	0.4	0.01	0.1
WMAIN-4746	J-6691	J-7445	10	152.5	0.01	0.17	0.2	0.7	0.06	0.4
WMAIN-4748	J-7445	J-6136	10	152.5	0.02	0.18	0.2	0.7	0.07	0.4
WMAIN-4750	J-6136	J-6137	10	152.5	0.02	0.19	0.2	0.7	0.08	0.4
WMAIN-4754(1)(1)	J-6116	023-045	10	152.5	0	0.27	0	0.9	0.06	0.4
WMAIN-4754(1)(2)	023-045	023-046	10	152.5	0	0.29	0	0.9	0.07	0.4
WMAIN-4754(2)	023-046	J-6691	10	152.5	0	0.29	0	0.9	0.07	0.4
WMAIN-4756	J-7892	J-7893	8	152.5	0	0	0	0	0	0
WMAIN-4757(1)	J-6748	170-072	8	152.5	0.06	0.13	0.4	0.5	0.13	0.5
WMAIN-4757(2)	170-072	J-7892	8	152.5	0.07	0.14	0.4	0.5	0.14	0.5
WMAIN-4759	J-6747	J-6748	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-4762	J-6748	J-6544	8	152.5	0	0.1	0	0.4	0.08	0.4
WMAIN-4765	J-6544	J-8294	6	152.5	0	0	0	0	0	0
WMAIN-4766(1)	J-6479	170-071	8	152.5	0	0.11	0	0.5	0.1	0.5
WMAIN-4766(2)	170-071	J-6544	8	152.5	0	0.11	0	0.5	0.1	0.4
WMAIN-4769(1)	J-8742	170-070	8	152.5	0.22	0.65	0.7	1.2	0.65	1.2
WMAIN-4769(2)	170-070	J-6748	8	152.5	0.22	0.65	0.7	1.2	0.65	1.2
WMAIN-4771(1)	J-8253	170-073	8	152.5	0.09	0.17	0.4	0.6	0.17	0.6
WMAIN-4771(2)	170-073	J-7892	8	152.5	0.08	0.17	0.4	0.6	0.17	0.6
WMAIN-4773	J-7892	J-8213	8	152.5	0	0	0	0	0	0
WMAIN-4775	J-8253	J-8268	8	152.5	0	0	0	0	0	0
WMAIN-4778	J-6875	J-8253	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4780	J-6747	J-8149	8	152.5	0	0	0	0.1	0	0
WMAIN-4782(1)	J-7459	170-077	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-4782(2)	170-077	J-6747	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-4785	J-7157	J-7459	8	152.5	0.06	0.12	0.3	0.5	0.12	0.5
WMAIN-4786(1)	J-7156	170-076	8	152.5	0	0	0	0	0	0
WMAIN-4786(2)	170-076	J-7157	8	152.5	0	0	0	0	0	0
WMAIN-4789	J-6875	J-7157	8	152.5	0.07	0.14	0.4	0.5	0.14	0.5
WMAIN-4790(1)	J-6875	170-075	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-4790(2)	170-075	J-6832	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-4793	J-6875	J-6876	8	152.5	0	0	0	0	0	0
WMAIN-4796	J-7770	J-7771	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4798	J-7902	J-5521	8	152.5	0.01	0.08	0.2	0.4	0.08	0.4
WMAIN-4800(1)	J-7506	038-057	12	152.5	0	0.32	0.1	1.1	0	0.1
WMAIN-4800(2)	038-057	J-7960	12	152.5	0	0.32	0.1	1.1	0	0.1
WMAIN-4802	J-7506	J-7070	8	140	0	0.62	0	1.1	0	0
WMAIN-4804(1)	J-7506	038-058	12	152.5	0	0.27	0	1	0	0
WMAIN-4804(2)	038-058	J-5511	12	152.5	0	0.27	0	1	0	0
WMAIN-4807(1)	J-6761	011-037	8	152.5	0	0.07	0.1	0.4	0.07	0.4
WMAIN-4807(2)	011-037	J-7577	8	152.5	0	0.06	0.1	0.4	0.06	0.4
WMAIN-4809	J-8285	J-8489	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4811(1)	J-7577	011-038	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-4811(2)	011-038	J-8285	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4813(1)	J-8527	011-011	6	152.5	0.04	0.15	0.2	0.5	0.15	0.5
WMAIN-4813(2)	011-011	J-6760	6	152.5	0.03	0.13	0.2	0.4	0.13	0.4
WMAIN-4814(1)	J-6761	011-036	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4814(2)(1)	011-036	011-035	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4814(2)(2)	011-035	J-8454	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4816(1)	J-7576	011-034	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-4816(2)	011-034	J-8454	8	152.5	0.01	0.06	0.1	0.4	0.06	0.4
WMAIN-4818	J-7577	J-7578	6	152.5	0	0	0	0	0	0
WMAIN-4820(1)	J-7490	010-041	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4820(2)	010-041	J-8327	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4822	J-7489	J-7490	6	140	0	0.16	0	0.4	0.01	0.1
WMAIN-4825(1)	J-7990	012-039	8	152.5	0	0	0	0	0	0
WMAIN-4825(2)	012-039	J-8559	8	152.5	0	0	0	0	0	0
WMAIN-4826	J-7789	J-7790	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-4827(1)	J-7842	012-016	8	152.5	0.06	0.25	0.3	0.7	0.25	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4827(2)	012-016	J-7473	8	152.5	0.06	0.26	0.4	0.8	0.26	0.8
WMAIN-4829(1)	J-7788	012-012	8	152.5	0	0	0	0	0	0
WMAIN-4829(2)	012-012	J-8084	8	152.5	0	0	0	0	0	0
WMAIN-4832(1)(1)	J-7790	012-036	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-4832(1)(2)	012-036	012-035	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4832(2)(1)	012-035	012-034	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4832(2)(2)	012-034	J-7392	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4835(1)	J-7790	012-038	6	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-4835(2)	012-038	J-7843	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4836	J-6531	J-6667	8	152.5	0.15	0.68	0.6	1.3	0.68	1.3
WMAIN-4838(1)(1)(1)(1)	J-6667	012-028	8	152.5	0.19	0.8	0.6	1.4	0.8	1.4
WMAIN-4838(1)(1)(1)(2)	012-028	012-029	8	152.5	0.22	0.91	0.7	1.5	0.91	1.5
WMAIN-4838(1)(1)(2)(1)	012-029	012-056	8	152.5	0.22	0.91	0.7	1.5	0.91	1.5
WMAIN-4838(1)(1)(2)(2)(1)	012-056	012-030	8	152.5	0.22	0.91	0.7	1.5	0.91	1.5
WMAIN-4838(1)(1)(2)(2)(2)	012-030	012-031	8	152.5	0.22	0.91	0.7	1.5	0.91	1.5
WMAIN-4838(1)(2)	012-031	012-057	8	152.5	0.22	0.91	0.7	1.5	0.91	1.5
WMAIN-4838(2)	012-057	J-5243	8	152.5	0.22	0.91	0.7	1.5	0.91	1.5
WMAIN-4841	J-7210	J-7211	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-4843(1)	J-7211	012-027	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-4843(2)	012-027	J-6279	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-4845	J-6279	J-6280	8	152.5	0.04	0.18	0.3	0.6	0.18	0.6
WMAIN-4847	J-6280	J-6531	8	152.5	0.07	0.3	0.4	0.8	0.3	0.8
WMAIN-4849	J-7392	J-6531	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-4851	J-7457	J-7392	8	152.5	0.04	0.2	0.3	0.7	0.2	0.7
WMAIN-4855(1)	J-7458	012-033	6	152.5	0.03	0.18	0.2	0.5	0.18	0.5
WMAIN-4855(2)(1)	012-033	012-062	6	152.5	0.02	0.14	0.2	0.4	0.14	0.4
WMAIN-4855(2)(2)	012-062	J-8418	6	152.5	0.02	0.14	0.2	0.4	0.14	0.4
WMAIN-4859(1)(1)	J-8612	012-024	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-4859(1)(2)	012-024	012-025	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-4859(2)	012-025	J-7210	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-4862	J-7457	J-7458	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-4863(1)	J-7458	012-026	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4863(2)	012-026	J-7210	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4866(1)	J-7265	012-011	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4866(2)	012-011	J-7457	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4869(1)	J-6853	010-042	8	152.5	0	0	0	0	0	0
WMAIN-4869(2)	010-042	J-6854	8	152.5	0	0	0	0	0	0
WMAIN-4871(1)	J-7379	011-025	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-4871(2)	011-025	J-8728	8	152.5	0.01	0.13	0.2	0.5	0.13	0.5
WMAIN-4873(1)	J-8728	012-023	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-4873(2)	012-023	J-8612	8	152.5	0.01	0.11	0.2	0.5	0.11	0.5
WMAIN-4876(1)	J-6505	011-026	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4876(2)	011-026	J-8728	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4878	J-7575	J-7576	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-4879(1)	J-8431	011-032	8	152.5	0	0	0	0	0	0
WMAIN-4879(2)	011-032	J-7411	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4883(1)	J-7379	011-030	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4883(2)	011-030	J-7380	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4885A(1)	J-7575	011-031	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4885A(2)	011-031	J-7380	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4885B	J-7411	J-7575	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-4888(1)	J-7380	011-029	8	152.5	0	0	0	0	0	0
WMAIN-4888(2)	011-029	J-8667	8	152.5	0	0	0	0	0	0
WMAIN-4890(1)	J-7803	010-045	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-4890(2)	010-045	J-7804	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-4891(1)	J-7804	010-044	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4891(2)	010-044	J-8505	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4894(1)	J-6539	025-007	8	152.5	0.01	0.03	0.1	0.2	0.01	0.1
WMAIN-4894(2)	025-007	J-7309	8	152.5	0.01	0.03	0.1	0.2	0.01	0.1
WMAIN-4897	J-5224	J-5157	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4898(1)	J-8758	026-022	8	152.5	0.05	0.15	0.3	0.6	0.13	0.5
WMAIN-4898(2)	026-022	J-5224	8	152.5	0.01	0.07	0.1	0.4	0.03	0.3
WMAIN-4901	J-7123	025-006	8	152.5	0	0.07	0.1	0.4	0.02	0.2
WMAIN-4903(1)	J-8657	025-004	12	152.5	0.02	0.09	0.2	0.6	0.04	0.4
WMAIN-4903(2)(1)	025-004	025-005	12	152.5	0.01	0.09	0.2	0.5	0.04	0.3
WMAIN-4903(2)(2)	025-005	J-7123	12	152.5	0.01	0.08	0.2	0.5	0.03	0.3
WMAIN-4905(1)(1)	J-5157	025-008	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-4905(1)(2)	025-008	025-009	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-4905(2)	025-009	J-7309	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-4906(1)	J-6538	025-001	10	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4906(2)	025-001	J-6539	10	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4907	J-5223	J-5224	10	152.5	0	0	0	0	0	0
WMAIN-4909(1)	J-6117	023-053	12	140	0.05	0.14	0.4	0.6	0.1	0.5
WMAIN-4909(2)	023-053	J-8657	12	140	0.05	0.14	0.4	0.6	0.09	0.5
WMAIN-4910	J-5335	J-5395	8	140	0.08	0.27	0.4	0.7	0.27	0.7
WMAIN-4911	J-5395	J-6812	8	140	0.07	0.26	0.4	0.7	0.26	0.7
WMAIN-4914	J-8095	J-8096	8	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-4917(1)	J-8060	056-039	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-4917(2)(1)	056-039	056-004	8	152.5	0.01	0.1	0.2	0.5	0.1	0.5
WMAIN-4917(2)(2)	056-004	J-6499	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-4919(1)	J-7937	056-001	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-4919(2)	056-001	056-033	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-4921(1)	J-7796	055-024	8	152.5	0.01	0.16	0.2	0.6	0.16	0.6
WMAIN-4921(2)	055-024	J-7823	8	152.5	0.01	0.16	0.2	0.6	0.16	0.6
WMAIN-4923	J-6511	J-6512	8	152.5	0.02	0.15	0.2	0.6	0.15	0.6
WMAIN-4925	J-7453	J-6511	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-4927	J-7876	J-6499	12	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-4928	J-6500	J-7312	12	152.5	0	0.04	0	0.4	0.04	0.4
WMAIN-4930(1)	J-7937	056-002	12	152.5	0	0.13	0	0.7	0.13	0.7
WMAIN-4930(2)	056-002	J-7876	12	152.5	0	0.13	0	0.7	0.13	0.7
WMAIN-4934	J-7936	J-7937	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-4936(1)	J-7876	056-003	12	152.5	0.02	0.14	0.3	0.7	0.14	0.7
WMAIN-4936(2)	056-003	J-7877	12	152.5	0.02	0.14	0.3	0.7	0.14	0.7
WMAIN-4938(1)	J-8095	055-026	12	152.5	0.04	0.45	0.4	1.3	0.45	1.3
WMAIN-4938(2)(1)	055-026	055-027	12	152.5	0.04	0.41	0.3	1.2	0.41	1.2
WMAIN-4938(2)(2)	055-027	J-7876	12	152.5	0.04	0.41	0.3	1.2	0.41	1.2
WMAIN-4939	J-8101	J-8095	12	152.5	0.05	0.42	0.4	1.3	0.42	1.3
WMAIN-4941	J-7453	J-7796	8	152.5	0.02	0.17	0.2	0.6	0.17	0.6
WMAIN-4942(1)	J-8096	042-038	8	152.5	0	0.09	0.1	0.4	0.08	0.4
WMAIN-4942(2)	042-038	J-8051	8	152.5	0.01	0.1	0.1	0.4	0.09	0.4
WMAIN-4945(1)(1)	J-8096	055-028	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4945(1)(2)	055-028	055-029	8	152.5	0	0	0	0	0	0
WMAIN-4945(2)	055-029	J-8808	8	152.5	0	0	0	0	0	0
WMAIN-4947(1)	J-8101	055-025	4	152.5	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-4947(2)	055-025	J-8228	4	152.5	0	0	0	0.1	0	0.1
WMAIN-4948	J-6909	J-7586	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-4950	J-6094	J-6095	6	152.5	0	0	0	0	0	0
WMAIN-4953(1)	J-6939	039-044	6	152.5	0	0	0	0	0	0
WMAIN-4953(2)	039-044	J-6940	6	152.5	0	0	0	0	0	0
WMAIN-4955	J-6935	J-6939	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-4958	J-6939	J-7621	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-4960	J-7621	J-6095	8	152.5	0	0.23	0	0.7	0.2	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4962(1)	J-7586	039-047	8	152.5	0	0	0	0	0	0
WMAIN-4962(2)	039-047	J-8289	8	152.5	0	0	0	0	0	0
WMAIN-4964(1)	J-6935	039-043	6	152.5	0	0	0	0	0	0
WMAIN-4964(2)	039-043	J-6936	6	152.5	0	0	0	0	0	0
WMAIN-4966	J-6909	J-6935	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-4967(1)	J-6321	044-046	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4967(2)(1)	044-046	044-045	6	152.5	0	0	0	0	0	0
WMAIN-4967(2)(2)	044-045	J-8151	6	152.5	0	0	0	0	0	0
WMAIN-4969(1)	J-8151	044-047	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4969(2)	044-047	J-6321	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4971(1)	J-7465	044-021	6	140	0.04	0.08	0.2	0.3	0.07	0.3
WMAIN-4971(2)	044-021	J-6855	6	140	0.04	0.08	0.2	0.3	0.06	0.3
WMAIN-4974	J-6855	J-6856	6	140	0	0	0	0	0	0
WMAIN-4976(1)	J-6855	044-044	6	140	0	0	0	0.1	0	0.1
WMAIN-4976(2)	044-044	J-8387	6	140	0	0	0	0	0	0
WMAIN-4978(1)	J-7613	044-032	6	140	0	0.03	0.1	0.2	0.01	0.1
WMAIN-4978(2)(1)	044-032	044-033	6	140	0.02	0.04	0.1	0.2	0.03	0.2
WMAIN-4978(2)(2)	044-033	J-6855	6	140	0.02	0.04	0.1	0.2	0.03	0.2
WMAIN-4980	J-8151	J-6321	12	140	0	0	0	0.1	0	0.1
WMAIN-4982	J-8497	J-8151	12	140	0	0.01	0.1	0.2	0.01	0.2
WMAIN-4983	J-7247	J-8009	6	140	0.03	0.29	0.2	0.6	0.15	0.4
WMAIN-4984(1)	J-8009	045-033	6	140	0.01	0.23	0.1	0.5	0.09	0.3
WMAIN-4984(2)	045-033	J-6606	6	140	0	0.2	0	0.5	0.06	0.3
WMAIN-4986	J-6605	J-6606	6	140	0.01	0.79	0.1	1.1	0.24	0.5
WMAIN-4988(1)	J-7446	034-011	8	152.5	0.07	0.16	0.4	0.6	0.15	0.6
WMAIN-4988(2)	034-011	J-7042	8	152.5	0.07	0.16	0.4	0.6	0.15	0.6
WMAIN-4991	J-8195	J-8196	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4993(1)	J-7446	034-013	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4993(2)	034-013	J-8195	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4994(1)	J-8055	034-018	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-4994(2)	034-018	J-8344	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-4997(1)	J-7035	034-038	8	152.5	0.03	0.05	0.2	0.3	0.05	0.3
WMAIN-4997(2)	034-038	J-8055	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-4998	J-7182	J-7183	6	152.5	0	0	0	0	0	0
WMAIN-5000	J-7183	J-8222	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-5004(1)	J-7854	034-041	8	152.5	0.07	0.12	0.4	0.5	0.12	0.5
WMAIN-5004(2)	034-041	J-7414	8	152.5	0.06	0.11	0.3	0.5	0.11	0.5
WMAIN-5005(1)	J-7414	034-020	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5005(2)	034-020	J-7183	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5008	J-7414	J-8190	8	152.5	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-5011(1)	J-8190	034-015	8	152.5	0	0	0	0	0	0
WMAIN-5011(2)	034-015	J-8433	8	152.5	0	0	0	0	0	0
WMAIN-5013(1)	J-8055	034-019	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5013(2)	034-019	J-7414	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5015(1)	J-7978	022-047	8	152.5	0	0	0	0	0	0
WMAIN-5015(2)	022-047	J-6358	8	152.5	0	0	0	0	0	0
WMAIN-5018	J-6565	J-6804	6	152.5	0	0	0	0	0	0
WMAIN-5020	J-7490	J-6565	12	152.5	0	0.2	0	0.8	0.08	0.5
WMAIN-5023	J-6924	J-6615	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5025	J-6924	J-6925	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5028(1)	J-8285	011-022	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5028(2)	011-022	J-8286	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-5029(1)	J-8286	011-021	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-5029(2)	011-021	J-6985	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-5033(1)	J-8286	011-004	6	140	0.02	0.08	0.1	0.3	0.08	0.3
WMAIN-5033(2)	011-004	J-7154	6	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-5034(1)	J-6924	011-016	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5034(2)(1)	011-016	011-015	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5034(2)(2)	011-015	J-6984	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5037(1)	J-6985	011-020	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-5037(2)	011-020	J-7410	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5039	J-6984	J-6985	8	152.5	0	0.1	0	0.4	0.08	0.4
WMAIN-5042(1)	J-6615	011-017	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5042(2)(1)	011-017	011-018	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5042(2)(2)(1)	011-018	J-9220	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5042(2)(2)(2)	J-9220	J-7828	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5044	J-6615	J-6616	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5046	J-7410	J-7411	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5048(1)(1)(1)	J-7828	011-019	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5048(1)(1)(2)	011-019	011-023	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5048(1)(2)	011-023	011-024	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5048(2)	011-024	J-7379	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5050	J-7410	J-7828	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5051(1)	J-7343	010-030	8	152.5	0.03	0.07	0.2	0.4	0.05	0.3
WMAIN-5051(2)	010-030	J-7799	8	152.5	0.03	0.07	0.2	0.4	0.05	0.3
WMAIN-5052(1)	J-7799	010-029	8	152.5	0.03	0.08	0.3	0.4	0.08	0.4
WMAIN-5052(2)	010-029	J-7785	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-5055(1)	J-7718	010-027	8	152.5	0	0	0	0	0	0
WMAIN-5055(2)	010-027	J-5574	8	152.5	0	0	0	0	0	0
WMAIN-5056	J-5574	J-5575	8	152.5	0	0	0	0	0	0
WMAIN-5057	J-5622	J-5623	8	152.5	0	0	0	0	0	0
WMAIN-5058(1)	J-5623	010-023	8	152.5	0	0	0	0	0	0
WMAIN-5058(2)	010-023	J-6768	8	152.5	0	0	0	0	0	0
WMAIN-5061(1)	J-7426	010-028	10	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-5061(2)	010-028	J-7718	10	152.5	0	0.08	0	0.5	0.08	0.4
WMAIN-5063	J-7718	J-7973	10	152.5	0	0.08	0	0.5	0.07	0.4
WMAIN-5064	J-7204	J-7785	12	152.5	0.03	0.48	0.3	1.3	0.28	1
WMAIN-5066(1)	J-7785	024-001	12	152.5	0.01	0.39	0.2	1.2	0.19	0.8
WMAIN-5066(2)	024-001	J-7426	12	152.5	0.01	0.39	0.2	1.2	0.19	0.8
WMAIN-5069	J-7426	J-6768	12	152.5	0.01	0.18	0.1	0.8	0.01	0.2
WMAIN-5071(1)	J-6768	010-001	12	152.5	0.01	0.17	0.1	0.8	0.01	0.1
WMAIN-5071(2)	010-001	J-8099	12	152.5	0	0.17	0.1	0.8	0	0.1
WMAIN-5074(1)	J-8525	010-033	8	152.5	0	0	0	0	0	0
WMAIN-5074(2)	010-033	J-5670	8	152.5	0	0	0	0	0	0
WMAIN-5075	J-5670	J-5671	8	152.5	0	0	0	0	0	0
WMAIN-5077	J-7973	J-7343	10	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-5080	J-7343	J-7344	10	152.5	0	0.12	0	0.6	0.06	0.4
WMAIN-5082(1)	J-7343	010-034	8	152.5	0	0	0	0	0	0
WMAIN-5082(2)	010-034	J-5749	8	152.5	0	0	0	0	0	0
WMAIN-5083	J-5749	J-5750	8	152.5	0	0	0	0	0	0
WMAIN-5085(1)(1)	J-7973	010-031	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5085(1)(2)	010-031	010-032	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5085(2)	010-032	J-8525	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5087(1)	J-7386	010-040	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-5087(2)	010-040	J-8525	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-5090	J-7386	J-7001	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5091(1)	J-8505	010-043	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5091(2)	010-043	J-8006	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5094(1)	J-5480	010-017	8	152.5	0	0.17	0	0.6	0.01	0.1
WMAIN-5094(2)	010-017	J-7386	8	152.5	0	0.17	0	0.6	0.01	0.1
WMAIN-5095	J-7344	J-6146	10	152.5	0	0.15	0	0.6	0.03	0.2
WMAIN-5098(1)	J-6146	010-038	10	152.5	0	0.15	0	0.6	0.02	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5098(2)	010-038	J-8021	10	152.5	0	0.15	0	0.7	0.02	0.2
WMAIN-5100(1)	J-7344	010-036	8	152.5	0	0.09	0	0.4	0.07	0.4
WMAIN-5100(2)	010-036	J-6737	8	152.5	0	0.09	0	0.4	0.06	0.4
WMAIN-5102(1)	J-6737	009-017	8	152.5	0	0.07	0	0.4	0.04	0.3
WMAIN-5102(2)	009-017	J-6919	8	152.5	0	0.07	0	0.4	0.04	0.3
WMAIN-5105(1)	J-7001	010-037	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5105(2)	010-037	J-7344	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5107	J-8021	J-7803	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-5110(1)	J-8006	010-039	12	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5110(2)	010-039	J-8021	12	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5112	J-5480	J-8006	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-5114	J-6737	010-035	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5116	J-6146	J-6147	6	152.5	0	0	0	0	0	0
WMAIN-5118	J-7001	J-7002	6	152.5	0	0	0	0	0	0
WMAIN-5120(1)	J-5479	010-018	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5120(2)	010-018	J-8724	8	152.5	0	0.05	0	0.3	0.03	0.2
WMAIN-5123	J-6763	J-6881	12	152.5	0	0.2	0	0.8	0.15	0.7
WMAIN-5125(1)	J-7805	010-016	12	152.5	0	0.1	0	0.6	0.06	0.5
WMAIN-5125(2)	010-016	J-5479	12	152.5	0	0.1	0	0.6	0.06	0.5
WMAIN-5127(1)	J-7915	010-014	12	152.5	0	0.11	0	0.6	0.07	0.5
WMAIN-5127(2)	010-014	J-7805	12	152.5	0	0.11	0	0.6	0.07	0.5
WMAIN-5129	J-7914	J-7915	12	152.5	0	0.11	0	0.6	0.08	0.5
WMAIN-5131	J-6090	J-7914	12	152.5	0	0.11	0	0.6	0.08	0.5
WMAIN-5133(1)	J-6881	010-012	12	152.5	0	0.12	0	0.6	0.09	0.6
WMAIN-5133(2)	010-012	J-6090	12	152.5	0	0.12	0	0.6	0.09	0.6
WMAIN-5134	J-6853	J-6881	8	152.5	0	0.09	0	0.4	0.07	0.4
WMAIN-5136(1)	J-6319	010-022	8	152.5	0	0.08	0	0.4	0.06	0.4
WMAIN-5136(2)	010-022	J-6853	8	152.5	0	0.09	0	0.4	0.07	0.4
WMAIN-5139(1)	J-7805	010-015	8	152.5	0	0	0	0	0	0
WMAIN-5139(2)	010-015	J-8573	8	152.5	0	0	0	0	0	0
WMAIN-5142(1)	J-7915	010-020	8	152.5	0	0	0	0	0	0
WMAIN-5142(2)	010-020	J-8725	8	152.5	0	0	0	0	0	0
WMAIN-5144(1)	J-7914	010-013	8	152.5	0	0	0	0	0	0
WMAIN-5144(2)	010-013	J-8399	8	152.5	0	0	0	0	0	0
WMAIN-5146	J-6319	J-6320	8	152.5	0	0	0	0	0	0
WMAIN-5148	J-6090	J-6091	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5150(1)(1)	J-7827	038-054	8	152.5	0	0.06	0	0.3	0	0.1
WMAIN-5150(1)(2)	038-054	038-061	8	152.5	0	0.07	0.1	0.4	0.01	0.1
WMAIN-5150(2)	038-061	J-8726	8	152.5	0	0.07	0.1	0.4	0	0.1
WMAIN-5152	J-7518	J-7519	8	140	0.02	1.29	0.2	1.6	0.02	0.2
WMAIN-5153(1)(1)	J-5720	038-055	12	152.5	0.01	0.51	0.2	1.4	0.01	0.2
WMAIN-5153(1)(2)	038-055	038-050	12	152.5	0.01	0.51	0.2	1.4	0.01	0.2
WMAIN-5153(2)	038-050	J-7223	12	152.5	0.01	0.51	0.2	1.4	0.01	0.2
WMAIN-5155(1)	J-7827	038-053	12	152.5	0.01	0.21	0.2	0.9	0.02	0.2
WMAIN-5155(2)	038-053	J-7480	12	152.5	0.01	0.21	0.2	0.9	0.02	0.2
WMAIN-5157	J-7519	J-7827	12	152.5	0.01	0.27	0.1	1	0.02	0.2
WMAIN-5159(1)	J-8479	038-046	8	152.5	0	0	0	0.1	0	0
WMAIN-5159(2)	038-046	J-7906	8	152.5	0	0	0	0.1	0	0
WMAIN-5161(1)	J-7907	038-052	8	152.5	0	0	0	0	0	0
WMAIN-5161(2)	038-052	J-8187	8	152.5	0	0	0	0	0	0
WMAIN-5163(1)	J-8479	038-047	8	140	0	0.45	0.1	0.9	0	0.1
WMAIN-5163(2)	038-047	J-7518	8	140	0	0.46	0.1	0.9	0	0.1
WMAIN-5164(1)	J-7593	038-042	8	140	0	0.33	0	0.8	0	0
WMAIN-5164(2)	038-042	J-8479	8	140	0	0.34	0	0.8	0	0
WMAIN-5166(1)	J-8046	038-045	8	152.5	0	0.19	0.1	0.6	0	0.1
WMAIN-5166(2)	038-045	J-7906	8	152.5	0	0.19	0	0.6	0	0
WMAIN-5168	J-7906	J-7907	8	152.5	0	0.17	0	0.6	0	0
WMAIN-5170	J-7907	J-8363	8	152.5	0	0.19	0	0.6	0	0
WMAIN-5173(1)	J-7518	038-048	8	152.5	0.01	0.21	0.1	0.7	0.01	0.1
WMAIN-5173(2)(1)	038-048	038-051	8	152.5	0	0.2	0.1	0.7	0	0.1
WMAIN-5173(2)(2)	038-051	J-8363	8	152.5	0	0.2	0.1	0.7	0	0.1
WMAIN-5175(1)	J-8510	045-019	8	140	0.05	0.16	0.3	0.5	0.16	0.5
WMAIN-5175(2)	045-019	J-6007	8	140	0.05	0.15	0.3	0.5	0.15	0.5
WMAIN-5178	J-6316	J-6317	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5181(1)	J-6516	046-003	8	140	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-5181(2)	046-003	J-6317	8	140	0.02	0.04	0.1	0.3	0.04	0.3
WMAIN-5183	J-6317	J-8510	8	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-5185(1)	J-7016	045-018	6	140	0.11	0.33	0.4	0.7	0.33	0.7
WMAIN-5185(2)	045-018	J-8510	6	140	0.1	0.29	0.3	0.6	0.29	0.6
WMAIN-5188(1)	J-7016	046-001	6	140	0.1	0.3	0.3	0.6	0.3	0.6
WMAIN-5188(2)(1)	046-001	046-002	6	140	0.08	0.26	0.3	0.6	0.26	0.6
WMAIN-5188(2)(2)	046-002	J-6516	6	140	0.08	0.26	0.3	0.6	0.26	0.6
WMAIN-5189	J-6515	J-6516	4	140	0	0	0	0	0	0
WMAIN-5192	J-7607	J-7016	6	140	0.2	0.65	0.5	0.9	0.65	0.9
WMAIN-5195(1)	J-7015	045-025	8	140	0.27	0.86	0.7	1.3	0.86	1.3
WMAIN-5195(2)	045-025	J-7016	8	140	0.27	0.86	0.7	1.3	0.86	1.3
WMAIN-5197	J-6019	J-6020	16	140	0.12	0.41	0.7	1.4	0.41	1.4
WMAIN-5198(1)	J-8407	035-033	16	140	0.08	0.8	0.6	2	0.8	2
WMAIN-5198(2)	035-033	J-5118	16	140	0.08	0.8	0.6	2	0.8	2
WMAIN-5201(1)	J-7260	045-006	8	140	0.08	0.2	0.4	0.6	0.2	0.6
WMAIN-5201(2)	045-006	J-7450	8	140	0.07	0.2	0.4	0.6	0.19	0.6
WMAIN-5203	J-7027	J-7260	8	140	0.09	0.23	0.4	0.6	0.23	0.6
WMAIN-5204(1)	J-7027	045-005	6	140	0	0.02	0	0.1	0	0
WMAIN-5204(2)	045-005	J-7780	6	140	0	0.02	0	0.1	0	0
WMAIN-5206(1)	J-7780	045-016	6	140	0.04	0.16	0.2	0.4	0.16	0.4
WMAIN-5206(2)	045-016	J-7607	6	140	0.04	0.17	0.2	0.5	0.17	0.5
WMAIN-5208	J-7886	J-6019	16	152.5	0.07	0.27	0.6	1.2	0.27	1.2
WMAIN-5210(1)	J-7607	045-017	6	140	0.05	0.15	0.2	0.4	0.15	0.4
WMAIN-5210(2)	045-017	J-8204	6	140	0.04	0.12	0.2	0.4	0.12	0.4
WMAIN-5211	J-7259	J-7027	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-5214(1)	J-7260	J-9280	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5214(2)	J-9280	J-7261	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5217(1)	J-6019	045-004	8	140	0.12	0.28	0.5	0.7	0.28	0.7
WMAIN-5217(2)	045-004	J-7027	8	140	0.12	0.28	0.5	0.7	0.28	0.7
WMAIN-5219	J-7187	J-7886	16	140	0.08	0.28	0.6	1.1	0.28	1.1
WMAIN-5222(1)	J-7744	027-012	16	140	0	0.22	0	1	0	0
WMAIN-5222(2)	027-012	J-7065	16	140	0	0.22	0	1	0	0
WMAIN-5224(1)	J-8367	026-038	12	152.5	0	0.19	0	0.8	0.04	0.4
WMAIN-5224(2)	026-038	J-5518	12	152.5	0	0.19	0	0.8	0.04	0.4
WMAIN-5226(1)	J-8536	026-001	12	152.5	0	0.27	0	1	0.08	0.5
WMAIN-5226(2)	026-001	J-8367	12	152.5	0	0.28	0	1	0.08	0.5
WMAIN-5227	026-002	J-7066	8	152.5	0	0.15	0	0.6	0	0
WMAIN-5229(1)	J-6156	026-003	8	152.5	0	0.15	0	0.6	0	0
WMAIN-5229(2)	026-003	026-002	8	152.5	0	0.15	0	0.6	0	0
WMAIN-5232(1)	J-7965	027-008	8	152.5	0.02	0.11	0.2	0.5	0.02	0.2
WMAIN-5232(2)	027-008	J-8138	8	152.5	0.02	0.1	0.2	0.5	0.02	0.2
WMAIN-5235(1)	J-8470	027-007	6	140	0.02	0.1	0.1	0.3	0.03	0.2
WMAIN-5235(2)	027-007	J-8415	6	140	0.02	0.1	0.1	0.3	0.03	0.2
WMAIN-5237	J-8138	J-8470	6	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-5239(1)	J-8470	027-006	6	152.5	0.01	0.1	0.1	0.4	0.01	0.1
WMAIN-5239(2)	027-006	J-6296	6	152.5	0	0.07	0	0.3	0	0
WMAIN-5241	J-6295	J-6296	6	152.5	0	0	0	0.1	0	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5243(1)	J-7250	J-9279	6	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-5243(2)	J-9279	J-7251	6	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5247	J-6296	J-7250	6	152.5	0	0.04	0	0.2	0.01	0.1
WMAIN-5249	J-8138	J-7251	8	152.5	0	0.15	0.1	0.6	0	0.1
WMAIN-5251	J-6799	J-6800	6	152.5	0	0	0	0	0	0
WMAIN-5252	J-6799	J-8138	6	152.5	0	0.15	0	0.5	0	0
WMAIN-5255(1)	J-6799	027-034	6	152.5	0.02	0.2	0.1	0.5	0.02	0.1
WMAIN-5255(2)(1)	027-034	027-042	6	152.5	0.02	0.21	0.2	0.6	0.02	0.2
WMAIN-5255(2)(2)	027-042	J-7038	6	152.5	0.02	0.21	0.2	0.6	0.02	0.2
WMAIN-5258(1)	J-7592	038-044	6	152.5	0	0.03	0.1	0.2	0.01	0.1
WMAIN-5258(2)	038-044	J-7028	6	152.5	0	0.04	0	0.2	0	0
WMAIN-5261(1)	J-7592	038-041	8	140	0	0.19	0	0.6	0.01	0.1
WMAIN-5261(2)	038-041	J-7593	8	140	0	0.2	0	0.6	0.01	0.1
WMAIN-5264	J-7271	J-7592	8	140	0	0.77	0	1.2	0.07	0.3
WMAIN-5265	J-7028	J-6031	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5266	J-6031	J-6032	6	152.5	0	0	0	0	0	0
WMAIN-5267(1)	J-7450	045-007	8	140	0.04	0.12	0.2	0.5	0.12	0.5
WMAIN-5267(2)(1)	045-007	045-008	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-5267(2)(2)	045-008	J-7155	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-5269(1)	J-7780	045-015	6	140	0.05	0.11	0.2	0.4	0.11	0.4
WMAIN-5269(2)	045-015	J-6721	6	140	0.03	0.08	0.2	0.3	0.08	0.3
WMAIN-5273	J-7450	J-7272	8	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-5274	J-8204	J-6008	6	140	0.04	0.1	0.2	0.3	0.1	0.3
WMAIN-5277(1)	J-6007	045-020	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-5277(2)	045-020	J-6008	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-5279	J-6721	J-7272	8	140	0.04	0.15	0.3	0.5	0.15	0.5
WMAIN-5281(1)	J-7272	045-014	8	140	0.05	0.2	0.3	0.6	0.17	0.5
WMAIN-5281(2)	045-014	J-6349	8	140	0.05	0.2	0.3	0.6	0.16	0.5
WMAIN-5283	J-7272	J-7273	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5286A	J-6350	J-6051	8	140	0.02	0.15	0.2	0.5	0.07	0.3
WMAIN-5286B	J-6349	J-6350	8	140	0.02	0.15	0.2	0.5	0.07	0.3
WMAIN-5289A	J-6007	J-8376	6	140	0.05	0.19	0.2	0.5	0.16	0.4
WMAIN-5289B(1)	J-8376	045-021	6	140	0.03	0.17	0.2	0.5	0.13	0.4
WMAIN-5289B(2)	045-021	J-6050	6	140	0.02	0.15	0.2	0.4	0.11	0.4
WMAIN-5290(1)	J-7987	045-012	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-5290(2)(1)	045-012	045-013	8	140	0	0.03	0	0.2	0.03	0.2
WMAIN-5290(2)(2)	045-013	J-6349	8	140	0	0.03	0	0.2	0.03	0.2
WMAIN-5292	J-6586	J-6587	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5296(1)	J-7155	045-028	8	140	0.04	0.23	0.2	0.6	0.18	0.6
WMAIN-5296(2)(1)	045-028	045-027	8	140	0.02	0.2	0.2	0.6	0.15	0.5
WMAIN-5296(2)(2)	045-027	J-6180	8	140	0.02	0.2	0.2	0.6	0.15	0.5
WMAIN-5297(1)	J-7155	045-010	8	140	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5297(2)	045-010	J-6482	8	140	0.04	0.11	0.3	0.4	0.06	0.3
WMAIN-5299(1)	J-6587	045-011	8	140	0	0	0	0.1	0	0.1
WMAIN-5299(2)	045-011	J-7155	8	140	0	0.01	0	0.1	0	0.1
WMAIN-5301(1)	J-7186	J-8641	16	140	0.05	0.21	0.5	0.9	0.21	0.9
WMAIN-5301(2)	J-8641	J-7187	16	140	0.06	0.23	0.5	1	0.23	1
WMAIN-5304(1)	J-7579	036-001	16	140	0.05	0.2	0.5	0.9	0.2	0.9
WMAIN-5304(2)	036-001	J-7186	16	140	0.05	0.21	0.5	0.9	0.21	0.9
WMAIN-5306(1)	J-5086	045-032	16	140	0.05	0.2	0.5	0.9	0.2	0.9
WMAIN-5306(2)	045-032	J-7579	16	140	0.05	0.2	0.5	0.9	0.2	0.9
WMAIN-5308	J-6482	J-6483	4	140	0	0	0	0.1	0	0.1
WMAIN-5310	J-7987	J-6587	8	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5313	J-6360	J-6361	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5315	J-6050	J-6299	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5316	J-6050	J-6051	6	152.5	0.01	0.11	0.1	0.4	0.08	0.3
WMAIN-5318	J-6051	J-7247	6	140	0.13	1.18	0.4	1.3	0.59	0.9
WMAIN-5319(1)	J-6360	045-023	6	140	0.02	0.32	0.2	0.6	0.14	0.4
WMAIN-5319(2)(1)	045-023	045-022	6	140	0.03	0.33	0.2	0.7	0.15	0.4
WMAIN-5319(2)(2)	045-022	J-7247	6	140	0.03	0.33	0.2	0.7	0.15	0.4
WMAIN-5321(1)	J-6606	045-024	6	140	0.01	0.26	0.1	0.6	0.09	0.3
WMAIN-5321(2)	045-024	J-6360	6	140	0.01	0.28	0.1	0.6	0.1	0.3
WMAIN-5325(1)	J-7601	035-014	6	152.5	0	0	0	0	0	0
WMAIN-5325(2)(1)	035-014	035-015	6	152.5	0	0	0	0	0	0
WMAIN-5325(2)(2)	035-015	J-7602	6	152.5	0	0	0	0	0	0
WMAIN-5326	035-013	J-7304	6	152.5	0	0.01	0	0.1	0	0
WMAIN-5329	J-7305	J-8557	6	152.5	0.02	0.1	0.2	0.4	0.05	0.3
WMAIN-5330	J-7449	J-6210	6	152.5	0.03	0.06	0.2	0.3	0.03	0.2
WMAIN-5332	J-6210	035-013	6	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5335(1)	J-6210	035-009	6	152.5	0.24	0.41	0.6	0.8	0.28	0.7
WMAIN-5335(2)	035-009	J-6211	6	152.5	0.24	0.41	0.6	0.8	0.28	0.7
WMAIN-5337(1)	J-8181	035-010	6	152.5	0.05	0.18	0.3	0.5	0.08	0.3
WMAIN-5337(2)	035-010	J-6210	6	152.5	0.07	0.21	0.3	0.6	0.1	0.4
WMAIN-5340(1)	J-7829	035-003	8	152.5	0.01	0.07	0.1	0.4	0.02	0.2
WMAIN-5340(2)(1)	035-003	035-004	8	152.5	0.02	0.09	0.2	0.4	0.04	0.3
WMAIN-5340(2)(2)	035-004	J-8557	8	152.5	0.02	0.09	0.2	0.4	0.04	0.3
WMAIN-5342(1)	J-8557	035-005	8	152.5	0.06	0.21	0.3	0.7	0.11	0.5
WMAIN-5342(2)(1)	035-005	035-023	8	152.5	0.08	0.24	0.4	0.7	0.14	0.5
WMAIN-5342(2)(2)	035-023	J-8453	8	152.5	0.08	0.24	0.4	0.7	0.14	0.5
WMAIN-5345	J-7304	J-7305	6	152.5	0	0.01	0	0.1	0	0
WMAIN-5348(1)(1)	J-7305	035-006	6	152.5	0.01	0.04	0.1	0.2	0.02	0.2
WMAIN-5348(1)(2)	035-006	035-007	6	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5348(2)	035-007	J-7449	6	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5351(1)	J-7829	035-008	6	152.5	0.03	0.12	0.2	0.4	0.05	0.2
WMAIN-5351(2)	035-008	J-7449	6	152.5	0.04	0.13	0.2	0.4	0.05	0.3
WMAIN-5353(1)(1)	J-8180	035-001	8	152.5	0.01	0.13	0.1	0.5	0.02	0.2
WMAIN-5353(1)(2)	035-001	035-002	8	152.5	0.02	0.15	0.2	0.6	0.04	0.3
WMAIN-5353(2)	035-002	J-7829	8	152.5	0.02	0.15	0.2	0.6	0.04	0.3
WMAIN-5355A(1)	J-7624	036-004	6	152.5	0.25	0.39	0.6	0.8	0.31	0.7
WMAIN-5355A(2)	036-004	035-012	6	152.5	0.29	0.43	0.7	0.8	0.37	0.8
WMAIN-5355B	035-012	J-5269	6	152.5	0.32	0.46	0.7	0.9	0.4	0.8
WMAIN-5358(1)	J-7623	035-011	6	152.5	0.09	0.15	0.4	0.5	0.12	0.4
WMAIN-5358(2)	035-011	J-6211	6	152.5	0.12	0.19	0.4	0.5	0.16	0.5
WMAIN-5361	J-7624	J-6285	12	140	0.01	0.06	0.1	0.4	0.06	0.4
WMAIN-5362	J-8180	J-8181	12	152.5	0.01	0.07	0.1	0.5	0.07	0.5
WMAIN-5364	J-7623	J-7624	12	152.5	0	0.08	0	0.5	0.02	0.2
WMAIN-5365	J-6787	J-8181	12	152.5	0.01	0.08	0.1	0.5	0.08	0.5
WMAIN-5368(1)	J-6787	036-003	12	152.5	0	0.11	0	0.6	0.01	0.2
WMAIN-5368(2)	036-003	J-7623	12	152.5	0	0.11	0	0.6	0.01	0.2
WMAIN-5369	J-6786	J-6787	8	152.5	0	0	0	0	0	0
WMAIN-5372(1)	J-8473	036-002	12	152.5	0	0.14	0	0.7	0.05	0.4
WMAIN-5372(2)	036-002	J-8180	12	152.5	0	0.14	0	0.7	0.05	0.4
WMAIN-5375(1)	J-6035	036-048	6	140	0	0	0	0	0	0
WMAIN-5375(2)	036-048	J-8306	6	140	0	0	0	0	0	0
WMAIN-5376	J-6034	J-6035	6	140	0	0	0	0	0	0
WMAIN-5379	J-7020	J-7326	6	140	0.25	0.78	0.6	1	0.78	1
WMAIN-5381(1)	J-7327	036-009	6	140	0	0	0	0	0	0
WMAIN-5381(2)	036-009	J-7383	6	140	0	0	0	0	0	0
WMAIN-5383(1)	J-5782	036-006	6	140	0	0	0	0	0	0
WMAIN-5383(2)	036-006	J-6846	6	140	0	0	0	0	0	0
WMAIN-5385	J-6846	J-5782	8	140	0	0	0	0	0	0
WMAIN-5387	J-5783	J-7020	8	140	0.08	0.24	0.4	0.7	0.24	0.7

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5389	J-7110	J-8328	4	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-5391(1)	J-7326	036-008	6	140	0.23	0.72	0.5	1	0.72	1
WMAIN-5391(2)	036-008	J-7327	6	140	0.22	0.7	0.5	1	0.7	1
WMAIN-5392(1)	J-6758	036-005	8	140	0	0	0	0	0	0
WMAIN-5392(2)	036-005	J-6846	8	140	0	0	0	0	0	0
WMAIN-5396(1)	J-7327	036-019	8	140	0.05	0.15	0.3	0.5	0.15	0.5
WMAIN-5396(2)	036-019	J-7275	8	140	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-5398(1)(1)	J-7334	036-023	8	140	0	0	0	0.1	0	0.1
WMAIN-5398(1)(2)	036-023	036-024	8	140	0	0	0	0	0	0
WMAIN-5398(2)	036-024	J-8822	8	140	0	0	0	0	0	0
WMAIN-5399	J-8274	J-6055	6	140	0	0	0	0	0	0
WMAIN-5402(1)	J-7020	036-007	8	140	0	0	0	0.1	0	0.1
WMAIN-5402(2)	036-007	J-6035	8	140	0	0	0	0	0	0
WMAIN-5405	J-5783	J-6787	8	140	0.1	0.3	0.4	0.7	0.3	0.7
WMAIN-5408	J-8224	J-8225	8	152.5	0.04	0.14	0.3	0.5	0.06	0.3
WMAIN-5410(1)	J-8224	034-009	6	152.5	0	0	0	0	0	0
WMAIN-5410(2)	034-009	J-8534	6	152.5	0	0	0	0	0	0
WMAIN-5412(1)	J-8229	034-008	8	152.5	0.03	0.12	0.2	0.5	0.04	0.3
WMAIN-5412(2)	034-008	J-8224	8	152.5	0.03	0.12	0.2	0.5	0.05	0.3
WMAIN-5414(1)	J-8229	034-007	6	152.5	0	0	0	0	0	0
WMAIN-5414(2)	034-007	J-8532	6	152.5	0	0	0	0	0	0
WMAIN-5416(1)	J-6612	034-006	8	152.5	0.02	0.1	0.2	0.5	0.03	0.2
WMAIN-5416(2)	034-006	J-8229	8	152.5	0.02	0.11	0.2	0.5	0.03	0.2
WMAIN-5419	J-8190	J-6612	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-5420	J-6612	J-6613	8	152.5	0.22	0.45	0.7	1	0.39	0.9
WMAIN-5422(1)	J-6613	034-005	8	152.5	0.14	0.3	0.5	0.8	0.3	0.8
WMAIN-5422(2)(1)	034-005	034-012	8	152.5	0.12	0.27	0.5	0.8	0.27	0.8
WMAIN-5422(2)(2)	034-012	J-7446	8	152.5	0.12	0.27	0.5	0.8	0.27	0.8
WMAIN-5425	J-8737	J-6613	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-5429(1)	J-6502	031-044	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-5429(2)	031-044	J-7300	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5431	J-7300	J-7301	8	152.5	0	0	0	0	0	0
WMAIN-5432(1)	J-7300	031-051	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5432(2)	031-051	J-8408	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5434(1)	J-8408	031-049	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5434(2)	031-049	J-5672	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5436	032-016	J-6992	6	140	0.02	0.06	0.1	0.3	0.06	0.3
WMAIN-5438	J-6992	J-8634	8	140	0	0.01	0	0.1	0	0
WMAIN-5439	032-018	032-016	6	140	0.02	0.06	0.1	0.3	0.06	0.3
WMAIN-5441	J-7005	032-018	6	140	0.02	0.06	0.1	0.3	0.06	0.3
WMAIN-5442	J-8078	J-7750	8	140	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-5444	J-6267	J-6268	8	140	0	0	0	0	0	0
WMAIN-5446	J-6268	J-8078	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-5449	J-6435	J-6436	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-5450	J-7750	J-6812	8	140	0.07	0.25	0.3	0.7	0.25	0.7
WMAIN-5452(1)	J-6435	032-004	8	140	0	0.02	0.1	0.2	0.02	0.2
WMAIN-5452(2)	032-004	J-7005	8	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-5454(1)	J-8078	032-002	8	140	0	0	0	0.1	0	0.1
WMAIN-5454(2)	032-002	J-8234	8	140	0	0	0	0	0	0
WMAIN-5456(1)	J-7750	032-003	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-5456(2)	032-003	J-6435	8	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-5458(1)	J-7888	012-004	16	140	0.05	0.24	0.4	1	0.24	1
WMAIN-5458(2)	012-004	J-5695	16	140	0.05	0.24	0.4	1	0.24	1
WMAIN-5460(1)(1)	J-7889	011-009	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-5460(1)(2)	011-009	011-010	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-5460(2)	011-010	J-7738	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-5462	J-7888	J-7889	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-5464	J-7681	J-7682	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-5466(1)	J-7682	012-009	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-5466(2)	012-009	J-7265	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-5468(1)(1)	J-8750	012-006	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-5468(1)(2)	012-006	012-008	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5468(2)	012-008	J-7681	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5472(1)	J-7889	012-005	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5472(2)	012-005	J-8750	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5474(1)	J-7682	012-007	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5474(2)	012-007	J-8750	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5476	J-7738	J-7681	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-5478(1)	J-8023	023-028	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5478(2)	023-028	J-8380	6	152.5	0	0	0	0	0	0
WMAIN-5480(1)	J-6785	010-003	6	152.5	0	0.14	0	0.4	0.07	0.3
WMAIN-5480(2)(1)	010-003	010-006	6	152.5	0	0.12	0	0.4	0.05	0.3
WMAIN-5480(2)(2)	010-006	J-7348	6	152.5	0	0.12	0	0.4	0.05	0.3
WMAIN-5483	J-7117	J-7348	6	152.5	0	0.1	0	0.4	0.03	0.2
WMAIN-5485	J-6933	J-6934	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5487	J-7105	J-6784	8	152.5	0.02	0.09	0.2	0.4	0.06	0.3
WMAIN-5490(1)	J-7117	010-005	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-5490(2)	010-005	J-8100	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5493(1)	J-7592	038-040	8	152.5	0	0.17	0	0.6	0.01	0.1
WMAIN-5493(2)	038-040	J-8046	8	152.5	0	0.18	0.1	0.6	0	0.1
WMAIN-5495(1)	J-7593	038-043	6	152.5	0	0.07	0.1	0.3	0	0.1
WMAIN-5495(2)	038-043	J-7028	6	152.5	0	0.06	0	0.3	0	0
WMAIN-5499(1)	J-8537	039-003	8	152.5	0	0.05	0	0.3	0.03	0.3
WMAIN-5499(2)	039-003	J-8377	8	152.5	0	0.06	0	0.3	0.04	0.3
WMAIN-5501(1)(1)	J-8537	039-002	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5501(1)(2)	039-002	039-001	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-5501(2)	039-001	J-8708	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5503(1)	J-8266	039-005	12	152.5	0	0.14	0	0.7	0.06	0.4
WMAIN-5503(2)	039-005	J-8536	12	152.5	0	0.14	0	0.7	0.05	0.4
WMAIN-5506(1)	J-8536	039-004	8	152.5	0	0.22	0	0.7	0.02	0.2
WMAIN-5506(2)	039-004	J-8537	8	152.5	0	0.22	0	0.7	0.02	0.2
WMAIN-5509(1)	J-8708	039-006	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-5509(2)	039-006	J-8378	8	152.5	0	0.05	0	0.3	0.03	0.2
WMAIN-5511	J-8266	J-8377	8	152.5	0	0.02	0.1	0.2	0.01	0.2
WMAIN-5513(1)	J-8378	039-009	8	152.5	0	0.18	0	0.6	0.08	0.4
WMAIN-5513(2)	039-009	J-7781	8	152.5	0	0.18	0	0.6	0.09	0.4
WMAIN-5515(1)	J-8377	039-008	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-5515(2)	039-008	J-8378	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-5518(1)	J-8265	039-007	12	152.5	0	0.12	0	0.6	0.08	0.5
WMAIN-5518(2)	039-007	J-8266	12	152.5	0	0.12	0	0.6	0.08	0.5
WMAIN-5519(1)	J-8167	039-041	12	152.5	0	0.09	0	0.5	0.06	0.4
WMAIN-5519(2)	039-041	J-8265	12	152.5	0	0.08	0	0.5	0.06	0.4
WMAIN-5521(1)	J-8322	039-011	8	152.5	0	0	0	0	0	0
WMAIN-5521(2)	039-011	J-8668	8	152.5	0	0	0	0	0	0
WMAIN-5523(1)	J-7781	039-010	8	152.5	0	0.05	0	0.3	0.03	0.2
WMAIN-5523(2)	039-010	J-8322	8	152.5	0	0.05	0	0.3	0.03	0.2
WMAIN-5524(1)	J-7586	039-048	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-5524(2)	039-048	J-7781	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5527(1)	J-8322	039-046	8	152.5	0	0.07	0	0.4	0.05	0.3
WMAIN-5527(2)	039-046	J-7621	8	152.5	0	0.07	0	0.4	0.06	0.3
WMAIN-5528(1)	J-7010	039-038	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-5528(2)	039-038	J-7762	8	152.5	0	0.05	0	0.3	0.04	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5531	J-7010	J-7011	6	152.5	0	0	0	0	0	0
WMAIN-5532	J-7032	J-7010	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-5535	J-7032	J-7033	6	152.5	0	0	0	0	0	0
WMAIN-5536(1)	J-7736	039-037	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-5536(2)	039-037	J-7032	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-5537	J-5645	J-5646	8	152.5	0.02	0.03	0.2	0.2	0.02	0.2
WMAIN-5538	J-5646	J-7103	8	152.5	0.01	0.06	0.1	0.4	0.03	0.2
WMAIN-5541(1)	J-7101	023-010	6	152.5	0	0.44	0.1	0.8	0.16	0.5
WMAIN-5541(2)	023-010	J-6407	6	152.5	0	0.45	0.1	0.9	0.17	0.5
WMAIN-5543	J-7101	J-7102	6	152.5	0	0	0	0	0	0
WMAIN-5545	J-7099	J-7101	6	152.5	0	0.3	0	0.7	0.05	0.2
WMAIN-5547	J-7099	J-7100	6	152.5	0	0	0	0	0	0
WMAIN-5549(1)	J-6707	014-008	12	152.5	0.19	0.44	0.8	1.3	0.44	1.3
WMAIN-5549(2)(1)	014-008	014-009	12	152.5	0.18	0.41	0.8	1.2	0.41	1.2
WMAIN-5549(2)(2)(1)	014-009	014-010	12	152.5	0.18	0.41	0.8	1.2	0.41	1.2
WMAIN-5549(2)(2)(2)	014-010	J-7253	12	152.5	0.18	0.41	0.8	1.2	0.41	1.2
WMAIN-5551(1)(1)	J-5420	015-020	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-5551(1)(2)	015-020	J-5723	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-5551(2)(1)	J-5723	J-8817	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-5551(2)(2)	J-8817	J-7885	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-5554(1)	J-7885	015-019	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5554(2)	015-019	J-8481	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5555(1)	J-8481	015-018	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5555(2)	015-018	J-8324	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5557	J-8558	J-8702	12	152.5	0	0	0	0	0	0
WMAIN-5560(1)	J-8313	031-017	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-5560(2)	031-017	J-8565	6	140	0.02	0.08	0.2	0.3	0.08	0.3
WMAIN-5562	017-001	J-5753	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5563(1)	J-8614	031-050	16	140	0.02	0.14	0.3	0.8	0.14	0.8
WMAIN-5563(2)	031-050	J-5362	16	140	0.02	0.14	0.3	0.8	0.14	0.8
WMAIN-5565(1)	J-5815	017-004	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-5565(2)	017-004	017-005	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-5566(1)	017-005	017-018	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-5566(2)	017-018	J-5882	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-5568	J-5952	J-5953	8	140	0.02	0.12	0.2	0.5	0.09	0.4
WMAIN-5569(1)(1)	J-5933	036-010	6	140	0	0.13	0	0.4	0	0.1
WMAIN-5569(1)(2)	036-010	045-001	6	140	0	0.1	0	0.3	0	0
WMAIN-5569(2)(1)	045-001	045-026	6	140	0	0.1	0	0.3	0	0
WMAIN-5569(2)(2)	045-026	J-6180	6	140	0	0.1	0	0.3	0	0
WMAIN-5571	J-5429	052-006	6	140	0	0.24	0	0.5	0.02	0.2
WMAIN-5573	J-5428	J-5429	8	140	0	0.26	0	0.7	0.02	0.1
WMAIN-5574	044-020	J-6757	4	140	0	0	0	0	0	0
WMAIN-5576(1)	J-6523	037-003	8	140	0.06	0.42	0.3	0.9	0.2	0.6
WMAIN-5576(2)	037-003	J-8514	8	140	0.05	0.41	0.3	0.9	0.19	0.6
WMAIN-5578	J-8514	J-7029	8	140	0	0.08	0.1	0.4	0	0.1
WMAIN-5580	J-5094	J-6609	12	140	0	0.21	0	0.8	0.05	0.4
WMAIN-5581	J-5225	J-5093	8	140	0.01	0.27	0.1	0.7	0.18	0.6
WMAIN-5582(1)	J-8120	J-9277	4	140	0.04	0.11	0.2	0.3	0.11	0.3
WMAIN-5582(2)	J-9277	J-5551	4	140	0.06	0.19	0.2	0.4	0.18	0.4
WMAIN-5585(1)	J-8119	030-016	6	140	0.13	0.36	0.4	0.7	0.36	0.7
WMAIN-5585(2)	030-016	J-8120	6	140	0.13	0.38	0.4	0.7	0.38	0.7
WMAIN-5586	J-6269	J-6852	4	140	0.14	0.39	0.3	0.6	0.39	0.6
WMAIN-5590(1)	J-6269	J-9250	3	130	0	0.02	0	0.1	0.01	0
WMAIN-5590(2)	J-9250	J-7277	3	130	0	0.09	0	0.2	0.03	0.1
WMAIN-5591	J-7007	J-5754	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-5593	J-8120	J-6513	6	140	0.11	0.33	0.4	0.7	0.33	0.7
WMAIN-5595(1)(1)	J-5551	030-021	6	140	0.2	0.57	0.5	0.9	0.57	0.9
WMAIN-5595(1)(2)	030-021	030-042	6	140	0.2	0.59	0.5	0.9	0.59	0.9
WMAIN-5595(2)	030-042	J-5754	6	140	0.2	0.59	0.5	0.9	0.59	0.9
WMAIN-5599	J-6513	J-5755	6	140	0.02	0.07	0.2	0.3	0.07	0.3
WMAIN-5601	J-8365	J-7007	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-5604(1)	J-8365	030-045	10	152.5	0.09	0.27	0.5	0.9	0.27	0.9
WMAIN-5604(2)(1)	030-045	030-044	10	152.5	0.09	0.28	0.5	0.9	0.28	0.9
WMAIN-5604(2)(2)	030-044	J-5679	10	152.5	0.09	0.28	0.5	0.9	0.28	0.9
WMAIN-5606	J-7531	J-8365	10	152.5	0.04	0.13	0.3	0.6	0.13	0.6
WMAIN-5607	J-7901	J-8365	6	152.5	0.04	0.13	0.2	0.4	0.13	0.4
WMAIN-5609	J-6877	J-7901	4	140	0.01	0.08	0.1	0.2	0.07	0.2
WMAIN-5612	J-5760	J-5811	6	140	0.06	0.17	0.3	0.5	0.17	0.5
WMAIN-5614(1)	J-5759	030-018	6	140	0.02	0.05	0.1	0.2	0.06	0.2
WMAIN-5614(2)	030-018	J-5760	6	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-5616	J-5734	J-5908	6	140	0.13	0.39	0.4	0.7	0.39	0.7
WMAIN-5617(1)	J-5760	030-019	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-5617(2)	030-019	J-5956	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-5618	J-7584	J-5908	6	140	0.23	0.62	0.5	0.9	0.62	0.9
WMAIN-5619(1)	J-7130	022-016	6	152.5	0.27	0.51	0.6	0.9	0.5	0.9
WMAIN-5619(2)(1)	022-016	022-015	6	152.5	0.26	0.48	0.6	0.9	0.46	0.9
WMAIN-5619(2)(2)	022-015	J-6110	6	152.5	0.26	0.48	0.6	0.9	0.46	0.9
WMAIN-5622	J-6110	J-5741	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-5625	J-7779	J-6624	6	140	0.06	0.16	0.3	0.4	0.07	0.3
WMAIN-5627	J-7094	J-7705	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-5629(1)	J-5443	037-035	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-5629(2)(1)	037-035	037-034	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5629(2)(2)	037-034	J-6551	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5631	J-6551	J-7977	6	140	0.01	0.44	0.1	0.8	0.02	0.1
WMAIN-5632	J-5512	J-8188	8	140	0.01	0.08	0.1	0.4	0.04	0.3
WMAIN-5635(1)	J-7837	037-022	6	140	0	0.06	0.1	0.3	0	0.1
WMAIN-5635(2)	037-022	J-7534	6	140	0	0.08	0	0.3	0.01	0.1
WMAIN-5636	J-7174	037-028	6	140	0	0.09	0	0.3	0	0.1
WMAIN-5639(1)	J-8124	037-020	6	140	0	0.09	0	0.3	0	0.1
WMAIN-5639(2)	037-020	J-8123	6	140	0	0.09	0	0.3	0	0.1
WMAIN-5643(1)	J-6524	037-016	6	140	0	0.16	0.1	0.4	0.07	0.3
WMAIN-5643(2)(1)	037-016	037-017	6	140	0	0.14	0	0.4	0.05	0.2
WMAIN-5643(2)(2)	037-017	J-6610	6	140	0	0.14	0	0.4	0.05	0.2
WMAIN-5645(1)	J-7176	028-002	6	140	0.12	0.22	0.4	0.5	0.13	0.4
WMAIN-5645(2)	028-002	J-7177	6	140	0.11	0.21	0.4	0.5	0.12	0.4
WMAIN-5646(1)	J-7319	038-014	6	140	0	0.06	0	0.3	0	0
WMAIN-5646(2)	038-014	J-7271	6	140	0	0.07	0	0.3	0	0
WMAIN-5650(1)	J-5931	038-031	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5650(2)	038-031	J-5970	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5652	J-5985	J-6916	6	140	0	0.08	0	0.3	0	0
WMAIN-5653(1)	J-8480	044-028	6	140	0	0	0	0.1	0	0
WMAIN-5653(2)	044-028	J-7687	6	140	0	0.01	0	0.1	0	0
WMAIN-5657(1)	J-8480	044-027	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-5657(2)	044-027	J-7561	6	140	0	0.04	0.1	0.2	0.04	0.2
WMAIN-5658	J-5895	J-6757	6	152.5	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5661(1)	J-8732	038-034	8	140	0	0.04	0	0.3	0.01	0.1
WMAIN-5661(2)	038-034	J-7555	8	140	0	0.05	0	0.3	0	0.1
WMAIN-5664(1)	J-6790	J-5341	8	140	0	0.18	0	0.6	0.18	0.6
WMAIN-5664(2)	J-5341	J-6791	8	140	0	0.21	0	0.6	0.21	0.6
WMAIN-5665	J-6399	J-6400	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5666	J-5877	J-5878	6	140	0	0	0	0	0	0
WMAIN-5668(1)(1)	J-8514	044-017	8	140	0.07	0.15	0.3	0.5	0.14	0.5

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5668(1)(2)	044-017	044-048	8	140	0.07	0.14	0.3	0.5	0.13	0.5
WMAIN-5668(2)	044-048	J-7381	8	140	0.07	0.14	0.3	0.5	0.13	0.5
WMAIN-5669	J-5894	J-5895	6	140	0	0	0	0	0	0
WMAIN-5671(1)	J-7608	044-035	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-5671(2)	044-035	J-5594	6	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5674(1)	J-7736	039-036	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5674(2)	039-036	J-6376	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5677	J-6377	J-6908	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5678(1)	J-6908	039-042	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5678(2)	039-042	J-6909	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5679(1)(1)	J-6377	039-035	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-5679(1)(2)	039-035	039-034	8	152.5	0	0.06	0	0.3	0.04	0.3
WMAIN-5679(2)	039-034	J-7909	8	152.5	0	0.06	0	0.3	0.04	0.3
WMAIN-5682	J-6376	J-6377	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5686	J-7908	J-7909	8	152.5	0	0.1	0	0.5	0.07	0.4
WMAIN-5687(1)	J-7909	039-039	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-5687(2)	039-039	J-7762	8	152.5	0	0.04	0	0.3	0	0
WMAIN-5689(1)	J-7762	039-040	8	152.5	0	0.05	0.1	0.3	0.04	0.3
WMAIN-5689(2)	039-040	J-8167	8	152.5	0.01	0.05	0.1	0.3	0.04	0.3
WMAIN-5691(1)	J-7556	039-054	8	152.5	0	0.06	0	0.3	0.03	0.2
WMAIN-5691(2)	039-054	J-6376	8	152.5	0	0.06	0	0.3	0.03	0.2
WMAIN-5695(1)(1)	J-8258	039-026	8	152.5	0	0	0	0.1	0	0
WMAIN-5695(1)(2)	039-026	039-025	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5695(2)	039-025	J-8577	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5696(1)	J-8577	039-024	6	152.5	0.01	0.03	0.1	0.2	0.01	0.1
WMAIN-5696(2)	039-024	J-7849	6	152.5	0.01	0.04	0.1	0.2	0.02	0.1
WMAIN-5698(1)	J-7849	039-016	6	152.5	0.06	0.17	0.3	0.5	0.08	0.3
WMAIN-5698(2)	039-016	J-7338	6	152.5	0.07	0.18	0.3	0.5	0.09	0.4
WMAIN-5701(1)	J-7849	039-023	8	152.5	0	0.01	0.1	0.2	0	0.1
WMAIN-5701(2)	039-023	J-6487	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5705(1)	J-7338	039-017	8	152.5	0	0	0	0	0	0
WMAIN-5705(2)	039-017	J-8063	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-5706	J-7338	J-7339	6	152.5	0.08	0.16	0.3	0.5	0.1	0.4
WMAIN-5708(1)	J-7339	039-013	6	152.5	0.1	0.2	0.4	0.5	0.14	0.5
WMAIN-5708(2)	039-013	J-7487	6	152.5	0.1	0.2	0.4	0.5	0.15	0.5
WMAIN-5711(1)	J-7339	039-015	8	152.5	0	0	0	0	0	0
WMAIN-5711(2)	039-015	J-8247	8	152.5	0	0	0	0	0	0
WMAIN-5712(1)	J-7487	039-012	6	152.5	0.66	1.35	1	1.5	0.99	1.3
WMAIN-5712(2)	039-012	038-059	6	152.5	0.67	1.37	1.1	1.5	1.02	1.3
WMAIN-5715	J-7487	J-6309	8	152.5	0.07	0.14	0.4	0.5	0.1	0.5
WMAIN-5716	038-001	J-6611	16	140	0	0.27	0.1	1.1	0	0.1
WMAIN-5717	038-059	038-001	16	140	0	0.28	0.1	1.1	0	0.1
WMAIN-5719(1)	J-6309	039-014	8	152.5	0.06	0.12	0.3	0.5	0.08	0.4
WMAIN-5719(2)	039-014	J-8063	8	152.5	0.05	0.11	0.3	0.5	0.07	0.4
WMAIN-5720	J-6309	J-6310	8	152.5	0	0	0	0	0	0
WMAIN-5722(1)	J-8063	039-018	8	152.5	0.04	0.08	0.3	0.4	0.05	0.3
WMAIN-5722(2)	039-018	J-8064	8	152.5	0.03	0.08	0.3	0.4	0.04	0.3
WMAIN-5724(1)	J-8064	039-020	8	152.5	0.02	0.06	0.2	0.3	0.02	0.2
WMAIN-5724(2)	039-020	J-6486	8	152.5	0.01	0.05	0.1	0.3	0.02	0.2
WMAIN-5726(1)	J-8064	039-019	8	152.5	0	0	0	0	0	0
WMAIN-5726(2)	039-019	J-8373	8	152.5	0	0	0	0	0	0
WMAIN-5728	J-6486	J-6487	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5731(1)	J-6487	039-022	8	152.5	0	0.03	0.1	0.2	0.01	0.1
WMAIN-5731(2)	039-022	J-7235	8	152.5	0	0.03	0.1	0.2	0.01	0.1
WMAIN-5733	J-5371	J-7133	8	152.5	0	0.06	0	0.4	0.03	0.2
WMAIN-5735(1)	J-6727	039-032	6	152.5	0	0	0	0	0	0
WMAIN-5735(2)	039-032	J-6728	6	152.5	0	0	0	0	0	0
WMAIN-5737(1)	J-7133	039-030	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5737(2)	039-030	J-6782	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5739	J-6782	J-7236	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5740	J-7235	J-7236	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5743(1)	J-7236	039-029	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5743(2)	039-029	J-6518	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-5746	J-6518	J-7295	8	152.5	0	0.02	0	0.2	0	0
WMAIN-5747	J-8258	J-7235	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5749(1)	J-7295	039-027	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5749(2)	039-027	J-7296	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5750	J-7403	J-7295	8	152.5	0	0.08	0	0.4	0	0
WMAIN-5753(1)	J-6438	042-028	12	140	0.12	0.39	0.6	1.1	0.39	1.1
WMAIN-5753(2)	042-028	J-5371	12	140	0.11	0.38	0.6	1.1	0.38	1.1
WMAIN-5755(1)	J-7403	039-031	8	152.5	0	0	0	0	0	0
WMAIN-5755(2)	039-031	J-8438	8	152.5	0	0	0	0	0	0
WMAIN-5757(1)	J-7072	039-033	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-5757(2)	039-033	J-6727	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-5759(1)	J-6518	039-028	8	152.5	0	0	0	0	0	0
WMAIN-5759(2)	039-028	J-6519	8	152.5	0	0	0	0	0	0
WMAIN-5761(1)	J-6486	039-021	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5761(2)	039-021	J-7133	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5762	J-7296	J-8258	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5765	J-6782	J-6783	8	152.5	0	0	0	0	0	0
WMAIN-5767	J-6325	J-6326	8	140	0.19	1.56	0.6	1.8	1.56	1.8
WMAIN-5769(1)(1)	J-6326	042-002	6	140	0.04	0.31	0.2	0.6	0.31	0.6
WMAIN-5769(1)(2)	042-002	J-7724	6	140	0.04	0.29	0.2	0.6	0.29	0.6
WMAIN-5769(2)	J-7724	J-8513	6	140	0	0	0	0	0	0
WMAIN-5771	J-6326	J-7708	8	140	0.12	1	0.5	1.4	1	1.4
WMAIN-5773(1)(1)	J-7708	042-003	6	140	0.02	0.21	0.2	0.5	0.21	0.5
WMAIN-5773(1)(2)	042-003	J-7723	6	140	0.03	0.24	0.2	0.5	0.24	0.5
WMAIN-5773(2)	J-7723	J-8546	6	140	0	0	0	0	0	0
WMAIN-5775(1)	J-7708	042-004	8	140	0.15	1.32	0.5	1.7	1.32	1.7
WMAIN-5775(2)	042-004	J-8166	8	140	0.14	1.27	0.5	1.6	1.27	1.6
WMAIN-5776(1)	J-7826	041-012	8	152.5	0.21	1.77	0.7	2.1	1.77	2.1
WMAIN-5776(2)	041-012	J-8166	8	152.5	0.21	1.79	0.7	2.1	1.79	2.1
WMAIN-5779(1)	J-8166	042-005	8	140	0.02	0.15	0.2	0.5	0.15	0.5
WMAIN-5779(2)	042-005	J-7278	8	140	0.02	0.16	0.2	0.5	0.16	0.5
WMAIN-5781	J-8212	J-6542	12	140	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-5783(1)	J-6542	042-001	12	140	0	0.06	0	0.4	0.04	0.3
WMAIN-5783(2)	042-001	J-6325	12	140	0	0.06	0	0.4	0.04	0.3
WMAIN-5785	J-6325	J-7072	12	140	0	0.4	0.1	1.1	0.4	1.1
WMAIN-5788(1)	J-7279	042-007	6	140	0.04	0.31	0.2	0.6	0.31	0.6
WMAIN-5788(2)	042-007	J-7941	6	140	0.04	0.35	0.2	0.7	0.35	0.7
WMAIN-5790(1)	J-6561	055-015	8	152.5	0.08	0.69	0.4	1.3	0.66	1.2
WMAIN-5790(2)	055-015	J-7663	8	152.5	0.08	0.69	0.4	1.3	0.66	1.2
WMAIN-5793	J-7663	J-8405	8	152.5	0	0	0	0	0	0
WMAIN-5795(1)	J-6284	J-9276	6	152.5	0	0	0	0	0	0
WMAIN-5795(2)	J-9276	J-8332	6	152.5	0	0	0	0	0	0
WMAIN-5798(1)	J-6562	055-020	8	152.5	0.05	0.52	0.3	1.1	0.52	1.1
WMAIN-5798(2)	055-020	J-6947	8	152.5	0.06	0.53	0.3	1.1	0.53	1.1
WMAIN-5801	J-5662	J-6517	12	152.5	0.07	0.54	0.5	1.4	0.54	1.4
WMAIN-5802	J-6283	J-6284	12	152.5	0.07	0.51	0.5	1.4	0.51	1.4
WMAIN-5804(1)	J-6517	055-019	12	152.5	0.07	0.53	0.5	1.4	0.53	1.4
WMAIN-5804(2)	055-019	J-6283	12	152.5	0.07	0.53	0.5	1.4	0.53	1.4
WMAIN-5807(1)	J-6283	055-021	6	152.5	0	0	0	0.1	0	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5807(2)	055-021	J-8402	6	152.5	0	0	0	0	0	0
WMAIN-5808(1)	J-7663	055-014	8	152.5	0.07	0.64	0.4	1.2	0.61	1.2
WMAIN-5808(2)	055-014	J-7664	8	152.5	0.07	0.64	0.4	1.2	0.61	1.2
WMAIN-5810	J-7178	J-7179	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-5811(1)(1)	J-7179	055-009	8	152.5	0.01	0.1	0.2	0.4	0.1	0.4
WMAIN-5811(1)(2)	055-009	055-008	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-5811(2)	055-008	J-7346	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-5813	J-7664	J-7347	8	152.5	0.06	0.45	0.3	1	0.45	1
WMAIN-5816(1)	J-7347	055-023	8	152.5	0.07	0.61	0.4	1.2	0.61	1.2
WMAIN-5816(2)	055-023	J-7453	8	152.5	0.07	0.6	0.4	1.2	0.6	1.2
WMAIN-5817	J-7346	J-7347	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-5820(1)	J-7349	055-011	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-5820(2)	055-011	J-7178	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-5823(1)	J-7349	055-012	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5823(2)(1)	055-012	055-013	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-5823(2)(2)	055-013	J-7664	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-5824(1)	J-7349	055-010	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-5824(2)	055-010	J-6996	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-5827	J-7813	J-7346	8	152.5	0	0.03	0.1	0.3	0.02	0.2
WMAIN-5829(1)(1)	J-5662	055-022	12	152.5	0.01	0.33	0.2	1.1	0.27	1
WMAIN-5829(1)(2)	055-022	054-001	12	152.5	0.01	0.33	0.2	1.1	0.27	1
WMAIN-5829(2)	054-001	J-6995	12	152.5	0.01	0.33	0.2	1.1	0.27	1
WMAIN-5831(1)	J-6995	055-005	6	152.5	0.44	2.35	0.8	2.1	2.35	2.1
WMAIN-5831(2)	055-005	J-6996	6	152.5	0.44	2.34	0.8	2.1	2.34	2.1
WMAIN-5833	J-6996	J-7232	8	152.5	0.03	0.21	0.2	0.7	0.21	0.7
WMAIN-5835(1)(1)	J-7232	055-006	8	152.5	0.03	0.19	0.2	0.6	0.19	0.6
WMAIN-5835(1)(2)	055-006	055-007	8	152.5	0.03	0.18	0.2	0.6	0.18	0.6
WMAIN-5835(2)	055-007	J-7813	8	152.5	0.03	0.18	0.2	0.6	0.18	0.6
WMAIN-5838	J-7232	J-7329	8	152.5	0	0	0	0.1	0	0
WMAIN-5840	J-7813	J-7715	8	152.5	0.05	0.28	0.3	0.8	0.28	0.8
WMAIN-5842	J-6401	J-6477	8	152.5	0.05	0.26	0.3	0.8	0.26	0.8
WMAIN-5844(1)	J-6477	055-003	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5844(2)	055-003	J-7714	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-5847	J-7714	J-7715	8	152.5	0.04	0.28	0.3	0.8	0.28	0.8
WMAIN-5850	J-7329	J-7714	8	152.5	0.06	0.35	0.3	0.9	0.35	0.9
WMAIN-5851	J-6997	J-7869	8	152.5	0.05	0.28	0.3	0.8	0.28	0.8
WMAIN-5855	J-5969	J-6997	8	152.5	0.24	1.24	0.7	1.8	1.24	1.8
WMAIN-5857(1)	J-6997	055-004	8	152.5	0.07	0.39	0.4	0.9	0.39	0.9
WMAIN-5857(2)	055-004	J-7329	8	152.5	0.07	0.38	0.4	0.9	0.38	0.9
WMAIN-5859	J-6401	J-6402	8	152.5	0	0	0	0	0	0
WMAIN-5860(1)	J-7869	055-001	8	152.5	0.05	0.27	0.3	0.8	0.27	0.8
WMAIN-5860(2)	055-001	J-6401	8	152.5	0.05	0.27	0.3	0.8	0.27	0.8
WMAIN-5863(1)	J-6476	055-002	8	152.5	0.06	0.29	0.3	0.8	0.28	0.8
WMAIN-5863(2)	055-002	J-6477	8	152.5	0.06	0.29	0.3	0.8	0.28	0.8
WMAIN-5864	J-5968	J-5969	12	152.5	0.34	1.73	1.1	2.7	1.73	2.7
WMAIN-5866(1)	J-8045	054-020	8	152.5	2.42	8.81	2.5	5	8.81	5
WMAIN-5866(2)	054-020	J-5968	8	152.5	2.39	8.7	2.5	5	8.7	5
WMAIN-5869(1)	J-8044	054-019	8	152.5	0	0	0	0	0	0
WMAIN-5869(2)	054-019	J-8530	8	152.5	0	0	0	0	0	0
WMAIN-5871(1)	J-7054	054-018	8	152.5	0.74	2.7	1.3	2.7	2.7	2.7
WMAIN-5871(2)	054-018	J-8044	8	152.5	0.74	2.67	1.3	2.7	2.67	2.7
WMAIN-5873	J-8044	J-8045	8	152.5	0.71	2.55	1.3	2.6	2.55	2.6
WMAIN-5874	J-7397	J-7597	8	152.5	0.21	0.8	0.7	1.4	0.8	1.4
WMAIN-5876(1)	J-7396	054-022	8	152.5	0.7	2.57	1.3	2.6	2.57	2.6
WMAIN-5876(2)	054-022	J-7397	8	152.5	0.7	2.58	1.3	2.6	2.58	2.6
WMAIN-5879(1)	J-7396	054-021	8	152.5	0.67	2.47	1.3	2.5	2.47	2.5
WMAIN-5879(2)	054-021	J-8045	8	152.5	0.65	2.4	1.2	2.5	2.4	2.5
WMAIN-5882	J-6595	J-7054	8	152.5	0.24	0.81	0.7	1.4	0.81	1.4
WMAIN-5884(1)	J-7707	054-024	8	152.5	0.2	0.75	0.6	1.3	0.75	1.3
WMAIN-5884(2)	054-024	J-7597	8	152.5	0.2	0.76	0.7	1.3	0.76	1.3
WMAIN-5886(1)	J-7597	054-023	8	152.5	0	0	0	0	0	0
WMAIN-5886(2)	054-023	J-7598	8	152.5	0	0	0	0	0	0
WMAIN-5888	J-7707	J-7722	8	152.5	0	0	0	0	0	0
WMAIN-5890	J-7054	J-7707	8	152.5	0.18	0.71	0.6	1.3	0.71	1.3
WMAIN-5892(1)	J-6594	054-017	8	152.5	0.24	0.84	0.7	1.4	0.84	1.4
WMAIN-5892(2)	054-017	J-6595	8	152.5	0.24	0.84	0.7	1.4	0.84	1.4
WMAIN-5894	J-6595	J-7870	8	152.5	0	0	0	0	0	0
WMAIN-5896	J-5079	J-5319	8	152.5	0.57	2.03	1.2	2.3	2.03	2.3
WMAIN-5897	J-6594	J-5079	8	152.5	4.75	17.49	3.6	7.3	17.49	7.3
WMAIN-5899(1)	J-7502	054-009	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-5899(2)	054-009	J-7544	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-5903	J-7764	J-7068	6	152.5	0.16	0.63	0.5	1	0.63	1
WMAIN-5905(1)	J-7373	054-013	6	152.5	0.19	0.73	0.5	1.1	0.73	1.1
WMAIN-5905(2)	054-013	J-7764	6	152.5	0.18	0.71	0.5	1.1	0.71	1.1
WMAIN-5907	J-7373	J-7374	6	152.5	0	0	0	0	0	0
WMAIN-5908	J-5448	J-5449	6	152.5	0.25	0.97	0.6	1.3	0.97	1.3
WMAIN-5909(1)	J-5449	054-014	6	152.5	0.23	0.9	0.6	1.2	0.9	1.2
WMAIN-5909(2)	054-014	J-7373	6	152.5	0.22	0.84	0.6	1.2	0.84	1.2
WMAIN-5911	J-7502	J-7514	8	152.5	0	0	0	0	0	0
WMAIN-5913	J-7067	J-7068	6	152.5	0.11	0.42	0.4	0.8	0.42	0.8
WMAIN-5914(1)	J-7067	054-010	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-5914(2)	054-010	J-7502	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-5918	J-7544	J-7397	8	152.5	1.54	5.76	2	4	5.76	4
WMAIN-5920	J-7544	J-7545	8	152.5	0	0	0	0	0	0
WMAIN-5922	J-7563	J-7544	8	152.5	1.33	4.95	1.8	3.7	4.95	3.7
WMAIN-5924	J-6597	J-7563	8	152.5	1.37	4.93	1.9	3.7	4.93	3.7
WMAIN-5925	J-7231	J-7107	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5929(1)(1)	J-7563	054-008	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5929(1)(2)	054-008	054-007	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5929(2)	054-007	J-7231	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5930	J-7107	J-5448	8	152.5	0.43	1.42	1	1.9	1.42	1.9
WMAIN-5932(1)	J-6596	054-015	8	152.5	0.19	0.58	0.6	1.2	0.58	1.2
WMAIN-5932(2)	054-015	J-5448	8	152.5	0.19	0.58	0.6	1.2	0.58	1.2
WMAIN-5935(1)	J-6597	054-006	8	152.5	0.46	1.66	1	2	1.66	2
WMAIN-5935(2)	054-006	J-7107	8	152.5	0.45	1.63	1	2	1.63	2
WMAIN-5938(1)(1)	J-5319	126-005	8	152.5	1.09	3.88	1.6	3.2	3.88	3.2
WMAIN-5938(1)(2)	126-005	054-016	8	152.5	0.98	3.46	1.5	3	3.46	3
WMAIN-5938(2)(1)	054-016	126-001	8	152.5	0.88	3.1	1.5	2.9	3.1	2.9
WMAIN-5938(2)(2)	126-001	J-6596	8	152.5	0.88	3.1	1.5	2.9	3.1	2.9
WMAIN-5940	J-7109	018-043	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5941	J-7751	J-7752	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-5942(1)	J-7752	038-009	6	140	0	0.05	0	0.2	0.05	0.2
WMAIN-5942(2)	038-009	J-7753	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-5945(1)	J-7177	028-003	6	140	0.04	0.12	0.2	0.4	0.05	0.2
WMAIN-5945(2)	028-003	J-5488	6	140	0.04	0.11	0.2	0.4	0.04	0.2
WMAIN-5946(1)	J-5434	028-024	8	140	0	0.12	0	0.5	0.04	0.2
WMAIN-5946(2)	028-024	J-8753	8	140	0	0.1	0	0.4	0.02	0.2
WMAIN-5947	J-5765	J-5766	6	140	0.11	0.23	0.4	0.5	0.23	0.5
WMAIN-5949	J-5766	J-5920	6	140	0.41	0.98	0.7	1.2	0.89	1.1
WMAIN-5950(1)	J-5920	022-004	6	140	0.41	0.98	0.7	1.2	0.89	1.1
WMAIN-5950(2)	022-004	J-5987	6	140	0.41	0.98	0.7	1.2	0.89	1.1
WMAIN-5951(1)	J-7378	027-024	8	140	0.02	1.36	0.2	1.7	0.02	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5951(2)	027-024	J-7515	8	140	0.02	1.36	0.2	1.7	0.02	0.2
WMAIN-5952	J-5347	J-5348	4	152.5	0.01	0.08	0.1	0.3	0.01	0.1
WMAIN-5955	J-6234	J-6235	10	152.5	0	0	0	0	0	0
WMAIN-5956(1)	J-6115	036-031	6	140	0.03	0.32	0.2	0.6	0.05	0.2
WMAIN-5956(2)(1)	036-031	J-9290	6	140	0.03	0.31	0.2	0.6	0.05	0.2
WMAIN-5956(2)(2)	J-9290	J-8620	6	140	0.03	0.31	0.2	0.6	0.05	0.2
WMAIN-5958	J-5317	J-5349	8	152.5	0	0	0	0	0	0
WMAIN-5960	J-6758	J-6759	6	140	0	0	0	0	0	0
WMAIN-5962	J-8634	J-8466	8	140	0	0	0	0.1	0	0
WMAIN-5964(1)	J-8466	031-042	8	140	0	0.01	0	0.1	0	0.1
WMAIN-5964(2)	031-042	J-7478	8	140	0	0.01	0	0.1	0	0.1
WMAIN-5967(1)	019-002	019-013	6	152.5	0	0	0	0	0	0
WMAIN-5967(2)	019-013	J-7188	6	152.5	0	0	0	0	0	0
WMAIN-5968	J-5082	019-002	6	152.5	0	0	0	0	0	0
WMAIN-5969	J-5714	J-5715	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5971	J-5863	J-5403	8	152.5	0	0	0	0	0	0
WMAIN-5974	J-6229	J-5689	8	140	0	0	0	0	0	0
WMAIN-5975	J-5689	J-5690	8	140	0	0	0	0	0	0
WMAIN-5977(1)(1)	J-8620	036-058	6	140	0	0.02	0	0.2	0.02	0.2
WMAIN-5977(1)(2)	036-058	J-9254	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-5977(2)	J-9254	J-6535	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-5980(1)	037-006	H-512	12	140	0	0.04	0	0.3	0.04	0.3
WMAIN-5980(2)	H-512	J-7125	12	140	0	0.04	0	0.3	0.04	0.3
WMAIN-5981(1)	J-5934	H-513	12	140	0	0.04	0	0.3	0.04	0.3
WMAIN-5981(2)	H-513	037-006	12	140	0	0.04	0	0.3	0.04	0.3
WMAIN-5983(1)	J-5087	037-004	12	140	0	0.02	0	0.2	0.01	0.1
WMAIN-5983(2)(1)	037-004	H-518	12	140	0	0.02	0	0.3	0.01	0.1
WMAIN-5983(2)(2)	H-518	037-005	12	140	0	0.02	0	0.3	0.01	0.1
WMAIN-5985	J-7350	J-7351	6	140	0	0	0	0	0	0
WMAIN-5987	J-5422	J-6921	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5988(1)	J-5423	036-016	8	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5988(2)	036-016	J-6197	8	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5990	J-7284	J-6196	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-5993(1)	J-7276	036-018	6	140	0	0.07	0	0.3	0.07	0.3
WMAIN-5993(2)	036-018	J-8509	6	140	0	0.05	0	0.2	0.05	0.2
WMAIN-5994	J-6259	J-6260	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5996(1)(1)	J-5674	026-028	12	140	0	0.08	0.1	0.5	0.03	0.3
WMAIN-5996(1)(2)	026-028	023-059	12	140	0	0.08	0.1	0.5	0.03	0.3
WMAIN-5996(2)	023-059	J-6955	12	140	0	0.08	0.1	0.5	0.03	0.3
WMAIN-5997	026-030	J-6116	12	140	0	0.09	0	0.5	0.03	0.3
WMAIN-5999(1)	J-6116	026-031	12	140	0.05	0.14	0.4	0.6	0.1	0.5
WMAIN-5999(2)	026-031	J-6117	12	140	0.05	0.14	0.4	0.6	0.1	0.5
WMAIN-6001(1)(1)	J-8758	026-023	8	152.5	0.01	0.09	0.1	0.4	0.02	0.2
WMAIN-6001(1)(2)	026-023	026-024	8	152.5	0.01	0.1	0.1	0.5	0.03	0.3
WMAIN-6001(2)	026-024	J-7245	8	152.5	0.01	0.1	0.1	0.5	0.03	0.3
WMAIN-6004	J-7123	J-6234	12	152.5	0.02	0.14	0.2	0.7	0.05	0.4
WMAIN-6005(1)	J-6234	025-010	12	152.5	0.01	0.13	0.2	0.7	0.04	0.4
WMAIN-6005(2)	025-010	J-8719	12	152.5	0.01	0.13	0.2	0.7	0.04	0.4
WMAIN-6006	J-8719	J-6430	12	152.5	0.01	0.13	0.2	0.7	0.04	0.3
WMAIN-6007(1)(1)(1)(1)	J-8223	145-001	12	152.5	0.1	0.39	0.6	1.2	0.39	1.2
WMAIN-6007(1)(1)(1)(2)	145-001	145-003	12	152.5	0.09	0.36	0.6	1.2	0.36	1.2
WMAIN-6007(1)(1)(2)(1)	145-003	145-004	12	152.5	0.09	0.36	0.6	1.2	0.36	1.2
WMAIN-6007(1)(1)(2)(2)	145-004	145-005	12	152.5	0.09	0.36	0.6	1.2	0.36	1.2
WMAIN-6007(1)(2)(1)(1)	145-005	J-9162	12	152.5	0.09	0.36	0.6	1.2	0.36	1.2
WMAIN-6007(1)(2)(1)(2)	J-9162	145-006	12	152.5	0	0	0	0.1	0	0.1
WMAIN-6007(1)(2)(2)	145-006	J-5756	12	152.5	0	0	0	0.1	0	0.1
WMAIN-6007(2)	J-5756	145-007	12	152.5	0	0	0	0.1	0	0.1
WMAIN-6009(1)(1)(1)	J-5391	H-552	4	140	0.01	0.06	0.1	0.2	0.06	0.2
WMAIN-6009(1)(1)(2)	H-552	J-7689	4	140	0.04	0.17	0.2	0.4	0.17	0.4
WMAIN-6009(1)(2)	J-7689	021-034	4	140	0.04	0.17	0.2	0.4	0.17	0.4
WMAIN-6009(2)	021-034	J-6327	4	140	0.04	0.19	0.2	0.4	0.19	0.4
WMAIN-6012(1)	J-7409	J-9278	4	140	0.01	0.06	0.1	0.2	0.06	0.2
WMAIN-6012(2)(1)	J-9278	H-553	4	140	0.03	0.15	0.1	0.3	0.15	0.3
WMAIN-6012(2)(2)	H-553	J-6327	4	140	0.03	0.15	0.1	0.3	0.15	0.3
WMAIN-6014(1)	J-7704	H-554	4	140	0.07	0.37	0.2	0.5	0.37	0.5
WMAIN-6014(2)	H-554	J-7439	4	140	0.13	0.58	0.3	0.7	0.58	0.7
WMAIN-6015(1)	J-5302	013-001	16	140	0.13	0.45	0.7	1.4	0.45	1.4
WMAIN-6015(2)	013-001	J-8110	16	140	0.13	0.45	0.7	1.4	0.45	1.4
WMAIN-6016(1)	J-8110	013-002	16	140	0.13	0.45	0.7	1.4	0.45	1.4
WMAIN-6016(2)	013-002	J-5242	16	140	0.13	0.45	0.7	1.4	0.45	1.4
WMAIN-6017(1)(1)	J-5303	013-028	8	152.5	0.17	0.67	0.6	1.3	0.67	1.3
WMAIN-6017(1)(2)	013-028	J-6128	8	152.5	0.22	0.83	0.7	1.4	0.83	1.4
WMAIN-6017(2)	J-6128	J-5483	8	152.5	0.22	0.82	0.7	1.4	0.82	1.4
WMAIN-6018	J-5483	J-5484	8	152.5	0.22	0.83	0.7	1.4	0.83	1.4
WMAIN-6019(1)	J-5484	013-026	8	152.5	0.23	0.87	0.7	1.4	0.87	1.4
WMAIN-6019(2)(1)	013-026	013-025	8	152.5	0.24	0.92	0.7	1.5	0.92	1.5
WMAIN-6019(2)(2)	013-025	J-5427	8	152.5	0.24	0.92	0.7	1.5	0.92	1.5
WMAIN-6021(1)	J-8626	013-036	16	140	0.07	0.19	0.5	0.9	0.19	0.9
WMAIN-6021(2)	013-036	J-8468	16	140	0.07	0.19	0.5	0.9	0.19	0.9
WMAIN-6022(1)	013-034	013-035	16	140	0.07	0.19	0.5	0.9	0.19	0.9
WMAIN-6022(2)	013-035	J-8626	16	140	0.07	0.19	0.5	0.9	0.19	0.9
WMAIN-6023(1)	J-8585	013-033	16	140	0.07	0.18	0.5	0.9	0.18	0.9
WMAIN-6023(2)	013-033	013-034	16	140	0.07	0.18	0.5	0.9	0.18	0.9
WMAIN-6025(1)	J-8575	013-032	16	140	0.07	0.17	0.5	0.9	0.17	0.9
WMAIN-6025(2)	013-032	J-8585	16	140	0.07	0.18	0.5	0.9	0.18	0.9
WMAIN-6027(1)	J-7103	023-015	8	152.5	0.01	0.08	0.1	0.4	0.04	0.3
WMAIN-6027(2)	023-015	J-7105	8	152.5	0.01	0.08	0.2	0.4	0.05	0.3
WMAIN-6029	J-7105	J-7106	6	152.5	0	0	0	0	0	0
WMAIN-6031	J-7103	J-7104	6	152.5	0	0	0	0	0	0
WMAIN-6032(1)	J-6355	038-007	16	140	0	0.13	0.1	0.7	0.01	0.2
WMAIN-6032(2)	038-007	J-6790	16	140	0.01	0.13	0.1	0.7	0.01	0.2
WMAIN-6034	J-6354	J-6355	8	140	0	0.32	0	0.8	0	0
WMAIN-6036(1)	J-6837	043-038	8	140	0.07	0.16	0.3	0.5	0.14	0.5
WMAIN-6036(2)	043-038	J-8490	8	140	0.06	0.15	0.3	0.5	0.13	0.5
WMAIN-6037(1)(1)	J-7513	043-046	8	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6037(1)(2)	043-046	043-045	8	140	0	0.01	0	0.1	0	0
WMAIN-6037(2)(1)	043-045	043-044	8	140	0	0.01	0	0.1	0	0
WMAIN-6037(2)(2)	043-044	J-8819	8	140	0	0.01	0	0.1	0	0
WMAIN-6038(1)(1)	J-7668	043-048	6	140	0	0	0	0.1	0	0.1
WMAIN-6038(1)(2)	043-048	043-047	6	140	0	0	0	0	0	0
WMAIN-6038(2)	043-047	J-7512	6	140	0	0	0	0	0	0
WMAIN-6042	J-7667	J-7668	6	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-6044	J-6923	J-7667	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6046(1)	J-7165	043-034	8	140	0.13	0.43	0.5	0.9	0.43	0.9
WMAIN-6046(2)	043-034	J-8522	8	140	0.13	0.41	0.5	0.9	0.41	0.9
WMAIN-6048(1)	J-8522	043-033	8	140	0.12	0.37	0.5	0.8	0.37	0.8
WMAIN-6048(2)	043-033	J-7824	8	140	0.11	0.34	0.4	0.8	0.34	0.8
WMAIN-6050	J-7824	J-7825	6	140	0	0.19	0	0.5	0	0
WMAIN-6053(1)	J-6918	043-032	8	140	0.04	0.3	0.2	0.7	0.3	0.7
WMAIN-6053(2)	043-032	J-7824	8	140	0.04	0.32	0.3	0.8	0.32	0.8
WMAIN-6056(1)	J-6917	043-002	8	140	0	0.07	0	0.3	0.07	0.3
WMAIN-6056(2)	043-002	J-6918	8	140	0	0.07	0	0.3	0.07	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6059(1)	J-7552	042-025	6	140	0	0	0	0	0	0
WMAIN-6059(2)	042-025	J-6736	6	140	0	0	0	0.1	0	0
WMAIN-6061(1)	J-6543	042-014	6	140	0.04	0.35	0.2	0.7	0.35	0.7
WMAIN-6061(2)	042-014	J-8815	6	140	0.03	0.33	0.2	0.7	0.33	0.7
WMAIN-6063(1)	J-7614	042-012	6	140	0	0	0	0.1	0	0.1
WMAIN-6063(2)	042-012	J-8694	6	140	0	0	0	0	0	0
WMAIN-6065	J-6077	J-7052	12	140	0.06	0.25	0.4	0.9	0.22	0.8
WMAIN-6066	J-8658	J-8424	6	140	0.06	0.43	0.3	0.8	0.43	0.8
WMAIN-6068	J-8424	J-6772	6	140	0.02	0.74	0.1	1	0.74	1
WMAIN-6069(1)	J-6863	043-009	8	140	0.02	0.42	0.2	0.9	0.42	0.9
WMAIN-6069(2)	043-009	J-7021	8	140	0.02	0.43	0.2	0.9	0.43	0.9
WMAIN-6071	J-6135	J-6863	12	140	0	0.18	0.1	0.7	0.18	0.7
WMAIN-6073(1)	J-6857	043-008	8	140	0	0.33	0	0.8	0.33	0.8
WMAIN-6073(2)	043-008	J-8293	8	140	0	0.33	0	0.8	0.33	0.8
WMAIN-6074	J-8293	J-6863	8	140	0	0.32	0	0.8	0.32	0.8
WMAIN-6078(1)	J-6857	043-007	6	140	0	0	0	0	0	0
WMAIN-6078(2)	043-007	J-6858	6	140	0	0	0	0	0	0
WMAIN-6080(1)	J-6634	043-006	8	140	0	0.36	0.1	0.8	0.36	0.8
WMAIN-6080(2)	043-006	J-6857	8	140	0	0.35	0.1	0.8	0.35	0.8
WMAIN-6083(1)	J-5663	043-005	12	140	0.04	0.65	0.3	1.5	0.65	1.5
WMAIN-6083(2)	043-005	J-6633	12	140	0.04	0.66	0.3	1.5	0.66	1.5
WMAIN-6084	J-6633	J-6599	12	140	0.1	1.3	0.5	2.1	1.3	2.1
WMAIN-6086	J-6599	J-5506	12	140	0.01	0.06	0.1	0.4	0.06	0.4
WMAIN-6088	J-7546	J-7547	4	140	0.02	0.09	0.1	0.3	0.09	0.3
WMAIN-6089(1)	J-8685	044-006	8	140	0	0.05	0	0.3	0.02	0.2
WMAIN-6089(2)	044-006	J-6132	8	140	0	0.05	0	0.3	0.02	0.2
WMAIN-6092(1)(1)	J-8578	053-038	6	140	0	0	0	0.1	0	0
WMAIN-6092(1)(2)	053-038	053-037	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6092(2)(1)	053-037	053-036	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6092(2)(2)	053-036	J-5462	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6093	J-5462	J-5455	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6095	J-8578	J-8720	8	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6097	J-5628	J-8578	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6099(1)	J-7982	053-034	8	140	0	0.05	0.1	0.3	0.05	0.3
WMAIN-6099(2)(1)	053-034	053-033	8	140	0	0.04	0	0.3	0.04	0.3
WMAIN-6099(2)(2)	053-033	J-5627	8	140	0	0.04	0	0.3	0.04	0.3
WMAIN-6100	J-5627	J-5628	8	140	0	0.04	0	0.3	0.04	0.3
WMAIN-6102(1)	J-7982	053-035	8	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6102(2)	053-035	J-6568	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6104	J-7655	J-7656	6	140	0	0.02	0	0.2	0	0.1
WMAIN-6106(1)	J-7559	053-005	6	140	0	0.01	0	0.1	0	0
WMAIN-6106(2)	053-005	J-7656	6	140	0	0.02	0	0.1	0	0
WMAIN-6109(1)	J-7654	053-007	6	140	0.01	0.04	0.1	0.2	0.02	0.1
WMAIN-6109(2)	053-007	J-7655	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-6112(1)(1)	J-6096	053-031	8	140	0.1	0.21	0.4	0.6	0.21	0.6
WMAIN-6112(1)(2)	053-031	053-032	8	140	0.1	0.21	0.4	0.6	0.2	0.6
WMAIN-6112(2)	053-032	J-6139	8	140	0.1	0.21	0.4	0.6	0.2	0.6
WMAIN-6114	J-6096	J-6097	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-6116(1)	J-6097	053-030	6	140	0.23	0.74	0.5	1	0.74	1
WMAIN-6116(2)	053-030	J-5799	6	140	0.25	0.81	0.6	1.1	0.81	1.1
WMAIN-6119	J-6084	J-5799	6	140	0.06	0.19	0.2	0.5	0.19	0.5
WMAIN-6120(1)(1)	J-5822	053-028	6	140	0.09	0.3	0.3	0.6	0.3	0.6
WMAIN-6120(1)(2)	053-028	053-029	6	140	0.09	0.29	0.3	0.6	0.29	0.6
WMAIN-6120(2)	053-029	J-5798	6	140	0.09	0.29	0.3	0.6	0.29	0.6
WMAIN-6121	J-5798	J-5799	6	140	0.09	0.28	0.3	0.6	0.28	0.6
WMAIN-6123	J-5822	J-5823	6	140	0	0	0	0	0	0
WMAIN-6126	J-7972	J-5822	6	140	0.11	0.36	0.4	0.7	0.36	0.7
WMAIN-6128(1)	J-7215	053-025	6	140	0	0	0	0	0	0
WMAIN-6128(2)	053-025	J-7216	6	140	0	0	0	0	0	0
WMAIN-6130	J-6227	J-6228	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-6132	J-6369	J-6096	8	152.5	0.07	0.25	0.4	0.7	0.25	0.7
WMAIN-6134	J-7341	J-6369	8	140	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-6136(1)	J-7340	053-019	8	140	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-6136(2)	053-019	J-7341	8	140	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-6138(1)	J-7153	J-9302	8	140	0	0	0	0	0	0
WMAIN-6138(2)	J-9302	J-7635	8	140	0	0	0	0	0	0
WMAIN-6139	J-7084	J-7085	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-6142	168-038	J-8243	12	152.5	0	0.69	0	1.6	0	0
WMAIN-6146(1)	J-8524	167-038	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6146(2)	167-038	J-7483	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6147	J-6247	J-6248	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6150	J-6097	J-7982	8	140	0.02	0.23	0.2	0.7	0.23	0.7
WMAIN-6151	J-6425	J-6426	8	140	0.07	0.22	0.3	0.6	0.15	0.5
WMAIN-6152	J-7085	J-7517	4	140	0.01	0.17	0.1	0.4	0.15	0.3
WMAIN-6154(1)	J-7153	011-003	4	140	0.07	0.25	0.2	0.4	0.25	0.4
WMAIN-6154(2)	011-003	J-7154	4	140	0.08	0.27	0.2	0.5	0.27	0.5
WMAIN-6158(1)	J-7628	011-002	4	140	0.01	0.07	0.1	0.2	0.05	0.2
WMAIN-6158(2)	011-002	J-7153	4	140	0.02	0.1	0.1	0.3	0.09	0.3
WMAIN-6160(1)	J-7085	011-001	4	140	0	0.03	0	0.1	0.01	0.1
WMAIN-6160(2)	011-001	J-7628	4	140	0	0.01	0	0.1	0	0
WMAIN-6162(1)	J-7135	170-074	8	152.5	0.11	0.27	0.5	0.8	0.27	0.8
WMAIN-6162(2)	170-074	J-8253	8	152.5	0.11	0.27	0.5	0.8	0.27	0.8
WMAIN-6163	J-5663	J-6134	12	152.5	0.04	0.27	0.4	1	0.27	1
WMAIN-6164	J-5867	J-5868	6	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6165(1)	J-7068	054-011	6	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-6165(2)	054-011	J-5867	6	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6166	J-6352	J-6353	8	140	0.68	2.27	1.2	2.2	2.27	2.2
WMAIN-6168	J-7340	J-7562	6	140	0.11	0.23	0.4	0.5	0.23	0.5
WMAIN-6170(1)	J-7562	053-018	6	140	0.02	0.07	0.1	0.3	0.06	0.3
WMAIN-6170(2)(1)	053-018	053-017	6	140	0	0.04	0.1	0.2	0.02	0.2
WMAIN-6170(2)(2)	053-017	J-7255	6	140	0	0.04	0.1	0.2	0.02	0.2
WMAIN-6172(1)	J-7215	053-027	6	140	0.13	0.43	0.4	0.8	0.43	0.8
WMAIN-6172(2)	053-027	J-7972	6	140	0.12	0.41	0.4	0.7	0.41	0.7
WMAIN-6174	J-6352	J-7215	6	140	0.16	0.53	0.4	0.8	0.53	0.8
WMAIN-6175	J-6227	J-6352	6	140	0.11	0.36	0.4	0.7	0.36	0.7
WMAIN-6179(1)(1)	J-6085	053-023	8	140	0.26	0.87	0.7	1.3	0.87	1.3
WMAIN-6179(1)(2)	053-023	053-024	8	140	0.27	0.89	0.7	1.3	0.89	1.3
WMAIN-6179(2)	053-024	J-6352	8	140	0.27	0.89	0.7	1.3	0.89	1.3
WMAIN-6181(1)	J-7654	053-008	8	140	0	0.2	0.1	0.6	0.07	0.3
WMAIN-6181(2)	053-008	J-6471	8	140	0	0.2	0.1	0.6	0.08	0.4
WMAIN-6183(1)	J-7559	053-006	8	140	0	0.11	0	0.4	0.03	0.2
WMAIN-6183(2)	053-006	J-7654	8	140	0	0.12	0	0.5	0.04	0.2
WMAIN-6184(1)(1)(1)	J-6861	053-011	12	140	0	0.01	0	0.1	0	0
WMAIN-6184(1)(1)(2)	053-011	053-057	12	140	0	0.01	0	0.2	0	0
WMAIN-6184(1)(2)(1)(1)	053-057	053-048	12	140	0	0.01	0	0.2	0	0
WMAIN-6184(1)(2)(1)(2)	053-048	053-047	12	140	0	0.01	0	0.2	0	0
WMAIN-6184(1)(2)(2)(1)	053-047	053-012	12	140	0	0.02	0	0.2	0.01	0.1
WMAIN-6184(1)(2)(2)(2)	053-012	053-046	12	140	0	0.02	0	0.2	0	0.1
WMAIN-6184(2)	053-046	J-8497	12	140	0	0.02	0	0.2	0	0.1
WMAIN-6187	J-5628	J-7219	12	140	0	0.01	0	0.1	0	0.1
WMAIN-6189	J-5454	J-5455	12	140	0	0.01	0	0.1	0	0
WMAIN-6190(1)(1)	J-5777	J-8940	12	140	0	0.01	0	0.1	0.01	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6190(1)(2)	J-8940	053-056	12	140	0	0.01	0	0.1	0	0
WMAIN-6190(2)	053-056	J-5454	12	140	0	0.01	0	0.1	0	0
WMAIN-6192	J-5218	J-5219	12	140	0.01	0.1	0.1	0.5	0.04	0.3
WMAIN-6194(1)(1)	J-5943	J-8975	8	140	0	0.11	0	0.4	0.01	0.1
WMAIN-6194(1)(2)(1)(1)	J-8975	H-517	8	140	0	0.54	0	1	0.04	0.3
WMAIN-6194(1)(2)(1)(2)	H-517	H-516	8	140	0	0.54	0	1	0.04	0.3
WMAIN-6194(1)(2)(2)	H-516	044-015	8	140	0	0.54	0	1	0.04	0.3
WMAIN-6194(2)	044-015	J-5952	8	140	0	0.54	0	1	0.04	0.3
WMAIN-6195(1)	J-6757	044-019	6	140	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-6195(2)	044-019	J-7382	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-6197	J-5093	J-5094	6	140	0.78	1.63	1	1.6	1.5	1.5
WMAIN-6198	J-6186	J-5063	6	152.5	0.21	0.35	0.6	0.7	0.31	0.7
WMAIN-6199	J-5248	J-5815	6	152.5	0.05	0.21	0.3	0.6	0.21	0.6
WMAIN-6201(1)	J-8263	015-022	6	152.5	0.06	0.22	0.3	0.6	0.22	0.6
WMAIN-6201(2)	015-022	J-6240	6	152.5	0.06	0.22	0.3	0.6	0.22	0.6
WMAIN-6204	J-6638	J-5350	6	152.5	0	0	0	0.1	0	0.1
WMAIN-6205	J-5350	J-5176	6	152.5	0	0	0	0	0	0
WMAIN-6206	J-5176	J-5177	6	152.5	0	0	0	0	0	0
WMAIN-6208	J-5943	044-014	6	152.5	0	0	0	0	0	0
WMAIN-6210	J-5777	J-5778	8	152.5	0	0	0	0	0	0
WMAIN-6212	J-5292	J-5293	10	152.5	0.14	0.48	0.6	1.2	0.48	1.2
WMAIN-6214(1)	J-7404	170-128	6	152.5	0	0	0	0.1	0	0.1
WMAIN-6214(2)	170-128	J-8331	6	152.5	0	0	0	0	0	0
WMAIN-6215(1)	J-7848	167-033	8	152.5	0	0	0	0	0	0
WMAIN-6215(2)	167-033	J-7721	8	152.5	0	0	0	0	0	0
WMAIN-6217	J-8214	J-7848	8	152.5	0	0	0	0	0	0
WMAIN-6221(1)	J-7950	167-029	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-6221(2)	167-029	J-8214	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-6222(1)	J-7721	167-037	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-6222(2)	167-037	J-8580	8	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-6223	167-035	J-7720	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-6225	J-8153	167-035	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-6227(1)	J-7950	167-036	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-6227(2)	167-036	J-8153	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-6230	J-7848	J-8179	8	152.5	0	0	0	0	0	0
WMAIN-6233(1)	J-6665	167-030	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-6233(2)	167-030	J-8214	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-6235(1)	J-8588	170-149	8	152.5	0.49	1.04	1.1	1.6	1.04	1.6
WMAIN-6235(2)	170-149	J-8098	8	152.5	0.48	1.02	1.1	1.6	1.02	1.6
WMAIN-6236(1)(1)	J-5887	018-012	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6236(1)(2)	018-012	018-011	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6236(2)	018-011	J-8592	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6237	J-5886	J-5887	4	152.5	0.54	2.1	0.7	1.5	2.1	1.5
WMAIN-6239	J-6866	J-6867	8	152.5	0	0	0	0	0	0
WMAIN-6241(1)	J-7089	170-112	8	152.5	0	0	0	0	0	0
WMAIN-6241(2)	170-112	J-7532	8	152.5	0	0	0	0	0	0
WMAIN-6242	J-6172	J-6173	8	152.5	0	0	0	0	0	0
WMAIN-6244(1)	J-6866	170-105	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-6244(2)	170-105	J-7717	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-6247(1)	J-8812	170-124	12	152.5	0.22	0.63	0.9	1.6	0.63	1.6
WMAIN-6247(2)	170-124	J-6983	12	152.5	0.19	0.55	0.8	1.5	0.55	1.5
WMAIN-6249(1)	J-8602	018-009	12	152.5	0.02	0.04	0.2	0.4	0.03	0.3
WMAIN-6249(2)	018-009	J-6589	12	152.5	0.02	0.04	0.2	0.4	0.03	0.3
WMAIN-6250	J-5680	J-5681	12	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-6253	J-5680	J-6164	12	152.5	0	0	0	0.1	0	0.1
WMAIN-6254	J-6164	J-8558	12	152.5	0	0	0	0.1	0	0.1
WMAIN-6255(1)	J-5681	018-005	16	140	0	0	0	0.1	0	0
WMAIN-6255(2)	018-005	J-7927	16	140	0	0	0	0.1	0	0
WMAIN-6256(1)	J-7927	018-004	16	140	0	0	0	0.1	0	0
WMAIN-6256(2)	018-004	J-5726	16	140	0	0	0	0.1	0	0
WMAIN-6258(1)	J-5727	018-039	8	152.5	0	0	0	0.1	0	0
WMAIN-6258(2)	018-039	J-5400	8	152.5	0	0	0	0	0	0
WMAIN-6259(1)	J-8544	019-038	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-6259(2)(1)	019-038	019-039	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-6259(2)(2)	019-039	J-8314	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-6261(1)(1)(1)	J-5727	018-003	16	140	0	0	0	0.1	0	0
WMAIN-6261(1)(1)(2)	018-003	J-5941	16	140	0	0	0	0.1	0	0
WMAIN-6261(1)(2)	J-5941	J-5939	16	140	0	0.01	0	0.1	0.01	0
WMAIN-6261(2)	J-5939	J-8203	16	140	0	0	0	0.1	0	0
WMAIN-6262	019-025	J-8314	12	152.5	0.02	0.03	0.2	0.3	0.03	0.3
WMAIN-6265(1)	J-5329	019-024	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-6265(2)	019-024	J-7019	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-6267	J-7121	J-8447	8	152.5	0.41	0.78	1	1.4	0.78	1.4
WMAIN-6269(1)	J-7121	170-133	8	152.5	0.13	0.27	0.5	0.8	0.27	0.8
WMAIN-6269(2)	170-133	J-7791	8	152.5	0.12	0.25	0.5	0.7	0.25	0.7
WMAIN-6271	J-7120	J-7121	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-6273(1)(1)	J-6661	170-131	8	152.5	0.18	0.4	0.6	0.9	0.4	0.9
WMAIN-6273(1)(2)	170-131	170-130	8	152.5	0.2	0.44	0.6	1	0.44	1
WMAIN-6273(2)	170-130	J-8456	8	152.5	0.2	0.44	0.6	1	0.44	1
WMAIN-6276(1)	J-6431	170-127	8	152.5	0.18	0.4	0.6	1	0.4	1
WMAIN-6276(2)	170-127	J-7404	8	152.5	0.19	0.41	0.6	1	0.41	1
WMAIN-6277	J-5257	029-029	6	140	0	0.04	0	0.2	0	0
WMAIN-6279	J-6702	J-6813	4	140	0	0	0	0	0	0
WMAIN-6280(1)	J-5129	029-028	12	140	0	0.01	0.1	0.2	0.01	0.1
WMAIN-6281(1)	029-028	029-022	12	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6281(2)	029-022	J-7417	12	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6283	J-5607	J-5608	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-6285(1)	J-7417	029-019	12	140	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-6285(2)	029-019	J-5607	12	140	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-6289	J-5555	J-7417	6	140	0	0	0	0.1	0	0.1
WMAIN-6290	J-5129	J-5257	6	140	0.05	0.14	0.2	0.4	0.14	0.4
WMAIN-6294(1)	J-6701	J-9321	6	140	0.02	0.07	0.1	0.3	0.03	0.2
WMAIN-6294(2)	J-9321	J-5129	6	140	0.02	0.07	0.1	0.3	0.03	0.2
WMAIN-6295	J-8648	J-5258	2	130	0.04	0.18	0.1	0.2	0.08	0.1
WMAIN-6297	J-6702	J-5554	6	140	0.01	0.04	0.1	0.2	0.02	0.2
WMAIN-6298	J-5554	J-5555	6	140	0.01	0.04	0.1	0.2	0.01	0.1
WMAIN-6299	J-5974	J-5975	6	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-6300	J-5555	J-5974	6	140	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-6301	J-6239	J-5607	6	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6303	J-6239	J-5975	6	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6304	J-5606	J-5133	12	152.5	0.02	0.12	0.3	0.6	0.03	0.3
WMAIN-6305(1)	J-6803	029-041	12	152.5	0.05	0.17	0.4	0.8	0.1	0.6
WMAIN-6305(2)(1)	029-041	029-017B	12	152.5	0.05	0.17	0.4	0.8	0.1	0.6
WMAIN-6305(2)(2)	029-017B	J-5606	12	152.5	0.05	0.17	0.4	0.8	0.1	0.6
WMAIN-6307(1)	J-5746	029-026	12	152.5	0.07	0.23	0.5	0.9	0.18	0.8
WMAIN-6307(2)	029-026	J-6803	12	152.5	0.07	0.23	0.5	0.9	0.18	0.8
WMAIN-6310	J-6801	J-6802	6	140	0	0	0	0	0	0
WMAIN-6311(1)	029-035	J-9015	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6311(2)	J-9015	J-5780	6	140	0.02	0.11	0.1	0.4	0.03	0.2
WMAIN-6313	J-7405	029-035	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-6316(1)(1)	J-6821	020-003	12	152.5	0.1	0.31	0.6	1.1	0.3	1.1
WMAIN-6316(1)(2)	020-003	020-027	12	152.5	0.1	0.31	0.6	1.1	0.3	1.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6316(2)	020-027	J-6817	12	152.5	0.1	0.31	0.6	1.1	0.3	1.1
WMAIN-6319(1)	J-6885	J-9246	6	152.5	0.09	0.3	0.4	0.7	0.3	0.7
WMAIN-6319(2)	J-9246	J-6000	6	152.5	0.1	0.32	0.4	0.7	0.32	0.7
WMAIN-6320(1)	J-5999	020-005	8	152.5	0.03	0.14	0.2	0.5	0.05	0.3
WMAIN-6320(2)	020-005	J-6000	8	152.5	0.03	0.14	0.2	0.5	0.05	0.3
WMAIN-6323	J-6121	J-6122	6	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-6324(1)(1)	J-6557	028-036	6	140	0	0.02	0	0.1	0	0
WMAIN-6324(1)(2)(1)	028-036	J-9293	6	140	0	0.01	0	0.1	0	0
WMAIN-6324(1)(2)(2)	J-9293	J-8717	6	140	0	0.01	0	0.1	0	0
WMAIN-6324(2)(1)(1)	J-8717	J-9316	6	140	0	0	0	0.1	0	0
WMAIN-6324(2)(1)(2)	J-9316	J-9244	6	140	0	0	0	0.1	0	0
WMAIN-6324(2)(2)	J-9244	028-037	6	140	0	0	0	0.1	0	0
WMAIN-6326	J-6347	J-6348	2	130	0.12	0.45	0.2	0.4	0.45	0.4
WMAIN-6329	J-6557	J-6558	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-6331	J-6638	J-6348	6	140	0	0.01	0	0.1	0	0
WMAIN-6332	J-6682	J-6558	6	140	0	0	0	0	0	0
WMAIN-6334	J-5910	J-5280	8	152.5	0.27	0.78	0.8	1.4	0.78	1.4
WMAIN-6336	028-029	J-8184	6	140	0.01	0.15	0.1	0.4	0.01	0.1
WMAIN-6337(1)	J-8184	028-022	6	140	0.01	0.14	0.1	0.4	0.01	0.1
WMAIN-6337(2)	028-022	J-5866	6	140	0.01	0.14	0.1	0.4	0.01	0.1
WMAIN-6340(1)	J-5918	028-020	4	140	0	0.02	0	0.1	0	0
WMAIN-6340(2)	028-020	J-6744	4	140	0.04	0.18	0.2	0.4	0.16	0.3
WMAIN-6342	J-7693	J-7694	6	140	0.01	0.13	0.1	0.4	0.12	0.4
WMAIN-6344	J-7763	J-7694	4	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6347	J-5171	J-6895	6	140	0	0.02	0	0.1	0	0
WMAIN-6350(1)	J-7769	H-521	6	140	0	0.08	0	0.3	0.02	0.1
WMAIN-6350(2)	H-521	J-7693	6	140	0	0.07	0	0.3	0.03	0.2
WMAIN-6352	J-5809	J-7769	6	140	0	0.05	0	0.2	0.02	0.1
WMAIN-6355	J-7315	028-011	6	140	0	0.15	0	0.4	0	0
WMAIN-6357(1)	J-5809	028-013	8	140	0	0.21	0.1	0.6	0.05	0.3
WMAIN-6357(2)	028-013	J-7315	8	140	0	0.21	0.1	0.6	0.05	0.3
WMAIN-6360(1)	J-7315	028-009	8	140	0	0.4	0	0.9	0.05	0.3
WMAIN-6360(2)	028-009	J-5418	8	140	0	0.4	0	0.9	0.05	0.3
WMAIN-6361	J-8753	J-5398	8	140	0	0.1	0	0.4	0.02	0.2
WMAIN-6363(1)	J-5398	027-027	12	140	0	0.01	0	0.2	0	0.1
WMAIN-6363(2)	027-027	J-6143	12	140	0	0.01	0	0.2	0	0.1
WMAIN-6366(1)	J-5215	027-035	12	140	0	0.01	0	0.2	0	0.1
WMAIN-6366(2)	027-035	J-6143	12	140	0	0.01	0	0.2	0	0.1
WMAIN-6369	J-5308	J-5765	6	140	0.01	0.1	0.1	0.3	0.09	0.3
WMAIN-6371	J-6059	J-6060	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6372	J-5120	J-5343	6	140	0	0.87	0	1.1	0.87	1.1
WMAIN-6374	J-5532	J-5533	10	140	0.04	0.31	0.3	0.9	0.31	0.9
WMAIN-6376(1)	J-5808	H-547	4	140	0.03	0.15	0.1	0.3	0.15	0.3
WMAIN-6376(2)	H-547	J-6153	4	140	0.02	0.14	0.1	0.3	0.14	0.3
WMAIN-6378(1)	J-8159	H-548	4	140	0	0.03	0	0.1	0.03	0.1
WMAIN-6378(2)	H-548	J-5808	4	140	0.01	0.1	0.1	0.3	0.1	0.3
WMAIN-6381(1)	J-8147	H-549	4	140	0.05	0.21	0.2	0.4	0.21	0.4
WMAIN-6381(2)	H-549	J-8146	4	140	0.04	0.17	0.2	0.4	0.17	0.4
WMAIN-6384(1)	J-8158	H-550	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-6384(2)	H-550	J-8147	4	140	0.01	0.07	0.1	0.2	0.07	0.2
WMAIN-6387(1)	J-8094	021-022	6	140	0.1	0.51	0.3	0.8	0.51	0.8
WMAIN-6387(2)	021-022	J-7415	6	140	0.11	0.54	0.4	0.9	0.54	0.9
WMAIN-6388(1)	J-7416	021-027	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6388(2)	021-027	J-5391	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6390(1)	J-8158	021-028	4	140	0.05	0.31	0.2	0.5	0.31	0.5
WMAIN-6390(2)	021-028	J-8159	4	140	0.04	0.24	0.2	0.4	0.24	0.4
WMAIN-6393	J-5541	J-8158	4	140	0.09	0.45	0.3	0.6	0.45	0.6
WMAIN-6394	J-7925	J-7926	6	140	0.03	0.15	0.2	0.4	0.15	0.4
WMAIN-6396	J-5392	J-5542	6	140	0.05	0.31	0.2	0.6	0.31	0.6
WMAIN-6399(1)	J-5541	021-033	6	140	0.09	0.48	0.3	0.8	0.48	0.8
WMAIN-6399(2)	021-033	J-7926	6	140	0.07	0.41	0.3	0.7	0.41	0.7
WMAIN-6402(1)	J-7926	021-032	6	140	0.04	0.29	0.2	0.6	0.29	0.6
WMAIN-6402(2)	021-032	021-031	6	140	0.03	0.25	0.2	0.6	0.25	0.6
WMAIN-6404(1)	J-7888	022-045	6	140	0	0.04	0	0.2	0	0
WMAIN-6404(2)	022-045	J-8374	6	140	0	0.03	0	0.2	0	0
WMAIN-6405	J-8193	J-8194	2	100	0.02	0.07	0.1	0.1	0.07	0.1
WMAIN-6406(1)	J-5165	022-023	10	152.5	0.4	0.92	1.1	1.7	0.9	1.7
WMAIN-6406(2)	022-023	J-7521	10	152.5	0.4	0.91	1.1	1.7	0.89	1.7
WMAIN-6408(1)	J-5991	022-012	10	140	0	0	0	0.1	0	0
WMAIN-6408(2)	022-012	J-6362	10	140	0	0	0	0.1	0	0
WMAIN-6409	J-5393	J-5394	10	152.5	0	0	0	0	0	0
WMAIN-6410	J-6079	J-8712	8	152.5	0.01	0.21	0.2	0.7	0.15	0.6
WMAIN-6414(1)(1)	J-5709	014-002	8	140	0.09	0.18	0.4	0.6	0.18	0.6
WMAIN-6414(1)(2)	014-002	014-003	8	140	0.09	0.18	0.4	0.6	0.18	0.6
WMAIN-6414(2)	014-003	J-8851	8	140	0.09	0.18	0.4	0.6	0.18	0.6
WMAIN-6415	J-8621	J-5331	12	152.5	0.12	0.23	0.6	0.9	0.23	0.9
WMAIN-6418(1)	J-6708	014-007	12	152.5	0.31	0.64	1.1	1.6	0.64	1.6
WMAIN-6418(2)(1)	014-007	014-006	12	152.5	0.31	0.64	1.1	1.6	0.64	1.6
WMAIN-6418(2)(2)	014-006	J-8621	12	152.5	0.31	0.64	1.1	1.6	0.64	1.6
WMAIN-6419	030-047	J-5610	8	140	0.1	0.3	0.4	0.8	0.3	0.8
WMAIN-6420	J-6443	J-5375	6	140	0.05	0.16	0.2	0.4	0.16	0.4
WMAIN-6421(1)	J-6388	J-9288	6	140	0.21	0.61	0.5	0.9	0.61	0.9
WMAIN-6421(2)	J-9288	J-5374	6	140	0.21	0.62	0.5	0.9	0.62	0.9
WMAIN-6423(1)	J-6442	J-5175	6	140	0.06	0.17	0.2	0.4	0.17	0.4
WMAIN-6423(2)	J-5175	J-6443	6	140	0.07	0.2	0.3	0.5	0.2	0.5
WMAIN-6425(1)	J-6398	030-028	6	140	0.04	0.12	0.2	0.4	0.12	0.4
WMAIN-6425(2)	030-028	J-6442	6	140	0.05	0.16	0.2	0.4	0.16	0.4
WMAIN-6428(1)	J-7891	029-014	4	140	0	0.03	0	0.1	0	0
WMAIN-6428(2)	029-014	J-7385	4	140	0.03	0.11	0.1	0.3	0.05	0.2
WMAIN-6430(1)	J-7890	029-015	6	140	0.01	0.05	0.1	0.2	0.01	0.1
WMAIN-6430(2)	029-015	J-8502	6	140	0.01	0.07	0.1	0.3	0.03	0.2
WMAIN-6431	J-6454	J-6288	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6433	J-6905	J-7627	6	140	0.15	0.41	0.4	0.7	0.41	0.7
WMAIN-6434	J-8119	J-7627	4	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-6438(1)	J-5683	022-001	8	140	0.09	0.16	0.4	0.5	0.12	0.5
WMAIN-6438(2)	022-001	J-7779	8	140	0.09	0.17	0.4	0.5	0.12	0.5
WMAIN-6440	J-5682	J-5683	10	140	0.07	0.18	0.4	0.7	0.11	0.5
WMAIN-6442(1)(1)	J-5457	026-015	12	140	0.02	0.15	0.2	0.7	0.1	0.5
WMAIN-6442(1)(2)	026-015	026-014	12	140	0.02	0.14	0.2	0.6	0.1	0.5
WMAIN-6442(2)	026-014	J-5757	12	140	0.02	0.14	0.2	0.6	0.1	0.5
WMAIN-6444(1)(1)	026-013	023-058	12	140	0.04	0.17	0.3	0.7	0.11	0.6
WMAIN-6444(1)(2)	023-058	026-026	12	140	0.04	0.16	0.3	0.7	0.11	0.6
WMAIN-6444(2)	026-026	J-8301	12	140	0.04	0.16	0.3	0.7	0.11	0.6
WMAIN-6446	J-7227	J-7228	6	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6448	J-6953	J-6954	6	152.5	0	0	0	0	0	0
WMAIN-6449	J-7023	J-6953	6	152.5	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-6452	J-7097	J-7098	6	152.5	0	0	0	0	0	0
WMAIN-6454(1)	J-6359	023-012	6	140	0	0.09	0	0.3	0.01	0.1
WMAIN-6454(2)	023-012	J-5677	6	140	0	0.09	0	0.3	0.01	0.1
WMAIN-6456(1)	J-6689	023-013	6	140	0	0.11	0	0.4	0	0.1
WMAIN-6456(2)	023-013	J-5677	6	140	0	0.1	0	0.3	0.01	0.1
WMAIN-6457(1)	J-5579	036-036	6	140	0.24	0.55	0.6	0.9	0.55	0.9

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6457(2)(1)	036-036	036-045	6	140	0.28	0.67	0.6	1	0.67	1
WMAIN-6457(2)(2)	036-045	J-5270	6	140	0.28	0.67	0.6	1	0.67	1
WMAIN-6460(1)	J-8106	028-016	6	140	0	0.48	0	0.8	0.48	0.8
WMAIN-6460(2)	028-016	J-5917	6	140	0	0.49	0	0.8	0.49	0.8
WMAIN-6461	J-7093	J-7094	6	140	0	0.27	0	0.6	0.05	0.2
WMAIN-6463(1)	J-8189	037-040	6	152.5	0	0.19	0.1	0.5	0.08	0.3
WMAIN-6463(2)	037-040	J-7093	6	152.5	0	0.22	0	0.6	0.05	0.3
WMAIN-6464	J-7168	J-5498	16	140	0.01	0.09	0.2	0.6	0.02	0.3
WMAIN-6467(1)	J-8631	027-022A	16	140	0	0.07	0.1	0.5	0.01	0.2
WMAIN-6467(2)	027-022A	J-7711	16	140	0	0.07	0.1	0.5	0.01	0.2
WMAIN-6469(1)	J-5475	027-021	16	140	0	0.05	0	0.5	0.01	0.1
WMAIN-6469(2)	027-021	J-8631	16	140	0	0.05	0	0.5	0.01	0.1
WMAIN-6472(1)(1)	J-6848	027-018	8	152.5	0	0.1	0.1	0.5	0	0.1
WMAIN-6472(1)(2)	027-018	027-019	8	152.5	0.02	0.13	0.2	0.5	0.02	0.2
WMAIN-6472(2)	027-019	J-8631	8	152.5	0.02	0.13	0.2	0.5	0.02	0.2
WMAIN-6474	J-7168	J-6720	8	152.5	0.02	0.1	0.2	0.4	0.06	0.3
WMAIN-6475	J-6720	027-043	8	152.5	0.02	0.09	0.2	0.4	0.05	0.3
WMAIN-6476	027-043	J-6188	8	152.5	0	0.05	0.1	0.3	0.01	0.1
WMAIN-6479(1)	J-7965	027-010	8	152.5	0	0.04	0	0.3	0	0.1
WMAIN-6479(2)	027-010	J-8415	8	152.5	0	0.04	0	0.3	0	0.1
WMAIN-6481	J-6188	J-7965	8	152.5	0.01	0.23	0.2	0.7	0.02	0.2
WMAIN-6482(1)	J-7038	027-040	6	152.5	0.01	0.52	0.1	0.9	0.01	0.1
WMAIN-6482(2)	027-040	J-6188	6	152.5	0.01	0.52	0.1	0.9	0.01	0.1
WMAIN-6484(1)	J-8415	027-009	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6484(2)	027-009	J-6848	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6486	J-6848	027-017	8	140	0.01	0.12	0.1	0.4	0.02	0.2
WMAIN-6489(1)(1)	J-5812	030-023	6	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-6489(1)(2)	030-023	030-030	6	140	0.02	0.07	0.2	0.3	0.07	0.3
WMAIN-6489(2)	030-030	J-7901	6	140	0.02	0.07	0.2	0.3	0.07	0.3
WMAIN-6490(1)	J-5425	030-031	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-6490(2)	030-031	J-6877	6	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-6492	J-5424	031-046	4	140	0.03	0.08	0.1	0.2	0.08	0.2
WMAIN-6494	J-6088	J-5955	8	140	0	0.03	0.1	0.2	0.03	0.2
WMAIN-6497	J-6089	J-6979	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6499	J-7585	J-7879	4	140	0.02	0.07	0.1	0.2	0.07	0.2
WMAIN-6501	030-009	J-6275	6	140	0.03	0.09	0.2	0.3	0.09	0.3
WMAIN-6502	J-6275	J-6874	6	140	0.04	0.1	0.2	0.4	0.1	0.4
WMAIN-6503	J-5352	J-6351	8	140	0.09	0.26	0.4	0.7	0.26	0.7
WMAIN-6505	J-6027	J-6028	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6508	J-6042	J-6043	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6510	J-6549	J-6550	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6512(1)	J-8340	036-039	6	152.5	0	0	0	0	0	0
WMAIN-6512(2)	036-039	J-8341	6	152.5	0	0	0	0	0	0
WMAIN-6513	J-5674	J-5675	12	140	0.01	0.09	0.1	0.5	0.05	0.4
WMAIN-6515	J-5452	J-5453	8	152.5	0	0	0	0	0	0
WMAIN-6516(1)	J-5453	023-035	8	152.5	0	0	0	0.1	0	0.1
WMAIN-6516(2)(1)	023-035	023-036	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-6516(2)(2)	023-036	J-8779	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-6517(1)	J-8779	023-037	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6517(2)(1)(1)	023-037	023-043	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6517(2)(1)(2)	023-043	023-038	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6517(2)(2)	023-038	J-5674	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6519	J-7976	J-7977	6	140	0	0.11	0	0.4	0.01	0.1
WMAIN-6523(1)	J-5513	037-030	6	140	0	0.06	0.1	0.3	0.06	0.3
WMAIN-6523(2)(1)	037-030	037-031	6	140	0	0.1	0	0.3	0.02	0.1
WMAIN-6523(2)(2)(1)	037-031	037-032	6	140	0	0.1	0	0.3	0.02	0.1
WMAIN-6523(2)(2)(2)	037-032	J-7976	6	140	0	0.1	0	0.3	0.02	0.1
WMAIN-6525	J-7554	J-7555	8	140	0	0.07	0	0.4	0	0
WMAIN-6527(1)	J-7554	038-036	6	140	0	0	0	0	0	0
WMAIN-6527(2)	038-036	J-8291	6	140	0	0	0	0	0	0
WMAIN-6529	J-7071	J-7554	8	140	0.01	0.1	0.1	0.4	0.01	0.1
WMAIN-6530	J-7070	J-6989	8	140	0	0	0	0	0	0
WMAIN-6531(1)	J-6989	038-038	8	140	0	0	0	0	0	0
WMAIN-6531(2)	038-038	J-6990	8	140	0	0	0	0	0	0
WMAIN-6533(1)	J-5932	038-033	8	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6533(2)	038-033	J-8732	8	140	0	0.04	0.1	0.2	0.01	0.1
WMAIN-6534	J-5830	J-5832	6	140	0	0.05	0	0.2	0.05	0.2
WMAIN-6536	J-5125	J-5266	18	140	0	0	0	0	0	0
WMAIN-6538	J-6916	J-5970	6	140	0	0	0	0.1	0	0
WMAIN-6540	J-6411	J-6412	6	140	0	0	0	0	0	0
WMAIN-6542(1)	J-5893	038-023	6	140	0	0.19	0	0.5	0.19	0.5
WMAIN-6542(2)	038-023	J-7356	6	140	0	0.15	0	0.4	0.15	0.4
WMAIN-6545(1)	J-6422	038-025	6	140	0	0.09	0	0.3	0.09	0.3
WMAIN-6545(2)	038-025	J-5830	6	140	0	0.07	0	0.3	0.07	0.3
WMAIN-6546	J-5893	J-6422	6	140	0	0.25	0.1	0.6	0.25	0.6
WMAIN-6548	J-5892	J-5893	6	140	0	0	0	0	0	0
WMAIN-6551	J-5633	J-5634	16	140	0	0.23	0	1	0	0
WMAIN-6553(1)	J-7710	038-016	8	140	0	0.12	0	0.5	0.03	0.2
WMAIN-6553(2)	038-016	J-7809	8	140	0	0.12	0	0.5	0.02	0.2
WMAIN-6555(1)	J-7709	038-018	8	140	0	0.07	0.1	0.3	0.04	0.3
WMAIN-6555(2)	038-018	J-7710	8	140	0.01	0.07	0.1	0.3	0.04	0.3
WMAIN-6557(1)	J-7710	038-017	6	140	0	0.03	0	0.2	0	0
WMAIN-6557(2)	038-017	J-5802	6	140	0	0.02	0	0.2	0	0
WMAIN-6559	J-7798	J-7709	8	140	0	0.16	0	0.5	0.16	0.5
WMAIN-6561(1)	J-6424	038-021	8	140	0	0.25	0.1	0.7	0.25	0.7
WMAIN-6561(2)	038-021	J-7798	8	140	0	0.24	0.1	0.7	0.24	0.7
WMAIN-6563(1)	J-6423	J-5339	8	140	0	0.18	0	0.6	0.18	0.6
WMAIN-6563(2)	J-5339	J-6424	8	140	0	0.22	0	0.6	0.22	0.6
WMAIN-6565(1)	J-6424	038-039	6	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6565(2)	038-039	J-5849	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6567(1)	J-7270	038-012	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6567(2)	038-012	J-7318	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-6568	J-7318	J-7319	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6571(1)	J-7669	038-011	6	140	0	0.06	0	0.3	0	0.1
WMAIN-6571(2)	038-011	J-7751	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6573(1)	J-6791	038-008	6	140	0	0	0	0	0	0
WMAIN-6573(2)	038-008	J-8476	6	140	0	0	0	0	0	0
WMAIN-6575(1)	J-7174	037-029	6	140	0	0.06	0	0.3	0.02	0.1
WMAIN-6575(2)	037-029	J-8124	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-6577(1)	J-8124	037-019	6	140	0.02	0.19	0.1	0.5	0.1	0.3
WMAIN-6577(2)	037-019	J-6604	6	140	0.02	0.16	0.2	0.4	0.13	0.4
WMAIN-6579	J-6609	J-6603	6	140	0	0.46	0.1	0.8	0.06	0.3
WMAIN-6582(1)	037-024	037-025	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6582(2)	037-025	J-5253	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-6585(1)	J-7496	037-012	6	140	0	0.04	0	0.2	0	0
WMAIN-6585(2)	037-012	J-7911	6	140	0.01	0.07	0.1	0.3	0.01	0.1
WMAIN-6586(1)	J-7911	037-010	8	140	0.03	0.32	0.2	0.8	0.04	0.3
WMAIN-6586(2)	037-010	J-6365	8	140	0.03	0.32	0.2	0.8	0.05	0.3
WMAIN-6588(1)	J-7496	037-011	8	140	0.01	0.2	0.1	0.6	0.02	0.2
WMAIN-6588(2)	037-011	J-7911	8	140	0.02	0.2	0.2	0.6	0.02	0.2
WMAIN-6590	J-6523	J-6524	8	140	0	0.2	0	0.6	0.2	0.6
WMAIN-6591(1)	J-6400	044-037	6	140	0.04	0.08	0.2	0.3	0.07	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6591(2)	044-037	J-7029	6	140	0.04	0.08	0.2	0.3	0.07	0.3
WMAIN-6593	J-5500	J-5594	6	140	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-6595(1)	J-7695	044-034	6	140	0	0	0	0	0	0
WMAIN-6595(2)	044-034	J-5500	6	140	0	0.01	0	0.1	0	0.1
WMAIN-6599(1)	J-7363	044-030	6	140	0	0.01	0	0.1	0	0
WMAIN-6599(2)	044-030	J-7688	6	140	0	0.01	0	0.1	0	0.1
WMAIN-6601	J-7111	J-7561	6	140	0.01	0.21	0.1	0.5	0.21	0.5
WMAIN-6604(1)	J-6354	044-026	6	140	0	0.17	0	0.5	0.14	0.4
WMAIN-6604(2)	044-026	J-7111	6	140	0	0.17	0	0.5	0.13	0.4
WMAIN-6605	J-7561	J-7687	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-6607(1)	J-7687	044-029	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-6607(2)	044-029	J-7688	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6609	J-7688	J-7362	6	140	0	0.01	0	0.1	0	0.1
WMAIN-6611	J-7695	J-7613	6	152.5	0.02	0.05	0.2	0.2	0.03	0.2
WMAIN-6613	J-7608	J-7695	6	152.5	0.03	0.05	0.2	0.3	0.05	0.3
WMAIN-6614	J-7571	J-7608	6	152.5	0.09	0.2	0.4	0.6	0.2	0.6
WMAIN-6617	J-7114	J-7111	6	140	0.02	0.17	0.1	0.5	0.04	0.2
WMAIN-6619	J-6400	J-7114	6	140	0.01	0.05	0.1	0.2	0.03	0.2
WMAIN-6622	J-7381	J-7382	8	140	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-6625(1)	J-7381	044-023	6	140	0	0.02	0	0.1	0	0
WMAIN-6625(2)	044-023	J-7571	6	140	0	0.02	0	0.2	0.01	0.1
WMAIN-6627	J-7382	J-7465	6	140	0.03	0.07	0.2	0.3	0.07	0.3
WMAIN-6629	J-6757	J-5878	6	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-6630(1)	J-7362	044-031	6	140	0	0.02	0	0.1	0	0
WMAIN-6630(2)	044-031	J-7363	6	140	0	0.02	0	0.2	0	0.1
WMAIN-6632(1)	J-8497	044-011	12	140	0.01	0.44	0.2	1.2	0.15	0.7
WMAIN-6632(2)(1)	044-011	053-045	12	140	0.02	0.45	0.2	1.2	0.16	0.7
WMAIN-6632(2)(2)	053-045	J-5428	12	140	0.02	0.45	0.2	1.2	0.16	0.7
WMAIN-6636(1)	J-7667	043-049	6	140	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-6636(2)	043-049	J-7000	6	140	0.02	0.05	0.1	0.2	0.04	0.2
WMAIN-6637	J-7912	J-8375	8	140	0.05	0.13	0.3	0.5	0.07	0.4
WMAIN-6641	J-6922	J-7912	8	140	0	0	0	0	0	0
WMAIN-6643	J-6838	J-6922	8	140	0.06	0.15	0.3	0.5	0.11	0.4
WMAIN-6645	J-6837	J-6838	8	140	0.17	0.41	0.5	0.9	0.34	0.8
WMAIN-6647	J-7000	J-7512	6	140	0.05	0.11	0.2	0.4	0.1	0.3
WMAIN-6649(1)	J-6923	043-042	8	140	0.05	0.12	0.3	0.5	0.09	0.4
WMAIN-6649(2)	043-042	J-7969	8	140	0.05	0.12	0.3	0.5	0.09	0.4
WMAIN-6653	J-7969	J-6891	6	140	0.14	0.48	0.4	0.8	0.21	0.5
WMAIN-6655(1)	J-7636	043-014	6	140	0	0.2	0.1	0.5	0.16	0.4
WMAIN-6655(2)	043-014	J-8629	6	140	0	0.24	0	0.5	0.19	0.5
WMAIN-6657(1)	J-8629	043-015	6	140	0	0.13	0	0.4	0.12	0.4
WMAIN-6657(2)	043-015	J-8630	6	140	0	0.16	0	0.4	0.15	0.4
WMAIN-6659	J-8629	J-7958	6	140	0	0.05	0	0.2	0.04	0.2
WMAIN-6661(1)	J-7546	043-016	6	140	0	0.11	0	0.4	0.1	0.3
WMAIN-6661(2)	043-016	J-7958	6	140	0	0.1	0	0.3	0.09	0.3
WMAIN-6662(1)	J-8384	044-050	12	140	0.02	0.37	0.2	1.1	0.02	0.2
WMAIN-6662(2)	044-050	J-6132	12	140	0.02	0.38	0.2	1.1	0.02	0.2
WMAIN-6664(1)	J-6537	043-018	6	140	0.03	0.43	0.2	0.8	0.43	0.8
WMAIN-6664(2)(1)	043-018	043-017	6	140	0	0.23	0	0.5	0.23	0.5
WMAIN-6664(2)(2)	043-017	J-7546	6	140	0	0.2	0	0.5	0.19	0.5
WMAIN-6666	J-8358	J-6537	8	140	0.02	0.26	0.2	0.7	0.26	0.7
WMAIN-6668	J-6900	J-5505	8	140	0	0.11	0	0.4	0.1	0.4
WMAIN-6669	J-5505	J-5506	8	140	0	0.12	0	0.4	0.11	0.4
WMAIN-6672(1)	J-7021	043-011	8	140	0.03	0.47	0.2	0.9	0.47	0.9
WMAIN-6672(2)	043-011	J-8424	8	140	0.03	0.47	0.2	1	0.47	1
WMAIN-6674	J-6634	J-8076	6	140	0	0	0	0.1	0	0.1
WMAIN-6675(1)(1)	J-5312	043-025	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-6675(1)(2)	043-025	J-5122	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-6675(2)	J-5122	J-8358	8	140	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-6677(1)	J-8604	043-026	8	140	0	0.26	0	0.7	0.23	0.6
WMAIN-6677(2)	043-026	J-5313	8	140	0	0.29	0.1	0.7	0.26	0.7
WMAIN-6678	J-5312	J-5313	8	140	0.03	1.91	0.2	2	1.89	2
WMAIN-6679	J-7636	J-8604	8	140	0.01	0.2	0.1	0.6	0.03	0.2
WMAIN-6681(1)	J-6891	043-013	8	140	0	0.76	0	1.2	0.01	0.1
WMAIN-6681(2)	043-013	J-7636	8	140	0	0.75	0.1	1.2	0.01	0.1
WMAIN-6683	J-6890	J-6891	8	140	0	0.34	0.1	0.8	0.02	0.2
WMAIN-6685	J-8375	J-6890	8	140	0.23	0.62	0.7	1.1	0.41	0.9
WMAIN-6688(1)	J-7165	043-036	8	140	0.09	0.24	0.4	0.7	0.19	0.6
WMAIN-6688(2)	043-036	J-8375	8	140	0.08	0.23	0.4	0.6	0.17	0.6
WMAIN-6691(1)	J-7825	043-031	8	140	0.05	0.4	0.3	0.9	0.4	0.9
WMAIN-6691(2)	043-031	J-7810	8	140	0.03	0.31	0.2	0.8	0.31	0.8
WMAIN-6693	J-6135	J-6076	12	152.5	0.04	0.22	0.4	0.9	0.14	0.7
WMAIN-6694	J-6917	J-6980	12	152.5	0.11	0.47	0.6	1.3	0.38	1.2
WMAIN-6696(1)	J-6980	043-052	12	152.5	0.18	0.55	0.8	1.5	0.55	1.5
WMAIN-6696(2)(1)	043-052	043-001	12	152.5	0.18	0.55	0.8	1.5	0.55	1.5
WMAIN-6696(2)(2)	043-001	J-6438	12	152.5	0.18	0.55	0.8	1.5	0.55	1.5
WMAIN-6697	J-6543	J-7614	8	140	0.1	0.83	0.4	1.3	0.83	1.3
WMAIN-6699(1)	J-7614	042-011	8	140	0.08	0.73	0.4	1.2	0.73	1.2
WMAIN-6699(2)	042-011	J-7615	8	140	0.08	0.72	0.4	1.2	0.72	1.2
WMAIN-6701(1)	J-7615	042-009	8	140	0.07	0.65	0.3	1.1	0.65	1.1
WMAIN-6701(2)	042-009	J-5559	8	140	0.06	0.64	0.3	1.1	0.64	1.1
WMAIN-6703	J-5534	J-5535	16	140	0	0.68	0	1.8	0.68	1.8
WMAIN-6704	J-5888	J-5802	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-6706(1)	J-5985	038-032	8	140	0	0.11	0.1	0.4	0.02	0.2
WMAIN-6706(2)	038-032	J-5986	8	140	0	0.11	0.1	0.4	0.02	0.2
WMAIN-6707	J-7071	J-5985	8	140	0	0.21	0	0.6	0.02	0.2
WMAIN-6710	J-7356	J-7357	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-6712(1)	J-6916	038-030	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6712(2)	038-030	J-6411	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-6714(1)	J-5932	038-028	8	140	0.01	0.18	0.1	0.6	0.15	0.5
WMAIN-6714(2)	038-028	J-7357	8	140	0.01	0.18	0.1	0.6	0.15	0.5
WMAIN-6716	J-7357	J-7676	8	140	0	0.28	0	0.7	0.28	0.7
WMAIN-6720(1)	J-7357	038-022	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-6720(2)	038-022	J-7709	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-6721(1)	J-7676	038-026	8	140	0	0.26	0.1	0.7	0.26	0.7
WMAIN-6721(2)	038-026	J-6422	8	140	0	0.26	0.1	0.7	0.26	0.7
WMAIN-6723(1)(1)	J-6422	038-024	8	140	0.01	0.76	0.1	1.2	0.76	1.2
WMAIN-6723(1)(2)	038-024	J-5337	8	140	0.01	0.76	0.1	1.2	0.76	1.2
WMAIN-6723(2)	J-5337	J-5534	8	140	0	0.85	0	1.3	0.85	1.3
WMAIN-6726(1)	J-7709	038-019	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6726(2)	038-019	J-5888	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-6728(1)	J-7753	038-010	8	140	0.01	0.13	0.1	0.5	0.11	0.4
WMAIN-6728(2)	038-010	J-7669	8	140	0.01	0.13	0.1	0.5	0.11	0.4
WMAIN-6730(1)	J-7753	038-020	8	140	0	0.04	0	0.3	0	0.1
WMAIN-6730(2)	038-020	J-7798	8	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6733	J-7669	J-7270	8	140	0.02	0.22	0.2	0.6	0.11	0.4
WMAIN-6735(1)	J-7270	038-013	8	140	0.01	0.19	0.1	0.6	0.05	0.3
WMAIN-6735(2)	038-013	J-7271	8	140	0.01	0.19	0.1	0.6	0.05	0.3
WMAIN-6737(1)	J-7271	038-015	8	140	0	0.13	0	0.5	0.01	0.1
WMAIN-6737(2)	038-015	J-7809	8	140	0	0.12	0	0.5	0.02	0.2
WMAIN-6739	037-036	J-6654	6	140	0	0	0	0	0	0
WMAIN-6740	J-7981	J-5253	6	140	0	0.04	0	0.2	0.01	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6742(1)	J-7678	037-023	6	140	0	0.07	0	0.3	0.07	0.3
WMAIN-6742(2)	037-023	J-7534	6	140	0	0.1	0	0.3	0.1	0.3
WMAIN-6744	J-7534	037-014	6	140	0.03	0.21	0.2	0.5	0.19	0.5
WMAIN-6745	J-8123	J-7678	6	140	0.02	0.07	0.1	0.3	0.07	0.3
WMAIN-6749	J-8123	037-028	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-6750	037-028	J-7511	6	140	0.01	0.28	0.1	0.6	0.02	0.1
WMAIN-6753(1)	J-7511	037-026	6	140	0	0.07	0	0.3	0	0
WMAIN-6753(2)	037-026	J-7981	6	140	0	0.05	0	0.2	0	0
WMAIN-6756	J-5537	J-5443	8	140	0.02	0.58	0.2	1.1	0.02	0.2
WMAIN-6757	J-5442	037-036	8	140	0.01	0.28	0.1	0.7	0.02	0.2
WMAIN-6758	J-6952	J-5512	8	140	0	0.38	0	0.8	0.07	0.3
WMAIN-6760	J-5512	J-5513	8	140	0.01	0.56	0.1	1	0.01	0.1
WMAIN-6763(1)	J-5513	037-027	8	140	0	0.63	0.1	1.1	0.06	0.3
WMAIN-6763(2)	037-027	J-7511	8	140	0	0.62	0.1	1.1	0.06	0.3
WMAIN-6764	J-7511	037-024	8	140	0	0.19	0.1	0.6	0.05	0.3
WMAIN-6766	037-024	J-7678	8	140	0.02	0.22	0.2	0.6	0.11	0.4
WMAIN-6768(1)	J-7678	037-021	8	140	0.02	0.15	0.2	0.5	0.14	0.5
WMAIN-6768(2)	037-021	J-7837	8	140	0.02	0.15	0.2	0.5	0.14	0.5
WMAIN-6770	J-7837	J-6610	8	140	0.03	0.21	0.2	0.6	0.14	0.5
WMAIN-6773	J-7705	J-5442	6	140	0	0.25	0.1	0.6	0.06	0.3
WMAIN-6774(1)	J-8785	037-002	12	140	0.08	0.3	0.5	1	0.3	1
WMAIN-6774(2)	037-002	J-5417	12	140	0.08	0.3	0.5	1	0.3	1
WMAIN-6777(1)	J-5613	044-041	12	140	0.08	0.32	0.5	1	0.32	1
WMAIN-6777(2)(1)	044-041	044-052	12	140	0.08	0.31	0.5	1	0.31	1
WMAIN-6777(2)(2)(1)	044-052	044-049	12	140	0.08	0.31	0.5	1	0.31	1
WMAIN-6777(2)(2)(2)	044-049	J-8785	12	140	0.08	0.31	0.5	1	0.31	1
WMAIN-6780	J-6610	J-5417	8	140	0.03	0.21	0.2	0.6	0.14	0.5
WMAIN-6782(1)	J-6610	037-018	6	140	0	0.13	0	0.4	0.03	0.2
WMAIN-6782(2)	037-018	J-6603	6	140	0	0.12	0	0.4	0.02	0.2
WMAIN-6784	J-6603	J-6604	6	140	0.02	0.15	0.1	0.4	0.14	0.4
WMAIN-6787	J-8188	J-8189	8	140	0	0.13	0	0.5	0.13	0.5
WMAIN-6789(1)	J-8189	037-041	8	140	0	0.28	0	0.7	0.28	0.7
WMAIN-6789(2)	037-041	J-6364	8	140	0	0.3	0	0.7	0.3	0.7
WMAIN-6791(1)	J-6365	037-009	8	140	0	0.37	0.1	0.8	0.37	0.8
WMAIN-6791(2)	037-009	J-5690	8	140	0.01	0.4	0.1	0.9	0.4	0.9
WMAIN-6793(1)	J-5690	037-008	6	140	0.03	1.66	0.2	1.6	1.66	1.6
WMAIN-6793(2)	037-008	J-7125	6	140	0.03	1.67	0.2	1.6	1.67	1.6
WMAIN-6796	J-5917	J-5918	6	140	0.01	0.57	0.1	0.9	0.57	0.9
WMAIN-6799(1)	J-5858	037-044	6	140	0.02	0.23	0.2	0.5	0.04	0.2
WMAIN-6799(2)(1)(1)	037-044	H-509	6	140	0.03	0.24	0.2	0.6	0.05	0.2
WMAIN-6799(2)(1)(2)	H-509	H-508	6	140	0.03	0.24	0.2	0.6	0.05	0.2
WMAIN-6799(2)(2)	H-508	J-5688	6	140	0.03	0.24	0.2	0.6	0.05	0.2
WMAIN-6801	J-5857	J-6115	6	140	0.03	0.32	0.2	0.6	0.06	0.3
WMAIN-6803	J-7008	J-7334	6	140	0.11	0.25	0.4	0.6	0.17	0.5
WMAIN-6806	J-7334	J-7110	6	140	0.03	0.14	0.2	0.4	0.06	0.3
WMAIN-6807(1)	J-7110	036-022	6	140	0	0.08	0	0.3	0.01	0.1
WMAIN-6807(2)	036-022	J-6260	6	140	0	0.07	0	0.3	0.01	0.1
WMAIN-6810	J-7276	J-6196	8	140	0.04	0.14	0.2	0.5	0.13	0.5
WMAIN-6813(1)	J-6196	036-017	8	140	0.02	0.12	0.2	0.5	0.1	0.4
WMAIN-6813(2)	036-017	J-6197	8	140	0.02	0.12	0.2	0.5	0.1	0.4
WMAIN-6815(1)	J-6197	036-013	8	140	0.03	0.15	0.2	0.5	0.15	0.5
WMAIN-6815(2)	036-013	J-8003	8	140	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-6818	J-8003	J-5933	8	140	0.03	0.18	0.2	0.6	0.13	0.5
WMAIN-6822(1)	J-7350	036-028	6	140	0	0.09	0	0.3	0.01	0.1
WMAIN-6822(2)	036-028	J-7058	6	140	0	0.09	0.1	0.3	0.01	0.1
WMAIN-6824(1)	J-7058	036-057	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-6824(2)	036-057	J-6535	6	140	0	0.05	0	0.2	0.05	0.2
WMAIN-6826(1)	J-8493	J-9301	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-6826(2)(1)	J-9301	036-026	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6826(2)(2)	036-026	J-8509	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6828	J-5933	J-5934	8	140	0.03	0.19	0.2	0.6	0.18	0.6
WMAIN-6831(1)	J-7275	036-020	6	140	0	0.11	0	0.4	0.11	0.4
WMAIN-6831(2)	036-020	J-6248	6	140	0	0.12	0	0.4	0.12	0.4
WMAIN-6832	J-7275	J-7276	8	140	0.07	0.25	0.3	0.7	0.25	0.7
WMAIN-6836(1)	J-5858	037-043	6	140	0.03	0.66	0.2	1	0.66	1
WMAIN-6836(2)	037-043	J-5464	6	140	0.02	0.56	0.1	0.9	0.56	0.9
WMAIN-6838(1)	J-8340	036-038	8	140	0.13	0.47	0.5	0.9	0.47	0.9
WMAIN-6838(2)	036-038	J-6055	8	140	0.13	0.46	0.5	0.9	0.46	0.9
WMAIN-6840	J-5118	J-8435	16	140	0	0.17	0.1	0.8	0.06	0.5
WMAIN-6841(1)	J-8435	035-034	16	140	0	0.17	0.1	0.8	0.06	0.5
WMAIN-6841(2)	035-034	J-6439	16	140	0	0.17	0.1	0.8	0.06	0.5
WMAIN-6843(1)	J-7766	035-029	6	140	0.06	0.18	0.3	0.5	0.18	0.5
WMAIN-6843(2)(1)	035-029	035-028	6	140	0.05	0.13	0.2	0.4	0.13	0.4
WMAIN-6843(2)(2)	035-028	J-6042	6	140	0.05	0.13	0.2	0.4	0.13	0.4
WMAIN-6845	J-6042	J-6549	6	140	0.04	0.11	0.2	0.4	0.11	0.4
WMAIN-6847	J-7443	J-5864	6	140	0.12	0.2	0.4	0.5	0.2	0.5
WMAIN-6850(1)	J-7443	035-026	8	140	0.01	0.07	0.1	0.3	0.06	0.3
WMAIN-6850(2)	035-026	J-7444	8	140	0.01	0.07	0.1	0.3	0.06	0.3
WMAIN-6852(1)	J-6285	036-040	8	140	0.17	0.57	0.5	1.1	0.57	1.1
WMAIN-6852(2)	036-040	J-8340	8	140	0.16	0.54	0.5	1	0.54	1
WMAIN-6853(1)(1)	J-5316	035-019	8	140	0.23	0.33	0.6	0.8	0.33	0.8
WMAIN-6853(1)(2)	035-019	036-041	8	140	0.2	0.29	0.6	0.7	0.29	0.7
WMAIN-6853(2)	036-041	J-5363	8	140	0.2	0.29	0.6	0.7	0.29	0.7
WMAIN-6854	J-8369	J-8370	6	140	0	0.02	0	0.1	0	0
WMAIN-6856	J-7602	J-7895	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6857(1)	J-8453	035-024	8	152.5	0.04	0.1	0.3	0.5	0.08	0.4
WMAIN-6857(2)	035-024	J-8270	8	152.5	0.05	0.11	0.3	0.5	0.09	0.4
WMAIN-6859	J-8270	J-8271	8	152.5	0.06	0.15	0.4	0.6	0.15	0.6
WMAIN-6861(1)	J-8271	035-032	8	152.5	0.1	0.26	0.4	0.8	0.26	0.8
WMAIN-6861(2)	035-032	J-5437	8	152.5	0.1	0.27	0.5	0.8	0.27	0.8
WMAIN-6863	034-025	J-6282	12	152.5	0.07	0.17	0.5	0.8	0.12	0.6
WMAIN-6864(1)	034-023	034-024	12	152.5	0.06	0.17	0.5	0.8	0.12	0.6
WMAIN-6864(2)	034-024	034-025	12	152.5	0.06	0.17	0.5	0.8	0.12	0.6
WMAIN-6865(1)	034-014	035-046	12	152.5	0.06	0.16	0.4	0.8	0.11	0.6
WMAIN-6865(2)	035-046	034-023	12	152.5	0.06	0.16	0.4	0.8	0.11	0.6
WMAIN-6867(1)	J-5305	031-014	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-6867(2)	031-014	J-8313	8	140	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-6869	J-6286	J-7316	6	140	0.04	0.15	0.2	0.4	0.13	0.4
WMAIN-6871	J-6209	J-5199	12	152.5	0.01	0.05	0.2	0.4	0.03	0.3
WMAIN-6872(1)(1)	J-7743	031-035	12	152.5	0	0.08	0	0.5	0.08	0.5
WMAIN-6872(1)(2)	031-035	031-034	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-6872(2)(1)	031-034	031-033	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-6872(2)(2)	031-033	J-6209	12	152.5	0	0.07	0	0.5	0.07	0.5
WMAIN-6873(1)	J-5884	031-018	8	140	0.06	0.17	0.3	0.5	0.17	0.5
WMAIN-6873(2)	031-018	J-8565	8	140	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-6875(1)	J-8565	031-016	8	140	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-6875(2)	031-016	J-5306	8	140	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-6877(1)	J-6266	031-010	8	152.5	0.13	0.51	0.5	1.1	0.51	1.1
WMAIN-6877(2)	031-010	J-7345	8	152.5	0.12	0.49	0.5	1.1	0.49	1.1
WMAIN-6879	J-6265	J-6266	6	140	0.11	0.69	0.4	1	0.69	1
WMAIN-6882	J-8313	J-5672	8	140	0.03	0.11	0.2	0.4	0.11	0.4
WMAIN-6883(1)(1)	J-5673	031-013	8	140	0.02	0.1	0.2	0.4	0.1	0.4

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6883(1)(2)	031-013	031-045	8	140	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-6883(2)	031-045	J-7566	8	140	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-6886	J-6286	J-6287	8	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6888(1)	J-6088	031-008	6	140	0.01	0.04	0.1	0.2	0.03	0.2
WMAIN-6888(2)	031-008	J-6089	6	140	0.01	0.04	0.1	0.2	0.03	0.2
WMAIN-6889	J-5733	J-5734	10	140	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6890(1)	030-047	030-046	8	152.5	0.08	0.24	0.4	0.7	0.24	0.7
WMAIN-6890(2)	030-046	J-7007	8	152.5	0.07	0.22	0.4	0.7	0.22	0.7
WMAIN-6892	J-7007	J-6829	6	152.5	0.04	0.12	0.2	0.4	0.12	0.4
WMAIN-6894	J-6877	J-5855	6	140	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-6896	J-6503	J-5855	4	140	0.09	0.26	0.2	0.4	0.26	0.4
WMAIN-6899	J-7150	J-6874	4	140	0.02	0.05	0.1	0.2	0.05	0.2
WMAIN-6900	J-8562	J-6731	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-6902	030-009	J-6732	6	140	0.03	0.07	0.2	0.3	0.07	0.3
WMAIN-6905	J-6443	J-8504	2	120	0.07	0.27	0.1	0.3	0.27	0.3
WMAIN-6908(1)	J-5293	J-9281	16	140	0	0.04	0	0.4	0.02	0.2
WMAIN-6908(2)	J-9281	J-5389	16	140	0	0.04	0	0.4	0.02	0.2
WMAIN-6909	J-7150	J-6028	6	140	0.03	0.09	0.2	0.3	0.09	0.3
WMAIN-6911	J-6644	J-6221	8	140	0.24	0.37	0.7	0.8	0.37	0.8
WMAIN-6912(1)	J-5425	030-024	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6912(2)	030-024	J-7566	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-6915(1)	J-7531	030-022	8	140	0	0.02	0	0.2	0	0
WMAIN-6915(2)	030-022	J-5811	8	140	0	0.02	0	0.2	0	0
WMAIN-6916	J-6393	J-5477	6	140	0.1	0.28	0.4	0.6	0.28	0.6
WMAIN-6919(1)	J-7277	030-035	6	140	0.2	0.59	0.5	0.9	0.59	0.9
WMAIN-6919(2)	030-035	J-5658	6	140	0.21	0.6	0.5	0.9	0.6	0.9
WMAIN-6921(1)	J-6852	030-034	6	140	0.19	0.54	0.5	0.9	0.54	0.9
WMAIN-6921(2)	030-034	J-7277	6	140	0.19	0.55	0.5	0.9	0.55	0.9
WMAIN-6924(1)(1)	J-6905	030-020	6	140	0.11	0.32	0.4	0.7	0.32	0.7
WMAIN-6924(1)(2)	030-020	030-029	6	140	0.12	0.35	0.4	0.7	0.35	0.7
WMAIN-6924(2)	030-029	J-6852	6	140	0.12	0.35	0.4	0.7	0.35	0.7
WMAIN-6926(1)	J-6013	030-002	8	140	0.06	0.16	0.3	0.5	0.15	0.5
WMAIN-6926(2)	030-002	J-6288	8	140	0.06	0.16	0.3	0.5	0.16	0.5
WMAIN-6927	J-6012	J-6013	8	140	0	0.08	0.1	0.4	0.02	0.2
WMAIN-6930	J-8119	J-7294	6	140	0.13	0.33	0.4	0.7	0.33	0.7
WMAIN-6931	J-6850	J-6851	8	140	0.03	0.1	0.2	0.4	0.09	0.4
WMAIN-6933(1)	J-6851	030-011	8	140	0.04	0.11	0.3	0.4	0.11	0.4
WMAIN-6933(2)	030-011	J-7584	8	140	0.04	0.12	0.3	0.5	0.12	0.5
WMAIN-6935(1)	J-6851	030-007	6	140	0.05	0.15	0.2	0.4	0.15	0.4
WMAIN-6935(2)	030-007	J-5436	6	140	0.07	0.2	0.3	0.5	0.2	0.5
WMAIN-6937	J-6144	031-046	8	140	0.07	0.2	0.3	0.6	0.2	0.6
WMAIN-6939(1)(1)	J-7566	030-025	8	140	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-6939(1)(2)	030-025	031-043	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-6939(2)(1)	031-043	J-9286	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-6939(2)(2)	J-9286	J-6502	8	140	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-6940(1)(1)	J-6821	J-9265	12	152.5	0.11	0.34	0.6	1.1	0.31	1.1
WMAIN-6940(1)(2)	J-9265	029-032	12	152.5	0.11	0.34	0.6	1.1	0.31	1.1
WMAIN-6940(2)	029-032	J-5746	12	152.5	0.11	0.35	0.6	1.1	0.31	1.1
WMAIN-6942	J-6701	J-6702	6	140	0.02	0.06	0.1	0.3	0.04	0.2
WMAIN-6944	J-5607	J-5552	6	140	0	0.06	0	0.3	0.06	0.3
WMAIN-6946(1)	J-6013	030-001	6	140	0.04	0.24	0.2	0.5	0.24	0.5
WMAIN-6946(2)	030-001	J-7890	6	140	0.02	0.18	0.2	0.5	0.18	0.5
WMAIN-6948	J-7444	J-6644	8	140	0.15	0.24	0.5	0.7	0.24	0.7
WMAIN-6950	J-6242	J-6243	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6953(1)(1)	J-6389	030-027	6	140	0.05	0.19	0.2	0.5	0.19	0.5
WMAIN-6953(1)(2)	030-027	029-030	6	140	0.04	0.15	0.2	0.4	0.15	0.4
WMAIN-6953(2)	029-030	J-6244	6	140	0.04	0.15	0.2	0.4	0.15	0.4
WMAIN-6955	029-029	J-8452	4	140	0.01	0.07	0.1	0.2	0.07	0.2
WMAIN-6957	J-8452	J-5374	4	140	0.17	0.51	0.4	0.6	0.51	0.6
WMAIN-6959	J-5820	J-5866	6	140	0.01	0.14	0.1	0.4	0.01	0.1
WMAIN-6960	J-5580	J-5581	6	140	0.01	0.02	0.1	0.1	0.01	0.1
WMAIN-6961(1)	J-5581	028-006	6	140	0	0.01	0	0.1	0	0
WMAIN-6961(2)	028-006	J-6706	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6963	J-5488	J-5489	4	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6965	J-5489	J-7177	4	140	0.01	0.03	0.1	0.1	0.01	0.1
WMAIN-6967(1)	J-7176	028-008	8	152.5	0	0.07	0.1	0.4	0.02	0.2
WMAIN-6967(2)	028-008	J-5419	8	152.5	0	0.06	0.1	0.4	0.02	0.2
WMAIN-6970	J-6066	J-5643	8	140	0.02	0.19	0.2	0.6	0.09	0.4
WMAIN-6971(1)	J-6065	J-9261	8	152.5	0.03	0.19	0.2	0.6	0.19	0.6
WMAIN-6971(2)	J-9261	J-6066	8	152.5	0.03	0.19	0.2	0.6	0.19	0.6
WMAIN-6976	J-5583	J-6781	12	140	0.03	0.15	0.3	0.7	0.15	0.7
WMAIN-6977	J-5582	J-5583	12	152.5	0	0	0	0	0	0
WMAIN-6979(1)	J-6394	028-032	12	140	0.03	0.11	0.3	0.6	0.11	0.6
WMAIN-6979(2)	028-032	J-5237	12	140	0.03	0.11	0.3	0.6	0.11	0.6
WMAIN-6980	J-5206	J-6394	12	140	0.01	0.11	0.2	0.6	0.08	0.5
WMAIN-6981	J-5764	J-5207	12	140	0.01	0.11	0.2	0.6	0.08	0.5
WMAIN-6984	J-6348	J-5764	12	140	0.01	0.08	0.2	0.5	0.06	0.4
WMAIN-6985	028-007	J-7595	4	140	0	0.09	0	0.2	0.03	0.1
WMAIN-6987	J-5809	J-5810	6	140	0.02	0.67	0.1	1	0.37	0.7
WMAIN-6989(1)	J-7176	028-001	8	140	0	0.24	0.1	0.7	0	0.1
WMAIN-6989(2)	028-001	J-7220	8	140	0.01	0.25	0.1	0.7	0.01	0.1
WMAIN-6992(1)	J-7480	028-047	12	152.5	0	0.4	0.1	1.2	0	0.1
WMAIN-6992(2)	028-047	J-7220	12	152.5	0	0.39	0.1	1.2	0	0.1
WMAIN-6994	J-7220	J-7221	12	152.5	0.01	0.23	0.1	0.9	0.01	0.1
WMAIN-6996	J-7221	J-5537	12	152.5	0	0.15	0.1	0.7	0	0.1
WMAIN-6998(1)	J-8711	027-028	4	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-6998(2)	027-028	J-8406	4	140	0.03	0.1	0.1	0.3	0.1	0.3
WMAIN-7001(1)(1)	J-8406	027-036	12	140	0.01	0.08	0.2	0.5	0.05	0.4
WMAIN-7001(1)(2)	027-036	028-030	12	140	0.01	0.08	0.2	0.5	0.05	0.4
WMAIN-7001(2)	028-030	J-6348	12	140	0.01	0.08	0.2	0.5	0.05	0.4
WMAIN-7003	J-5216	J-8406	12	140	0.01	0.07	0.1	0.5	0.04	0.3
WMAIN-7004	J-7515	J-8587	8	152.5	0.02	1.14	0.2	1.7	0.02	0.2
WMAIN-7005(1)	J-8587	027-025	6	152.5	0.01	1.2	0.1	1.4	0.01	0.1
WMAIN-7005(2)	027-025	J-5498	6	152.5	0.02	1.17	0.2	1.4	0.02	0.2
WMAIN-7008(1)	J-5499	027-037	6	152.5	0.11	0.25	0.4	0.6	0.18	0.5
WMAIN-7008(2)	027-037	J-6474	6	152.5	0.15	0.29	0.5	0.7	0.23	0.6
WMAIN-7010(1)	J-8587	027-041	6	152.5	0.06	1.28	0.3	1.5	0.06	0.3
WMAIN-7010(2)	027-041	J-7038	6	152.5	0.05	1.27	0.3	1.5	0.05	0.3
WMAIN-7012(1)	J-8772	023-041	8	152.5	0	0	0	0	0	0
WMAIN-7012(2)(1)	023-041	023-042	8	152.5	0	0	0	0	0	0
WMAIN-7012(2)(2)	023-042	J-5572	8	152.5	0	0	0	0	0	0
WMAIN-7013	J-5572	J-5573	8	152.5	0	0	0	0	0	0
WMAIN-7014	J-7227	J-5104	8	140	0.08	0.2	0.4	0.6	0.17	0.5
WMAIN-7016(1)	J-6953	023-007	8	140	0.06	0.16	0.3	0.5	0.11	0.4
WMAIN-7016(2)	023-007	J-7227	8	140	0.06	0.16	0.3	0.5	0.12	0.5
WMAIN-7019	J-7097	J-8007	8	152.5	0.03	0.12	0.2	0.5	0.04	0.3
WMAIN-7021(1)(1)	J-8007	023-008	8	152.5	0	0.06	0	0.3	0	0.1
WMAIN-7021(1)(2)	023-008	023-009	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-7021(2)	023-009	J-7099	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-7023(1)(1)	026-013	023-001	8	152.5	0.01	0.08	0.1	0.4	0.01	0.1
WMAIN-7023(1)(2)	023-001	J-6057	8	152.5	0.01	0.08	0.1	0.4	0.01	0.1
WMAIN-7023(2)(1)	J-6057	023-002	8	152.5	0.02	0.1	0.2	0.5	0.03	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7023(2)(2)	023-002	J-7097	8	152.5	0.02	0.11	0.2	0.5	0.03	0.2
WMAIN-7024	J-5645	J-6407	10	152.5	0	0.05	0	0.3	0	0.1
WMAIN-7026(1)	J-6407	J-8282	8	140	0	0.13	0	0.5	0.08	0.4
WMAIN-7026(2)	J-8282	J-6408	8	140	0	0.2	0	0.6	0.08	0.4
WMAIN-7028	J-6408	J-6689	6	140	0	0.27	0.1	0.6	0.09	0.3
WMAIN-7030(1)	J-6689	023-018	6	140	0	0.16	0	0.4	0.09	0.3
WMAIN-7030(2)	023-018	J-6690	6	140	0	0.16	0	0.4	0.09	0.3
WMAIN-7033(1)	J-7698	023-017	6	140	0.02	0.09	0.2	0.3	0.04	0.2
WMAIN-7033(2)	023-017	J-7489	6	140	0.03	0.1	0.2	0.4	0.05	0.2
WMAIN-7035	J-6186	022-006	6	152.5	0.18	0.34	0.5	0.7	0.27	0.6
WMAIN-7036(1)	J-5990	022-007	10	152.5	0.07	0.11	0.4	0.5	0.09	0.5
WMAIN-7036(2)	022-007	J-6186	10	152.5	0.06	0.11	0.4	0.5	0.09	0.5
WMAIN-7040(1)	J-6109	022-011	6	152.5	0.18	0.31	0.5	0.7	0.28	0.7
WMAIN-7040(2)(1)	022-011	022-010	6	152.5	0.14	0.25	0.4	0.6	0.2	0.5
WMAIN-7040(2)(2)	022-010	J-6624	6	152.5	0.14	0.25	0.4	0.6	0.2	0.5
WMAIN-7042	J-7039	J-7040	6	152.5	0.18	0.5	0.5	0.9	0.41	0.8
WMAIN-7045	J-8414	J-7040	6	152.5	0.06	0.13	0.3	0.4	0.12	0.4
WMAIN-7048(1)	J-8414	022-022	6	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7048(2)	022-022	J-7129	6	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7050	J-7521	J-8414	6	152.5	0.15	0.32	0.5	0.7	0.32	0.7
WMAIN-7051	J-6904	J-5990	10	152.5	0.03	0.09	0.3	0.5	0.07	0.4
WMAIN-7053	J-8526	J-6059	6	152.5	0.29	0.63	0.7	1	0.62	1
WMAIN-7055	J-8474	J-8475	4	152.5	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-7056(1)	J-8521	022-042	8	140	0	0	0	0	0	0
WMAIN-7056(2)	022-042	J-7997	8	140	0	0	0	0.1	0	0.1
WMAIN-7058(1)(1)	J-8474	022-029	6	152.5	0.56	1.28	1	1.5	1.28	1.5
WMAIN-7058(1)(2)(1)	022-029	J-5202	6	152.5	0.6	1.4	1	1.6	1.4	1.6
WMAIN-7058(1)(2)(2)	J-5202	022-021	6	152.5	0.45	1	0.8	1.3	1	1.3
WMAIN-7058(2)	022-021	J-7130	6	152.5	0.45	1	0.8	1.3	1	1.3
WMAIN-7062(1)	J-8526	022-030	6	152.5	0.63	1.37	1	1.5	1.37	1.5
WMAIN-7062(2)	022-030	J-8474	6	152.5	0.64	1.42	1	1.6	1.42	1.6
WMAIN-7064(1)	J-8526	022-041	10	140	0.15	0.32	0.6	0.9	0.31	0.9
WMAIN-7064(2)	022-041	J-7996	10	140	0.14	0.31	0.6	0.9	0.3	0.9
WMAIN-7066	J-5876	J-5954	6	140	0	0.03	0	0.2	0	0
WMAIN-7067	J-5394	J-5765	6	140	0.02	0.12	0.1	0.4	0.07	0.3
WMAIN-7070	J-5954	J-5456	6	140	0.02	0.07	0.2	0.3	0.04	0.2
WMAIN-7074(1)	J-5987	027-032	6	140	0.02	0.18	0.2	0.5	0.1	0.3
WMAIN-7074(2)(1)	027-032	027-053	6	140	0.01	0.14	0.1	0.4	0.06	0.3
WMAIN-7074(2)(2)	027-053	J-5954	6	140	0.01	0.14	0.1	0.4	0.06	0.3
WMAIN-7075(1)	J-7361	J-9270	4	140	0	0.03	0	0.1	0.03	0.1
WMAIN-7075(2)	J-9270	J-7358	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7076	J-7358	J-7359	4	140	0	0.02	0	0.1	0	0
WMAIN-7077(1)	J-7359	022-024	4	140	0.01	0.06	0.1	0.2	0.04	0.2
WMAIN-7077(2)	022-024	J-7360	4	140	0.02	0.08	0.1	0.2	0.07	0.2
WMAIN-7080(1)	J-7384	022-025	6	140	0.03	0.16	0.2	0.4	0.15	0.4
WMAIN-7080(2)(1)(1)	022-025	J-9334	6	140	0.02	0.13	0.2	0.4	0.11	0.4
WMAIN-7080(2)(1)(2)	J-9334	J-9333	6	140	0.02	0.13	0.2	0.4	0.11	0.4
WMAIN-7080(2)(2)	J-9333	J-6101	6	140	0.02	0.13	0.2	0.4	0.11	0.4
WMAIN-7082(1)	J-6676	021-048	6	140	0.1	0.4	0.3	0.7	0.4	0.7
WMAIN-7082(2)	021-048	J-7439	6	140	0.09	0.38	0.3	0.7	0.38	0.7
WMAIN-7084(1)	J-7570	021-046	6	140	0.03	0.1	0.2	0.3	0.1	0.3
WMAIN-7084(2)	021-046	J-7704	6	140	0.02	0.09	0.2	0.3	0.09	0.3
WMAIN-7086	J-5695	J-5696	8	140	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7088(1)	J-6314	021-009	6	140	0.03	0.14	0.2	0.4	0.08	0.3
WMAIN-7088(2)(1)	021-009	J-9323	6	140	0.03	0.14	0.2	0.4	0.08	0.3
WMAIN-7088(2)(2)	J-9323	J-8152	6	140	0.03	0.14	0.2	0.4	0.08	0.3
WMAIN-7089(1)	J-7405	029-034	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7089(2)	029-034	J-7406	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7091	J-7406	J-8272	4	140	0.01	0.1	0.1	0.3	0.09	0.3
WMAIN-7092(1)	J-6764	020-021	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-7092(2)	020-021	J-6765	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-7093	021-040	J-5729	6	140	0.02	0.33	0.1	0.7	0.33	0.7
WMAIN-7094(1)	J-5729	021-017	6	140	0.02	0.32	0.1	0.6	0.32	0.6
WMAIN-7094(2)	021-017	J-5910	6	140	0.02	0.31	0.1	0.6	0.31	0.6
WMAIN-7096	020-012	J-7929	6	152.5	0.08	0.29	0.3	0.7	0.29	0.7
WMAIN-7098	J-7929	J-6250	6	140	0.25	1	0.6	1.2	1	1.2
WMAIN-7101(1)	J-6250	020-011	6	152.5	0.35	2.03	0.7	1.9	2.03	1.9
WMAIN-7101(2)	020-011	J-5525	6	152.5	0.34	2.03	0.7	1.9	2.03	1.9
WMAIN-7103	J-5280	J-5281	12	152.5	0.1	0.38	0.6	1.2	0.38	1.2
WMAIN-7104	J-8648	J-7405	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7107	J-5873	J-6079	8	152.5	0.01	0.2	0.2	0.7	0.15	0.6
WMAIN-7108	J-5226	J-5227	8	140	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7109	J-5872	J-5873	8	140	0.06	0.28	0.3	0.7	0.28	0.7
WMAIN-7110(1)	J-5227	020-028	8	140	0.05	0.26	0.3	0.7	0.26	0.7
WMAIN-7110(2)	020-028	J-5872	8	140	0.06	0.28	0.3	0.7	0.28	0.7
WMAIN-7112(1)(1)	J-5406	J-5714	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-7112(1)(2)	J-5714	J-5717	8	140	0	0.01	0	0.1	0	0.1
WMAIN-7112(2)	J-5717	J-5292	8	140	0	0.01	0	0.1	0	0
WMAIN-7113(1)	J-5390	J-5859	8	140	0.02	0.11	0.2	0.4	0.1	0.4
WMAIN-7113(2)(1)	J-5859	030-039	8	140	0.01	0.06	0.1	0.3	0.04	0.2
WMAIN-7113(2)(2)	030-039	J-5676	8	140	0.01	0.06	0.1	0.3	0.04	0.2
WMAIN-7114(1)	J-7622	019-032	16	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7114(2)	019-032	J-6639	16	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7116	J-5329	J-5330	16	152.5	0	0.05	0.1	0.5	0.05	0.5
WMAIN-7120	J-5610	J-6033	4	152.5	0	0	0	0	0	0
WMAIN-7122(1)	J-5679	J-9275	4	152.5	0.03	0.11	0.2	0.3	0.11	0.3
WMAIN-7122(2)	J-9275	J-5610	4	152.5	0.03	0.1	0.2	0.3	0.1	0.3
WMAIN-7125	J-7080	J-5658	8	140	0.11	0.35	0.4	0.8	0.35	0.8
WMAIN-7127	J-6998	J-5389	16	152.5	0.01	0.12	0.2	0.8	0.1	0.7
WMAIN-7129	J-5540	J-6998	16	152.5	0.02	0.19	0.3	1	0.15	0.9
WMAIN-7130(1)	J-5507	J-9312	16	152.5	0.02	0.2	0.3	1	0.16	0.9
WMAIN-7130(2)	J-9312	J-5540	16	152.5	0.02	0.19	0.3	1	0.15	0.9
WMAIN-7133(1)(1)	J-5362	J-5701	16	152.5	0	0.08	0.1	0.6	0.08	0.6
WMAIN-7133(1)(2)	J-5701	J-5703	16	152.5	0	0.08	0.1	0.6	0.08	0.6
WMAIN-7133(2)	J-5703	J-7529	16	152.5	0	0.08	0.1	0.6	0.08	0.6
WMAIN-7135(1)	J-5324	031-047	16	152.5	0	0.07	0	0.6	0.07	0.6
WMAIN-7135(2)	031-047	J-7529	16	152.5	0	0.07	0	0.6	0.07	0.6
WMAIN-7136	J-5324	J-5325	16	152.5	0	0.04	0	0.4	0.04	0.4
WMAIN-7137(1)	J-5325	031-056	16	152.5	0	0.03	0	0.3	0.03	0.3
WMAIN-7137(2)(1)	031-056	018-002	16	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-7137(2)(2)	018-002	J-5168	16	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-7138	J-5753	J-7026	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7139(1)	J-7026	017-002	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-7139(2)(1)	017-002	017-003	8	152.5	0.02	0.17	0.2	0.6	0.17	0.6
WMAIN-7139(2)(2)	017-003	J-5815	8	152.5	0.02	0.17	0.2	0.6	0.17	0.6
WMAIN-7140(1)	J-8614	032-025	16	140	0.02	0.14	0.3	0.8	0.14	0.8
WMAIN-7140(2)	032-025	J-5247	16	140	0.02	0.14	0.3	0.8	0.14	0.8
WMAIN-7141(1)	J-7844	032-027	16	140	0	0.05	0.1	0.4	0.05	0.4
WMAIN-7141(2)(1)	032-027	032-026	16	140	0	0.05	0	0.4	0.05	0.4
WMAIN-7141(2)(2)	032-026	J-5248	16	140	0	0.05	0	0.4	0.05	0.4
WMAIN-7143(1)(1)	J-5451	H-497	16	152.5	0.04	0.25	0.4	1.2	0.23	1.1
WMAIN-7143(1)(2)	H-497	J-9311	16	152.5	0.04	0.25	0.4	1.1	0.23	1.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7143(2)	J-9311	J-5504	16	152.5	0.04	0.25	0.4	1.1	0.23	1.1
WMAIN-7144	J-6707	J-6708	8	152.5	0.58	1.65	1.2	2	1.65	2
WMAIN-7146	J-5331	J-5450	16	152.5	0.03	0.06	0.4	0.5	0.06	0.5
WMAIN-7147	J-5450	J-5451	16	152.5	0.02	0.21	0.3	1.1	0.19	1
WMAIN-7148	171-001	J-8771	12	152.5	0.59	1.36	1.5	2.4	1.36	2.4
WMAIN-7150(1)(1)	J-8771	015-001	12	152.5	0.57	1.31	1.5	2.3	1.31	2.3
WMAIN-7150(1)(2)	015-001	015-002	12	152.5	0.57	1.29	1.5	2.3	1.29	2.3
WMAIN-7150(2)	015-002	015-003	12	152.5	0.57	1.29	1.5	2.3	1.29	2.3
WMAIN-7151	J-5242	J-5243	12	152.5	0.03	0.14	0.3	0.7	0.14	0.7
WMAIN-7152(1)(1)	J-5243	012-032	12	152.5	0	0	0	0	0	0
WMAIN-7152(1)(2)(1)	012-032	013-003	12	152.5	0	0	0	0	0	0
WMAIN-7152(1)(2)(2)	013-003	013-043	12	152.5	0	0	0	0	0	0
WMAIN-7152(2)	013-043	J-8829	12	152.5	0	0	0	0	0	0
WMAIN-7154(1)(1)	J-8468	013-014	16	140	0.24	0.6	1	1.7	0.6	1.7
WMAIN-7154(1)(2)	013-014	013-013	16	140	0.24	0.6	1	1.7	0.6	1.7
WMAIN-7154(2)	013-013	014-017	16	140	0.24	0.6	1	1.7	0.6	1.7
WMAIN-7155(1)	J-8679	013-012	12	140	0.06	0.14	0.4	0.7	0.14	0.7
WMAIN-7155(2)	013-012	J-8468	12	140	0.06	0.15	0.4	0.7	0.15	0.7
WMAIN-7157(1)	J-8664	013-010	12	140	0.05	0.14	0.4	0.6	0.14	0.6
WMAIN-7157(2)(1)	013-010	013-011	12	140	0.05	0.14	0.4	0.6	0.14	0.6
WMAIN-7157(2)(2)	013-011	J-8679	12	140	0.05	0.14	0.4	0.6	0.14	0.6
WMAIN-7158(1)	J-8663	013-009	12	140	0.05	0.13	0.4	0.6	0.13	0.6
WMAIN-7158(2)	013-009	J-8664	12	140	0.05	0.13	0.4	0.6	0.13	0.6
WMAIN-7159(1)	J-8665	013-007	12	140	0.05	0.12	0.4	0.6	0.12	0.6
WMAIN-7159(2)(1)	013-007	013-008	12	140	0.05	0.12	0.4	0.6	0.12	0.6
WMAIN-7159(2)(2)	013-008	J-8663	12	140	0.05	0.12	0.4	0.6	0.12	0.6
WMAIN-7161(1)	J-8575	013-006	12	140	0.05	0.11	0.3	0.6	0.11	0.6
WMAIN-7161(2)	013-006	J-8665	12	140	0.05	0.11	0.4	0.6	0.11	0.6
WMAIN-7162(1)	J-8576	013-029	16	140	0	0.11	0.1	0.7	0.11	0.7
WMAIN-7162(2)	013-029	J-5427	16	140	0	0.11	0.1	0.7	0.11	0.7
WMAIN-7164(1)	J-5426	013-024	16	152.5	0	0.1	0	0.7	0.1	0.7
WMAIN-7164(2)(1)	013-024	013-037	16	152.5	0	0.11	0	0.7	0.11	0.7
WMAIN-7164(2)(2)	013-037	J-8813	16	152.5	0	0.11	0	0.7	0.11	0.7
WMAIN-7166(1)	J-8675	013-022	12	140	0.06	0.14	0.4	0.6	0.14	0.6
WMAIN-7166(2)(1)	013-022	013-021	12	140	0.06	0.14	0.4	0.6	0.14	0.6
WMAIN-7166(2)(2)	013-021	J-8640	12	140	0.06	0.14	0.4	0.6	0.14	0.6
WMAIN-7167(1)	J-8640	013-020	12	140	0.06	0.14	0.4	0.6	0.14	0.6
WMAIN-7167(2)	013-020	J-8309	12	140	0.06	0.14	0.4	0.7	0.14	0.7
WMAIN-7169(1)	J-5426	013-023	12	140	0.06	0.12	0.4	0.6	0.12	0.6
WMAIN-7169(2)	013-023	J-8675	12	140	0.06	0.12	0.4	0.6	0.12	0.6
WMAIN-7170(1)(1)	J-8469	013-017	16	140	0.02	0.04	0.2	0.4	0.04	0.4
WMAIN-7170(1)(2)	013-017	013-018	16	140	0.02	0.04	0.2	0.4	0.04	0.4
WMAIN-7170(2)	013-018	J-8309	16	140	0.02	0.04	0.2	0.4	0.04	0.4
WMAIN-7173(1)	J-8468	013-016	16	140	0.02	0.04	0.2	0.4	0.04	0.4
WMAIN-7173(2)(1)	013-016	013-015	16	140	0.02	0.04	0.2	0.4	0.04	0.4
WMAIN-7173(2)(2)	013-015	J-8469	16	140	0.02	0.04	0.2	0.4	0.04	0.4
WMAIN-7174(1)	J-8535	013-005	16	140	0.2	0.71	0.9	1.8	0.71	1.8
WMAIN-7174(2)	013-005	J-8575	16	140	0.2	0.71	0.9	1.8	0.71	1.8
WMAIN-7177(1)	J-5242	013-004	16	140	0.2	0.7	0.9	1.8	0.7	1.8
WMAIN-7177(2)	013-004	J-8535	16	140	0.2	0.7	0.9	1.8	0.7	1.8
WMAIN-7178	J-6675	J-6676	16	140	0.13	0.6	0.7	1.7	0.6	1.7
WMAIN-7179(1)	J-7570	012-022	16	140	0.13	0.59	0.7	1.7	0.59	1.7
WMAIN-7179(2)	012-022	J-6675	16	140	0.13	0.59	0.7	1.7	0.59	1.7
WMAIN-7181	J-7628	J-7629	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-7183	J-6760	J-8548	6	140	0	0	0	0	0	0
WMAIN-7185(1)	J-7690	011-007	6	140	0.05	0.2	0.2	0.5	0.2	0.5
WMAIN-7185(2)	011-007	J-8527	6	140	0.04	0.18	0.2	0.5	0.18	0.5
WMAIN-7186	J-6102	J-8368	6	140	0	0.12	0	0.4	0.12	0.4
WMAIN-7188	J-6709	J-6101	6	140	0	0.16	0	0.4	0.15	0.4
WMAIN-7189(1)	J-8651	022-033	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-7189(2)	022-033	J-6709	6	140	0	0.07	0	0.3	0.07	0.3
WMAIN-7192(1)	J-5612	022-046	6	140	0	0.02	0	0.1	0	0
WMAIN-7192(2)(1)	022-046	022-035	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-7192(2)(2)	022-035	J-8651	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-7195(1)	J-7460	022-043	6	140	0	0.02	0	0.1	0	0
WMAIN-7195(2)(1)	022-043	022-036	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-7195(2)(2)	022-036	J-6709	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-7196	J-8715	J-8527	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7200(1)	J-5611	011-006	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-7200(2)	011-006	J-8715	6	140	0	0.03	0.1	0.2	0.03	0.2
WMAIN-7201(1)	J-7154	011-005	6	140	0.08	0.27	0.3	0.6	0.27	0.6
WMAIN-7201(2)	011-005	J-7189	6	140	0.09	0.28	0.3	0.6	0.28	0.6
WMAIN-7204	J-7189	J-5611	16	140	0.01	0.12	0.1	0.7	0.12	0.7
WMAIN-7205	J-7996	J-7997	16	140	0	0.09	0.1	0.6	0.09	0.6
WMAIN-7206	J-7517	J-7996	16	140	0.04	0.2	0.4	0.9	0.2	0.9
WMAIN-7208(1)	022-038	022-040	16	140	0.03	0.19	0.4	0.9	0.19	0.9
WMAIN-7208(2)	022-040	J-7517	16	140	0.03	0.19	0.4	0.9	0.19	0.9
WMAIN-7210	J-5213	022-038	16	140	0.03	0.19	0.4	0.9	0.19	0.9
WMAIN-7211(1)(1)	J-6611	038-002	16	140	0	0.23	0	1	0	0
WMAIN-7211(1)(2)	038-002	038-003	16	140	0	0.23	0	1	0	0
WMAIN-7211(2)	038-003	J-5633	16	140	0	0.23	0	1	0	0
WMAIN-7213(1)(1)	J-5475	026-006	16	140	0	0.19	0.1	0.9	0	0.1
WMAIN-7213(1)(2)	026-006	026-005	16	140	0	0.18	0	0.9	0	0
WMAIN-7213(2)	026-005	J-7744	16	140	0	0.18	0	0.9	0	0
WMAIN-7214	J-6598	J-5476	16	140	0	0.18	0.1	0.9	0.01	0.2
WMAIN-7216(1)	J-5456	026-012	16	140	0	0.18	0.1	0.9	0.01	0.2
WMAIN-7216(2)	026-012	J-6974	16	140	0	0.18	0.1	0.9	0.01	0.2
WMAIN-7217	J-5682	J-5457	16	152.5	0.04	0.19	0.4	1	0.05	0.5
WMAIN-7218(1)	J-6072	023-026	16	152.5	0.01	0.13	0.2	0.8	0.02	0.3
WMAIN-7218(2)	023-026	J-6073	16	152.5	0.01	0.13	0.2	0.8	0.02	0.3
WMAIN-7220	J-6358	J-6359	16	140	0.02	0.14	0.3	0.8	0.03	0.3
WMAIN-7221	J-6690	J-6358	16	140	0.02	0.14	0.3	0.8	0.03	0.3
WMAIN-7223	J-5214	J-7696	16	140	0.05	0.14	0.4	0.8	0.07	0.5
WMAIN-7224	J-5213	J-5214	8	152.5	2.51	6.3	2.6	4.2	3.95	3.3
WMAIN-7226(1)	J-5107	J-5205	12	152.5	0.14	0.76	0.7	1.7	0.7	1.7
WMAIN-7226(2)	J-5205	J-6964	12	152.5	0.14	0.76	0.7	1.7	0.71	1.7
WMAIN-7229	J-5107	009-033	12	152.5	0.02	0.43	0.2	1.3	0.43	1.3
WMAIN-7230	009-033	J-5712	12	152.5	0.02	0.42	0.2	1.3	0.42	1.3
WMAIN-7233(1)	J-7862	170-100	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-7233(2)	170-100	J-7090	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-7236(1)(1)(1)	J-7706	170-104	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7236(1)(1)(2)	170-104	170-103	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7236(1)(2)	170-103	170-102	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7236(2)(1)	170-102	170-101	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7236(2)(2)	170-101	J-8404	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7237	J-6708	J-7141	12	152.5	0.07	0.18	0.5	0.8	0.13	0.7
WMAIN-7238(1)	J-6504	011-027	8	152.5	0.03	0.25	0.3	0.7	0.25	0.7
WMAIN-7238(2)	011-027	J-6505	8	152.5	0.03	0.25	0.3	0.7	0.25	0.7
WMAIN-7239	024-008	J-6780	8	152.5	0	0.29	0	0.8	0.11	0.5
WMAIN-7241(1)	J-5675	J-6163	12	140	0.02	0.13	0.2	0.6	0.08	0.5
WMAIN-7241(2)	J-6163	J-8301	12	140	0.03	0.13	0.3	0.6	0.08	0.5
WMAIN-7243	J-6735	J-6736	6	140	0	0.02	0	0.2	0.01	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7245	J-7108	J-7671	8	140	0.08	0.62	0.4	1.1	0.62	1.1
WMAIN-7246	J-5559	J-5560	8	140	0	0.04	0	0.3	0.04	0.3
WMAIN-7248	J-5560	J-7427	8	140	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7250	J-7427	J-7428	8	140	0.04	0.25	0.2	0.7	0.25	0.7
WMAIN-7254(1)	J-7428	042-015	6	140	0.02	0.25	0.1	0.6	0.25	0.6
WMAIN-7254(2)	042-015	J-8815	6	140	0.03	0.33	0.2	0.7	0.33	0.7
WMAIN-7256	J-7552	J-7956	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-7257(1)	J-6981	042-023	8	140	0	0.08	0	0.4	0.08	0.4
WMAIN-7257(2)	042-023	J-6735	8	140	0	0.07	0	0.3	0.07	0.3
WMAIN-7259(1)	J-6735	042-020	8	140	0.08	0.33	0.4	0.8	0.33	0.8
WMAIN-7259(2)	042-020	J-7321	8	140	0.08	0.32	0.4	0.8	0.32	0.8
WMAIN-7261	J-7321	J-8212	8	140	0.01	0.22	0.1	0.6	0.19	0.6
WMAIN-7263(1)	J-8366	042-019	8	140	0.16	0.83	0.5	1.3	0.83	1.3
WMAIN-7263(2)	042-019	J-7321	8	140	0.17	0.86	0.5	1.3	0.86	1.3
WMAIN-7265(1)	J-6928	042-044	8	140	0.11	0.68	0.4	1.2	0.68	1.2
WMAIN-7265(2)	042-044	J-7657	8	140	0.1	0.67	0.4	1.2	0.67	1.2
WMAIN-7267(1)	J-7657	042-043	8	140	0.07	0.46	0.3	0.9	0.46	0.9
WMAIN-7267(2)	042-043	J-5839	8	140	0.06	0.45	0.3	0.9	0.45	0.9
WMAIN-7269(1)	J-7671	042-030	8	140	0.1	0.73	0.4	1.2	0.73	1.2
WMAIN-7269(2)	042-030	J-7672	8	140	0.09	0.72	0.4	1.2	0.72	1.2
WMAIN-7271(1)	J-6134	042-029	8	140	0.05	0.44	0.3	0.9	0.44	0.9
WMAIN-7271(2)	042-029	J-7108	8	140	0.05	0.44	0.3	0.9	0.44	0.9
WMAIN-7273	J-6476	J-5845	8	152.5	0.12	0.65	0.5	1.2	0.65	1.2
WMAIN-7275(1)	J-6353	053-026	8	152.5	0.37	1.28	0.9	1.8	1.28	1.8
WMAIN-7275(2)(1)	053-026	053-044	8	152.5	0.37	1.27	0.9	1.8	1.27	1.8
WMAIN-7275(2)(2)	053-044	J-5777	8	152.5	0.37	1.26	0.9	1.8	1.26	1.8
WMAIN-7276	J-6596	J-6353	8	152.5	1.72	5.77	2.1	4	5.77	4
WMAIN-7278	J-7312	J-8311	12	152.5	0.02	0.06	0.3	0.5	0.06	0.5
WMAIN-7279	J-6466	J-5306	6	140	0	0	0	0	0	0
WMAIN-7282(1)	J-7316	031-012	6	140	0.03	0.15	0.2	0.4	0.15	0.4
WMAIN-7282(2)(1)	031-012	031-011	6	140	0.04	0.19	0.2	0.5	0.19	0.5
WMAIN-7282(2)(2)	031-011	J-6265	6	140	0.04	0.19	0.2	0.5	0.19	0.5
WMAIN-7286(1)	J-5305	031-015	6	140	0.01	0.14	0.1	0.4	0.14	0.4
WMAIN-7286(2)	031-015	J-6265	6	140	0.01	0.19	0.1	0.5	0.19	0.5
WMAIN-7289	J-6266	J-6209	12	152.5	0.03	0.16	0.3	0.7	0.16	0.7
WMAIN-7292(1)	J-7213	031-007	6	140	0.04	0.14	0.2	0.4	0.14	0.4
WMAIN-7292(2)	031-007	J-6287	6	140	0.05	0.18	0.2	0.5	0.18	0.5
WMAIN-7294(1)(1)	J-7345	031-005	8	140	0.05	0.18	0.3	0.6	0.18	0.6
WMAIN-7294(1)(2)(1)	031-005	031-004	8	140	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7294(1)(2)(2)	031-004	031-003	8	140	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7294(2)	031-003	J-5351	8	140	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7296	J-5351	J-5352	8	140	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7297(1)	J-6286	031-009	6	140	0.08	0.27	0.3	0.6	0.27	0.6
WMAIN-7297(2)	031-009	J-6088	6	140	0.07	0.24	0.3	0.5	0.24	0.5
WMAIN-7299	J-7765	J-7766	8	140	0	0.03	0	0.2	0.02	0.2
WMAIN-7301	J-6012	J-6731	6	140	0.05	0.15	0.2	0.4	0.15	0.4
WMAIN-7303(1)	J-8271	035-031	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-7303(2)	035-031	J-6850	6	140	0	0.02	0.1	0.1	0.02	0.1
WMAIN-7306(1)	J-7602	035-016	6	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7306(2)	035-016	J-8369	6	152.5	0	0	0	0.1	0	0
WMAIN-7308	J-5316	J-7443	8	140	0.04	0.14	0.3	0.5	0.13	0.5
WMAIN-7310(1)	J-6644	035-025	6	140	0.08	0.13	0.3	0.4	0.13	0.4
WMAIN-7310(2)	035-025	J-5864	6	140	0.09	0.15	0.3	0.4	0.15	0.4
WMAIN-7312	J-5363	J-5364	8	140	0	0	0	0	0	0
WMAIN-7315(1)	J-8270	035-030	6	140	0	0.02	0	0.2	0.02	0.2
WMAIN-7315(2)	035-030	J-7766	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7317(1)	J-8453	035-022	8	140	0.01	0.05	0.1	0.3	0.02	0.2
WMAIN-7317(2)	035-022	J-8370	8	140	0.02	0.06	0.2	0.3	0.02	0.2
WMAIN-7320(1)	J-7895	035-018	6	152.5	0.01	0.02	0.1	0.1	0.01	0.1
WMAIN-7320(2)(1)	035-018	035-017	6	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7320(2)(2)	035-017	J-8369	6	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7322(1)	J-6056	036-025	6	140	0.14	0.29	0.4	0.6	0.22	0.5
WMAIN-7322(2)	036-025	J-7008	6	140	0.14	0.28	0.4	0.6	0.21	0.5
WMAIN-7323(1)	J-7058	036-027	6	140	0.04	0.16	0.2	0.4	0.15	0.4
WMAIN-7323(2)	036-027	J-8493	6	140	0.06	0.18	0.3	0.5	0.18	0.5
WMAIN-7325	J-8003	J-7350	6	140	0	0.05	0	0.2	0	0
WMAIN-7326	J-5423	J-6370	4	140	0.02	0.07	0.1	0.2	0.07	0.2
WMAIN-7327	J-6370	J-6371	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7329(1)	J-5435	028-012	6	140	0	0.15	0	0.4	0.08	0.3
WMAIN-7329(2)	028-012	J-7763	6	140	0	0.15	0	0.4	0.08	0.3
WMAIN-7330	J-6706	J-5172	4	140	0	0.33	0	0.5	0.19	0.4
WMAIN-7332(1)	J-6290	037-045	8	152.5	0	0	0	0	0	0
WMAIN-7332(2)	037-045	J-8666	8	152.5	0	0	0	0	0	0
WMAIN-7335(1)(1)	J-8188	037-037	6	140	0	0.18	0	0.5	0.06	0.3
WMAIN-7335(1)(2)	037-037	037-038	6	140	0	0.22	0	0.5	0.03	0.2
WMAIN-7335(2)	037-038	J-7705	6	140	0	0.22	0	0.5	0.03	0.2
WMAIN-7339(1)	J-5225	044-024	8	140	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-7339(2)	044-024	J-7114	8	140	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-7341	J-6611	J-6411	8	140	0	0.09	0	0.4	0.07	0.3
WMAIN-7343(1)	J-6838	043-040	6	140	0.12	0.3	0.4	0.6	0.27	0.6
WMAIN-7343(2)	043-040	J-7000	6	140	0.12	0.29	0.4	0.6	0.26	0.6
WMAIN-7345(1)	J-5848	043-039	8	140	0.41	1	0.9	1.4	0.86	1.3
WMAIN-7345(2)	043-039	J-6837	8	140	0.41	1	0.9	1.4	0.85	1.3
WMAIN-7347(1)	J-8490	043-037	8	140	0.05	0.13	0.3	0.5	0.11	0.4
WMAIN-7347(2)	043-037	J-7912	8	140	0.05	0.12	0.3	0.5	0.09	0.4
WMAIN-7350(1)	J-8819	043-043	8	140	0	0	0	0	0	0
WMAIN-7350(2)	043-043	J-7969	8	140	0	0	0	0.1	0	0.1
WMAIN-7352(1)	J-6890	043-030	8	140	0.03	0.53	0.2	1	0.53	1
WMAIN-7352(2)	043-030	J-7825	8	140	0.03	0.52	0.2	1	0.52	1
WMAIN-7354(1)(1)	J-6536	043-023	6	140	0.28	3.01	0.6	2.2	3.01	2.2
WMAIN-7354(1)(2)	043-023	043-022	6	140	0.28	3	0.6	2.2	3	2.2
WMAIN-7354(2)	043-022	J-6537	6	140	0.28	3	0.6	2.2	3	2.2
WMAIN-7356(1)	J-8358	043-024	6	140	0	0.31	0	0.6	0.31	0.6
WMAIN-7356(2)	043-024	J-8630	6	140	0	0.16	0	0.4	0.15	0.4
WMAIN-7359(1)	J-6773	043-027	6	140	0.06	0.29	0.3	0.6	0.29	0.6
WMAIN-7359(2)	043-027	J-8604	6	140	0.07	0.33	0.3	0.7	0.33	0.7
WMAIN-7361	J-6772	J-6773	8	140	0.01	0.2	0.1	0.6	0.2	0.6
WMAIN-7363(1)	J-7164	043-035	8	140	0.42	1.14	0.9	1.5	1.14	1.5
WMAIN-7363(2)	043-035	J-7165	8	140	0.42	1.13	0.9	1.5	1.13	1.5
WMAIN-7364(1)	J-5506	043-029	8	140	0.07	0.86	0.3	1.3	0.86	1.3
WMAIN-7364(2)	043-029	J-5313	8	140	0.07	0.87	0.3	1.3	0.87	1.3
WMAIN-7367(1)	J-7021	043-010	6	140	0	0	0	0	0	0
WMAIN-7367(2)	043-010	J-7022	6	140	0	0	0	0	0	0
WMAIN-7369	J-6633	J-6634	8	140	0.01	0.41	0.1	0.9	0.41	0.9
WMAIN-7370	J-6536	J-8384	12	140	0.02	0.36	0.2	1.1	0.02	0.2
WMAIN-7372	J-5219	J-5447	12	152.5	0.07	0.28	0.5	1	0.22	0.9
WMAIN-7375(1)	J-8685	044-007	8	140	0	0.12	0	0.5	0.02	0.2
WMAIN-7375(2)	044-007	J-8292	8	140	0.01	0.15	0.1	0.5	0.04	0.2
WMAIN-7378(1)(1)	J-7266	053-002	6	140	0	0.01	0	0.1	0	0
WMAIN-7378(1)(2)	053-002	053-004	6	140	0	0.02	0	0.1	0	0.1
WMAIN-7378(2)	053-004	J-7497	6	140	0	0.02	0	0.1	0	0.1
WMAIN-7380(1)	J-7255	053-016	6	140	0	0.05	0	0.2	0.02	0.2

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7380(2)	053-016	J-7376	6	140	0.01	0.07	0.1	0.3	0.05	0.2
WMAIN-7383	J-6133	053-013	6	140	0	0.27	0	0.6	0.06	0.3
WMAIN-7384	J-5748	J-5781	8	140	0	0.08	0	0.4	0	0
WMAIN-7385(1)	J-5781	053-001	8	140	0	0.09	0.1	0.4	0	0.1
WMAIN-7385(2)	053-001	J-7266	8	140	0	0.09	0.1	0.4	0	0.1
WMAIN-7387(1)(1)	J-6471	053-009	8	140	0	0.08	0.1	0.4	0	0.1
WMAIN-7387(1)(2)	053-009	053-010	8	140	0.01	0.1	0.1	0.4	0.01	0.1
WMAIN-7387(2)	053-010	J-7219	8	140	0.01	0.1	0.1	0.4	0.01	0.1
WMAIN-7389	J-7562	J-7376	6	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-7391(1)	J-7341	053-021	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7391(2)(1)	053-021	J-9004	6	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-7391(2)(2)	J-9004	J-8628	6	140	0	0	0	0	0	0
WMAIN-7392(1)(1)	J-8627	J-9003	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7392(1)(2)	J-9003	053-020	6	140	0	0	0	0	0	0
WMAIN-7392(2)	053-020	J-7340	6	140	0	0	0	0	0	0
WMAIN-7395(1)	J-6369	053-022	8	140	0.24	0.77	0.7	1.2	0.77	1.2
WMAIN-7395(2)	053-022	J-6084	8	140	0.25	0.8	0.7	1.3	0.8	1.3
WMAIN-7397(1)	J-6085	053-042	6	140	0.06	0.19	0.3	0.5	0.19	0.5
WMAIN-7397(2)	053-042	J-8656	6	140	0.07	0.22	0.3	0.5	0.22	0.5
WMAIN-7399(1)	J-7108	042-045	6	140	0.03	0.16	0.2	0.4	0.14	0.4
WMAIN-7399(2)	042-045	J-6928	6	140	0.04	0.19	0.2	0.5	0.17	0.5
WMAIN-7402(1)	J-7671	042-046	6	140	0.01	0.08	0.1	0.3	0.07	0.3
WMAIN-7402(2)	042-046	J-7657	6	140	0.02	0.11	0.1	0.4	0.1	0.4
WMAIN-7405(1)	J-7672	042-031	6	140	0.01	0.08	0.1	0.3	0.08	0.3
WMAIN-7405(2)	042-031	J-5840	6	140	0.02	0.11	0.1	0.4	0.11	0.4
WMAIN-7408(1)(1)	J-8463	055-036	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-7408(1)(2)	055-036	055-037	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-7408(2)	055-037	J-6476	8	152.5	0.02	0.1	0.2	0.5	0.1	0.5
WMAIN-7411	J-6076	J-6928	8	140	0.11	0.65	0.4	1.1	0.65	1.1
WMAIN-7413	J-5496	J-5560	6	140	0	0.02	0	0.1	0	0
WMAIN-7416(1)	J-7558	042-017	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7416(2)	042-017	J-5496	6	140	0	0.01	0	0.1	0	0
WMAIN-7418(1)	J-7427	042-016	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-7418(2)	042-016	J-7558	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-7420(1)	J-6542	042-013	8	140	0.16	1.39	0.5	1.7	1.39	1.7
WMAIN-7420(2)	042-013	J-6543	8	140	0.16	1.38	0.5	1.7	1.38	1.7
WMAIN-7423(1)	J-8366	042-018	6	140	0.1	0.49	0.3	0.8	0.49	0.8
WMAIN-7423(2)	042-018	J-7428	6	140	0.08	0.41	0.3	0.7	0.41	0.7
WMAIN-7424	J-7551	J-7552	6	140	0	0	0	0	0	0
WMAIN-7426(1)	J-6981	042-026	6	140	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7426(2)	042-026	J-7956	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-7430(1)	J-6980	042-027	8	140	0	0.18	0.1	0.6	0.18	0.6
WMAIN-7430(2)	042-027	J-6981	8	140	0	0.17	0.1	0.6	0.17	0.6
WMAIN-7432(1)	J-5372	042-022	8	140	0.02	0.22	0.2	0.6	0.16	0.5
WMAIN-7432(2)	042-022	J-6735	8	140	0.02	0.21	0.2	0.6	0.14	0.5
WMAIN-7435(1)(1)	J-5476	026-007	8	152.5	0.04	0.33	0.3	0.9	0.33	0.9
WMAIN-7435(1)(2)	026-007	026-008	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-7435(2)(1)	026-008	026-009	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-7435(2)(2)(1)	026-009	026-020	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-7435(2)(2)(2)(1)	026-020	026-021	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-7435(2)(2)(2)(2)	026-021	J-8758	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-7438(1)	J-8007	023-006	8	152.5	0.02	0.08	0.2	0.4	0.04	0.3
WMAIN-7438(2)	023-006	J-6953	8	152.5	0.02	0.08	0.2	0.4	0.04	0.3
WMAIN-7441(1)(1)	J-8301	023-039	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7441(1)(2)	023-039	023-040	8	152.5	0	0	0	0	0	0
WMAIN-7441(2)	023-040	J-8772	8	152.5	0	0	0	0	0	0
WMAIN-7443(1)	J-7698	023-019	6	140	0	0.13	0	0.4	0.04	0.2
WMAIN-7443(2)	023-019	J-7697	6	140	0	0.16	0	0.4	0.07	0.3
WMAIN-7446(1)	J-7489	023-020	6	140	0	0.14	0	0.4	0.05	0.2
WMAIN-7446(2)	023-020	J-7696	6	140	0	0.17	0	0.5	0.07	0.3
WMAIN-7448	J-5106	J-5107	8	152.5	0	0	0	0	0	0
WMAIN-7449	J-5446	J-5447	12	152.5	0	0	0	0	0	0
WMAIN-7450(1)	J-8575	013-031	16	140	0	0.11	0.1	0.7	0.11	0.7
WMAIN-7450(2)(1)	013-031	013-030	16	140	0	0.11	0.1	0.7	0.11	0.7
WMAIN-7450(2)(2)	013-030	J-8576	16	140	0	0.11	0.1	0.7	0.11	0.7
WMAIN-7451	J-5389	J-5390	8	140	0.49	1.42	1	1.7	1.42	1.7
WMAIN-7454(1)(1)	J-6102	022-034	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-7454(1)(2)	022-034	022-044	6	140	0	0.02	0	0.1	0	0
WMAIN-7454(2)	022-044	J-7690	6	140	0	0.02	0	0.1	0	0
WMAIN-7457(1)	J-8309	013-019	8	140	0	0	0	0.1	0	0.1
WMAIN-7457(2)	013-019	J-8310	8	140	0	0	0	0	0	0
WMAIN-7458	J-5168	J-5169	6	152.5	0	0	0	0	0	0
WMAIN-7459(1)(1)	J-6208	168-006	12	152.5	0.1	0.48	0.6	1.3	0.48	1.3
WMAIN-7459(1)(2)	168-006	J-7979	12	152.5	0.1	0.48	0.6	1.3	0.48	1.3
WMAIN-7459(2)(1)	J-7979	168-007	12	152.5	0.07	0.37	0.5	1.2	0.37	1.2
WMAIN-7459(2)(2)	168-007	J-8762	12	152.5	0.07	0.37	0.5	1.2	0.37	1.2
WMAIN-7460	167-040	J-6972	12	152.5	0.32	1.11	1.1	2.1	1.11	2.1
WMAIN-7461	J-5565	J-5564	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7462	J-5563	J-5564	12	152.5	0	0	0	0	0	0
WMAIN-7463	J-8059	J-6208	8	152.5	0.02	0.1	0.2	0.4	0.07	0.4
WMAIN-7464(1)	168-051	168-050	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7464(2)	168-050	J-7712	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7465(1)	J-7712	168-055	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7465(2)	168-055	J-7630	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7466(1)	J-7630	168-054	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7466(2)	168-054	J-7631	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7467(1)	J-7631	168-053	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-7467(2)	168-053	J-7713	8	152.5	0	0.01	0	0.1	0	0
WMAIN-7468(1)	J-7713	168-052	8	152.5	0.03	0.1	0.2	0.5	0.08	0.4
WMAIN-7468(2)	168-052	J-8059	8	152.5	0.02	0.1	0.2	0.4	0.07	0.4
WMAIN-7469	J-7712	J-7713	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-7470	J-6277	J-7712	8	152.5	0.05	0.23	0.3	0.7	0.1	0.5
WMAIN-7471	J-6276	J-6277	8	152.5	0.06	0.16	0.3	0.6	0.14	0.5
WMAIN-7472(1)	J-8768	J-5706	12	152.5	0.2	0.63	0.8	1.6	0.51	1.4
WMAIN-7472(2)(1)(1)	J-5706	168-071	12	152.5	0.33	1.08	1.1	2.1	1.08	2.1
WMAIN-7472(2)(1)(2)	168-071	168-049	12	152.5	0.33	1.07	1.1	2.1	1.07	2.1
WMAIN-7472(2)(2)	168-049	J-6277	12	152.5	0.33	1.07	1.1	2.1	1.07	2.1
WMAIN-7473	J-6277	168-048	12	152.5	0.19	0.68	0.8	1.6	0.68	1.6
WMAIN-7474	168-048	J-6193	12	152.5	0.18	0.66	0.8	1.6	0.66	1.6
WMAIN-7476(1)	J-8296	180-015	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-7476(2)	180-015	J-8561	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-7477(1)	J-8615	180-021	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7477(2)	180-021	J-6303	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7478(1)	J-8735	180-018	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7478(2)	180-018	J-7149	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7479(1)(1)	J-8134	125-155	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7479(1)(2)	125-155	125-125	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7479(2)	125-125	J-8137	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7480(1)(1)(1)	J-8134	125-126	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7480(1)(1)(2)	125-126	125-127	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-7480(1)(2)	125-127	125-128	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-7480(2)	125-128	J-7935	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7481(1)	J-8695	125-121	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7481(2)	125-121	J-7476	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7482(1)	J-7087	033-019	8	152.5	0.02	0.39	0.2	0.9	0.39	0.9
WMAIN-7482(2)	033-019	J-7088	8	152.5	0.02	0.4	0.2	0.9	0.4	0.9
WMAIN-7483(1)	J-7078	033-020	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-7483(2)	033-020	J-7079	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-7484	J-7609	J-7087	8	152.5	0	0	0	0	0	0
WMAIN-7485	J-7087	J-7078	8	152.5	0.02	0.36	0.2	0.9	0.36	0.9
WMAIN-7486	J-7078	J-7063	8	152.5	0.03	0.5	0.2	1.1	0.5	1.1
WMAIN-7487(1)	J-7063	033-021	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7487(2)	033-021	J-8450	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7488	J-7063	033-022	8	152.5	0	0.01	0	0.1	0	0
WMAIN-7490(1)	J-8420	171-087	8	152.5	0	0	0	0	0	0
WMAIN-7490(2)	171-087	J-6844	8	152.5	0	0	0	0	0	0
WMAIN-7491	J-6844	J-6986	8	152.5	0	0	0	0	0	0
WMAIN-7492(1)	J-6844	171-086	8	152.5	0	0	0	0	0	0
WMAIN-7492(2)	171-086	J-8318	8	152.5	0	0	0	0	0	0
WMAIN-7493	J-6003	J-6844	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7494(1)	125-156	125-120	8	152.5	0	0	0	0	0	0
WMAIN-7494(2)	125-120	J-7476	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7495(1)	J-8049	125-118	8	152.5	0	0	0	0	0	0
WMAIN-7495(2)(1)	125-118	125-119	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7495(2)(2)	125-119	J-7476	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7496(1)	J-7475	125-123	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7496(2)(1)	125-123	125-122	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7496(2)(2)	125-122	J-8049	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7498	J-8133	J-7475	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7499(1)	J-8280	126-060	8	152.5	0	0	0	0	0	0
WMAIN-7499(2)	126-060	J-8261	8	152.5	0	0	0	0	0	0
WMAIN-7500(1)	J-8261	126-059	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7500(2)	126-059	J-8086	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7501(1)	J-8432	126-061	8	152.5	0	0	0	0	0	0
WMAIN-7501(2)	126-061	J-8261	8	152.5	0	0	0	0	0	0
WMAIN-7502(1)	J-6684	180-020	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-7502(2)	180-020	J-8103	8	152.5	0.03	0.07	0.3	0.4	0.07	0.4
WMAIN-7503(1)	J-8735	180-019	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-7503(2)	180-019	J-6684	8	152.5	0.03	0.05	0.2	0.3	0.05	0.3
WMAIN-7504	J-7149	J-6303	8	152.5	0.07	0.13	0.4	0.5	0.13	0.5
WMAIN-7505	J-8103	J-8615	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7506(1)(1)	J-7896	170-023	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-7506(1)(2)(1)	170-023	180-016	8	152.5	0	0.09	0	0.4	0.05	0.3
WMAIN-7506(1)(2)(2)	180-016	180-008	8	152.5	0	0.09	0	0.4	0.05	0.3
WMAIN-7506(2)	180-008	J-8297	8	152.5	0	0.09	0	0.4	0.05	0.3
WMAIN-7507(1)	J-7283	180-012	8	152.5	0.01	0.09	0.2	0.4	0.09	0.4
WMAIN-7507(2)	180-012	J-8561	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7509(1)	J-6195	167-073	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-7509(2)	167-073	J-8048	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7510(1)	J-5264	167-063	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7510(2)	167-063	J-8048	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-7511(1)	J-8486	167-074	8	152.5	0	0	0	0	0	0
WMAIN-7511(2)	167-074	J-7367	8	152.5	0	0	0	0	0	0
WMAIN-7512	J-8048	J-7367	8	152.5	0.07	0.29	0.4	0.8	0.29	0.8
WMAIN-7513	J-7367	J-7368	8	152.5	0.06	0.25	0.3	0.7	0.25	0.7
WMAIN-7514	J-7475	J-7476	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7515	J-8049	J-7955	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7516	J-8133	J-8134	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7518	J-8248	J-6263	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7519	J-6263	J-6264	12	152.5	0	0	0	0	0	0
WMAIN-7520	J-6684	J-6685	8	152.5	0	0	0	0	0	0
WMAIN-7521	180-017	J-7149	8	152.5	0	0	0	0	0	0
WMAIN-7522(1)	J-7149	180-006	8	152.5	0.1	0.21	0.4	0.7	0.21	0.7
WMAIN-7522(2)	180-006	J-7991	8	152.5	0.09	0.21	0.4	0.7	0.21	0.7
WMAIN-7523	J-6303	J-6304	8	152.5	0.26	0.49	0.8	1.1	0.49	1.1
WMAIN-7524(1)	J-8103	180-022	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-7524(2)	180-022	J-6303	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-7525	J-6525	J-6263	8	152.5	0	0	0	0	0	0
WMAIN-7526(1)(1)	J-6189	180-013	8	152.5	0	0.09	0	0.4	0.09	0.4
WMAIN-7526(1)(2)	180-013	180-014	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-7526(2)	180-014	J-6263	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-7528	J-5959	J-5960	8	152.5	0	0	0	0	0	0
WMAIN-7529	J-5961	J-5962	8	152.5	0.13	0.52	0.5	1.1	0.52	1.1
WMAIN-7530	J-5771	J-5772	8	152.5	0	0	0	0	0	0
WMAIN-7531	J-5773	J-5771	8	152.5	0	0	0	0	0	0
WMAIN-7532	J-6490	168-037	8	152.5	0.01	0.52	0.1	1.1	0.03	0.2
WMAIN-7533	J-5445	J-5767	8	152.5	0.01	0.52	0.1	1.1	0.03	0.2
WMAIN-7534	169-042	J-5444	8	152.5	0.01	0.52	0.1	1.1	0.03	0.2
WMAIN-7535	J-5444	J-5445	8	152.5	0.01	0.52	0.1	1.1	0.03	0.2
WMAIN-7536(1)	168-096	169-018	12	152.5	0	0.06	0	0.5	0.05	0.4
WMAIN-7536(2)	169-018	J-6490	12	152.5	0	0.06	0	0.4	0.05	0.4
WMAIN-7537	J-5699	J-5700	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7538	J-5700	168-095	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7539(1)	168-095	169-017	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7539(2)	169-017	J-5635	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7540	J-5635	J-5409	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7541	J-5409	J-5410	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7542	J-5410	168-096	12	152.5	0	0.06	0	0.5	0.04	0.4
WMAIN-7543	J-7980	J-5901	8	152.5	0.02	0.08	0.2	0.4	0.05	0.3
WMAIN-7544	J-5902	J-6223	8	152.5	0.05	0.19	0.3	0.6	0.19	0.6
WMAIN-7545	J-6459	J-6460	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7546	J-7600	J-6223	8	152.5	0.03	0.1	0.2	0.5	0.1	0.5
WMAIN-7547	168-051	J-5901	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7548(1)	J-5902	168-061	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7548(2)	168-061	J-6459	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7549(1)(1)	J-7980	168-058	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7549(1)(2)	168-058	168-059	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-7549(2)	168-059	J-7940	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-7550(1)	J-6459	168-062	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7550(2)	168-062	J-7600	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7551	J-7940	J-6459	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7552(1)	J-6223	168-064	8	152.5	0.13	0.54	0.5	1.1	0.54	1.1
WMAIN-7552(2)	168-064	J-6224	8	152.5	0.13	0.54	0.5	1.1	0.54	1.1
WMAIN-7553	J-5901	J-5902	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-7554	J-7979	J-7980	8	152.5	0.03	0.16	0.2	0.6	0.09	0.4
WMAIN-7555(1)	J-6485	180-063	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-7555(2)	180-063	J-6446	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-7556(1)	J-6446	180-047	8	152.5	0	0.25	0.1	0.7	0.23	0.7
WMAIN-7556(2)	180-047	J-7835	8	152.5	0	0.26	0.1	0.8	0.24	0.7
WMAIN-7557	J-7191	J-8032	8	152.5	0	0	0	0	0	0
WMAIN-7558	J-7190	J-7191	8	152.5	0	0.09	0	0.4	0.08	0.4
WMAIN-7559	J-6080	J-6081	8	152.5	0	0	0	0	0	0
WMAIN-7560(1)	J-8755	180-027	8	152.5	0	0.06	0	0.3	0.05	0.3
WMAIN-7560(2)	180-027	J-8032	8	152.5	0	0.04	0	0.3	0.04	0.3

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7561(1)	J-8032	180-028	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7561(2)	180-028	J-8033	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7562(1)	J-8033	180-038	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7562(2)	180-038	J-8038	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7563(1)	J-8038	180-037	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-7563(2)	180-037	J-7190	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7564	J-6445	J-6446	8	152.5	0	0.08	0	0.4	0.01	0.1
WMAIN-7565(1)	J-8201	180-026	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-7565(2)	180-026	J-8755	8	152.5	0	0.07	0	0.4	0.07	0.4
WMAIN-7566(1)	J-7191	180-036	8	152.5	0	0.09	0	0.4	0.08	0.4
WMAIN-7566(2)	180-036	J-6498	8	152.5	0	0.1	0	0.5	0.09	0.4
WMAIN-7567	J-7297	J-6498	8	152.5	0	0	0	0	0	0
WMAIN-7568	J-6498	J-6081	8	152.5	0	0.11	0	0.5	0.1	0.5
WMAIN-7569(1)	J-6081	180-035	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-7569(2)	180-035	J-8201	8	152.5	0	0.13	0	0.5	0.12	0.5
WMAIN-7570	J-5949	J-5950	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7571(1)	J-5945	J-9272	8	152.5	0	0	0	0	0	0
WMAIN-7571(2)	J-9272	J-5946	8	152.5	0	0	0	0	0	0
WMAIN-7572(1)	J-8056	125-135	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-7572(2)	125-135	J-8057	8	152.5	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7573	J-6169	J-8056	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7574(1)	125-137	125-136	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7574(2)	125-136	J-8056	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7575(1)	J-6169	125-129	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7575(2)	125-129	125-137	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7576(1)	J-6168	125-130	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7576(2)	125-130	J-6169	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-7577(1)	J-7802	125-131	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7577(2)	125-131	J-6168	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7578	J-8145	J-7802	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7579(1)	J-8574	125-132	8	152.5	0	0	0	0	0	0
WMAIN-7579(2)	125-132	J-7802	8	152.5	0	0	0	0	0	0
WMAIN-7580(1)	J-8145	125-133	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7580(2)	125-133	J-8574	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7581(1)	J-7959	125-134	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7581(2)	125-134	J-8145	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7583(1)	J-8057	125-139	12	152.5	0.06	0.25	0.5	0.9	0.25	0.9
WMAIN-7583(2)	125-139	J-8738	12	152.5	0.07	0.25	0.5	1	0.25	1
WMAIN-7584(1)	J-7959	125-141	12	152.5	0.04	0.14	0.3	0.7	0.14	0.7
WMAIN-7584(2)	125-141	J-8057	12	152.5	0.04	0.14	0.3	0.7	0.14	0.7
WMAIN-7585(1)	J-7745	125-143	12	152.5	0.02	0.09	0.3	0.6	0.09	0.6
WMAIN-7585(2)	125-143	J-7959	12	152.5	0.02	0.09	0.3	0.6	0.09	0.6
WMAIN-7586(1)	125-142	125-140	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-7586(2)	125-140	J-8738	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-7587(1)	J-7745	125-144	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7587(2)	125-144	125-142	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-7588	168-094	J-6343	12	152.5	0.12	0.44	0.6	1.3	0.44	1.3
WMAIN-7589	J-5284	168-094	12	152.5	0.12	0.44	0.6	1.3	0.44	1.3
WMAIN-7590(1)	J-6343	168-090	12	152.5	0.1	0.41	0.6	1.2	0.41	1.2
WMAIN-7590(2)	168-090	J-6344	12	152.5	0.1	0.41	0.6	1.2	0.41	1.2
WMAIN-7591	J-6215	J-6216	8	152.5	0	0	0	0	0	0
WMAIN-7592(1)	J-6215	168-093	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-7592(2)	168-093	J-7774	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-7593	J-6217	J-6218	8	152.5	0	0	0	0	0	0
WMAIN-7594(1)	J-7774	168-078	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-7594(2)	168-078	J-6218	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-7595(1)	J-7971	168-091	8	152.5	0.01	0.06	0.1	0.3	0.01	0.1
WMAIN-7595(2)	168-091	J-6343	8	152.5	0.01	0.06	0.1	0.3	0.01	0.1
WMAIN-7596(1)	J-7971	168-092	8	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7596(2)	168-092	J-6215	8	152.5	0	0.01	0.1	0.2	0	0.1
WMAIN-7597(1)	J-8436	168-085	8	152.5	0.01	0.03	0.1	0.2	0.01	0.1
WMAIN-7597(2)	168-085	J-7971	8	152.5	0.01	0.03	0.1	0.2	0.01	0.1
WMAIN-7598	J-8436	J-7774	8	152.5	0	0	0	0	0	0
WMAIN-7599(1)	J-6971	168-072	8	152.5	0.01	0.04	0.2	0.3	0.03	0.3
WMAIN-7599(2)	168-072	J-8436	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-7600(1)	J-6218	168-076	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7600(2)	168-076	J-6253	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7601	J-6253	J-6254	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-7602(1)	J-6254	168-074	8	152.5	0	0	0	0	0	0
WMAIN-7602(2)	168-074	J-7557	8	152.5	0	0	0	0	0	0
WMAIN-7603	J-6254	J-6971	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7604(1)	J-6971	168-073	8	152.5	0.05	0.15	0.3	0.6	0.14	0.5
WMAIN-7604(2)	168-073	J-6276	8	152.5	0.06	0.16	0.3	0.6	0.14	0.5
WMAIN-7606(1)	168-077	168-075	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-7606(2)	168-075	J-6192	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-7607	J-5286	168-077	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-7608(1)	J-6835	125-152	8	152.5	0	0	0	0	0	0
WMAIN-7608(2)	125-152	J-8701	8	152.5	0	0	0	0	0	0
WMAIN-7609(1)	J-6834	125-153	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7609(2)	125-153	J-6835	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7610(1)	J-8701	125-151	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7610(2)	125-151	125-148	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7611	J-6158	J-6159	8	152.5	0	0	0	0	0	0
WMAIN-7612	J-5404	J-7745	12	152.5	0.04	0.14	0.3	0.7	0.14	0.7
WMAIN-7613(1)	J-7474	125-149	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7613(2)(1)	125-149	125-147	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7613(2)(2)	125-147	J-5405	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7614(1)	J-8133	125-124	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7614(2)	125-124	J-7474	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7615	J-7474	J-6834	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7617	J-6293	J-6294	8	152.5	0.01	0.16	0.1	0.6	0.16	0.6
WMAIN-7618(1)	J-7291	169-105	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-7618(2)	169-105	J-6293	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-7619	J-7291	J-7910	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7620(1)	J-5639	169-106	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7620(2)	169-106	J-7910	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7621	J-5638	J-5639	8	152.5	0	0	0	0	0	0
WMAIN-7622(1)	J-7132	169-107	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7622(2)	169-107	J-5639	8	152.5	0	0.03	0	0.3	0.03	0.3
WMAIN-7623(1)	J-7131	169-108	8	152.5	0	0	0	0	0	0
WMAIN-7623(2)	169-108	J-7132	8	152.5	0	0	0	0	0	0
WMAIN-7624	J-7834	J-7132	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7625(1)	J-7841	169-109	8	152.5	0	0.03	0	0.3	0.03	0.3
WMAIN-7625(2)	169-109	J-7834	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7626(1)	J-6293	169-104	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-7626(2)	169-104	J-6770	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7627	J-6770	J-6771	8	152.5	0	0.16	0	0.6	0.16	0.6
WMAIN-7628(1)	J-6771	169-103	8	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7628(2)	169-103	J-7834	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7629(1)	J-5697	169-101	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-7629(2)	169-101	J-6770	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-7630	J-5852	J-6771	8	152.5	0	0.08	0	0.4	0.08	0.4

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7631	J-5851	J-5852	8	152.5	0	0	0	0	0	0
WMAIN-7632	J-5852	J-7841	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7633(1)	J-7845	168-082	12	152.5	0	0.07	0	0.5	0.01	0.1
WMAIN-7633(2)	168-082	J-6878	12	152.5	0	0.07	0	0.5	0.01	0.1
WMAIN-7634(1)	169-110	169-102	12	152.5	0.01	0.09	0.1	0.6	0.09	0.6
WMAIN-7634(2)	169-102	J-6878	12	152.5	0.01	0.09	0.1	0.6	0.09	0.6
WMAIN-7635	J-6878	J-5852	8	152.5	0	0.17	0	0.6	0.17	0.6
WMAIN-7636(1)(1)	J-6878	169-100	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7636(1)(2)	169-100	168-066	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7636(2)	168-066	J-8710	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7637(1)	J-8710	168-065	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7637(2)	168-065	J-6044	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7638(1)	J-6045	168-060	12	152.5	0	0.05	0	0.4	0.05	0.4
WMAIN-7638(2)	168-060	J-6048	12	152.5	0	0.05	0	0.4	0.05	0.4
WMAIN-7639	J-6048	J-6049	12	152.5	0	0.05	0	0.4	0.05	0.4
WMAIN-7640	J-5736	J-6130	12	152.5	0.18	0.4	0.8	1.2	0.4	1.2
WMAIN-7641	J-5735	J-5736	16	152.5	0	0	0	0	0	0
WMAIN-7642	J-5909	J-5736	12	152.5	0.18	0.4	0.8	1.2	0.4	1.2
WMAIN-7643	J-6766	J-6767	8	152.5	0	0	0	0	0	0
WMAIN-7644(1)	J-8529	081-007	8	152.5	0	0	0	0	0	0
WMAIN-7644(2)	081-007	J-8197	8	152.5	0	0	0	0	0	0
WMAIN-7645	J-7431	J-7262	8	152.5	0.13	0.27	0.5	0.8	0.27	0.8
WMAIN-7646(1)	J-7540	081-008	8	152.5	0	0	0	0	0	0
WMAIN-7646(2)	081-008	J-7431	8	152.5	0	0	0	0	0	0
WMAIN-7647	J-7767	J-7431	8	152.5	0.12	0.24	0.5	0.7	0.24	0.7
WMAIN-7648	J-7767	J-7060	8	152.5	0.18	0.35	0.6	0.9	0.35	0.9
WMAIN-7649(1)	J-6292	081-016	8	152.5	0.52	1	1.1	1.6	1	1.6
WMAIN-7649(2)(1)	081-016	081-015	8	152.5	0.53	1.03	1.1	1.6	1.03	1.6
WMAIN-7649(2)(2)	081-015	J-7767	8	152.5	0.53	1.03	1.1	1.6	1.03	1.6
WMAIN-7650(1)	J-6767	081-017	8	152.5	0.51	0.94	1.1	1.5	0.94	1.5
WMAIN-7650(2)	081-017	J-6292	8	152.5	0.51	0.95	1.1	1.5	0.95	1.5
WMAIN-7651	J-8088	J-6767	8	152.5	0.49	0.91	1.1	1.5	0.91	1.5
WMAIN-7652	J-6291	J-6292	8	152.5	0	0	0	0	0	0
WMAIN-7653(1)	J-6292	081-006	8	152.5	0	0	0	0	0	0
WMAIN-7653(2)	081-006	J-8198	8	152.5	0	0	0	0.1	0	0
WMAIN-7654	J-7263	J-6795	8	152.5	0.16	0.33	0.6	0.9	0.33	0.9
WMAIN-7655	J-7195	J-5909	8	152.5	0.27	0.62	0.8	1.2	0.62	1.2
WMAIN-7656(1)(1)	J-5909	081-004	8	152.5	0.44	0.94	1	1.5	0.94	1.5
WMAIN-7656(1)(2)	081-004	081-009	8	152.5	0.4	0.84	1	1.4	0.84	1.4
WMAIN-7656(2)	081-009	J-7262	8	152.5	0.4	0.84	1	1.4	0.84	1.4
WMAIN-7657	J-7262	J-7263	8	152.5	0.09	0.19	0.4	0.6	0.19	0.6
WMAIN-7658(1)(1)	J-7263	081-003	8	152.5	0.44	0.89	1	1.5	0.89	1.5
WMAIN-7658(1)(2)	081-003	081-002	8	152.5	0.44	0.87	1	1.4	0.87	1.4
WMAIN-7658(2)	081-002	J-8197	8	152.5	0.44	0.87	1	1.4	0.87	1.4
WMAIN-7659	J-8197	J-8198	8	152.5	0.41	0.8	1	1.4	0.8	1.4
WMAIN-7660(1)	J-8198	081-001	8	152.5	0.36	0.72	0.9	1.3	0.72	1.3
WMAIN-7660(2)	081-001	J-8661	8	152.5	0.35	0.7	0.9	1.3	0.7	1.3
WMAIN-7661(1)	J-8035	180-024	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-7661(2)(1)	180-024	180-023	8	152.5	0.01	0.11	0.2	0.5	0.11	0.5
WMAIN-7661(2)(2)	180-023	J-8239	8	152.5	0.01	0.11	0.2	0.5	0.11	0.5
WMAIN-7662(1)	J-8034	180-025	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-7662(2)	180-025	J-8035	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-7663	J-7162	J-7163	8	152.5	0	0	0	0	0	0
WMAIN-7664(1)	J-7163	180-043	8	152.5	0.03	0.21	0.2	0.7	0.21	0.7
WMAIN-7664(2)	180-043	J-6715	8	152.5	0.03	0.21	0.2	0.7	0.21	0.7
WMAIN-7665	J-6714	J-6715	8	152.5	0	0	0	0	0	0
WMAIN-7666(1)	J-8102	180-034	8	152.5	0.02	0.17	0.2	0.6	0.17	0.6
WMAIN-7666(2)	180-034	J-8034	8	152.5	0.02	0.15	0.2	0.6	0.15	0.6
WMAIN-7667(1)	J-8035	180-032	8	152.5	0	0	0	0	0	0
WMAIN-7667(2)	180-032	J-8451	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7668(1)	J-8451	180-033	8	152.5	0.04	0.33	0.3	0.9	0.33	0.9
WMAIN-7668(2)	180-033	J-8102	8	152.5	0.05	0.34	0.3	0.9	0.34	0.9
WMAIN-7669(1)	J-7119	180-031	8	152.5	0.03	0.26	0.2	0.8	0.26	0.8
WMAIN-7669(2)	180-031	J-8451	8	152.5	0.03	0.27	0.3	0.8	0.27	0.8
WMAIN-7670(1)	J-6126	180-030	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-7670(2)	180-030	J-7119	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-7671	J-6126	J-6127	8	152.5	0	0	0	0	0	0
WMAIN-7672	J-8239	J-6126	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-7673	J-5326	J-5327	6	152.5	0	0	0	0	0	0
WMAIN-7674	J-6715	J-6901	8	152.5	0.02	0.2	0.2	0.7	0.2	0.7
WMAIN-7675	J-6901	J-7119	8	152.5	0.06	0.54	0.3	1.1	0.54	1.1
WMAIN-7676(1)	J-8041	180-010	12	152.5	0	0.48	0	1.4	0.35	1.1
WMAIN-7676(2)	180-010	J-8248	12	152.5	0	0.48	0	1.4	0.34	1.1
WMAIN-7677	J-8041	J-6445	8	152.5	0	0.09	0	0.4	0.01	0.1
WMAIN-7678(1)	J-8041	180-046	12	152.5	0	0.4	0	1.2	0.33	1.1
WMAIN-7678(2)	180-046	J-8042	12	152.5	0	0.4	0	1.2	0.33	1.1
WMAIN-7679	J-8042	J-7190	8	152.5	0	0.15	0	0.6	0.12	0.5
WMAIN-7680(1)	J-8042	180-045	12	152.5	0	0.27	0	1	0.23	0.9
WMAIN-7680(2)	180-045	J-7836	12	152.5	0	0.27	0	1	0.23	0.9
WMAIN-7681	J-7836	J-8201	8	152.5	0	0.09	0	0.4	0.08	0.4
WMAIN-7682(1)	J-7835	180-048	8	152.5	0.01	0.27	0.1	0.8	0.25	0.7
WMAIN-7682(2)	180-048	J-7836	8	152.5	0.01	0.27	0.1	0.8	0.26	0.7
WMAIN-7683	J-7583	J-8102	8	152.5	0.13	0.93	0.5	1.5	0.93	1.5
WMAIN-7684(1)	J-7573	180-050	8	152.5	0.06	0.45	0.3	1	0.45	1
WMAIN-7684(2)	180-050	J-7574	8	152.5	0.06	0.45	0.3	1	0.45	1
WMAIN-7685(1)	J-7574	180-051	8	152.5	0.03	0.25	0.3	0.7	0.25	0.7
WMAIN-7685(2)	180-051	J-7163	8	152.5	0.03	0.23	0.2	0.7	0.23	0.7
WMAIN-7686(1)	J-7137	180-060	8	152.5	0.16	0.67	0.6	1.3	0.67	1.3
WMAIN-7686(2)(1)	180-060	180-059	8	152.5	0.16	0.66	0.6	1.2	0.66	1.2
WMAIN-7686(2)(2)	180-059	J-8216	8	152.5	0.16	0.66	0.6	1.2	0.66	1.2
WMAIN-7687(1)	J-7137	180-061	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7687(2)	180-061	J-7840	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7688(1)	J-7136	J-5326	8	152.5	0.13	0.59	0.5	1.2	0.59	1.2
WMAIN-7688(2)	J-5326	J-7137	8	152.5	0.13	0.59	0.5	1.2	0.59	1.2
WMAIN-7689	J-7136	J-6458	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-7690(1)	J-7303	180-049	8	152.5	0.09	0.77	0.4	1.4	0.77	1.4
WMAIN-7690(2)	180-049	J-7136	8	152.5	0.09	0.77	0.4	1.4	0.77	1.4
WMAIN-7691	J-7836	J-7303	12	152.5	0	0.36	0	1.2	0.31	1.1
WMAIN-7692	J-7302	J-7303	12	152.5	0	0.77	0	1.8	0.72	1.7
WMAIN-7693(1)	J-8201	180-039	8	152.5	0	0.81	0	1.4	0.74	1.3
WMAIN-7693(2)	180-039	J-7302	8	152.5	0	0.81	0	1.4	0.75	1.3
WMAIN-7694(1)	J-7583	180-044	12	152.5	0.32	2.37	1.1	3.2	2.37	3.2
WMAIN-7694(2)(1)	180-044	J-9218	12	152.5	0.32	2.37	1.1	3.2	2.37	3.2
WMAIN-7694(2)(2)	J-9218	J-7302	12	152.5	0	1.36	0	2.4	1.25	2.3
WMAIN-7695	J-7574	J-7583	8	152.5	0.17	1.29	0.6	1.8	1.29	1.8
WMAIN-7696	180-040	J-7583	12	152.5	0.1	0.76	0.6	1.7	0.76	1.7
WMAIN-7697(1)	J-6901	180-041	12	152.5	0.1	0.74	0.6	1.7	0.74	1.7
WMAIN-7697(2)	180-041	180-040	12	152.5	0.1	0.75	0.6	1.7	0.75	1.7
WMAIN-7698	J-8372	J-6901	12	152.5	0.19	1.48	0.8	2.5	1.48	2.5
WMAIN-7699(1)	180-052	180-042	12	152.5	0.04	0.1	0.3	0.6	0.1	0.6
WMAIN-7699(2)	180-042	J-8372	12	152.5	0.04	0.1	0.3	0.6	0.1	0.6
WMAIN-7700	180-029	J-8372	12	152.5	0	0.14	0	0.7	0.12	0.6

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7701	J-8662	180-029	12	152.5	0	0.14	0	0.7	0.12	0.6
WMAIN-7702	J-5404	J-5405	8	152.5	0.17	0.65	0.6	1.2	0.65	1.2
WMAIN-7703	J-5404	J-7935	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-7704(1)	J-7485	125-145	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-7704(2)	125-145	J-5405	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-7705(1)	125-148	125-146	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7705(2)	125-146	J-7485	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-7706	J-6158	125-148	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7707(1)	J-6834	125-150	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7707(2)	125-150	J-6158	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7708(1)	J-8695	125-154	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7708(2)	125-154	J-6834	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7709(1)	J-6559	041-047	8	152.5	0	0	0	0	0	0
WMAIN-7709(2)	041-047	J-6560	8	152.5	0	0	0	0	0	0
WMAIN-7710	J-8579	J-7234	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7711(1)	J-7399	041-039	8	152.5	0	0.13	0	0.5	0.11	0.5
WMAIN-7711(2)	041-039	J-7233	8	152.5	0	0.13	0	0.5	0.11	0.5
WMAIN-7712	J-7233	J-7234	8	152.5	0	0.13	0	0.5	0.12	0.5
WMAIN-7713(1)	J-7234	041-040	8	152.5	0	0.08	0	0.4	0.05	0.3
WMAIN-7713(2)	041-040	J-7643	8	152.5	0	0.09	0	0.4	0.05	0.3
WMAIN-7714	J-7643	J-8185	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-7715(1)(1)	J-8185	041-045	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7715(1)(2)	041-045	041-046	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7715(2)	041-046	J-7240	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7716	J-7240	J-6560	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7717(1)	J-8185	041-042	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-7717(2)(1)	041-042	041-044	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7717(2)(2)	041-044	J-6793	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7718(1)(1)	J-7643	041-041	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7718(1)(2)	041-041	041-043	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7718(2)	041-043	J-7644	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7719(1)	J-7644	041-051	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7719(2)	041-051	J-6793	8	152.5	0	0.03	0	0.3	0.03	0.2
WMAIN-7720	J-6560	J-7617	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7721(1)	J-7617	041-048	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7721(2)	041-048	J-6372	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-7722	J-6793	J-6372	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-7723	J-6372	J-6373	8	152.5	0	0.26	0	0.8	0.25	0.7
WMAIN-7724(1)	J-8729	041-049	12	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-7724(2)	041-049	J-6373	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7725	J-5377	J-5245	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-7726	J-5245	J-5249	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-7727	J-5249	169-082	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-7728	J-5277	169-081	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-7729	J-5275	J-5277	12	152.5	0.49	1.54	1.4	2.5	1.54	2.5
WMAIN-7730	J-5141	J-5146	12	152.5	0.07	0.32	0.5	1.1	0.32	1.1
WMAIN-7731	J-5245	J-5246	12	152.5	0	0	0	0	0	0
WMAIN-7732	J-5249	J-5250	12	152.5	0	0	0	0	0	0
WMAIN-7733	J-5245	J-5989	12	152.5	0	0	0	0	0	0
WMAIN-7734	J-5249	J-5988	12	152.5	0	0	0	0	0	0
WMAIN-7735	J-5276	J-5277	12	152.5	0	0	0	0	0	0
WMAIN-7736	J-5274	J-5275	12	152.5	0	0	0	0	0	0
WMAIN-7737	J-5277	J-5906	12	152.5	0	0	0	0	0	0
WMAIN-7738	J-5275	J-5907	12	152.5	0	0	0	0	0	0
WMAIN-7739	J-5415	J-5416	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-7740	J-5135	J-5136	12	152.5	0	0	0	0	0	0
WMAIN-7741	J-5135	J-5143	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7742	J-5141	J-5142	12	152.5	0	0	0	0	0	0
WMAIN-7743	J-5146	J-5147	12	152.5	0	0	0	0	0	0
WMAIN-7745	J-6457	J-6458	8	152.5	0	0	0	0	0	0
WMAIN-7746(1)	J-6458	180-062	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-7746(2)	180-062	J-6484	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7747	J-6913	J-6484	8	152.5	0	0	0	0	0	0
WMAIN-7748	J-6484	J-6485	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-7749	J-6485	J-6683	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-7750(1)	J-6683	180-064	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-7750(2)	180-064	J-6345	8	152.5	0.04	0.14	0.3	0.5	0.14	0.5
WMAIN-7751(1)	J-8716	180-067	8	152.5	0	0	0	0	0	0
WMAIN-7751(2)	180-067	J-7840	8	152.5	0	0	0	0	0	0
WMAIN-7752	J-7840	J-7951	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7753	J-8379	J-7951	8	152.5	0	0	0	0	0	0
WMAIN-7754(1)	J-7951	180-066	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7754(2)	180-066	J-7541	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7755	J-7541	180-078	8	152.5	0	0	0	0	0	0
WMAIN-7756(1)	J-6345	180-065	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7756(2)	180-065	J-7541	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7757	J-6345	J-6346	8	152.5	0	0	0	0	0	0
WMAIN-7758(1)	J-6345	180-079	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7758(2)	180-079	J-6119	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7759(1)	180-077	180-076	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7759(2)	180-076	J-8716	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7760	J-6119	180-077	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7761	J-6119	J-6120	8	152.5	0	0	0	0	0	0
WMAIN-7762	014-016	014-015	16	152.5	0.2	0.51	1	1.7	0.51	1.7
WMAIN-7763	014-015	J-7140	16	152.5	0.2	0.51	1	1.7	0.51	1.7
WMAIN-7764(1)(1)	J-8067	168-118	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7764(1)(2)	168-118	168-111	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-7764(2)	168-111	J-6950	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-7765(1)	J-6330	168-109	8	152.5	0.21	0.66	0.7	1.2	0.66	1.2
WMAIN-7765(2)	168-109	J-6949	8	152.5	0.21	0.64	0.7	1.2	0.64	1.2
WMAIN-7766	J-7442	J-6335	8	152.5	0	0	0	0	0	0
WMAIN-7767	J-6330	J-6335	8	152.5	0.17	0.42	0.6	1	0.42	1
WMAIN-7768	J-6329	J-6330	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-7769(1)	J-7467	168-112	8	152.5	0.01	0.06	0.1	0.4	0.06	0.4
WMAIN-7769(2)	168-112	J-6949	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-7770	J-7466	J-7467	8	152.5	0.13	0.42	0.5	1	0.42	1
WMAIN-7771	J-8018	J-7467	8	152.5	0.07	0.2	0.4	0.7	0.2	0.7
WMAIN-7772	J-7716	J-8018	8	152.5	0.29	0.93	0.8	1.5	0.93	1.5
WMAIN-7773(1)	J-8018	168-113	8	152.5	0.08	0.28	0.4	0.8	0.28	0.8
WMAIN-7773(2)(1)	168-113	168-115	8	152.5	0.08	0.26	0.4	0.8	0.26	0.8
WMAIN-7773(2)(2)	168-115	J-7759	8	152.5	0.08	0.26	0.4	0.8	0.26	0.8
WMAIN-7774	J-7759	J-6912	8	152.5	0.08	0.25	0.4	0.7	0.25	0.7
WMAIN-7775	J-6912	J-7466	8	152.5	0.01	0.12	0.2	0.5	0.12	0.5
WMAIN-7776(1)	J-8067	168-116	8	152.5	0.04	0.1	0.3	0.4	0.1	0.4
WMAIN-7776(2)	168-116	J-7466	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-7777(1)	J-6416	168-119	8	152.5	0.1	0.3	0.5	0.8	0.3	0.8
WMAIN-7777(2)	168-119	J-8067	8	152.5	0.1	0.31	0.5	0.8	0.31	0.8
WMAIN-7778	J-6415	J-6416	8	152.5	0	0	0	0	0	0
WMAIN-7779	J-7642	J-6416	8	152.5	0.03	0.09	0.3	0.4	0.09	0.4
WMAIN-7780(1)	J-6912	168-117	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-7780(2)(1)	168-117	168-120	8	152.5	0.04	0.1	0.3	0.4	0.1	0.4
WMAIN-7780(2)(2)	168-120	J-7642	8	152.5	0.04	0.1	0.3	0.4	0.1	0.4

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7781	J-7806	J-6912	8	152.5	0.02	0.23	0.2	0.7	0.23	0.7
WMAIN-7782(1)	J-6949	168-110	8	152.5	0.12	0.33	0.5	0.9	0.33	0.9
WMAIN-7782(2)	168-110	J-6950	8	152.5	0.12	0.33	0.5	0.9	0.33	0.9
WMAIN-7783	J-5751	J-5139	18	152.5	0.01	0.07	0.2	0.6	0.07	0.6
WMAIN-7785(1)	J-8734	J-8933	18	152.5	0.01	0.1	0.2	0.7	0.1	0.7
WMAIN-7786	J-8386	J-8734	18	152.5	0.01	0.07	0.2	0.6	0.07	0.6
WMAIN-7787	J-5139	J-8386	18	152.5	0.01	0.07	0.2	0.6	0.07	0.6
WMAIN-7788	J-5139	J-5140	18	152.5	0	0	0	0	0	0
WMAIN-7789	J-5751	J-6847	12	152.5	0.13	0.31	0.7	1.1	0.31	1.1
WMAIN-7790(1)	J-8676	180-055	12	152.5	0.04	0.1	0.3	0.6	0.1	0.6
WMAIN-7790(2)	180-055	180-052	12	152.5	0.04	0.1	0.3	0.6	0.1	0.6
WMAIN-7791(1)	J-8803	180-072	12	152.5	0	0	0	0	0	0
WMAIN-7791(2)	180-072	J-8676	12	152.5	0	0	0	0	0	0
WMAIN-7792(1)	J-8676	180-057	8	152.5	0.18	1.08	0.6	1.6	1.08	1.6
WMAIN-7792(2)	180-057	J-7115	8	152.5	0.18	1.09	0.6	1.6	1.09	1.6
WMAIN-7793	J-7115	J-7116	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-7794(1)	J-7116	180-056	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-7794(2)	180-056	J-7503	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-7795	J-7503	J-7504	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-7796(1)	J-7504	180-053	8	152.5	0.03	0.15	0.2	0.6	0.15	0.6
WMAIN-7796(2)(1)	180-053	180-054	8	152.5	0.03	0.17	0.2	0.6	0.17	0.6
WMAIN-7796(2)(2)	180-054	J-6825	8	152.5	0.03	0.17	0.2	0.6	0.17	0.6
WMAIN-7797	J-6825	J-6826	8	152.5	0	0	0	0	0	0
WMAIN-7798	J-6825	J-7573	8	152.5	0.03	0.19	0.3	0.6	0.19	0.6
WMAIN-7799	J-8216	J-7573	8	152.5	0	0.07	0.1	0.4	0.07	0.4
WMAIN-7800(1)	J-8216	180-068	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-7800(2)	180-068	J-6449	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-7801	J-8053	J-8216	8	152.5	0.09	0.48	0.4	1	0.48	1
WMAIN-7802	J-8052	J-8053	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-7803(1)	J-7115	180-058	8	152.5	0.03	0.19	0.3	0.6	0.19	0.6
WMAIN-7803(2)	180-058	J-8053	8	152.5	0.04	0.21	0.3	0.7	0.21	0.7
WMAIN-7804	J-7974	J-7115	8	152.5	0.02	0.15	0.2	0.6	0.15	0.6
WMAIN-7805(1)	J-7974	180-070	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7805(2)(1)	180-070	180-069	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7805(2)(2)	180-069	J-8052	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7806	J-5947	J-7974	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7807	J-5947	J-5948	8	152.5	0	0	0	0	0	0
WMAIN-7808(1)	J-7916	180-071	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7808(2)	180-071	J-5947	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7809(1)	180-074	180-073	8	152.5	0.01	0.07	0.2	0.4	0.07	0.4
WMAIN-7809(2)	180-073	J-7916	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7810(1)	J-6449	180-075	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-7810(2)	180-075	180-074	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-7811	J-6449	J-6450	8	152.5	0	0	0	0	0	0
WMAIN-7812(1)	J-7059	081-014	8	152.5	0	0	0	0	0	0
WMAIN-7812(2)	081-014	J-7060	8	152.5	0	0	0	0	0	0
WMAIN-7813	J-7060	J-7946	8	152.5	0.2	0.39	0.6	0.9	0.39	0.9
WMAIN-7814	J-8136	J-7946	8	152.5	0	0	0	0	0	0
WMAIN-7815(1)	J-7946	081-013	8	152.5	0.21	0.44	0.7	1	0.44	1
WMAIN-7815(2)	081-013	J-7947	8	152.5	0.21	0.44	0.7	1	0.44	1
WMAIN-7816(1)	J-7195	081-010	8	152.5	0.09	0.2	0.4	0.7	0.2	0.7
WMAIN-7816(2)	081-010	J-7947	8	152.5	0.09	0.18	0.4	0.6	0.18	0.6
WMAIN-7817	J-7947	J-8342	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-7818(1)	J-8342	081-012	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-7818(2)	081-012	J-8516	8	152.5	0.05	0.1	0.3	0.5	0.1	0.5
WMAIN-7819(1)	J-8516	081-011	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-7819(2)	081-011	J-8333	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-7820(1)	J-8333	081-005	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-7820(2)	081-005	J-7195	8	152.5	0.06	0.13	0.3	0.5	0.13	0.5
WMAIN-7821(1)	J-6044	168-063	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7821(2)	168-063	J-6045	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7822	J-6052	J-5697	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-7823(1)	J-6052	169-099	8	152.5	0	0	0	0	0	0
WMAIN-7823(2)	169-099	J-8267	8	152.5	0	0	0	0	0	0
WMAIN-7824	J-8127	J-6052	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-7825(1)	J-8127	169-098	8	152.5	0	0	0	0	0	0
WMAIN-7825(2)	169-098	J-8128	8	152.5	0	0	0	0	0	0
WMAIN-7826	J-6693	J-8127	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-7827	J-6693	J-6694	8	152.5	0	0	0	0	0	0
WMAIN-7828(1)	J-6045	169-097	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7828(2)	169-097	J-6693	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7829	J-5697	J-5698	8	152.5	0.02	0.22	0.2	0.7	0.22	0.7
WMAIN-7830(1)	J-6249	125-002	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-7830(2)	125-002	J-7533	12	152.5	0.28	1.04	1	2.1	1.04	2.1
WMAIN-7831	J-6245	J-6246	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-7832	J-6249	J-6246	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-7833A	J-8898	J-5381	30	152.5	0.3	0.7	1.9	2.9	0.7	2.9
WMAIN-7833B	J-5126	J-8898	30	152.5	0.3	0.7	1.9	2.9	0.7	2.9
WMAIN-7834(1)	J-8549	009-037	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7834(2)	009-037	009-036	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7835	J-5928	J-5929	10	152.5	0	0	0	0	0	0
WMAIN-7836	J-5913	J-5914	10	152.5	0	0	0	0	0	0
WMAIN-7837	156-040	J-6843	8	152.5	0	0	0	0	0	0
WMAIN-7838	J-6843	J-6845	10	152.5	0.12	0.71	0.6	1.5	0.71	1.5
WMAIN-7839	J-6842	J-6843	10	152.5	0.12	0.71	0.6	1.5	0.71	1.5
WMAIN-7840(1)(1)(1)	J-5817	156-034	10	152.5	0.03	0.17	0.3	0.7	0.17	0.7
WMAIN-7840(1)(1)(2)	156-034	156-035	10	152.5	0.03	0.17	0.3	0.7	0.17	0.7
WMAIN-7840(1)(2)	156-035	156-036	10	152.5	0.03	0.17	0.3	0.7	0.17	0.7
WMAIN-7840(2)(1)	156-036	156-037	10	152.5	0.03	0.17	0.3	0.7	0.17	0.7
WMAIN-7840(2)(2)	156-037	J-6842	10	152.5	0.03	0.17	0.3	0.7	0.17	0.7
WMAIN-7841(1)	J-5817	156-039	10	152.5	0.03	0.17	0.3	0.7	0.17	0.7
WMAIN-7841(2)(1)	156-039	156-038	10	152.5	0.04	0.23	0.3	0.8	0.23	0.8
WMAIN-7841(2)(2)	156-038	J-6842	10	152.5	0.04	0.23	0.3	0.8	0.23	0.8
WMAIN-7842	J-5816	J-5817	10	152.5	0.1	0.62	0.5	1.4	0.62	1.4
WMAIN-7843	J-5413	J-8237	12	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-7844	J-8237	J-8238	12	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-7845	J-8238	J-7900	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7846	J-7900	J-5229	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7847	J-5228	J-5229	12	152.5	0	0	0	0	0	0
WMAIN-7848	J-5229	J-8148	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7849	J-8148	J-8161	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7850	J-8161	J-8703	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7851	J-8703	J-8704	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7852	J-8704	J-8276	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7853	J-8276	J-8277	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7854	J-8277	J-8409	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7855(1)	J-8409	114-047	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7855(2)(1)	114-047	114-046	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7855(2)(2)	114-046	J-7899	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7856(1)	J-7899	114-045	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7856(2)	114-045	J-7201	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7857	J-7201	J-7202	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7858(1)(1)	J-7202	114-044	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7858(1)(2)	114-044	114-043	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7858(2)	114-043	J-8705	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7859(1)	J-8705	114-042	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7859(2)	114-042	114-041	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7860(1)	114-041	114-040	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7860(2)	114-040	J-5853	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7861	J-5853	J-5854	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7862(1)	J-5854	114-036	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7862(2)	114-036	J-8619	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7863	J-5854	114-035	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7864(1)	J-8619	114-037	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7864(2)	114-037	J-8606	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7865(1)(1)	J-8606	114-038	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7865(1)(2)	114-038	114-039	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7865(2)	114-039	J-8016	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7866	114-035	J-8254	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7867(1)(1)	J-8254	114-034	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7867(1)(2)	114-034	114-033	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7867(2)	114-033	J-8581	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7868(1)	J-8581	114-032	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7868(2)	114-032	J-8709	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7869(1)	J-8709	114-031	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7869(2)(1)	114-031	114-030	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7869(2)(2)	114-030	J-5788	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7870(1)(1)	J-5788	114-001	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7870(1)(2)	114-001	114-002	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7870(2)	114-002	114-003	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7871	J-5788	J-5789	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7872	J-6154	J-6637	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7873(1)	J-6154	127-001	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7873(2)	127-001	J-6155	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7874(1)	J-6154	137-001	12	152.5	0	0	0	0	0	0
WMAIN-7874(2)	137-001	J-6862	12	152.5	0	0	0	0	0	0
WMAIN-7875	J-8642	J-6154	12	152.5	0.05	0.2	0.4	0.8	0.2	0.8
WMAIN-7876	J-8031	J-8642	12	130	0.07	0.28	0.4	0.9	0.28	0.9
WMAIN-7877	J-8030	J-8031	12	152.5	0.05	0.21	0.4	0.9	0.21	0.9
WMAIN-7878	J-6124	J-8030	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7879(1)	J-6124	126-062	12	152.5	0	0	0	0	0	0
WMAIN-7879(2)	126-062	J-6888	12	152.5	0	0	0	0	0	0
WMAIN-7880	J-5777	J-6124	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7881(1)	J-8743	053-066	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7881(2)(1)(1)	053-066	J-8965	8	152.5	0.01	0.01	0.1	0.2	0.01	0.2
WMAIN-7881(2)(1)(2)	J-8965	053-039	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7881(2)(2)	053-039	J-8030	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7882(1)	J-5219	053-041	12	152.5	0.03	0.09	0.3	0.5	0.09	0.5
WMAIN-7882(2)	053-041	J-5924	12	152.5	0.03	0.09	0.3	0.5	0.09	0.5
WMAIN-7883	J-6651	J-6652	8	152.5	1.03	2.35	1.6	2.5	2.35	2.5
WMAIN-7884(1)	J-6652	171-091	8	152.5	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-7884(2)	171-091	J-8022	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7885(1)	J-6167	171-089	8	152.5	0.78	1.73	1.4	2.1	1.73	2.1
WMAIN-7885(2)	171-089	J-6652	8	152.5	0.78	1.74	1.4	2.1	1.74	2.1
WMAIN-7886	H-386	J-6167	8	152.5	0.65	1.42	1.2	1.9	1.42	1.9
WMAIN-7887(1)	J-6179	171-095	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7887(2)	171-095	J-6167	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7888(1)	J-6652	171-090	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-7888(2)	171-090	J-7634	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-7889(1)	J-7634	171-094	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-7889(2)	171-094	J-7856	8	152.5	0.04	0.08	0.3	0.4	0.08	0.4
WMAIN-7890	J-7634	J-7568	8	152.5	0.13	0.28	0.5	0.8	0.28	0.8
WMAIN-7891(1)	J-7568	171-098	8	152.5	0.11	0.25	0.5	0.7	0.25	0.7
WMAIN-7891(2)	171-098	J-7983	8	152.5	0.12	0.27	0.5	0.8	0.27	0.8
WMAIN-7892(1)	J-7568	171-099	8	152.5	0.41	0.9	1	1.5	0.9	1.5
WMAIN-7892(2)	171-099	J-6374	8	152.5	0.41	0.89	1	1.5	0.89	1.5
WMAIN-7893(1)	J-6375	171-103	8	152.5	0	0	0	0	0	0
WMAIN-7893(2)	171-103	J-7606	8	152.5	0	0	0	0	0	0
WMAIN-7894	J-6374	J-6375	8	152.5	0.03	0.07	0.3	0.4	0.07	0.4
WMAIN-7895(1)	J-6179	171-104	8	152.5	0.22	0.5	0.7	1.1	0.5	1.1
WMAIN-7895(2)	171-104	J-6374	8	152.5	0.22	0.51	0.7	1.1	0.51	1.1
WMAIN-7896	H-385	J-6179	8	152.5	0.27	0.59	0.8	1.2	0.59	1.2
WMAIN-7897(1)	J-6375	171-112	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-7897(2)	171-112	J-7045	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-7898(1)	J-7045	171-113	8	152.5	0.46	1.01	1	1.6	1.01	1.6
WMAIN-7898(2)	171-113	J-7208	8	152.5	0.47	1.03	1	1.6	1.03	1.6
WMAIN-7899	J-7044	J-7045	8	152.5	0.77	1.67	1.4	2.1	1.67	2.1
WMAIN-7900(1)	J-7045	171-119	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7900(2)	171-119	J-7632	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7901(1)	J-7967	171-120	8	152.5	0	0	0	0	0	0
WMAIN-7901(2)	171-120	J-7044	8	152.5	0	0	0	0	0	0
WMAIN-7902(1)	J-7539	171-111	8	152.5	0.75	1.6	1.3	2	1.6	2
WMAIN-7902(2)	171-111	J-7044	8	152.5	0.75	1.61	1.3	2	1.61	2
WMAIN-7903(1)	J-7539	J-7872	8	152.5	0.71	1.5	1.3	1.9	1.5	1.9
WMAIN-7903(2)	J-7872	J-8024	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-7904	J-7871	J-7872	8	152.5	1.03	2.24	1.6	2.4	2.24	2.4
WMAIN-7905(1)	J-8024	171-135	8	152.5	0.22	0.43	0.7	1	0.43	1
WMAIN-7905(2)	171-135	J-6174	8	152.5	0.21	0.4	0.7	1	0.4	1
WMAIN-7906(1)	J-7640	171-123	8	152.5	0.46	1.01	1	1.6	1.01	1.6
WMAIN-7906(2)	171-123	J-8024	8	152.5	0.46	1	1	1.6	1	1.6
WMAIN-7907(1)	J-7640	171-124	8	152.5	0.57	1.21	1.2	1.7	1.21	1.7
WMAIN-7907(2)	171-124	J-7633	8	152.5	0.58	1.23	1.2	1.7	1.23	1.7
WMAIN-7908(1)	J-7639	171-128	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7908(2)	171-128	J-7640	8	152.5	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-7909(1)(1)	J-7639	171-130	8	152.5	0.3	0.66	0.8	1.2	0.66	1.2
WMAIN-7909(1)(2)	171-130	171-129	8	152.5	0.32	0.73	0.9	1.3	0.73	1.3
WMAIN-7909(2)	171-129	J-7342	8	152.5	0.33	0.73	0.9	1.3	0.73	1.3
WMAIN-7910	J-6131	J-7639	8	152.5	0.36	0.73	0.9	1.3	0.73	1.3
WMAIN-7912	J-6131	J-6174	12	152.5	0.47	0.99	1.3	2	0.99	2
WMAIN-7913(1)	J-6130	171-134	12	152.5	0.24	0.53	0.9	1.4	0.53	1.4
WMAIN-7913(2)	171-134	J-6131	12	152.5	0.24	0.53	0.9	1.4	0.53	1.4
WMAIN-7914	J-6130	J-6098	12	152.5	0.77	1.69	1.7	2.7	1.69	2.7
WMAIN-7915	J-5790	J-8186	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7916(1)	J-6865	156-007	10	152.5	0.11	0.66	0.5	1.4	0.66	1.4
WMAIN-7916(2)(1)	156-007	156-006	10	152.5	0.11	0.64	0.5	1.4	0.64	1.4
WMAIN-7916(2)(2)	156-006	J-6845	10	152.5	0.11	0.64	0.5	1.4	0.64	1.4
WMAIN-7917(1)(1)	J-6865	156-009	8	152.5	0	0	0	0	0	0
WMAIN-7917(1)(2)	156-009	156-008	8	152.5	0	0	0	0	0	0
WMAIN-7917(2)	156-008	J-8520	8	152.5	0	0	0	0	0	0
WMAIN-7918	J-6864	J-6865	10	152.5	0.11	0.68	0.6	1.5	0.68	1.5
WMAIN-7919(1)	J-5982	156-016	8	152.5	0	0	0	0	0	0
WMAIN-7919(2)	156-016	156-017	8	152.5	0	0	0	0	0	0
WMAIN-7920(1)(1)	J-6970	156-014	8	152.5	0.06	0.36	0.3	0.9	0.36	0.9
WMAIN-7920(1)(2)(1)	156-014	156-013	8	152.5	0.06	0.35	0.3	0.9	0.35	0.9

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7920(1)(2)(2)	156-013	156-010	8	152.5	0.06	0.35	0.3	0.9	0.35	0.9
WMAIN-7920(2)	156-010	J-7013	8	152.5	0.06	0.35	0.3	0.9	0.35	0.9
WMAIN-7921	J-5982	J-6970	8	152.5	0.06	0.37	0.4	0.9	0.37	0.9
WMAIN-7922(1)	J-6183	156-019	8	152.5	0	0	0	0	0	0
WMAIN-7922(2)	156-019	156-018	8	152.5	0	0	0	0	0	0
WMAIN-7923(1)	J-5981	J-9257	8	152.5	0.07	0.38	0.4	0.9	0.38	0.9
WMAIN-7923(2)	J-9257	J-5982	8	152.5	0.07	0.38	0.4	0.9	0.38	0.9
WMAIN-7924	J-5981	J-6183	8	152.5	0.35	2.02	0.9	2.3	2.02	2.3
WMAIN-7925(1)	J-7013	156-012	8	152.5	0.12	0.71	0.5	1.3	0.71	1.3
WMAIN-7925(2)(1)	156-012	156-015	8	152.5	0.14	0.78	0.5	1.4	0.78	1.4
WMAIN-7925(2)(2)	156-015	J-5981	8	152.5	0.14	0.78	0.5	1.4	0.78	1.4
WMAIN-7926	J-6864	J-7013	10	152.5	0.1	0.59	0.5	1.3	0.59	1.3
WMAIN-7927(1)(1)	114-003	114-004	12	152.5	0	0	0	0	0	0
WMAIN-7927(1)(2)	114-004	114-005	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7927(2)	114-005	114-006	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7928	J-5356	J-5516	12	152.5	0	0	0	0	0	0
WMAIN-7929	114-008	J-5356	12	152.5	0	0	0	0	0	0
WMAIN-7930	J-5514	114-008	12	152.5	0	0	0	0	0	0
WMAIN-7931(1)(1)(1)	114-006	114-007	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7931(1)(1)(2)	114-007	J-5516	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7931(1)(2)	J-5516	J-5514	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7931(2)	J-5514	J-5137	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7932	J-5648	J-5649	8	152.5	0	0	0	0	0	0
WMAIN-7933	J-5650	J-5651	12	152.5	0	0	0	0	0	0
WMAIN-7934	J-5137	J-5138	12	152.5	0	0	0	0	0	0
WMAIN-7935(1)	J-8763	114-010	12	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7935(2)(1)	114-010	114-009	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7935(2)(2)	114-009	J-5137	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7936(1)	J-5255	114-012	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7936(2)(1)	114-012	114-011	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7936(2)(2)	114-011	J-8763	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7937	J-5255	J-5256	12	152.5	0	0	0	0	0	0
WMAIN-7938(1)	J-5649	114-013	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7938(2)	114-013	J-5255	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7939(1)(1)	114-016	114-015	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7939(1)(2)	114-015	114-014	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7939(2)	114-014	J-5649	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7940(1)	114-019	114-018	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7940(2)(1)	114-018	114-017	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7940(2)(2)	114-017	114-016	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7941	J-5651	114-019	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7942(1)	J-5148	114-021	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7942(2)(1)	114-021	114-020	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7942(2)(2)	114-020	J-5651	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7943	114-022	J-5148	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7944(1)(1)	114-025	114-024	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7944(1)(2)	114-024	114-023	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7944(2)	114-023	114-022	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7945(1)	114-028	114-027	12	152.5	0	0	0	0	0	0
WMAIN-7945(2)	114-027	J-8016	12	152.5	0	0	0	0	0	0
WMAIN-7946(1)(1)	124-002	124-001	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7946(1)(2)	124-001	114-029	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7946(2)	114-029	114-028	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7947(1)	124-005	124-004	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7947(2)(1)	124-004	124-003	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7947(2)(2)	124-003	124-002	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7948(1)(1)	124-008	124-007	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7948(1)(2)	124-007	124-006	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7948(2)	124-006	124-005	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7949(1)	J-5739	124-009	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7949(2)	124-009	124-008	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7950	J-5148	J-5149	12	152.5	0	0	0	0	0	0
WMAIN-7951	J-8016	114-025	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7952	J-5481	J-5669	6	130	0.13	0.41	0.4	0.7	0.41	0.7
WMAIN-7960	J-6009	J-6010	12	152.5	0	0	0	0	0	0
WMAIN-7961	J-5730	J-5731	8	152.5	0	0	0	0	0	0
WMAIN-7962	J-5616	J-5617	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7963	J-5614	J-5615	8	152.5	0	0	0	0	0	0
WMAIN-7964(1)	J-6600	167-088	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7964(2)	167-088	J-7867	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-7965	J-6465	J-6141	12	130	0	0	0	0.1	0	0.1
WMAIN-7966	167-080	J-6465	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7967(1)	J-5262	J-9041	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-7967(2)	J-9041	167-080	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7968	J-8082	J-7599	8	152.5	0	0	0	0	0	0
WMAIN-7969(1)	J-7797	167-093	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7969(2)	167-093	J-6730	8	152.5	0	0	0	0	0	0
WMAIN-7970	J-7797	J-6092	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7971	J-6036	J-6037	8	152.5	0	0	0	0	0	0
WMAIN-7972(1)	J-6730	167-098	8	130	0	0	0	0	0	0
WMAIN-7972(2)	167-098	J-6036	8	130	0	0	0	0	0	0
WMAIN-7973	J-8005	J-6262	8	152.5	0	0	0	0	0	0
WMAIN-7974(1)	J-7747	167-092	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7974(2)	167-092	J-7797	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7975	J-5984	J-6730	8	130	0	0	0	0	0	0
WMAIN-7976	J-5983	J-5984	8	152.5	0	0	0	0	0	0
WMAIN-7977(1)	J-7599	167-099	8	152.5	0	0	0	0	0	0
WMAIN-7977(2)	167-099	J-5983	8	152.5	0	0	0	0	0	0
WMAIN-7978	J-6261	J-6262	8	152.5	0	0	0	0	0	0
WMAIN-7979(1)	J-6262	167-100	8	152.5	0	0	0	0	0	0
WMAIN-7979(2)	167-100	J-8082	8	152.5	0	0	0	0	0	0
WMAIN-7980	J-7746	J-7747	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7981(1)	J-7746	167-096	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7981(2)	167-096	J-7599	8	152.5	0	0	0	0	0	0
WMAIN-7982(1)	J-7747	167-097	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7982(2)	167-097	J-5983	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7983	J-7867	J-7747	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-7984(1)	J-8005	167-095	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7984(2)	167-095	J-7746	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7985(1)	J-6093	167-094	8	152.5	0	0	0	0	0	0
WMAIN-7985(2)	167-094	J-6037	8	152.5	0	0	0	0	0	0
WMAIN-7986	J-6092	J-6093	8	130	0	0	0	0	0	0
WMAIN-7987	J-6455	J-6456	8	152.5	0	0	0	0	0	0
WMAIN-7988	J-6142	J-5640	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7989	J-6141	J-6142	12	130	0	0	0	0.1	0	0.1
WMAIN-7990(1)	J-5640	167-090	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7990(2)	167-090	J-6092	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7991(1)	J-6005	167-079	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7991(2)	167-079	J-6006	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7992	167-082	J-6005	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-7993	J-5661	167-082	12	152.5	0.03	0.12	0.3	0.7	0.12	0.7
WMAIN-7994(1)	J-7867	167-087	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7994(2)	167-087	J-5660	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-7995(1)(1)	J-5661	167-084	12	152.5	0.02	0.05	0.2	0.4	0.05	0.4
WMAIN-7995(1)(2)(1)	167-084	167-085	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7995(1)(2)(2)	167-085	J-6009	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7995(2)	J-6009	J-7328	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7996	J-5660	J-5661	8	152.5	0.03	0.13	0.3	0.5	0.13	0.5
WMAIN-7997	J-6481	J-5660	8	152.5	0	0	0	0	0	0
WMAIN-7998	J-6480	J-6481	8	152.5	0	0	0	0	0	0
WMAIN-7999(1)	J-8259	167-091	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7999(2)	167-091	J-6481	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-8000	J-7867	J-8259	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-8001(1)	J-6165	167-089	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-8001(2)	167-089	J-6600	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-8002	J-6092	J-6165	8	130	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8003(1)	J-5614	167-081	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-8003(2)	167-081	J-7328	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-8004	J-5616	J-5614	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-8005	J-6006	J-5616	8	152.5	0.07	0.26	0.4	0.8	0.26	0.8
WMAIN-8006(1)	J-6456	167-078	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-8006(2)	167-078	J-6006	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-8007(1)	J-6481	167-083	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-8007(2)	167-083	J-6456	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-8008	J-6006	J-6830	12	152.5	0.11	0.4	0.6	1.2	0.4	1.2
WMAIN-8009(1)	J-5730	167-086	12	152.5	0.03	0.11	0.3	0.6	0.11	0.6
WMAIN-8009(2)	167-086	J-6141	12	152.5	0.03	0.11	0.3	0.6	0.11	0.6
WMAIN-8010	J-7328	J-5730	12	152.5	0.03	0.11	0.3	0.6	0.11	0.6
WMAIN-8011	J-5640	J-5641	12	152.5	0	0	0	0	0	0
WMAIN-8012(1)	J-7257	171-139	12	152.5	0.34	0.68	1.1	1.6	0.68	1.6
WMAIN-8012(2)	171-139	J-6298	12	152.5	0.34	0.69	1.1	1.6	0.69	1.6
WMAIN-8013(1)(1)	J-6298	171-138	12	152.5	0.49	1.02	1.4	2	1.02	2
WMAIN-8013(1)(2)	171-138	171-137	12	152.5	0.49	1.02	1.4	2	1.02	2
WMAIN-8013(2)	171-137	J-6795	12	152.5	0.49	1.02	1.4	2	1.02	2
WMAIN-8014(1)	J-6298	TEMP437	8	152.5	0.13	0.32	0.5	0.8	0.32	0.8
WMAIN-8014(2)	TEMP437	J-8977	8	152.5	0.12	0.29	0.5	0.8	0.29	0.8
WMAIN-8015	J-7257	171-140	8	152.5	0	0	0	0	0	0
WMAIN-8016(1)(1)	J-6795	J-6175	12	152.5	0.68	1.41	1.6	2.4	1.41	2.4
WMAIN-8016(1)(2)	J-6175	171-136	12	152.5	0.68	1.41	1.6	2.4	1.41	2.4
WMAIN-8016(2)	171-136	J-6174	12	152.5	0.68	1.41	1.6	2.4	1.41	2.4
WMAIN-8017(1)	J-8391	171-141	12	152.5	0.33	0.65	1.1	1.6	0.65	1.6
WMAIN-8017(2)	171-141	J-7257	12	152.5	0.33	0.66	1.1	1.6	0.66	1.6
WMAIN-8018	J-6098	J-6099	8	152.5	0	0	0	0	0	0
WMAIN-8019	J-6680	J-6681	8	152.5	3.18	7.34	2.9	4.6	7.34	4.6
WMAIN-8020	J-7208	J-7209	8	152.5	0	0	0	0	0	0
WMAIN-8021(1)	J-8748	171-100	16	152.5	0.75	1.69	2.1	3.2	1.69	3.2
WMAIN-8021(2)(1)	171-100	171-115	16	152.5	0.75	1.69	2.1	3.2	1.69	3.2
WMAIN-8021(2)(2)	171-115	J-6681	16	152.5	0.75	1.69	2.1	3.2	1.69	3.2
WMAIN-8022(1)	J-5515	171-093	16	152.5	0.75	1.69	2.1	3.2	1.69	3.2
WMAIN-8022(2)	171-093	J-8748	16	152.5	0.75	1.69	2.1	3.2	1.69	3.2
WMAIN-8023(1)	J-8783	171-117	16	152.5	0.33	0.75	1.3	2.1	0.75	2.1
WMAIN-8023(2)	171-117	J-6681	16	152.5	0.33	0.75	1.3	2.1	0.75	2.1
WMAIN-8024(1)	J-6753	171-131	16	152.5	0.33	0.75	1.3	2.1	0.75	2.1
WMAIN-8024(2)(1)	171-131	171-126	16	152.5	0.33	0.75	1.3	2.1	0.75	2.1
WMAIN-8024(2)(2)	171-126	J-8783	16	152.5	0.33	0.75	1.3	2.1	0.75	2.1
WMAIN-8025	J-6753	J-7725	16	152.5	0	0	0	0	0	0
WMAIN-8026	J-6463	J-6464	8	152.5	0	0	0	0	0	0
WMAIN-8027(1)	J-6463	171-132	12	152.5	1.35	3.03	2.4	3.7	3.03	3.7
WMAIN-8027(2)	171-132	J-6753	12	152.5	1.35	3.03	2.4	3.7	3.03	3.7
WMAIN-8028(1)	J-6098	171-133	12	152.5	0.77	1.7	1.8	2.7	1.7	2.7
WMAIN-8028(2)	171-133	J-6463	12	152.5	0.78	1.71	1.8	2.7	1.71	2.7
WMAIN-8031	J-7342	J-6463	8	152.5	0.79	1.82	1.4	2.2	1.82	2.2
WMAIN-8032(1)	J-7637	171-127	8	152.5	0.12	0.3	0.5	0.8	0.3	0.8
WMAIN-8032(2)	171-127	J-7342	8	152.5	0.13	0.31	0.5	0.8	0.31	0.8
WMAIN-8033(1)	J-7633	171-125	8	152.5	0.11	0.27	0.5	0.8	0.27	0.8
WMAIN-8033(2)	171-125	J-7637	8	152.5	0.12	0.29	0.5	0.8	0.29	0.8
WMAIN-8035	J-7632	J-7633	8	152.5	0.23	0.46	0.7	1	0.46	1
WMAIN-8037(1)	J-7632	171-118	8	152.5	0.33	0.72	0.9	1.3	0.72	1.3
WMAIN-8037(2)	171-118	J-8697	8	152.5	0.34	0.76	0.9	1.3	0.76	1.3
WMAIN-8038(1)	J-7208	171-114	8	152.5	0.62	1.43	1.2	1.9	1.43	1.9
WMAIN-8038(2)	171-114	J-6680	8	152.5	0.62	1.44	1.2	1.9	1.44	1.9
WMAIN-8040(1)	J-6680	171-116	8	152.5	0.35	0.79	0.9	1.4	0.79	1.4
WMAIN-8040(2)	171-116	J-8697	8	152.5	0.34	0.76	0.9	1.3	0.76	1.3
WMAIN-8041(1)	J-7857	171-101	8	152.5	0.29	0.69	0.8	1.3	0.69	1.3
WMAIN-8041(2)	171-101	J-6680	8	152.5	0.3	0.69	0.8	1.3	0.69	1.3
WMAIN-8042(1)	J-7983	171-102	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8042(2)	171-102	J-7208	8	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-8043(1)	J-7983	171-097	8	152.5	0.07	0.15	0.4	0.6	0.15	0.6
WMAIN-8043(2)	171-097	J-7857	8	152.5	0.07	0.16	0.4	0.6	0.16	0.6
WMAIN-8045(1)	J-7856	171-096	8	152.5	0.09	0.21	0.4	0.7	0.21	0.7
WMAIN-8045(2)	171-096	J-7857	8	152.5	0.09	0.22	0.4	0.7	0.22	0.7
WMAIN-8047(1)	J-8022	171-092	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8047(2)	171-092	J-7856	8	152.5	0.01	0.03	0.2	0.2	0.03	0.2
WMAIN-8049(1)	J-8700	046-023	8	152.5	0.04	0.11	0.3	0.5	0.1	0.4
WMAIN-8049(2)	046-023	J-8232	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-8050	J-5774	J-5775	12	152.5	0	0	0	0	0	0
WMAIN-8051	J-5775	J-7733	12	152.5	0.04	0.1	0.3	0.6	0.09	0.6
WMAIN-8052	J-7968	J-8821	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8053(1)	J-8810	046-005	8	152.5	0.05	0.13	0.3	0.5	0.13	0.5
WMAIN-8053(2)(1)	046-005	046-004	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-8053(2)(2)	046-004	J-7281	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-8054	J-7537	J-8069	8	152.5	0.08	0.2	0.4	0.7	0.2	0.7
WMAIN-8055	J-7732	J-7469	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8056	J-8821	J-8461	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8057	J-8499	J-7968	8	152.5	0	0	0	0	0	0
WMAIN-8058(1)	J-8826	045-040	12	152.5	0	0	0	0	0	0
WMAIN-8058(2)(1)	045-040	045-039	12	152.5	0	0	0	0	0	0
WMAIN-8058(2)(2)	045-039	J-8506	12	152.5	0	0	0	0	0	0
WMAIN-8059	J-8461	J-8462	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8060(1)	J-8775	046-027	12	152.5	0	0	0	0	0	0
WMAIN-8060(2)	046-027	J-8776	12	152.5	0	0	0	0	0	0
WMAIN-8061(1)(1)	J-8826	046-025	12	152.5	0	0	0	0	0	0
WMAIN-8061(1)(2)	046-025	046-026	12	152.5	0	0	0	0	0	0
WMAIN-8061(2)	046-026	J-8775	12	152.5	0	0	0	0	0	0
WMAIN-8062(1)	J-8838	045-037	12	152.5	0.08	0.3	0.5	1	0.25	0.9
WMAIN-8062(2)	045-037	J-8506	12	152.5	0.08	0.3	0.5	1.1	0.25	1
WMAIN-8063(1)	J-7733	046-021	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-8063(2)	046-021	J-7241	8	152.5	0.02	0.07	0.2	0.4	0.06	0.3
WMAIN-8064(1)	J-7430	045-046	12	152.5	0.05	0.14	0.4	0.7	0.13	0.7
WMAIN-8064(2)	045-046	J-7733	12	152.5	0.05	0.14	0.4	0.7	0.13	0.7
WMAIN-8065(1)(1)	J-6723	045-043	8	152.5	0.04	0.13	0.3	0.5	0.11	0.5
WMAIN-8065(1)(2)	045-043	045-044	8	152.5	0.04	0.14	0.3	0.5	0.12	0.5
WMAIN-8065(2)	045-044	J-7430	8	152.5	0.05	0.15	0.3	0.6	0.14	0.5
WMAIN-8066(1)	J-8582	045-036	8	152.5	0	0.01	0.1	0.1	0.01	0.1

					2030 MDD				2030 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-8066(2)	045-036	J-6723	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8067	J-7314	J-8582	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8068(1)	J-6724	045-038	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-8068(2)	045-038	J-7314	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-8069	J-6724	J-6869	8	152.5	0.02	0.1	0.2	0.5	0.08	0.4
WMAIN-8070	J-6723	J-6724	8	152.5	0.02	0.07	0.2	0.4	0.05	0.3
WMAIN-8071	J-7429	J-7430	12	152.5	0.02	0.06	0.2	0.4	0.05	0.4
WMAIN-8072	J-7772	J-7429	8	152.5	0.05	0.16	0.3	0.6	0.14	0.5
WMAIN-8073(1)	J-7968	045-041	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8073(2)	045-041	J-7772	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8074	J-8645	J-8039	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-8075	J-7772	J-8645	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-8076(1)	J-7281	046-014	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-8076(2)	046-014	J-7543	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-8077(1)	J-7565	046-006	8	152.5	0.06	0.16	0.3	0.6	0.16	0.6
WMAIN-8077(2)	046-006	J-8810	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-8078	J-8462	J-8533	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-8079	J-8040	J-8462	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8080	J-8039	J-8040	8	152.5	0.01	0.04	0.1	0.3	0.03	0.2
WMAIN-8081(1)	J-7543	046-015	12	152.5	0.04	0.1	0.3	0.6	0.09	0.6
WMAIN-8081(2)	046-015	J-5775	12	152.5	0.04	0.1	0.3	0.6	0.09	0.6
WMAIN-8082(1)	J-7242	046-016	12	152.5	0.02	0.05	0.3	0.4	0.05	0.4
WMAIN-8082(2)	046-016	J-7543	12	152.5	0.02	0.05	0.3	0.4	0.05	0.4
WMAIN-8083	J-7581	J-7242	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8084	J-7468	J-7469	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-8085	J-7538	J-7468	8	152.5	0.04	0.12	0.3	0.5	0.12	0.5
WMAIN-8086	J-7537	J-7538	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-8087(1)	J-7280	046-010	12	152.5	0.04	0.1	0.3	0.6	0.1	0.6
WMAIN-8087(2)	046-010	J-7537	12	152.5	0.04	0.1	0.4	0.6	0.1	0.6
WMAIN-8088(1)	J-7242	046-011	12	152.5	0.04	0.09	0.3	0.5	0.09	0.5
WMAIN-8088(2)	046-011	J-7280	12	152.5	0.04	0.09	0.3	0.6	0.09	0.6
WMAIN-8089	J-7241	J-7242	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-8090(1)	J-8232	046-020	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8090(2)	046-020	J-7241	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8091(1)	J-8039	046-024	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8091(2)	046-024	J-8232	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8092(1)	J-8232	046-019	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-8092(2)	046-019	J-7580	8	152.5	0.05	0.12	0.3	0.5	0.12	0.5
WMAIN-8093(1)	J-7429	046-022	8	152.5	0.03	0.09	0.2	0.4	0.08	0.4
WMAIN-8093(2)	046-022	J-8700	8	152.5	0.03	0.1	0.2	0.4	0.09	0.4
WMAIN-8094(1)	J-6869	045-042	12	152.5	0.06	0.21	0.4	0.9	0.18	0.8
WMAIN-8094(2)(1)	045-042	045-045	12	152.5	0.06	0.21	0.5	0.9	0.18	0.8
WMAIN-8094(2)(2)	045-045	J-7429	12	152.5	0.07	0.21	0.5	0.9	0.19	0.8
WMAIN-8095	J-8506	J-6869	12	152.5	0.08	0.31	0.5	1.1	0.26	1
WMAIN-8096(1)	J-7564	046-008	8	152.5	0.07	0.2	0.4	0.7	0.2	0.7
WMAIN-8096(2)	046-008	J-7565	8	152.5	0.07	0.2	0.4	0.7	0.2	0.7
WMAIN-8097	J-7684	J-7564	8	152.5	0.17	0.45	0.6	1	0.45	1
WMAIN-8098	J-7683	J-7684	8	152.5	0.08	0.21	0.4	0.7	0.21	0.7
WMAIN-8099	J-7732	J-7683	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-8100	J-8533	J-7732	8	152.5	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-8101(1)	J-8069	046-012	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8101(2)	046-012	J-8068	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-8102(1)	J-7581	046-013	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-8102(2)	046-013	J-8069	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-8103(1)	J-7580	046-017	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8103(2)	046-017	J-7581	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8104(1)	J-8068	046-018	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-8104(2)	046-018	J-7580	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-8105	J-7538	J-7684	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-8106	J-7280	J-7281	8	152.5	0	0	0	0	0	0
WMAIN-8107	J-7081	J-7082	8	152.5	0	0	0	0	0	0
WMAIN-8108	J-7468	J-7683	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-8109(1)	J-7564	046-009	12	152.5	0.1	0.26	0.6	1	0.26	1
WMAIN-8109(2)	046-009	J-7537	12	152.5	0.1	0.25	0.6	1	0.25	1
WMAIN-8110(1)	J-8718	046-007	12	152.5	0.28	0.75	1	1.7	0.75	1.7
WMAIN-8110(2)	046-007	J-7564	12	152.5	0.28	0.75	1	1.7	0.75	1.7
WMAIN-8111	J-7082	J-7469	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-8112	J-8040	J-7082	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-8113	J-7469	J-8068	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-8114	J-5912	J-6123	8	152.5	0.06	1.05	0.3	1.6	1.05	1.6
WMAIN-8115	J-6123	J-5967	8	152.5	0.06	1.06	0.3	1.6	1.06	1.6
WMAIN-8116(1)	J-8593	032-048	8	152.5	0.02	0.33	0.2	0.9	0.33	0.9
WMAIN-8116(2)	032-048	J-7500	8	152.5	0.02	0.35	0.2	0.9	0.35	0.9
WMAIN-8117	J-5911	J-5912	8	152.5	0.06	1.04	0.3	1.6	1.04	1.6
WMAIN-8118(1)	J-7500	032-051	8	152.5	0.02	0.35	0.2	0.9	0.35	0.9
WMAIN-8118(2)(1)	032-051	032-050	8	152.5	0.02	0.32	0.2	0.8	0.32	0.8
WMAIN-8118(2)(2)	032-050	J-5967	8	152.5	0.02	0.32	0.2	0.8	0.32	0.8
WMAIN-8119(1)	J-7499	032-047	8	152.5	0.1	1.36	0.4	1.8	1.36	1.8
WMAIN-8119(2)	032-047	J-7500	8	152.5	0.1	1.35	0.4	1.8	1.35	1.8
WMAIN-8120	J-5966	J-5967	8	152.5	0.01	0.27	0.2	0.8	0.27	0.8
WMAIN-8121	J-6514	J-5966	8	152.5	0	0	0	0	0	0
WMAIN-8122(1)	J-5966	032-049	8	152.5	0.02	0.3	0.2	0.8	0.3	0.8
WMAIN-8122(2)	032-049	J-8593	8	152.5	0.02	0.32	0.2	0.8	0.32	0.8
WMAIN-8123	J-5218	J-5110	8	152.5	0.05	0.61	0.3	1.2	0.25	0.7
WMAIN-8125	J-6441	J-5911	12	152.5	0.04	0.17	0.4	0.8	0.17	0.8
WMAIN-8126	J-5269	J-6211	6	152.5	0.65	1.03	1	1.3	0.79	1.1
WMAIN-8127	J-5787	J-5165	10	152.5	0.05	0.11	0.3	0.6	0.11	0.6
WMAIN-8128(1)	J-6419	168-104	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-8128(2)	168-104	J-6329	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-8129(1)	J-6607	TEMP443	8	152.5	0.12	0.25	0.5	0.7	0.25	0.7
WMAIN-8129(2)	TEMP443	J-9000	8	152.5	0.12	0.24	0.5	0.7	0.24	0.7
WMAIN-8130(1)	J-6507	171-121	8	152.5	0.2	0.41	0.7	1	0.41	1
WMAIN-8130(2)	171-121	J-6607	8	152.5	0.21	0.43	0.7	1	0.43	1
WMAIN-8131	J-7871	J-6607	8	152.5	0.59	1.22	1.2	1.7	1.22	1.7
WMAIN-8132(1)	J-8383	171-108	8	152.5	0.24	0.5	0.7	1.1	0.5	1.1
WMAIN-8132(2)	171-108	J-8398	8	152.5	0.24	0.51	0.7	1.1	0.51	1.1
WMAIN-8133(1)	J-8174	171-106	8	152.5	0.17	0.35	0.6	0.9	0.35	0.9
WMAIN-8133(2)	171-106	J-6414	8	152.5	0.17	0.36	0.6	0.9	0.36	0.9
WMAIN-8134	171-107	J-8174	8	152.5	0	0	0	0	0	0
WMAIN-8135	J-8174	J-8383	8	152.5	0.15	0.31	0.6	0.8	0.31	0.8
WMAIN-8136(1)	J-6413	171-105	8	152.5	0.44	0.93	1	1.5	0.93	1.5
WMAIN-8136(2)	171-105	J-6414	8	152.5	0.44	0.93	1	1.5	0.93	1.5
WMAIN-8137	J-6414	J-8398	8	152.5	0.07	0.15	0.4	0.6	0.15	0.6
WMAIN-8138	J-9007	J-6507	8	152.5	0.28	0.59	0.8	1.2	0.59	1.2
WMAIN-8139(1)(1)	J-8978	J-6614	8	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-8139(1)(2)	J-6614	171-122	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8139(2)	171-122	J-6507	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-8140(1)	J-8398	171-109	8	152.5	0.07	0.16	0.4	0.6	0.16	0.6
WMAIN-8140(2)(1)	171-109	171-110	8	152.5	0.08	0.2	0.4	0.7	0.2	0.7
WMAIN-8140(2)(2)	171-110	J-7871	8	152.5	0.08	0.21	0.4	0.7	0.2	0.7
WMAIN-8141	J-8382	J-8383	8	152.5	0.68	1.38	1.3	1.9	1.38	1.9
WMAIN-8142	J-8984	J-6453	8	152.5	0.04	0.3	0.3	0.8	0.3	0.8

Label	Start Node	Stop Node	Diameter (in)	C Factor	2030 MDD				2030 PHD	
					Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-8143	J-6453	J-7942	8	152.5	0.1	0.36	0.5	0.9	0.36	0.9
WMAIN-8144(1)	J-7942	168-102	8	152.5	0.08	0.26	0.4	0.8	0.26	0.8
WMAIN-8144(2)	168-102	J-6419	8	152.5	0.08	0.25	0.4	0.7	0.25	0.7
WMAIN-8145	J-6419	J-7716	8	152.5	0.1	0.31	0.4	0.8	0.31	0.8
WMAIN-8146	J-8980	J-6462	8	152.5	0.09	0.37	0.4	0.9	0.37	0.9
WMAIN-8147	J-6462	J-7572	8	152.5	0.06	0.22	0.3	0.7	0.22	0.7
WMAIN-8148(1)	J-7572	168-100	8	152.5	0.06	0.24	0.3	0.7	0.24	0.7
WMAIN-8148(2)	168-100	J-7662	8	152.5	0.06	0.23	0.3	0.7	0.23	0.7
WMAIN-8149(1)	J-7662	168-107	8	152.5	0.03	0.1	0.2	0.5	0.1	0.5
WMAIN-8149(2)	168-107	J-7652	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-8150(1)	J-7942	168-101	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-8150(2)	168-101	J-7572	8	152.5	0	0	0	0.1	0	0.1
WMAIN-8151(1)	J-6453	168-098	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-8151(2)	168-098	J-6462	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-8152(1)	J-7716	168-108	8	152.5	0.07	0.23	0.4	0.7	0.23	0.7
WMAIN-8152(2)	168-108	J-7652	8	152.5	0.07	0.23	0.4	0.7	0.23	0.7
WMAIN-8153(1)	J-7652	168-114	8	152.5	0.01	0.05	0.2	0.3	0.05	0.3
WMAIN-8153(2)	168-114	J-7653	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-8154(1)	J-6462	168-097	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-8154(2)	168-097	J-7651	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-8155(1)	J-7651	168-099	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-8155(2)	168-099	J-6941	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-8156(1)	J-6941	168-106	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-8156(2)	168-106	J-7653	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-8157(1)	J-6419	168-105	12	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-8157(2)	168-105	J-7662	12	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-8158	J-7662	J-6941	12	152.5	0	0.01	0	0.2	0	0.1
WMAIN-8159	J-6941	J-8793	12	152.5	0	0.01	0	0.2	0	0
WMAIN-8160(1)	J-7845	168-083	12	152.5	0.01	0.13	0.2	0.7	0.01	0.2
WMAIN-8160(2)	168-083	J-7846	12	152.5	0.01	0.13	0.2	0.7	0.01	0.2
WMAIN-8161	J-7787	J-6397	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-8162	J-6563	J-6564	12	152.5	0	0.07	0.1	0.5	0.07	0.5
WMAIN-8163(1)	J-6344	168-089	12	152.5	0.1	0.41	0.6	1.2	0.41	1.2
WMAIN-8163(2)	168-089	J-6563	12	152.5	0.1	0.41	0.6	1.2	0.41	1.2
WMAIN-8164	J-6420	J-6421	8	152.5	0	0	0	0	0	0
WMAIN-8165(1)	J-8731	168-067	8	152.5	0	0	0	0	0	0
WMAIN-8165(2)(1)	168-067	168-068	8	152.5	0	0	0	0	0	0
WMAIN-8165(2)(2)	168-068	J-7787	8	152.5	0	0	0	0.1	0	0.1
WMAIN-8166	J-6224	J-6397	8	152.5	0.13	0.55	0.5	1.1	0.55	1.1
WMAIN-8167(1)	J-7846	168-084	12	152.5	0.2	0.62	0.8	1.6	0.5	1.4
WMAIN-8167(2)	168-084	J-8768	12	152.5	0.2	0.63	0.8	1.6	0.51	1.4
WMAIN-8168(1)	J-6421	168-087	8	152.5	0	0	0	0	0	0
WMAIN-8168(2)(1)	168-087	168-086	8	152.5	0	0	0	0	0	0
WMAIN-8168(2)(2)	168-086	J-8659	8	152.5	0	0	0	0	0	0

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
009-001	52.7	49.7	1,252.2	1,752.2	WMAIN-1188(1)	8	Passed
009-002	53.5	50.2	1,257.2	1,757.2	WMAIN-2278(2)	7.3	Passed
009-003	53.5	51.7	1,250.6	1,750.6	WMAIN-5897	5.2	Passed
009-004	53	51.3	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
009-005	53.3	50.1	1,250.0	1,750.0	WMAIN-2280(2)(2)	8.3	Passed
009-006	52.4	35.6	3,504.7	4,004.7	WMAIN-2616(1)	14.8	Passed
009-007	51.4	48.9	1,250.9	1,750.9	WMAIN-2522(1)	7.7	Passed
009-008	52.1	50.2	1,250.7	1,750.7	WMAIN-5897	5.2	Passed
009-009	52.5	48.4	1,253.9	1,753.9	WMAIN-2280(1)	6.3	Passed
009-010	52.5	48.7	1,253.8	1,753.8	WMAIN-4368(1)(1)	7.2	Passed
009-011	52.7	48.8	1,250.0	1,750.0	WMAIN-4368(2)	6.9	Passed
009-012	52	47.3	1,251.6	1,751.6	WMAIN-3575(1)	6.5	Passed
009-013	51.5	46.5	1,251.1	1,751.1	WMAIN-1191	5.8	Passed
009-014	53.6	50.6	1,252.2	1,752.2	WMAIN-1205(1)	9.4	Passed
009-015	53.5	47	1,251.4	1,751.4	WMAIN-1207(1)	11.2	Passed
009-016	53.3	49.3	1,251.1	1,751.1	WMAIN-4385(2)	8.1	Passed
009-017	51.5	47.7	1,251.0	1,751.0	WMAIN-5100(1)	6.1	Passed
009-018	51.4	45.3	1,250.9	1,750.9	WMAIN-4378(1)	11.2	Passed
009-019	53.6	52.1	1,253.3	1,753.3	WMAIN-5897	5.2	Passed
009-020	53.6	51.9	1,252.9	1,752.9	WMAIN-5897	5.2	Passed
009-021	53.7	51.8	1,250.5	1,750.5	WMAIN-5897	5.2	Passed
009-022	53.6	51.6	1,252.1	1,752.1	WMAIN-5897	5.2	Passed
009-023	53.6	51.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
009-024	53.5	46.5	3,500.0	4,000.0	WMAIN-4389(2)(1)	5.9	Passed
009-025	51.4	49.3	1,252.1	1,752.1	WMAIN-5897	5.2	Passed
009-026	52.5	50.5	1,251.4	1,751.4	WMAIN-5897	5.2	Passed
009-027	52.1	45.8	1,252.6	1,752.6	WMAIN-1195(1)	7.1	Passed
009-028	51.3	44.3	1,251.5	1,751.5	WMAIN-1195(1)	6.4	Passed
009-029	53.5	46.3	1,254.0	1,754.0	WMAIN-1205(1)	6	Passed
009-030	53.5	49.6	1,251.6	1,751.6	WMAIN-2523(2)	7.3	Passed
009-031	53.6	49	1,258.9	1,758.9	WMAIN-2526(2)	6.6	Passed
009-032	53.7	52.1	1,251.2	1,751.2	WMAIN-5897	5.2	Passed
009-033	53.5	51.3	1,252.7	1,752.7	WMAIN-5897	5.2	Passed
009-034	52.7	44.9	1,250.0	1,750.0	WMAIN-1759(2)(2)	11.2	Passed
009-035	53.1	28.4	3,504.4	2,342.4	WMAIN-1759(2)(2)	15	Velocity Failed
009-036	53.4	38.4	3,506.2	2,349.5	WMAIN-7834(1)	15	Velocity Failed
009-037	53.5	47.4	3,500.6	2,343.9	WMAIN-7834(1)	15	Velocity Failed
009-039	53.2	48.4	3,500.0	2,553.7	WMAIN-1071	15	Velocity Failed
010-001	51.4	49.9	1,252.6	1,752.6	WMAIN-5897	5.2	Passed
010-002	51.2	49.7	1,251.4	1,751.4	WMAIN-5897	5.2	Passed
010-003	49.4	46.7	1,253.0	1,573.0	WMAIN-5480(1)	15	Passed
010-004	50.9	46.9	1,251.0	1,751.0	WMAIN-1232(1)	9.2	Passed
010-005	49.4	42.9	1,254.1	1,754.1	WMAIN-1232(1)	8.6	Passed
010-006	48	38.5	1,250.0	1,750.0	WMAIN-5480(1)	10.7	Passed
010-007	50.4	43.6	1,252.6	1,752.6	WMAIN-1232(1)	8.8	Passed
010-008	49.6	42.6	1,251.6	1,751.6	WMAIN-1232(1)	8.5	Passed
010-009	51.6	49.5	2,500.3	3,000.3	WMAIN-7224	10.6	Passed
010-010	49	47.7	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
010-011	49.2	47.9	1,251.9	1,751.9	WMAIN-5897	5.2	Passed
010-012	51.1	49.5	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
010-013	52.2	49.8	1,251.6	1,751.6	WMAIN-5144(1)	11.2	Passed
010-014	52.3	46	3,500.2	4,000.2	WMAIN-5127(1)	6	Passed
010-015	53.4	49	1,252.3	1,752.3	WMAIN-5139(1)	11.2	Passed
010-016	53	51.4	1,250.2	1,750.2	WMAIN-5897	5.2	Passed
010-017	51.6	48.8	1,251.2	1,751.2	WMAIN-5094(2)	5.9	Passed
010-018	53.6	49.6	1,254.0	1,754.0	WMAIN-5120(1)	7	Passed
010-019	53.4	49	1,251.3	1,751.3	WMAIN-3571(2)	6.5	Passed
010-020	53.5	50	1,253.4	1,753.4	WMAIN-5142(1)	5.8	Passed
010-021	53.3	49.2	1,251.8	1,751.8	WMAIN-3573(1)	6.7	Passed
010-022	52.8	48.7	1,251.2	1,751.2	WMAIN-5134	6.9	Passed
010-023	51.2	49	1,250.5	1,750.5	WMAIN-5058(2)	11.2	Passed
010-027	51.6	48.8	1,251.5	1,751.5	WMAIN-5055(1)	11.2	Passed
010-028	51.4	49.8	1,252.9	1,752.9	WMAIN-5061(1)	5.5	Passed
010-029	52.2	47.8	1,256.5	1,756.5	WMAIN-5052(2)	6.3	Passed
010-030	51.3	48.1	1,251.0	1,751.0	WMAIN-5051(1)	8.1	Passed
010-031	51.8	49.4	1,252.3	1,752.3	WMAIN-5085(1)(1)	8.9	Passed
010-032	51.5	47.5	1,250.0	1,750.0	WMAIN-5085(1)(1)	6.5	Passed
010-033	51.1	43.3	1,252.2	1,752.2	WMAIN-5074(1)	11.2	Passed
010-034	51.4	45.3	1,252.1	1,752.1	WMAIN-5082(1)	11.2	Passed
010-035	52.1	46	1,252.4	1,752.4	WMAIN-5114	11.2	Passed
010-036	51.7	49.5	1,250.8	1,750.8	WMAIN-5100(1)	9	Passed
010-037	51.7	48.4	1,251.7	1,751.7	WMAIN-5105(2)	6	Passed
010-038	52.9	51	1,251.0	1,751.0	WMAIN-5897	5.2	Passed
010-039	53.4	51.8	1,251.4	1,751.4	WMAIN-5897	5.2	Passed
010-040	51.4	47.2	1,251.9	1,751.9	WMAIN-5087(1)	6	Passed
010-041	50.7	48.7	1,251.5	1,751.5	WMAIN-4820(1)	11.2	Passed
010-042	51.2	47.5	1,250.3	1,750.3	WMAIN-4869(1)	11.2	Passed
010-043	53.6	49.1	1,254.3	1,754.3	WMAIN-5091(2)	5.9	Passed
010-044	53.6	49.8	1,252.5	1,752.5	WMAIN-4890(1)	7.4	Passed
010-045	53.6	51.6	1,251.0	1,751.0	WMAIN-4890(1)	9.5	Passed
010-046	48.5	45	3,502.0	4,002.0	WMAIN-7224	8.7	Passed
011-001	50.6	27.5	1,251.5	938.2	WMAIN-6152	15	Velocity Failed
011-002	49.6	20	1,251.7	1,004.2	WMAIN-6154(2)	14.1	Residual Pressure and Velocity Failed
011-004	49.3	40.4	1,253.1	1,753.1	WMAIN-5033(1)	10.9	Passed
011-005	49.6	46.3	1,250.9	1,675.4	WMAIN-7201(2)	15	Passed
011-006	49.3	35.5	1,252.2	1,752.2	WMAIN-7200(1)	11.4	Passed
011-007	49.4	41.1	1,252.1	1,752.1	WMAIN-7185(2)	11.4	Passed
011-008	49.4	48.4	1,250.1	1,750.1	WMAIN-5897	5.2	Passed
011-009	49.4	46.6	1,253.9	1,753.9	WMAIN-5460(1)(1)	8.2	Passed
011-010	48.9	45.4	1,250.0	1,750.0	WMAIN-5460(2)	6.8	Passed
011-011	48.5	40.3	1,251.9	1,751.9	WMAIN-3556	11.8	Passed
011-012	49	45.5	3,500.0	4,000.0	WMAIN-7224	9	Passed
011-013	49.3	47.4	1,254.2	1,754.2	WMAIN-0348(1)(1)	8.8	Passed
011-014	49.5	46.2	1,250.0	1,750.0	WMAIN-0348(1)(1)	6.6	Passed
011-015	49.5	45.6	1,250.0	1,750.0	WMAIN-5034(2)(2)	9.1	Passed
011-016	49.2	42.8	1,252.3	1,752.3	WMAIN-5034(2)(2)	6.8	Passed
011-017	49.3	42.5	1,259.7	1,759.7	WMAIN-5042(2)(1)	5.7	Passed
011-018	49.8	44	1,250.0	1,750.0	WMAIN-5042(2)(2)(2)	7.3	Passed
011-019	49.5	44.7	1,254.9	1,754.9	WMAIN-5048(1)(1)(1)	7.5	Passed
011-020	49.3	44.8	1,253.1	1,753.1	WMAIN-5037(2)	6.1	Passed
011-021	49.4	45.7	1,251.8	1,751.8	WMAIN-5029(2)	7.3	Passed
011-022	49.1	44.6	1,251.4	1,751.4	WMAIN-5028(2)	7.2	Passed
011-023	50.1	44.7	1,250.0	1,750.0	WMAIN-5048(1)(1)(1)	6.1	Passed
011-024	50.1	45.4	1,250.0	1,750.0	WMAIN-5048(2)	7.6	Passed
011-025	49.9	45.1	1,254.0	1,754.0	WMAIN-4871(2)	6	Passed
011-026	49.7	45.9	1,252.8	1,752.8	WMAIN-4876(2)	6.6	Passed
011-027	48.2	45.2	1,250.2	1,750.2	WMAIN-7238(2)	5.9	Passed
011-028	48	35.2	3,501.3	4,001.3	WMAIN-2603(1)	13.3	Passed
011-029	49.3	39.7	1,252.8	1,752.8	WMAIN-4888(1)	11.2	Passed
011-030	49.4	44.4	1,250.4	1,750.4	WMAIN-4883(1)	6.2	Passed
011-031	49.4	44.7	1,252.5	1,752.5	WMAIN-4885A(1)	7	Passed
011-032	49.2	43.8	1,252.2	1,752.2	WMAIN-4879(2)	11.2	Passed
011-033	49	47.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
011-034	48.9	44.2	1,252.9	1,752.9	WMAIN-4816(2)	6.5	Passed
011-035	48.7	45.1	1,250.0	1,750.0	WMAIN-4814(2)(2)	7.2	Passed
011-036	48.3	44.2	1,251.3	1,751.3	WMAIN-4814(2)(2)	5.6	Passed
011-037	48.4	43.5	1,250.8	1,750.8	WMAIN-4807(1)	6.7	Passed
011-038	48.9	43.7	1,251.3	1,751.3	WMAIN-5028(2)	5.9	Passed
011-039	49.1	47.8	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
011-040	49.1	44.2	3,500.0	4,000.0	WMAIN-0333	5.7	Passed
011-041	49.7	48.3	1,250.2	1,750.2	WMAIN-5897	5.2	Passed
012-004	49.5	45.7	3,502.3	4,002.3	WMAIN-7224	5.8	Passed
012-005	49.4	45.1	1,254.3	1,754.3	WMAIN-5472(1)	5.7	Passed
012-006	49.4	44.8	1,253.5	1,753.5	WMAIN-5468(1)(1)	6.3	Passed
012-007	49.4	45	1,253.1	1,753.1	WMAIN-5474(2)	5.8	Passed
012-008	48.9	45.3	1,250.0	1,750.0	WMAIN-5468(2)	8.3	Passed
012-009	48.7	45.4	1,251.5	1,751.5	WMAIN-5466(1)	6.2	Passed
012-010	49.1	45.7	1,250.8	1,750.8	WMAIN-2601(2)	7.2	Passed
012-011	47.3	43.6	1,253.4	1,753.4	WMAIN-4866(2)	5.6	Passed
012-012	49.4	43.8	1,251.7	1,751.7	WMAIN-4829(1)	11.2	Passed
012-013	49.4	45.1	1,250.8	1,750.8	WMAIN-2608(1)	6	Passed
012-014	49.4	44.1	1,256.5	1,756.5	WMAIN-2609(1)(1)	6.7	Passed
012-015	49.5	44.2	1,250.0	1,750.0	WMAIN-2609(2)	6.7	Passed
012-016	49.4	46.1	1,252.2	1,752.2	WMAIN-4827(2)	7.2	Passed
012-017	49.4	48.4	1,251.6	1,751.6	WMAIN-5897	5.2	Passed
012-022	49.2	48.2	1,253.5	1,753.5	WMAIN-5897	5.2	Passed
012-023	49.8	45.2	1,253.6	1,753.6	WMAIN-4873(1)	6.1	Passed
012-024	49.8	45.3	1,254.9	1,754.9	WMAIN-4859(1)(1)	6.9	Passed
012-025	49.8	45	1,250.0	1,750.0	WMAIN-4859(2)	6.3	Passed
012-026	49.5	45.5	1,250.5	1,750.5	WMAIN-4863(2)	6.4	Passed
012-027	45.6	40.9	1,257.5	1,757.5	WMAIN-4847	6.2	Passed
012-028	49.2	44.6	1,259.7	1,759.7	WMAIN-4836	7	Passed
012-029	49.5	26.3	3,500.0	4,000.0	WMAIN-4836	13.4	Passed
012-030	49.5	26.8	3,500.0	4,000.0	WMAIN-4838(1)(1)(2)(2)(2)	14.3	Passed
012-031	49.4	35.4	3,500.0	3,502.8	WMAIN-4838(1)(2)	15	Passed
012-032	49.1	45	3,501.9	4,001.9	WMAIN-7152(1)(1)	11.4	Passed
012-033	45.6	40.6	1,254.0	1,683.1	WMAIN-4855(1)	15	Passed
012-034	47.2	43.6	1,250.0	1,750.0	WMAIN-4832(2)(2)	8	Passed
012-035	49.4	44.5	1,250.0	1,750.0	WMAIN-4832(2)(2)	6.4	Passed
012-036	49.4	44.6	1,254.9	1,754.9	WMAIN-4832(1)(1)	6.6	Passed
012-037	49.3	44.6	1,252.7	1,752.7	WMAIN-3534(1)	6.2	Passed
012-038	49.4	38.5	1,254.9	1,754.9	WMAIN-4835(1)	10.8	Passed
012-039	49.4	41.7	1,252.5	1,752.5	WMAIN-4825(1)	11.2	Passed
012-056	49.5	26.3	3,500.0	4,000.0	WMAIN-4838(1)(1)(2)(2)(2)	13.6	Passed
012-057	49.3	39.4	3,500.0	3,239.0	WMAIN-4838(2)	15	Velocity Failed
012-060	47.9	40.4	1,251.7	1,320.1	WMAIN-4724(1)	15	Passed
012-061	48.1	40.1	1,251.8	1,751.8	WMAIN-4718(1)	11.5	Passed
012-062	47.6	37.2	1,250.0	1,750.0	WMAIN-4855(1)	10.7	Passed
012-063	46.7	41.5	1,251.5	1,751.5	WMAIN-2590(1)	11.3	Passed
012-064	45.8	40.3	1,253.6	1,753.6	WMAIN-2592(1)	11.2	Passed
012-065	47.9	42.3	1,252.1	1,752.1	WMAIN-2274(1)	11.2	Passed
013-001	49.2	46.1	3,500.8	4,000.8	WMAIN-5897	5.6	Passed
013-002	49.1	46	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
013-003	49.2	43.5	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
013-004	49	43.5	5,000.0	5,500.0	WMAIN-5897	6.3	Passed
013-005	49	45.9	3,500.4	4,000.4	WMAIN-5897	5.6	Passed
013-006	48.9	44.3	3,502.6	4,002.6	WMAIN-7161(1)	8.6	Passed
013-007	48.8	42.9	3,501.7	4,001.7	WMAIN-7161(1)	7.4	Passed
013-008	48.7	36.8	5,000.0	5,500.0	WMAIN-7161(1)	9	Passed
013-009	48.7	36.3	5,003.7	5,503.7	WMAIN-7161(1)	7.9	Passed
013-010	48.6	36.6	5,001.9	5,501.9	WMAIN-7155(2)	8.9	Passed
013-011	48.5	37.6	5,000.0	5,500.0	WMAIN-7155(2)	10	Passed
013-012	48.5	43.5	3,502.1	4,002.1	WMAIN-7155(2)	8.4	Passed
013-013	48.3	42.7	5,000.0	5,500.0	WMAIN-5897	6.2	Passed
013-014	48.4	42.8	5,001.9	5,501.9	WMAIN-5897	6.2	Passed
013-015	48.6	42.4	5,000.0	5,500.0	WMAIN-7173(1)	7.1	Passed
013-016	48.5	42.9	5,001.1	5,501.1	WMAIN-7173(1)	7.4	Passed
013-017	48.7	42.1	5,001.0	5,501.0	WMAIN-7173(1)	6.8	Passed
013-018	49	44.9	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
013-019	49.3	39.8	3,502.1	2,345.4	WMAIN-7457(1)	15	Velocity Failed
013-020	49.3	44.2	3,500.8	4,000.8	WMAIN-7167(2)	6.9	Passed
013-021	49.5	39.8	5,000.0	5,500.0	WMAIN-7167(2)	7.9	Passed
013-022	49.5	40.4	5,001.7	5,501.7	WMAIN-7169(2)	9.3	Passed
013-023	49.7	42.1	5,000.0	5,500.0	WMAIN-7169(1)	11.1	Passed
013-024	49.7	44.2	5,008.1	5,508.1	WMAIN-5897	6.3	Passed
013-025	49.6	46.7	3,500.0	2,782.5	WMAIN-6019(2)(2)	15	Velocity Failed
013-026	49.6	37.5	3,504.5	3,796.0	WMAIN-6019(2)(2)	15	Passed
013-027	49.5	43.4	3,500.0	1,321.9	WMAIN-1345(1)	15	Velocity Failed
013-028	49.5	34.5	3,515.0	4,015.0	WMAIN-6019(2)(2)	12.9	Passed
013-029	49.4	46.4	3,501.1	4,001.1	WMAIN-5897	5.5	Passed
013-030	49.2	43.8	5,000.0	5,500.0	WMAIN-5897	6.3	Passed
013-031	49	43.8	5,001.0	5,501.0	WMAIN-5897	6.3	Passed
013-032	48.9	43.3	5,002.9	5,502.9	WMAIN-5897	6.3	Passed
013-033	48.9	42.9	5,001.5	5,501.5	WMAIN-5897	6.3	Passed
013-034	48.8	42.7	5,002.1	5,502.1	WMAIN-5897	6.3	Passed
013-035	48.8	42.7	5,001.5	5,501.5	WMAIN-5897	6.3	Passed
013-036	48.7	45.4	3,500.1	4,000.1	WMAIN-5897	5.5	Passed
013-037	49.6	46.5	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
013-043	49.2	41.8	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
014-001	48.5	37.9	3,500.5	1,478.9	WMAIN-2471(2)	15	Velocity Failed
014-002	47.7	33.2	3,500.0	3,968.6	WMAIN-6414(1)(1)	15	Passed
014-003	47.7	36.7	3,500.0	3,631.5	WMAIN-6414(2)	15	Passed
014-004	48	37.4	1,250.0	1,750.0	WMAIN-2816(1)(2)	10.6	Passed
014-005	47.9	43.8	1,265.0	1,546.6	WMAIN-2812(2)	15	Passed
014-006	47.7	43.6	3,500.0	4,000.0	WMAIN-6418(2)(2)	5.7	Passed
014-007	47.7	44.2	3,500.0	4,000.0	WMAIN-6418(1)	8.1	Passed
014-008	47.9	41.1	3,513.5	4,013.5	WMAIN-7144	11.5	Passed
014-009	48	33.8	5,000.0	5,500.0	WMAIN-7144	15	Passed
014-010	48	32.6	5,000.0	5,500.0	WMAIN-7144	14	Passed
014-011	47.8	35	5,000.0	4,624.9	WMAIN-3247(1)	15	Velocity Failed
014-012	47.5	31.3	5,000.0	5,405.3	WMAIN-3247(2)	15	Passed
014-013	47.7	45.3	2,500.0	3,000.0	WMAIN-0265(2)	5.7	Passed
014-014	47.3	44.5	3,500.0	4,000.0	WMAIN-5897	5.4	Passed
014-015	47.6	45.6	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
014-016	47.8	45.7	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
014-017	48.1	42.5	5,000.0	5,500.0	WMAIN-5897	6.2	Passed
014-018	48.1	36.9	1,250.0	1,750.0	WMAIN-2469(2)	11.1	Passed
014-019	49	46.1	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
015-001	46.5	28	5,005.8	5,505.8	WMAIN-7144	14.8	Passed
015-002	46.3	30.2	5,000.0	5,352.9	WMAIN-7144	15	Passed
015-003	46.2	32.5	5,004.0	5,184.4	WMAIN-7144	15	Passed
015-010	46.7	39.3	3,503.7	4,003.7	WMAIN-7144	11.8	Passed
015-011	47.4	41.3	3,500.0	4,000.0	WMAIN-7144	12.3	Passed
015-018	47.6	27.5	5,000.0	5,176.2	WMAIN-5555(2)	15	Passed
015-019	47.6	22.2	5,004.1	5,180.3	WMAIN-5554(2)	15	Passed
015-020	47.5	20	5,015.8	4,893.5	WMAIN-5554(2)	14.2	Residual Pressure and Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
015-021	47.2	20	5,000.0	4,493.7	WMAIN-5554(2)	13.1	Residual Pressure Failed
015-022	46.9	33.3	3,500.0	1,288.6	WMAIN-6201(2)	15	Velocity Failed
015-023	47.5	27.2	5,000.5	3,258.0	WMAIN-1779(2)(2)	15	Velocity Failed
015-024	46.8	20	5,007.1	3,384.0	WMAIN-1779(2)(2)	11.3	Residual Pressure Failed
015-025	46.9	20	3,500.0	3,399.6	WMAIN-1784(1)	11.9	Residual Pressure Failed
015-026	47.3	20	5,000.3	3,577.9	WMAIN-1784(1)	14.5	Residual Pressure and Velocity Failed
015-027	47.3	29.3	5,000.0	3,140.6	WMAIN-1784(1)	15	Velocity Failed
017-001	45.9	42.3	3,500.4	4,000.4	WMAIN-3655	10.3	Passed
017-002	45.7	33.1	3,506.6	3,791.9	WMAIN-6199	15	Passed
017-003	45.6	41.2	2,500.0	2,573.1	WMAIN-6199	15	Passed
017-004	45.5	37.7	2,501.5	2,949.7	WMAIN-6199	15	Passed
017-005	45.1	35.5	2,500.0	3,000.0	WMAIN-6199	10.7	Passed
017-018	43.7	38.6	3,500.0	3,022.6	WMAIN-3298	15	Velocity Failed
017-020	45	40.4	3,500.0	4,000.0	WMAIN-1755(2)(2)	10.5	Passed
017-021	45.2	38.5	3,500.0	4,000.0	WMAIN-1755(2)(2)	9.5	Passed
017-022	45.4	37.1	3,500.0	4,000.0	WMAIN-1755(1)(2)	8.8	Passed
017-023	45.5	36	3,500.0	4,000.0	WMAIN-1755(1)(1)(2)	8.4	Passed
017-024	45.6	35.1	3,510.3	4,010.3	WMAIN-1755(1)(1)(1)(2)	7.9	Passed
018-001	46.6	43.3	3,500.5	4,000.5	WMAIN-5897	5.5	Passed
018-002	46.9	43.6	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-003	46.8	43.1	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-004	47	43.1	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-005	47.2	42.9	3,502.3	4,002.3	WMAIN-5897	5.5	Passed
018-006	47.4	41.8	3,500.0	4,000.0	WMAIN-6250	11.5	Passed
018-007	47.5	42.4	3,501.1	4,001.1	WMAIN-3499(2)	6.7	Passed
018-008	47.5	42.1	3,500.0	4,000.0	WMAIN-3499(2)	5.7	Passed
018-009	47.5	42.2	3,500.0	4,000.0	WMAIN-6249(1)	6.3	Passed
018-010	47	37.2	3,500.0	4,000.0	WMAIN-6250	11.5	Passed
018-011	46.7	25.5	5,000.0	5,234.5	WMAIN-6250	15	Passed
018-012	46.5	30.5	3,500.0	4,000.0	WMAIN-6250	11.5	Passed
018-015	47.1	43.8	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-036	46.5	28.2	3,500.0	4,000.0	WMAIN-6258(1)	13.5	Passed
018-037	46.4	29.8	3,500.5	3,936.7	WMAIN-3825(1)	15	Passed
018-038	46.6	42.2	3,503.2	2,869.4	WMAIN-3825(1)	15	Velocity Failed
018-039	46.8	35.6	3,501.8	3,496.9	WMAIN-6258(1)	15	Velocity Failed
018-040	46.4	28.2	3,500.0	4,000.0	WMAIN-3825(1)	13.9	Passed
018-041	47.2	33.7	3,506.0	3,806.9	WMAIN-3494(2)	15	Passed
018-043	47.3	31.1	3,505.5	4,005.5	WMAIN-5940	14.4	Passed
018-052	46.8	43.1	5,000.0	2,350.1	WMAIN-1752	15	Velocity Failed
019-001	48.2	38.9	3,500.3	3,256.7	WMAIN-0901(2)	15	Velocity Failed
019-002	48	24.5	1,250.2	586.6	WMAIN-2786	15	Velocity Failed
019-004	48.5	41.7	1,250.0	1,750.0	WMAIN-2175(2)	10.2	Passed
019-005	48.1	45.9	1,251.4	1,603.2	WMAIN-2776(1)	15	Passed
019-006	48.4	46.3	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
019-007	48	23	1,252.2	1,112.4	WMAIN-2808(1)	15	Velocity Failed
019-008	47.6	33.5	1,250.0	1,750.0	WMAIN-2796(2)(2)	11	Passed
019-009	47.6	33.5	1,254.4	1,754.4	WMAIN-2796(2)(2)	11	Passed
019-010	48.2	37.6	1,252.0	1,752.0	WMAIN-2811(1)	11.2	Passed
019-011	47.9	34.3	1,250.0	1,750.0	WMAIN-2793(1)(1)	11.3	Passed
019-012	47.9	34.3	1,256.0	1,756.0	WMAIN-2793(1)(1)	11.3	Passed
019-013	47.9	23.4	1,250.4	586.9	WMAIN-2786	15	Velocity Failed
019-014	47.9	46.5	1,250.5	1,750.5	WMAIN-4644(1)	8.2	Passed
019-015	47.9	45.7	1,253.0	1,753.0	WMAIN-4652(2)	9.1	Passed
019-016	47.8	44.9	1,251.9	1,751.9	WMAIN-4668(1)	7.4	Passed
019-017	47.7	44.7	1,250.0	1,750.0	WMAIN-4668(2)(2)	7.3	Passed
019-018	47.7	44.9	1,250.9	1,750.9	WMAIN-4664(2)	7	Passed
019-019	47.6	45.4	1,251.2	1,751.2	WMAIN-4662	7.5	Passed
019-020	47.7	44.3	1,252.9	1,752.9	WMAIN-4663(2)	6.1	Passed
019-021	47.8	45	1,251.2	1,751.2	WMAIN-4649(1)	6.2	Passed
019-022	47.9	44.4	1,250.5	1,750.5	WMAIN-4650(2)	6.4	Passed
019-023	47.7	43.4	3,500.0	3,208.2	WMAIN-3507(2)	15	Velocity Failed
019-024	47.2	44	3,500.0	4,000.0	WMAIN-6265(1)	8.8	Passed
019-025	47.6	42.9	3,504.2	4,004.2	WMAIN-3493	6.4	Passed
019-026	47.5	42.6	3,505.6	4,005.6	WMAIN-3509(1)	6	Passed
019-027	47.7	45	1,260.8	1,760.8	WMAIN-4644(1)	5.2	Passed
019-028	47.5	26.8	5,000.0	5,500.0	WMAIN-4644(1)	14.7	Passed
019-029	47.7	44.8	1,251.3	1,751.3	WMAIN-4480(2)	7	Passed
019-030	47.7	44.3	1,252.1	1,752.1	WMAIN-4478(2)	7.2	Passed
019-031	47.8	44.1	1,250.9	1,750.9	WMAIN-4670(1)	6.7	Passed
019-032	47.4	44.2	3,501.3	4,001.3	WMAIN-5897	5.5	Passed
019-033	47.5	43.3	3,500.4	4,000.4	WMAIN-6265(2)	6.7	Passed
019-037	47.6	34.4	3,502.2	4,002.2	WMAIN-4486(1)	14.3	Passed
019-038	47.6	34.8	3,500.9	3,998.1	WMAIN-6259(2)(2)	15	Passed
019-039	47.6	43.6	3,500.0	2,963.0	WMAIN-6259(2)(2)	15	Velocity Failed
019-040	48.1	45	1,250.8	1,750.8	WMAIN-0895(1)	8	Passed
019-041	47.5	42.7	3,500.0	4,000.0	WMAIN-3509(2)(2)	6.5	Passed
019-042	47.3	41.3	3,500.0	4,000.0	WMAIN-3511(1)	8.3	Passed
019-043	47.2	34.2	5,000.0	5,500.0	WMAIN-3247(2)	11.7	Passed
019-044	47.2	32.6	5,000.0	5,500.0	WMAIN-3247(2)	13.1	Passed
019-045	47.3	31.5	5,000.0	5,500.0	WMAIN-3247(2)	14.2	Passed
019-046	47.7	42.1	1,250.4	1,750.4	WMAIN-0891(1)	9.1	Passed
019-047	48.7	40.1	1,250.4	1,750.4	WMAIN-1742(2)	11.2	Passed
020-001	49.3	38.4	3,501.8	2,424.8	WMAIN-2891	15	Velocity Failed
020-002	49.5	31.7	3,500.0	3,642.6	WMAIN-2454(1)(2)	15	Passed
020-003	49.4	44.7	3,500.0	4,000.0	WMAIN-6316(1)(1)	6.4	Passed
020-004	49.2	36.7	3,500.2	2,254.5	WMAIN-2164(1)	15	Velocity Failed
020-005	49.5	42.2	3,500.0	4,000.0	WMAIN-6320(2)	14.4	Passed
020-006	49.5	42.4	2,500.0	2,919.7	WMAIN-2886(1)	15	Passed
020-007	49.5	46.2	3,500.0	3,107.2	WMAIN-2452(2)	15	Velocity Failed
020-008	49.4	47	2,500.0	3,000.0	WMAIN-0448(2)	5.6	Passed
020-009	49.3	45.6	2,500.0	1,732.5	WMAIN-2168(2)	15	Velocity Failed
020-010	49.2	47.6	2,500.0	3,000.0	WMAIN-0434(2)	7	Passed
020-011	49.2	44.1	3,500.0	2,358.1	WMAIN-7101(2)	15	Velocity Failed
020-012	49.1	32.1	3,500.1	1,750.2	WMAIN-7096	15	Velocity Failed
020-013	48.9	20	3,517.9	1,147.7	WMAIN-0601(2)	14.8	Residual Pressure and Velocity Failed
020-014	48.6	37.6	1,250.0	1,750.0	WMAIN-2462(1)(2)	13.8	Passed
020-015	48.6	24.4	2,500.3	2,424.4	WMAIN-2170(2)	15	Velocity Failed
020-016	48.4	28.8	3,500.0	3,823.1	WMAIN-0431	15	Passed
020-017	48.4	26.5	3,501.3	2,283.9	WMAIN-0431	15	Velocity Failed
020-018	49.3	47.5	2,502.3	3,002.3	WMAIN-5897	5.3	Passed
020-019	49.3	44	5,000.0	5,500.0	WMAIN-5897	6.3	Passed
020-020	49.3	44	5,000.7	5,500.7	WMAIN-5897	6.2	Passed
020-021	49.6	46.9	3,500.0	2,983.4	WMAIN-7092(1)	15	Velocity Failed
020-022	49.6	41	5,000.0	5,500.0	WMAIN-0455	12.1	Passed
020-023	49.6	44.5	5,000.0	5,500.0	WMAIN-5897	6.3	Passed
020-024	49.5	44.1	5,000.0	5,500.0	WMAIN-5897	6.3	Passed
020-025	49.5	46.4	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
020-026	49.5	43.9	5,005.7	5,505.7	WMAIN-5897	6.3	Passed
020-027	49.5	46.8	2,500.0	3,000.0	WMAIN-6316(2)	5.8	Passed
020-028	48.4	20.4	3,504.3	4,004.3	WMAIN-7110(1)	14.4	Passed
020-030	49.4	48.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
021-001	50.5	41.3	3,500.2	1,321.9	WMAIN-1960	15	Velocity Failed
021-002	50.3	43.8	3,500.0	2,058.1	WMAIN-1980(1)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
021-003	51.2	36.8	2,502.2	3,002.2	WMAIN-0988(1)	10.4	Passed
021-005	49.6	37.9	3,500.0	3,332.7	WMAIN-2206(2)	15	Velocity Failed
021-006	51.5	41.8	2,500.9	1,179.5	WMAIN-1957	15	Velocity Failed
021-007	51.3	47.3	1,251.8	1,603.0	WMAIN-2962(2)	15	Passed
021-008	51.1	39	2,500.7	2,306.6	WMAIN-2215(1)	15	Velocity Failed
021-009	50.2	42	2,500.4	2,043.7	WMAIN-7088(1)	15	Velocity Failed
021-010	49.5	46.5	3,500.3	1,877.3	WMAIN-2104	15	Velocity Failed
021-011	51.3	41.9	3,500.5	3,890.8	WMAIN-6372	15	Passed
021-012	51.5	49.1	2,500.2	1,403.4	WMAIN-3748	15	Velocity Failed
021-013	51.5	46.4	2,500.4	3,000.4	WMAIN-6372	10.2	Passed
021-014	51.5	43.6	2,500.4	1,994.0	WMAIN-1951(2)	15	Velocity Failed
021-015	51.5	37.3	2,501.1	2,445.3	WMAIN-2439(2)	15	Velocity Failed
021-016	50.1	40.2	3,500.1	887.7	WMAIN-2446(1)	15	Velocity Failed
021-017	49.7	47.9	3,500.4	1,543.1	WMAIN-7094(2)	15	Velocity Failed
021-018	50.4	34.6	1,253.8	1,753.8	WMAIN-2754	11	Passed
021-019	51	39.1	1,255.6	1,755.6	WMAIN-2124(1)	12.6	Passed
021-020	50.2	25.7	2,500.0	2,414.1	WMAIN-2124(2)(2)	15	Velocity Failed
021-021	51	30.4	2,500.0	2,317.5	WMAIN-2742(2)	15	Velocity Failed
021-023	50.6	36.1	3,501.5	4,001.5	WMAIN-2743(2)	13.2	Passed
021-024	50.3	30.5	2,505.2	2,280.8	WMAIN-2747(1)	15	Velocity Failed
021-025	49.9	45.2	3,500.1	4,000.1	WMAIN-0641(1)	6.5	Passed
021-026	50.2	20.7	2,507.2	1,040.3	WMAIN-2749(1)(2)	15	Velocity Failed
021-027	50.5	34.8	2,501.8	2,413.7	WMAIN-6388(1)	15	Velocity Failed
021-028	50.2	35.6	1,251.6	1,012.6	WMAIN-6390(2)	15	Velocity Failed
021-029	50	39	2,505.1	1,927.4	WMAIN-2742(1)(1)	15	Velocity Failed
021-030	49.4	40.6	2,505.3	1,766.9	WMAIN-2756(1)	15	Velocity Failed
021-031	49.4	41.8	1,251.1	1,751.1	WMAIN-6402(1)	7	Passed
021-032	49.4	43.2	1,252.3	1,752.3	WMAIN-6402(1)	14.3	Passed
021-033	49.7	44.1	1,253.6	1,753.6	WMAIN-6399(1)	14.7	Passed
021-034	50	22	1,250.6	1,041.2	WMAIN-6009(2)	15	Velocity Failed
021-035	49.4	41.1	1,251.0	1,751.0	WMAIN-3533(2)	10.9	Passed
021-036	49.8	45	3,505.9	4,005.9	WMAIN-0286(2)	6.2	Passed
021-037	49.5	33.4	3,501.9	3,483.6	WMAIN-2182	15	Velocity Failed
021-038	49.5	37.5	3,500.7	2,564.2	WMAIN-2947(2)	15	Velocity Failed
021-039	49.5	44.2	3,500.0	2,402.6	WMAIN-2104	15	Velocity Failed
021-040	49.5	31.7	3,500.2	4,000.2	WMAIN-2981	13.3	Passed
021-042	49.3	45.6	1,252.7	1,752.7	WMAIN-4690(2)(2)	6.5	Passed
021-043	49.4	37.2	2,504.1	2,108.6	WMAIN-2435(1)	15	Velocity Failed
021-044	49.4	48.4	1,250.8	1,750.8	WMAIN-5897	5.2	Passed
021-045	49.3	47.7	1,250.0	1,750.0	WMAIN-4690(2)(2)	9.3	Passed
021-046	49.3	45.6	1,250.9	1,728.0	WMAIN-7084(1)	15	Passed
021-047	49.5	42.9	1,251.2	803.9	WMAIN-3530(2)	15	Velocity Failed
021-048	49.3	46.4	1,251.1	1,520.1	WMAIN-7082(1)	15	Passed
021-049	49.4	48.4	1,251.4	1,751.4	WMAIN-5897	5.2	Passed
022-001	52.2	49.8	3,500.8	2,702.1	WMAIN-6438(1)	15	Velocity Failed
022-002	52.1	47.5	2,502.9	3,002.9	WMAIN-3732(1)	8.7	Passed
022-003	51.9	48.6	3,500.0	1,723.3	WMAIN-2774(2)	15	Velocity Failed
022-004	51.2	44	3,500.0	2,513.4	WMAIN-5950(2)	15	Velocity Failed
022-005	50.8	39.6	2,500.9	2,341.1	WMAIN-1006(1)	15	Velocity Failed
022-006	51.9	34.9	2,504.3	2,638.0	WMAIN-3213	15	Passed
022-007	51.7	49.4	1,251.6	1,751.6	WMAIN-5897	5.2	Passed
022-008	51.7	49.5	3,500.9	1,424.4	WMAIN-2770(1)	15	Velocity Failed
022-009	51.6	43.7	2,500.2	3,000.2	WMAIN-3538(2)	9.5	Passed
022-010	51.7	38.7	1,250.0	1,750.0	WMAIN-7040(2)(2)	11.2	Passed
022-011	51.6	42.3	1,256.6	1,756.6	WMAIN-7040(1)	13.8	Passed
022-012	51.6	46.9	2,500.0	3,000.0	WMAIN-6408(1)	10.9	Passed
022-013	51.5	20	1,251.3	1,042.8	WMAIN-2429	13.5	Residual Pressure Failed
022-014	51.5	40.2	2,501.8	2,363.9	WMAIN-2968(1)	15	Velocity Failed
022-015	51.6	42.6	1,250.0	1,327.7	WMAIN-3544	15	Passed
022-016	51.6	42.5	1,252.3	1,752.3	WMAIN-5619(1)	14.5	Passed
022-017	51.7	45.2	1,251.2	1,751.2	WMAIN-3547(2)	11.6	Passed
022-018	51.3	49.6	1,250.8	1,750.8	WMAIN-5897	5.2	Passed
022-019	51.5	22.9	1,251.0	1,020.5	WMAIN-2428(2)	15	Velocity Failed
022-020	51.5	31.8	1,252.5	910.2	WMAIN-2429	15	Velocity Failed
022-021	51	42.3	1,250.0	1,750.0	WMAIN-7058(1)(2)(2)	12.5	Passed
022-022	50.9	44.1	1,252.1	1,752.1	WMAIN-7048(1)	13.5	Passed
022-023	50.8	49	1,251.7	1,751.7	WMAIN-5897	5.2	Passed
022-024	50.5	23.4	1,251.5	1,003.0	WMAIN-7077(2)	15	Velocity Failed
022-025	50.5	36.5	2,503.6	2,239.4	WMAIN-7080(1)	15	Velocity Failed
022-026	51	45.5	2,500.2	3,000.2	WMAIN-2430	6.2	Passed
022-027	50.9	41.7	1,250.0	1,308.2	WMAIN-2443	15	Passed
022-028	49.8	40.6	1,253.7	1,753.7	WMAIN-2758(2)	11.8	Passed
022-029	51	41.3	2,504.3	2,383.8	WMAIN-7058(1)(1)	15	Velocity Failed
022-030	50.6	46.8	1,251.5	1,751.5	WMAIN-7062(1)	14.4	Passed
022-031	50.2	41.3	1,252.3	1,752.3	WMAIN-3548(2)(2)	10.3	Passed
022-032	50.5	45.8	1,250.0	1,733.4	WMAIN-3548(2)(2)	15	Passed
022-033	50	35.3	1,253.6	1,753.6	WMAIN-7189(2)	12.3	Passed
022-034	49.8	42.1	1,257.1	1,757.1	WMAIN-7454(1)(1)	14.7	Passed
022-035	49.8	33.7	1,250.0	1,750.0	WMAIN-7192(1)	11.4	Passed
022-036	49.8	36.8	1,250.0	1,750.0	WMAIN-7195(2)(2)	11.9	Passed
022-037	49.5	37.7	2,502.3	2,211.8	WMAIN-2759(1)	15	Velocity Failed
022-038	51.6	50.6	1,250.8	1,750.8	WMAIN-5897	5.2	Passed
022-040	51.5	49.4	2,501.2	3,001.2	WMAIN-7224	6.7	Passed
022-041	50.4	49.2	1,252.3	1,752.3	WMAIN-7064(2)	5.8	Passed
022-042	49.9	45.6	1,252.1	1,752.1	WMAIN-7056(2)	11.2	Passed
022-043	49.6	37.1	1,257.2	1,757.2	WMAIN-7195(1)	12.4	Passed
022-044	49.6	36	1,250.0	1,750.0	WMAIN-7454(2)	10.8	Passed
022-045	49.5	40.2	1,252.9	1,752.9	WMAIN-6404(1)	12.1	Passed
022-046	49.6	46	1,255.3	1,560.5	WMAIN-7192(1)	15	Passed
022-047	50.9	48.6	1,251.0	1,751.0	WMAIN-5015(2)	11.2	Passed
022-048	50.5	47.9	1,253.9	1,572.2	WMAIN-3550(1)	15	Passed
022-049	51.5	37	3,500.5	4,000.5	WMAIN-1735(2)	14	Passed
023-001	52.4	46.2	3,500.3	3,065.8	WMAIN-7023(1)(1)	15	Velocity Failed
023-002	51.9	47.4	1,252.0	1,752.0	WMAIN-7023(1)(1)	5.7	Passed
023-004	51.9	48.6	3,502.3	4,002.3	WMAIN-7224	9	Passed
023-005	51.6	49.6	2,500.3	3,000.3	WMAIN-7224	7.8	Passed
023-006	51.5	40.5	2,502.1	3,002.1	WMAIN-7014	10.5	Passed
023-007	51.5	42.4	2,500.8	3,000.8	WMAIN-7014	12.6	Passed
023-008	51.4	45.6	1,252.9	1,752.9	WMAIN-7021(1)(1)	7.8	Passed
023-009	51.2	43.6	1,250.0	1,750.0	WMAIN-5541(2)	8.1	Passed
023-010	51.3	43.8	1,251.0	1,751.0	WMAIN-5541(2)	12.3	Passed
023-011	51	47.4	3,500.8	4,000.8	WMAIN-7224	10.4	Passed
023-012	50.9	49	1,250.4	1,569.6	WMAIN-6454(1)	15	Passed
023-013	51.1	44.3	1,251.2	1,751.2	WMAIN-6454(1)	11	Passed
023-014	51.6	47.8	1,251.0	1,751.0	WMAIN-0361(1)	14.2	Passed
023-015	51.5	48.5	1,251.3	1,751.3	WMAIN-5487	6.4	Passed
023-016	51.4	47.3	1,251.6	1,751.6	WMAIN-3651(1)	13.6	Passed
023-017	51.5	45.6	1,251.4	1,751.4	WMAIN-7033(2)	10.1	Passed
023-018	51.1	47.7	2,500.3	1,910.1	WMAIN-7030(2)	15	Velocity Failed
023-019	51.4	44.1	1,253.1	1,753.1	WMAIN-7443(2)	11.1	Passed
023-020	51.5	44.3	1,253.1	1,753.1	WMAIN-7446(2)	11.1	Passed
023-021	51.7	49	1,253.4	1,753.4	WMAIN-1236(1)	9.5	Passed
023-022	51.8	49.3	1,250.0	1,750.0	WMAIN-1239(2)	7.6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
023-023	51.8	47.7	1,251.3	1,751.3	WMAIN-1246(1)	8	Passed
023-024	51.8	46.5	1,253.8	1,753.8	WMAIN-1246(1)	6.4	Passed
023-025	51.4	46.2	1,250.5	1,750.5	WMAIN-1236(1)	6.5	Passed
023-026	51.7	49.7	2,502.7	3,002.7	WMAIN-7224	7.6	Passed
023-027	51.6	47.8	1,254.2	1,754.2	WMAIN-1230	6	Passed
023-028	51.5	45.2	1,251.8	1,320.5	WMAIN-5478(1)	15	Passed
023-029	51.5	44.5	1,252.3	1,752.3	WMAIN-2510(1)	11.2	Passed
023-030	51.3	49.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
023-031	51.6	46.4	1,251.6	1,751.6	WMAIN-2509(1)	11.2	Passed
023-032	51.7	49.3	1,252.8	1,752.8	WMAIN-1239(1)(1)	7.5	Passed
023-033	51.9	46.5	1,251.9	1,751.9	WMAIN-2698(1)	11.2	Passed
023-034	52	48.7	1,251.9	1,320.5	WMAIN-2700(1)	15	Passed
023-035	51.9	30.8	1,254.1	1,754.1	WMAIN-6517(2)(1)(2)	11.3	Passed
023-036	52	36.8	1,250.0	1,750.0	WMAIN-6517(2)(1)(2)	11.3	Passed
023-037	52.3	42.5	1,252.5	1,752.5	WMAIN-6517(2)(1)(2)	11.3	Passed
023-038	52.6	47.4	3,500.0	2,334.1	WMAIN-6517(2)(2)	15	Velocity Failed
023-039	52.5	47.5	3,503.3	2,345.0	WMAIN-7441(1)(1)	15	Velocity Failed
023-040	52.2	38.3	2,500.0	2,341.8	WMAIN-7441(1)(1)	15	Velocity Failed
023-041	51.9	37.3	1,252.1	1,752.1	WMAIN-7441(1)(1)	11.2	Passed
023-042	51.6	30.8	1,250.0	1,750.0	WMAIN-7441(1)(1)	11.2	Passed
023-043	52.4	41.4	5,000.0	2,334.1	WMAIN-6517(2)(1)(2)	15	Velocity Failed
023-045	52.7	45.3	3,506.1	4,006.1	WMAIN-4754(1)(1)	11.5	Passed
023-046	52.6	43.6	3,500.0	4,000.0	WMAIN-4754(1)(1)	10.1	Passed
023-047	52.3	48.9	1,251.5	1,751.5	WMAIN-4733(2)	11.2	Passed
023-048	52.1	48.5	1,251.1	1,751.1	WMAIN-4735(2)	11.2	Passed
023-049	52	48.5	1,251.7	1,751.7	WMAIN-4738(1)	11.2	Passed
023-050	52.2	47.7	1,252.5	1,752.5	WMAIN-4745	6.2	Passed
023-051	52	48.1	1,250.0	1,750.0	WMAIN-4728(2)(2)	7.5	Passed
023-052	52.3	48.2	1,250.9	1,750.9	WMAIN-4729(2)	11.2	Passed
023-053	52.8	45.4	3,500.3	4,000.3	WMAIN-7224	6.7	Passed
023-055	52.3	44.2	5,004.1	2,347.8	WMAIN-3256	15	Velocity Failed
023-056	52.3	37.5	5,002.2	2,346.0	WMAIN-3256	15	Velocity Failed
023-058	52.5	46.4	3,503.3	4,003.3	WMAIN-7224	8.1	Passed
023-059	52.7	46.1	3,500.0	4,000.0	WMAIN-7224	7.4	Passed
024-001	51.4	49.9	1,250.5	1,750.5	WMAIN-5897	5.2	Passed
024-002	52.1	50.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
024-003	52.7	50.9	1,301.7	1,801.7	WMAIN-5897	5.2	Passed
024-004	52.6	50.6	1,250.0	1,750.0	WMAIN-2636(2)	9.9	Passed
024-005	49.3	36.6	2,501.5	3,001.5	WMAIN-2636(1)(2)	13.6	Passed
024-006	51.3	44.4	1,250.0	1,750.0	WMAIN-2636(1)(2)	6.7	Passed
024-007	51.7	44.2	1,250.7	1,750.7	WMAIN-2636(1)(2)	5.8	Passed
024-008	51.9	28.8	3,510.8	3,678.1	WMAIN-4739(1)	15	Passed
024-009	51.8	44.1	1,251.2	1,751.2	WMAIN-2641(1)	7.3	Passed
024-017	52	39.4	3,500.8	3,177.3	WMAIN-4739(1)	15	Velocity Failed
024-020	52.4	43.6	1,250.9	1,750.9	WMAIN-2515(1)	8.5	Passed
024-021	52.7	41.6	1,253.5	1,753.5	WMAIN-2515(1)	7.2	Passed
024-022	52.2	42	1,254.7	1,754.7	WMAIN-2515(1)	6.6	Passed
024-023	52.6	43.8	1,250.6	1,750.6	WMAIN-2517(1)	7.3	Passed
024-024	52.5	42.4	1,253.1	1,753.1	WMAIN-2517(1)	6.4	Passed
024-025	52.2	41.9	1,253.7	1,753.7	WMAIN-2517(1)	6.3	Passed
024-026	52	42.4	1,251.0	1,751.0	WMAIN-2569(1)	11.2	Passed
024-027	52.9	50.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
024-028	53.1	44.2	3,500.0	4,000.0	WMAIN-0308	6.2	Passed
024-029	53	45	3,504.9	4,004.9	WMAIN-0308	7.1	Passed
025-001	53.1	33	5,000.0	5,307.5	WMAIN-4906(2)	15	Passed
025-002	52.9	34.7	5,001.1	5,501.1	WMAIN-3563(1)(2)	14.7	Passed
025-003	52.8	42	5,000.0	4,685.9	WMAIN-3563(2)	15	Velocity Failed
025-004	52.9	44.6	3,510.1	4,010.1	WMAIN-7224	6.4	Passed
025-005	53.1	44.9	3,501.2	4,001.2	WMAIN-4903(2)(2)	6.3	Passed
025-006	53.4	36.8	3,500.0	4,000.0	WMAIN-4901	14.4	Passed
025-007	53.1	35.4	3,500.2	4,000.2	WMAIN-4894(1)	13.4	Passed
025-008	53.2	38.5	5,000.5	3,499.4	WMAIN-4905(1)(2)	15	Velocity Failed
025-009	53.2	42.1	3,500.0	3,231.0	WMAIN-4905(2)	15	Velocity Failed
025-010	53.2	44.8	3,505.5	4,005.5	WMAIN-7224	6	Passed
025-011	53.2	51.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
026-001	51.8	49.4	2,500.1	3,000.1	WMAIN-5226(2)	6.1	Passed
026-002	51.8	45.5	2,500.0	3,000.0	WMAIN-5227	11.9	Passed
026-003	52	45	2,500.0	3,000.0	WMAIN-1254	10.3	Passed
026-004	52.1	44.4	2,506.9	2,350.1	WMAIN-3437	15	Velocity Failed
026-005	52.2	50.4	2,500.0	3,000.0	WMAIN-7224	5.9	Passed
026-006	52.3	46.6	5,005.1	5,505.1	WMAIN-7224	9	Passed
026-007	52.6	44	5,050.3	3,156.3	WMAIN-7435(1)(1)	15	Velocity Failed
026-008	53.1	32.5	5,000.0	3,868.3	WMAIN-7435(1)(1)	15	Velocity Failed
026-009	53.2	39.2	2,500.0	3,000.0	WMAIN-7435(1)(1)	10	Passed
026-012	52.3	49.2	3,500.0	4,000.0	WMAIN-7224	8	Passed
026-013	52.5	46.6	3,502.5	4,002.5	WMAIN-7224	8.2	Passed
026-014	52.4	46.7	3,500.0	4,000.0	WMAIN-7224	8.3	Passed
026-015	52.3	47.5	3,506.2	4,006.2	WMAIN-7224	8.4	Passed
026-016	52.4	49.4	3,500.0	4,000.0	WMAIN-7224	7.6	Passed
026-017	51.9	50.1	2,501.8	3,001.8	WMAIN-7224	5.6	Passed
026-020	53.2	39.7	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	10.7	Passed
026-021	53.2	42.3	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	12.6	Passed
026-022	53.2	42.1	2,527.8	3,027.8	WMAIN-4898(1)	12.5	Passed
026-023	53.1	43.3	2,504.4	3,004.4	WMAIN-6001(1)(2)	9.7	Passed
026-024	53	38	3,500.0	3,949.3	WMAIN-6001(2)	15	Passed
026-025	52.8	42.3	3,500.0	3,847.9	WMAIN-3269(2)	15	Passed
026-026	52.6	46.2	3,500.0	4,000.0	WMAIN-7224	8	Passed
026-028	52.7	41	5,000.0	5,500.0	WMAIN-7224	9.8	Passed
026-029	52.9	39.4	3,500.8	2,640.6	WMAIN-3272(2)	15	Velocity Failed
026-030	52.7	46	3,500.0	4,000.0	WMAIN-7224	7.2	Passed
026-031	52.7	40.6	5,000.0	5,500.0	WMAIN-5999(1)	10.1	Passed
026-038	51.7	49.6	2,500.0	3,000.0	WMAIN-5224(2)	5.8	Passed
027-001	51.6	49.9	2,503.8	3,003.8	WMAIN-5897	5.5	Passed
027-002	51.4	44.7	2,500.0	3,000.0	WMAIN-1256(2)(2)	14.4	Passed
027-003	51.2	41	2,502.4	3,002.4	WMAIN-1256(1)(2)	12.1	Passed
027-004	51	39.2	2,500.0	3,000.0	WMAIN-1256(1)(2)	9.9	Passed
027-005	50.9	39.8	2,501.0	3,001.0	WMAIN-1255(1)(1)	11.2	Passed
027-006	51.3	38.5	1,254.8	1,754.8	WMAIN-5239(1)	10.3	Passed
027-007	51.3	43.9	1,250.7	1,750.7	WMAIN-5235(1)	10.9	Passed
027-008	50.8	36.3	3,501.7	4,001.7	WMAIN-5232(2)	13.3	Passed
027-009	51.4	38.5	3,500.1	4,000.1	WMAIN-6484(1)	12.8	Passed
027-010	51	40	3,500.4	3,752.9	WMAIN-6479(1)	15	Passed
027-011	51.8	50.1	2,500.0	3,000.0	WMAIN-7224	5.5	Passed
027-012	52	48.8	3,506.6	4,006.6	WMAIN-7224	6.8	Passed
027-017	51.8	45.9	2,500.0	3,000.0	WMAIN-2235	10.5	Passed
027-018	51.7	44.5	2,510.3	3,010.3	WMAIN-6472(1)(1)	10.7	Passed
027-019	51.8	46.5	2,500.0	3,000.0	WMAIN-6472(2)	13.4	Passed
027-021	52.2	46.3	5,000.2	5,500.2	WMAIN-7224	8.9	Passed
027-022A	51.7	48.3	3,500.0	4,000.0	WMAIN-7224	6.9	Passed
027-022B	51.5	47.8	3,500.5	4,000.5	WMAIN-2998	7.6	Passed
027-024	49.8	45.1	1,250.8	1,750.8	WMAIN-4642	6.6	Passed
027-025	51.2	45.2	2,502.5	1,969.0	WMAIN-7005(1)	15	Velocity Failed
027-026	51.3	43.6	5,001.8	5,501.8	WMAIN-2998	14.4	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
027-027	49.7	43.6	2,500.0	3,000.0	WMAIN-2998	9.3	Passed
027-028	49.7	29.4	1,252.8	583.4	WMAIN-6998(2)	15	Velocity Failed
027-029	51.2	47.8	2,500.0	1,746.3	WMAIN-1971(2)(2)	15	Velocity Failed
027-030	50.7	39.8	2,500.9	2,417.2	WMAIN-2130	15	Velocity Failed
027-031	51.5	47.8	3,500.0	4,000.0	WMAIN-2998	7.8	Passed
027-032	51.4	33.7	3,505.0	2,171.7	WMAIN-7074(1)	15	Velocity Failed
027-033	51	46.2	3,502.2	1,825.0	WMAIN-2725(1)	15	Velocity Failed
027-034	50.4	39.9	1,251.3	1,751.3	WMAIN-5252	11.5	Passed
027-035	51.4	47.1	2,505.4	3,005.4	WMAIN-2998	10.4	Passed
027-036	49.9	46.4	3,500.9	2,706.3	WMAIN-2998	15	Velocity Failed
027-037	51	45.4	3,504.4	2,124.3	WMAIN-7008(2)	15	Velocity Failed
027-040	51.3	46.9	3,500.0	1,922.4	WMAIN-6482(2)	15	Velocity Failed
027-041	51.2	38.2	3,501.0	2,546.8	WMAIN-7010(2)	15	Velocity Failed
027-042	50.7	32.5	3,500.0	2,349.2	WMAIN-5255(2)(2)	15	Velocity Failed
027-043	51.5	40.2	3,518.2	4,018.2	WMAIN-6474	13	Passed
027-044	50.5	38.8	3,500.9	4,000.9	WMAIN-4632(1)	14.5	Passed
027-045	50.8	47.1	1,251.6	1,751.6	WMAIN-4624(1)	6.7	Passed
027-046	49.7	48	1,251.1	1,751.1	WMAIN-4633(2)	7	Passed
027-047	50.7	47.4	1,252.0	1,752.0	WMAIN-4637(2)	6.2	Passed
027-048	52	47.3	1,253.6	1,753.6	WMAIN-4400(1)	8.4	Passed
027-049	51.3	47.1	1,252.9	1,752.9	WMAIN-4402(1)	7.1	Passed
027-050	52.4	49.3	3,500.0	4,000.0	WMAIN-7224	7.8	Passed
027-051	50.5	34.5	2,501.8	2,346.0	WMAIN-2423	15	Velocity Failed
027-052	50.6	45	1,250.6	1,750.6	WMAIN-2423	11.2	Passed
027-053	51.8	46.8	3,500.0	1,673.0	WMAIN-7074(2)(2)	15	Velocity Failed
027-054	51.4	49.2	3,500.0	2,350.1	WMAIN-3265	15	Velocity Failed
027-055	51.4	48.4	3,500.9	4,000.9	WMAIN-7224	6.3	Passed
028-001	49.4	43.2	2,501.5	3,001.5	WMAIN-6989(2)	13.6	Passed
028-002	49.4	45.9	2,501.0	1,445.8	WMAIN-5645(1)	15	Velocity Failed
028-003	49.3	35.1	2,501.3	1,666.1	WMAIN-5645(1)	15	Velocity Failed
028-004	49.3	27	2,501.2	1,801.1	WMAIN-5645(1)	15	Velocity Failed
028-005	49.3	22	2,500.3	1,758.7	WMAIN-7330	15	Velocity Failed
028-006	49.3	20.3	2,506.4	1,710.9	WMAIN-7330	15	Residual Pressure and Velocity Failed
028-007	49.3	40.7	1,252.5	1,590.2	WMAIN-3729	15	Passed
028-008	49.3	47.2	1,251.1	1,751.1	WMAIN-6967(2)	8.2	Passed
028-009	49.2	46.5	1,250.4	1,750.4	WMAIN-6360(2)	6.3	Passed
028-010	49.3	37.7	1,251.3	1,751.3	WMAIN-2676(2)	12.8	Passed
028-011	49.3	43.9	1,256.2	1,756.2	WMAIN-6355	6.1	Passed
028-012	49.3	34.7	5,000.5	2,585.2	WMAIN-7329(1)	15	Velocity Failed
028-013	49.1	40.9	2,500.4	3,000.4	WMAIN-6987	12	Passed
028-014	49.3	39.9	2,501.4	2,114.6	WMAIN-3032(2)	15	Velocity Failed
028-015	49.3	38.8	2,500.7	2,198.4	WMAIN-3451(2)	15	Velocity Failed
028-016	49	43.5	2,500.5	1,781.5	WMAIN-6460(1)	15	Velocity Failed
028-017	49.1	32	2,500.0	2,406.3	WMAIN-3723(1)	15	Velocity Failed
028-018	49.3	44.1	3,501.1	1,825.1	WMAIN-3461(2)	15	Velocity Failed
028-019	49.2	43.8	1,261.6	1,761.6	WMAIN-2419	6.4	Passed
028-020	49.2	20	2,509.1	860.8	WMAIN-6340(1)	11.7	Residual Pressure Failed
028-021	49	20	2,510.7	2,259.2	WMAIN-0294(1)(1)	13.2	Residual Pressure Failed
028-022	49.3	29.1	3,500.4	2,336.1	WMAIN-6336	15	Velocity Failed
028-023	49.3	36.5	2,500.1	1,321.9	WMAIN-2934	15	Velocity Failed
028-024	49.3	25.6	3,505.6	4,005.6	WMAIN-1984	13.4	Passed
028-025	49.3	42.7	2,500.2	3,000.2	WMAIN-2097(2)	10.2	Passed
028-026	49.3	43.3	2,500.8	3,000.8	WMAIN-2922(1)	13.7	Passed
028-027	49.2	33.6	2,500.8	2,548.2	WMAIN-2245(2)	15	Passed
028-028	49.2	39.9	3,500.4	2,121.8	WMAIN-2243(1)	15	Velocity Failed
028-029	49.3	33.1	3,500.8	3,192.6	WMAIN-2909	15	Velocity Failed
028-030	49.6	45.8	2,500.0	2,860.4	WMAIN-2998	15	Passed
028-031	49.3	39	3,500.3	1,889.3	WMAIN-3257	15	Velocity Failed
028-032	49.3	42.3	3,500.7	4,000.7	WMAIN-2998	13	Passed
028-033	49.3	44	3,501.4	3,160.0	WMAIN-2248(1)	15	Velocity Failed
028-034	49.3	36.4	3,500.0	2,596.3	WMAIN-2152(1)	15	Velocity Failed
028-035	49.3	38.6	3,500.0	2,284.5	WMAIN-2355	15	Velocity Failed
028-036	50.5	41	1,251.3	1,751.3	WMAIN-6324(1)(1)	13.5	Passed
028-037	49.9	27.2	2,500.0	2,127.0	WMAIN-3257	15	Velocity Failed
028-039	49.3	42	3,500.3	2,012.4	WMAIN-2155(2)	15	Velocity Failed
028-040	49.4	36.9	3,500.0	2,396.3	WMAIN-1962(1)(2)	15	Velocity Failed
028-041	49.4	34.9	3,500.6	3,938.1	WMAIN-2104	15	Passed
028-042	49.4	43.1	3,500.0	1,927.1	WMAIN-1962(2)	15	Velocity Failed
028-043	49.4	42.6	3,500.4	1,919.3	WMAIN-2157	15	Velocity Failed
028-044	49.3	45.9	2,501.1	1,568.8	WMAIN-3257	15	Velocity Failed
028-045	49	31.3	2,500.0	1,987.5	WMAIN-0294(2)	15	Velocity Failed
028-046	49.2	32.5	3,502.5	3,287.8	WMAIN-2909	15	Velocity Failed
028-047	49.4	48	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
029-001	49.3	43.1	2,500.8	1,945.0	WMAIN-0280(2)	15	Velocity Failed
029-002	49.3	45.2	3,501.9	3,238.1	WMAIN-2399	15	Velocity Failed
029-003	49.2	45.9	1,253.8	718.3	WMAIN-2992	15	Velocity Failed
029-004	48.9	45.2	1,253.5	1,685.2	WMAIN-0562(1)	15	Passed
029-005	47.7	46.2	1,251.0	1,751.0	WMAIN-2399	5.6	Passed
029-006	48.9	34.2	3,500.1	2,325.9	WMAIN-0372	15	Velocity Failed
029-007	48.8	36.4	3,500.8	2,411.3	WMAIN-2989(1)(1)	15	Velocity Failed
029-008	48.8	45.4	2,500.1	3,000.1	WMAIN-2399	9.7	Passed
029-009	48.7	38.3	3,500.9	2,298.7	WMAIN-2988(2)	15	Velocity Failed
029-010	49.1	28.7	2,507.7	2,504.1	WMAIN-2982(1)	15	Velocity Failed
029-011	48.6	28.9	3,505.1	2,448.5	WMAIN-3424(1)	15	Velocity Failed
029-012	49.1	41.5	1,250.7	1,750.7	WMAIN-3422(2)	12.8	Passed
029-013	48.3	39.1	1,251.1	1,751.1	WMAIN-3421(1)	11.5	Passed
029-014	48.7	20	1,255.5	1,048.1	WMAIN-6428(1)	13.8	Residual Pressure Failed
029-015	49.3	37.2	1,253.3	1,753.3	WMAIN-6430(2)	11.5	Passed
029-016	49.3	40	3,501.4	2,295.0	WMAIN-2240(1)	15	Velocity Failed
029-017A	49.3	40.9	5,001.3	179.2	WMAIN-1989(2)	15	Velocity Failed
029-017B	49.2	46.3	2,500.0	3,000.0	WMAIN-2399	6.7	Passed
029-019	49.3	42.5	3,500.5	4,000.5	WMAIN-6285(2)	7.7	Passed
029-020	49.1	44.3	1,250.5	1,750.5	WMAIN-2840(2)	12.3	Passed
029-021	48.3	37.4	3,500.6	2,083.7	WMAIN-3481(1)	15	Velocity Failed
029-022	49.4	35.4	5,001.7	5,501.7	WMAIN-6281(2)	12.3	Passed
029-023	49.4	38.1	1,254.3	1,754.3	WMAIN-2402(1)	12.8	Passed
029-024	49.2	37.2	3,500.0	2,386.3	WMAIN-2901(2)	15	Velocity Failed
029-025	49.1	44.3	5,000.0	1,821.2	WMAIN-2896(2)	15	Velocity Failed
029-026	49.1	44.2	3,500.0	4,000.0	WMAIN-2399	7.2	Passed
029-027	49.2	43.4	3,500.0	1,924.5	WMAIN-1990(2)	15	Velocity Failed
029-028	49.4	39.8	3,501.5	4,001.5	WMAIN-6281(2)	7.9	Passed
029-029	49.2	38.3	3,506.5	2,577.2	WMAIN-6277	15	Velocity Failed
029-030	48.4	34.5	1,250.0	1,750.0	WMAIN-6953(2)	10.3	Passed
029-031	49.2	42.8	3,500.0	1,894.4	WMAIN-2101	15	Velocity Failed
029-032	49.1	44.3	3,500.0	4,000.0	WMAIN-2399	6.5	Passed
029-033	49.1	37.7	3,500.0	2,184.7	WMAIN-2164(2)(2)	15	Velocity Failed
029-034	49	34.4	3,500.0	1,561.4	WMAIN-7089(1)	15	Velocity Failed
029-035	48.8	38.4	5,002.0	1,880.8	WMAIN-6311(1)	15	Velocity Failed
029-036	48.3	23	3,500.2	2,490.6	WMAIN-0431	15	Velocity Failed
029-037	48.2	25.1	2,501.2	2,246.3	WMAIN-2858(2)	15	Velocity Failed
029-038	48.6	29.2	2,500.0	2,247.9	WMAIN-2398(1)	15	Velocity Failed
029-039	48.6	29.8	2,505.9	2,228.7	WMAIN-2398(1)	15	Velocity Failed
029-041	49.4	46.2	2,501.5	3,001.5	WMAIN-2399	6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
029-042	49.3	43.3	3,500.0	4,000.0	WMAIN-2399	8.4	Passed
030-001	47.4	35.7	1,254.2	1,754.2	WMAIN-6946(1)	10.7	Passed
030-002	47.4	43.5	1,251.2	1,751.2	WMAIN-6926(1)	6.5	Passed
030-003	47.3	44.4	1,251.0	1,751.0	WMAIN-3409(2)	5.8	Passed
030-004	47.3	38.6	1,250.2	1,750.2	WMAIN-7301	10.7	Passed
030-005	47.4	36.6	1,251.2	1,751.2	WMAIN-3414(2)	10.9	Passed
030-006	47.3	41.9	1,251.1	1,704.6	WMAIN-3417(2)	15	Passed
030-007	47.2	36	1,253.9	1,753.9	WMAIN-6935(2)	10.8	Passed
030-008	47.1	44.3	1,250.2	1,750.2	WMAIN-2375(2)	7.1	Passed
030-009	47.3	32.2	1,252.4	1,752.4	WMAIN-6502	10.2	Passed
030-010	47.3	35.9	1,251.3	1,751.3	WMAIN-3419(2)	11.4	Passed
030-011	47.4	43.1	1,252.3	1,752.3	WMAIN-6933(2)	5.9	Passed
030-012	47.4	37.2	1,251.3	1,751.3	WMAIN-2227(1)	12.1	Passed
030-013	47.4	38.3	1,250.6	1,750.6	WMAIN-2228(2)	12	Passed
030-014	48.2	30.2	1,251.4	1,751.4	WMAIN-2232(2)	12.4	Passed
030-015	47.6	43.7	1,252.4	1,752.4	WMAIN-2383(1)	6.6	Passed
030-016	47.4	37.5	1,251.2	1,751.2	WMAIN-5585(1)	11.8	Passed
030-017	47.2	42.8	1,250.2	1,750.2	WMAIN-3429(2)	13.1	Passed
030-018	47.2	42.2	1,250.0	1,750.0	WMAIN-5614(2)	9.9	Passed
030-019	47.4	42.7	1,252.9	1,741.7	WMAIN-5617(2)	15	Passed
030-020	47.7	43.3	3,501.6	1,708.5	WMAIN-6924(1)(1)	15	Velocity Failed
030-021	47.4	40.6	1,250.7	1,750.7	WMAIN-5595(1)(1)	10.2	Passed
030-022	47.3	45.1	1,250.6	1,750.6	WMAIN-6915(1)	7.5	Passed
030-023	47.4	43.3	1,252.3	1,668.0	WMAIN-6489(1)(1)	15	Passed
030-024	47.2	44.4	1,250.7	1,750.7	WMAIN-6912(1)	5.9	Passed
030-025	47.1	44.2	1,252.1	1,752.1	WMAIN-6939(1)(1)	7.8	Passed
030-026	48	34.5	2,501.5	1,999.0	WMAIN-2138	15	Velocity Failed
030-027	48	37.4	1,252.8	1,752.8	WMAIN-2407	13.4	Passed
030-028	47.9	41.7	1,253.1	1,620.6	WMAIN-0650	15	Passed
030-029	47.8	36.3	3,500.0	2,113.2	WMAIN-6924(2)	15	Velocity Failed
030-030	47.5	33.5	3,500.0	2,226.4	WMAIN-6489(2)	15	Velocity Failed
030-031	47.5	33.1	1,252.7	1,752.7	WMAIN-5609	11.3	Passed
030-032	47.3	44.1	1,250.1	1,750.1	WMAIN-3471(1)	5.8	Passed
030-033	48	30.4	2,502.3	2,569.5	WMAIN-2826(2)	15	Passed
030-034	47.9	37.7	1,250.5	1,750.5	WMAIN-6921(1)	10.4	Passed
030-035	48	43.8	3,500.4	1,665.3	WMAIN-6919(2)	15	Velocity Failed
030-036	47.8	20	1,252.3	1,058.8	WMAIN-2834(2)	14.3	Residual Pressure and Velocity Failed
030-037	47.4	42.2	2,504.3	2,166.3	WMAIN-1329	15	Velocity Failed
030-038	47.2	42.1	3,507.1	3,114.6	WMAIN-3470(2)	15	Velocity Failed
030-039	47.9	37	3,500.0	3,861.9	WMAIN-7113(2)(1)	15	Passed
030-042	47.4	42.9	1,250.0	1,750.0	WMAIN-5595(2)	14.4	Passed
030-043	47.7	36.9	1,250.3	1,750.3	WMAIN-2144	13.1	Passed
030-044	47.6	43.4	3,500.0	4,000.0	WMAIN-5604(2)(2)	13	Passed
030-045	47.6	43.4	2,502.3	3,002.3	WMAIN-5604(1)	6.6	Passed
030-046	47.6	44.6	1,252.7	1,752.7	WMAIN-6890(2)	7	Passed
030-047	47.7	39.8	3,503.1	3,395.6	WMAIN-6419	15	Velocity Failed
031-001	47.4	44.4	1,250.4	1,750.4	WMAIN-2386(2)	5.8	Passed
031-002	47.1	41	1,250.9	1,750.9	WMAIN-3474(2)	10.1	Passed
031-003	46.9	41.8	1,250.0	1,750.0	WMAIN-7296	7.1	Passed
031-004	46.9	41	1,250.0	1,750.0	WMAIN-7294(1)(1)	5.8	Passed
031-005	47.2	42.3	1,258.4	1,758.4	WMAIN-7294(1)(1)	7.4	Passed
031-006	47.5	44	1,251.1	1,751.1	WMAIN-3475(2)	5.8	Passed
031-007	47.1	34.8	1,253.6	1,753.6	WMAIN-7292(1)	10.2	Passed
031-008	47.4	41.7	1,250.1	1,750.1	WMAIN-6888(1)	13.3	Passed
031-009	47.4	39.4	1,252.3	1,752.3	WMAIN-7297(1)	10.2	Passed
031-010	47.1	44.1	1,252.9	1,752.9	WMAIN-6877(1)	6.4	Passed
031-011	46.9	36	1,250.0	1,750.0	WMAIN-7282(2)(2)	11.5	Passed
031-012	47.3	39.3	2,504.2	1,844.4	WMAIN-7282(1)	15	Velocity Failed
031-013	47	37.2	5,002.8	3,547.2	WMAIN-6883(1)(1)	15	Velocity Failed
031-014	46.4	27.8	5,001.6	4,016.1	WMAIN-6867(2)	15	Velocity Failed
031-015	45.7	31.7	2,504.3	2,536.5	WMAIN-7286(2)	15	Passed
031-016	45.8	34.3	2,503.0	3,003.0	WMAIN-3775	12	Passed
031-017	46.3	20	2,505.4	2,519.9	WMAIN-5560(1)	14.6	Passed
031-018	45.8	25.7	3,504.1	4,004.1	WMAIN-6873(2)	13.7	Passed
031-022	47	43.7	3,502.4	4,002.4	WMAIN-5897	5.5	Passed
031-023	46.3	32.8	3,500.0	3,583.2	WMAIN-2672(1)	15	Passed
031-024	46.5	43.1	3,504.8	2,752.8	WMAIN-2672(1)	15	Velocity Failed
031-026	45.2	40.2	3,500.0	4,000.0	WMAIN-6871	6.4	Passed
031-027	43	37.5	3,500.0	4,000.0	WMAIN-3657	6.3	Passed
031-028	45.7	40.8	3,500.0	4,000.0	WMAIN-3657	7.3	Passed
031-029	45.8	42.6	3,500.0	4,000.0	WMAIN-3657	9.3	Passed
031-031	44.7	41.4	2,504.0	3,004.0	WMAIN-5897	5.2	Passed
031-033	46.4	43.5	2,500.0	3,000.0	WMAIN-5897	5.2	Passed
031-034	46.5	43.8	2,500.0	3,000.0	WMAIN-5897	5.2	Passed
031-035	46.5	43.9	2,510.5	3,010.5	WMAIN-6872(1)(1)	5.7	Passed
031-036	46	44.7	1,251.0	1,751.0	WMAIN-5897	5.2	Passed
031-040	45.5	24.9	5,004.0	1,321.3	WMAIN-3283(2)	15	Velocity Failed
031-041	45.8	41.3	3,500.0	4,000.0	WMAIN-3657	7.9	Passed
031-042	44.6	30.8	3,500.0	3,203.7	WMAIN-5964(2)	15	Velocity Failed
031-043	47.3	43.5	1,250.0	1,750.0	WMAIN-6939(2)(2)	6.1	Passed
031-044	47	29.1	3,500.6	3,832.1	WMAIN-5429(1)	15	Passed
031-045	47.1	39.5	3,500.0	3,302.9	WMAIN-6883(2)	15	Velocity Failed
031-046	47.2	44.1	1,253.3	1,753.3	WMAIN-3472	5.5	Passed
031-047	46.3	44.3	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
031-049	46.8	33	5,001.3	3,543.9	WMAIN-5434(2)	15	Velocity Failed
031-050	45.8	42.7	3,500.8	4,000.8	WMAIN-5897	5.5	Passed
031-051	46.7	25.2	3,500.0	4,000.0	WMAIN-5434(2)	13.2	Passed
031-056	46.8	43.5	3,507.3	4,007.3	WMAIN-5897	5.5	Passed
032-001	45.4	21.6	2,500.0	3,000.0	WMAIN-4910	12.1	Passed
032-002	45.3	23.9	2,504.7	2,347.6	WMAIN-5454(1)	15	Velocity Failed
032-003	45.4	32.5	2,504.9	2,680.2	WMAIN-5456(1)	15	Passed
032-004	45.3	20	2,500.6	2,876.6	WMAIN-5456(1)	13.8	Passed
032-008	45.4	43.2	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
032-013	45.4	24.5	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-015	45.3	21.8	2,502.2	3,002.2	WMAIN-4910	11.6	Passed
032-016	44.8	27.2	2,500.2	2,023.5	WMAIN-5436	15	Velocity Failed
032-018	44.7	20	2,500.4	2,249.6	WMAIN-5441	14.5	Residual Pressure and Velocity Failed
032-020	45.4	28.4	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-022	45.4	32.2	1,261.4	1,761.4	WMAIN-2370(1)(1)	11.3	Passed
032-024	45.4	42.4	1,250.8	1,750.8	WMAIN-4709(2)	6.5	Passed
032-025	45.7	40.2	5,000.0	5,500.0	WMAIN-5897	6.2	Passed
032-026	45.5	43.5	2,501.3	3,001.3	WMAIN-5897	5.2	Passed
032-027	45.3	41.9	3,503.0	4,003.0	WMAIN-5897	5.5	Passed
032-028	44.9	41.4	3,500.5	4,000.5	WMAIN-5897	5.4	Passed
032-029	45.4	43.4	1,251.7	1,751.7	WMAIN-4713(1)	9	Passed
032-030	45.4	42.4	1,251.5	1,751.5	WMAIN-4715(2)	6.5	Passed
032-031	45.4	43.4	1,251.7	1,751.7	WMAIN-4710(1)	9	Passed
032-032	45.4	42.3	1,251.6	1,751.6	WMAIN-4712(2)	6.5	Passed
032-033	45.4	43.4	1,251.7	1,751.7	WMAIN-4707(1)	9	Passed
032-034	45.4	44	1,250.7	1,750.7	WMAIN-5897	5.1	Passed
032-035	45.4	44.1	1,253.9	1,753.9	WMAIN-5897	5.1	Passed
032-036	45.4	44.1	1,253.4	1,753.4	WMAIN-5897	5.1	Passed
032-037	44.2	43	1,250.4	1,750.4	WMAIN-5897	5.1	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
032-038	45.7	41.5	1,253.6	1,753.6	WMAIN-4008(1)	6	Passed
032-039	45.4	40.9	1,251.3	1,751.3	WMAIN-4005(1)	11.2	Passed
032-040	45.5	43.1	1,251.2	1,751.2	WMAIN-4025(1)	8.5	Passed
032-041	45.4	43.8	1,250.5	1,750.5	WMAIN-4016(2)	7.9	Passed
032-042	45.7	43.4	1,250.7	1,750.7	WMAIN-4034(1)	11.2	Passed
032-043	45.4	33.5	3,500.0	4,000.0	WMAIN-4030(1)	13.4	Passed
032-044	45.4	43.9	1,252.0	1,752.0	WMAIN-4030(1)	9.4	Passed
032-045	45.7	44.1	1,251.8	1,751.8	WMAIN-4019(1)	8.4	Passed
032-046	44.1	42.8	1,252.3	1,752.3	WMAIN-5897	5.1	Passed
032-047	45.5	42.7	1,250.5	1,750.5	WMAIN-8119(1)	7.1	Passed
032-048	45.5	40.9	1,252.7	1,752.7	WMAIN-8119(1)	6.2	Passed
032-049	45.5	41.5	1,252.7	1,752.7	WMAIN-8120	7.5	Passed
032-050	45.5	41.7	1,250.0	1,750.0	WMAIN-8118(2)(2)	7.6	Passed
032-051	45.5	41	1,253.9	1,753.9	WMAIN-8119(1)	6.2	Passed
033-001	45.5	42.8	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
033-002	45.8	44.8	1,250.3	1,750.3	WMAIN-5897	5.1	Passed
033-005	46.5	44	1,253.0	1,753.0	WMAIN-4042(1)(1)	8	Passed
033-006	47.4	44.1	1,250.0	1,750.0	WMAIN-4042(1)(1)	5.9	Passed
033-007	47.6	45.3	1,250.0	1,750.0	WMAIN-4038(1)	5.9	Passed
033-008	47.3	43.8	1,250.7	1,750.7	WMAIN-2368(1)	6.6	Passed
033-009	46.2	44	1,250.2	1,750.2	WMAIN-3993(1)	5.9	Passed
033-010	47	45.7	1,250.2	1,750.2	WMAIN-5897	5.1	Passed
033-011	46.8	45.7	1,252.5	1,752.5	WMAIN-5897	5.1	Passed
033-012	47.7	46.2	1,250.8	1,750.8	WMAIN-4038(1)	8.6	Passed
033-013	45.3	41.7	1,251.7	1,751.7	WMAIN-3949(2)	5.6	Passed
033-014	45.3	43.2	1,251.8	1,751.8	WMAIN-3949(2)	8.9	Passed
033-015	45	43.3	1,254.7	1,754.7	WMAIN-5897	5.1	Passed
033-016	45.1	43.3	1,251.4	1,751.4	WMAIN-3948(1)	9.2	Passed
033-017	44.8	41.1	1,269.9	1,769.9	WMAIN-3948(1)	6.1	Passed
033-018	44.2	41.2	1,257.2	1,757.2	WMAIN-4035(2)	7.7	Passed
033-019	46.7	43.2	1,251.2	1,751.2	WMAIN-8195	5.7	Passed
033-020	46.5	43.7	1,251.2	1,751.2	WMAIN-7483(1)	7	Passed
033-021	45.9	43.2	1,250.4	1,750.4	WMAIN-7487(1)	8.2	Passed
033-022	45.9	43.3	1,252.2	1,752.2	WMAIN-7488	5.6	Passed
034-003	47.7	46.7	1,252.2	1,752.2	WMAIN-5897	5.2	Passed
034-004	47.7	41.9	5,000.0	5,500.0	WMAIN-5897	6.3	Passed
034-005	47.4	45	1,255.6	1,755.6	WMAIN-5422(1)	8.2	Passed
034-006	47.3	43.9	1,250.9	1,750.9	WMAIN-5416(1)	7	Passed
034-007	47.3	35.4	1,251.3	1,320.5	WMAIN-5414(1)	15	Passed
034-008	47	43.2	1,250.7	1,750.7	WMAIN-5408	6.1	Passed
034-009	47.1	35.1	1,251.3	1,320.5	WMAIN-5410(1)	15	Passed
034-010	47.7	44.4	3,501.0	4,001.0	WMAIN-2361(1)	8.3	Passed
034-011	47.5	46	1,250.5	1,750.5	WMAIN-4988(2)	9.2	Passed
034-012	47.5	44	1,250.0	1,750.0	WMAIN-4988(2)	6	Passed
034-013	47.4	39.9	1,251.0	1,751.0	WMAIN-4993(1)	11.3	Passed
034-014	47.3	45.8	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
034-015	47.6	41.6	1,251.6	1,751.6	WMAIN-5011(1)	11.2	Passed
034-016	47.4	44.5	1,250.0	1,750.0	WMAIN-3308(2)	8.5	Passed
034-017	47.1	42.6	1,251.9	1,751.9	WMAIN-3308(1)(2)	5.8	Passed
034-018	46.9	43.2	1,252.6	1,752.6	WMAIN-4994(1)	7.5	Passed
034-019	47.5	44.8	1,252.4	1,752.4	WMAIN-5013(2)	8.5	Passed
034-020	47.6	45	1,250.5	1,750.5	WMAIN-5005(1)	5.8	Passed
034-021	47.8	46.7	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
034-022	47.7	46.7	1,250.7	1,750.7	WMAIN-5897	5.2	Passed
034-023	47.3	41	3,504.9	4,004.9	WMAIN-2359(1)	6.1	Passed
034-024	47	45.3	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
034-025	46.8	45.2	1,250.8	1,750.8	WMAIN-5897	5.2	Passed
034-026	46.6	45.2	1,251.1	1,751.1	WMAIN-5897	5.2	Passed
034-027	46.6	43.8	1,250.1	1,750.1	WMAIN-2256(2)	11.2	Passed
034-028	46.5	44.3	1,250.4	1,750.4	WMAIN-4066(1)	7	Passed
034-029	46.1	43.8	1,251.3	1,751.3	WMAIN-2534(2)	6.4	Passed
034-030	45.9	43.6	1,250.9	1,750.9	WMAIN-4046(2)	6.6	Passed
034-031	45.7	43.6	1,252.4	1,752.4	WMAIN-2530(2)	7.7	Passed
034-032	45.5	43.1	1,254.6	1,754.6	WMAIN-2259(2)	8.1	Passed
034-033	43.8	42.6	1,253.7	1,753.7	WMAIN-5897	5.2	Passed
034-034	46.1	43.6	1,250.7	1,750.7	WMAIN-4308(2)	6.3	Passed
034-035	46.4	43	1,250.0	1,750.0	WMAIN-3979(2)	7	Passed
034-036	46.2	42.5	1,253.0	1,753.0	WMAIN-4058	6.5	Passed
034-037	46.4	44.1	1,250.5	1,750.5	WMAIN-3964(1)	6.1	Passed
034-038	47	42.6	1,251.1	1,751.1	WMAIN-4997(2)	6.6	Passed
034-039	47.1	42.5	1,251.2	1,751.2	WMAIN-3972	6.1	Passed
034-040	47.7	46.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
034-041	47.7	45	1,252.0	1,752.0	WMAIN-5004(1)	7.6	Passed
034-042	46.5	44.1	1,254.9	1,754.9	WMAIN-1088(1)	5.7	Passed
034-043	46	43	1,252.0	1,752.0	WMAIN-1084(1)	6.3	Passed
034-044	46.7	42.9	1,250.0	1,750.0	WMAIN-3985(2)	6	Passed
034-045	46.8	43.8	1,256.1	1,756.1	WMAIN-3985(1)(1)	7.6	Passed
034-046	43.7	42.8	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
034-054	47.5	46.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
035-001	48.5	46.8	1,256.1	1,756.1	WMAIN-5353(1)(1)	9.3	Passed
035-002	48	44	1,250.0	1,750.0	WMAIN-5353(1)(1)	6.3	Passed
035-003	47.7	42.7	1,256.9	1,756.9	WMAIN-5340(1)	7	Passed
035-004	47.5	41.9	1,250.0	1,750.0	WMAIN-5340(2)(2)	6	Passed
035-005	47.3	42.5	1,255.3	1,755.3	WMAIN-5342(1)	6	Passed
035-006	47.4	39	1,253.9	1,753.9	WMAIN-5348(1)(1)	13.5	Passed
035-007	47.7	36.9	1,250.0	1,750.0	WMAIN-5348(2)	10.9	Passed
035-008	47.8	42.1	1,251.2	1,751.2	WMAIN-5351(2)	11.3	Passed
035-009	47.9	43.7	1,250.0	1,750.0	WMAIN-5335(1)	10.2	Passed
035-010	48.3	42	1,253.5	1,753.5	WMAIN-5337(1)	13.2	Passed
035-011	48.2	38.5	1,254.5	1,754.5	WMAIN-5358(1)	11.1	Passed
035-012	48.1	39.2	1,252.1	1,752.1	WMAIN-5355B	11.5	Passed
035-013	47.7	37.3	1,251.5	1,751.5	WMAIN-5332	11.7	Passed
035-014	47.5	33.4	1,250.5	1,321.4	WMAIN-5325(2)(2)	15	Passed
035-015	47.5	40.5	1,250.0	1,321.0	WMAIN-5325(2)(2)	15	Passed
035-016	47.3	33.7	1,254.6	1,754.6	WMAIN-7306(2)	10.7	Passed
035-017	47.1	35.5	1,250.0	1,750.0	WMAIN-7320(2)(2)	12.3	Passed
035-018	47.3	40.2	1,253.8	1,664.9	WMAIN-7320(1)	15	Passed
035-019	47.7	39	3,505.7	3,505.2	WMAIN-6853(1)(1)	14.7	Velocity Failed
035-020	47.3	43.6	1,251.4	1,751.4	WMAIN-1009(2)(1)	5.9	Passed
035-021	47.1	43.4	1,252.4	1,752.4	WMAIN-3406(1)	7.2	Passed
035-022	46.9	43.1	1,251.8	1,751.8	WMAIN-7317(2)	6.1	Passed
035-023	47.1	43	1,250.0	1,750.0	WMAIN-5342(2)(2)	7.1	Passed
035-024	46.8	43	1,252.5	1,752.5	WMAIN-6857(1)	5.6	Passed
035-025	47.3	40.1	1,251.6	1,751.6	WMAIN-7310(1)	13.2	Passed
035-026	47.5	45	1,250.7	1,750.7	WMAIN-6850(2)	6.2	Passed
035-027	47.5	36	1,251.4	1,751.4	WMAIN-3411(2)	12.8	Passed
035-028	47.3	22	2,500.0	2,440.8	WMAIN-6843(1)	15	Velocity Failed
035-029	47.1	42.3	1,253.7	1,647.3	WMAIN-6843(1)	15	Passed
035-030	46.9	35.6	1,254.4	1,754.4	WMAIN-7315(2)	10.6	Passed
035-031	47	37.7	1,254.1	1,754.1	WMAIN-7303(2)	11.8	Passed
035-032	46.9	43.1	1,251.4	1,751.4	WMAIN-6861(1)	6.3	Passed
035-033	48.5	47.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
035-034	47.5	46.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
035-035	47.8	46.4	1,250.3	1,750.3	WMAIN-0957(1)	8.4	Passed
035-036	47.5	43.4	1,251.3	1,751.3	WMAIN-0949(1)	6.7	Passed
035-037	47.7	43.9	1,252.4	1,752.4	WMAIN-1918(1)	7.4	Passed
035-038	47.4	42.3	1,253.1	1,753.1	WMAIN-1916(1)	6.3	Passed
035-039	47.4	42.6	1,251.7	1,751.7	WMAIN-1922	7	Passed
035-040	47.4	44	1,252.6	1,752.6	WMAIN-1936(2)	7.3	Passed
035-041	47.6	45.2	1,250.4	1,750.4	WMAIN-1925(2)	7	Passed
035-042	47.7	44.2	1,251.4	1,751.4	WMAIN-1926(2)(2)	6.5	Passed
035-043	47.7	45	1,250.5	1,750.5	WMAIN-0948(2)	6.6	Passed
035-044	47.8	46.9	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
035-045	47.4	46	1,250.1	1,750.1	WMAIN-5897	5.2	Passed
035-046	47.3	41.1	3,500.0	4,000.0	WMAIN-2359(1)	6.3	Passed
036-001	49.3	47.1	2,501.1	3,001.1	WMAIN-5897	5.4	Passed
036-002	48.7	47.8	1,251.2	1,751.2	WMAIN-5897	5.2	Passed
036-003	48.5	47.2	1,251.1	1,751.1	WMAIN-5897	5.2	Passed
036-004	48.3	44.6	1,253.6	1,677.9	WMAIN-5355A(1)	15	Passed
036-005	48.4	36.5	1,250.9	1,750.9	WMAIN-3400	11.2	Passed
036-006	48.6	41.8	1,250.8	1,678.9	WMAIN-5383(1)	15	Passed
036-007	48.8	41.9	1,250.8	1,750.8	WMAIN-5402(1)	11.2	Passed
036-008	48.8	39	1,250.8	1,750.8	WMAIN-5391(2)	11.5	Passed
036-009	48.6	37.4	1,251.1	1,321.0	WMAIN-5381(1)	15	Passed
036-010	49.7	31.4	3,503.8	2,023.4	WMAIN-5569(1)(1)	15	Velocity Failed
036-013	49.3	34	3,501.4	4,001.4	WMAIN-6815(2)	14.5	Passed
036-016	49.2	37.4	2,500.2	3,000.2	WMAIN-5988(2)	13.6	Passed
036-017	49.1	39.8	2,500.3	3,000.3	WMAIN-6813(2)	11.2	Passed
036-018	48.9	42.5	2,503.3	1,730.4	WMAIN-5993(1)	15	Velocity Failed
036-019	48.8	44.5	1,251.8	1,751.8	WMAIN-5396(2)	8.8	Passed
036-020	48.9	40.5	1,251.1	1,751.1	WMAIN-6831(1)	11.6	Passed
036-021	49.1	41.2	2,502.5	1,943.9	WMAIN-3398(2)	15	Velocity Failed
036-022	48.7	34	1,251.5	1,751.5	WMAIN-3396	12.1	Passed
036-023	48.6	31.8	1,254.9	1,754.9	WMAIN-5398(1)(1)	11.2	Passed
036-024	48.4	22.7	1,250.0	1,750.0	WMAIN-5398(1)(1)	11.2	Passed
036-025	48.6	37.3	1,250.7	1,750.7	WMAIN-7322(1)	13.8	Passed
036-026	48.8	35.8	1,250.0	1,750.0	WMAIN-6826(1)	10.2	Passed
036-027	48.9	32.9	2,502.6	2,353.5	WMAIN-7323(2)	15	Velocity Failed
036-028	49.1	29.9	2,500.7	2,577.1	WMAIN-7325	15	Passed
036-029	49.3	41.3	5,000.3	1,859.4	WMAIN-3394	15	Velocity Failed
036-030	49	34	3,504.5	2,183.1	WMAIN-3393(1)	15	Velocity Failed
036-031	48.9	32.7	3,500.6	2,333.0	WMAIN-6801	15	Velocity Failed
036-032	49.2	30	3,500.0	2,588.8	WMAIN-1031(2)(2)(2)	15	Velocity Failed
036-033	49.1	30.3	2,503.4	2,583.8	WMAIN-2687(1)	15	Passed
036-034	49	34.1	3,501.9	4,001.9	WMAIN-1033(1)	13.8	Passed
036-035	49.2	45.5	2,502.4	2,886.1	WMAIN-2399	15	Passed
036-036	48.9	44.4	2,505.7	1,761.1	WMAIN-6457(1)	15	Velocity Failed
036-037	48.8	37	2,508.6	3,008.6	WMAIN-2253(2)	9.7	Passed
036-038	48.5	36.4	2,501.2	3,001.2	WMAIN-6852(1)	10.5	Passed
036-039	48.6	35.6	1,251.2	1,320.5	WMAIN-6512(1)	15	Passed
036-040	48.2	44.8	1,253.4	1,753.4	WMAIN-6852(1)	7.8	Passed
036-041	47.9	45.4	1,250.0	1,750.0	WMAIN-3403(1)	7.5	Passed
036-042	47.9	42.9	1,251.3	1,751.3	WMAIN-0567(2)(1)	11.2	Passed
036-043	47.6	46.1	1,252.4	1,752.4	WMAIN-5897	5.2	Passed
036-044	49.1	45.1	2,509.8	3,009.8	WMAIN-2399	13.2	Passed
036-045	49	34	2,500.0	2,419.5	WMAIN-6457(1)	15	Velocity Failed
036-047	48.9	31.1	3,503.8	2,246.4	WMAIN-0603(2)	15	Velocity Failed
036-048	48.9	39	1,251.4	1,321.0	WMAIN-5375(1)	15	Passed
036-049	49.1	46.2	1,251.0	1,321.0	WMAIN-2674(1)	15	Passed
036-050	48.9	40	2,502.2	3,002.2	WMAIN-2250(2)	9.6	Passed
036-051	49.3	42.7	3,501.4	1,838.3	WMAIN-1031(1)	15	Velocity Failed
036-053	49	41.3	1,255.2	1,755.2	WMAIN-0621	11.2	Passed
036-055	48.9	43.1	1,250.9	1,718.5	WMAIN-2357	15	Passed
036-056	48.8	37.3	1,252.7	1,752.7	WMAIN-2357	12.3	Passed
036-057	48.9	31.7	2,501.0	2,251.4	WMAIN-6824(1)	15	Velocity Failed
036-058	48.9	28	3,500.3	2,432.6	WMAIN-5977(1)(1)	15	Velocity Failed
036-059	47.3	45.3	1,251.0	1,321.9	WMAIN-2694(1)	15	Passed
037-001	51.2	50.2	1,250.4	1,750.4	WMAIN-5897	5.3	Passed
037-002	50.6	49.3	1,251.7	1,751.7	WMAIN-5897	5.2	Passed
037-003	50.3	47.3	1,251.3	1,751.3	WMAIN-6197	7.8	Passed
037-004	49.8	46.7	3,500.2	3,537.8	WMAIN-3777	15	Passed
037-005	49.6	44.1	3,509.5	4,009.5	WMAIN-3777	12.5	Passed
037-006	49.1	41.4	3,501.0	4,001.0	WMAIN-3777	11	Passed
037-008	48.9	45	3,500.1	1,860.5	WMAIN-6793(2)	15	Velocity Failed
037-009	49	44.1	1,253.2	1,753.2	WMAIN-6793(2)	8.1	Passed
037-010	49.2	45.7	1,250.9	1,750.9	WMAIN-6586(2)	7.4	Passed
037-011	49.4	45	1,250.9	1,750.9	WMAIN-6586(2)	5.9	Passed
037-012	49.5	34.7	1,256.5	1,756.5	WMAIN-6585(2)	11.5	Passed
037-013	49.8	45.9	1,251.6	1,751.6	WMAIN-3382(2)	5.8	Passed
037-014	49.9	44.6	1,258.2	1,758.2	WMAIN-6744	6.4	Passed
037-015	50.1	46.9	1,251.6	1,751.6	WMAIN-3381(1)	6.4	Passed
037-016	50.3	38.3	1,253.3	1,753.3	WMAIN-5643(1)	11.5	Passed
037-017	50.6	41	1,250.0	1,750.0	WMAIN-5643(2)(2)	13.3	Passed
037-018	50.9	43.8	1,251.6	1,751.6	WMAIN-6782(2)	10.1	Passed
037-019	50.7	39.2	1,253.4	1,753.4	WMAIN-6784	10	Passed
037-020	50.3	42	1,250.5	1,750.5	WMAIN-5639(2)	13.1	Passed
037-021	50.4	47.4	1,250.5	1,750.5	WMAIN-6768(2)	6.6	Passed
037-022	50.3	39.6	1,253.9	1,753.9	WMAIN-5635(1)	10	Passed
037-023	50.1	42.7	1,252.9	1,752.9	WMAIN-6742(1)	12.2	Passed
037-024	49.8	45.9	1,254.8	1,754.8	WMAIN-6766	5.5	Passed
037-025	49.8	35.6	1,252.9	1,752.9	WMAIN-6582(1)	12.4	Passed
037-026	49.5	36.5	1,252.9	1,752.9	WMAIN-6753(1)	13.1	Passed
037-027	49.4	45.9	1,250.5	1,750.5	WMAIN-6763(1)	5.9	Passed
037-028	49.7	40.7	1,255.7	1,755.7	WMAIN-6750	9.4	Passed
037-029	50	36.2	1,253.4	1,753.4	WMAIN-6575(2)	11.4	Passed
037-030	49.3	44.2	1,256.7	1,592.9	WMAIN-6523(1)	15	Passed
037-031	49.5	32.1	1,250.0	1,750.0	WMAIN-6523(1)	10.7	Passed
037-032	49.3	33.4	1,250.0	1,750.0	WMAIN-6519	12.1	Passed
037-033	49.4	39.3	1,252.9	1,752.9	WMAIN-3387(1)	10.3	Passed
037-034	49.3	42.3	1,250.0	1,750.0	WMAIN-5629(2)(2)	11.6	Passed
037-035	49.3	44.5	1,252.9	1,752.9	WMAIN-5629(1)	14.6	Passed
037-036	49.3	45.4	1,253.1	1,753.1	WMAIN-6757	6.2	Passed
037-037	49.2	44.3	1,254.5	1,684.7	WMAIN-7335(1)(1)	15	Passed
037-038	49.2	38.4	1,250.0	1,750.0	WMAIN-7335(2)	11	Passed
037-039	49.2	42.4	1,251.1	1,751.1	WMAIN-3443(1)	12.5	Passed
037-040	49.2	39	1,253.7	1,753.7	WMAIN-6463(1)	11	Passed
037-041	49.2	34	3,502.0	4,002.0	WMAIN-6789(1)	13.9	Passed
037-042	49.2	39.5	1,251.7	1,751.7	WMAIN-1080(1)	10.1	Passed
037-043	49.1	35.8	1,254.4	1,754.4	WMAIN-6836(1)	10.4	Passed
037-044	49.1	45	5,000.9	1,684.3	WMAIN-6799(1)	15	Velocity Failed
037-045	49.3	35.4	1,252.4	1,752.4	WMAIN-7332(1)	11.2	Passed
037-046	49.2	36.8	1,251.5	1,751.5	WMAIN-2690(1)	11.2	Passed
037-047	49.2	38.1	1,253.9	1,753.9	WMAIN-2680	10	Passed
037-048	50.1	36	3,500.4	4,000.4	WMAIN-2264(2)	14.3	Passed
037-050	49.3	40.3	1,252.1	1,752.1	WMAIN-1093	10.6	Passed
038-001	50.7	50	1,253.0	1,753.0	WMAIN-5897	5.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
038-002	51.2	50.5	1,251.5	1,751.5	WMAIN-5897	5.3	Passed
038-003	51.3	48.5	3,500.0	4,000.0	WMAIN-5897	6.4	Passed
038-004	51.3	48.6	3,500.5	4,000.5	WMAIN-5897	6.4	Passed
038-005	51	50.3	1,250.4	1,750.4	WMAIN-5897	5.3	Passed
038-006	51	50.3	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
038-007	51.2	50.4	1,253.2	1,753.2	WMAIN-5897	5.3	Passed
038-008	51	46	1,251.6	1,321.0	WMAIN-6573(1)	15	Passed
038-009	50.8	39.7	1,251.9	1,751.9	WMAIN-5942(2)	12.8	Passed
038-010	50.7	47.5	1,251.2	1,751.2	WMAIN-6728(1)	6.6	Passed
038-011	50.5	40.3	1,252.5	1,752.5	WMAIN-6571(1)	13.3	Passed
038-012	50.2	39.5	1,252.5	1,752.5	WMAIN-6567(1)	13.3	Passed
038-013	50.1	46.5	1,250.4	1,750.4	WMAIN-6735(2)	5.9	Passed
038-014	49.9	39.3	1,252.0	1,752.0	WMAIN-5646(2)	13.4	Passed
038-015	50.2	45.5	1,255.1	1,755.1	WMAIN-6737(1)	6.3	Passed
038-016	50.4	45.8	1,251.3	1,751.3	WMAIN-6553(1)	6.5	Passed
038-017	50.5	38.5	1,252.6	1,752.6	WMAIN-6557(1)	11.9	Passed
038-018	50.7	47.4	1,251.2	1,751.2	WMAIN-6555(1)	7.4	Passed
038-019	50.6	38.8	1,252.2	1,752.2	WMAIN-6726(1)	12.1	Passed
038-020	50.8	47.4	1,254.3	1,754.3	WMAIN-6730(1)	5.6	Passed
038-021	50.8	48.7	1,251.3	1,751.3	WMAIN-6561(1)	5.9	Passed
038-022	51	47.5	1,255.0	1,755.0	WMAIN-6720(1)	5.6	Passed
038-023	51.3	42.2	1,252.9	1,752.9	WMAIN-6542(2)	10.9	Passed
038-024	51.3	49.8	1,250.2	1,750.2	WMAIN-6723(1)(2)	7.6	Passed
038-025	51	37	1,253.1	1,753.1	WMAIN-6545(1)	11.6	Passed
038-026	51.3	48.9	1,250.7	1,750.7	WMAIN-6723(1)(2)	5.8	Passed
038-027	51	36.9	1,253.5	1,753.5	WMAIN-2704(1)	11.5	Passed
038-028	51.3	48.9	1,250.7	1,750.7	WMAIN-6714(2)	7.4	Passed
038-029	51.2	49	1,251.0	1,751.0	WMAIN-3372(1)	6.2	Passed
038-030	50.8	40.1	1,252.7	1,752.7	WMAIN-6712(1)	10.1	Passed
038-031	51	42.9	1,250.9	1,750.9	WMAIN-5650(1)	10.6	Passed
038-032	50.9	47.4	1,250.0	1,750.0	WMAIN-6706(1)	5.9	Passed
038-033	51.2	45.5	1,258.2	1,758.2	WMAIN-6533(1)	7.5	Passed
038-034	51.3	44.4	1,251.9	1,751.9	WMAIN-6529	5.9	Passed
038-035	50.7	38.6	1,254.3	1,754.3	WMAIN-4417(1)	11.2	Passed
038-036	51.2	45.2	1,251.8	1,321.0	WMAIN-6527(1)	15	Passed
038-037	51.3	47.9	1,250.7	1,750.7	WMAIN-1028(2)	5.6	Passed
038-038	51.2	42.2	1,251.1	1,751.1	WMAIN-6530	11.2	Passed
038-039	50.9	44.3	1,254.2	1,754.2	WMAIN-6565(2)	10.7	Passed
038-040	50	44.5	1,253.3	1,753.3	WMAIN-5493(1)	6.8	Passed
038-041	49.8	45.5	1,251.0	1,751.0	WMAIN-5261(1)	7.6	Passed
038-042	49.7	44.8	1,251.5	1,751.5	WMAIN-5152	6.3	Passed
038-043	49.3	36.8	1,251.8	1,751.8	WMAIN-5495(1)	11.7	Passed
038-044	49.4	36.7	1,253.2	1,753.2	WMAIN-5258(1)	11.6	Passed
038-045	50.4	44.9	1,251.2	1,751.2	WMAIN-5166(2)	6.7	Passed
038-046	49.9	44.4	1,254.0	1,754.0	WMAIN-5152	6.7	Passed
038-047	49.7	45.4	1,251.9	1,751.9	WMAIN-5152	6.8	Passed
038-048	50	46.3	1,252.2	1,752.2	WMAIN-5173(1)	9	Passed
038-050	50.4	49.1	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
038-051	50.3	44.9	1,250.0	1,750.0	WMAIN-5152	7.2	Passed
038-052	50.2	43.8	1,251.5	1,751.5	WMAIN-5161(1)	11.2	Passed
038-053	49.8	48.5	1,252.3	1,752.3	WMAIN-5897	5.2	Passed
038-054	49.8	46.3	1,253.2	1,753.2	WMAIN-5150(1)(1)	7.2	Passed
038-055	50.6	49.3	1,251.7	1,751.7	WMAIN-5897	5.3	Passed
038-056	50.7	49.4	1,251.0	1,751.0	WMAIN-5897	5.3	Passed
038-057	50.9	49.7	1,251.3	1,751.3	WMAIN-5897	5.3	Passed
038-058	51	50	1,251.3	1,751.3	WMAIN-5897	5.3	Passed
038-059	51.1	48.2	3,501.2	4,001.2	WMAIN-5897	6.2	Passed
038-061	49.5	45.5	1,250.0	1,750.0	WMAIN-4411	5.9	Passed
038-062	50.8	47.6	1,253.9	1,753.9	WMAIN-4413	7.1	Passed
038-063	51	47.6	1,251.4	1,751.4	WMAIN-4423(1)	11.2	Passed
039-001	51.7	46.5	1,250.0	1,750.0	WMAIN-5509(2)	5.9	Passed
039-002	51.7	47.5	1,254.1	1,754.1	WMAIN-5501(1)(1)	7.5	Passed
039-003	52	48	1,251.8	1,751.8	WMAIN-5499(2)	5.7	Passed
039-004	52.1	50.1	1,251.2	1,751.2	WMAIN-5506(1)	8.6	Passed
039-005	52.4	50.9	1,250.9	1,750.9	WMAIN-5897	5.2	Passed
039-006	51.9	47.6	1,251.3	1,751.3	WMAIN-5509(2)	7.4	Passed
039-007	52.7	51.2	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
039-008	52.3	49.4	1,250.8	1,750.8	WMAIN-5515(1)	7	Passed
039-009	51.9	48.5	1,251.4	1,751.4	WMAIN-5513(1)	6	Passed
039-010	51.6	47	1,251.0	1,751.0	WMAIN-5523(1)	6.8	Passed
039-011	51.5	41.8	1,252.3	1,752.3	WMAIN-5521(1)	11.2	Passed
039-012	51.1	47.2	1,251.2	1,738.2	WMAIN-5712(2)	15	Passed
039-013	51.1	44	1,250.4	1,750.4	WMAIN-5708(2)	14.5	Passed
039-014	51.1	44.5	1,252.5	1,752.5	WMAIN-5712(2)	7.4	Passed
039-015	51.1	39.7	1,251.3	1,751.3	WMAIN-5711(1)	11.2	Passed
039-016	51.1	44.1	1,250.6	1,750.6	WMAIN-5698(2)	10.9	Passed
039-017	51.2	44.3	1,253.9	1,753.9	WMAIN-5712(2)	6.7	Passed
039-018	50.9	45	1,251.6	1,751.6	WMAIN-5712(2)	6.6	Passed
039-019	51.1	42.5	1,251.5	1,751.5	WMAIN-5726(1)	11.2	Passed
039-020	51	45.4	1,253.7	1,753.7	WMAIN-5724(2)	6.7	Passed
039-021	51.2	47.5	1,252.7	1,752.7	WMAIN-5733	6.3	Passed
039-022	51.4	47.2	1,252.5	1,752.5	WMAIN-5733	6	Passed
039-023	51.2	45.5	1,253.7	1,753.7	WMAIN-5701(2)	6.5	Passed
039-024	51.1	41.4	1,250.9	1,750.9	WMAIN-5696(2)	11.6	Passed
039-025	51.2	43.4	1,250.0	1,750.0	WMAIN-5695(1)(1)	7.7	Passed
039-026	51.7	46.7	1,257.8	1,757.8	WMAIN-5695(1)(1)	9	Passed
039-027	51.3	47.2	1,250.5	1,750.5	WMAIN-5749(1)	7.5	Passed
039-028	51.7	46	1,250.2	1,750.2	WMAIN-5759(1)	11.2	Passed
039-029	51.3	47.5	1,252.3	1,752.3	WMAIN-5743(1)	8.4	Passed
039-030	51.2	48.1	1,251.3	1,751.3	WMAIN-5737(1)	7.8	Passed
039-031	51.8	44.1	1,252.2	1,752.2	WMAIN-5755(1)	11.2	Passed
039-032	51.4	47.4	1,250.6	1,321.0	WMAIN-5735(1)	15	Passed
039-033	52.2	50.3	1,250.3	1,750.3	WMAIN-5757(1)	9	Passed
039-034	52.9	49.5	1,250.0	1,750.0	WMAIN-5679(2)	7.2	Passed
039-035	52.5	49.4	1,252.3	1,752.3	WMAIN-5679(1)(1)	7.5	Passed
039-036	52.6	48.4	1,251.7	1,751.7	WMAIN-5674(2)	7.4	Passed
039-037	52.9	47.9	1,251.0	1,751.0	WMAIN-5528(2)	6	Passed
039-038	53.1	49.2	1,250.7	1,750.7	WMAIN-5528(2)	7.7	Passed
039-039	53.1	49.8	1,252.1	1,752.1	WMAIN-5687(2)	6.5	Passed
039-040	53.4	51.6	1,250.7	1,750.7	WMAIN-5689(2)	8.3	Passed
039-041	53	51.4	1,252.0	1,752.0	WMAIN-5897	5.2	Passed
039-042	52.2	48.6	1,250.6	1,750.6	WMAIN-5678(2)	6.1	Passed
039-043	52	47.7	1,251.0	1,321.0	WMAIN-4964(1)	15	Passed
039-044	51.8	47.5	1,251.0	1,321.0	WMAIN-4953(1)	15	Passed
039-045	51.6	47.2	1,251.0	1,751.0	WMAIN-3435(2)	5.8	Passed
039-046	51.5	46.9	1,252.7	1,752.7	WMAIN-5527(2)	6.9	Passed
039-047	51.8	43.5	1,251.1	1,751.1	WMAIN-4962(1)	11.2	Passed
039-048	52	48	1,250.7	1,750.7	WMAIN-5524(2)	5.9	Passed
039-053	52.5	48.9	1,253.1	1,753.1	WMAIN-1116(2)	6.9	Passed
039-054	52.3	48.6	1,250.5	1,750.5	WMAIN-5691(2)	6.7	Passed
039-055	51.7	47.7	1,250.4	1,750.4	WMAIN-1102(2)	7.2	Passed
039-056	52.4	48.5	1,250.7	1,750.7	WMAIN-1115(1)	7.1	Passed
039-057	52.1	45.8	1,251.8	1,751.8	WMAIN-1098(1)	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
039-058	52.2	45.2	1,251.4	1,751.4	WMAIN-5686	5.9	Passed
039-059	52.4	45.8	1,251.4	1,751.4	WMAIN-1119(1)	6.8	Passed
040-001	54.4	53	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
040-002	54.9	53.6	1,253.6	1,753.6	WMAIN-5897	5.2	Passed
040-003	53.8	52.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
040-004	53.7	52	1,252.3	1,752.3	WMAIN-4522(1)	5.6	Passed
040-005	52.7	31	3,500.0	3,863.3	WMAIN-1113(2)	15	Passed
040-006	52.4	47.9	1,264.2	1,764.2	WMAIN-1113(1)(1)	7.8	Passed
040-009	53.8	52.3	1,250.9	1,750.9	WMAIN-5897	5.2	Passed
040-010	54	52.3	1,250.7	1,750.7	WMAIN-4511(2)	7.8	Passed
040-011	53.7	50.3	1,250.8	1,750.8	WMAIN-4531(1)	11.2	Passed
040-012	53.7	49.7	1,250.8	1,750.8	WMAIN-4528(1)	11.2	Passed
040-013	53.7	50.1	1,251.1	1,751.1	WMAIN-4499(1)	11.2	Passed
040-014	54.1	51.7	1,250.0	1,750.0	WMAIN-4517(1)	7.5	Passed
040-015	54.4	52.9	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
040-016	54.3	52.2	1,250.5	1,750.5	WMAIN-4524(2)	9.2	Passed
040-017	54	50.3	1,250.3	1,750.3	WMAIN-4540(1)	8.7	Passed
040-018	54.2	49	1,252.0	1,752.0	WMAIN-0844(1)	6.9	Passed
040-019	54.1	47.8	1,253.7	1,753.7	WMAIN-4540(1)	6.8	Passed
040-020	54.1	47.6	1,251.2	1,751.2	WMAIN-4493(1)	7.8	Passed
040-021	54.8	47.7	1,256.1	1,756.1	WMAIN-4534(1)	6.9	Passed
040-022	54.3	52.2	1,250.3	1,750.3	WMAIN-0852(1)	8.2	Passed
040-023	53.9	51.9	1,250.9	1,750.9	WMAIN-4440(2)	7.3	Passed
040-024	53.5	51.4	1,251.3	1,751.3	WMAIN-4446(1)	6.3	Passed
040-025	53.7	50.3	1,252.8	1,752.8	WMAIN-4433(1)	5.7	Passed
040-026	53.5	50.7	1,251.1	1,751.1	WMAIN-4449(1)	7.2	Passed
040-027	53.1	49.3	1,252.9	1,752.9	WMAIN-1108(1)	7.3	Passed
040-028	53.1	48.8	1,251.0	1,751.0	WMAIN-4449(1)	6.1	Passed
040-029	52.1	47.5	1,254.7	1,754.7	WMAIN-2507(2)	7.7	Passed
040-031	53.3	48.2	1,251.0	1,751.0	WMAIN-4449(1)	6.5	Passed
040-034	53.3	51.6	1,251.9	1,751.9	WMAIN-4456(1)	6.7	Passed
040-035	53.4	51.8	1,250.5	1,750.5	WMAIN-5897	5.3	Passed
040-036	53.4	49	1,250.9	1,750.9	WMAIN-1992(2)	7.6	Passed
040-037	53.9	46.1	3,500.0	4,000.0	WMAIN-5897	6.3	Passed
041-001	52.6	50.2	1,256.7	1,756.7	WMAIN-3778	6.7	Passed
041-002	52.6	50.1	1,250.0	1,750.0	WMAIN-3778	6.7	Passed
041-003	52.8	42.8	3,500.0	4,000.0	WMAIN-3778	10.9	Passed
041-004	53.1	50.4	1,250.0	1,750.0	WMAIN-3605(2)	7.8	Passed
041-005	53.1	50.5	1,250.0	1,750.0	WMAIN-3778	6.7	Passed
041-006	53.2	50	1,250.7	1,750.7	WMAIN-1133(1)	8.7	Passed
041-007	53.2	46.9	1,252.2	1,752.2	WMAIN-3778	6.7	Passed
041-008	53	47.2	1,251.0	1,751.0	WMAIN-3640(1)	7.3	Passed
041-009	53.1	47.1	1,252.6	1,752.6	WMAIN-1136	7.1	Passed
041-010	53.2	46.8	1,250.0	1,750.0	WMAIN-3778	6.7	Passed
041-011	53.2	50.5	1,252.8	1,752.8	WMAIN-3778	6.8	Passed
041-012	52.2	48.6	1,251.3	1,751.3	WMAIN-5776(2)	6.6	Passed
041-013	52.2	45.7	1,250.8	1,750.8	WMAIN-3633(2)	11.2	Passed
041-014	52.5	47.6	1,253.1	1,753.1	WMAIN-3618(2)	6.4	Passed
041-015	52.7	47.9	1,251.8	1,751.8	WMAIN-3619(2)	6.6	Passed
041-016	52.9	47.9	1,251.2	1,751.2	WMAIN-3608(1)	7.7	Passed
041-017	52.4	46	1,250.0	1,750.0	WMAIN-3778	6	Passed
041-018	52.3	47.2	1,252.9	1,752.9	WMAIN-3611(1)(1)	8.9	Passed
041-019	52.6	47.2	1,251.4	1,751.4	WMAIN-3627(2)	7.1	Passed
041-020	52	48.4	1,252.9	1,752.9	WMAIN-2049(1)(1)(1)	6.8	Passed
041-021	53.2	47.2	1,252.4	1,752.4	WMAIN-3346(1)	11.2	Passed
041-022	53.1	46.1	1,255.5	1,755.5	WMAIN-3778	6.7	Passed
041-023	53	46.6	1,256.9	1,756.9	WMAIN-4798	6.9	Passed
041-024	52.9	48.5	1,251.1	1,751.1	WMAIN-1946(2)	7	Passed
041-025	52.7	46.8	1,256.2	1,756.2	WMAIN-3778	6.7	Passed
041-026	52.8	48.3	1,250.0	1,750.0	WMAIN-2216(2)	8.4	Passed
041-027	52.8	47.7	1,253.8	1,753.8	WMAIN-3778	6.7	Passed
041-028	53	48.6	1,251.1	1,751.1	WMAIN-1947(2)	7	Passed
041-029	53.1	48.9	1,250.7	1,750.7	WMAIN-3010(1)	7.3	Passed
041-030	53	46.9	1,253.1	1,753.1	WMAIN-3017(2)	7.5	Passed
041-031	52.9	45.9	1,252.2	1,752.2	WMAIN-3778	6.7	Passed
041-032	53	46.1	1,250.0	1,750.0	WMAIN-3026(2)	11.2	Passed
041-033	53.2	47.6	1,251.5	1,751.5	WMAIN-3778	6.7	Passed
041-034	52.7	51.2	1,250.3	1,750.3	WMAIN-5897	5.4	Passed
041-035	53	51.5	1,250.1	1,750.1	WMAIN-5897	5.4	Passed
041-036	53.2	51.6	1,250.6	1,750.6	WMAIN-5897	5.3	Passed
041-037	53.3	51.8	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
041-038	53.4	51.8	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
041-039	52.9	50.4	1,250.6	1,750.6	WMAIN-7711(1)	6.9	Passed
041-040	53.1	50.3	1,250.5	1,750.5	WMAIN-7713(1)	7.6	Passed
041-041	53.2	47.9	1,258.2	1,758.2	WMAIN-7718(1)(1)	7.5	Passed
041-042	53.3	48.6	1,256.6	1,756.6	WMAIN-7717(1)	7.5	Passed
041-043	53.4	47.1	1,250.0	1,750.0	WMAIN-7723	5.9	Passed
041-044	53.5	48.1	1,250.0	1,750.0	WMAIN-7723	6.3	Passed
041-045	53.5	47.1	1,251.0	1,751.0	WMAIN-7715(1)(1)	7	Passed
041-046	53.7	46.6	1,250.0	1,750.0	WMAIN-7723	6.4	Passed
041-047	53.7	45.4	1,250.1	1,750.1	WMAIN-7709(2)	11.2	Passed
041-048	53.9	48.5	1,252.5	1,752.5	WMAIN-7721(2)	8	Passed
041-049	54	50.8	1,259.0	1,759.0	WMAIN-5897	5.3	Passed
041-050	53.9	51.6	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
041-051	53.7	48.9	1,250.6	1,750.6	WMAIN-7719(2)	8	Passed
042-001	52.1	50.7	1,250.8	1,750.8	WMAIN-5897	5.5	Passed
042-002	52.2	41.8	1,251.1	1,751.1	WMAIN-5769(1)(1)	13.2	Passed
042-003	52.2	41.6	1,251.8	1,751.8	WMAIN-5773(1)(1)	13	Passed
042-004	51.9	48	1,253.4	1,753.4	WMAIN-5767	6.3	Passed
042-005	52.1	49.1	1,251.3	1,751.3	WMAIN-5779(1)	6.1	Passed
042-006	52.1	48.8	1,251.4	1,751.4	WMAIN-2004(1)(1)	6	Passed
042-007	51.6	43	1,252.9	1,752.9	WMAIN-5788(2)	11	Passed
042-008	51.7	48.4	1,250.8	1,750.8	WMAIN-5897	5.7	Passed
042-009	51.6	48.4	1,251.0	1,751.0	WMAIN-6701(2)	7.4	Passed
042-010	51.5	33.9	1,252.1	1,320.5	WMAIN-2504(1)	15	Passed
042-011	51.7	47.7	1,251.3	1,751.3	WMAIN-6697	5.9	Passed
042-012	51.5	33	1,252.5	1,320.5	WMAIN-6063(1)	15	Passed
042-013	51.9	49.7	1,250.4	1,750.4	WMAIN-7420(1)	8.1	Passed
042-014	51.2	33.3	1,251.7	1,751.7	WMAIN-6061(1)	10.6	Passed
042-015	51.4	37.2	1,254.7	1,754.7	WMAIN-7254(1)	13.1	Passed
042-016	51.3	47.9	1,250.9	1,750.9	WMAIN-7418(1)	6.8	Passed
042-017	51.3	41.7	1,251.8	1,751.8	WMAIN-7416(1)	10	Passed
042-018	51.1	44.1	1,254.0	1,754.0	WMAIN-7423(2)	11.1	Passed
042-019	51.1	47.9	1,252.7	1,752.7	WMAIN-7263(1)	5.9	Passed
042-020	51.3	49	1,250.7	1,750.7	WMAIN-7259(2)	5.9	Passed
042-021	51.2	49.9	1,250.3	1,750.3	WMAIN-5897	5.5	Passed
042-022	51.3	48.6	1,252.9	1,752.9	WMAIN-7432(1)	6.6	Passed
042-023	51.3	48.9	1,252.3	1,752.3	WMAIN-7257(2)	7.7	Passed
042-024	51.1	35.1	1,251.7	1,751.7	WMAIN-7243	13.6	Passed
042-025	51.2	35.4	1,252.9	1,752.9	WMAIN-7243	13.4	Passed
042-026	51.2	36.4	1,253.0	1,753.0	WMAIN-7426(1)	10.2	Passed
042-027	51.2	49	1,250.6	1,750.6	WMAIN-7430(1)	7.2	Passed
042-028	51.3	46.6	3,503.4	4,003.4	WMAIN-5897	6.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
042-029	51	49.1	1,250.9	1,750.9	WMAIN-7271(1)	7.9	Passed
042-030	51.8	48.8	1,251.1	1,751.1	WMAIN-7269(1)	6.6	Passed
042-031	51.7	43.2	1,253.0	1,753.0	WMAIN-7405(1)	11.4	Passed
042-032	51.9	49.1	1,250.7	1,750.7	WMAIN-2080(2)	6.6	Passed
042-033	51.6	48.7	1,252.0	1,752.0	WMAIN-2074(2)	6.5	Passed
042-034	51.8	41.9	1,251.3	1,751.3	WMAIN-2062(1)	13.2	Passed
042-035	51.4	47.7	1,250.9	1,750.9	WMAIN-2067(1)	6.3	Passed
042-036	51.9	41.2	1,251.5	1,751.5	WMAIN-2502(1)	12.5	Passed
042-037	51.1	48	1,250.9	1,750.9	WMAIN-2076(1)	7.1	Passed
042-038	51.9	47.9	1,253.2	1,753.2	WMAIN-3778	6.5	Passed
042-039	51.9	47.9	1,251.4	1,751.4	WMAIN-3778	6.3	Passed
042-040	52.3	48.5	1,250.6	1,750.6	WMAIN-2272(2)	6.9	Passed
042-041	51.3	48	1,250.5	1,750.5	WMAIN-2063(1)	5.9	Passed
042-042	51.2	38.9	1,252.3	1,318.7	WMAIN-2072(1)	15	Passed
042-043	51.3	48.2	1,251.1	1,751.1	WMAIN-7267(2)	6.3	Passed
042-044	51.4	48.9	1,251.0	1,751.0	WMAIN-7265(1)	7.8	Passed
042-045	51.5	43.2	1,253.2	1,753.2	WMAIN-7399(2)	10.8	Passed
042-046	51.5	43	1,253.2	1,753.2	WMAIN-7402(2)	10.5	Passed
042-047	52.3	49.6	1,250.4	1,750.4	WMAIN-3778	6.4	Passed
042-048	52.1	48.9	1,250.0	1,750.0	WMAIN-2049(2)	7.6	Passed
042-049	51.3	47.2	1,251.9	1,751.9	WMAIN-3778	6.1	Passed
042-050	51	47.5	1,250.0	1,750.0	WMAIN-2043(2)	7.3	Passed
042-051	51.5	47.6	1,253.3	1,753.3	WMAIN-2043(1)(1)	6.1	Passed
042-052	52	48.4	1,250.0	1,750.0	WMAIN-2049(1)(1)(1)	6.8	Passed
042-053	52	48.8	1,250.0	1,750.0	WMAIN-2004(2)	6.3	Passed
042-054	51.5	46.9	1,254.7	1,754.7	WMAIN-2047(1)(1)	6.8	Passed
042-055	51.2	46.1	1,250.0	1,750.0	WMAIN-2035(2)	6	Passed
042-056	51	47.3	1,252.2	1,752.2	WMAIN-2035(2)	7.9	Passed
042-057	51.1	47.2	1,252.2	1,752.2	WMAIN-2034(2)	5.8	Passed
042-058	51.1	47.5	1,255.6	1,755.6	WMAIN-2022(2)	6.4	Passed
042-059	51	48	1,250.8	1,750.8	WMAIN-2017(2)	5.8	Passed
042-060	51.1	47.5	1,251.2	1,751.2	WMAIN-5897	5.8	Passed
042-061	51.2	48.4	1,251.7	1,751.7	WMAIN-2011(2)	7.7	Passed
043-001	51.2	47.6	3,500.0	4,000.0	WMAIN-6696(2)(2)	7.9	Passed
043-002	51.2	49.1	1,250.5	1,750.5	WMAIN-6056(1)	6.4	Passed
043-003	51.1	47.6	1,250.7	1,750.7	WMAIN-2031(1)	6.3	Passed
043-004	51.3	48.2	1,251.0	1,751.0	WMAIN-3354(2)	7	Passed
043-005	51.1	49.8	1,252.9	1,752.9	WMAIN-5897	5.7	Passed
043-006	51	48.1	1,251.0	1,751.0	WMAIN-7369	8	Passed
043-007	51.1	47.4	1,250.9	1,320.5	WMAIN-6078(1)	15	Passed
043-008	51.1	47.4	1,250.6	1,750.6	WMAIN-6074	6.9	Passed
043-009	51.3	47.9	1,252.2	1,752.2	WMAIN-6069(1)	7.8	Passed
043-010	51.2	47.4	1,250.6	1,320.1	WMAIN-7367(1)	15	Passed
043-011	51.2	46.1	1,250.8	1,750.8	WMAIN-6068	6.2	Passed
043-012	51.1	39.4	1,251.9	1,751.9	WMAIN-2485(2)	10.8	Passed
043-013	51.1	48.5	1,250.7	1,750.7	WMAIN-6681(2)	6	Passed
043-014	51.1	40.3	1,253.1	1,753.1	WMAIN-6655(2)	10.2	Passed
043-015	51.1	35	1,252.6	1,752.6	WMAIN-6657(1)	11.5	Passed
043-016	51.1	31.3	1,250.9	1,750.9	WMAIN-6659	10.9	Passed
043-017	51.1	31.3	1,253.0	1,753.0	WMAIN-6664(1)	11	Passed
043-018	51.1	35.6	1,262.6	1,762.6	WMAIN-6664(1)	13.3	Passed
043-022	51.1	44	2,500.0	2,539.3	WMAIN-7354(1)(1)	15	Passed
043-023	51.1	49	1,250.2	1,750.2	WMAIN-7354(1)(1)	14.4	Passed
043-024	51.1	41.9	1,261.7	1,761.7	WMAIN-7356(1)	15	Passed
043-025	51.1	49.9	1,250.7	1,750.7	WMAIN-6675(1)(1)	9.1	Passed
043-026	51.2	47.4	1,254.7	1,754.7	WMAIN-6677(2)	6.3	Passed
043-027	51.2	45.8	1,252.9	1,752.9	WMAIN-7359(2)	14.5	Passed
043-028	51.2	40.4	2,500.7	3,000.7	WMAIN-6669	11	Passed
043-029	51	49.7	1,250.8	1,750.8	WMAIN-7364(1)	7.5	Passed
043-030	51.1	48.6	1,251.2	1,751.2	WMAIN-7352(1)	7.2	Passed
043-031	51	42.1	2,510.5	3,010.5	WMAIN-6691(1)	10.3	Passed
043-032	51.1	47.4	1,253.5	1,753.5	WMAIN-6053(1)	6.6	Passed
043-033	51	47.1	1,254.1	1,754.1	WMAIN-6048(2)	6.8	Passed
043-034	51	47.1	1,252.2	1,752.2	WMAIN-6046(1)	6.9	Passed
043-035	51	49.3	1,250.6	1,750.6	WMAIN-7363(1)	7.1	Passed
043-036	51	48.1	1,253.2	1,753.2	WMAIN-6688(2)	5.9	Passed
043-037	51.2	47.7	1,253.2	1,753.2	WMAIN-7347(2)	7.7	Passed
043-038	51	46.7	1,251.8	1,751.8	WMAIN-6036(1)	6.7	Passed
043-039	51.1	49.5	1,250.8	1,750.8	WMAIN-7345(1)	8.4	Passed
043-040	51.2	47.9	1,250.6	1,611.1	WMAIN-7343(1)	15	Passed
043-041	51.2	47.9	1,250.1	1,750.1	WMAIN-3722(1)	8	Passed
043-042	51.2	46.1	1,250.5	1,750.5	WMAIN-6649(1)	6.6	Passed
043-043	51.2	42.5	1,254.6	1,754.6	WMAIN-7350(2)	8.1	Passed
043-044	51.2	40.2	1,250.0	1,750.0	WMAIN-3359	7.5	Passed
043-045	51.2	39.2	1,250.0	1,750.0	WMAIN-3359	8.7	Passed
043-046	51.2	38.7	1,255.7	1,755.7	WMAIN-3359	10	Passed
043-047	51.2	39.8	1,250.0	1,750.0	WMAIN-6038(2)	14.3	Passed
043-048	51.2	35.7	1,253.4	1,753.4	WMAIN-6042	11.4	Passed
043-049	51.2	38.7	1,253.0	1,753.0	WMAIN-6636(1)	10.5	Passed
043-050	51.3	50.7	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
043-052	51.2	47.1	3,502.3	4,002.3	WMAIN-5897	6.8	Passed
044-004	51.2	44.4	3,500.3	4,000.3	WMAIN-5897	6.6	Passed
044-006	51.1	38.2	2,502.6	3,002.6	WMAIN-6089(2)	12.1	Passed
044-007	51.2	28.6	3,508.1	3,940.1	WMAIN-7375(2)	15	Passed
044-009	51.1	46.9	2,503.1	3,003.1	WMAIN-5897	5.8	Passed
044-010	50.3	43.4	3,500.0	4,000.0	WMAIN-3329(2)(2)	7	Passed
044-011	49.8	42.6	3,502.4	4,002.4	WMAIN-5897	6.3	Passed
044-012	49.7	40.9	3,502.3	3,263.4	WMAIN-3321(1)	15	Velocity Failed
044-013	49.8	31.8	3,500.0	4,000.0	WMAIN-3321(1)	14.3	Passed
044-014	49.7	44.7	3,500.0	1,321.9	WMAIN-6208	15	Velocity Failed
044-015	49.2	36.1	3,500.0	4,000.0	WMAIN-6194(2)	14.6	Passed
044-016	49.2	32.7	3,500.0	4,000.0	WMAIN-3320(1)(1)(1)	12.8	Passed
044-017	50.4	41.6	3,502.2	2,889.1	WMAIN-6197	15	Velocity Failed
044-018	50.3	38.1	1,251.6	1,751.6	WMAIN-3363(2)	12.3	Passed
044-019	51	41.7	1,251.7	1,751.7	WMAIN-6195(2)	14.7	Passed
044-020	49.2	35	3,501.0	587.5	WMAIN-5574	15	Velocity Failed
044-021	51.1	37.3	1,251.0	1,751.0	WMAIN-4971(1)	13	Passed
044-022	50	35.4	1,251.8	1,751.8	WMAIN-6197	10.4	Passed
044-023	51	40.9	1,254.7	1,754.7	WMAIN-6625(1)	11.7	Passed
044-024	50.9	48.9	1,250.4	1,750.4	WMAIN-6197	13.3	Passed
044-025	51.1	48.4	1,250.0	1,750.0	WMAIN-6197	10.9	Passed
044-026	51.3	45.1	1,250.8	1,750.8	WMAIN-6604(1)	11.1	Passed
044-027	51.3	30.5	1,251.9	1,751.9	WMAIN-5657(2)	13.4	Passed
044-028	51.3	31.1	1,254.1	1,754.1	WMAIN-5653(2)	13.5	Passed
044-029	51.3	34.8	1,251.2	1,751.2	WMAIN-6197	11.3	Passed
044-030	51.3	31.2	1,253.9	1,753.9	WMAIN-6599(2)	12.2	Passed
044-031	51.3	30.4	1,251.7	1,751.7	WMAIN-6630(2)	11.6	Passed
044-032	51.3	39.1	1,254.4	1,754.4	WMAIN-4978(1)	13.8	Passed
044-033	51.2	34.1	1,250.0	1,750.0	WMAIN-6197	11.1	Passed
044-034	51.3	33.4	1,252.8	1,752.8	WMAIN-6595(1)	13.4	Passed
044-035	51.3	34	1,252.9	1,752.9	WMAIN-5671(1)	13.8	Passed
044-036	51.2	47.1	1,251.1	1,751.1	WMAIN-6197	12	Passed
044-037	50.8	43.9	1,250.4	1,750.4	WMAIN-6197	12	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
044-041	49.9	44.8	3,502.5	4,002.5	WMAIN-3670	14.6	Passed
044-044	50.6	31.9	1,251.8	1,320.1	WMAIN-4976(1)	15	Passed
044-045	50.6	45.1	1,250.0	1,748.4	WMAIN-4967(2)(2)	15	Passed
044-046	50.8	43.8	1,255.6	1,755.6	WMAIN-4967(1)	13.6	Passed
044-047	50.3	40.7	1,260.4	1,760.4	WMAIN-4969(1)	10.5	Passed
044-048	50.6	45.5	1,250.0	1,750.0	WMAIN-6197	10	Passed
044-049	50.3	43.9	3,500.0	4,000.0	WMAIN-3670	10.1	Passed
044-050	51.1	44.7	3,504.6	4,004.6	WMAIN-5897	6.7	Passed
044-051	49.4	33	3,500.0	4,000.0	WMAIN-3320(2)(2)	13.7	Passed
044-052	50.1	43.9	3,500.0	4,000.0	WMAIN-3670	12.2	Passed
045-001	49.5	24.6	3,500.7	2,211.7	WMAIN-5569(2)(2)	15	Velocity Failed
045-002	49.2	41.1	3,500.2	1,733.5	WMAIN-3318(1)	15	Velocity Failed
045-003	49.5	27.5	3,500.0	2,152.8	WMAIN-3318(1)	15	Velocity Failed
045-004	49.1	47.5	1,250.5	1,750.5	WMAIN-5217(1)	8.3	Passed
045-005	49.2	45.7	1,251.1	1,751.1	WMAIN-5204(1)	14.8	Passed
045-006	49.4	46.2	1,251.1	1,751.1	WMAIN-5203	5.8	Passed
045-007	49.4	46.5	1,253.5	1,753.5	WMAIN-5267(1)	7.6	Passed
045-008	49.5	45.9	1,250.0	1,750.0	WMAIN-5267(2)(2)	6.1	Passed
045-009	49.4	46.1	1,252.9	1,752.9	WMAIN-3317(2)	6	Passed
045-010	49.5	46.7	1,262.9	1,762.9	WMAIN-5297(1)	7.2	Passed
045-011	49.6	45.8	1,250.4	1,750.4	WMAIN-5299(2)	7.9	Passed
045-012	49.7	44.6	1,253.5	1,753.5	WMAIN-5299(2)	5.9	Passed
045-013	49.5	45.9	1,250.0	1,750.0	WMAIN-5290(2)(2)	8	Passed
045-014	49.5	46.6	1,250.5	1,750.5	WMAIN-5281(1)	7.3	Passed
045-015	49.4	38.4	1,254.0	1,754.0	WMAIN-5269(2)	10.1	Passed
045-016	49.2	42.4	1,251.2	1,751.2	WMAIN-5206(1)	10.2	Passed
045-017	49.3	38.2	1,252.9	1,752.9	WMAIN-5210(1)	10.9	Passed
045-018	49.2	40.2	1,253.1	1,753.1	WMAIN-5185(1)	11.7	Passed
045-019	49	43.8	1,251.9	1,751.9	WMAIN-5175(2)	6.4	Passed
045-020	49.3	45.7	1,250.0	1,750.0	WMAIN-5277(2)	6.7	Passed
045-021	49.5	41.1	1,252.3	1,752.3	WMAIN-5316	13.9	Passed
045-022	49.5	39.8	1,250.0	1,750.0	WMAIN-5319(2)(2)	14.6	Passed
045-023	49.5	35	1,251.2	1,751.2	WMAIN-5319(2)(2)	11.3	Passed
045-024	49.3	36.5	1,251.7	1,751.7	WMAIN-5321(1)	12.9	Passed
045-025	49	47.3	1,250.3	1,750.3	WMAIN-5195(1)	8.8	Passed
045-026	49.2	43	3,500.0	1,666.4	WMAIN-5569(2)(2)	15	Velocity Failed
045-027	49.2	32.8	3,500.0	3,383.4	WMAIN-3390	15	Velocity Failed
045-028	49.2	27.9	3,506.1	4,006.1	WMAIN-3390	14.9	Passed
045-032	49.6	45.9	3,501.0	4,001.0	WMAIN-3777	6.6	Passed
045-033	49.5	32.3	1,253.5	1,753.5	WMAIN-4986	11.3	Passed
045-036	49.1	43.2	1,250.9	1,750.9	WMAIN-8069	7.5	Passed
045-037	49	42.9	2,503.3	3,003.3	WMAIN-5897	5.8	Passed
045-038	49	43.8	1,251.2	1,751.2	WMAIN-8068(1)	7.7	Passed
045-039	48.8	46.3	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
045-040	48	44.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
045-041	48.3	43.2	1,250.1	1,750.1	WMAIN-8073(2)	8.2	Passed
045-042	49	46.8	1,252.4	1,752.4	WMAIN-5897	5.2	Passed
045-043	49.2	45	1,253.1	1,753.1	WMAIN-8069	6.8	Passed
045-044	49.4	45.4	1,253.3	1,753.3	WMAIN-8065(2)	7.2	Passed
045-045	49.1	47	1,252.7	1,752.7	WMAIN-5897	5.2	Passed
045-046	49.2	47	1,252.4	1,752.4	WMAIN-5897	5.2	Passed
046-001	48.9	39	1,253.0	1,753.0	WMAIN-5188(1)	12.3	Passed
046-002	48.5	38.2	1,250.0	1,750.0	WMAIN-5188(2)(2)	11.8	Passed
046-003	48.8	40.3	1,251.8	1,751.8	WMAIN-5183	7.6	Passed
046-004	48.5	45.1	1,251.8	1,751.8	WMAIN-8053(2)(2)	8.5	Passed
046-005	47.8	42.4	1,254.0	1,754.0	WMAIN-8053(2)(2)	6.3	Passed
046-006	47.4	42	1,255.1	1,755.1	WMAIN-8096(1)	6.6	Passed
046-007	47.9	46.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
046-008	47.8	45.1	1,250.6	1,750.6	WMAIN-8096(1)	9.2	Passed
046-009	47.8	45.9	1,251.9	1,751.9	WMAIN-5897	5.2	Passed
046-010	48	46	1,254.1	1,754.1	WMAIN-5897	5.2	Passed
046-011	48.4	46.3	1,253.2	1,753.2	WMAIN-5897	5.2	Passed
046-012	48.1	36.6	3,504.1	3,711.2	WMAIN-8101(1)	15	Passed
046-013	48.2	33	3,502.3	4,002.3	WMAIN-8102(1)	14.6	Passed
046-014	48.8	45.3	1,253.9	1,753.9	WMAIN-8076(2)	6.7	Passed
046-015	49.1	46.9	1,251.4	1,751.4	WMAIN-5897	5.2	Passed
046-016	48.4	46.3	1,250.9	1,750.9	WMAIN-5897	5.2	Passed
046-017	48	35	3,500.7	4,000.7	WMAIN-8103(2)	13.1	Passed
046-018	47.9	34.6	3,501.2	3,864.6	WMAIN-8104(1)	15	Passed
046-019	47.8	44.8	1,251.2	1,751.2	WMAIN-8092(2)	6.3	Passed
046-020	47.8	44.9	1,251.2	1,751.2	WMAIN-8090(2)	5.7	Passed
046-021	48.4	45	1,254.2	1,754.2	WMAIN-8063(1)	5.9	Passed
046-022	48.3	44.1	1,253.0	1,753.0	WMAIN-8093(1)	6.2	Passed
046-023	47.6	43.9	1,252.6	1,752.6	WMAIN-8049(2)	7.4	Passed
046-024	47.3	44.2	1,250.9	1,750.9	WMAIN-8091(2)	6.4	Passed
046-025	47.1	42.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
046-026	47.1	41.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
046-027	47.2	40.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
047-001	47.5	46	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
047-002	47.4	45.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
047-003	47.7	40.1	1,250.9	1,750.9	WMAIN-1351(1)	11.2	Passed
047-004	47.8	43.9	1,250.4	1,750.4	WMAIN-1352	6.2	Passed
047-005	47.7	43.8	1,251.8	1,751.8	WMAIN-1380(2)	5.8	Passed
047-006	47.2	44.7	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
047-007	47.8	46	1,251.3	1,751.3	WMAIN-1157(1)	8.5	Passed
047-008	47.9	36.7	3,500.0	4,000.0	WMAIN-1157(2)(2)	13.4	Passed
047-009	47.8	43.9	1,250.8	1,750.8	WMAIN-3940(2)	7.3	Passed
047-010	47.9	42.5	1,251.5	1,751.5	WMAIN-3935(1)	8	Passed
047-011	48	41	1,251.6	1,751.6	WMAIN-3933	7.5	Passed
047-012	48.1	41.8	1,253.1	1,753.1	WMAIN-3938(1)	7.6	Passed
047-013	48	41.6	1,256.9	1,756.9	WMAIN-3936(1)(1)	8.2	Passed
047-014	48.1	41.8	1,250.7	1,750.7	WMAIN-3933	6.2	Passed
047-015	47.9	43.1	1,254.5	1,754.5	WMAIN-1160(2)	7.9	Passed
047-016	47.7	42.3	1,252.8	1,752.8	WMAIN-1167	6	Passed
047-017	47.9	41.2	1,250.0	1,750.0	WMAIN-3933	8	Passed
047-018	47.8	37.7	5,000.9	5,287.7	WMAIN-1750(1)	15	Passed
048-001	47.5	46.4	1,253.2	1,753.2	WMAIN-5897	5.2	Passed
048-002	47.1	45.4	1,250.5	1,750.5	WMAIN-1369(1)	8.5	Passed
048-003	47.3	43.6	1,250.0	1,750.0	WMAIN-1367	6.5	Passed
048-004	46.9	43.4	1,251.4	1,751.4	WMAIN-1371(2)	7.1	Passed
048-005	47.3	43.7	1,253.2	1,753.2	WMAIN-1364	6.9	Passed
048-006	46.6	42.2	1,255.7	1,755.7	WMAIN-1390(2)	6	Passed
048-007	46.8	43.1	1,254.1	1,754.1	WMAIN-1378(2)	6.8	Passed
052-005	49	43.2	2,500.0	3,000.0	WMAIN-5897	5.8	Passed
052-006	49.6	44.9	1,250.0	1,606.5	WMAIN-5571	15	Passed
053-001	51.2	44.7	2,501.0	2,940.1	WMAIN-7384	15	Passed
053-002	50.8	37.4	1,255.1	1,755.1	WMAIN-7378(1)(1)	13	Passed
053-003	50.9	46.4	1,250.6	1,750.6	WMAIN-7384	6.9	Passed
053-004	50.5	36.9	1,250.0	1,750.0	WMAIN-7378(2)	12.8	Passed
053-005	50.1	34.9	1,252.3	1,752.3	WMAIN-6106(1)	12.6	Passed
053-006	50.5	45.5	1,251.3	1,751.3	WMAIN-6183(1)	6.1	Passed
053-007	49.9	34.7	1,252.3	1,752.3	WMAIN-6109(1)	12.6	Passed
053-008	50.3	45.7	1,250.9	1,750.9	WMAIN-6181(2)	6.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
053-009	49.9	45.5	1,255.6	1,755.6	WMAIN-7387(1)(1)	5.8	Passed
053-010	49.2	42.2	2,500.0	2,984.2	WMAIN-7387(2)	15	Passed
053-011	49.2	44.2	2,506.5	3,006.5	WMAIN-5897	5.8	Passed
053-012	49.8	41.7	3,500.0	4,000.0	WMAIN-6184(1)(2)(2)(2)	7	Passed
053-013	50.9	42.3	1,258.9	1,758.9	WMAIN-7383	8.2	Passed
053-014	50.6	37	1,254.4	1,754.4	WMAIN-1003(2)	10.8	Passed
053-015	50.5	41.8	1,251.3	1,751.3	WMAIN-1982(1)	10.2	Passed
053-016	50.7	35.1	1,254.4	1,754.4	WMAIN-7380(1)	10.3	Passed
053-017	51	35.6	1,250.0	1,750.0	WMAIN-6170(2)(2)	12.8	Passed
053-018	50.7	34.1	1,256.1	1,756.1	WMAIN-6170(1)	12.1	Passed
053-019	50.6	43.6	1,250.9	1,750.9	WMAIN-6134	7.9	Passed
053-020	50.6	35.5	1,250.0	1,750.0	WMAIN-7392(2)	12.9	Passed
053-021	50.5	35.5	1,252.1	1,752.1	WMAIN-7391(1)	13	Passed
053-022	50.4	45.8	1,253.1	1,753.1	WMAIN-7395(2)	6.2	Passed
053-023	50.5	45.8	1,251.8	1,751.8	WMAIN-6179(1)(1)	6.3	Passed
053-024	50.6	46.4	1,250.0	1,750.0	WMAIN-6179(2)	8	Passed
053-025	50.5	40.3	1,250.9	1,320.5	WMAIN-6128(1)	15	Passed
053-026	50.4	28.8	3,500.9	4,000.9	WMAIN-7275(1)	13.3	Passed
053-027	50.4	32.5	1,251.0	1,751.0	WMAIN-6174	11.9	Passed
053-028	50.3	33	1,251.0	1,751.0	WMAIN-6121	12.1	Passed
053-029	50.4	39.1	1,250.0	1,750.0	WMAIN-6121	14.7	Passed
053-030	50.3	40.4	1,253.0	1,753.0	WMAIN-6116(2)	10.8	Passed
053-031	50.3	46.9	1,250.7	1,750.7	WMAIN-6112(1)(1)	7.3	Passed
053-032	50.3	46.6	1,250.0	1,750.0	WMAIN-3683	6.5	Passed
053-033	49.3	46.6	1,250.0	1,750.0	WMAIN-6100	8.7	Passed
053-034	50	46.3	1,253.1	1,753.1	WMAIN-6099(1)	6.8	Passed
053-035	50	45.4	1,258.6	1,758.6	WMAIN-6102(2)	6.2	Passed
053-036	49.9	46.2	1,250.0	1,585.6	WMAIN-6093	15	Passed
053-037	49.8	38.6	1,250.0	1,750.0	WMAIN-6093	10.2	Passed
053-038	49.4	43.8	1,254.0	1,710.1	WMAIN-6092(1)(1)	15	Passed
053-039	49.6	45.1	1,250.0	1,750.0	WMAIN-7881(2)(1)(2)	6.9	Passed
053-040	49.4	45.3	1,252.5	1,752.5	WMAIN-0624(1)(1)	7	Passed
053-041	49.5	43	3,500.5	4,000.5	WMAIN-3675(1)	6.5	Passed
053-042	50.7	33.1	1,252.6	1,752.6	WMAIN-7397(1)	11.7	Passed
053-043	50.8	33.4	1,252.7	1,752.7	WMAIN-6175	11.9	Passed
053-044	49.9	38	3,500.5	3,388.2	WMAIN-7275(2)(2)	15	Velocity Failed
053-045	49.8	42.7	3,500.0	4,000.0	WMAIN-6632(2)(2)	6.5	Passed
053-046	50.2	45.9	2,500.0	3,000.0	WMAIN-6184(2)	6	Passed
053-047	49.8	41.7	3,510.5	4,010.5	WMAIN-6184(1)(2)(2)(2)	7	Passed
053-048	49.5	44.5	2,501.0	3,001.0	WMAIN-5897	5.8	Passed
053-051	49.1	38	3,500.0	3,313.5	WMAIN-0624(2)(2)	15	Velocity Failed
053-052	49.1	28.2	3,500.0	4,000.0	WMAIN-0624(2)(2)	13	Passed
053-053	49.5	44.6	1,250.0	1,750.0	WMAIN-0626(2)	6.5	Passed
053-054	49.5	44.4	1,251.1	1,751.1	WMAIN-7881(2)(1)(1)	5.7	Passed
053-056	49.9	37.4	3,500.0	4,000.0	WMAIN-6189	7.6	Passed
053-057	49.2	47.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
053-058	49	46.5	1,250.4	1,750.4	WMAIN-4357(1)	5.3	Passed
053-059	49.1	46.4	1,254.5	1,754.5	WMAIN-5897	5.2	Passed
053-060	49.1	46.5	1,250.2	1,750.2	WMAIN-4365(2)	7.8	Passed
053-061	49.1	46	1,250.2	1,750.2	WMAIN-4364(2)	7.7	Passed
053-062	49.1	45.5	1,250.0	1,750.0	WMAIN-4361(2)	8.6	Passed
053-063	49.1	44.9	1,250.2	1,750.2	WMAIN-4361(1)(2)	7.7	Passed
053-064	49	44.9	1,255.2	1,755.2	WMAIN-4342(1)	8.1	Passed
053-065	48.9	46.1	1,250.1	1,750.1	WMAIN-4352(2)	8.4	Passed
053-066	49.5	44.5	1,252.9	1,752.9	WMAIN-7881(2)(1)(1)	6.2	Passed
054-001	51	43.6	3,500.0	4,000.0	WMAIN-3778	14	Passed
054-005	53.4	51.7	1,250.6	1,750.6	WMAIN-1322(1)	12.6	Passed
054-006	52.9	49	1,252.1	1,752.1	WMAIN-1322(1)	8.7	Passed
054-007	52.7	48.4	1,250.0	1,750.0	WMAIN-1322(1)	8	Passed
054-008	52.8	48.8	1,254.6	1,754.6	WMAIN-1322(1)	8.1	Passed
054-009	52.6	48.9	1,250.9	1,750.9	WMAIN-5899(2)	9.8	Passed
054-010	52.5	46.2	1,251.2	1,751.2	WMAIN-5899(2)	9.1	Passed
054-011	52.5	41.8	3,500.3	1,314.2	WMAIN-6165(1)	15	Velocity Failed
054-013	52.3	35.9	1,251.4	1,751.4	WMAIN-5908	10.5	Passed
054-014	52.4	37.9	1,252.7	1,752.7	WMAIN-5908	12.4	Passed
054-015	52.5	49.6	1,250.4	1,750.4	WMAIN-1322(1)	6.9	Passed
054-016	52.9	49.2	1,268.0	1,768.0	WMAIN-5938(1)(1)	6.4	Passed
054-017	52.4	49.5	1,250.4	1,750.4	WMAIN-5897	8.6	Passed
054-018	52.3	48.4	1,251.4	1,751.4	WMAIN-5897	7.5	Passed
054-019	52.1	44.5	1,252.1	1,752.1	WMAIN-5869(1)	11.2	Passed
054-020	51.7	48.3	1,253.4	1,753.4	WMAIN-5866(1)	6.9	Passed
054-021	52.1	47.7	1,253.9	1,753.9	WMAIN-5897	7.1	Passed
054-022	52.2	48	1,250.8	1,750.8	WMAIN-5876(2)	7.4	Passed
054-023	52.3	47.1	1,251.2	1,751.2	WMAIN-5886(1)	11.2	Passed
054-024	52.3	47.8	1,250.8	1,750.8	WMAIN-5897	7.5	Passed
054-025	51.3	43.5	3,500.0	4,000.0	WMAIN-3778	12.4	Passed
054-030	51.3	46.9	2,504.3	3,004.3	WMAIN-3778	10.6	Passed
055-001	51.2	47.1	1,250.4	1,750.4	WMAIN-3778	7.5	Passed
055-002	50.9	48	1,250.3	1,750.3	WMAIN-3778	7.4	Passed
055-003	50.9	47.9	1,251.5	1,751.5	WMAIN-3778	7.5	Passed
055-004	51.3	48.4	1,251.3	1,751.3	WMAIN-3778	7.5	Passed
055-005	51.3	47.6	1,250.3	1,750.3	WMAIN-5831(1)	11.7	Passed
055-006	50.9	47.7	1,252.7	1,752.7	WMAIN-5835(1)(1)	7.6	Passed
055-007	51	47.8	1,250.0	1,750.0	WMAIN-3778	7.5	Passed
055-008	52.7	49.2	1,250.0	1,750.0	WMAIN-5811(2)	8.3	Passed
055-009	51.8	47.1	1,251.6	1,751.6	WMAIN-3778	7.5	Passed
055-010	51.3	47.9	1,250.8	1,750.8	WMAIN-3778	7.5	Passed
055-011	51.4	46.7	1,251.9	1,751.9	WMAIN-3778	7.5	Passed
055-012	51	46.7	1,255.1	1,755.1	WMAIN-3778	7.5	Passed
055-013	51.5	47.1	1,250.0	1,750.0	WMAIN-3778	7.5	Passed
055-014	52.7	49.6	1,250.3	1,750.3	WMAIN-3778	7.5	Passed
055-015	52.4	49.4	1,250.4	1,750.4	WMAIN-3778	7.4	Passed
055-016	52.7	50.8	1,250.5	1,750.5	WMAIN-3778	7.1	Passed
055-017	52	50.2	1,250.0	1,750.0	WMAIN-3778	7.6	Passed
055-018	51.5	49.8	1,251.3	1,751.3	WMAIN-3778	7.9	Passed
055-019	51.2	49.6	1,250.0	1,750.0	WMAIN-3778	8.3	Passed
055-020	52.1	49.1	1,251.2	1,751.2	WMAIN-3778	6.3	Passed
055-021	51.2	43	3,503.0	1,321.0	WMAIN-5807(1)	15	Velocity Failed
055-022	51	44.2	3,500.2	4,000.2	WMAIN-3778	14.5	Passed
055-023	53	49.8	1,250.5	1,750.5	WMAIN-3778	7.4	Passed
055-024	52.7	48.5	1,251.2	1,751.2	WMAIN-3778	7.3	Passed
055-025	52.7	49	1,251.7	586.1	WMAIN-4947(1)	15	Velocity Failed
055-026	52.5	50.4	1,263.2	1,763.2	WMAIN-3778	6.9	Passed
055-027	52.6	44.8	3,500.0	4,000.0	WMAIN-3778	11.5	Passed
055-028	52.3	48.2	1,254.8	1,754.8	WMAIN-4945(1)(1)	11.2	Passed
055-029	52.4	40.8	1,250.0	1,750.0	WMAIN-4945(1)(1)	11.2	Passed
055-031	50.8	41.7	3,504.0	4,004.0	WMAIN-3778	12.2	Passed
055-032	50.7	41.8	3,500.0	4,000.0	WMAIN-3778	12.2	Passed
055-033	51.3	43.2	3,500.0	4,000.0	WMAIN-3778	12.2	Passed
055-034	50.8	48	1,251.8	1,751.8	WMAIN-4335(1)	8	Passed
055-035	50.7	47.6	1,251.8	1,751.8	WMAIN-4326(1)	8	Passed
055-036	51.3	45.5	3,503.1	2,965.4	WMAIN-7408(1)(1)	15	Velocity Failed
055-037	50.9	41.4	3,500.0	3,403.9	WMAIN-7408(2)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
055-039	52.9	50.1	1,250.7	1,750.7	WMAIN-2488(1)	8.3	Passed
055-040	52.9	48.1	1,253.8	1,753.8	WMAIN-3778	7.1	Passed
055-041	52.6	47.8	1,255.3	1,755.3	WMAIN-3778	7.2	Passed
055-042	51.9	48.5	1,252.4	1,752.4	WMAIN-3778	7.2	Passed
055-043	52.9	48.2	1,255.2	1,755.2	WMAIN-3778	7.1	Passed
055-044	52.9	47.6	1,255.5	1,755.5	WMAIN-3778	7.2	Passed
055-045	50.8	46.3	1,250.8	1,750.8	WMAIN-4289(1)	11.2	Passed
055-046	51.3	48.1	1,250.7	1,750.7	WMAIN-3778	7.3	Passed
055-047	51.5	48.3	1,251.8	1,751.8	WMAIN-3778	7.3	Passed
055-048	52.3	49	1,252.6	1,752.6	WMAIN-3778	7.3	Passed
055-049	52.7	49.4	1,250.0	1,750.0	WMAIN-4674(2)(2)	8	Passed
055-050	52.8	48.4	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
055-051	52.2	48	1,254.1	1,754.1	WMAIN-3778	7.3	Passed
055-052	52.3	49	1,250.7	1,750.7	WMAIN-3778	7.3	Passed
055-053	50.9	41.7	1,253.5	1,753.5	WMAIN-4291(1)	11.2	Passed
055-054	52.8	50.1	1,256.8	1,756.8	WMAIN-4674(1)	8.8	Passed
056-001	52.8	50.2	1,254.2	1,754.2	WMAIN-4919(1)	9.4	Passed
056-002	52.7	50.5	1,251.4	1,751.4	WMAIN-3778	6.9	Passed
056-003	52.6	50.6	1,251.4	1,751.4	WMAIN-3778	6.8	Passed
056-004	52.6	47.6	2,500.0	2,738.4	WMAIN-4917(2)(2)	15	Passed
056-005	52.8	49.8	1,251.0	1,751.0	WMAIN-3778	7	Passed
056-006	52.9	50.6	1,251.3	1,751.3	WMAIN-3778	7	Passed
056-007	52.7	49.5	1,252.3	1,752.3	WMAIN-4555(2)	8.4	Passed
056-008	52.9	50.2	1,251.4	1,751.4	WMAIN-2495(1)	8.5	Passed
056-009	52.9	50.5	1,252.9	1,752.9	WMAIN-3778	7.1	Passed
056-010	52.6	49.7	1,254.3	1,754.3	WMAIN-3778	7.1	Passed
056-011	52.6	49.6	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
056-012	52.8	46.8	1,251.1	1,751.1	WMAIN-0384(1)	11.2	Passed
056-013	52.7	47.6	1,251.4	1,751.4	WMAIN-3778	7	Passed
056-014	52.9	49.6	1,251.7	1,751.7	WMAIN-3778	7	Passed
056-015	53.1	50.1	1,250.1	1,750.1	WMAIN-2575(2)(1)	7.2	Passed
056-016	52.7	49.1	1,251.8	1,751.8	WMAIN-0381(2)	7.3	Passed
056-017	52.7	49.2	1,250.4	1,750.4	WMAIN-3778	7	Passed
056-018	54.2	51.4	1,250.0	1,750.0	WMAIN-3778	7	Passed
056-019	54.3	49.2	1,256.0	1,756.0	WMAIN-4584	7	Passed
056-020	53.3	47.8	1,255.4	1,755.4	WMAIN-3778	7	Passed
056-021	52.9	49.2	1,250.0	1,750.0	WMAIN-4592(2)(2)	8.6	Passed
056-022	53.8	51.1	1,250.0	1,750.0	WMAIN-3778	6.9	Passed
056-023	53.6	50.1	1,251.0	1,751.0	WMAIN-3778	6.9	Passed
056-024	53.2	48.7	1,254.4	1,754.4	WMAIN-3778	6.9	Passed
056-025	53	49.4	1,250.0	1,750.0	WMAIN-4581(2)(2)	8.2	Passed
056-026	53	49.7	1,257.0	1,757.0	WMAIN-4572(1)	8.5	Passed
056-027	52.8	48.2	1,250.0	1,750.0	WMAIN-3778	7	Passed
056-028	53.3	48.2	1,250.0	1,750.0	WMAIN-3778	7	Passed
056-029	53.7	49.5	1,254.5	1,754.5	WMAIN-4544(1)(1)	8	Passed
056-030	52.8	48.8	1,251.4	1,751.4	WMAIN-3778	7	Passed
056-031	52.8	44.4	1,252.0	1,752.0	WMAIN-4563(1)	11.2	Passed
056-032	52.7	48.7	1,250.9	1,750.9	WMAIN-3778	7	Passed
056-033	52.8	48.1	1,254.0	1,754.0	WMAIN-3778	6.9	Passed
056-034	52.9	49.5	1,252.8	1,752.8	WMAIN-4609(2)	8.2	Passed
056-035	52.9	50.2	1,253.8	1,753.8	WMAIN-4605(2)	8.7	Passed
056-036	52.8	50.4	1,250.7	1,750.7	WMAIN-3778	6.8	Passed
056-037	52.8	47.8	1,253.1	1,753.1	WMAIN-3778	6.8	Passed
056-038	52.7	50	1,251.2	1,751.2	WMAIN-4622(1)	9.6	Passed
056-039	52.7	47.6	1,256.9	1,756.9	WMAIN-3778	6.8	Passed
056-040	52.9	48.7	1,251.4	1,751.4	WMAIN-4607(1)	7.7	Passed
056-041	53.3	50.4	1,250.0	1,750.0	WMAIN-3778	7	Passed
056-042	52.8	49.1	1,251.6	1,751.6	WMAIN-4561(1)	7.2	Passed
056-043	53.4	50.1	1,250.6	1,750.6	WMAIN-4469(1)	8	Passed
056-044	53.3	47.2	2,500.4	3,000.4	WMAIN-3778	9.6	Passed
056-045	53.2	50.7	1,250.7	1,750.7	WMAIN-3778	6.8	Passed
056-046	53.1	50.6	1,252.7	1,752.7	WMAIN-3778	6.8	Passed
056-047	53.2	49.7	1,250.3	1,750.3	WMAIN-4466(1)	7.6	Passed
056-048	53	46.4	1,252.2	1,752.2	WMAIN-4459(1)	7	Passed
056-049	53.2	46.3	1,255.2	1,755.2	WMAIN-3778	6.8	Passed
056-050	53.3	48.5	1,253.0	1,753.0	WMAIN-3778	6.8	Passed
056-051	53.2	48	1,252.1	1,752.1	WMAIN-4613(1)	6.9	Passed
056-052	53.2	47.6	1,251.1	1,751.1	WMAIN-3778	6.9	Passed
056-053	53.4	47.5	1,251.6	1,751.6	WMAIN-1154(1)	11.2	Passed
081-001	48.1	45.4	1,251.8	1,751.8	WMAIN-7660(2)	5.8	Passed
081-002	47.8	44.3	1,250.0	1,750.0	WMAIN-7658(1)(1)	5.6	Passed
081-003	47.7	45.3	1,252.3	1,752.3	WMAIN-7658(1)(1)	8.3	Passed
081-004	47.7	45.7	1,259.5	1,759.5	WMAIN-7656(1)(1)	8.8	Passed
081-005	47.5	43.5	1,251.0	1,751.0	WMAIN-7820(2)	9.3	Passed
081-006	47.9	44.3	1,253.3	1,753.3	WMAIN-7653(1)	5.8	Passed
081-007	47.9	40.2	1,251.2	1,751.2	WMAIN-7644(2)	11.2	Passed
081-008	47.9	43.8	1,250.7	1,750.7	WMAIN-7646(2)	11.2	Passed
081-009	47.8	45	1,250.0	1,750.0	WMAIN-7656(2)	6.6	Passed
081-010	47.5	42.3	1,253.4	1,753.4	WMAIN-7655	7.7	Passed
081-011	46.7	40.1	1,251.5	1,751.5	WMAIN-7655	7.8	Passed
081-012	47.1	40.8	1,251.8	1,751.8	WMAIN-7655	7.5	Passed
081-013	47.5	42.4	1,250.9	1,750.9	WMAIN-7655	6.1	Passed
081-014	47.6	42.2	1,250.5	1,750.5	WMAIN-7812(2)	11.2	Passed
081-015	47.7	44.6	1,250.0	1,750.0	WMAIN-7649(2)(2)	7.1	Passed
081-016	47.6	44.5	1,252.9	1,752.9	WMAIN-7649(1)	6.6	Passed
081-017	47.5	44.4	1,250.5	1,750.5	WMAIN-7651	5.9	Passed
114-001	54	20	3,500.0	3,596.3	WMAIN-3778	11.2	Passed
114-002	54.2	20	3,500.0	3,573.1	WMAIN-3778	11.2	Passed
114-003	54.2	20	3,507.1	3,538.2	WMAIN-3778	11.1	Passed
114-004	54	20	3,538.2	3,530.5	WMAIN-3778	11	Residual Pressure Failed
114-005	53.8	20	3,500.0	3,454.9	WMAIN-3778	10.9	Residual Pressure Failed
114-006	53.7	20	3,500.0	3,432.8	WMAIN-3778	10.9	Residual Pressure Failed
114-007	53.6	20	3,500.0	3,415.0	WMAIN-3778	10.8	Residual Pressure Failed
114-008	53.6	20	3,500.0	3,400.1	WMAIN-3778	10.8	Residual Pressure Failed
114-009	53.4	20	3,500.0	3,384.3	WMAIN-3778	10.8	Residual Pressure Failed
114-010	53.1	20	3,500.0	3,366.3	WMAIN-3778	10.7	Residual Pressure Failed
114-011	52.9	20	3,500.0	3,355.4	WMAIN-3778	10.7	Residual Pressure Failed
114-012	52.8	20	3,500.0	3,355.5	WMAIN-3778	10.7	Residual Pressure Failed
114-013	52.8	20	3,500.0	3,362.6	WMAIN-3778	10.7	Residual Pressure Failed
114-014	52.6	20	3,500.0	3,370.5	WMAIN-3778	10.8	Residual Pressure Failed
114-015	52.5	20	3,500.0	3,381.1	WMAIN-3778	10.8	Residual Pressure Failed
114-016	52.5	20	3,500.0	3,402.7	WMAIN-3778	10.8	Residual Pressure Failed
114-017	52.6	20	3,500.0	3,435.5	WMAIN-3778	10.9	Residual Pressure Failed
114-018	52.8	20	3,500.0	3,479.5	WMAIN-3778	11	Residual Pressure Failed
114-019	52.8	20	3,500.0	3,516.2	WMAIN-3778	11	Passed
114-020	52.5	20	3,500.0	3,543.9	WMAIN-3778	11.1	Passed
114-021	52.5	20	3,500.0	3,583.3	WMAIN-3778	11.2	Passed
114-022	52.5	20	3,500.0	3,659.5	WMAIN-3778	11.3	Passed
114-023	52.5	20	3,500.0	3,731.2	WMAIN-3778	11.5	Passed
114-024	52.6	20	3,500.0	3,831.5	WMAIN-3778	11.7	Passed
114-025	52.5	44.2	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-027	52.8	45	1,250.1	1,750.1	WMAIN-3778	7.1	Passed
114-028	52.7	45.1	1,274.9	1,774.9	WMAIN-3778	7.1	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
114-029	52.6	22.7	3,503.2	4,003.2	WMAIN-3778	12	Passed
114-030	53.7	20	3,500.0	3,626.6	WMAIN-3778	11.3	Passed
114-031	53.5	20	3,500.0	3,670.2	WMAIN-3778	11.3	Passed
114-032	53.2	20	3,500.0	3,720.9	WMAIN-3778	11.4	Passed
114-033	52.8	20	3,500.0	3,778.3	WMAIN-3778	11.6	Passed
114-034	52.5	20	3,500.0	3,858.2	WMAIN-3778	11.7	Passed
114-035	52.5	20	3,500.0	3,985.5	WMAIN-3778	12	Passed
114-036	52.5	44.4	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-037	52.5	44.4	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-038	52.5	44.5	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-039	52.5	44.6	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-040	52.8	44.8	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-041	53.1	45.1	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-042	53.4	45.4	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-043	53.6	45.6	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-044	53.7	45.8	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-045	53.9	46	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-046	54	46.3	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
114-047	54.2	46.6	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-001	52.8	45.5	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-002	52.9	45.7	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-003	52.9	45.9	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-004	52.9	46.1	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-005	52.9	46.4	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-006	53	46.7	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-007	53.1	47.1	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-008	53.2	47.5	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
124-009	53.3	48	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
125-001	53	49.9	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
125-002	52.8	49.4	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
125-003	52.6	49	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
125-004	53.1	28.7	5,000.0	5,500.0	WMAIN-3778	15	Passed
125-005	53.7	49.7	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
125-006	53.5	48.7	1,250.5	1,750.5	WMAIN-3778	7.1	Passed
125-007	53.6	38.9	3,500.8	4,000.8	WMAIN-3778	12	Passed
125-008	53.4	47.8	1,253.0	1,753.0	WMAIN-0759(1)	8.8	Passed
125-009	53.1	46.3	1,250.5	1,750.5	WMAIN-3778	7.2	Passed
125-010	52.9	46.8	1,250.5	1,750.5	WMAIN-3778	7.2	Passed
125-011	53.2	47.2	1,252.7	1,752.7	WMAIN-0780(1)	7.8	Passed
125-012	53	47.2	1,250.9	1,750.9	WMAIN-3778	7.2	Passed
125-013	52.8	46.1	1,250.5	1,750.5	WMAIN-3778	7.2	Passed
125-014	53.2	49	1,250.5	1,750.5	WMAIN-3778	7.2	Passed
125-015	53	49	1,251.0	1,751.0	WMAIN-3778	7.2	Passed
125-016	52.9	49.1	1,250.2	1,750.2	WMAIN-3778	7.2	Passed
125-017	52.8	49.1	1,252.6	1,752.6	WMAIN-3778	7.2	Passed
125-018	52.7	49	1,250.7	1,750.7	WMAIN-3778	7.2	Passed
125-019	52.6	48.7	1,250.9	1,750.9	WMAIN-3778	7.2	Passed
125-020	52.4	47	1,251.7	1,751.7	WMAIN-3778	7.2	Passed
125-021	52.3	47.6	1,250.9	1,750.9	WMAIN-3778	7.2	Passed
125-022	52.5	48.1	1,250.0	1,750.0	WMAIN-0794(2)(2)	8	Passed
125-023	52.3	48.6	1,250.7	1,750.7	WMAIN-1734(1)	8	Passed
125-024	51.8	48.6	1,250.6	1,750.6	WMAIN-3778	7.2	Passed
125-025	51.5	46.4	1,251.0	1,751.0	WMAIN-3778	7.2	Passed
125-026	51.4	41.6	2,500.0	3,000.0	WMAIN-3778	10.1	Passed
125-027	51.7	48.3	1,254.0	1,754.0	WMAIN-3778	7.2	Passed
125-028	51.9	47.6	1,250.7	1,750.7	WMAIN-3778	7.2	Passed
125-029	51.7	46.5	1,255.0	1,755.0	WMAIN-3778	7.2	Passed
125-030	51.5	47.9	1,254.9	1,754.9	WMAIN-3778	7.2	Passed
125-031	51.2	32.9	3,503.1	4,003.1	WMAIN-1649(1)	13.8	Passed
125-032	51.3	45	1,250.9	1,750.9	WMAIN-1650(2)	11.2	Passed
125-033	51.3	46.4	1,250.7	1,750.7	WMAIN-1654(2)	7.4	Passed
125-034	52.3	44.5	2,500.6	3,000.6	WMAIN-3778	10.1	Passed
125-035	51.3	43.5	2,500.0	3,000.0	WMAIN-3778	10.1	Passed
125-036	51.7	46.4	1,251.1	1,751.1	WMAIN-1701(1)	8.5	Passed
125-037	52.1	44.8	1,273.0	1,773.0	WMAIN-3778	7.2	Passed
125-038	52.4	37.2	2,500.8	3,000.8	WMAIN-1692(2)	12.7	Passed
125-039	51.9	42.7	1,253.0	1,753.0	WMAIN-3778	7.2	Passed
125-040	51.4	43	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-041	51.4	45.7	1,252.4	1,752.4	WMAIN-1678(2)	8.7	Passed
125-042	51.1	47.1	1,252.9	1,752.9	WMAIN-3778	7.2	Passed
125-043	51.1	45.9	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-044	51.2	40.4	1,251.1	1,751.1	WMAIN-1596(2)	11.2	Passed
125-045	51.3	46.9	1,251.3	1,751.3	WMAIN-1660(1)	8.3	Passed
125-046	51.3	47.3	1,250.6	1,750.6	WMAIN-3778	7.2	Passed
125-047	51.2	47.6	1,250.5	1,750.5	WMAIN-3778	7.2	Passed
125-048	51.1	47.6	1,250.2	1,750.2	WMAIN-3778	7.2	Passed
125-049	51.2	47.9	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-050	51.2	40.5	3,500.2	4,000.2	WMAIN-3778	12.2	Passed
125-051	51.2	41.6	3,507.0	4,007.0	WMAIN-3778	12.2	Passed
125-055	52	46.2	1,252.8	1,752.8	WMAIN-3778	7.2	Passed
125-057	52.2	45.9	1,252.1	1,752.1	WMAIN-0302(2)	9.3	Passed
125-058	52.5	46.1	1,250.0	1,750.0	WMAIN-0303(2)	9.2	Passed
125-059	52.5	47.5	1,251.3	1,751.3	WMAIN-0791(1)	7.7	Passed
125-060	52.5	49	1,256.3	1,756.3	WMAIN-3778	7.2	Passed
125-061	52.6	48.6	1,250.7	1,750.7	WMAIN-0787(2)	7.5	Passed
125-062	52.6	48	1,253.3	1,753.3	WMAIN-0794(1)	7.4	Passed
125-063	52.7	49.1	1,253.2	1,753.2	WMAIN-3778	7.2	Passed
125-064	52.7	45.3	1,251.7	1,751.7	WMAIN-0796(2)	11.2	Passed
125-065	52.8	41.7	1,252.2	1,752.2	WMAIN-0798(2)	11.2	Passed
125-066	52.6	45.4	1,250.6	1,750.6	WMAIN-3778	7.2	Passed
125-067	52.8	41.8	1,252.2	1,752.2	WMAIN-0800(2)	11.2	Passed
125-068	52.6	45.6	1,250.4	1,750.4	WMAIN-3778	7.2	Passed
125-069	52.9	48.3	1,250.0	1,750.0	WMAIN-0833(2)	9.3	Passed
125-070	52.7	45.9	1,252.3	1,752.3	WMAIN-3778	7.2	Passed
125-071	52.5	45.4	1,251.1	1,751.1	WMAIN-0840	7.6	Passed
125-072	52.8	46.1	1,250.5	1,750.5	WMAIN-0840	8.1	Passed
125-073	52.8	47.8	1,251.5	1,751.5	WMAIN-0519(1)	8.1	Passed
125-074	52.6	47.1	1,250.7	1,750.7	WMAIN-0504(2)	7.5	Passed
125-075	52.4	45.8	1,251.2	1,751.2	WMAIN-0517(1)	7.2	Passed
125-076	52.5	46.1	1,250.9	1,750.9	WMAIN-0511(2)	7.7	Passed
125-077	52.6	48.3	1,250.8	1,750.8	WMAIN-0503(1)	8.1	Passed
125-078	52.6	46.6	1,250.0	1,750.0	WMAIN-0823(2)	8.6	Passed
125-079	52.3	44.1	1,252.6	1,752.6	WMAIN-3778	7.2	Passed
125-080	51.1	47.9	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-083	52.1	43.3	1,251.1	1,751.1	WMAIN-3778	7.2	Passed
125-084	51.5	41.6	1,251.5	1,751.5	WMAIN-0393(2)	11.2	Passed
125-085	51.4	32.6	1,250.5	1,750.5	WMAIN-0393(2)	11.2	Passed
125-086	51.4	48.3	1,251.6	1,751.6	WMAIN-3778	7.2	Passed
125-087	50.8	39.6	3,502.2	2,350.1	WMAIN-0397	15	Velocity Failed
125-088	50.7	41.6	3,500.0	4,000.0	WMAIN-3778	12.1	Passed
125-089	50.6	48	1,250.8	1,750.8	WMAIN-3778	7.2	Passed
125-090	52.7	50.2	1,250.2	1,750.2	WMAIN-3778	7.1	Passed
125-091	52	49.5	1,250.0	1,750.0	WMAIN-3778	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
125-092	53.3	40.3	1,252.5	1,752.5	WMAIN-0523	11.2	Passed
125-093	52.8	46.4	1,251.3	1,751.3	WMAIN-3778	7.2	Passed
125-094	52.7	45.5	1,251.2	1,751.2	WMAIN-0533	7.4	Passed
125-095	53	46.9	1,250.6	1,750.6	WMAIN-0532(1)	8.9	Passed
125-096	51.1	46.7	1,250.1	1,750.1	WMAIN-3778	7.2	Passed
125-097	50.3	45.6	1,254.4	1,754.4	WMAIN-3778	7.2	Passed
125-098	50.1	39.8	2,520.2	3,020.2	WMAIN-3778	10.1	Passed
125-099	50.1	45.4	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-100	50.5	45.7	1,251.7	1,751.7	WMAIN-0218(2)	8.1	Passed
125-101	50.6	44.9	1,251.4	1,751.4	WMAIN-3778	7.2	Passed
125-102	50.9	44.9	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-103	51	44.9	1,253.8	1,753.8	WMAIN-3778	7.2	Passed
125-104	51.2	42.6	1,253.1	1,753.1	WMAIN-3778	7.2	Passed
125-105	51.5	42.3	1,252.1	1,752.1	WMAIN-3778	7.2	Passed
125-106	51.3	43.8	1,252.5	1,752.5	WMAIN-0171(2)	8.3	Passed
125-107	51.1	44.4	1,251.1	1,751.1	WMAIN-3778	7.2	Passed
125-108	51.2	44.5	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-109	50.9	43.9	1,251.2	1,751.2	WMAIN-0191(2)	7.4	Passed
125-110	50.9	42	1,251.0	1,751.0	WMAIN-3778	7.2	Passed
125-111	50.4	43.9	1,250.9	1,750.9	WMAIN-3778	7.2	Passed
125-112	50.2	39.8	1,250.0	1,750.0	WMAIN-0146	11.2	Passed
125-113	50.2	39.9	1,253.9	1,753.9	WMAIN-3778	7.2	Passed
125-114	50.4	39.4	1,253.9	1,753.9	WMAIN-3778	7.2	Passed
125-115	50.9	40.2	1,250.9	1,750.9	WMAIN-3778	7.2	Passed
125-116 125-116	50.6	42.4	1,252.2	1,752.2	WMAIN-0160(1)	8.5	Passed
125-117	50.4	43	1,253.6	1,753.6	WMAIN-3778	7.2	Passed
125-118	50.2	43.1	1,255.8	1,755.8	WMAIN-3778	7.2	Passed
125-119	50.3	43.1	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-120	50.4	42.7	1,253.6	1,753.6	WMAIN-7494(2)	11.2	Passed
125-121	50.7	43.1	1,253.8	1,753.8	WMAIN-3778	7.2	Passed
125-122	50.4	45.5	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-123	50.5	45.5	1,254.2	1,754.2	WMAIN-3778	7.2	Passed
125-124	51	46.1	1,252.2	1,752.2	WMAIN-3778	7.2	Passed
125-125	50.6	43.6	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-126	51	44.9	1,252.0	1,752.0	WMAIN-7480(1)(1)(1)	8.2	Passed
125-127	51.2	44	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-128	51.3	44.3	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-129	51.7	43.7	1,255.2	1,755.2	WMAIN-7575(1)	7.2	Passed
125-130	51.4	45.7	1,250.6	1,750.6	WMAIN-3778	7.2	Passed
125-131	51.3	45	1,250.5	1,750.5	WMAIN-3778	7.2	Passed
125-132	51.2	43.2	1,251.9	1,751.9	WMAIN-3778	7.2	Passed
125-133	51.4	43.4	1,252.7	1,752.7	WMAIN-3778	7.2	Passed
125-134	51.5	45.5	1,251.4	1,751.4	WMAIN-3778	7.2	Passed
125-135	51.6	45.9	1,251.0	1,751.0	WMAIN-3778	7.2	Passed
125-136	51.8	44	1,253.8	1,753.8	WMAIN-7574(2)	7.4	Passed
125-137	51.9	43.4	1,254.9	1,754.9	WMAIN-3778	7.2	Passed
125-138	52.2	48	1,254.1	1,754.1	WMAIN-3778	7.2	Passed
125-139	51.9	47.5	1,253.5	1,753.5	WMAIN-3778	7.2	Passed
125-140	52.1	45	1,255.0	1,755.0	WMAIN-7586(2)	7.2	Passed
125-141	51.8	47.2	1,251.4	1,751.4	WMAIN-3778	7.2	Passed
125-142	52	44.2	1,256.5	1,756.5	WMAIN-3778	7.2	Passed
125-143	51.6	47	1,251.5	1,751.5	WMAIN-3778	7.2	Passed
125-144	51.7	44.7	1,256.1	1,756.1	WMAIN-7587(1)	7.3	Passed
125-145	51.5	45.5	1,250.3	1,750.3	WMAIN-7704(2)	8.4	Passed
125-146	51.4	44.2	1,253.6	1,753.6	WMAIN-3778	7.2	Passed
125-147	51.3	46.3	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
125-148	51.4	44.3	1,254.6	1,754.6	WMAIN-3778	7.2	Passed
125-149	51.4	46.3	1,255.0	1,755.0	WMAIN-3778	7.2	Passed
125-150	51.5	44.2	1,251.1	1,751.1	WMAIN-3778	7.2	Passed
125-151	51.7	42.8	1,254.7	1,754.7	WMAIN-3778	7.2	Passed
125-152	51.9	43.2	1,253.7	1,753.7	WMAIN-3778	7.2	Passed
125-153	51.7	44.7	1,250.8	1,750.8	WMAIN-7609(1)	8.9	Passed
125-154	51.3	43.7	1,252.8	1,752.8	WMAIN-3778	7.2	Passed
125-155	50.7	43.3	1,252.1	1,752.1	WMAIN-3778	7.2	Passed
125-156	50.1	37.5	1,253.2	1,753.2	WMAIN-7494(2)	11.2	Passed
126-001	52.7	39.3	3,500.0	3,835.5	WMAIN-5938(2)(2)	15	Passed
126-005	53.1	49.5	1,269.9	1,769.9	WMAIN-5938(1)(1)	7.7	Passed
126-006	51.2	47.4	1,250.4	1,750.4	WMAIN-3778	7.2	Passed
126-007	51.6	47.2	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-008	52	46.6	1,250.3	1,750.3	WMAIN-1563(1)	9.1	Passed
126-009	52.2	47.2	1,253.2	1,753.2	WMAIN-3778	7.2	Passed
126-010	50	45	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-011	51.2	44	1,253.0	1,753.0	WMAIN-3778	7.2	Passed
126-012	51.4	45	1,250.5	1,750.5	WMAIN-1578(1)	7.8	Passed
126-013	50	44.9	1,252.2	1,752.2	WMAIN-3778	7.2	Passed
126-014	49.6	44	1,250.0	1,750.0	WMAIN-1560(2)(2)	7.8	Passed
126-015	49.3	43.4	1,250.7	1,750.7	WMAIN-3778	7.2	Passed
126-016	48.9	40.9	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-017	49.2	41.2	1,252.2	1,752.2	WMAIN-3778	7.2	Passed
126-018	49.8	44.2	1,250.1	1,750.1	WMAIN-1533(1)	7.7	Passed
126-019	50	44.5	1,252.2	1,752.2	WMAIN-1548(2)	8.9	Passed
126-020	50.3	42.3	1,251.2	1,751.2	WMAIN-1539(1)	11.2	Passed
126-021	50.6	44.7	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-022	51.1	45	1,250.8	1,750.8	WMAIN-3778	7.2	Passed
126-023	51.1	44	1,251.7	1,751.7	WMAIN-3778	7.2	Passed
126-024	51.1	44.1	1,250.3	1,750.3	WMAIN-0755(1)	7.9	Passed
126-025	51.3	43	1,254.3	1,754.3	WMAIN-3778	7.2	Passed
126-026	51.1	44	1,254.0	1,754.0	WMAIN-3778	7.2	Passed
126-027	51.2	43.5	1,252.0	1,752.0	WMAIN-1620(1)	7.3	Passed
126-028	51.1	46.4	1,250.3	1,750.3	WMAIN-1620(1)	8.6	Passed
126-029	49.6	44.1	1,253.0	1,753.0	WMAIN-1572(1)	8.9	Passed
126-030	52	44.4	1,250.6	1,750.6	WMAIN-0751(1)	11.2	Passed
126-031	51.7	43	1,251.1	1,751.1	WMAIN-0746(2)	7.3	Passed
126-032	51.8	42.5	1,253.2	1,753.2	WMAIN-3778	7.2	Passed
126-033	52.1	43.5	1,253.1	1,753.1	WMAIN-3778	7.2	Passed
126-034	51.8	41.9	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-035	50.6	40.6	1,255.2	1,755.2	WMAIN-3778	7.2	Passed
126-036	49.9	42.4	1,250.8	1,750.8	WMAIN-0731(1)	9	Passed
126-037	52.2	44.6	1,250.0	1,750.0	WMAIN-0744(2)(2)	8.2	Passed
126-038	51.2	41.6	3,500.0	4,000.0	WMAIN-3778	12.2	Passed
126-041	52	41.4	3,501.8	3,681.7	WMAIN-2665(2)	15	Passed
126-042	49.5	43.2	1,250.3	1,750.3	WMAIN-0492(2)	7.6	Passed
126-043	48	37.3	1,252.1	1,752.1	WMAIN-0488	11.2	Passed
126-044	48.4	41.6	1,251.1	1,751.1	WMAIN-3778	7.2	Passed
126-045	48.7	40.1	1,252.3	1,752.3	WMAIN-3778	7.2	Passed
126-046	48.9	38.4	1,251.7	1,751.7	WMAIN-0479	11.2	Passed
126-047	48.8	40.6	1,251.6	1,751.6	WMAIN-3778	7.2	Passed
126-048	50.8	42.4	1,252.3	1,752.3	WMAIN-0261	7.3	Passed
126-049	50.7	43.5	1,252.1	1,752.1	WMAIN-0298	7.6	Passed
126-050	50.5	42.4	1,254.5	1,754.5	WMAIN-3778	7.2	Passed
126-051	50.5	42.8	1,254.3	1,754.3	WMAIN-3778	7.2	Passed
126-052	50.3	40.9	1,252.6	1,752.6	WMAIN-3778	7.2	Passed
126-053	50.2	41.4	1,252.5	1,752.5	WMAIN-3778	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
126-054	50.2	43.5	1,250.9	1,750.9	WMAIN-3778	7.2	Passed
126-055	50.5	41.6	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-056	50.2	40.7	1,255.6	1,755.6	WMAIN-3778	7.2	Passed
126-057	50.1	41.4	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
126-058	50.1	42.7	1,252.1	1,752.1	WMAIN-0252(1)(1)	8.1	Passed
126-059	52	42.2	1,250.5	1,750.5	WMAIN-7500(2)	11.2	Passed
126-060	52.1	36.7	1,251.1	1,751.1	WMAIN-7500(2)	11.2	Passed
126-061	51.7	35.4	1,250.3	1,750.3	WMAIN-7500(2)	11.2	Passed
126-062	49.8	33.6	3,500.0	4,000.0	WMAIN-7879(1)	11.3	Passed
127-001	48.9	20	3,500.0	3,365.3	WMAIN-7877	10.1	Residual Pressure Failed
134-001	54.8	30.7	3,500.0	4,000.0	WMAIN-0867(2)	11.5	Passed
134-002	54.9	20	5,000.0	4,620.7	WMAIN-0867(2)	13.3	Residual Pressure Failed
134-003	55.3	25.7	3,503.7	4,003.7	WMAIN-0867(2)	11.5	Passed
134-004	55.7	20	5,000.0	4,209.7	WMAIN-0867(2)	12.1	Residual Pressure Failed
134-027	54.5	35.9	3,500.0	4,000.0	WMAIN-0867(2)	11.5	Passed
134-030	53.8	44.2	3,500.0	4,000.0	WMAIN-0868(2)(2)	9.1	Passed
134-031	54	43.8	3,500.0	4,000.0	WMAIN-0867(1)	11.5	Passed
137-001	49	39.6	1,250.0	1,750.0	WMAIN-7877	5.5	Passed
139-001	45	44.4	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
139-002	45.1	45	1,250.0	1,750.0	WMAIN-5897	5	Passed
145-001	53.3	39.3	3,511.4	4,011.4	WMAIN-3712(2)	12.2	Passed
145-003	53.3	42.7	2,500.0	3,000.0	WMAIN-3712(2)	9.4	Passed
145-004	53.3	20	5,000.0	4,896.4	WMAIN-3712(2)	14.7	Residual Pressure and Velocity Failed
145-005	53.2	22.6	3,500.0	4,000.0	WMAIN-3712(2)	12.2	Passed
145-006	53	20	5,000.0	3,753.6	WMAIN-3712(2)	11.5	Residual Pressure Failed
145-007	52.3	20	5,013.7	3,527.9	WMAIN-3712(2)	10.8	Residual Pressure Failed
145-012	53.2	44.5	3,500.0	4,000.0	WMAIN-3712(1)	12.2	Passed
145-013	53.6	48.7	2,503.6	3,003.6	WMAIN-5897	5.4	Passed
145-014	54.2	52	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
145-015	55.3	53.3	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
145-016	55.5	53.9	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
145-017	53.7	52.2	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
145-018	54.2	40.5	3,506.0	4,006.0	WMAIN-0867(2)	11.5	Passed
145-019	54.4	37.5	3,500.0	4,000.0	WMAIN-0867(2)	11.5	Passed
145-020	53.9	46	3,500.0	4,000.0	WMAIN-5897	6.3	Passed
149-001	46.5	45.1	1,250.2	1,750.2	WMAIN-5897	5.1	Passed
149-002	46.4	44.9	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
150-001	44.8	38.7	3,502.7	4,002.7	WMAIN-0467(1)(1)	6.8	Passed
150-002	45.1	43.3	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
150-003	45.5	43.8	1,250.7	1,750.7	WMAIN-5897	5.1	Passed
150-004	45.7	43.8	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
150-005	45.6	43.5	1,250.6	1,750.6	WMAIN-5897	5.1	Passed
150-006	46.1	44	1,250.1	1,750.1	WMAIN-5897	5.1	Passed
150-007	46.3	44.3	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
150-008	45.7	44.1	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
150-009	44.4	43.4	1,250.0	1,750.0	WMAIN-0471(2)	5.9	Passed
156-001	52.6	46.1	1,250.0	1,750.0	WMAIN-1071	9.7	Passed
156-002	55.1	44	3,500.0	3,807.1	WMAIN-1071	15	Passed
156-003	55.1	44.4	3,500.0	3,704.2	WMAIN-1071	15	Passed
156-004	55.1	45.1	3,500.0	3,609.4	WMAIN-1071	15	Passed
156-005	55.2	43.8	3,500.0	3,634.8	WMAIN-1071	15	Passed
156-006	55.2	44	3,500.0	3,575.8	WMAIN-1071	15	Passed
156-007	55.1	44.3	3,504.0	3,495.2	WMAIN-1071	15	Velocity Failed
156-008	54.6	39.7	3,500.0	2,350.1	WMAIN-7917(1)(2)	15	Velocity Failed
156-009	54.8	44.3	3,500.0	2,350.1	WMAIN-7917(1)(1)	15	Velocity Failed
156-010	53	37.5	3,500.0	3,276.5	WMAIN-1071	15	Velocity Failed
156-011	55.2	46.7	3,500.0	3,308.0	WMAIN-1071	15	Velocity Failed
156-012	53.2	40.4	3,507.2	3,273.4	WMAIN-1071	15	Velocity Failed
156-013	52.9	36.3	3,500.0	3,264.1	WMAIN-1071	15	Velocity Failed
156-014	52.9	37.3	3,500.6	3,249.8	WMAIN-1071	15	Velocity Failed
156-015	53.4	43.1	3,500.0	3,185.9	WMAIN-7925(2)(2)	15	Velocity Failed
156-016	53	42.3	3,500.6	2,350.1	WMAIN-7919(1)	15	Velocity Failed
156-017	53.2	36.9	3,500.0	2,349.5	WMAIN-7919(1)	15	Velocity Failed
156-018	53.9	35.8	3,500.0	2,349.5	WMAIN-7922(1)	15	Velocity Failed
156-019	54.5	44.5	3,500.6	2,350.1	WMAIN-7922(1)	15	Velocity Failed
156-020	55.3	47.3	3,500.0	3,145.8	WMAIN-1071	15	Velocity Failed
156-021	55.2	45.7	3,500.0	3,501.9	WMAIN-1071	15	Passed
156-022	52.8	46.8	1,250.0	1,750.0	WMAIN-1071	9.7	Passed
156-023	54.8	49.4	1,263.8	1,763.8	WMAIN-1071	9.7	Passed
156-024	55.2	42.2	3,500.0	3,433.5	WMAIN-1071	15	Velocity Failed
156-025	55.2	44.1	3,500.0	3,433.5	WMAIN-1071	15	Velocity Failed
156-026	55.2	45.7	3,500.0	3,433.5	WMAIN-1071	15	Velocity Failed
156-029	55.2	46.4	3,500.0	3,379.5	WMAIN-1071	15	Velocity Failed
156-030	55.3	46.9	3,500.0	3,260.4	WMAIN-1071	15	Velocity Failed
156-031	55.3	47.7	3,500.0	3,158.5	WMAIN-1071	15	Velocity Failed
156-032	55.2	48.9	3,500.0	2,957.2	WMAIN-1071	15	Velocity Failed
156-033	53.6	48.5	3,500.0	2,707.3	WMAIN-1071	15	Velocity Failed
156-034	55.1	42.4	3,500.0	3,822.0	WMAIN-1071	15	Passed
156-035	55.2	40.5	3,500.0	3,796.8	WMAIN-1071	15	Passed
156-036	55.1	40.3	3,500.0	3,774.7	WMAIN-1071	15	Passed
156-037	55.2	41.4	3,500.0	3,743.7	WMAIN-1071	15	Passed
156-038	55.2	41.8	3,500.0	3,739.8	WMAIN-1071	15	Passed
156-039	55.1	40.7	3,516.8	3,790.6	WMAIN-1071	15	Passed
156-040	55	42.5	3,500.0	2,350.1	WMAIN-7837	15	Velocity Failed
156-041	50.9	37.9	5,001.3	5,501.3	WMAIN-0690(2)	10.4	Passed
156-042	51.9	49.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
156-043	53.4	47.9	2,503.9	3,003.9	WMAIN-5897	5.4	Passed
156-044	53.1	44.5	3,500.0	4,000.0	WMAIN-0308	6.7	Passed
156-046	55	43.6	3,500.0	3,986.0	WMAIN-1071	15	Passed
161-001	43.8	37.8	3,500.0	3,672.0	WMAIN-3226	15	Passed
167-001	54.8	47.6	1,250.0	1,750.0	WMAIN-2347(2)	11.2	Passed
167-002	54.9	51.8	1,250.0	1,750.0	WMAIN-1071	6.9	Passed
167-003	54.4	51.1	1,250.0	1,750.0	WMAIN-1071	6.6	Passed
167-004	54.9	51.3	1,250.0	1,750.0	WMAIN-1071	7	Passed
167-005	55	51.3	1,250.0	1,750.0	WMAIN-1071	7.3	Passed
167-006	56.5	52.8	1,251.5	1,751.5	WMAIN-1071	7.5	Passed
167-007	57.2	53.1	1,250.7	1,750.7	WMAIN-4236(2)	7.9	Passed
167-008	57.1	53.3	1,250.8	1,750.8	WMAIN-1071	7.6	Passed
167-009	55.8	45.8	1,252.0	1,752.0	WMAIN-4266(2)	11.2	Passed
167-010	55.8	52.1	1,251.4	1,751.4	WMAIN-1071	7.6	Passed
167-011	55.4	51.4	1,251.9	1,751.9	WMAIN-1071	7.6	Passed
167-012	54.8	50.4	1,251.3	1,751.3	WMAIN-3834(2)	8.2	Passed
167-013	55	49.3	1,252.3	1,752.3	WMAIN-3843(1)	9	Passed
167-014	56.9	51.6	1,251.3	1,751.3	WMAIN-4245(2)	11.2	Passed
167-015	57.1	48.9	1,252.7	1,752.7	WMAIN-1071	7.6	Passed
167-016	57.2	48.7	1,250.0	1,750.0	WMAIN-1071	7.6	Passed
167-017	57	50.4	1,253.0	1,753.0	WMAIN-4241(1)	8.5	Passed
167-018	56.7	49.3	1,250.8	1,750.8	WMAIN-4263(1)	11.2	Passed
167-019	54.8	49	1,255.2	1,755.2	WMAIN-1071	7.9	Passed
167-020	54.6	50	1,250.0	1,750.0	WMAIN-3829(2)(2)	8.4	Passed
167-021	54.4	48.7	1,253.9	1,753.9	WMAIN-1071	7.6	Passed
167-022	54.7	49.7	1,251.7	1,751.7	WMAIN-3847(1)	7.7	Passed
167-023	55.2	49.6	1,250.7	1,750.7	WMAIN-1071	7.6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
167-024	55	49.5	1,254.0	1,754.0	WMAIN-1071	7.6	Passed
167-025	54.3	41.1	3,512.4	4,012.4	WMAIN-1071	13.2	Passed
167-026	54.8	42.6	3,501.2	4,001.2	WMAIN-1071	12.8	Passed
167-027	55	51.5	1,262.6	1,762.6	WMAIN-1071	7.8	Passed
167-028	55	51.7	1,250.5	1,750.5	WMAIN-1071	7.6	Passed
167-029	55.2	50.8	1,251.1	1,751.1	WMAIN-6221(2)	7.8	Passed
167-030	55.8	51.8	1,253.0	1,753.0	WMAIN-1071	7.6	Passed
167-031	55.6	52	1,250.0	1,750.0	WMAIN-1071	7.6	Passed
167-032	55.1	51.3	1,251.9	1,751.9	WMAIN-1071	7.6	Passed
167-033	55.1	49.4	1,250.9	1,750.9	WMAIN-1071	7.6	Passed
167-034	54.8	48.1	1,250.7	1,750.7	WMAIN-1071	7.6	Passed
167-035	54.9	47.4	1,255.3	1,755.3	WMAIN-1071	7.6	Passed
167-036	55	48.8	1,251.3	1,751.3	WMAIN-6227(1)	7.8	Passed
167-037	55.1	49.1	1,251.9	1,751.9	WMAIN-1071	7.6	Passed
167-038	56.5	50.7	1,251.4	1,751.4	WMAIN-6146(2)	8.9	Passed
167-039	55.1	47.7	1,250.0	1,750.0	WMAIN-1071	7.6	Passed
167-040	56.5	52.2	1,250.0	1,750.0	WMAIN-1071	7.8	Passed
167-041	55.4	50.9	1,251.0	1,751.0	WMAIN-1071	8	Passed
167-042	54.9	50.3	1,250.5	1,750.5	WMAIN-1071	8.1	Passed
167-043	55.8	51	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-044	56	51.1	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-045	55.8	50.9	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
167-046	56.1	49.6	1,251.4	1,751.4	WMAIN-1071	8.2	Passed
167-047	56.2	50.3	1,251.4	1,751.4	WMAIN-1071	8.2	Passed
167-048	55.8	49.6	1,250.7	1,750.7	WMAIN-1071	8.2	Passed
167-049	56	48.4	1,251.1	1,751.1	WMAIN-1071	8.2	Passed
167-050	56.2	50.7	1,250.2	1,750.2	WMAIN-1071	8.3	Passed
167-051	56.3	50.8	1,251.4	1,751.4	WMAIN-1071	8.3	Passed
167-052	56.6	51.4	1,251.7	1,751.7	WMAIN-1071	8.3	Passed
167-053	56.5	49.1	1,252.6	1,752.6	WMAIN-1071	8.3	Passed
167-054	56.2	49.1	1,252.4	1,752.4	WMAIN-1071	8.3	Passed
167-055	55.9	49.6	1,252.0	1,752.0	WMAIN-1071	8.3	Passed
167-056	56.1	51.2	1,251.1	1,751.1	WMAIN-1884(2)	8.3	Passed
167-057	56	51.1	1,251.0	1,751.0	WMAIN-0681(2)	8.9	Passed
167-058	56.1	50.5	1,253.4	1,753.4	WMAIN-1071	8.3	Passed
167-059	56	48.3	1,254.9	1,754.9	WMAIN-1071	8.3	Passed
167-060	56.6	50.5	1,250.7	1,750.7	WMAIN-1816(2)	8.5	Passed
167-061	55.7	48.9	1,251.8	1,751.8	WMAIN-1815(1)	11.2	Passed
167-063	55.9	51.2	1,252.6	1,752.6	WMAIN-7510(1)	9.1	Passed
167-064	54.9	49.6	1,252.3	1,752.3	WMAIN-1071	8.2	Passed
167-065	55	49.4	1,251.3	1,751.3	WMAIN-1071	8.3	Passed
167-066	56.1	49.1	1,250.7	1,750.7	WMAIN-1071	8.3	Passed
167-067	55.1	50.5	1,250.1	1,750.1	WMAIN-1071	8.4	Passed
167-068	55	50.8	1,250.0	1,750.0	WMAIN-1071	8.4	Passed
167-069	54.7	50.9	1,250.7	1,750.7	WMAIN-1071	8.6	Passed
167-070	54.9	51	1,250.0	1,750.0	WMAIN-1071	8.6	Passed
167-071	54.8	41.7	3,500.0	4,000.0	WMAIN-1071	13.8	Passed
167-072	54.5	41.2	3,500.0	4,000.0	WMAIN-1071	13.5	Passed
167-073	56	50.2	1,252.3	1,752.3	WMAIN-1071	8.3	Passed
167-074	56.3	46.5	1,252.2	1,752.2	WMAIN-7511(2)	11.2	Passed
167-075	56.3	51.7	1,251.7	1,751.7	WMAIN-1071	8.3	Passed
167-076	55	50.2	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-077	55.2	50.6	1,251.0	1,751.0	WMAIN-1071	8.1	Passed
167-078	54.9	46.9	1,253.1	1,753.1	WMAIN-1071	8.2	Passed
167-079	55.2	50.2	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-080	54.9	49.8	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-081	53.7	47.3	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-082	55.1	49.8	1,253.0	1,753.0	WMAIN-1071	8.2	Passed
167-083	54.9	46.9	1,255.4	1,755.4	WMAIN-1071	8.2	Passed
167-084	55.1	49.9	1,250.6	1,750.6	WMAIN-1071	8.2	Passed
167-085	55.3	50	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-086	55.3	50.2	1,250.8	1,750.8	WMAIN-1071	8.2	Passed
167-087	55.1	49.1	1,250.7	1,750.7	WMAIN-1071	8.2	Passed
167-088	55.3	47.5	1,253.7	1,753.7	WMAIN-1071	8.2	Passed
167-089	55.4	47.8	1,250.5	1,750.5	WMAIN-1071	8.2	Passed
167-090	55.5	49.1	1,250.4	1,750.4	WMAIN-1071	8.2	Passed
167-091	54.9	47.4	1,251.2	1,751.2	WMAIN-1071	8.2	Passed
167-092	55.2	48	1,250.8	1,750.8	WMAIN-1071	8.2	Passed
167-093	55.3	47	1,254.0	1,754.0	WMAIN-1071	8.2	Passed
167-094	55.4	47	1,253.7	1,753.7	WMAIN-1071	8.2	Passed
167-095	54.9	44.6	1,251.2	1,751.2	WMAIN-1071	8.2	Passed
167-096	55	45.4	1,253.6	1,753.6	WMAIN-1071	8.2	Passed
167-097	55.1	46.6	1,253.7	1,753.7	WMAIN-1071	8.2	Passed
167-098	55.3	47.1	1,250.3	1,750.3	WMAIN-1071	8.2	Passed
167-099	55	46.3	1,250.6	1,750.6	WMAIN-1071	8.2	Passed
167-100	54.8	44.1	1,251.5	1,751.5	WMAIN-1071	8.2	Passed
168-001	53.5	50.3	1,250.0	1,750.0	WMAIN-1071	6.3	Passed
168-002	53.6	50.7	1,250.7	1,750.7	WMAIN-1071	6	Passed
168-003	53.5	51	1,251.2	1,751.2	WMAIN-1071	5.5	Passed
168-004	53.4	51.3	1,251.9	1,751.9	WMAIN-1071	5.2	Passed
168-005	53.9	51.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
168-006	53.9	51.8	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
168-007	53.2	51	1,252.0	1,752.0	WMAIN-5897	5.2	Passed
168-008	52	49.8	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
168-009	51.7	45.5	3,500.0	4,000.0	WMAIN-4221(2)	8.8	Passed
168-010	54.7	51.7	1,250.0	1,750.0	WMAIN-1071	6.8	Passed
168-011	54.5	51.5	1,250.0	1,750.0	WMAIN-1071	6.6	Passed
168-012	54.2	51.5	1,250.0	1,750.0	WMAIN-1071	6	Passed
168-013	53.9	51.4	1,250.0	1,750.0	WMAIN-1071	5.5	Passed
168-014	54.1	51.1	1,250.2	1,750.2	WMAIN-2313(1)	6.7	Passed
168-015	54	50.6	1,250.5	1,750.5	WMAIN-2315(1)	6.4	Passed
168-016	53.8	49.6	1,252.3	1,752.3	WMAIN-2565(2)	6.5	Passed
168-017	53.8	50.9	1,253.7	1,753.7	WMAIN-2554(1)	8.4	Passed
168-018	53.7	50.9	1,250.0	1,750.0	WMAIN-2554(2)(2)	8.5	Passed
168-019	53.7	49.5	1,253.6	1,753.6	WMAIN-2557(1)	5.7	Passed
168-020	53.9	48.4	1,250.0	1,750.0	WMAIN-2563(2)	7.6	Passed
168-021	54.3	47.4	1,255.0	1,755.0	P-85	6.1	Passed
168-022	54.2	48	1,254.8	1,754.8	WMAIN-2559(2)	7.1	Passed
168-023	53.9	50.9	1,250.7	1,750.7	WMAIN-2303(2)	7.4	Passed
168-024	53.6	48.7	1,253.8	1,753.8	WMAIN-2295	6.1	Passed
168-025	53.8	50.8	1,251.3	1,751.3	WMAIN-2288(2)	6.5	Passed
168-026	53.9	50.7	1,250.0	1,750.0	WMAIN-2296(2)(2)	7	Passed
168-027	54.1	50.2	1,250.9	1,750.9	WMAIN-2317(1)	6.7	Passed
168-028	54.2	50.6	1,252.9	1,752.9	WMAIN-2322(2)	7.6	Passed
168-029	53.7	50	1,251.7	1,751.7	WMAIN-2566(2)	6.1	Passed
168-030	53.8	48.9	1,252.1	1,752.1	WMAIN-2338(2)	8	Passed
168-031	54.2	47.1	1,252.4	1,752.4	WMAIN-1071	6.4	Passed
168-032	54.6	48.2	1,251.6	1,751.6	WMAIN-2333(1)	7.4	Passed
168-033	54.7	50.6	1,250.5	1,750.5	WMAIN-2342(1)	7	Passed
168-034	54.2	48.6	1,251.2	1,751.2	WMAIN-2340(1)	6.5	Passed
168-035	54.4	51.2	1,250.6	1,750.6	WMAIN-2327(1)	6.2	Passed
168-036	54.2	50	1,253.4	1,753.4	WMAIN-1071	5.8	Passed
168-037	52.1	49.7	1,250.0	1,750.0	WMAIN-7532	7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
168-038	53.6	51.9	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
168-039	53.8	48.9	1,251.5	1,751.5	WMAIN-0020(1)	9.2	Passed
168-040	54	46.5	1,252.4	1,752.4	WMAIN-0033	6.7	Passed
168-041	53.9	46.2	1,251.3	1,751.3	WMAIN-0033	6.6	Passed
168-042	53.8	46.9	1,251.8	1,751.8	WMAIN-0013	7.6	Passed
168-043	53.6	48.8	1,251.1	1,751.1	WMAIN-0028	6.5	Passed
168-044	53.4	47.5	1,253.9	1,753.9	WMAIN-0033	6.4	Passed
168-045	53.7	47.9	1,250.0	1,750.0	WMAIN-0033	6.7	Passed
168-046	53.4	51.1	1,253.9	1,753.9	WMAIN-1071	5.2	Passed
168-047	53.4	51.2	1,250.2	1,750.2	WMAIN-1071	5.2	Passed
168-048	53.3	51	1,255.6	1,755.6	WMAIN-5897	5.2	Passed
168-049	54	51.9	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
168-050	54	50.5	1,250.7	1,750.7	WMAIN-7464(2)	7.2	Passed
168-051	54	50.2	1,251.1	1,751.1	WMAIN-7547	6.6	Passed
168-052	53.7	49.7	1,252.3	1,752.3	WMAIN-7468(1)	6.4	Passed
168-053	53.5	47.5	1,254.2	1,754.2	WMAIN-7467(2)	7.4	Passed
168-054	53.4	46.5	1,250.8	1,750.8	WMAIN-7467(2)	5.7	Passed
168-055	53.5	47.7	1,253.8	1,753.8	WMAIN-7465(1)	7.6	Passed
168-056	53.4	51.1	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
168-057	53.5	51.3	1,251.2	1,751.2	WMAIN-5897	5.2	Passed
168-058	53.8	50.2	1,252.9	1,752.9	WMAIN-7549(1)(1)	8.8	Passed
168-059	53.1	47.9	1,250.0	1,750.0	WMAIN-7549(1)(1)	5.8	Passed
168-060	52	45.2	3,500.0	4,000.0	WMAIN-7639	7.7	Passed
168-061	53.5	48.9	1,253.3	1,753.3	WMAIN-7548(1)	5.9	Passed
168-062	53.5	48.8	1,251.3	1,751.3	WMAIN-7550(1)	6.2	Passed
168-063	52.8	50.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
168-064	54	50.4	1,250.3	1,750.3	WMAIN-7552(1)	5.7	Passed
168-065	53	50.8	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
168-066	52.9	50.6	1,250.6	1,750.6	WMAIN-5897	5.2	Passed
168-067	53.3	42.2	1,253.5	1,753.5	WMAIN-8165(2)(2)	11.2	Passed
168-068	53.9	48.7	1,252.6	1,752.6	WMAIN-8165(2)(2)	11.2	Passed
168-069	54	50	1,252.0	1,752.0	WMAIN-8175(1)	11.2	Passed
168-070	54	43.9	1,250.1	1,750.1	WMAIN-8175(1)	11.2	Passed
168-071	54	51.7	1,251.8	1,751.8	WMAIN-5897	5.2	Passed
168-072	53.5	48.2	1,254.5	1,754.5	WMAIN-7471	6.1	Passed
168-073	53.6	49.8	1,251.1	1,751.1	WMAIN-7471	7.2	Passed
168-074	53.4	46.7	1,251.1	1,751.1	WMAIN-7602(1)	11.2	Passed
168-075	53.5	50.9	1,250.8	1,750.8	WMAIN-1071	5.3	Passed
168-076	53.3	46.7	1,251.5	1,751.5	WMAIN-7603	6.5	Passed
168-077	53.4	50.6	1,252.0	1,752.0	WMAIN-1071	5.3	Passed
168-078	53.2	46.8	1,253.2	1,753.2	WMAIN-7594(1)	6.9	Passed
168-079	53.7	50	1,253.0	1,753.0	WMAIN-8171(2)	6	Passed
168-080	53.5	49.4	1,251.7	1,751.7	WMAIN-8172	6.6	Passed
168-081	53.1	44.3	1,253.2	1,753.2	WMAIN-8174(2)	11.2	Passed
168-082	52.7	50.5	1,253.9	1,753.9	WMAIN-5897	5.2	Passed
168-083	53.1	50.9	1,251.2	1,751.2	WMAIN-5897	5.2	Passed
168-084	53.4	51.1	1,253.3	1,753.3	WMAIN-5897	5.2	Passed
168-085	53	48.2	1,251.5	1,751.5	WMAIN-7597(1)	6.3	Passed
168-086	52.8	44.1	1,250.0	1,750.0	WMAIN-8168(1)	11.2	Passed
168-087	52.7	49.8	1,253.1	1,753.1	WMAIN-8168(1)	11.2	Passed
168-088	52.3	50	1,252.0	1,752.0	WMAIN-5897	5.2	Passed
168-089	52	49.6	1,250.7	1,750.7	WMAIN-5897	5.2	Passed
168-090	52	49.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
168-091	52.3	48.6	1,250.8	1,750.8	WMAIN-7595(2)	7.7	Passed
168-092	52.5	46.9	1,252.2	1,752.2	WMAIN-7596(1)	6.6	Passed
168-093	52.6	47.1	1,251.1	1,751.1	WMAIN-7592(2)	6.5	Passed
168-094	52	49.2	1,251.9	1,751.9	WMAIN-1071	5.2	Passed
168-095	51.8	49.9	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
168-096	52.2	45.7	3,500.8	4,000.8	WMAIN-7536(2)	7	Passed
168-097	53.6	50.2	1,251.3	1,751.3	WMAIN-8154(1)	7.6	Passed
168-098	53.9	50.2	1,254.2	1,754.2	WMAIN-8151(1)	5.9	Passed
168-099	53.5	49.7	1,254.3	1,754.3	WMAIN-8155(2)	6.6	Passed
168-100	53.7	50.8	1,251.2	1,751.2	WMAIN-8148(1)	6.1	Passed
168-101	53.8	50.2	1,253.6	1,753.6	WMAIN-8150(1)	5.7	Passed
168-102	54	51	1,251.6	1,751.6	WMAIN-8144(1)	6.3	Passed
168-103	54	50.6	1,250.5	1,750.5	WMAIN-7767	5.9	Passed
168-104	53.9	51.6	1,250.7	1,750.7	WMAIN-1071	5.2	Passed
168-105	53.8	51.5	1,252.6	1,752.6	WMAIN-1071	5.2	Passed
168-106	53.5	50.5	1,252.3	1,752.3	WMAIN-8156(1)	8.2	Passed
168-107	53.7	50.6	1,252.4	1,752.4	WMAIN-8149(1)	7	Passed
168-108	53.8	50.8	1,251.2	1,751.2	WMAIN-8152(1)	6.9	Passed
168-109	54	50.3	1,251.8	1,751.8	WMAIN-7765(1)	6.4	Passed
168-110	54	50.6	1,250.2	1,750.2	WMAIN-7782(2)	5.6	Passed
168-111	54	49.8	1,250.0	1,750.0	WMAIN-7764(2)	7.1	Passed
168-112	53.9	50.5	1,251.2	1,751.2	WMAIN-7769(2)	5.9	Passed
168-113	53.7	50.3	1,253.1	1,753.1	WMAIN-7773(1)	8.2	Passed
168-114	53.6	50.1	1,251.6	1,751.6	WMAIN-8153(1)	6.8	Passed
168-115	53.5	49.3	1,250.0	1,750.0	WMAIN-7774	6.1	Passed
168-116	53.6	50.3	1,251.1	1,751.1	WMAIN-7776(2)	7.4	Passed
168-117	53.6	50.4	1,254.0	1,754.0	WMAIN-7780(1)	8.8	Passed
168-118	53.7	49.5	1,254.3	1,754.3	WMAIN-7764(1)(1)	7.1	Passed
168-119	53.7	50.1	1,250.8	1,750.8	WMAIN-7777(1)	6.2	Passed
168-120	53.7	49.2	1,250.0	1,750.0	WMAIN-7779	6	Passed
169-001	51.8	49.8	1,250.5	1,750.5	WMAIN-0058(1)	9.4	Passed
169-002	53	50.9	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
169-003	52.6	50.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
169-004	52	50.2	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-005	51.6	49.6	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-006	50.6	48.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-007	50.5	48.3	1,250.4	1,750.4	WMAIN-5897	5.1	Passed
169-008	50.5	48.4	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-009	50.4	48.4	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-010	52.4	50.6	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
169-011	52.1	46.1	3,500.0	4,000.0	WMAIN-0699(2)(2)	7.8	Passed
169-012A	53.7	49.3	1,250.0	1,750.0	WMAIN-3113(2)	6.7	Passed
169-012B	53.2	50.1	1,250.0	1,750.0	WMAIN-3125(2)	7.8	Passed
169-014	53.8	34.7	3,517.2	4,017.2	WMAIN-3113(1)(1)	14.9	Passed
169-015	52.6	50.2	1,250.3	1,750.3	WMAIN-3128(1)	7.4	Passed
169-016	51.6	49.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
169-017	52.3	50.3	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
169-018	52.4	50.6	1,250.9	1,750.9	WMAIN-5897	5.2	Passed
169-019	53.3	49.8	1,252.0	1,752.0	WMAIN-3097(1)	8.8	Passed
169-020	53.2	46.9	1,251.9	1,751.9	WMAIN-3094(2)	11.2	Passed
169-021	52.9	45.7	1,250.0	1,750.0	WMAIN-3093(2)(2)	7.5	Passed
169-022	51.8	43.8	1,255.6	1,755.6	WMAIN-3119(1)	6.5	Passed
169-023	51.9	43.6	1,252.0	1,752.0	WMAIN-3086(2)	11.2	Passed
169-024	52.5	47.3	1,251.1	1,751.1	WMAIN-3119(1)	7	Passed
169-025	53	48.9	1,252.3	1,752.3	WMAIN-3104	5.8	Passed
169-026	53.2	50	1,253.1	1,753.1	WMAIN-3111(2)	6.9	Passed
169-027	52.3	50.4	1,250.8	1,750.8	WMAIN-5897	5.1	Passed
169-028	52.1	50.2	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-029	51.9	47.1	1,250.0	1,750.0	WMAIN-3055(2)(2)	8.2	Passed
169-030	51.1	43.9	1,252.4	1,752.4	WMAIN-3044	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
169-031	50.1	42.1	1,251.3	1,751.3	WMAIN-3046	6.9	Passed
169-032	50.5	42.8	1,251.8	1,751.8	WMAIN-3046	6.7	Passed
169-033	52	46.9	1,253.4	1,753.4	WMAIN-3055(1)	7.3	Passed
169-034	52.2	48.2	1,253.9	1,753.9	WMAIN-3060(2)	7.7	Passed
169-035	52.1	50.4	1,250.2	1,750.2	WMAIN-5897	5.1	Passed
169-036	52.1	49.8	1,250.8	1,750.8	WMAIN-3108(1)	6.9	Passed
169-037	52.2	49	1,251.7	1,751.7	WMAIN-3063(1)	6.2	Passed
169-038	52.4	49.7	1,250.2	1,750.2	WMAIN-3048(1)	11.2	Passed
169-042	51.8	49.3	1,250.0	1,750.0	WMAIN-7535	6.4	Passed
169-043	51.6	43.7	3,500.0	4,000.0	WMAIN-7535	7.5	Passed
169-044	51.7	40.2	3,500.0	4,000.0	WMAIN-0907(2)	13.4	Passed
169-045	51.7	39.7	3,500.0	3,669.2	WMAIN-0911(1)	15	Passed
169-046	51.6	37.1	3,500.0	3,938.5	WMAIN-0913(1)	15	Passed
169-047	51.7	37.8	3,500.6	4,000.6	WMAIN-0921(2)	14	Passed
169-048	51.8	39.6	3,500.0	3,410.8	WMAIN-0918(1)	15	Velocity Failed
169-049	52.4	32	3,502.3	4,002.3	WMAIN-0918(2)	13.3	Passed
169-050	52.6	36.7	3,500.0	3,704.9	WMAIN-0915(2)	15	Passed
169-051	52.1	37.8	3,500.0	3,942.1	WMAIN-0934	15	Passed
169-052	51.8	37.5	3,500.0	4,000.0	WMAIN-0923(2)	14	Passed
169-053	51.6	41	3,500.0	4,000.0	WMAIN-1316(2)	13.2	Passed
169-054	51.7	43.1	3,501.3	3,243.7	WMAIN-1312(1)	15	Velocity Failed
169-055	51.8	36.4	3,500.0	4,000.0	WMAIN-1312(1)	13.3	Passed
169-056	51.8	42.1	3,500.0	3,369.6	WMAIN-1312(2)(2)(2)	15	Velocity Failed
169-057	51.8	39.3	3,500.0	3,510.8	WMAIN-1261(2)	15	Passed
169-058	51.8	33.8	3,500.0	4,000.0	WMAIN-1261(2)	13	Passed
169-059	52.1	35.1	3,505.9	4,005.9	WMAIN-0906(1)	14.3	Passed
169-060	52.5	36	3,500.0	3,721.4	WMAIN-0941(1)	15	Passed
169-061	52.6	32	3,500.0	4,000.0	WMAIN-0937	13.1	Passed
169-062	52.6	39	3,500.0	3,490.9	WMAIN-0937	15	Velocity Failed
169-063	51.9	32.8	3,500.0	3,718.9	WMAIN-1272(2)(2)	15	Passed
169-064	52.3	42.9	3,500.0	3,097.6	WMAIN-1272(2)(2)	15	Velocity Failed
169-065	51.9	37	3,500.0	4,000.0	WMAIN-1267(1)	13.1	Passed
169-067	52.1	40.1	3,500.0	3,251.4	WMAIN-1278(2)	15	Velocity Failed
169-068	52.1	33	3,500.0	3,707.8	WMAIN-1279	15	Passed
169-069	51.6	26.7	3,500.0	4,000.0	WMAIN-1273	13.3	Passed
169-070	52	46.6	2,500.0	3,000.0	WMAIN-1280	6.5	Passed
169-071	51.9	43.2	2,500.0	2,345.8	WMAIN-1288(1)	15	Velocity Failed
169-072	51.9	39.7	3,500.0	4,000.0	WMAIN-1284(1)	13	Passed
169-073	51.9	40.6	2,500.0	3,000.0	WMAIN-1286	11.3	Passed
169-075	51.8	32.3	3,500.0	4,000.0	WMAIN-1297	13.8	Passed
169-076	51.7	34.8	3,501.1	3,851.3	WMAIN-1297	15	Passed
169-077	51.7	35.8	3,500.5	3,764.5	WMAIN-1297	15	Passed
169-078	51.6	37.9	3,500.0	4,000.0	WMAIN-1309(2)	13.6	Passed
169-079	51.6	35.6	3,500.0	4,000.0	WMAIN-1305(1)	14	Passed
169-080	51.6	39.7	3,500.0	3,602.8	WMAIN-1303(1)	15	Passed
169-081	51.9	49.8	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-082	51	48.9	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
169-083	51	45.2	3,500.0	4,000.0	WMAIN-0708(1)	6.4	Passed
169-084	50.4	47.2	1,250.2	1,750.2	WMAIN-0724(2)	11.2	Passed
169-085	50.5	40.3	1,251.1	1,751.1	WMAIN-0724(2)	11.2	Passed
169-088	52.7	49.6	1,251.2	1,751.2	WMAIN-0085(1)	9.6	Passed
169-089	52.3	49	1,250.4	1,750.4	WMAIN-0058(1)	5.7	Passed
169-090	52.8	48.2	1,253.2	1,753.2	WMAIN-0078(1)	6.1	Passed
169-091	52.6	48.9	1,251.9	1,751.9	WMAIN-0075(2)	7.8	Passed
169-092	52.6	49	1,250.3	1,750.3	WMAIN-0090(2)	5.8	Passed
169-093	52.8	48.4	1,254.5	1,754.5	WMAIN-0092(2)	5.8	Passed
169-094	52.5	45.4	1,250.3	1,750.3	WMAIN-0063	11.2	Passed
169-095	52.7	47.1	1,250.0	1,750.0	WMAIN-0065	5.7	Passed
169-096	52.7	47.7	1,253.9	1,753.9	WMAIN-0085(1)	7.2	Passed
169-097	52.6	48.3	1,251.4	1,751.4	WMAIN-7828(1)	7	Passed
169-098	52.9	47	1,251.6	1,751.6	WMAIN-7825(1)	11.2	Passed
169-099	52.7	47.7	1,251.8	1,751.8	WMAIN-7823(1)	11.2	Passed
169-100	52.6	50.3	1,250.6	1,750.6	WMAIN-5897	5.2	Passed
169-101	52.5	48.8	1,251.3	1,751.3	WMAIN-7629(2)	5.6	Passed
169-102	52.2	50	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
169-103	52.2	48.6	1,250.9	1,750.9	WMAIN-7628(1)	7.9	Passed
169-104	52.3	48.2	1,252.0	1,752.0	WMAIN-7626(2)	6.6	Passed
169-105	52.2	47.5	1,250.2	1,750.2	WMAIN-7618(2)	8.4	Passed
169-106	52	45.5	1,250.5	1,750.5	WMAIN-7618(2)	6.5	Passed
169-107	51.9	45	1,253.3	1,753.3	WMAIN-7618(2)	5.7	Passed
169-108	52	45.3	1,250.6	1,750.6	WMAIN-7623(2)	11.2	Passed
169-109	52	47.5	1,251.3	1,751.3	WMAIN-7635	6.1	Passed
169-110	51.9	49.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
169-111	51.8	44.6	3,500.0	4,000.0	WMAIN-0699(2)(2)	6.2	Passed
169-112	51.9	44.9	3,500.0	4,000.0	WMAIN-0699(1)(1)	6.7	Passed
169-114	52	43.8	3,500.0	3,060.8	WMAIN-0927(2)(2)	15	Velocity Failed
169-115	52	34.7	3,500.0	4,000.0	WMAIN-0927(2)(2)	14.9	Passed
169-116	52	36.4	3,500.0	3,834.3	WMAIN-0933	15	Passed
170-001	49.2	47.4	1,250.9	1,750.9	WMAIN-4073(1)	7.7	Passed
170-002	49.9	47.7	1,251.2	1,751.2	WMAIN-4100(2)	7.6	Passed
170-003	49.9	47.5	1,252.2	1,752.2	WMAIN-4102(2)	7.9	Passed
170-004	49.8	47.7	1,251.1	1,751.1	WMAIN-4125(1)	7.3	Passed
170-005	49.8	47.5	1,250.7	1,750.7	WMAIN-4110(1)	6.4	Passed
170-006	49.7	47.4	1,251.6	1,751.6	WMAIN-4130(1)	6.8	Passed
170-007	49.8	46.5	1,252.2	1,752.2	WMAIN-4154(1)	5.7	Passed
170-008	49.8	48	1,251.8	1,751.8	WMAIN-4154(1)	9	Passed
170-009	50	48.6	1,251.1	1,751.1	WMAIN-5897	5.1	Passed
170-010	49.9	46.7	1,254.1	1,754.1	WMAIN-4156(1)	5.8	Passed
170-011	50.2	48.4	1,255.7	1,755.7	WMAIN-4096(1)(1)	9.3	Passed
170-012	50.5	47	1,250.0	1,750.0	WMAIN-4096(1)(1)	6.1	Passed
170-013	50.9	48.3	1,250.0	1,750.0	WMAIN-4096(2)(2)	7.8	Passed
170-014	51.1	49	1,250.5	1,750.5	WMAIN-4082(1)	6.1	Passed
170-015	50.9	48	1,252.4	1,752.4	WMAIN-4086(1)	5.9	Passed
170-016	50.2	48.4	1,250.9	1,750.9	WMAIN-4068(1)	8.1	Passed
170-017	50.9	49.1	1,251.0	1,751.0	WMAIN-4079(1)	7.8	Passed
170-018	50.5	48.8	1,252.0	1,752.0	WMAIN-5897	5.1	Passed
170-019	50.1	48.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-020	49.6	47.7	1,254.1	1,754.1	WMAIN-4149(1)(1)	8.6	Passed
170-021	49.6	46.5	1,250.0	1,750.0	WMAIN-4149(1)(1)	5.7	Passed
170-022	49.5	47.2	1,251.2	1,751.2	WMAIN-4123(1)	6.3	Passed
170-023	49.1	47.4	1,256.0	1,756.0	WMAIN-7506(1)(1)	9	Passed
170-024	49.1	47.7	1,252.7	1,752.7	WMAIN-5897	5.1	Passed
170-025	49.3	46.6	1,255.2	1,755.2	WMAIN-4141(1)	7.7	Passed
170-026	49.6	46.2	1,250.0	1,750.0	WMAIN-4141(1)	6	Passed
170-027	49.2	47.8	1,251.4	1,751.4	WMAIN-5897	5.1	Passed
170-028	49.3	48.1	1,251.1	1,751.1	WMAIN-5897	5.1	Passed
170-029	48.7	47.3	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-030	48.6	47.2	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-031	48.2	45.6	1,251.2	1,751.2	WMAIN-3898(1)	7.8	Passed
170-032	47.9	42.9	1,250.0	1,750.0	WMAIN-3904	6.9	Passed
170-033	47.6	44.8	1,252.0	1,752.0	WMAIN-3912(2)	5.7	Passed
170-034	47.5	44.5	1,254.8	1,754.8	WMAIN-3906(1)	9	Passed
170-035	47.5	45	1,251.0	1,751.0	WMAIN-1081(2)	7.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-036	47.1	44	1,251.0	1,751.0	WMAIN-3885(1)	9.3	Passed
170-037	47.3	45.1	1,250.8	1,750.8	WMAIN-3867(1)	8.1	Passed
170-038	48.2	44.6	1,252.7	1,752.7	WMAIN-3868(1)	9.1	Passed
170-039	48.6	43.1	1,250.0	1,750.0	WMAIN-3867(1)	6.5	Passed
170-040	48.7	43.5	1,250.5	1,750.5	WMAIN-3862(1)	7.7	Passed
170-041	48.7	45.3	1,252.8	1,752.8	WMAIN-3867(1)	5.7	Passed
170-042	51.3	49.8	1,252.4	1,752.4	WMAIN-5897	5.1	Passed
170-043	51.3	49.1	1,253.4	1,753.4	WMAIN-4183(1)	9.1	Passed
170-044	51.3	49.7	1,251.0	1,751.0	WMAIN-5897	5.1	Passed
170-045	50	46.7	1,251.1	1,693.6	WMAIN-4206(2)	15	Passed
170-046	49.1	47	1,251.0	1,751.0	WMAIN-4158(1)	9.3	Passed
170-047	49.7	46.4	1,253.7	1,753.7	WMAIN-4197(2)	6.5	Passed
170-048	50.9	47.7	1,253.2	1,753.2	WMAIN-4199(2)	6.7	Passed
170-049	50.7	46.5	1,251.6	586.1	WMAIN-4164(1)	15	Velocity Failed
170-050	51	47	1,250.0	1,750.0	WMAIN-4183(1)	6	Passed
170-051	50	46.6	1,251.2	1,751.2	WMAIN-4178	6.8	Passed
170-052	48.8	44.1	1,253.3	1,753.3	WMAIN-4204(2)	7.7	Passed
170-053	48.7	46.3	1,252.6	1,752.6	WMAIN-4209(1)	8.6	Passed
170-054	49.3	43.6	1,254.2	1,754.2	WMAIN-0655(2)	7	Passed
170-055	49.3	43	1,251.7	1,751.7	WMAIN-0655(2)	5.7	Passed
170-056	49.1	42.5	1,251.0	1,751.0	WMAIN-3909(1)	11.2	Passed
170-057	48.1	43.2	1,251.3	1,751.3	WMAIN-3885(1)	7.8	Passed
170-058	48.7	46.9	1,250.0	1,750.0	WMAIN-3865(2)(2)	9.1	Passed
170-059	48.8	47.6	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-060	48.8	41.5	1,254.0	1,754.0	WMAIN-3875	7	Passed
170-061	49	47.9	1,251.1	1,751.1	WMAIN-5897	5.1	Passed
170-062	50.3	46.5	1,250.0	1,750.0	WMAIN-1026(2)(2)	6.1	Passed
170-063	50.8	48	1,255.3	1,755.3	WMAIN-1026(1)	7.8	Passed
170-064	50	46.5	1,252.9	1,752.9	WMAIN-1012(1)	6.1	Passed
170-065	49.1	43.4	3,517.5	4,017.5	WMAIN-1021(1)(1)	6.5	Passed
170-066	49.1	44.7	1,254.5	1,754.5	WMAIN-4158(1)	6	Passed
170-067	49.3	46.1	1,250.8	1,750.8	WMAIN-2282(2)	8	Passed
170-068	49.3	47.7	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-069	49.3	47.8	1,250.4	1,750.4	WMAIN-5897	5.1	Passed
170-070	51.1	49	1,250.2	1,750.2	WMAIN-4769(1)	7.6	Passed
170-071	51.1	47.4	1,250.5	1,750.5	WMAIN-4762	6.8	Passed
170-072	51.1	48.4	1,250.9	1,750.9	WMAIN-4757(1)	7.8	Passed
170-073	51.2	47.7	1,250.7	1,750.7	WMAIN-4771(1)	6	Passed
170-074	51.2	48.4	1,251.2	1,751.2	WMAIN-6162(2)	5.7	Passed
170-075	50.6	47.8	1,250.7	1,750.7	WMAIN-4790(2)	5.6	Passed
170-076	50.7	45.8	1,250.6	1,750.6	WMAIN-4786(2)	11.2	Passed
170-077	51	47	1,251.6	1,751.6	WMAIN-4759	6.5	Passed
170-078	50.8	44	1,250.0	1,750.0	WMAIN-4759	7	Passed
170-079	51	45.1	1,252.7	1,752.7	WMAIN-4780	7.4	Passed
170-080	50.8	49.1	1,250.2	1,750.2	WMAIN-5897	5.1	Passed
170-081	49.6	48.2	1,250.6	1,750.6	WMAIN-5897	5.1	Passed
170-082	49.1	46.8	1,250.6	1,750.6	WMAIN-3176(2)	6.1	Passed
170-083	48.8	44.9	1,251.7	1,751.7	WMAIN-3192(2)	7	Passed
170-084	49.1	43	1,251.1	1,751.1	WMAIN-3194(1)	11.2	Passed
170-085	48.5	43.5	1,251.4	1,751.4	WMAIN-3197(1)	7.4	Passed
170-086	48.4	45.5	1,250.0	1,750.0	WMAIN-3142(2)(2)	8	Passed
170-087	49.1	45.4	1,254.8	1,754.8	WMAIN-3142(1)	6.4	Passed
170-088	49.5	47.5	1,250.4	1,750.4	WMAIN-3139(2)	6.6	Passed
170-089	50	47.2	1,250.0	1,750.0	WMAIN-3148(2)(2)	8.4	Passed
170-090	50.8	47.5	1,251.2	1,751.2	WMAIN-3148(1)	6.1	Passed
170-091	50.9	47.3	1,250.0	1,750.0	WMAIN-3151(2)	6.9	Passed
170-092	50.9	46	1,251.4	1,751.4	WMAIN-3163(1)	7.7	Passed
170-093	51	45.1	1,251.2	1,751.2	WMAIN-3154	6.8	Passed
170-094	50.5	44.9	1,252.6	1,752.6	WMAIN-3154	7.1	Passed
170-095	50.4	47.3	1,251.9	1,751.9	WMAIN-3151(1)(1)	8.3	Passed
170-096	50.2	45.1	1,251.9	1,751.9	WMAIN-3168(2)	6.3	Passed
170-097	49.6	43.6	1,251.4	1,751.4	WMAIN-3173(1)	11.2	Passed
170-098	50.2	48.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-099	50.4	48.8	1,250.3	1,750.3	WMAIN-5897	5.1	Passed
170-100	47.7	44.9	1,252.2	1,752.2	WMAIN-7233(1)	7.9	Passed
170-101	48.4	45.1	1,250.0	1,750.0	WMAIN-7236(2)(2)	8.4	Passed
170-102	48.5	44	1,250.0	1,750.0	WMAIN-7236(2)(2)	6.6	Passed
170-103	48.6	43.9	1,250.0	1,750.0	WMAIN-7236(1)(1)(1)	6	Passed
170-104	48.8	45.3	1,257.6	1,757.6	WMAIN-7236(1)(1)(1)	8	Passed
170-105	48.6	43.4	1,252.2	1,752.2	WMAIN-3585	5.6	Passed
170-106	48.6	43.9	1,251.7	1,751.7	WMAIN-2585(1)(2)	7	Passed
170-107	48.6	45.4	1,250.0	1,750.0	WMAIN-2585(2)	8.7	Passed
170-108	48.7	45	1,252.9	1,752.9	WMAIN-3595(2)	6.4	Passed
170-109	48.9	46	1,252.7	1,752.7	WMAIN-3590(1)	9.6	Passed
170-110	48.9	43.6	1,250.0	1,750.0	WMAIN-3590(1)	7.3	Passed
170-111	49.1	42.8	1,252.1	1,752.1	WMAIN-3590(1)	5.7	Passed
170-112	48.7	43	1,250.8	1,750.8	WMAIN-6241(1)	11.2	Passed
170-113	48.5	44.7	1,250.6	1,750.6	WMAIN-0992(2)	8.5	Passed
170-124	48.9	46.4	2,527.0	3,027.0	WMAIN-6247(1)	6.4	Passed
170-125	49	45	2,516.9	3,016.9	WMAIN-3584(1)(1)	5.9	Passed
170-126	49	44.4	2,500.0	3,000.0	WMAIN-3760	5.5	Passed
170-127	49.5	46.8	1,251.4	1,751.4	WMAIN-6276(1)	7.9	Passed
170-128	49.4	45.1	1,251.5	1,320.3	WMAIN-6214(1)	15	Passed
170-129	49.3	45.8	1,251.5	1,751.5	WMAIN-1054(1)	7.2	Passed
170-130	49.3	46.7	1,250.0	1,750.0	WMAIN-6273(2)	8.3	Passed
170-131	49.5	45.6	1,255.4	1,755.4	WMAIN-6273(1)(2)	5.7	Passed
170-132	49.8	47.3	1,250.2	1,750.2	WMAIN-4074(2)	6.5	Passed
170-133	49.8	47.5	1,252.3	1,752.3	WMAIN-6269(1)	7.5	Passed
170-134	49.7	46.1	1,251.3	1,751.3	WMAIN-3803(1)	9	Passed
170-135	49.3	43.4	1,251.3	1,751.3	WMAIN-3806	6.1	Passed
170-136	49.4	45.9	1,252.4	1,752.4	WMAIN-3797(2)	9.1	Passed
170-137	49	47.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-138	49	47.6	1,252.4	1,752.4	WMAIN-5897	5.1	Passed
170-139	48.9	47.6	1,250.8	1,750.8	WMAIN-5897	5.1	Passed
170-140	49.3	44.8	1,255.4	1,755.4	WMAIN-3812(1)	7	Passed
170-141	49.4	44.4	1,251.5	1,751.5	WMAIN-3808(1)(2)	5.8	Passed
170-142	49.6	45.4	1,251.0	1,751.0	WMAIN-3808(1)(2)	7.1	Passed
170-143	49.6	46.8	1,250.0	1,750.0	WMAIN-3808(2)	8.5	Passed
170-144	48.4	47.1	1,252.1	1,752.1	WMAIN-5897	5.1	Passed
170-145	48.9	47.7	1,253.5	1,753.5	WMAIN-5897	5.1	Passed
170-146	49.1	47.9	1,250.9	1,750.9	WMAIN-5897	5.1	Passed
170-147	49.2	47.7	1,251.5	1,751.5	WMAIN-3790(1)	8.6	Passed
170-148	49.2	47.9	1,251.0	1,751.0	WMAIN-5897	5.1	Passed
170-149	49	47.4	1,252.1	1,752.1	WMAIN-6235(1)	8.7	Passed
170-150	50.5	48.7	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-151	50.9	48.9	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
170-152	49	47.1	1,250.0	1,750.0	WMAIN-3591(2)	7.2	Passed
170-153	48.8	47.6	1,253.0	1,753.0	WMAIN-5897	5.1	Passed
170-154	49.4	43.7	1,251.0	1,751.0	WMAIN-3803(1)	6.4	Passed
170-155	50.5	48.8	1,250.5	1,750.5	WMAIN-5897	5.1	Passed
170-156	49.2	46.9	1,250.2	1,750.2	WMAIN-3137(2)	6.5	Passed
170-157	50.9	44.1	3,500.0	4,000.0	WMAIN-3139(2)	6.4	Passed
170-158	49.2	44.6	2,507.0	3,007.0	WMAIN-3139(2)	5.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-159	48.6	47.3	1,250.3	1,750.3	WMAIN-5897	5.1	Passed
171-001	46.6	39.5	2,500.0	3,000.0	WMAIN-7144	7.2	Passed
171-002	46.7	34.5	3,500.0	4,000.0	WMAIN-7144	9.6	Passed
171-016	47.2	34.1	3,518.3	4,018.3	WMAIN-7144	8	Passed
171-017	47.6	25.4	5,003.0	5,503.0	WMAIN-7144	10	Passed
171-018	47.8	26.9	5,002.5	5,502.5	WMAIN-3764	9.9	Passed
171-019	47.9	28	5,000.7	5,500.7	WMAIN-3764	10.3	Passed
171-020	48.1	29.4	5,001.9	5,501.9	WMAIN-3764	10.6	Passed
171-021	48.3	31.6	5,006.5	5,287.7	WMAIN-0429B(1)	15	Passed
171-023	48.3	20	5,000.0	5,201.5	WMAIN-0429B(1)	14.8	Passed
171-024	48.3	25.1	5,000.0	5,281.2	WMAIN-0429B(1)	15	Passed
171-026	49.3	38.9	5,000.0	5,500.0	WMAIN-3759(1)(2)	12.8	Passed
171-027	50.1	48.4	2,500.0	3,000.0	WMAIN-3759(2)	10	Passed
171-028	49.1	48.3	1,250.0	1,750.0	WMAIN-3760	6.5	Passed
171-029	48.3	47.3	1,250.0	1,750.0	WMAIN-3760	6.1	Passed
171-030	48	46.7	1,250.0	1,750.0	WMAIN-3760	5.7	Passed
171-031	47.9	46.5	1,250.0	1,750.0	WMAIN-3760	5.6	Passed
171-032	47.8	46.5	1,250.0	1,750.0	WMAIN-3760	5.4	Passed
171-033	47.8	46.5	1,258.5	1,758.5	WMAIN-3760	5.4	Passed
171-034	47.9	45.7	2,500.0	3,000.0	WMAIN-3760	6	Passed
171-035	48.1	46	2,512.5	3,012.5	WMAIN-3760	5.9	Passed
171-036	48.5	47.3	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
171-037	48.1	45.9	1,250.2	1,750.2	WMAIN-1499(2)	7	Passed
171-038	48.4	43.8	1,252.1	1,752.1	WMAIN-1474(2)	9.2	Passed
171-039	48.8	42.3	1,253.4	1,753.4	WMAIN-1472	7.2	Passed
171-040	48.7	42.3	1,250.0	1,750.0	WMAIN-1472	6.9	Passed
171-041	48.5	43.4	1,254.0	1,754.0	WMAIN-1482(2)	7.1	Passed
171-042	48.6	42.6	1,250.9	1,750.9	WMAIN-1414(2)	11.2	Passed
171-043	48.6	43.1	1,252.0	1,752.0	WMAIN-1411(1)	11.2	Passed
171-044	48.3	45.5	1,250.0	1,750.0	WMAIN-1391A(1)	6	Passed
171-045	48.3	45.1	1,252.1	1,752.1	WMAIN-1501(1)	6.9	Passed
171-046	48	43.2	1,253.2	1,753.2	WMAIN-1466(1)	6.1	Passed
171-047	48	40.6	1,252.2	1,752.2	WMAIN-1490(1)	11.2	Passed
171-048	48	38.8	1,251.8	1,751.8	WMAIN-1487(2)	11.2	Passed
171-049	47.7	38.7	1,257.9	1,757.9	WMAIN-1485(2)	6.6	Passed
171-050	47.6	39.6	1,253.9	1,753.9	WMAIN-1483(1)	8	Passed
171-051	47.6	38.1	1,252.8	1,752.8	WMAIN-1449	6.6	Passed
171-052	47.7	40.6	1,251.2	1,751.2	WMAIN-1447(2)	9.1	Passed
171-053	47.6	40.4	1,255.3	1,755.3	WMAIN-1444(1)(1)	7.7	Passed
171-054	47.6	39.6	1,250.0	1,750.0	WMAIN-1458(2)	6.3	Passed
171-055	47.7	41.5	1,251.0	1,751.0	WMAIN-1458(2)	6.3	Passed
171-056	47.8	43	1,251.8	1,751.8	WMAIN-1458(2)	6.7	Passed
171-057	48.3	45.1	1,251.0	1,751.0	WMAIN-1458(2)	8.6	Passed
171-058	48.2	44.9	1,253.0	1,753.0	WMAIN-1434(1)(1)	7.9	Passed
171-059	48	46.1	1,250.3	1,750.3	WMAIN-1524(1)	8.9	Passed
171-060	50.2	49.2	2,500.0	3,000.0	WMAIN-3761	10.1	Passed
171-061	49.2	48.1	1,250.0	1,750.0	WMAIN-3760	5.8	Passed
171-062	48.9	47.7	1,250.4	1,750.4	WMAIN-3760	5.4	Passed
171-063	48.7	47	1,250.4	1,750.4	WMAIN-1497(1)	8.2	Passed
171-064	48.5	44.5	1,250.8	1,750.8	WMAIN-1422(2)	7.4	Passed
171-065	48.5	43.6	1,252.1	1,752.1	WMAIN-1524(1)	5.9	Passed
171-066	48.5	44.5	1,250.0	1,750.0	WMAIN-1434(2)	6.5	Passed
171-067	48.6	38.2	2,503.7	2,348.7	WMAIN-1437(1)	15	Velocity Failed
171-068	48.2	43.1	1,257.0	1,757.0	WMAIN-1524(1)	7.1	Passed
171-069	48.3	44.9	1,250.2	1,750.2	WMAIN-1515(1)	7.5	Passed
171-070	48.3	43.3	1,251.1	1,751.1	WMAIN-1418(2)	11.2	Passed
171-071	48.3	44.7	1,251.9	1,751.9	WMAIN-1509	6.5	Passed
171-072	48.5	44.7	1,252.1	1,752.1	WMAIN-1405(1)	7.6	Passed
171-073	48.6	43.2	1,254.3	1,754.3	WMAIN-1408	7.2	Passed
171-074	48.9	43.1	1,251.6	1,751.6	WMAIN-1403	6.7	Passed
171-075	48.6	45.7	1,250.2	1,750.2	WMAIN-1396(1)	7.8	Passed
171-076	48.7	47.5	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
171-077	48.8	47.7	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
171-078	48.6	47.1	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
171-079	47.1	34	3,503.5	4,003.5	WMAIN-7144	8.3	Passed
171-086	48.1	41.8	1,251.2	1,751.2	WMAIN-7493	11.2	Passed
171-087	48.1	38.6	1,251.0	1,751.0	WMAIN-7493	11.2	Passed
171-088	48.3	31.9	5,000.0	5,500.0	WMAIN-3764	11.3	Passed
171-089	48.8	46.7	1,251.0	1,751.0	WMAIN-7885(2)	6	Passed
171-090	48.9	46.8	1,251.4	1,751.4	WMAIN-7888(1)	6.5	Passed
171-091	48.9	45.6	1,255.0	1,755.0	WMAIN-7884(1)	7.1	Passed
171-092	49.9	46.4	1,251.4	1,751.4	WMAIN-8047(2)	6.8	Passed
171-093	50.8	50.3	1,250.0	1,750.0	WMAIN-5897	5	Passed
171-094	49.2	45.8	1,255.9	1,755.9	WMAIN-7889(2)	5.7	Passed
171-095	48.8	45.4	1,256.0	1,756.0	WMAIN-7887(2)	5.9	Passed
171-096	50.1	47.6	1,251.3	1,751.3	WMAIN-8045(2)	6.5	Passed
171-097	49.7	47.4	1,250.9	1,750.9	WMAIN-8043(1)	6.4	Passed
171-098	49.1	46.3	1,253.3	1,753.3	WMAIN-8019	5.6	Passed
171-099	48.8	46.6	1,251.2	1,751.2	WMAIN-7892(1)	6.1	Passed
171-100	50.5	49.7	1,250.0	1,750.0	WMAIN-5897	5	Passed
171-101	49.7	47.2	1,250.6	1,750.6	WMAIN-8019	6.3	Passed
171-102	49.6	46.9	1,252.2	1,752.2	WMAIN-8019	5.9	Passed
171-103	49	42.9	1,251.4	1,751.4	WMAIN-7893(1)	11.2	Passed
171-104	48.8	46.4	1,250.3	1,750.3	WMAIN-7895(2)	5.7	Passed
171-105	48.7	46	1,250.2	1,750.2	WMAIN-8136(2)	6.4	Passed
171-106	48.9	45.1	1,251.6	1,751.6	WMAIN-8133(2)	5.7	Passed
171-107	49.2	40.7	1,251.6	1,751.6	WMAIN-8134	11.2	Passed
171-108	49	46.4	1,251.7	1,751.7	WMAIN-8132(1)	7.3	Passed
171-109	48.6	46.1	1,257.7	1,757.7	WMAIN-8140(1)	6.6	Passed
171-110	48.4	46.2	1,250.0	1,750.0	WMAIN-8140(2)(2)	7.5	Passed
171-111	48.6	46.4	1,250.6	1,750.6	WMAIN-7903(1)	6.4	Passed
171-112	48.8	46.7	1,251.8	1,751.8	WMAIN-7897(2)	7.1	Passed
171-113	49	46.8	1,251.6	1,751.6	WMAIN-7898(2)	6	Passed
171-114	49.2	47.2	1,250.4	1,750.4	WMAIN-8019	6.2	Passed
171-115	49.7	48.8	1,250.0	1,750.0	WMAIN-5897	5	Passed
171-116	48.9	46.2	1,253.0	1,753.0	WMAIN-8040(1)	7.9	Passed
171-117	49	48	1,250.0	1,750.0	WMAIN-5897	5	Passed
171-118	48.2	44.8	1,253.1	1,753.1	WMAIN-8037(1)	6.2	Passed
171-119	48.6	46.3	1,251.8	1,751.8	WMAIN-7900(2)	6.2	Passed
171-120	48.5	42.1	1,251.0	1,751.0	WMAIN-7901(2)	11.2	Passed
171-121	48.2	45.3	1,252.2	1,752.2	WMAIN-8130(2)	6.2	Passed
171-122	48.4	46	1,250.0	1,750.0	WMAIN-8139(2)	6.7	Passed
171-123	48.3	46.2	1,251.1	1,751.1	WMAIN-7906(2)	6	Passed
171-124	48.3	46.2	1,251.4	1,751.4	WMAIN-7907(2)	6.3	Passed
171-125	48.1	44.9	1,253.2	1,753.2	WMAIN-8033(1)	6.1	Passed
171-126	48.2	47.1	1,250.0	1,750.0	WMAIN-5897	5	Passed
171-127	47.8	45	1,251.3	1,751.3	WMAIN-8032(2)	7.3	Passed
171-128	48.3	46.2	1,251.0	1,751.0	WMAIN-7908(2)	6	Passed
171-129	48	45.1	1,250.4	1,750.4	WMAIN-7909(2)	7.1	Passed
171-130	48.3	45.2	1,257.0	1,757.0	WMAIN-7909(1)(1)	6.3	Passed
171-131	47.4	46.2	1,250.0	1,750.0	WMAIN-5897	5	Passed
171-132	47.8	46.6	1,250.4	1,750.4	WMAIN-5897	5	Passed
171-133	48.1	46.9	1,251.9	1,751.9	WMAIN-5897	5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
171-134	47.9	46.7	1,250.2	1,750.2	WMAIN-5897	5.1	Passed
171-135	48.1	45.6	1,253.6	1,753.6	WMAIN-7905(2)	6.3	Passed
171-136	47.8	46.6	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
171-137	47.8	46.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
171-138	47.8	46.5	1,251.8	1,751.8	WMAIN-5897	5.1	Passed
171-139	48.2	46.8	1,252.4	1,752.4	WMAIN-5897	5.1	Passed
171-140	48.3	43.2	1,251.1	1,751.1	WMAIN-8015	11.2	Passed
171-141	48.7	47.5	1,251.2	1,751.2	WMAIN-5897	5.1	Passed
180-001	47.8	46.3	1,252.5	1,752.5	WMAIN-5897	5.1	Passed
180-002	47.4	45.8	1,250.7	1,750.7	WMAIN-5897	5.1	Passed
180-003	48.7	46.9	1,251.9	1,751.9	WMAIN-5897	5.1	Passed
180-004	48.5	43.2	1,250.0	1,750.0	WMAIN-0104(1)	11.2	Passed
180-005	49.2	47.4	1,251.5	1,751.5	WMAIN-5897	5.1	Passed
180-006	48.8	45.8	1,250.8	1,750.8	WMAIN-7522(2)	7.6	Passed
180-007	49.1	46.8	1,250.3	1,750.3	WMAIN-0111(1)	5.9	Passed
180-008	49.4	47.3	1,250.0	1,750.0	WMAIN-7506(2)	8.6	Passed
180-009	50	48.5	1,251.6	1,751.6	WMAIN-5897	5.1	Passed
180-010	51.3	49.8	1,251.8	1,751.8	WMAIN-5897	5.1	Passed
180-011	50.5	47.2	1,250.0	1,750.0	WMAIN-0096	11.2	Passed
180-012	49.4	47.3	1,251.9	1,751.9	WMAIN-7507(1)	8.9	Passed
180-013	49.7	45.7	1,256.1	1,756.1	WMAIN-7526(1)(1)	5.7	Passed
180-014	50.4	48	1,250.0	1,750.0	WMAIN-7526(2)	8.8	Passed
180-015	49.4	45.7	1,254.4	1,754.4	WMAIN-7476(1)	6.4	Passed
180-016	49.2	45.7	1,250.0	1,750.0	WMAIN-7506(1)(2)(2)	5.8	Passed
180-017	48.5	41.5	1,251.9	1,751.9	WMAIN-7521	11.2	Passed
180-018	49	43.2	1,252.4	1,752.4	WMAIN-7478(2)	7.4	Passed
180-019	48.6	41.9	1,252.5	1,752.5	WMAIN-7502(2)	5.9	Passed
180-020	47.9	42.7	1,251.3	1,751.3	WMAIN-7502(2)	7.9	Passed
180-021	47.8	41.4	1,253.1	1,753.1	WMAIN-0107	6.5	Passed
180-022	47.3	43.3	1,251.9	1,751.9	WMAIN-7524(2)	8.6	Passed
180-023	50.5	44.4	1,250.0	1,750.0	WMAIN-7670(2)	6.2	Passed
180-024	50.1	44.3	1,254.3	1,754.3	WMAIN-7661(1)	6.8	Passed
180-025	49.5	44.2	1,251.5	1,751.5	WMAIN-7683	6.4	Passed
180-026	50.5	45.3	1,253.0	1,753.0	WMAIN-7565(1)	6.8	Passed
180-027	50.9	45.4	1,255.1	1,755.1	WMAIN-7560(2)	6.3	Passed
180-028	51.1	46.7	1,251.2	1,751.2	WMAIN-7561(1)	7.9	Passed
180-029	51.1	49.3	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
180-030	51.7	47	1,250.6	1,750.6	WMAIN-7670(2)	8.1	Passed
180-031	51.8	47.6	1,252.3	1,752.3	WMAIN-7669(1)	6.2	Passed
180-032	51.2	46.3	1,252.0	1,752.0	WMAIN-7683	6.1	Passed
180-033	51.8	47.7	1,251.3	1,751.3	WMAIN-7683	6.3	Passed
180-034	51.7	47.5	1,252.8	1,752.8	WMAIN-7666(1)	8.2	Passed
180-035	51.8	48	1,250.8	1,750.8	WMAIN-7569(2)	6.8	Passed
180-036	51.8	48	1,251.8	1,751.8	WMAIN-7566(1)	6.7	Passed
180-037	51.7	48.1	1,251.0	1,751.0	WMAIN-7563(2)	8.9	Passed
180-038	51.4	46.1	1,252.6	1,752.6	WMAIN-7563(2)	6.2	Passed
180-039	51.8	49.4	1,250.8	1,750.8	WMAIN-7693(1)	5.9	Passed
180-040	51.7	49.9	1,252.3	1,752.3	WMAIN-5897	5.1	Passed
180-041	51.8	50	1,252.8	1,752.8	WMAIN-5897	5.1	Passed
180-042	51.1	49.1	1,250.3	1,750.3	WMAIN-5897	5.1	Passed
180-043	51.4	47.5	1,251.0	1,751.0	WMAIN-7674	6.9	Passed
180-044	51.7	50.1	1,250.2	1,750.2	WMAIN-7694(2)(1)	5.4	Passed
180-045	51.6	50	1,251.9	1,751.9	WMAIN-5897	5.1	Passed
180-046	51.5	50	1,251.3	1,751.3	WMAIN-5897	5.1	Passed
180-047	51.4	48.6	1,252.5	1,752.5	WMAIN-7556(1)	7.5	Passed
180-048	51.5	48.5	1,250.4	1,750.4	WMAIN-7682(2)	7.2	Passed
180-049	51.5	49.7	1,250.5	1,750.5	WMAIN-7690(1)	9.3	Passed
180-050	51.3	48.2	1,250.5	1,750.5	WMAIN-7684(2)	6	Passed
180-051	51	46.8	1,253.5	1,753.5	WMAIN-7685(1)	6	Passed
180-052	49.4	46.9	1,250.2	1,750.2	WMAIN-5897	5.1	Passed
180-053	49.2	42.8	1,254.0	1,754.0	WMAIN-7798	5.7	Passed
180-054	50.6	44.9	1,250.0	1,750.0	WMAIN-7798	7.2	Passed
180-055	49.9	47.1	1,250.5	1,750.5	WMAIN-5897	5.1	Passed
180-056	50.1	44.6	1,250.9	1,750.9	WMAIN-7793	7.3	Passed
180-057	50.7	47.1	1,251.4	1,751.4	WMAIN-7792(2)	5.9	Passed
180-058	51.5	47.3	1,252.2	1,752.2	WMAIN-7803(2)	6.4	Passed
180-059	51.4	48.2	1,250.3	1,750.3	WMAIN-7686(2)(2)	6.3	Passed
180-060	51.3	48.1	1,250.9	1,750.9	WMAIN-7686(1)	6.6	Passed
180-061	51.2	47.1	1,251.0	1,751.0	WMAIN-7687(1)	8	Passed
180-062	51.4	47.2	1,251.6	1,751.6	WMAIN-7689	6	Passed
180-063	51.3	48.1	1,251.0	1,751.0	WMAIN-7555(2)	5.9	Passed
180-064	50.9	45.8	1,252.7	1,752.7	WMAIN-7749	6.7	Passed
180-065	50.8	44.9	1,251.3	1,751.3	WMAIN-7756(1)	6.8	Passed
180-066	51	44.8	1,251.5	1,751.5	WMAIN-7687(1)	6.8	Passed
180-067	51.4	44.3	1,253.4	1,753.4	WMAIN-7751(2)	8.2	Passed
180-068	51.6	44.9	1,253.5	1,753.5	WMAIN-7800(1)	7.5	Passed
180-069	51.5	46.4	1,250.0	1,750.0	WMAIN-7802	6.1	Passed
180-070	51.5	46.9	1,252.9	1,752.9	WMAIN-7805(1)	7.4	Passed
180-071	51.4	44.8	1,251.2	1,751.2	WMAIN-7806	7.5	Passed
180-072	51.4	47.7	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
180-073	51.5	43.9	1,254.3	1,754.3	WMAIN-7806	6.6	Passed
180-074	51.5	43.6	1,256.0	1,756.0	WMAIN-7800(1)	6	Passed
180-075	51.5	44.2	1,252.3	1,752.3	WMAIN-7800(1)	6.9	Passed
180-076	51.3	42.1	1,252.9	1,752.9	WMAIN-7687(1)	6.8	Passed
180-077	50.9	41.4	1,257.3	1,757.3	WMAIN-7687(1)	6.7	Passed
180-078	50.8	40.5	1,253.0	1,753.0	WMAIN-7755	11.2	Passed
180-079	50.6	43.1	1,252.8	1,752.8	WMAIN-7758(1)	7.9	Passed
H-205	53.9	48	1,256.3	1,756.3	WMAIN-1071	6.2	Passed
H-206	51.2	45.9	1,250.0	1,750.0	HS-73	7.6	Passed
H-207	56.2	50	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-208	55.8	47.8	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-209	56.3	49.7	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-211	49.8	45.5	1,254.2	1,754.2	HS-73	8.4	Passed
H-212	54.1	46.5	1,250.0	1,750.0	HS-28	6.3	Passed
H-213	54.1	44.8	1,250.0	1,750.0	HS-20	11.2	Passed
H-214	55.2	49.6	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-215	56.1	50	1,383.7	1,883.7	WMAIN-1071	8.3	Passed
H-216	56	37.6	3,501.6	4,001.6	WMAIN-1071	14.1	Passed
H-219	51.8	48.4	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-220	55.6	45.2	1,255.5	1,755.5	WMAIN-1071	8.2	Passed
H-221	51.8	45.2	1,250.0	1,750.0	HS-80	6.2	Passed
H-222	51.7	49.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
H-224	55.9	49.9	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-225	48.8	46.5	1,257.5	1,757.5	WMAIN-5897	5.1	Passed
H-226	50.8	42.3	1,250.0	1,750.0	HS-71	8.7	Passed
H-227	54.9	49.3	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-228	51	45	1,250.0	1,750.0	HS-49	7.7	Passed
H-229	55.8	50.1	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-230	49.9	41.6	1,378.5	1,878.5	WMAIN-3778	7.2	Passed
H-231	49.7	45.4	1,250.0	1,750.0	HS-60	5.9	Passed
H-233	51.2	47.9	1,250.0	1,750.0	HS-89	8.7	Passed
H-236	51.9	48.7	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-237	51.1	49	1,250.0	1,750.0	WMAIN-5897	5.1	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
H-238	55.7	49.1	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-239	51.4	46.7	1,250.0	1,750.0	HS-65	8.1	Passed
H-240	55.2	46.5	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-242	45.1	41.6	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-243	55	41.5	1,250.0	1,750.0	HS-106	11.2	Passed
H-244	55.3	47.3	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-246	51.7	47.1	1,262.0	1,762.0	HS-54	6.3	Passed
H-247	49.6	43.2	1,345.7	1,845.7	WMAIN-3778	7.2	Passed
H-250	56.1	49.1	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-251	55.5	49	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-252	54.4	43.7	1,250.0	1,750.0	HS-3	11.7	Passed
H-253	54.9	43	1,500.0	2,000.0	WMAIN-3712(2)	5.8	Passed
H-255	50.4	38.2	1,250.0	1,750.0	HS-78	11.2	Passed
H-256	51.4	47.7	1,250.0	1,750.0	HS-73	5.3	Passed
H-257	48.8	46.7	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
H-258	56.2	48.6	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-259	55.7	50.6	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-260	55.6	50.3	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-268	54.6	46	1,282.7	1,782.7	WMAIN-1071	8.2	Passed
H-272	45.6	40.9	1,320.4	1,820.4	WMAIN-5897	5.1	Passed
H-274	53.9	49.6	1,330.5	1,830.5	WMAIN-1071	6.1	Passed
H-275	48.5	41.6	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
H-277	55.2	47.1	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-278	42.8	37.5	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-279	56.7	52	1,250.0	1,750.0	WMAIN-1071	8.4	Passed
H-281	54.9	49.1	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-285	50.8	44	1,250.0	1,750.0	HS-54	7	Passed
H-287	55	46.8	1,250.0	1,750.0	HS-3	11.7	Passed
H-288	55.8	49.8	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-289	48.8	46.9	1,250.0	1,750.0	HS-31	5.6	Passed
H-290	55	48.4	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-291	51.1	43.4	1,250.0	1,750.0	HS-73	7.8	Passed
H-292	49	42	1,250.0	1,750.0	HS-33	11.2	Passed
H-293	48.8	46.6	1,250.0	1,750.0	WMAIN-3760	5.1	Passed
H-294	49	43.9	1,250.6	1,750.6	HS-46	7.4	Passed
H-295	55.3	50.5	1,250.0	1,750.0	HS-3	11.7	Passed
H-296	46.8	35.9	1,289.1	1,789.1	WMAIN-7877	5.5	Passed
H-297	54.1	47.2	1,250.0	1,750.0	HS-28	7.7	Passed
H-298	49	42.5	1,250.0	1,750.0	HS-73	8.1	Passed
H-299	50.8	44.4	1,263.7	1,763.7	HS-73	8	Passed
H-300	55	48.3	1,266.1	1,766.1	HS-3	11.7	Passed
H-301	55.1	44.2	1,282.1	1,782.1	WMAIN-1071	8.2	Passed
H-302	55.1	47.7	1,254.5	1,754.5	WMAIN-1071	8.2	Passed
H-303	51.2	43.2	1,809.3	2,309.3	HS-66	10	Passed
H-305	55.7	47.7	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-306	55.3	49.6	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-307	56	49.9	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-308	54	48.2	1,256.1	1,756.1	HS-27	6.6	Passed
H-309	54.1	45.3	1,250.0	1,750.0	HS-18	11.2	Passed
H-310	55.9	48.9	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-312	52	48.4	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-313	53.7	49.2	1,250.0	1,750.0	WMAIN-1071	6.2	Passed
H-314	54.9	41.4	1,250.0	1,750.0	HS-107	11.2	Passed
H-315	55.3	49.1	1,269.1	1,769.1	WMAIN-1071	8.2	Passed
H-316	54.9	47.6	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-317	55.9	49.4	1,255.0	1,755.0	WMAIN-1071	8.3	Passed
H-318	48.4	38	1,250.0	1,750.0	HS-88	11.2	Passed
H-319	55.2	48.9	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-320	45.4	39.6	1,402.6	1,902.6	WMAIN-5897	5.1	Passed
H-321	50.7	47.2	1,254.1	1,754.1	WMAIN-5897	5.1	Passed
H-322	51.5	49	1,252.4	1,752.4	WMAIN-5897	5.1	Passed
H-323	55.2	42.9	1,250.0	1,750.0	HS-96	11.2	Passed
H-324	50.8	41.8	1,250.0	1,750.0	HS-71	8.3	Passed
H-325	55.7	50.2	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-326	55.5	49.5	1,253.9	1,753.9	WMAIN-1071	8.2	Passed
H-327	55.4	43.9	1,250.0	1,750.0	HS-97	11.2	Passed
H-328	55.4	46.3	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-329	54.8	49	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-330	53.7	49.2	1,250.0	1,750.0	HS-21	6.3	Passed
H-331	54.1	47.9	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-332	53.7	48.5	1,250.0	1,750.0	HS-22	8.1	Passed
H-333	55.6	47.3	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-334	50.3	44.1	1,250.0	1,750.0	HS-71	9	Passed
H-338	48.8	21.6	3,596.0	4,096.0	WMAIN-3778	11.9	Passed
H-339	45.5	42	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-340	55.7	50.1	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-341	51.5	47.3	1,257.7	1,757.7	HS-54	7.3	Passed
H-342	55.3	47.1	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-343	55	48.9	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-344	52.2	49.5	1,250.0	1,750.0	WMAIN-1071	5.4	Passed
H-349	51.9	45.3	1,250.0	1,750.0	HS-83	6	Passed
H-350	54.4	48.4	1,297.2	1,797.2	WMAIN-1071	8.2	Passed
H-351	54.9	44	1,306.4	1,806.4	HS-3	11.7	Passed
H-352	49	46	1,250.3	1,750.3	HS-32	6.2	Passed
H-353	55.9	49.8	1,252.8	1,752.8	WMAIN-1071	8.3	Passed
H-357	54.7	45.9	1,250.0	1,750.0	HS-3	11.7	Passed
H-358	55.7	49.9	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-359	49.4	43.7	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-362	55.5	48.7	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-364	55.7	49.8	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-365	50.9	41.7	1,250.0	1,750.0	HS-52	11.2	Passed
H-366	54.9	47.3	1,259.1	1,759.1	HS-3	11.7	Passed
H-367	55.3	39.7	1,250.0	1,750.0	HS-100	11.2	Passed
H-369	56.2	49.9	1,250.0	1,750.0	WMAIN-1071	8.3	Passed
H-370	55.4	49.9	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-372	51.6	41.8	3,500.2	4,000.2	HS-57	8.6	Passed
H-373	48.0	20.0	3,509.0	2,676.0	WMAIN-3778	9.1	Residual Pressure Failed
H-374	54	47.8	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
H-376	50.1	42.9	1,250.0	1,750.0	HS-54	6.9	Passed
H-377	49.1	43	1,254.9	1,754.9	HS-86	6.2	Passed
H-382	52	20	1,263.5	1,293.5	WMAIN-1071	7.1	Passed
H-384	47.9	45.4	1,251.0	1,751.0	WMAIN-5897	5.1	Passed
H-385	48.8	45.9	1,250.3	1,750.3	WMAIN-7896	7.2	Passed
H-386	48.8	46.5	1,250.5	1,750.5	WMAIN-7886	6.3	Passed
H-388	49	20	3,536.7	2,618.1	WMAIN-7877	7.9	Residual Pressure Failed
H-389	56.9	47	1,724.4	2,224.4	WMAIN-1071	8.3	Passed
H-390	56.5	50.4	1,426.5	1,926.5	WMAIN-1071	8.3	Passed
H-391	57	51.8	1,250.0	1,750.0	WMAIN-1071	8.4	Passed
H-392	56.5	51.5	1,362.2	1,862.2	WMAIN-1071	8.3	Passed
H-393	56.5	51.6	1,250.0	1,750.0	WMAIN-1071	8.4	Passed
H-394	54.8	34.1	3,500.2	4,000.2	WMAIN-1071	14.3	Passed
H-395	54.3	50.1	1,549.0	2,049.0	WMAIN-1071	6.3	Passed
H-396	52.9	49.1	1,250.0	1,750.0	WMAIN-1071	5.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
H-397	51.6	20	3,517.4	3,807.9	WMAIN-7741	10.8	Passed
H-398	51.8	47	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-399	51.7	45.6	1,250.0	1,750.0	HS-85	5.8	Passed
H-414	43.3	34.6	3,500.0	4,000.0	WMAIN-3229	8.6	Passed
H-415	45.5	42.1	1,250.0	1,750.0	WMAIN-5897	5.1	Passed
H-425	48.7	22.5	3,500.0	4,000.0	WMAIN-3778	11.9	Passed
H-426	48.2	20.0	3,530.0	3,263.0	WMAIN-3778	10.4	Residual Pressure Failed
H-427	49.8	20.0	3,620.0	3,926.0	WMAIN-3778	11.5	Passed
H-428	50	42	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
H-433	54.8	45.6	1,250.0	1,750.0	HS-3	11.7	Passed
H-434	55	47.3	1,250.0	1,750.0	HS-3	11.7	Passed
H-436	54	46.7	1,250.0	1,750.0	HS-24	6.9	Passed
J-3	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
TEMP391	53.7	51.4	1,251.8	1,751.8	WMAIN-5897	5.2	Passed
TEMP392	52.8	50.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
TEMP393	53.4	51.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
TEMP394	53.4	51.4	1,250.1	1,750.1	WMAIN-5897	5.2	Passed
TEMP395	53.9	46.7	3,500.0	3,891.9	P-84(2)	15	Passed
TEMP396	52.2	50.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
TEMP397	52	47.4	2,500.0	3,000.0	WMAIN-5897	5.3	Passed
TEMP398	51.7	49.8	1,271.0	1,771.0	WMAIN-5897	5.2	Passed
TEMP399	53.7	52.7	1,250.5	1,750.5	P-112(1)	5.7	Passed
TEMP400	52	42.1	2,500.0	3,000.0	WMAIN-8247	14.7	Passed
TEMP401	52	39.8	2,520.5	3,020.5	WMAIN-8247	13.5	Passed
TEMP402	51.9	27.7	3,525.2	3,924.5	WMAIN-8247	15	Passed
TEMP403	51.9	47.2	1,250.0	1,750.0	WMAIN-8240(2)	8.1	Passed
TEMP404	52	48.6	1,250.0	1,750.0	WMAIN-8240(1)	9.2	Passed
TEMP405	52	48.4	1,250.0	1,750.0	WMAIN-8250(1)	7.3	Passed
TEMP406	52	47.9	1,250.0	1,750.0	WMAIN-8242	6.1	Passed
TEMP407	52.1	42.4	2,500.0	3,000.0	WMAIN-8250(2)	11.1	Passed
TEMP408	49.3	45.7	1,250.0	1,750.0	WMAIN-8214(1)	7.3	Passed
TEMP409	49.6	41.5	1,250.0	1,750.0	WMAIN-8208(1)(1)	11.2	Passed
TEMP410	49.6	45.7	1,265.6	1,765.6	WMAIN-8213(2)	6.5	Passed
TEMP411	49.7	45.6	1,250.0	1,750.0	WMAIN-8217(2)	6.1	Passed
TEMP412	49.5	45.8	1,250.0	1,750.0	WMAIN-8216(1)	7	Passed
TEMP413	49.6	45.2	1,250.0	1,750.0	WMAIN-8221(1)(1)(2)	6.7	Passed
TEMP414	49.6	46.3	1,250.0	1,750.0	WMAIN-8220(2)	8.1	Passed
TEMP415	49.7	45.1	1,250.0	1,750.0	WMAIN-8220(2)	5.7	Passed
TEMP416	49.6	46.3	1,250.0	1,750.0	WMAIN-8212(2)	6.9	Passed
TEMP417	49.6	46.9	1,250.0	1,750.0	WMAIN-8219(2)	5.8	Passed
TEMP418	49.3	45.8	1,250.0	1,750.0	WMAIN-8206(1)	7.9	Passed
TEMP419	49.5	45.2	1,250.0	1,750.0	WMAIN-8206(2)	6.8	Passed
TEMP420	49.6	45	1,250.0	1,750.0	WMAIN-8210(2)	5.9	Passed
TEMP421	49.2	47	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
TEMP422	49.7	45.5	1,250.0	1,750.0	WMAIN-8210(2)	7	Passed
TEMP423	49.3	47.4	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
TEMP424	45.6	43.7	1,253.0	1,753.0	WMAIN-5897	5.1	Passed
TEMP425	46.1	43.5	1,251.3	1,751.3	WMAIN-8193(1)	6.2	Passed
TEMP426	46.4	43.9	1,252.1	1,752.1	WMAIN-8196(1)	6.1	Passed
TEMP427	55.3	42.3	2,500.0	3,000.0	WMAIN-1071	11.8	Passed
TEMP428	55.1	42.3	2,500.0	3,000.0	WMAIN-1071	11.9	Passed
TEMP429	55.1	42.7	2,500.0	3,000.0	WMAIN-1071	11.9	Passed
TEMP430	55	43.2	2,500.0	3,000.0	WMAIN-1071	11.9	Passed
TEMP431	54.9	44	2,500.0	3,000.0	WMAIN-1071	12	Passed
TEMP432	54.9	45.1	2,500.0	3,000.0	WMAIN-1071	12.1	Passed
TEMP433	55	45.5	2,500.0	3,000.0	WMAIN-1071	12.1	Passed
TEMP434	55	46.8	2,500.0	3,000.0	WMAIN-1071	12.1	Passed
TEMP435	49.7	46.1	1,250.0	1,750.0	WMAIN-8211(1)	6.1	Passed
TEMP436	49.5	48	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
TEMP437	48	45	1,254.2	1,754.2	WMAIN-8014(1)	6.4	Passed
TEMP438	48.5	46.3	1,252.0	1,752.0	WMAIN-8313(2)	7.1	Passed
TEMP439	48.7	45.9	1,253.3	1,753.3	WMAIN-8318(1)	6.1	Passed
TEMP440	48.8	46.4	1,252.3	1,752.3	WMAIN-8317(2)	6.5	Passed
TEMP441	48.2	44.7	1,253.2	1,753.2	WMAIN-8315(2)	7	Passed
TEMP442	47.9	40.2	1,252.9	1,752.9	WMAIN-8316	11.2	Passed
TEMP443	48.1	44.4	1,251.6	1,751.6	WMAIN-8129(1)	6.8	Passed
TEMP444	49.5	45.6	1,250.0	1,750.0	WMAIN-8221(1)(1)(1)	7.4	Passed
TEMP445	53.6	50.9	1,250.4	1,750.4	WMAIN-8309(1)	6.2	Passed
TEMP446	53.7	50.3	1,251.7	1,751.7	WMAIN-8310(1)	6.9	Passed
TEMP447	53.8	49.5	1,253.0	1,753.0	WMAIN-8308	6.5	Passed
TEMP448	53.8	50	1,253.6	1,753.6	WMAIN-8305(2)	5.6	Passed
TEMP449	53.8	49.7	1,253.7	1,753.7	WMAIN-8304(2)	6.9	Passed
TEMP450	53.9	50.8	1,250.9	1,750.9	WMAIN-8301(1)	7.2	Passed
TEMP451	53.9	50.4	1,251.6	1,751.6	WMAIN-8302(1)	6.1	Passed
TEMP452	53.9	50.8	1,251.5	1,751.5	WMAIN-8300(1)	6.4	Passed
TEMP453	53.7	49.9	1,251.6	1,751.6	WMAIN-8297(2)	5.6	Passed
TEMP454	53.7	49.6	1,252.4	1,752.4	WMAIN-8299(2)	6.4	Passed
TEMP455	53.5	49.5	1,252.2	1,752.2	WMAIN-8296(1)	6.8	Passed
TEMP456	53.1	49.4	1,250.4	1,750.4	WMAIN-8294(2)	6.1	Passed
TEMP457	53.5	50.3	1,251.5	1,751.5	WMAIN-8293(2)	6.6	Passed
TEMP458	53.8	51	1,251.0	1,751.0	WMAIN-8292(2)	7.8	Passed
TEMP459	53.6	50.1	1,254.2	1,754.2	WMAIN-8290(1)	5.6	Passed
TEMP460	53.5	50	1,253.4	1,753.4	WMAIN-8291(1)	6.1	Passed
TEMP461	53.1	49.5	1,251.6	1,751.6	WMAIN-8288(2)	5.9	Passed
TEMP462	53.6	50.7	1,250.9	1,750.9	WMAIN-8289(1)	6.5	Passed
TEMP463	53.4	50.4	1,250.9	1,750.9	WMAIN-8283(2)	8.3	Passed
TEMP464	53	50	1,250.9	1,750.9	WMAIN-8286(1)	6.6	Passed
TEMP465	53.3	49.4	1,252.2	1,752.2	WMAIN-8282(1)(1)	7.5	Passed
TEMP466	52.6	49.6	1,251.0	1,751.0	WMAIN-8284(1)	8.3	Passed
TEMP467	52.8	48.8	1,252.3	1,752.3	WMAIN-8282(2)	7.1	Passed
TEMP468	53.5	47.6	1,252.0	1,752.0	WMAIN-8281	7.6	Passed
TEMP469	53.2	44.9	1,251.4	1,751.4	WMAIN-8279(2)	11.2	Passed
TEMP470	53.4	46.6	1,252.5	1,752.5	WMAIN-8281	6.5	Passed
TEMP471	53	47.8	1,252.9	1,752.9	WMAIN-8278(1)	8.3	Passed
TEMP472	53.3	46.8	1,252.8	1,752.8	WMAIN-8278(1)	6.9	Passed
TEMP473	53.4	46.4	1,252.5	1,752.5	WMAIN-8278(1)	5.9	Passed
TEMP474	49.6	27.2	3,500.5	4,000.5	WMAIN-8322	13	Passed
TEMP475	49.6	30.6	3,500.0	3,807.0	WMAIN-8323(2)	15	Passed
TEMP476	48	44.3	1,251.7	1,751.7	WMAIN-0101	6.3	Passed

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5047	47.3	0	0	49.2	49.2	0	51.6
J-5049	47.3	0	0	47.7	48.7	0	49.9
J-5050	37.2	10.5	5.1	46.1	54.2	10.5	48
J-5053	47.3	0	0	47.7	48.7	0	49.9
J-5055	38.2	0	0	47.4	50.5	0	47.9
J-5056	52.1	0	0	57.6	71.8	0	63.5
J-5057	52.1	0	0	57.6	71.8	0	63.5
J-5058	38.9	0.6	0.3	46.3	49.8	0.6	46.9
J-5059	38.9	0	0	46.3	49.8	0	46.9
J-5060	46.9	0	0	47.9	48.9	0	50.1
J-5062	31.4	1.4	0.7	48.6	52.8	1.4	49.8
J-5063	31.4	6.9	3.3	48.6	52.8	6.9	49.8
J-5068	36.4	0	0	46.7	50.3	0	47.8
J-5069	32.5	2.9	1.4	53.8	58.6	2.9	53.7
J-5070	38.7	0	0	47.8	51.1	0	49.5
J-5071	40.8	0	0	45.6	48.9	0	46.1
J-5072	40.8	0	0	45.6	48.9	0	46.1
J-5073	41.8	0	0	45.1	48.5	0	45.6
J-5074	41.8	0	0	45.1	48.5	0	45.6
J-5075	38.9	0	0	46.3	49.8	0	46.9
J-5076	38.9	0	0	46.3	49.8	0	46.9
J-5078	27.9	4.2	2	48.7	54.3	4.2	49.8
J-5079	32.5	0.7	0.3	53.7	58.5	0.7	53.7
J-5080	50.4	0	0	42.9	45	0	42.2
J-5081	50.4	0	0	42.9	45	0	42.3
J-5082	41.1	0	0	46.1	49.1	0	46.4
J-5084	41.2	0.9	0.4	46	49	0.9	46.4
J-5085	41.1	2.7	1.3	46.1	49.1	2.7	46.4
J-5086	36	0.8	0.4	47	50.7	0.8	47.9
J-5087	36	2.3	1.1	47	50.7	2.3	47.9
J-5093	33.4	0	0	47.7	51.8	0	49
J-5094	33.4	2	1	47.7	51.8	2	49
J-5095	39	0	0	46.2	49.7	0	46.8
J-5096	39	16.4	7.9	46.2	49.7	16.4	46.8
J-5098	32.8	0	0	47.8	52.3	0	49.1
J-5100	37	0	0	47	50.7	0	47.8
J-5101	37	0.3	0.1	47	50.7	0.3	47.8
J-5104	32.1	1.7	0.8	48.2	52.5	1.7	49.4
J-5105	32.1	0.4	0.2	48.2	52.5	0.4	49.4
J-5106	32.7	0	0	47.8	52	0	49
J-5107	32.7	7.6	3.6	47.8	52	7.6	49
J-5108	37.9	0	0	46.7	50.2	0	47.3
J-5109	37.9	0	0	46.7	50.2	0	47.3
J-5110	37.4	8.2	3.9	46	49.8	8.2	47.2
J-5112	37.4	0.1	0	46.5	50.3	0.1	47.4
J-5113	37.4	2.4	1.2	46.5	50.3	2.4	47.4
J-5116	32.4	2.2	1.1	48.1	52	2.2	50.9
J-5118	40.5	0.4	0.2	46.1	48.9	0.4	46.4
J-5119	32.5	1.2	0.6	48.3	52.5	1.2	49.4
J-5120	32.5	1.9	0.9	48.3	52.5	1.9	49.4
J-5121	32.3	0	0	48	52	0	50.3
J-5122	32.3	0	0	48	52	0	50.3
J-5123	38.9	0	0	46.3	49.8	0	46.9
J-5124	38.9	1.7	0.8	46.3	49.8	1.7	46.9
J-5125	33.1	0	0	48.4	51.9	0	50
J-5126	47.1	0	0	49.2	49.3	0	51.6
J-5128	48.7	0	0	43.7	45.8	0	43.1
J-5129	37.5	0.7	0.3	46.9	50.4	0.7	47.5
J-5133	37.9	0.3	0.1	46.7	50.2	0.3	47.3
J-5134	37.9	0	0	46.7	50.2	0	47.3
J-5135	33	0	0	47.9	52.4	0	49.3
J-5136	33	0	0	47.9	52.4	0	49.3
J-5137	24.7	0	0	47.3	55	0	48.3
J-5138	24.7	0	0	47.3	55	0	48.3
J-5139	22.8	0	0	51.3	55.7	0	52.5
J-5140	22.8	0	0	51.3	55.7	0	52.5
J-5141	37.3	0	0	47.6	51.3	0	49.2
J-5142	37.3	0	0	47.6	51.3	0	49.2
J-5143	32.9	21.8	10.5	47.9	52.4	21.8	49.3
J-5144	40.5	0	0	46.4	49.4	0	46.7
J-5145	40.5	0	0	46.4	49.4	0	46.7
J-5146	37.3	0	0	47.6	51.3	0	49.2
J-5147	37.3	13.3	6.4	47.6	51.3	13.3	49.2
J-5148	27.3	0	0	46.3	53.9	0	47.3
J-5149	27.3	37	17.8	46.3	53.9	37	47.3
J-5157	27.7	21.9	10.5	49.9	54.2	21.9	51.1
J-5158	27.7	1.3	0.6	49.9	54.2	1.3	51.1
J-5159	36.9	0	0	47	50.7	0	47.8
J-5161	41.4	0	0	45.6	48.8	0	46
J-5162	42.8	1.3	0.6	46.2	48.2	1.3	45.6
J-5163	41.7	0	0	45.4	48.6	0	45.8
J-5165	35.2	2	1	47.3	51.6	2	48.5
J-5166	37.9	0.3	0.1	46.8	50.3	0.3	47.4
J-5167	37.9	3.8	1.8	46.8	50.3	3.8	47.4
J-5168	43.7	5.3	2.6	45	47.9	5.3	45.1
J-5169	43.7	0	0	45	47.9	0	45.1
J-5170	27.4	0	0	50.7	55.1	0	51.9
J-5171	37.4	1.2	0.6	46	50.3	1.2	47.2
J-5172	37.4	1.5	0.7	46	50.3	1.5	47.2
J-5173	32.5	0	0	53.8	58.6	0	53.7
J-5174	41.1	3.1	1.5	45.7	48.9	3.1	46
J-5175	41.1	0.2	0.1	45.6	48.9	0.2	46
J-5176	36.2	0	0	46.5	50.7	0	47.7
J-5177	36.2	1.3	0.6	46.5	50.7	1.3	47.7
J-5178	37.4	3.2	1.5	46	50.3	3.2	47.2
J-5179	37.4	2.9	1.4	46	50.3	2.9	47.2
J-5183	30.9	27	13	48.4	53.1	27	49.7
J-5185	18.8	0	0	53.1	57.4	0	54.3
J-5191	32.4	0	0	48	52.2	0	49.3
J-5192	32.4	2.8	1.3	48	52.2	2.8	49.3
J-5195	37.6	10.4	5	46.9	50.4	10.4	47.5
J-5196	37.6	0	0	46.9	50.4	0	47.5
J-5197	37.8	1.7	0.8	46.6	50.3	1.7	47.4
J-5199	47.4	0	0	43.7	46.3	0	43.5
J-5200	47.4	0.2	0.1	43.7	46.3	0.2	43.5
J-5201	37	0	0	47	50.7	0	47.8
J-5202	34.2	0	0	47.9	52.1	0	49
J-5205	32.7	2.3	1.1	47.8	52	2.3	49
J-5206	37.4	0.4	0.2	46	50.3	0.4	47.2
J-5207	37.4	0.5	0.3	46	50.3	0.5	47.2
J-5208	37.5	2.5	1.2	47.4	50.7	2.5	48.1
J-5209	37.5	0	0	47.4	50.7	0	48.1

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5213	32.1	0	0	48.2	52.5	0	49.4
J-5214	32.1	1.6	0.7	48.2	52.5	1.6	49.4
J-5215	32.6	6.4	3.1	48	52.3	6.4	49.2
J-5216	32.6	1.9	0.9	48	52.3	1.9	49.2
J-5217	32.5	0	0	48	52.2	0	49.3
J-5218	36.7	4.4	2.1	46.5	50.1	4.4	47.6
J-5219	36.7	7.2	3.5	46.5	50.1	7.2	47.6
J-5220	37.4	3.8	1.8	46	50.3	3.8	47.2
J-5221	51.1	17.2	8.3	42.6	44.7	17.2	41.9
J-5222	51.1	4.5	2.2	42.6	44.7	4.5	41.9
J-5223	27.8	0	0	49.8	54.2	0	51.1
J-5224	27.8	40.3	19.4	49.8	54.2	40.3	51.1
J-5225	33.4	0.7	0.3	47.7	51.8	0.7	49
J-5226	40.2	0.8	0.4	46.3	49.4	0.8	46.6
J-5227	40.2	20	9.6	46.3	49.4	20	46.6
J-5228	22.5	0	0	48.9	56	0	49.9
J-5229	22.5	0	0	48.9	56	0	49.9
J-5230	22.2	0	0	51.6	56.1	0	52.9
J-5231	22.2	42.3	20.3	51.6	56.1	42.3	52.9
J-5232	31.9	0	0	48.2	52.7	0	49.5
J-5233	31.9	0.4	0.2	48.2	52.7	0.4	49.5
J-5234	37.4	1.1	0.5	46	50.3	1.1	47.2
J-5235	37.4	1	0.5	46	50.3	1	47.2
J-5236	37.4	0.5	0.2	46	50.3	0.5	47.2
J-5237	37.4	0	0	46	50.3	0	47.2
J-5238	33.1	1.8	0.9	48	52.2	1.8	49.1
J-5239	33.1	0	0	48	52.2	0	49.1
J-5240	37.7	0	0	46.8	50.3	0	47.4
J-5241	37.7	1.9	0.9	46.8	50.3	1.9	47.4
J-5242	38.4	0	0	46.6	50.2	0	47.4
J-5243	38.4	5.2	2.5	46.6	50.2	5.2	47.4
J-5244	22.2	0	0	51.6	56.1	0	52.9
J-5245	37.2	0	0	47.2	51.2	0	48.8
J-5246	37.3	0	0	47.2	51.1	0	48.8
J-5247	47	0	0	44.1	46.5	0	43.7
J-5248	47	0	0	44.1	46.5	0	43.7
J-5249	37.2	0	0	47.2	51.2	0	48.8
J-5250	37.3	0	0	47.2	51.1	0	48.8
J-5251	32.3	3	1.5	48.3	52.5	3	49.4
J-5252	32.3	1.7	0.8	48.3	52.5	1.7	49.4
J-5253	36.1	1.4	0.7	46.5	50.7	1.4	47.8
J-5254	36.1	1.9	0.9	46.5	50.7	1.9	47.8
J-5255	26.6	3	1.4	46.5	54.2	3	47.5
J-5256	26.6	47	22.6	46.5	54.2	47	47.5
J-5257	37.9	0.7	0.3	46.8	50.2	0.7	47.3
J-5258	37.9	1.7	0.8	46.8	50.2	1.7	47.3
J-5259	33.5	0	0	44.8	51.3	0	45.8
J-5260	33.5	0	0	44.8	51.4	0	45.8
J-5261	33.5	0	0	44.8	51.3	0	45.8
J-5262	19.6	0	0	52.5	56.9	0	53.7
J-5263	19.6	0	0	52.5	56.9	0	53.7
J-5264	20.1	5.3	2.5	52.5	56.8	5.3	53.7
J-5265	20.1	2.2	1.1	52.4	56.8	2.2	53.7
J-5266	33.2	0	0	48.4	51.8	0	49.9
J-5267	20.2	0.6	0.3	52.4	56.7	0.6	53.7
J-5268	19.3	4.3	2.1	52.8	57.1	4.3	54.1
J-5269	41	2.4	1.1	45.7	48.9	2.4	46.1
J-5270	37.7	0	0	46.8	50.2	0	47.4
J-5271	37.7	0	0	46.8	50.3	0	47.4
J-5272	32.3	3.1	1.5	48.3	52.5	3.1	49.4
J-5273	32.3	0	0	48.3	52.5	0	49.4
J-5274	34.3	0	0	47.9	52.1	0	49.3
J-5275	34.3	36.8	17.7	47.9	52.1	36.8	49.3
J-5276	34.2	0	0	47.9	52.1	0	49.3
J-5277	34.2	0	0	47.9	52.1	0	49.3
J-5280	36.8	4.1	2	47.1	50.8	4.1	48
J-5281	36.8	1	0.5	47.1	50.8	1	48
J-5282	26.3	0.6	0.3	47.5	54.3	0.6	48.5
J-5283	26.3	0.9	0.4	47.5	54.3	0.9	48.5
J-5284	31.7	14.3	6.9	47.8	52.6	14.3	49
J-5286	28.5	3.8	1.8	49.2	54	3.8	50.4
J-5289	38.9	2.6	1.3	46.3	49.8	2.6	46.9
J-5290	37.4	0	0	46.2	50.4	0	47.3
J-5291	37.4	0.6	0.3	46.2	50.4	0.6	47.3
J-5292	42	0	0	45.7	48.6	0	45.8
J-5293	42	5.7	2.8	45.7	48.6	5.7	45.8
J-5294	39.7	0.6	0.3	46.7	49.7	0.6	47.1
J-5296	38	1.9	0.9	48.1	51.4	1.9	49.8
J-5297	38	1.3	0.6	48.1	51.4	1.3	49.8
J-5298	41.7	0.8	0.4	45.2	48.5	0.8	45.7
J-5299	41.7	1.9	0.9	45.2	48.5	1.9	45.7
J-5300	41.9	0.6	0.3	46.5	48.5	0.6	45.9
J-5301	41.9	7.6	3.6	46.5	48.5	7.6	45.9
J-5302	37.7	0.3	0.2	46.7	50.4	0.3	47.6
J-5303	37.7	4.9	2.4	46.7	50.4	4.9	47.6
J-5305	46.1	6.8	3.3	44	46.8	6.8	44
J-5306	46.1	0	0	44	46.8	0	44
J-5307	33.4	0	0	47.8	52	0	48.9
J-5308	33.5	11.2	5.4	47.7	52	11.2	48.9
J-5309	37.4	0	0	46	50.3	0	47.2
J-5312	32.4	1.2	0.6	47.9	52	1.2	50.2
J-5313	32.5	0	0	47.9	52	0	50.2
J-5315	32.7	0	0	47.9	52.4	0	49.2
J-5316	41.5	17	8.2	45.4	48.7	17	45.8
J-5317	41.5	0	0	45.4	48.7	0	45.9
J-5318	40.5	2.3	1.1	46.4	49.4	2.3	46.7
J-5319	32.8	7.2	3.5	53.3	57.9	7.2	53.2
J-5320	32.8	0.6	0.3	53.4	57.9	0.6	53.3
J-5321	38.2	1.2	0.6	46.6	50.1	1.2	47.2
J-5322	38.2	0	0	46.6	50.1	0	47.2
J-5324	44.7	2	1	44.6	47.4	2	44.7
J-5325	44.7	7.4	3.6	44.6	47.4	7.4	44.7
J-5326	38	0.5	0.3	48.4	51.5	0.5	50.2
J-5327	38	0	0	48.4	51.5	0	50.2
J-5328	37.8	2.3	1.1	46.6	50.3	2.3	47.3
J-5329	43	0	0	45.3	48.2	0	45.4
J-5330	43	1	0.5	45.3	48.2	1	45.4
J-5331	39.3	2.1	1	46.9	49.9	2.1	47.3
J-5332	39.3	2.1	1	46.9	49.9	2.1	47.3
J-5333	38.1	0.9	0.5	46.9	50.8	0.9	48.5
J-5334	38.1	0.6	0.3	46.9	50.8	0.6	48.5
J-5335	47	0	0	44.1	46.5	0	43.7

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5336	32.4	0	0	48.2	52.2	0	49.5
J-5337	32.4	0	0	48.2	52.2	0	49.5
J-5338	33.1	0.9	0.4	47.8	51.9	0.9	49.1
J-5339	33.1	0.1	0.1	47.8	51.9	0.1	49.1
J-5340	32.7	0.8	0.4	48	52	0.8	49.3
J-5341	32.7	0.2	0.1	48	52.1	0.2	49.3
J-5343	32.3	2.7	1.3	48.4	52.6	2.7	49.5
J-5347	32.2	0	0	48.1	52.4	0	49.4
J-5348	32.1	0	0	48.2	52.5	0	49.4
J-5349	41.4	0	0	45.4	48.7	0	45.9
J-5350	36.3	3	1.5	46.4	50.7	3	47.6
J-5351	43.3	1.4	0.7	45	48	1.4	45.1
J-5352	43.2	1.7	0.8	45	48	1.7	45.2
J-5356	24.8	0	0	47.3	54.9	0	48.3
J-5357	47.1	0	0	49.2	49.3	0	51.6
J-5358	47.5	0	0	44.2	46.3	0	43.5
J-5359	47.5	4.8	2.3	44.2	46.3	4.8	43.5
J-5361	46.3	0	0	44.2	46.8	0	44
J-5362	46.3	0	0	44.2	46.8	0	44
J-5363	40.8	0	0	45.6	48.9	0	46.1
J-5364	40.8	0	0	45.6	48.9	0	46.1
J-5365	32.9	2.3	1.1	47.9	52.5	2.3	49.3
J-5371	32.4	0.6	0.3	47.7	52.1	0.6	49.1
J-5372	32.4	5.1	2.4	47.7	52.1	5.1	49.1
J-5374	40.9	5.8	2.8	45.7	49	5.8	46.1
J-5375	40.9	1.6	0.8	45.7	49	1.6	46.1
J-5376	37.4	0	0	47.6	51.3	0	49.2
J-5377	37.4	0	0	47.6	51.3	0	49.2
J-5381	44.5	0	0	49.9	50.3	0	52.2
J-5382	44.4	0	0	49.9	50.3	0	52.2
J-5383	39.7	0.8	0.4	46.7	49.7	0.8	47
J-5384	39.8	0.7	0.3	46.7	49.7	0.7	47
J-5387	38.2	3.1	1.5	46.6	50.1	3.1	47.2
J-5389	41.2	1	0.5	46	49	1	46.2
J-5390	41.2	0	0	46	49	0	46.2
J-5391	36.3	6.5	3.1	47	50.9	6.5	47.9
J-5392	36.3	2.3	1.1	47	50.9	2.3	47.9
J-5393	32.2	0.6	0.3	48.3	52.6	0.6	49.5
J-5394	32.2	1.3	0.6	48.3	52.6	1.3	49.5
J-5395	47	0.6	0.3	44.1	46.5	0.6	43.7
J-5398	36.8	1.8	0.8	46.2	50.5	1.8	47.4
J-5399	37	0	0	46.1	50.4	0	47.3
J-5400	44.6	0	0	44.7	47.5	0	44.7
J-5401	44.6	3.2	1.5	44.7	47.5	3.2	44.7
J-5402	37.8	1.9	0.9	45.7	50	1.9	46.9
J-5403	37.8	0	0	45.7	50	0	46.9
J-5404	29.4	2.6	1.2	46.2	53	2.6	47.2
J-5405	29.4	0.1	0.1	46.2	53	0.1	47.2
J-5406	43	0	0	45.3	48.2	0	45.4
J-5408	42	0.8	0.4	45.7	48.6	0.8	45.8
J-5409	31.4	0	0	48.3	52.9	0	49.5
J-5410	31.6	0	0	48.2	52.8	0	49.5
J-5411	37.6	0	0	46.6	50.2	0	47.4
J-5412	37.6	0	0	46.6	50.2	0	47.4
J-5413	24.7	0	0	48.1	55.1	0	49.1
J-5415	32.5	0	0	48.1	52.6	0	49.5
J-5416	32.5	0	0	48.1	52.6	0	49.5
J-5417	33.5	0.3	0.2	47.7	51.7	0.3	49
J-5418	37.5	0	0	45.9	50.3	0	47.2
J-5419	37.5	3.5	1.7	45.9	50.4	3.5	47.2
J-5420	43	23.9	11.5	45.3	48.3	23.9	45.6
J-5421	43.1	0	0	45.3	48.2	0	45.5
J-5422	37.5	3.7	1.8	46.5	50.1	3.7	47.3
J-5423	37.5	2.4	1.2	46.5	50.1	2.4	47.3
J-5424	43	4.5	2.2	45.2	48.1	4.5	45.3
J-5425	43	4.2	2	45.2	48.1	4.2	45.3
J-5426	37.4	2.1	1	47.3	50.7	2.1	48.1
J-5427	37.4	0	0	47.3	50.7	0	48.1
J-5428	36.3	0.5	0.2	46.7	50.3	0.5	47.8
J-5429	36.2	2.5	1.2	46.7	50.4	2.5	47.8
J-5430	34	2.9	1.4	47.4	51.7	2.9	48.6
J-5431	34.1	1.9	0.9	47.4	51.7	1.9	48.6
J-5432	25.2	0.6	0.3	47.7	54.8	0.6	48.7
J-5433	25.2	0	0	47.7	54.8	0	48.7
J-5434	37.4	9.2	4.4	46	50.3	9.2	47.2
J-5435	37.4	0.9	0.4	46	50.3	0.9	47.2
J-5436	43.2	0.8	0.4	44.9	48	0.8	45.2
J-5437	43.2	4.8	2.3	44.9	48	4.8	45.1
J-5438	31.8	1.2	0.6	45.6	52.1	1.2	46.6
J-5439	31.7	0.6	0.3	45.7	52.1	0.6	46.6
J-5440	46.7	4.5	2.2	44.2	46.5	4.5	43.8
J-5441	46.7	0	0	44.2	46.5	0	43.8
J-5442	37.4	1.6	0.8	45.9	50.3	1.6	47.2
J-5443	37.5	4.4	2.1	45.9	50.3	4.4	47.2
J-5444	32.4	0	0	48	52.5	0	49.2
J-5445	32.5	0	0	47.9	52.4	0	49.2
J-5446	37.8	17.1	8.2	46.4	49.7	17.1	47.2
J-5447	37.8	3.4	1.6	46.4	49.7	3.4	47.2
J-5448	33.4	0.7	0.3	52	55.5	0.7	51.7
J-5449	33.4	3.8	1.8	51.9	55.4	3.8	51.6
J-5450	39.5	0	0	46.8	49.9	0	47.3
J-5451	39.5	0.6	0.3	46.8	49.9	0.6	47.3
J-5452	31.3	1.9	0.9	48.4	52.7	1.9	49.6
J-5453	31.3	6.1	3	48.4	52.7	6.1	49.6
J-5454	35.5	0	0	46.7	50.5	0	47.8
J-5455	35.5	0	0	46.7	50.5	0	47.8
J-5456	30.4	4.3	2.1	48.9	53.2	4.3	50.1
J-5457	30.4	9	4.3	48.9	53.2	9	50.1
J-5458	31.3	1.8	0.9	48.5	52.7	1.8	49.7
J-5459	31.4	0.3	0.1	48.4	52.6	0.3	49.7
J-5460	41.6	0.5	0.2	45.9	48.9	0.5	46.3
J-5461	41.6	0.5	0.2	45.9	48.9	0.5	46.3
J-5462	35.5	0	0	46.7	50.5	0	47.8
J-5463	37.4	0.6	0.3	46.1	50.2	0.6	47.2
J-5464	37.4	3.3	1.6	46.1	50.2	3.3	47.2
J-5465	33.4	0	0	48	52.1	0	49
J-5466	33.5	4.8	2.3	47.9	52.1	4.8	49
J-5468	32.5	0	0	48.1	52.6	0	49.4
J-5470	37.5	0.9	0.4	46.9	50.4	0.9	47.5
J-5471	24	4.9	2.4	51.5	55.7	4.9	52.8
J-5472	24	75	36.1	51.5	55.7	75	52.8
J-5473	37.8	0	0	46.4	49.7	0	47.2

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5474	37.8	0	0	46.4	49.7	0	47.2
J-5475	30	1.3	0.6	49.1	53.3	1.3	50.3
J-5476	30.1	32.1	15.4	49	53.3	32.1	50.3
J-5477	40.9	0.9	0.4	45.6	49	0.9	46.1
J-5478	40.9	0.3	0.2	45.6	48.9	0.3	46.1
J-5479	28.7	4.6	2.2	49.6	53.9	4.6	50.8
J-5480	28.7	2.7	1.3	49.6	53.9	2.7	50.8
J-5481	37.4	1.8	0.9	46.7	50.4	1.8	47.5
J-5483	37.6	0	0	47	50.5	0	47.8
J-5484	37.6	6.8	3.3	47	50.6	6.8	47.8
J-5485	34.6	1.4	0.7	47.5	51.6	1.4	48.5
J-5486	34.5	2.8	1.3	47.5	51.6	2.8	48.6
J-5487	40.2	0.3	0.1	46.3	49.4	0.3	46.6
J-5488	37.4	1.4	0.7	45.9	50.4	1.4	47.2
J-5489	37.4	9.4	4.5	45.9	50.4	9.4	47.2
J-5491	41.5	2.2	1.1	46.9	50.1	2.2	48.6
J-5492	41.5	1.3	0.6	46.9	50.1	1.3	48.6
J-5493	30.1	1.3	0.6	48	53	1.3	49.2
J-5494	30.1	1.9	0.9	48	53	1.9	49.2
J-5496	31.6	1.1	0.5	47.7	52.4	1.1	49
J-5497	31.6	1.9	0.9	47.7	52.4	1.9	49
J-5498	32.5	4.4	2.1	48	52.3	4.4	49.3
J-5499	32.6	5.1	2.5	48	52.3	5.1	49.2
J-5500	32.5	1.3	0.6	48.1	52.2	1.3	49.3
J-5501	32.5	1.9	0.9	48.1	52.2	1.9	49.3
J-5502	34.4	0	0	47.9	52.1	0	49
J-5503	40.4	0	0	46.4	49.4	0	46.8
J-5504	40.3	0	0	46.4	49.5	0	46.8
J-5505	32.4	2.8	1.4	47.8	52	2.8	49.8
J-5506	32.4	1.9	0.9	47.8	52	1.9	49.8
J-5507	41.1	5.9	2.8	46.1	49.1	5.9	46.4
J-5508	32.5	7.4	3.5	45.3	51.8	7.4	46.2
J-5509	32.6	16.6	8	45.2	51.7	16.6	46.2
J-5511	33	2	1	47.8	52	2	49.1
J-5512	37.3	2.7	1.3	46	50.2	2.7	47.2
J-5513	37.3	9.7	4.7	46	50.2	9.7	47.2
J-5514	24.7	0	0	47.3	55	0	48.3
J-5515	44.5	1.9	0.9	49.9	50.3	1.9	52.2
J-5516	24.7	0	0	47.3	55	0	48.3
J-5517	32	1.7	0.8	48.2	52.4	1.7	49.5
J-5518	32	0	0	48.2	52.4	0	49.5
J-5519	35	3.2	1.6	47.2	51.4	3.2	48.3
J-5520	35.1	3.2	1.5	47.2	51.3	3.2	48.3
J-5521	27.2	8.7	4.2	48.7	54.2	8.7	49.8
J-5522	27.2	0.6	0.3	48.7	54.2	0.6	49.8
J-5524	27.8	1.8	0.9	49.9	54.4	1.8	51.2
J-5525	38.4	1	0.5	47.3	50.4	1	47.8
J-5526	38.4	4.6	2.2	47.3	50.4	4.6	47.8
J-5527	32.3	0.2	0.1	48.4	52.5	0.2	49.5
J-5528	32.3	2.6	1.3	48.4	52.5	2.6	49.5
J-5530	23.9	0	0	51.7	55.8	0	52.9
J-5531	23.8	0	0	51.7	55.8	0	53
J-5532	32.3	2.5	1.2	48.5	52.6	2.5	49.5
J-5533	32.3	2.6	1.3	48.5	52.6	2.6	49.5
J-5534	32.4	0	0	48.2	52.2	0	49.5
J-5535	32.4	4.4	2.1	48.2	52.2	4.4	49.5
J-5536	37.6	2.8	1.3	46.6	50.2	2.8	47.3
J-5537	37.5	3	1.4	45.9	50.3	3	47.2
J-5538	37.3	0.3	0.1	46.9	50.6	0.3	47.7
J-5540	41.1	0	0	46.1	49.1	0	46.4
J-5541	36.7	6.9	3.3	46.8	50.7	6.9	47.7
J-5542	36.6	2	1	46.8	50.8	2	47.8
J-5546	31.3	0	0	47.3	52.5	0	48.2
J-5547	31.3	2.3	1.1	47.3	52.5	2.3	48.2
J-5549	37.7	0.6	0.3	45.7	50.1	0.6	46.9
J-5550	42.2	4.1	2	45.4	48.5	4.1	45.6
J-5551	42.2	0.9	0.5	45.4	48.4	0.9	45.6
J-5552	37.9	2	0.9	46.8	50.2	2	47.3
J-5553	38	1.1	0.5	46.7	50.2	1.1	47.3
J-5554	37.5	3.2	1.5	46.9	50.4	3.2	47.5
J-5555	37.5	1.1	0.5	46.9	50.4	1.1	47.5
J-5557	42	0.5	0.2	45.7	48.6	0.5	45.8
J-5558	42.1	2.2	1	45.7	48.6	2.2	45.8
J-5559	31.2	0	0	47.8	52.5	0	49.1
J-5560	31.3	3.6	1.7	47.8	52.5	3.6	49.1
J-5561	35.9	0	0	46.8	51	0	47.9
J-5562	36	2.4	1.1	46.8	50.9	2.4	47.9
J-5563	25.1	1.5	0.7	50.4	55.1	1.5	51.6
J-5564	25.1	23.1	11.1	50.4	55.1	23.1	51.6
J-5565	25.1	0	0	50.4	55.1	0	51.6
J-5566	37.9	2	1	46.7	50.2	2	47.4
J-5567	37.9	0	0	46.7	50.2	0	47.4
J-5568	37.4	0	0	46.2	50.4	0	47.3
J-5569	52.5	1.4	0.7	44.1	54.8	1.4	43.8
J-5570	52.5	5.7	2.7	44.1	54.8	5.7	43.8
J-5572	31.9	0.6	0.3	48.2	52.5	0.6	49.4
J-5573	31.9	0.6	0.3	48.1	52.4	0.6	49.4
J-5574	32.2	0.6	0.3	48.1	52.3	0.6	49.3
J-5575	32.3	1.3	0.6	48	52.3	1.3	49.3
J-5576	39.9	3	1.5	46	49.4	3	46.5
J-5578	38.4	0	0	46.3	49.8	0	47
J-5579	38.3	9.3	4.5	46.3	49.8	9.3	47
J-5580	37.4	0.8	0.4	45.9	50.4	0.8	47.2
J-5581	37.4	8.8	4.2	45.9	50.4	8.8	47.2
J-5582	37.5	0	0	46	50.2	0	47.2
J-5583	37.4	0.3	0.2	46	50.3	0.3	47.2
J-5584	46.6	0	0	44.5	47.8	0	46.2
J-5585	47	2.3	1.1	44.4	47.6	2.3	46.1
J-5587	41.7	0	0	45.7	48.7	0	45.9
J-5588	41.8	3.6	1.7	45.6	48.7	3.6	45.8
J-5591	32.3	0	0	48.4	52.6	0	49.5
J-5592	32.3	1.3	0.6	45.1	51.8	1.3	46
J-5593	32.3	3.8	1.8	45.1	51.8	3.8	46
J-5594	32.6	1.2	0.6	48.1	52.1	1.2	49.3
J-5595	32.6	1.9	0.9	48	52.1	1.9	49.3
J-5596	33.3	0	0	47.6	52.1	0	48.9
J-5597	33.2	0	0	47.6	52.2	0	48.9
J-5598	43	0	0	45.3	48.3	0	45.6
J-5599	43.1	0.7	0.3	45.3	48.3	0.7	45.6
J-5601	29.8	6.3	3	46.1	52.9	6.3	47.1
J-5602	29.7	3.6	1.8	46.1	52.9	3.6	47.1
J-5603	43	0	0	45.4	48.3	0	45.6

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5604	43	0.6	0.3	45.3	48.3	0.6	45.6
J-5606	37.8	0.5	0.3	46.8	50.2	0.5	47.4
J-5607	37.6	1.4	0.7	46.9	50.4	1.4	47.5
J-5608	37.6	17	8.2	46.9	50.4	17	47.5
J-5610	41.8	0	0	45.8	48.7	0	45.9
J-5611	36.9	2.6	1.3	46.3	50.5	2.6	47.4
J-5612	36.9	6	2.9	46.3	50.5	6	47.4
J-5613	36.1	6.7	3.2	47	50.7	6.7	47.9
J-5614	23.6	0	0	50.8	55.2	0	52
J-5615	24.7	0	0	50.3	54.7	0	51.5
J-5616	21	0	0	51.9	56.3	0	53.2
J-5617	20.9	37.8	18.2	52	56.4	37.8	53.2
J-5618	29.1	1	0.5	46.4	53.2	1	47.4
J-5619	29.2	5.6	2.7	46.4	53.2	5.6	47.4
J-5620	42.7	15	7.2	45.5	48.4	15	45.7
J-5621	42.7	0.7	0.3	45.5	48.4	0.7	45.7
J-5622	32.7	1.3	0.6	47.9	52.1	1.3	49.1
J-5623	33	1.9	0.9	47.8	52	1.9	49
J-5625	37.4	3.7	1.8	47.1	50.6	3.7	47.8
J-5626	37.4	0.9	0.4	47.1	50.6	0.9	47.8
J-5627	36.9	0	0	46.1	50	0	47.3
J-5628	36.9	3.1	1.5	46.1	49.9	3.1	47.3
J-5629	31	2.4	1.1	45.6	52.4	2.4	46.6
J-5630	30.9	2.4	1.2	45.6	52.4	2.4	46.6
J-5631	30.5	0.9	0.4	45.8	52.6	0.9	46.8
J-5632	30.5	2.7	1.3	45.8	52.6	2.7	46.8
J-5633	32.4	0	0	48	52.2	0	49.3
J-5634	32.4	1.2	0.6	48	52.2	1.2	49.3
J-5635	31.3	0	0	48.3	52.9	0	49.6
J-5636	44.2	0	0	44.8	47.8	0	45.1
J-5637	44.3	1	0.5	44.8	47.7	1	45
J-5638	32.5	68.5	33	47.6	52.4	68.5	48.9
J-5639	32.5	0.6	0.3	47.7	52.4	0.6	48.9
J-5640	20.3	0.1	0.1	52.2	56.6	0.1	53.4
J-5641	20.4	0	0	52.1	56.6	0	53.4
J-5642	36.8	2.7	1.3	46.5	50.6	2.7	47.5
J-5643	36.9	1.2	0.6	46.4	50.6	1.2	47.5
J-5645	31.8	2.2	1	48.2	52.5	2.2	49.5
J-5646	31.8	2.2	1	48.3	52.5	2.2	49.5
J-5648	26.9	0	0	46.4	54	0	47.4
J-5649	26.9	4.4	2.1	46.4	54	4.4	47.4
J-5650	27.2	0	0	46.4	53.9	0	47.3
J-5651	27.2	0	0	46.3	53.9	0	47.3
J-5652	32.3	1.3	0.6	46.8	52	1.3	47.8
J-5653	32.4	1.8	0.9	46.7	52	1.8	47.8
J-5654	37.9	0	0	47.6	51.2	0	49.2
J-5655	38	64.3	30.9	47.6	51.2	64.3	49.2
J-5656	28	0.6	0.3	50.7	54.1	0.6	52
J-5657	28	1.9	0.9	50.7	54.1	1.9	52
J-5658	41.1	1	0.5	46	49	1	46.2
J-5659	41.2	0	0	46	49	0	46.2
J-5660	21.4	1.7	0.8	51.7	56.2	1.7	53
J-5661	21.3	2.1	1	51.8	56.2	2.1	53
J-5662	32.3	0.6	0.3	47.3	52	0.6	48.5
J-5663	32.3	4.9	2.4	47.4	52	4.9	48.9
J-5664	29.9	1.2	0.6	48.1	53.1	1.2	49.3
J-5665	29.8	1.9	0.9	48.1	53.1	1.9	49.3
J-5667	37.8	7.5	3.6	46.8	50.2	7.5	47.3
J-5668	37.7	0	0	46.5	50.3	0	47.3
J-5669	37.7	1.7	0.8	46.5	50.3	1.7	47.3
J-5670	33.4	1.3	0.6	47.5	51.8	1.3	48.8
J-5671	33.5	1.3	0.6	47.5	51.8	1.3	48.7
J-5672	43.5	3.9	1.9	45	47.9	3.9	45.1
J-5673	43.5	4	1.9	45	47.9	4	45.1
J-5674	29.3	0	0	49.2	53.6	0	50.5
J-5675	29.4	0	0	49.2	53.5	0	50.5
J-5676	41.8	0	0	45.8	48.7	0	45.9
J-5677	33.2	0	0	47.7	52	0	48.9
J-5678	33.3	1.9	0.9	47.7	52	1.9	48.9
J-5679	42	0.5	0.2	45.7	48.6	0.5	45.8
J-5680	42.7	0	0	45.5	48.3	0	45.5
J-5681	42.7	0.4	0.2	45.5	48.3	0.4	45.5
J-5682	30.5	0	0	48.9	53.2	0	50.1
J-5683	30.5	3.9	1.9	48.9	53.1	3.9	50.1
J-5684	44.2	0.5	0.2	44.8	47.7	0.5	45.1
J-5685	44.6	0	0	44.6	47.6	0	44.9
J-5687	32.1	0.8	0.4	48.2	52.4	0.8	49.4
J-5688	37.4	0	0	46.5	50.3	0	47.4
J-5689	38	0.8	0.4	46	49.9	0.8	47
J-5690	38	0.8	0.4	46	49.9	0.8	47
J-5691	37.6	1.3	0.6	46.3	50.2	1.3	47.2
J-5692	37.6	2.9	1.4	46.3	50.2	2.9	47.2
J-5693	27.7	0.6	0.3	50.5	54.2	0.6	51.8
J-5694	27.8	18.3	8.8	50.5	54.1	18.3	51.8
J-5695	37.2	2.2	1.1	46.4	50.5	2.2	47.4
J-5696	37.2	29.6	14.2	46.4	50.5	29.6	47.4
J-5697	30.7	1.5	0.7	48.5	53.2	1.5	49.8
J-5698	30.7	0.6	0.3	48.5	53.2	0.6	49.8
J-5699	32.8	4.9	2.4	47.6	52.3	4.9	48.9
J-5700	32.7	0	0	47.7	52.3	0	49
J-5701	46.1	0	0	44.2	46.9	0	44.1
J-5702	46.1	0	0	44.2	46.8	0	44.1
J-5703	45.9	5.8	2.8	44.3	46.9	5.8	44.2
J-5704	46	0	0	44.2	46.9	0	44.1
J-5706	28	3.5	1.7	49.8	54.6	3.5	51.1
J-5707	23	0	0	51.2	55.7	0	52.5
J-5708	23.1	0	0	51.2	55.7	0	52.4
J-5709	39.7	0	0	46.7	49.8	0	47.2
J-5710	31	6	2.9	46.8	52.5	6	47.7
J-5711	31	0	0	46.8	52.5	0	47.7
J-5712	27.1	3.4	1.6	50.1	54.4	3.4	51.4
J-5713	27.4	0	0	49.9	54.2	0	51.1
J-5714	42.7	0	0	45.4	48.3	0	45.5
J-5715	42.8	3.5	1.7	45.4	48.3	3.5	45.5
J-5717	42.6	0	0	45.5	48.4	0	45.6
J-5719	43.1	0	0	45.3	48.3	0	45.6
J-5720	34.4	3.1	1.5	47.2	51.5	3.1	48.5
J-5721	34.4	1.9	0.9	47.1	51.5	1.9	48.5
J-5722	42.5	0	0	45.6	48.5	0	45.8
J-5723	42.5	0	0	45.6	48.5	0	45.8
J-5724	33.1	0	0	47.7	52.3	0	49
J-5726	43.5	0	0	45.1	48	0	45.2

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5727	43.6	3.2	1.6	45.1	47.9	3.2	45.2
J-5729	37.4	1.5	0.7	47	50.6	1.5	47.7
J-5730	20.7	1.4	0.7	52	56.4	1.4	53.2
J-5731	21.3	0	0	51.8	56.2	0	53
J-5732	33.3	8.8	4.2	48	52.2	8.8	49.1
J-5733	42.8	0	0	45.2	48.2	0	45.4
J-5734	42.8	2.9	1.4	45.2	48.2	2.9	45.4
J-5735	47.8	0	0	44.8	48.2	0	46.7
J-5736	47.8	0.9	0.4	44.8	48.2	0.9	46.7
J-5737	32.9	0.5	0.2	48.3	52.3	0.5	49.3
J-5738	32.6	3	1.4	48.4	52.5	3	49.4
J-5739	25.2	0	0	47.7	54.8	0	48.7
J-5741	33.3	1.2	0.6	47.9	52.1	1.2	49
J-5742	33.6	3.7	1.8	47.7	52	3.7	48.9
J-5743	30	0.3	0.1	46	52.8	0.3	47
J-5744	30.1	0.8	0.4	46	52.8	0.8	47
J-5745	38.2	1	0.5	46.6	50.1	1	47.3
J-5746	38.2	0.6	0.3	46.7	50.1	0.6	47.3
J-5747	32.4	3	1.4	48.1	51.9	3	49.7
J-5748	32.4	4.8	2.3	48.1	52	4.8	49.7
J-5749	32.4	0.6	0.3	48	52.3	0.6	49.2
J-5750	32.3	1.9	0.9	48	52.3	1.9	49.2
J-5751	22.7	0	0	51.3	55.8	0	52.5
J-5753	46.2	4.4	2.1	44.2	46.8	4.4	44
J-5754	42.5	3.1	1.5	45.4	48.4	3.1	45.5
J-5755	42.5	4.7	2.3	45.3	48.3	4.7	45.5
J-5756	29.7	0.5	0.3	48.3	53.1	0.5	49.5
J-5757	29.8	0	0	49.1	53.4	0	50.3
J-5759	42.8	0.5	0.2	45.2	48.2	0.5	45.4
J-5760	42.8	7.3	3.5	45.2	48.2	7.3	45.4
J-5762	37.8	2.3	1.1	46.7	50.4	2.3	47.5
J-5764	37.4	3.9	1.9	46	50.3	3.9	47.2
J-5765	32.5	5.8	2.8	48.1	52.4	5.8	49.3
J-5766	32.7	0.3	0.2	48.1	52.3	0.3	49.2
J-5767	32.7	14.3	6.9	47.9	52.3	14.3	49.1
J-5768	38.1	0.9	0.4	45.8	50	0.9	46.9
J-5769	38.1	1.6	0.8	45.8	50	1.6	46.9
J-5771	23.2	2.3	1.1	51.2	55.9	2.3	52.5
J-5772	23.3	0	0	51.2	55.9	0	52.5
J-5773	23.2	4.1	2	51.2	55.9	4.1	52.5
J-5774	37.5	0	0	47	49.9	0	47.4
J-5775	37.6	1.9	0.9	46.9	49.9	1.9	47.4
J-5777	35.6	0.2	0.1	46.5	50.5	0.2	47.5
J-5778	35.7	0	0	46.5	50.4	0	47.5
J-5780	38.9	3.3	1.6	46.4	49.8	3.3	46.9
J-5781	32.3	1.2	0.6	48.2	52	1.2	49.7
J-5782	39.1	2	1	46.3	49.5	2	46.8
J-5783	39.1	1	0.5	46.3	49.5	1	46.8
J-5784	50.3	4.4	2.1	42.9	45	4.4	42.3
J-5785	50.5	0	0	42.8	45	0	42.2
J-5786	50.2	1.2	0.6	43	45.1	1.2	42.3
J-5787	35.2	4.3	2	47.3	51.5	4.3	48.4
J-5788	24.1	0	0	47.6	55.2	0	48.6
J-5789	24.2	60	28.9	47.6	55.2	60	48.6
J-5790	29.8	1.2	0.6	46.5	52.9	1.2	47.5
J-5791	29.7	3	1.4	46.6	53	3	47.6
J-5792	36.2	7.4	3.6	46.5	50.8	7.4	47.7
J-5794	43	0	0	45.3	48.3	0	45.6
J-5795	42.9	0	0	45.4	48.3	0	45.7
J-5796	43.2	0	0	45.3	48.2	0	45.5
J-5797	43.1	0.9	0.4	45.3	48.2	0.9	45.5
J-5798	34.6	0.6	0.3	47.6	51.1	0.6	48.5
J-5799	34.7	1.4	0.7	47.5	51	1.4	48.5
J-5800	30.9	0	0	48.6	53.2	0	49.9
J-5801	31.1	0	0	48.6	53.1	0	49.9
J-5802	34.4	2	1	47.2	51.3	2	48.5
J-5803	34.5	3	1.4	47.2	51.3	3	48.5
J-5804	27.1	1.8	0.8	50.2	54.4	1.8	51.5
J-5805	27	0	0	50.2	54.4	0	51.5
J-5806	40.5	3	1.4	46.3	49.4	3	46.7
J-5807	32.3	2.6	1.3	48.4	52.6	2.6	49.5
J-5808	32.9	2.4	1.1	48.3	52.4	2.4	49.3
J-5809	37.9	3.5	1.7	45.7	50.1	3.5	47
J-5810	37.9	2.7	1.3	45.7	50.1	2.7	47
J-5811	42.7	3.8	1.8	45.3	48.3	3.8	45.5
J-5812	42.7	4.2	2	45.3	48.2	4.2	45.4
J-5813	43	0.3	0.1	45.4	48.3	0.3	45.6
J-5814	42.9	0.5	0.3	45.4	48.3	0.5	45.6
J-5815	47	5.3	2.6	44.1	46.5	5.3	43.7
J-5816	22.3	0	0	51.5	56	0	52.8
J-5817	22.2	1.3	0.6	51.6	56	1.3	52.8
J-5818	37.4	3.4	1.7	46.1	50.3	3.4	47.2
J-5820	38.6	0.4	0.2	46.1	49.8	0.4	46.9
J-5821	38.4	0.3	0.2	46.2	49.9	0.3	47
J-5822	34.9	4.8	2.3	47.5	51	4.8	48.4
J-5823	34.9	0.2	0.1	47.5	51	0.2	48.4
J-5825	43	0.9	0.4	45.3	48.3	0.9	45.6
J-5826	38	0.3	0.1	47.1	50.4	0.3	47.7
J-5827	38	4.1	2	47.1	50.4	4.1	47.7
J-5828	46.1	18.8	9.1	45.8	48.4	18.8	47.6
J-5829	46.2	0	0	45.8	48.4	0	47.6
J-5830	33.1	1.9	0.9	47.8	51.9	1.9	49.1
J-5831	33.2	0.6	0.3	47.8	51.9	0.6	49.1
J-5832	33.1	2.1	1	47.8	51.9	2.1	49.1
J-5833	33.2	2.9	1.4	47.7	51.8	2.9	49.1
J-5834	43.2	0	0	45.3	48.2	0	45.5
J-5835	43.3	7.3	3.5	45.2	48.1	7.3	45.4
J-5836	43.7	0	0	45.1	48	0	45.3
J-5837	43.8	0.8	0.4	45	47.9	0.8	45.3
J-5838	32.8	0	0	47.9	52.4	0	49.2
J-5839	31.7	3.9	1.9	47.6	52.3	3.9	48.9
J-5840	31.7	0.9	0.4	47.6	52.3	0.9	48.9
J-5841	47.1	1.8	0.9	47.8	48.8	1.8	50
J-5842	47.2	0	0	47.6	48.7	0	49.7
J-5843	47.3	1.5	0.7	47.5	48.7	1.5	49.7
J-5844	32.6	3.5	1.7	46.6	51.9	3.5	47.6
J-5845	32.5	1.2	0.6	46.6	51.9	1.2	47.7
J-5846	37.6	0	0	45.8	49.7	0	47.1
J-5847	37.6	6.1	3	45.9	49.7	6.1	47.1
J-5848	33	0.7	0.4	47.8	51.9	0.7	49.2
J-5849	33	0.4	0.2	47.9	51.9	0.4	49.2
J-5850	31.1	2.2	1.1	46.8	52.5	2.2	47.7

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5851	31.4	0.6	0.3	48.1	52.9	0.6	49.4
J-5852	31.5	2.4	1.2	48.1	52.8	2.4	49.4
J-5853	27	0	0	46.5	54	0	47.5
J-5854	27.1	0	0	46.4	53.9	0	47.4
J-5855	42.3	2.2	1	45.5	48.4	2.2	45.6
J-5856	42.3	1.6	0.8	45.5	48.4	1.6	45.6
J-5857	37.9	0.1	0	46.3	50	0.1	47.1
J-5858	37.9	9.4	4.5	46.3	50	9.4	47.1
J-5859	41.4	0	0	45.9	48.9	0	46.1
J-5861	37.4	2	1	46.4	50.4	2	47.4
J-5862	37.4	0.5	0.3	46.5	50.4	0.5	47.4
J-5863	38	0.2	0.1	45.6	49.9	0.2	46.8
J-5864	41.8	2.8	1.3	45.2	48.5	2.8	45.7
J-5865	41.6	2.9	1.4	45.3	48.6	2.9	45.7
J-5866	38.5	0.9	0.4	46.2	49.9	0.9	46.9
J-5867	33.3	0	0	51.7	55	0	51.3
J-5868	33.4	11.8	5.7	51.7	55	11.8	51.3
J-5869	37.8	4.1	2	46.4	50.2	4.1	47.3
J-5870	47	21.3	10.2	45.9	48.2	21.3	47.8
J-5871	47.1	0	0	45.9	48.1	0	47.8
J-5872	39.9	18.5	8.9	46.5	49.6	18.5	46.9
J-5873	39.8	0	0	46.6	49.6	0	47
J-5874	22.3	0	0	51.5	56	0	52.8
J-5875	31.3	4.2	2	48.5	52.8	4.2	49.8
J-5876	31.3	0	0	48.5	52.8	0	49.7
J-5877	36.2	2.2	1	46.5	50.6	2.2	47.7
J-5878	35.8	5.1	2.5	46.7	50.7	5.1	47.9
J-5880	32.3	0	0	48	52.6	0	49.3
J-5881	50.9	6.8	3.3	42.6	44.8	6.8	42
J-5882	51.6	0	0	42.3	44.5	0	41.7
J-5884	45.3	12	5.8	44.4	47.2	12	44.4
J-5885	41.1	0	0	46.1	49.1	0	46.4
J-5886	44.9	59.9	28.8	44.5	47.4	59.9	44.5
J-5887	44.8	1	0.5	44.6	47.4	1	44.6
J-5888	34	2.2	1.1	47.4	51.5	2.2	48.7
J-5889	34.1	2.2	1.1	47.3	51.5	2.2	48.7
J-5891	32.3	3.5	1.7	48	52.6	3.5	49.3
J-5892	32.5	1.3	0.6	48	52.1	1.3	49.4
J-5893	32.4	5.5	2.6	48.1	52.2	5.5	49.4
J-5894	35.9	2.5	1.2	46.6	50.7	2.5	47.9
J-5895	35.6	4.6	2.2	46.7	50.8	4.6	48
J-5896	36.6	38.8	18.6	46.2	50.5	38.8	47.4
J-5897	36.8	1	0.5	46.1	50.3	1	47.3
J-5899	32.6	0	0	45.1	51.8	0	46
J-5901	27.7	0.9	0.4	49.7	54.5	0.9	51
J-5902	27.5	7.4	3.5	49.8	54.6	7.4	51.1
J-5905	33.3	0.7	0.3	44.9	51.4	0.7	45.9
J-5906	34.3	0	0	47.9	52.1	0	49.3
J-5907	34.4	0	0	47.8	52.1	0	49.3
J-5908	42.8	3.8	1.8	45.2	48.2	3.8	45.4
J-5909	47.8	8.3	4	44.8	48.1	8.3	46.7
J-5910	36.9	6.2	3	47.1	50.8	6.2	47.9
J-5911	47.5	0.9	0.4	44.2	46.3	0.9	43.5
J-5912	47.5	1.7	0.8	44.2	46.3	1.7	43.5
J-5913	27.1	4.7	2.3	50.2	54.5	4.7	51.5
J-5914	27.2	0.6	0.3	50.2	54.5	0.6	51.4
J-5915	32.6	0	0	48	51.9	0	50.8
J-5916	32.5	1.8	0.9	48.1	51.9	1.8	50.8
J-5917	37.9	2	0.9	45.9	50	2	47
J-5918	37.9	12	5.8	46	50.1	12	47
J-5919	32.3	0.9	0.4	48.3	52.6	0.9	49.5
J-5920	32.8	0	0	48	52.2	0	49.2
J-5921	30.2	16.7	8	48.9	53.2	16.7	50.1
J-5922	30.2	0.1	0.1	48.9	53.2	0.1	50.1
J-5923	37.4	0.8	0.4	46.5	50.4	0.8	47.4
J-5924	36.4	0	0	46.7	50.3	0	47.8
J-5926	32.6	1.7	0.8	47.8	51.9	1.7	50.2
J-5927	32.7	0	0	47.8	51.9	0	50.1
J-5928	27.2	0.8	0.4	50.2	54.4	0.8	51.4
J-5929	27.3	0	0	50.1	54.4	0	51.4
J-5931	32.7	1.4	0.7	47.9	52.1	1.4	49.2
J-5932	32.6	11.7	5.6	48	52.1	11.7	49.3
J-5933	36.8	4	1.9	46.7	50.4	4	47.6
J-5934	36.8	13.2	6.3	46.7	50.4	13.2	47.6
J-5935	32.6	12.6	6.1	45.1	51.8	12.6	46
J-5936	30.8	0.4	0.2	48.5	53.1	0.4	49.8
J-5937	31	16.5	8	48.5	53	16.5	49.7
J-5938	40.4	2.5	1.2	46.4	49.4	2.5	46.8
J-5939	44	1.5	0.7	45	47.8	1.5	45
J-5940	44	0	0	44.9	47.8	0	45
J-5941	44	0	0	45	47.8	0	45
J-5943	36.1	5.5	2.6	46.8	50.4	5.5	47.9
J-5945	32.2	0.2	0.1	50.5	53	0.2	50
J-5946	32.2	4.3	2.1	50.5	53	4.3	50
J-5947	37.8	1.5	0.7	48.3	51.5	1.5	50.1
J-5948	38.3	1.5	0.7	48.1	51.3	1.5	49.9
J-5949	32.2	30.2	14.5	51	53.4	30.2	50.3
J-5950	32.3	0.8	0.4	50.9	53.4	0.8	50.3
J-5952	37.4	3.6	1.7	46.3	50	3.6	47.3
J-5953	37.4	2.4	1.2	46.4	50	2.4	47.3
J-5954	31.4	7.3	3.5	48.5	52.8	7.3	49.7
J-5955	42.3	1.2	0.6	45.4	48.4	1.2	45.6
J-5956	42.3	1.1	0.5	45.4	48.4	1.1	45.6
J-5957	26.6	109.7	52.8	48.8	54.4	109.7	49.9
J-5958	26.5	29.5	14.2	48.8	54.5	29.5	49.9
J-5959	24.3	0	0	48.3	55.2	0	49.3
J-5960	23.9	0	0	48.4	55.4	0	49.4
J-5961	24.2	0	0	48.3	55.2	0	49.3
J-5962	23.9	171.9	82.7	48.4	55.4	171.9	49.4
J-5963	29.2	0.7	0.3	49.6	53.6	0.7	50.9
J-5964	29.2	26.7	12.8	49.7	53.6	26.7	50.9
J-5966	47.5	4.4	2.1	44.5	46.4	4.4	43.6
J-5967	47.5	0.7	0.4	44.5	46.3	0.7	43.6
J-5968	31.5	0.8	0.4	47.6	52.4	0.8	48.6
J-5969	31.5	6.9	3.3	47.5	52.4	6.9	48.5
J-5970	33.2	1.6	0.8	47.7	51.8	1.6	49
J-5971	33	2.8	1.3	47.7	51.9	2.8	49.1
J-5972	32.2	3.3	1.6	48.4	52.6	3.3	49.5
J-5974	37.6	1.2	0.6	46.9	50.3	1.2	47.5
J-5975	37.6	1	0.5	46.9	50.3	1	47.5
J-5978	30.2	3.5	1.7	45.9	52.7	3.5	46.9
J-5979	32.7	0	0	47.9	52.4	0	49.2

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-5980	32.4	0	0	48	52.6	0	49.3
J-5981	26.6	0	0	49.9	54.3	0	51.1
J-5982	27.6	1.2	0.6	49.4	53.8	1.2	50.6
J-5983	21.2	6.2	3	51.8	56.2	6.2	53
J-5984	21.1	2.4	1.2	51.8	56.3	2.4	53.1
J-5985	33.6	1.8	0.9	47.5	51.7	1.8	48.8
J-5986	33.2	0.5	0.2	47.7	51.9	0.5	49
J-5987	33	9.3	4.5	47.8	52.1	9.3	49.1
J-5988	37	9.6	4.6	47.3	51.3	9.6	48.9
J-5989	37.1	0	0	47.3	51.2	0	48.9
J-5990	32	2.2	1	48.4	52.6	2.2	49.5
J-5991	32.1	0.4	0.2	48.3	52.6	0.4	49.5
J-5992	37.4	2.4	1.2	47	50.5	2.4	47.7
J-5993	37.4	0	0	47	50.5	0	47.7
J-5994	29.9	3.4	1.7	46.5	52.9	3.4	47.5
J-5995	29.9	1.6	0.8	46.5	52.9	1.6	47.5
J-5996	52.4	8.3	4	44	54.3	8.3	43.7
J-5997	33.1	1.3	0.6	47.7	52.2	1.3	49
J-5998	33	2.4	1.2	47.7	52.3	2.4	49
J-5999	37.4	1.3	0.6	47.1	50.6	1.3	47.7
J-6000	37.5	0.7	0.3	47.1	50.5	0.7	47.7
J-6001	28	0	0	49.7	54	0	50.9
J-6002	28.1	7.8	3.8	49.6	53.9	7.8	50.9
J-6003	45.5	0.6	0.3	46	48.7	0.6	47.9
J-6004	45.4	1.8	0.9	46	48.7	1.8	47.9
J-6005	21.2	1.1	0.5	51.9	56.2	1.1	53.1
J-6006	21.2	2.8	1.3	51.9	56.2	2.8	53.1
J-6007	37.4	1.7	0.8	46.7	50.1	1.7	47.4
J-6008	37.3	1.6	0.8	46.7	50.2	1.6	47.4
J-6009	20.9	0.6	0.3	51.9	56.4	0.6	53.2
J-6010	20.9	0	0	52	56.4	0	53.2
J-6012	42.4	0.9	0.4	45	48.3	0.9	45.4
J-6013	42.4	6.4	3.1	45	48.3	6.4	45.4
J-6014	32.5	0.5	0.2	45.1	51.8	0.5	46.1
J-6015	50.7	0	0	42.8	44.9	0	42.1
J-6016	42.2	1.3	0.6	44.9	48.3	1.3	45.5
J-6017	41.7	1.8	0.9	45.2	48.5	1.8	45.7
J-6018	50.5	1.1	0.5	42.9	45	1.1	42.2
J-6019	37.8	2	1	46.6	50	2	47.3
J-6020	37.8	1.5	0.7	46.6	50	1.5	47.3
J-6021	35.7	1.3	0.6	46.9	51.1	1.3	48
J-6024	32.1	0.5	0.2	46.1	52	0.5	47.1
J-6025	31.5	0.1	0.1	46.2	52.3	0.1	47.2
J-6026	31.8	7.9	3.8	48.3	52.8	7.9	49.6
J-6027	42.4	2.5	1.2	45.1	48.3	2.5	45.4
J-6028	42.3	2.8	1.3	45.1	48.3	2.8	45.5
J-6029	26.9	2.2	1.1	48.7	54.3	2.2	49.8
J-6030	26.9	1.9	0.9	48.7	54.3	1.9	49.8
J-6031	37.2	2.2	1.1	46	50.3	2.2	47.3
J-6032	37.2	2.6	1.3	46	50.3	2.6	47.3
J-6033	41.7	1.7	0.8	45.8	48.7	1.7	46
J-6034	38.2	1.5	0.7	46.6	49.9	1.5	47.2
J-6035	38.3	1.7	0.8	46.6	49.9	1.7	47.1
J-6036	20.7	0.8	0.4	52	56.4	0.8	53.2
J-6037	20.6	2.7	1.3	52.1	56.5	2.7	53.3
J-6038	27.6	4.9	2.3	49.8	54.2	4.9	51.1
J-6040	41.8	2.1	1	45.7	48.3	2.1	45.8
J-6041	42	2.2	1	45.6	48.3	2.2	45.7
J-6042	42.4	1.9	0.9	45	48.3	1.9	45.5
J-6043	42.3	1.9	0.9	45.1	48.3	1.9	45.5
J-6044	30	0.3	0.1	48.8	53.5	0.3	50.1
J-6045	30.4	1.8	0.9	48.6	53.3	1.8	49.9
J-6046	35.5	7	3.3	47	51.2	7	48.1
J-6048	32.6	0	0	47.7	52.4	0	49
J-6049	32.8	3.5	1.7	47.6	52.3	3.5	48.9
J-6050	36.8	0.1	0.1	46.8	50.3	0.1	47.6
J-6051	36.8	1.7	0.8	46.8	50.3	1.7	47.6
J-6052	30.6	2.9	1.4	48.5	53.3	2.9	49.8
J-6053	37.4	0.8	0.4	47	50.5	0.8	47.7
J-6055	38.9	2.2	1	46.1	49.6	2.2	46.8
J-6056	38.8	7.9	3.8	46.1	49.6	7.9	46.8
J-6057	30.3	2.5	1.2	48.9	53.2	2.5	50.1
J-6059	35.6	5.9	2.8	47	51.2	5.9	48.1
J-6060	35.8	2.5	1.2	46.9	51.1	2.5	48
J-6061	30.9	2.6	1.2	47.5	52.6	2.6	48.7
J-6062	30.8	1.3	0.6	47.5	52.7	1.3	48.7
J-6063	31.8	3.6	1.7	48.3	52.8	3.6	49.6
J-6064	32.3	2.5	1.2	48.1	52.6	2.5	49.4
J-6065	37.4	0	0	46.3	50.4	0	47.3
J-6066	37.4	0.2	0.1	46.2	50.4	0.2	47.3
J-6068	24.1	2.7	1.3	50.9	55.6	2.7	52.1
J-6069	24.2	4.4	2.1	50.8	55.5	4.4	52.1
J-6070	22.1	3.1	1.5	51.6	55.9	3.1	52.8
J-6071	22.2	4.1	2	51.5	55.9	4.1	52.8
J-6072	31.9	3.6	1.7	48.3	52.6	3.6	49.5
J-6073	31.6	2.1	1	48.4	52.7	2.1	49.6
J-6075	37.4	0	0	47.1	50.6	0	47.7
J-6076	31.7	2.1	1	47.8	52.3	2.1	49.2
J-6077	31.8	1.7	0.8	47.8	52.3	1.7	49.2
J-6078	30	6.7	3.2	46.5	52.9	6.7	47.4
J-6079	39.7	3.2	1.5	46.6	49.7	3.2	47
J-6080	37.2	1.3	0.6	48.9	51.8	1.3	50.6
J-6081	37	2.1	1	48.9	51.9	2.1	50.7
J-6082	26.7	2.2	1.1	48.8	54.4	2.2	49.9
J-6083	26.8	1.9	0.9	48.8	54.4	1.9	49.8
J-6084	34.5	1.4	0.7	47.7	51.1	1.4	48.6
J-6085	34.5	6.2	3	47.8	51.2	6.2	48.7
J-6086	33.1	2.3	1.1	45	51.5	2.3	46
J-6087	33.3	5.6	2.7	44.9	51.4	5.6	45.9
J-6088	42.4	1.8	0.9	45.4	48.4	1.8	45.5
J-6089	42.3	2	1	45.4	48.4	2	45.6
J-6090	32.6	2.5	1.2	47.9	52.2	2.5	49.1
J-6091	33.3	5	2.4	47.6	52	5	48.8
J-6092	20.5	1.4	0.7	52.1	56.5	1.4	53.3
J-6093	20.5	1.8	0.9	52.1	56.5	1.8	53.3
J-6094	31.8	1.3	0.6	48.3	52.4	1.3	49.6
J-6095	32.1	3.6	1.7	48.2	52.3	3.6	49.5
J-6096	34.4	1.6	0.7	47.3	51.1	1.6	48.5
J-6097	34.6	5.5	2.6	47.2	51	5.5	48.4
J-6098	47.2	2.4	1.1	45.2	48.6	2.4	47.1
J-6099	47.3	0.6	0.3	45.1	48.6	0.6	47.1
J-6100	36.4	9.3	4.5	47.3	51	9.3	48.1

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6101	36.1	1.1	0.5	46.7	50.9	1.1	47.8
J-6102	36.2	12.1	5.8	46.7	50.9	12.1	47.8
J-6103	37.7	12.7	6.1	45.8	49.6	12.7	47
J-6105	40.9	2.8	1.4	45.6	48.9	2.8	46.1
J-6106	40.3	4	1.9	45.9	49.2	4	46.3
J-6107	34.6	5.6	2.7	44.4	50.9	5.6	45.3
J-6108	34.9	1.3	0.6	44.2	50.7	1.3	45.2
J-6109	32.3	10.6	5.1	48.3	52.5	10.6	49.4
J-6110	32.3	0.9	0.4	48.3	52.6	0.9	49.5
J-6111	31	5.5	2.6	46	52.4	5.5	47
J-6112	31.1	0.6	0.3	46	52.4	0.6	46.9
J-6113	41.2	7.3	3.5	46.9	50.2	7.3	48.7
J-6115	38	0.9	0.4	46.3	50	0.9	47.1
J-6116	29.1	9.9	4.8	49.3	53.6	9.9	50.5
J-6117	29.1	0.5	0.2	49.3	53.6	0.5	50.5
J-6118	32.9	0.2	0.1	47.8	52.3	0.2	49.1
J-6119	39.8	3.6	1.7	47.6	50.7	3.6	49.4
J-6120	39.9	1.3	0.6	47.6	50.6	1.3	49.3
J-6121	37.5	0	0	46.1	50.3	0	47.2
J-6122	37.4	5.4	2.6	46.2	50.3	5.4	47.3
J-6123	47.5	1.5	0.7	44.4	46.3	1.5	43.6
J-6124	35.7	0	0	46.4	50.4	0	47.4
J-6125	44.3	0	0	49.9	50.4	0	52.3
J-6126	37.3	3.1	1.5	48.6	51.7	3.1	50.4
J-6127	37.2	1.6	0.8	48.7	51.8	1.6	50.4
J-6128	37.6	0	0	47	50.5	0	47.8
J-6129	37.4	0	0	47.1	50.6	0	47.9
J-6130	47.3	2.2	1.1	45	48.4	2.2	46.9
J-6131	47.4	2.7	1.3	45	48.3	2.7	46.9
J-6132	32.4	0.2	0.1	48.1	52	0.2	49.9
J-6133	32.4	3.3	1.6	48.1	52	3.3	49.8
J-6134	32.3	3.1	1.5	47.5	52	3.1	48.9
J-6135	32.3	2.8	1.4	47.5	52	2.8	48.9
J-6136	30.7	2.7	1.3	48.7	52.9	2.7	49.9
J-6137	30.8	0.6	0.3	48.6	52.9	0.6	49.9
J-6138	34.2	0.3	0.1	47.4	51.2	0.3	48.6
J-6139	34.4	0.8	0.4	47.3	51.1	0.8	48.5
J-6140	32.6	0.8	0.4	45.1	51.8	0.8	46.1
J-6141	21	0.4	0.2	51.9	56.3	0.4	53.1
J-6142	20.5	0	0	52.1	56.5	0	53.3
J-6143	36.3	1.7	0.8	46.4	50.7	1.7	47.6
J-6144	42.6	2.1	1	45.3	48.3	2.1	45.5
J-6146	29.8	3.5	1.7	49.1	53.4	3.5	50.3
J-6147	29.7	2.4	1.2	49.1	53.4	2.4	50.4
J-6148	41.4	0.3	0.2	46.7	48.8	0.3	46.1
J-6149	41.4	15.2	7.3	46.7	48.8	15.2	46.1
J-6150	32.3	4.7	2.3	48.3	52.5	4.7	49.4
J-6151	41.2	1	0.5	46.7	48.8	1	46.2
J-6152	41.3	28.6	13.8	46.7	48.8	28.6	46.2
J-6153	32.3	0	0	48.5	52.6	0	49.5
J-6154	37.4	7.7	3.7	45.7	49.3	7.7	46.7
J-6155	37.6	136.2	65.5	45.6	49.2	136.2	46.5
J-6156	30.9	36.1	17.3	48.7	52.9	36.1	49.9
J-6158	29.2	2.3	1.1	46.2	53.1	2.3	47.2
J-6159	29	2.5	1.2	46.3	53.2	2.5	47.3
J-6160	27.3	2	0.9	51.1	54.3	2	52.3
J-6161	27.3	2.8	1.4	51.2	54.4	2.8	52.4
J-6162	29.2	0.3	0.1	49.3	53.6	0.3	50.5
J-6163	29.4	2.3	1.1	49.2	53.5	2.3	50.5
J-6164	43	0.6	0.3	45.3	48.2	0.6	45.4
J-6165	20.5	1.3	0.6	52.1	56.5	1.3	53.3
J-6167	45.7	4.2	2	46.5	49.1	4.2	48.5
J-6168	29.5	6.4	3.1	46.2	53	6.4	47.2
J-6169	29.3	7.2	3.4	46.3	53.1	7.2	47.3
J-6170	29.9	0.9	0.4	46	52.8	0.9	47
J-6171	29.8	6.8	3.3	46.1	52.9	6.8	47.1
J-6172	43.3	1.9	0.9	46.3	49.3	1.9	48
J-6173	43.2	2.8	1.4	46.3	49.4	2.8	48
J-6174	47.4	0.6	0.3	44.9	48.3	0.6	46.9
J-6175	47.4	0.6	0.3	44.9	48.2	0.6	46.8
J-6176	23.5	0.4	0.2	51	55.6	0.4	52.3
J-6177	23.5	8	3.8	51	55.6	8	52.3
J-6179	45.6	3.7	1.8	46.5	49.1	3.7	48.5
J-6180	37.4	0	0	46.4	50	0	47.4
J-6181	44.1	7.5	3.6	45.9	47.8	7.5	45.1
J-6182	44.4	0.7	0.3	45.8	47.7	0.7	44.9
J-6183	23.8	2.3	1.1	51.1	55.5	2.3	52.4
J-6184	29.1	3.4	1.6	49.5	53.6	3.4	50.7
J-6185	28.1	7.4	3.6	49.9	54	7.4	51.1
J-6186	31.5	2.7	1.3	48.6	52.8	2.7	49.7
J-6188	32.5	0.6	0.3	48	52.3	0.6	49.2
J-6189	43.1	9.2	4.4	46.1	49.4	9.2	47.9
J-6190	43.1	466.3	224.2	46	49.4	466.3	47.8
J-6191	41.7	1.9	0.9	45.2	48.5	1.9	45.7
J-6192	28.4	2	1	49.3	54.1	2	50.5
J-6193	28.4	8.9	4.3	49.3	54.1	8.9	50.6
J-6194	19.6	8.5	4.1	52.7	57	8.5	53.9
J-6195	18.9	5	2.4	53	57.3	5	54.2
J-6196	37.8	4.2	2	46.4	50	4.2	47.2
J-6197	37.7	2.9	1.4	46.4	50	2.9	47.2
J-6198	32.8	1	0.5	45.2	51.7	1	46.1
J-6199	42.7	1.3	0.6	46.1	49.4	1.3	47.8
J-6200	42.8	9	4.3	46	49.4	9	47.8
J-6201	32.7	0	0	48	52.5	0	49.3
J-6203	45.3	1.9	0.9	44.9	47.1	1.9	44.4
J-6204	45.6	7.5	3.6	44.8	47	7.5	44.3
J-6205	44.5	4.8	2.3	45.6	47.5	4.8	44.8
J-6206	44.8	51.8	24.9	45.4	47.3	51.8	44.7
J-6207	27.4	0.7	0.3	49.8	54.6	0.7	51.1
J-6208	27.3	0.7	0.3	49.9	54.6	0.7	51.1
J-6209	47.1	0.4	0.2	43.8	46.4	0.4	43.6
J-6210	40.8	1.5	0.7	45.6	48.8	1.5	46.1
J-6211	40.8	0.4	0.2	45.7	48.9	0.4	46.1
J-6212	32.7	0	0	47.9	52.5	0	49.2
J-6213	32.7	0	0	47.9	52.5	0	49.3
J-6214	37.4	0	0	46.3	50.3	0	47.3
J-6215	30.9	1.9	0.9	48.2	53.1	1.9	49.5
J-6216	30.9	1	0.5	48.2	53.1	1	49.5
J-6217	29.3	36.1	17.4	48.9	53.8	36.1	50.2
J-6218	29	2.8	1.3	49	53.9	2.8	50.3
J-6219	22.9	1.8	0.9	50.3	56	1.8	51.4
J-6220	24.1	2.1	1	49.8	55.5	2.1	50.9

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6221	42.3	1.5	0.7	44.9	48.2	1.5	45.4
J-6222	42.2	1.3	0.6	44.9	48.3	1.3	45.5
J-6223	27.5	4.9	2.4	49.8	54.6	4.9	51.1
J-6224	27.5	0.8	0.4	49.8	54.6	0.8	51.1
J-6225	27.8	1.1	0.5	51.1	54.1	1.1	52.4
J-6226	27.8	2.9	1.4	51.1	54.1	2.9	52.4
J-6227	34.1	2	0.9	48.1	51.4	2	48.9
J-6228	34.1	2.4	1.1	48.1	51.4	2.4	48.9
J-6229	37.9	4.3	2.1	46	49.9	4.3	47.1
J-6230	27.3	2.5	1.2	51.6	54.4	2.5	52.9
J-6231	27.2	1.2	0.6	51.6	54.4	1.2	52.9
J-6232	30.8	6.2	3	46.1	52.5	6.2	47.1
J-6233	31.2	1.7	0.8	45.9	52.3	1.7	46.9
J-6234	28.1	3.8	1.8	49.7	54	3.8	50.9
J-6235	28.4	10.7	5.2	49.5	53.9	10.7	50.8
J-6236	40.2	6	2.9	46.5	49.5	6	46.9
J-6237	40.3	1.5	0.7	46.5	49.5	1.5	46.8
J-6238	28	2.4	1.2	49.6	54	2.4	50.9
J-6239	37.6	0.5	0.2	46.9	50.4	0.5	47.5
J-6240	43.5	0	0	45.1	48.1	0	45.4
J-6241	37.4	1.4	0.7	47	50.5	1.4	47.7
J-6242	37.7	0.6	0.3	46.8	50.3	0.6	47.4
J-6243	37.9	9.1	4.4	46.8	50.2	9.1	47.3
J-6244	37.5	3.2	1.5	47	50.4	3.2	47.5
J-6245	27.4	13.1	6.3	47.5	53.9	13.1	48.5
J-6246	27.4	0	0	47.5	54	0	48.6
J-6247	38.2	2.9	1.4	46.3	49.8	2.9	47
J-6248	38.2	4.9	2.4	46.3	49.8	4.9	47.1
J-6249	27.4	0.7	0.3	47.5	53.9	0.7	48.5
J-6250	38.5	0.6	0.3	47.2	50.3	0.6	47.6
J-6251	27.4	2.5	1.2	48.7	54.1	2.5	49.8
J-6252	27.5	5	2.4	48.6	54.1	5	49.7
J-6253	28.8	0.4	0.2	49.2	54	0.4	50.4
J-6254	28.8	3.1	1.5	49.2	54	3.1	50.4
J-6256	30.8	0.5	0.3	48.5	53.2	0.5	49.7
J-6257	44.1	0.6	0.3	45.7	49.1	0.6	47.5
J-6258	44.7	0	0	45.5	48.8	0	47.3
J-6259	38.7	2.5	1.2	46.1	49.6	2.5	46.8
J-6260	38.6	2.5	1.2	46.1	49.6	2.5	46.9
J-6261	22.3	0.7	0.3	51.3	55.7	0.7	52.5
J-6262	21.9	3.9	1.9	51.5	55.9	3.9	52.7
J-6263	39.9	1.2	0.6	47.5	50.7	1.2	49.3
J-6264	39.9	0.4	0.2	47.5	50.7	0.4	49.3
J-6265	45.9	0.2	0.1	44.2	46.9	0.2	44.1
J-6266	45.3	5	2.4	44.6	47.1	5	44.4
J-6267	47.1	0.5	0.2	43.9	46.4	0.5	43.6
J-6268	47.2	2.1	1	43.9	46.3	2.1	43.6
J-6269	41.6	4.9	2.3	45.6	48.7	4.9	45.9
J-6270	47.2	3.3	1.6	45.6	48.1	3.3	47.5
J-6271	47.3	2.5	1.2	45.5	48	2.5	47.4
J-6272	28.1	1	0.5	47.2	53.7	1	48.1
J-6273	28.1	2.3	1.1	47.2	53.7	2.3	48.1
J-6275	42.5	2.3	1.1	45.1	48.3	2.3	45.4
J-6276	27.8	0.3	0.2	49.7	54.5	0.3	50.9
J-6277	27.5	4.1	2	49.8	54.6	4.1	51.1
J-6278	31	2.4	1.2	48.6	52.9	2.4	49.8
J-6279	45.7	3.3	1.6	42.6	46.8	3.3	43.7
J-6280	44.1	1	0.5	43.3	47.5	1	44.4
J-6281	44.6	1.6	0.8	45	47.4	1.6	44.7
J-6282	44.4	4.3	2.1	45	47.5	4.3	44.8
J-6283	31.6	3	1.5	47.5	52.4	3	48.7
J-6284	31.2	3.3	1.6	47.6	52.5	3.3	48.8
J-6285	40.5	9.3	4.5	45.7	49	9.3	46.2
J-6286	42.3	4.6	2.2	45.5	48.4	4.6	45.6
J-6287	42.3	1.9	0.9	45.5	48.4	1.9	45.6
J-6288	41.9	0.9	0.4	45.3	48.5	0.9	45.7
J-6289	41.7	3.5	1.7	45.4	48.6	3.5	45.8
J-6290	37.7	3.2	1.6	46.1	50.2	3.2	47.1
J-6291	47.5	0.3	0.2	44.6	47.9	0.3	46.4
J-6292	47.4	8.2	3.9	44.6	48	8.2	46.5
J-6293	31.4	3.1	1.5	48.1	52.9	3.1	49.4
J-6294	31.2	0.4	0.2	48.2	53	0.4	49.5
J-6295	32.8	4.4	2.1	47.8	52.1	4.4	49.1
J-6296	32.6	4.3	2.1	47.9	52.2	4.3	49.2
J-6298	47.1	4.7	2.3	44.9	48.2	4.7	46.8
J-6299	36.9	2.5	1.2	46.8	50.3	2.5	47.6
J-6300	25.8	3.5	1.7	50.2	54.9	3.5	51.4
J-6301	25.7	2.5	1.2	50.2	55	2.5	51.5
J-6302	37.7	0.4	0.2	46.6	50.3	0.4	47.4
J-6303	46.9	4.9	2.4	44.5	47.8	4.9	46.3
J-6304	42.9	1.5	0.7	46.2	49.6	1.5	48
J-6305	35.7	1.1	0.5	43.9	50.4	1.1	44.9
J-6306	35.8	0.8	0.4	43.8	50.3	0.8	44.8
J-6307	33.4	1.2	0.6	44.9	51.4	1.2	45.9
J-6308	34.3	2.9	1.4	44.5	51	2.9	45.5
J-6309	32.6	4.7	2.3	47.7	52	4.7	49
J-6310	32.8	2.4	1.1	47.6	51.9	2.4	48.9
J-6311	29.5	2	0.9	49.2	53.5	2	50.5
J-6312	29.9	0.8	0.4	49.1	53.3	0.8	50.3
J-6313	36.3	2.3	1.1	46.8	50.8	2.3	47.8
J-6314	35.5	2	1	47.2	51.2	2	48.2
J-6315	47.3	0	0	47.7	48.8	0	49.9
J-6316	38.2	2.5	1.2	46.4	49.8	2.5	47.1
J-6317	38.4	3	1.4	46.3	49.7	3	47
J-6318	31	1.1	0.5	48.4	53.1	1.1	49.6
J-6319	28.5	1.5	0.7	49.7	54	1.5	50.9
J-6320	29.7	1.9	0.9	49.1	53.5	1.9	50.4
J-6321	33.8	9.9	4.8	47.6	51.4	9.9	48.9
J-6322	33.7	0.8	0.4	47.6	51.4	0.8	48.9
J-6323	27.8	0.5	0.3	50.9	54.1	0.5	52.2
J-6324	27.9	3.3	1.6	50.7	54.1	3.3	52
J-6325	30.2	0.4	0.2	48.6	53	0.4	49.9
J-6326	30.2	4.1	2	48.5	53	4.1	49.8
J-6327	36.6	1.2	0.6	46.9	50.8	1.2	47.8
J-6328	36.6	3.9	1.9	47	50.8	3.9	47.9
J-6329	27	1.3	0.6	49.9	54.7	1.3	51.2
J-6330	26.9	3.5	1.7	49.9	54.7	3.5	51.2
J-6331	32.6	6.5	3.1	47.9	52.5	6.5	49.3
J-6332	37.4	12	5.8	47.6	51.3	12	49.2
J-6333	42.1	1	0.5	45.6	48.7	1	46.1
J-6334	42	0.6	0.3	45.7	48.8	0.6	46.1
J-6335	26.8	1.5	0.7	50	54.8	1.5	51.3

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6336	30.8	2	1	48.4	53.1	2	49.7
J-6337	42.7	2.5	1.2	46.2	49.5	2.5	48
J-6338	42.7	4.9	2.4	46.2	49.5	4.9	48
J-6339	32.7	3.5	1.7	45.2	51.7	3.5	46.2
J-6340	41.5	3.5	1.7	45.9	48.9	3.5	46.2
J-6341	34.6	1.5	0.7	47.1	51.6	1.5	48.4
J-6342	34.3	0.6	0.3	47.2	51.7	0.6	48.5
J-6343	31.8	38.5	18.5	47.8	52.6	38.5	49.1
J-6344	31.9	0.6	0.3	47.8	52.6	0.6	49.1
J-6345	39.6	4.9	2.3	47.7	50.8	4.9	49.5
J-6346	39.8	0.3	0.2	47.6	50.7	0.3	49.4
J-6347	37	3.2	1.5	46.1	50.4	3.2	47.3
J-6348	36.6	4.3	2.1	46.3	50.6	4.3	47.5
J-6349	36.8	0	0	46.9	50.4	0	47.6
J-6350	36.8	0.4	0.2	46.9	50.4	0.4	47.6
J-6351	42.9	4.3	2	45.1	48.1	4.3	45.3
J-6352	34.3	2.9	1.4	48.1	51.3	2.9	48.8
J-6353	34.3	1.5	0.7	48.3	51.4	1.5	48.9
J-6354	32.6	0.8	0.4	48.1	52.1	0.8	49.4
J-6355	32.6	3.6	1.7	48	52.1	3.6	49.3
J-6356	37.4	2.1	1	47	50.5	2.1	47.7
J-6358	33.4	1.5	0.7	47.6	51.9	1.5	48.8
J-6359	33.5	1.3	0.6	47.5	51.8	1.3	48.8
J-6360	36.8	3	1.4	46.6	50.2	3	47.6
J-6361	36.9	2.5	1.2	46.6	50.2	2.5	47.6
J-6362	32.2	12.5	6	48.3	52.6	12.5	49.5
J-6363	27.4	2.6	1.3	50.9	54.3	2.6	52.2
J-6364	37.4	0	0	46.1	50.2	0	47.2
J-6365	37.5	5.7	2.7	46	50.1	5.7	47.2
J-6366	39.7	4	1.9	46	49.4	4	46.6
J-6367	40.3	3.4	1.6	45.8	49.2	3.4	46.3
J-6368	40.8	3.7	1.8	46.2	49.2	3.7	46.6
J-6369	34.3	5.4	2.6	47.4	51.1	5.4	48.6
J-6370	37.9	5.1	2.4	46.3	49.9	5.1	47.1
J-6371	37.8	3.3	1.6	46.4	49.9	3.3	47.2
J-6372	26.5	0.4	0.2	50.4	54.6	0.4	51.7
J-6373	26.4	0	0	50.5	54.7	0	51.7
J-6374	45.7	1	0.5	46.5	49.1	1	48.5
J-6375	45.7	6	2.9	46.4	49.1	6	48.4
J-6376	30.1	0.9	0.4	49	53.1	0.9	50.3
J-6377	29.9	5.5	2.6	49.1	53.2	5.5	50.4
J-6378	27.6	22.5	10.8	51.2	54.2	22.5	52.4
J-6379	38	1.5	0.7	47	50.9	1.5	48.5
J-6380	32.9	2.3	1.1	47.7	52.3	2.3	49
J-6381	32.7	10.3	4.9	47.8	52.4	10.3	49.1
J-6382	39.9	3.3	1.6	46	49.4	3.3	46.5
J-6383	40	0.5	0.2	45.9	49.4	0.5	46.5
J-6385	45.4	0.9	0.4	46.1	48.7	0.9	47.9
J-6386	37.3	1.2	0.6	45.9	50.4	1.2	47.2
J-6387	37.4	2.7	1.3	45.9	50.3	2.7	47.2
J-6388	40.9	1.2	0.6	45.6	49	1.2	46.1
J-6389	40.8	4.2	2	45.7	49	4.2	46.1
J-6390	40.7	0.8	0.4	45.7	49	0.8	46.2
J-6391	40.9	1.7	0.8	45.6	48.9	1.7	46.1
J-6392	27.2	3.3	1.6	51.4	54.4	3.3	52.7
J-6393	40.6	4	1.9	45.7	49.1	4	46.2
J-6394	37.4	7	3.4	46	50.3	7	47.2
J-6395	42.8	3.3	1.6	46.6	49.7	3.3	48.4
J-6396	43	1.3	0.6	46.6	49.7	1.3	48.4
J-6397	27.5	7.6	3.6	49.8	54.6	7.6	51.1
J-6398	41.2	5.1	2.5	45.6	48.8	5.1	46
J-6399	33.8	3.2	1.5	47.6	51.6	3.2	48.8
J-6400	33.6	4	1.9	47.7	51.7	4	48.9
J-6401	31.9	0.6	0.3	47.1	52.2	0.6	48.1
J-6402	32	1.9	0.9	47	52.2	1.9	48
J-6404	43.3	0.8	0.4	46	48	0.8	45.3
J-6405	43.2	11.9	5.7	46.1	48	11.9	45.4
J-6406	41.8	6.4	3.1	45.8	48.9	6.4	46.2
J-6407	32.3	1	0.5	48.1	52.3	1	49.3
J-6408	32.4	2.6	1.3	48	52.3	2.6	49.3
J-6409	28	1.3	0.6	48.3	53.9	1.3	49.4
J-6410	28.1	3.9	1.9	48.3	53.9	3.9	49.4
J-6411	32.8	1.5	0.7	47.8	52	1.5	49.2
J-6412	32.7	1.7	0.8	47.9	52.1	1.7	49.2
J-6413	45.1	0.4	0.2	46.2	49.1	0.4	48.1
J-6414	45.1	6	2.9	46.1	49.1	6	48
J-6415	27.4	1.4	0.7	49.7	54.4	1.4	50.9
J-6416	27.4	4	1.9	49.7	54.4	4	50.9
J-6418	27.8	3.3	1.6	49.7	54.4	3.3	51
J-6419	27.2	3.5	1.7	49.8	54.6	3.5	51.1
J-6420	30.7	14	6.8	48.4	53.2	14	49.7
J-6421	30.6	6.2	3	48.4	53.3	6.2	49.7
J-6422	32.4	4.2	2	48.1	52.2	4.2	49.5
J-6423	33.1	0	0	47.8	51.9	0	49.1
J-6424	33.3	7.5	3.6	47.7	51.8	7.5	49
J-6425	37.4	0.4	0.2	46.8	50.5	0.4	47.6
J-6426	37.4	5.3	2.5	46.8	50.5	5.3	47.6
J-6427	19.5	3.4	1.6	52.8	57	3.4	54
J-6428	19.4	2.7	1.3	52.8	57	2.7	54
J-6430	27.9	7.2	3.5	49.7	54	7.2	50.9
J-6431	42.3	1.9	0.9	46.8	49.9	1.9	48.5
J-6432	42.1	0.4	0.2	46.8	50	0.4	48.6
J-6433	42	1	0.5	46.2	49.6	1	47.9
J-6434	42	1.9	0.9	46.2	49.6	1.9	47.9
J-6435	47.5	3.3	1.6	43.8	46.2	3.3	43.5
J-6436	47.3	5.2	2.5	43.9	46.3	5.2	43.5
J-6437	42.1	3.6	1.7	46.5	48.5	3.6	45.9
J-6438	32.4	3.6	1.7	47.9	52.1	3.6	49.2
J-6439	41.3	0.3	0.1	45.8	48.5	0.3	46
J-6441	47.5	0	0	44.1	46.3	0	43.5
J-6442	41.1	0.4	0.2	45.6	48.9	0.4	46
J-6443	41	2.2	1.1	45.7	48.9	2.2	46.1
J-6444	34.1	0.8	0.4	47.4	51.7	0.8	48.6
J-6445	38	3	1.5	48.4	51.5	3	50.2
J-6446	37.9	4.1	2	48.4	51.5	4.1	50.2
J-6447	34.1	4	1.9	47.5	51.8	4	48.7
J-6449	37.4	0.6	0.3	48.5	51.7	0.6	50.3
J-6450	37.7	1.9	0.9	48.4	51.6	1.9	50.2
J-6451	29.1	7.9	3.8	49.4	53.6	7.9	50.6
J-6453	27.2	8.8	4.2	49.9	54.6	8.8	51.2
J-6454	42.1	1.9	0.9	45.2	48.4	1.9	45.6
J-6455	22.6	1.1	0.5	51.3	55.6	1.1	52.5

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6456	21.9	3.5	1.7	51.6	55.9	3.5	52.8
J-6457	38.3	2.5	1.2	48.3	51.4	2.5	50.1
J-6458	38	4.1	2	48.4	51.5	4.1	50.2
J-6459	29.1	3	1.5	49.1	53.9	3	50.4
J-6460	29.5	34.2	16.4	48.9	53.7	34.2	50.2
J-6462	27.7	2.9	1.4	49.6	54.4	2.9	50.9
J-6463	47.9	2.6	1.2	45	48.5	2.6	47
J-6464	48.2	2.3	1.1	44.8	48.3	2.3	46.8
J-6465	22.4	0	0	51.3	55.7	0	52.5
J-6466	45.9	3.8	1.8	44.1	46.9	3.8	44.1
J-6467	42.3	1.8	0.9	46.6	49.9	1.8	48.4
J-6468	42.1	1.9	0.9	46.6	49.9	1.9	48.4
J-6469	47.4	2.3	1.1	47.5	48.5	2.3	49.5
J-6470	47.4	8.1	3.9	47.6	48.5	8.1	49.7
J-6471	34.7	8.5	4.1	47.1	51	8.5	48.4
J-6472	47.5	2.3	1.1	44.1	46.2	2.3	43.5
J-6473	47.5	12.5	6	44.1	46.3	12.5	43.5
J-6474	33.3	7	3.4	47.7	52	7	48.9
J-6475	33.3	3.2	1.5	47.7	52	3.2	48.9
J-6476	32.4	0.8	0.4	46.8	52	0.8	47.8
J-6477	32.3	3.1	1.5	46.9	52	3.1	47.9
J-6478	38.3	2.6	1.3	47.8	51.3	2.6	49.6
J-6479	38.1	2.2	1.1	47.9	51.3	2.2	49.7
J-6480	22.7	0.8	0.4	51.2	55.6	0.8	52.4
J-6481	21.9	6.9	3.3	51.5	55.9	6.9	52.8
J-6482	37	4.7	2.3	46.8	50.3	4.7	47.6
J-6483	37.1	1.8	0.9	46.7	50.3	1.8	47.5
J-6484	38	1.2	0.6	48.4	51.5	1.2	50.2
J-6485	38.2	2.1	1	48.3	51.4	2.1	50.1
J-6486	32.3	3.7	1.8	47.8	52.1	3.7	49.1
J-6487	32.1	4.2	2	47.8	52.2	4.2	49.2
J-6488	39.1	5.4	2.6	46.2	49.8	5.4	46.6
J-6489	39.9	1.2	0.6	45.9	49.4	1.2	46.2
J-6490	31.3	0	0	48.4	52.9	0	49.6
J-6492	44.4	0.5	0.2	46.4	49.1	0.5	48.2
J-6493	44.2	2.3	1.1	46.5	49.2	2.3	48.2
J-6494	37.9	5.3	2.6	46.7	50.2	5.3	47.3
J-6495	38.1	3.2	1.6	46.6	50.2	3.2	47.3
J-6496	47.8	29	13.9	44.2	46.1	29	43.4
J-6498	36.9	1.3	0.6	49	52	1.3	50.7
J-6499	28.4	2.7	1.3	48.3	53.7	2.7	49.4
J-6500	28.5	3.6	1.7	48.2	53.7	3.6	49.3
J-6501	33.2	0	0	47.7	52.2	0	49
J-6502	42.8	1.4	0.7	45.3	48.2	1.4	45.4
J-6503	42.7	1.4	0.7	45.3	48.3	1.4	45.5
J-6504	40.2	1.7	0.8	44.9	49.1	1.7	46
J-6505	39.6	6.5	3.1	45.1	49.4	6.5	46.2
J-6507	45.5	4.8	2.3	45.7	48.8	4.8	47.5
J-6508	35.4	2.7	1.3	44	50.5	2.7	45
J-6509	42.7	4.5	2.2	46.1	49.4	4.5	47.8
J-6510	32	1.3	0.6	45.5	52	1.3	46.5
J-6511	27.9	3.5	1.7	48.6	53.9	3.5	49.7
J-6512	28.6	5.1	2.4	48.3	53.6	5.1	49.3
J-6513	42.7	7.5	3.6	45.2	48.2	7.5	45.4
J-6514	47.6	1.6	0.8	44.4	46.3	1.6	43.5
J-6515	39.5	1.6	0.8	45.8	49.2	1.6	46.5
J-6516	39.1	3.5	1.7	46	49.4	3.5	46.7
J-6517	32	0.8	0.4	47.4	52.2	0.8	48.6
J-6518	31.3	3.8	1.8	48.2	52.6	3.8	49.5
J-6519	31.4	1.9	0.9	48.1	52.5	1.9	49.4
J-6520	29.5	9.9	4.8	49.2	53.4	9.9	50.5
J-6521	32.6	0.9	0.4	47.8	51.9	0.9	50.2
J-6522	37.4	0.6	0.3	46	49.8	0.6	47.2
J-6523	35.1	1.8	0.9	47.1	51.1	1.8	48.3
J-6524	35.2	7.9	3.8	47	51	7.9	48.2
J-6525	38.9	2.5	1.2	47.9	51.2	2.5	49.7
J-6526	39.7	3.6	1.7	46.1	49.5	3.6	46.6
J-6528	30.5	1.3	0.6	47.1	52.8	1.3	48.1
J-6529	29.6	2.1	1	47.5	53.2	2.1	48.5
J-6530	38	0.2	0.1	47.1	50.4	0.2	47.7
J-6531	41.6	1.7	0.8	44.4	48.5	1.7	45.4
J-6532	32.5	6.8	3.2	45.3	51.8	6.8	46.3
J-6533	32.4	4.9	2.4	45.3	51.8	4.9	46.3
J-6534	38.4	9.2	4.4	46.1	49.7	9.2	46.9
J-6535	38.3	0.5	0.2	46.1	49.8	0.5	47
J-6536	32.3	3.7	1.8	48.2	52	3.7	50.6
J-6537	32.3	12.7	6.1	48	52	12.7	50.3
J-6538	28.3	0	0	49.6	54	0	50.9
J-6539	28.4	6.6	3.2	49.6	53.9	6.6	50.8
J-6540	25.9	0.6	0.3	47.5	54.5	0.6	48.5
J-6541	26	4.1	2	47.5	54.4	4.1	48.5
J-6542	30.6	4.9	2.4	48.4	52.8	4.9	49.7
J-6543	30.6	4.1	2	48.3	52.8	4.1	49.6
J-6544	38	2.6	1.3	48	51.4	2.6	49.7
J-6545	47.5	2.8	1.4	44.1	46.3	2.8	43.5
J-6546	39.4	0.4	0.2	46.8	49.9	0.4	47.2
J-6547	41.7	5.6	2.7	46.5	48.6	5.6	46
J-6548	41.7	0.8	0.4	46.5	48.6	0.8	46
J-6549	41.9	4.6	2.2	45.2	48.5	4.6	45.6
J-6550	41.9	3	1.4	45.2	48.5	3	45.6
J-6551	37.3	1.7	0.8	46	50.3	1.7	47.3
J-6552	27.3	0.9	0.4	51.3	54.3	0.9	52.6
J-6553	26.8	2.9	1.4	51.6	54.6	2.9	52.9
J-6554	26.3	2.7	1.3	47.5	54.4	2.7	48.5
J-6555	33.8	0.6	0.3	47.5	51.8	0.6	48.7
J-6556	47.5	2.1	1	44.1	46.3	2.1	43.5
J-6557	34.6	2.5	1.2	47.2	51.5	2.5	48.4
J-6558	35.2	1.4	0.7	46.9	51.2	1.4	48.1
J-6559	27	1.1	0.5	50.2	54.4	1.1	51.5
J-6560	26.8	1.4	0.7	50.2	54.5	1.4	51.5
J-6561	29.5	1.3	0.6	48.2	53.3	1.3	49.4
J-6562	28.8	2.1	1	48.5	53.5	2.1	49.7
J-6563	31.9	7.5	3.6	47.8	52.6	7.5	49.1
J-6564	32.1	31.1	14.9	47.8	52.6	31.1	49
J-6565	32.2	3.7	1.8	48.2	52.4	3.7	49.4
J-6566	42.6	2.7	1.3	46.3	48.3	2.7	45.7
J-6567	42.5	6.3	3	46.3	48.3	6.3	45.7
J-6568	35.8	1.3	0.6	46.6	50.4	1.3	47.7
J-6569	32.4	12.1	5.8	48.3	52.5	12.1	49.4
J-6570	33	6.3	3	48	52.2	6.3	49.1
J-6571	47.6	4.5	2.1	44	46.2	4.5	43.5
J-6572	47.5	4.8	2.3	44	46.2	4.8	43.5

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6573	47.6	2.1	1	44	46.2	2.1	43.5
J-6574	47.5	27.2	13.1	44	46.2	27.2	43.5
J-6575	26.3	5.3	2.5	47.5	54.4	5.3	48.5
J-6576	26.4	4	1.9	47.5	54.3	4	48.5
J-6577	47.5	26.4	12.7	44	46.2	26.4	43.5
J-6578	47.5	0	0	44.1	46.3	0	43.5
J-6579	47.5	2.6	1.2	44	46.2	2.6	43.5
J-6580	47.6	4.8	2.3	44	46.2	4.8	43.5
J-6581	28	8.6	4.1	47.2	53.7	8.6	48.2
J-6584	39.2	3.4	1.6	46.2	49.7	3.4	46.8
J-6585	39.2	6.4	3.1	46.3	49.7	6.4	46.8
J-6586	36.6	2.5	1.2	46.9	50.4	2.5	47.7
J-6587	36.6	3	1.5	46.9	50.4	3	47.7
J-6588	30.1	2.3	1.1	48	53	2.3	49.2
J-6589	42.3	0	0	45.6	48.5	0	45.7
J-6590	42.3	0	0	45.6	48.5	0	45.7
J-6591	37.3	7	3.4	46	50.3	7	47.2
J-6592	41	7.2	3.5	46.6	50	7.2	48.3
J-6593	41.6	7.3	3.5	46.4	49.8	7.3	48.1
J-6594	32.4	5.3	2.5	51.5	54.3	5.3	50.9
J-6595	32.4	1.8	0.9	51.4	54.2	1.8	50.9
J-6596	33.3	2	1	52	55.4	2	51.7
J-6597	32.9	4.6	2.2	52.7	56.7	4.6	52.5
J-6598	30.1	0	0	49	53.3	0	50.3
J-6599	32.5	30.6	14.7	47.7	51.9	30.6	49.8
J-6600	20.5	5	2.4	52.1	56.5	5	53.3
J-6601	40.7	1	0.5	45.9	49.1	1	46.3
J-6602	40.9	3.3	1.6	45.8	49	3.3	46.2
J-6603	33.1	1.1	0.5	47.9	51.9	1.1	49.1
J-6604	33	0.7	0.4	47.9	52	0.7	49.1
J-6605	37.3	0	0	46.3	49.9	0	47.4
J-6606	37.3	2.8	1.4	46.4	50	2.8	47.4
J-6607	46.1	2.3	1.1	45.5	48.6	2.3	47.3
J-6609	32.6	3.1	1.5	48.1	52.1	3.1	49.3
J-6610	33.8	2.6	1.3	47.6	51.6	2.6	48.8
J-6611	32.8	6.2	3	47.8	52	6.2	49.1
J-6612	42.6	2.7	1.3	45.9	48.2	2.7	45.6
J-6613	42.5	7.6	3.6	45.9	48.2	7.6	45.6
J-6614	45.5	1.5	0.7	45.6	48.8	1.5	47.5
J-6615	37.5	9.6	4.6	45.9	50.2	9.6	47.1
J-6616	37.6	3.4	1.7	45.9	50.2	3.4	47.1
J-6618	42.3	3	1.4	45.4	48.1	3	45.5
J-6619	32.6	2.1	1	48.2	52.4	2.1	49.3
J-6620	32.9	6.3	3	47.9	52.5	6.3	49.3
J-6621	33.2	6.3	3.1	47.8	52.3	6.3	49.2
J-6622	39.2	3.9	1.9	46.2	49.7	3.9	46.8
J-6623	39.2	3.1	1.5	46.2	49.7	3.1	46.8
J-6624	31.9	1	0.5	48.3	52.6	1	49.5
J-6625	43.8	1.3	0.6	45.8	49	1.3	47.5
J-6626	44.6	2.5	1.2	45.4	48.7	2.5	47.1
J-6627	32.8	1.1	0.5	48.2	52.3	1.1	49.3
J-6628	33.4	2.9	1.4	47.9	52	2.9	49
J-6629	37.1	1.2	0.6	46.4	50.5	1.2	47.4
J-6630	37.2	0.8	0.4	46.3	50.4	0.8	47.4
J-6631	37.6	12.4	6	46.3	50.2	12.4	47.2
J-6632	37.6	4.1	2	46.2	50.2	4.1	47.2
J-6633	32.4	91.2	43.9	47.6	52	91.2	49.5
J-6634	32.4	4	1.9	47.6	52	4	49.4
J-6635	42.4	2.5	1.2	46.5	49.8	2.5	48.3
J-6636	42.6	2.7	1.3	46.4	49.7	2.7	48.2
J-6637	38.3	3	1.4	45.4	49	3	46.3
J-6638	35.7	4.8	2.3	46.7	51	4.8	47.9
J-6639	42.2	0	0	45.6	48.5	0	45.7
J-6640	27.3	5.5	2.6	48.7	54.2	5.5	49.8
J-6641	27.3	3.1	1.5	48.7	54.2	3.1	49.8
J-6642	32.2	5.4	2.6	48.1	52.6	5.4	49.4
J-6643	33.3	0.3	0.1	47.9	52.1	0.3	49
J-6644	42.4	6.2	3	44.9	48.2	6.2	45.4
J-6646	44	0	0	44.9	47.8	0	45.2
J-6648	42.6	2.9	1.4	46.4	49.7	2.9	48.2
J-6649	33.2	8.7	4.2	48	52.2	8.7	49.1
J-6651	45.7	0.9	0.5	47.2	49.2	0.9	49.3
J-6652	45.7	3.5	1.7	46.8	49.2	3.5	48.8
J-6654	37.3	2.1	1	46	50.3	2.1	47.3
J-6655	27.8	2.6	1.2	50.5	54.1	2.6	51.8
J-6656	27.9	1.3	0.6	50.5	54.1	1.3	51.8
J-6657	43.7	2.2	1	46.2	48.4	2.2	45.4
J-6661	41.8	7.7	3.7	47	50.1	7.7	48.8
J-6662	26.1	7.7	3.7	48.7	54.6	7.7	49.8
J-6664	21.5	3.4	1.6	51.9	56.4	3.4	53.1
J-6665	21.2	4.8	2.3	52	56.6	4.8	53.2
J-6666	38.1	2.8	1.3	46	50.1	2.8	47
J-6667	37.8	14.8	7.1	46.2	50.2	14.8	47.2
J-6668	31.2	5.2	2.5	48.3	53	5.2	49.6
J-6669	31.6	0	0	48.1	52.8	0	49.4
J-6670	24.1	0	0	50.7	55.3	0	52
J-6671	24.3	0	0	50.7	55.2	0	51.9
J-6673	42.1	2.3	1.1	45.6	48.7	2.3	46.1
J-6674	32.4	3.4	1.7	48.2	52.5	3.4	49.4
J-6675	37.9	1.7	0.8	46.5	50.3	1.7	47.4
J-6676	37.9	9.1	4.4	46.6	50.3	9.1	47.4
J-6677	39.6	6.2	3	46.2	49.6	6.2	46.6
J-6678	37.4	1.3	0.6	46.7	50.5	1.3	47.5
J-6679	37.4	1.8	0.9	46.5	50.4	1.8	47.4
J-6680	44.9	3.4	1.7	47.1	49.7	3.4	49.2
J-6681	45	0	0	47.6	49.9	0	49.7
J-6682	34.9	0.4	0.2	47	51.3	0.4	48.2
J-6683	38.4	4	1.9	48.2	51.3	4	50
J-6684	45.4	2.2	1	45.1	48.5	2.2	46.9
J-6685	45.9	2.4	1.1	44.9	48.2	2.4	46.7
J-6686	29.5	2.9	1.4	46.6	53.1	2.9	47.5
J-6687	29	3.2	1.5	46.8	53.3	3.2	47.7
J-6688	26.6	0.7	0.3	50.4	54.6	0.7	51.7
J-6689	32.8	3.9	1.9	47.8	52.1	3.9	49.1
J-6690	33.1	4.1	2	47.8	52	4.1	49
J-6691	30.2	1.4	0.7	48.9	53.2	1.4	50.1
J-6692	30.2	6.2	3	48.9	53.2	6.2	50.1
J-6693	30.6	3.4	1.7	48.5	53.2	3.4	49.8
J-6694	31.5	1	0.5	48.1	52.9	1	49.4
J-6695	37.2	7.1	3.4	46	49.9	7.1	47.2
J-6696	28.1	1.5	0.7	48.4	54	1.5	49.5
J-6697	28.1	2.7	1.3	48.4	54	2.7	49.5

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6698	37.2	1	0.5	46	49.8	1	47.2
J-6699	37.4	5.7	2.7	46	49.8	5.7	47.2
J-6700	37.4	5.7	2.7	46	49.8	5.7	47.2
J-6701	37.5	2.5	1.2	46.9	50.4	2.5	47.5
J-6702	37.5	3.3	1.6	46.9	50.4	3.3	47.5
J-6704	45.6	0.3	0.1	45.7	49.4	0.3	44.9
J-6705	32.5	3.4	1.7	46.7	51.9	3.4	47.7
J-6706	37.4	2	1	45.9	50.4	2	47.2
J-6707	43.2	24.5	11.8	45.6	48.5	24.5	46.3
J-6708	42.9	0	0	45.5	48.6	0	46.2
J-6709	35.9	1	0.5	46.8	51	1	47.9
J-6710	26.1	0.6	0.3	47.5	54.4	0.6	48.5
J-6711	26.2	1	0.5	47.4	54.4	1	48.4
J-6712	44.1	0.7	0.3	45.3	48.3	0.7	46.4
J-6713	43.8	0.2	0.1	45.6	48.6	0.2	46.7
J-6714	37.6	1.1	0.5	48.4	51.6	1.1	50.2
J-6715	37.2	1	0.5	48.6	51.8	1	50.4
J-6716	38.6	7.1	3.4	46.2	49.8	7.1	46.9
J-6717	38.7	4.4	2.1	46.2	49.8	4.4	46.9
J-6718	37.4	7.4	3.6	46.1	50.3	7.4	47.2
J-6719	37.4	3.9	1.9	46.1	50.3	3.9	47.2
J-6720	32.2	4.3	2.1	48.1	52.5	4.3	49.4
J-6721	37.2	14.3	6.9	46.8	50.2	14.3	47.5
J-6722	38.8	7.5	3.6	46.2	49.8	7.5	46.9
J-6723	37.6	3.2	1.5	46.8	49.8	3.2	47.4
J-6724	37.8	2.8	1.3	46.7	49.7	2.8	47.2
J-6725	26.8	1.8	0.9	48.8	54.4	1.8	49.9
J-6726	26.7	3.9	1.9	48.8	54.4	3.9	49.9
J-6727	32.1	0.8	0.4	47.8	52.2	0.8	49.1
J-6728	31.1	1.3	0.6	48.3	52.6	1.3	49.6
J-6730	21	2.8	1.3	51.9	56.3	2.8	53.1
J-6731	42.4	4.1	2	45.1	48.3	4.1	45.5
J-6732	42.2	4.4	2.1	45.2	48.4	4.4	45.5
J-6733	30	0.4	0.2	46.4	52.8	0.4	47.3
J-6734	30	2.9	1.4	46.4	52.9	2.9	47.4
J-6735	32.1	0.9	0.4	47.8	52.2	0.9	49.1
J-6736	32.3	3.2	1.6	47.7	52.1	3.2	49.1
J-6737	31.7	2.4	1.2	48.3	52.6	2.4	49.5
J-6739	28.1	1.3	0.6	50	54.1	1.3	51.2
J-6740	27.8	2.4	1.2	50.1	54.2	2.4	51.3
J-6741	26.4	3.2	1.6	47.4	54.3	3.2	48.4
J-6742	39.4	0.1	0	47.1	50.7	0.1	48.8
J-6743	39.3	2	0.9	47.2	50.7	2	48.9
J-6744	37.6	1.2	0.6	46.2	50.2	1.2	47.2
J-6745	22	0.6	0.3	51.6	56	0.6	52.8
J-6746	21.4	10.7	5.1	51.9	56.3	10.7	53.1
J-6747	37.9	1.2	0.6	48	51.4	1.2	49.7
J-6748	37.8	2.2	1.1	48	51.5	2.2	49.8
J-6749	34	1.1	0.5	47.4	51.7	1.1	48.6
J-6750	38.3	5.2	2.5	46.6	50.1	5.2	47.2
J-6751	32.1	1.9	0.9	47.3	52.1	1.9	48.6
J-6752	32.3	2.5	1.2	47.2	52	2.5	48.5
J-6753	49.7	0.1	0.1	44.2	47.8	0.1	46.2
J-6754	31.6	1.3	0.6	47.5	52.3	1.3	48.8
J-6755	38	4.2	2	46.7	50.2	4.2	47.3
J-6757	36.1	8.4	4	46.6	50.6	8.4	47.8
J-6758	39.5	3	1.4	46.1	49.3	3	46.6
J-6759	39.4	2.8	1.3	46.2	49.4	2.8	46.7
J-6760	39.6	2.2	1.1	45.1	49.3	2.2	46.2
J-6761	39.8	3.6	1.8	45	49.2	3.6	46.1
J-6762	36.1	1.6	0.8	46.4	50.8	1.6	47.6
J-6763	37.6	4.5	2.2	45.7	50.1	4.5	47
J-6764	37.2	2.1	1	47.1	50.6	2.1	47.8
J-6765	37.5	4.2	2	47	50.5	4.2	47.7
J-6766	47.2	2.2	1.1	44.5	48	2.2	46.4
J-6767	47.5	1.2	0.6	44.4	47.9	1.2	46.3
J-6768	32.7	4.6	2.2	47.9	52.1	4.6	49.1
J-6769	40.9	0	0	46.2	49.2	0	46.6
J-6770	31.3	1.5	0.7	48.2	53	1.5	49.5
J-6771	31.5	3.6	1.7	48.1	52.8	3.6	49.4
J-6772	32.1	4.2	2	47.9	52.1	4.2	49.8
J-6773	32.1	4.6	2.2	47.9	52.1	4.6	49.8
J-6774	31.9	4.4	2.1	48.4	52.9	4.4	49.7
J-6775	32	2.5	1.2	48.3	52.8	2.5	49.7
J-6776	31.7	7	3.4	48.3	52.6	7	49.5
J-6777	28.2	0	0	49.1	53.5	0	50.3
J-6778	28	58.6	28.2	49.1	53.6	58.6	50.4
J-6779	30.9	4.9	2.3	48.6	52.9	4.9	49.9
J-6780	31.2	2.4	1.2	48.5	52.7	2.4	49.7
J-6781	37.4	2.6	1.3	46	50.3	2.6	47.2
J-6782	32.2	2.1	1	47.8	52.1	2.1	49.1
J-6783	32.1	2.8	1.3	47.8	52.2	2.8	49.2
J-6784	36.8	3.5	1.7	46.1	50.4	3.5	47.3
J-6785	36	5.4	2.6	46.5	50.8	5.4	47.7
J-6786	39	3	1.4	46.4	49.6	3	46.9
J-6787	39.2	3.6	1.7	46.3	49.5	3.6	46.8
J-6788	37.6	1.9	0.9	47.1	50.5	1.9	47.7
J-6789	37.7	2.1	1	47.1	50.5	2.1	47.7
J-6790	32.7	0	0	48	52.1	0	49.3
J-6791	33	3.7	1.8	47.8	51.9	3.7	49.1
J-6792	37.8	14.3	6.9	47	50.9	14.3	48.6
J-6793	26.7	0.9	0.4	50.3	54.5	0.9	51.6
J-6794	45.3	4	1.9	46.1	48.7	4	47.9
J-6795	47.4	1.4	0.7	44.9	48.2	1.4	46.8
J-6796	47.2	2.5	1.2	44.3	46.4	2.5	43.7
J-6797	29.2	2.1	1	48.1	53.3	2.1	49.3
J-6798	29.5	2.9	1.4	48.1	53.2	2.9	49.3
J-6799	34.7	9.2	4.4	47	51.3	9.2	48.3
J-6800	34.8	3.4	1.6	47	51.3	3.4	48.2
J-6801	40.6	2	1	45.6	49.1	2	46.2
J-6802	40.2	2.1	1	45.8	49.2	2.1	46.4
J-6803	38	1.9	0.9	46.7	50.2	1.9	47.3
J-6804	36.1	1.8	0.9	46.4	50.7	1.8	47.7
J-6805	37.5	2.5	1.2	46.8	50.4	2.5	47.5
J-6806	37.5	10.2	4.9	46.7	50.4	10.2	47.4
J-6807	43.2	7.1	3.4	46.2	48	7.1	45.4
J-6808	43.7	3.7	1.8	45.9	47.8	3.7	45.2
J-6809	38	6.5	3.1	46.5	50.2	6.5	47.2
J-6810	38.1	0.2	0.1	46.6	50.1	0.2	47.3
J-6811	27.8	2.6	1.2	50.6	54.1	2.6	51.8
J-6812	47.2	2.8	1.4	44	46.4	2.8	43.6
J-6813	37.6	1	0.5	46.9	50.4	1	47.5

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6814	27.3	4.6	2.2	50.4	54.4	4.6	51.6
J-6815	31.4	5.2	2.5	48.4	52.7	5.2	49.7
J-6816	31.6	2.8	1.4	48.4	52.6	2.8	49.6
J-6817	37.5	2.9	1.4	47.1	50.5	2.9	47.7
J-6818	37.4	6.8	3.3	47.1	50.6	6.8	47.7
J-6819	32.4	1.6	0.8	48.2	52.5	1.6	49.4
J-6820	32.1	1.2	0.6	48.3	52.6	1.2	49.5
J-6821	37.7	1.1	0.5	46.9	50.4	1.1	47.6
J-6822	37.8	5.7	2.8	46.9	50.3	5.7	47.5
J-6823	40.1	4.3	2.1	45.9	49.3	4.3	46.4
J-6824	40.3	2.2	1.1	45.8	49.2	2.2	46.3
J-6825	38.8	2	1	47.9	51.1	2	49.7
J-6826	38.5	2.3	1.1	48.1	51.2	2.3	49.8
J-6827	34.5	7.1	3.4	47.2	51.7	7.1	48.6
J-6828	34	2.8	1.3	47.5	52	2.8	48.8
J-6829	41.8	1.7	0.8	45.6	48.6	1.7	45.8
J-6830	22	0.4	0.2	51.6	55.9	0.4	52.9
J-6831	20.9	2.2	1	52.9	56.4	2.2	54.2
J-6832	39.7	0.5	0.2	47.3	50.7	0.5	49
J-6833	40.4	2.7	1.3	47	50.4	2.7	48.7
J-6834	29.1	2.6	1.2	46.3	53.2	2.6	47.2
J-6835	28.5	6.9	3.3	46.5	53.4	6.9	47.5
J-6836	32.7	3.3	1.6	48	52.5	3.3	49.4
J-6837	32.7	2.9	1.4	47.9	52	2.9	49.3
J-6838	32.4	4.7	2.3	48	52.1	4.7	49.4
J-6839	37.3	1.8	0.9	47.1	50.6	1.8	47.9
J-6840	46.4	1.1	0.5	44.7	46.7	1.1	44.1
J-6841	45.9	1.8	0.9	44.9	46.9	1.8	44.2
J-6842	22	0	0	51.7	56.1	0	52.9
J-6843	22.1	0	0	51.6	56.1	0	52.9
J-6844	45.8	2.5	1.2	45.9	48.5	2.5	47.7
J-6845	22.1	0	0	51.7	56.1	0	52.9
J-6846	39.3	0.7	0.3	46.2	49.4	0.7	46.7
J-6847	22.4	0	0	51.4	55.9	0	52.7
J-6848	31.8	11.9	5.7	48.3	52.6	11.9	49.5
J-6850	42.8	2	1	45	48.1	2	45.3
J-6851	42.4	9.7	4.7	45.1	48.3	9.7	45.5
J-6852	41.3	2.6	1.2	45.7	48.9	2.6	46
J-6853	32.7	1.2	0.6	47.9	52.2	1.2	49.1
J-6854	32.8	0	0	47.8	52.2	0	49
J-6855	33	1.9	0.9	47.9	51.9	1.9	49.1
J-6856	33.5	4.5	2.2	47.7	51.7	4.5	48.9
J-6857	32.2	1.1	0.6	47.6	52.1	1.1	49.3
J-6858	32.1	1.9	0.9	47.7	52.1	1.9	49.4
J-6859	25.2	1.2	0.6	47.8	54.8	1.2	48.8
J-6860	25.1	6.2	3	47.9	54.9	6.2	48.9
J-6861	37.4	15.9	7.7	46	49.8	15.9	47.2
J-6862	37.3	41.4	19.9	45.9	49.4	41.4	46.8
J-6863	32	4.4	2.1	47.6	52.2	4.4	49.1
J-6864	23.2	0	0	51.2	55.7	0	52.5
J-6865	22.3	5.5	2.6	51.6	56	5.5	52.8
J-6866	44.1	8	3.8	46	49	8	47.7
J-6867	44.2	2.4	1.2	45.9	48.9	2.4	47.6
J-6868	37.6	14.4	6.9	46.8	50.3	14.4	47.4
J-6869	38	2.3	1.1	46.6	49.6	2.3	47.2
J-6870	27.6	0.6	0.3	50.1	54.7	0.6	51.4
J-6871	26.3	42.1	20.2	50.2	54.9	42.1	51.4
J-6872	26.4	2	1	50.1	54.8	2	51.4
J-6873	32.6	2.2	1.1	47.8	52.4	2.2	49.1
J-6874	42.5	7.3	3.5	45.1	48.3	7.3	45.4
J-6875	39	6	2.9	47.6	51	6	49.3
J-6876	39.6	2.4	1.2	47.3	50.7	2.4	49
J-6877	42.3	1.6	0.8	45.5	48.4	1.6	45.6
J-6878	31.2	2.9	1.4	48.2	53	2.9	49.5
J-6879	32.4	4.3	2.1	48.4	52.6	4.3	49.5
J-6880	32.3	4.7	2.3	48.4	52.6	4.7	49.5
J-6881	34.7	3.7	1.8	47	51.3	3.7	48.2
J-6882	33.3	3.1	1.5	47.6	52.1	3.1	48.9
J-6883	32.3	4.2	2	48.4	52.6	4.2	49.5
J-6884	43.9	1.8	0.9	46.1	48	1.8	45.2
J-6885	37.5	3.5	1.7	47	50.5	3.5	47.6
J-6886	45.9	2.7	1.3	44.9	46.9	2.7	44.2
J-6887	45	4.1	2	45.3	47.3	4.1	44.7
J-6888	35.8	39.5	19	46.2	50.4	39.5	47.2
J-6889	42.3	3.5	1.7	45.4	48.4	3.5	45.5
J-6890	32.4	2.4	1.2	47.9	52.1	2.4	49.4
J-6891	32.3	3.1	1.5	47.9	52.1	3.1	49.5
J-6892	44.6	3	1.4	46.3	49	3	48
J-6893	46.1	0.5	0.2	46.4	48.7	0.5	48.4
J-6894	46	0.4	0.2	46.4	48.8	0.4	48.4
J-6895	37.4	5.8	2.8	46	50.3	5.8	47.2
J-6896	22.9	12	5.8	51.3	55.9	12	52.5
J-6897	22.4	2.1	1	51.5	56	2.1	52.7
J-6898	25.5	0.5	0.2	50.5	55.1	0.5	51.7
J-6899	25.7	6.1	3	50.4	55.1	6.1	51.6
J-6900	32.2	16.6	8	47.8	52.1	16.6	49.8
J-6901	36.8	4	1.9	48.8	52	4	50.5
J-6902	31.6	3	1.4	48.3	52.6	3	49.6
J-6903	31.3	0.2	0.1	48.5	52.7	0.2	49.7
J-6904	31.9	1	0.5	48.4	52.7	1	49.6
J-6905	41.5	4.2	2	45.5	48.7	4.2	45.9
J-6906	27.5	0.6	0.3	49.8	54.6	0.6	51.1
J-6907	27.6	1.7	0.8	49.8	54.6	1.7	51.1
J-6908	30.4	2.9	1.4	48.9	53	2.9	50.2
J-6909	30.6	2.3	1.1	48.8	52.9	2.3	50.1
J-6910	33	0.2	0.1	48	52.3	0.2	49.2
J-6912	27.6	6.7	3.2	49.6	54.3	6.7	50.8
J-6913	38.5	3.3	1.6	48.2	51.3	3.3	50
J-6914	47.4	3.3	1.6	45.5	48	3.3	47.4
J-6915	47.3	3.6	1.7	45.5	48	3.6	47.4
J-6916	33.8	7.2	3.5	47.4	51.6	7.2	48.8
J-6917	32.4	5.5	2.7	47.7	52.1	5.5	49.1
J-6918	32.3	6.6	3.2	47.7	52.1	6.6	49.1
J-6919	32.2	3.9	1.9	48.1	52.4	3.9	49.3
J-6920	32.5	3.7	1.8	47.9	52.2	3.7	49.1
J-6921	37.3	3.5	1.7	46.6	50.2	3.5	47.4
J-6922	32.3	4.4	2.1	48	52.1	4.4	49.4
J-6923	32.3	2	0.9	48	52.1	2	49.4
J-6924	37.8	6.4	3.1	45.8	50.1	6.4	47
J-6925	37.4	3.1	1.5	46	50.3	3.1	47.1
J-6926	38.1	6.6	3.2	46.6	50.2	6.6	47.3
J-6927	37.9	1.4	0.7	46.7	50.2	1.4	47.3

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-6928	31.6	4.6	2.2	47.8	52.4	4.6	49.2
J-6929	30.5	3.4	1.6	48.9	53	3.4	50.2
J-6930	30.1	2.9	1.4	49.1	53.1	2.9	50.3
J-6931	42.5	1.9	0.9	46	49.4	1.9	47.7
J-6932	42.7	7.5	3.6	45.9	49.3	7.5	47.6
J-6933	35	2.6	1.2	46.9	51.2	2.6	48.1
J-6934	35.9	2.8	1.3	46.5	50.7	2.8	47.7
J-6935	31.1	2.9	1.4	48.6	52.7	2.9	49.9
J-6936	30.7	1.3	0.6	48.8	52.9	1.3	50
J-6937	46.8	22	10.6	44.4	46.6	22	43.8
J-6938	46.8	1.4	0.7	44.3	46.6	1.4	43.8
J-6939	31.5	2.9	1.4	48.4	52.5	2.9	49.7
J-6940	31.2	1.3	0.6	48.6	52.6	1.3	49.8
J-6941	28.1	3.4	1.6	49.4	54.2	3.4	50.7
J-6943	28.5	1.2	0.6	47	53.5	1.2	48
J-6944	29.7	8.6	4.1	46.5	53	8.6	47.5
J-6945	29.8	1.6	0.8	47.9	53.1	1.6	49.1
J-6946	29.3	3	1.4	48.1	53.3	3	49.3
J-6947	29.8	2.4	1.2	48.1	53.1	2.4	49.4
J-6948	29.1	3.2	1.5	48.4	53.4	3.2	49.7
J-6949	26.7	0.4	0.2	50	54.7	0.4	51.2
J-6950	26.6	1.7	0.8	50	54.8	1.7	51.3
J-6952	37.4	3.2	1.5	46	50.2	3.2	47.2
J-6953	32	2	1	48.2	52.5	2	49.4
J-6954	32.4	2.6	1.2	48	52.3	2.6	49.3
J-6955	29.2	0.3	0.2	49.3	53.6	0.3	50.5
J-6956	47.2	0	0	47.5	48.7	0	49.7
J-6957	19.1	0.2	0.1	52.7	57.1	0.2	53.9
J-6958	18.3	7.7	3.7	53.3	57.5	7.7	54.5
J-6959	26.2	14.6	7	47.4	54.4	14.6	48.4
J-6960	28.3	2	1	47.1	53.6	2	48
J-6961	30.1	4.1	2	46.3	52.8	4.1	47.3
J-6962	44	9.8	4.7	46	49.3	9.8	47.8
J-6963	44.6	3.3	1.6	45.7	49	3.3	47.6
J-6964	32.6	6.6	3.2	48	52.1	6.6	49.2
J-6965	31.4	12.2	5.9	48.5	52.6	12.2	49.8
J-6966	33.7	7.5	3.6	47.8	51.9	7.5	48.9
J-6967	42.3	2.3	1.1	45.6	48.5	2.3	45.7
J-6968	41.3	4.1	1.9	45.9	48.5	4.1	46
J-6969	41.4	1.8	0.9	45.8	48.5	1.8	46
J-6970	27.6	1.4	0.7	49.4	53.8	1.4	50.7
J-6971	28.4	8.1	3.9	49.3	54.2	8.1	50.6
J-6972	21.1	4.3	2.1	52	56.4	4.3	53.3
J-6974	30.2	0	0	49	53.3	0	50.2
J-6975	38.9	0.4	0.2	47	50.1	0.4	47.4
J-6976	27.9	1.9	0.9	47.2	53.8	1.9	48.2
J-6977	21.7	8	3.9	51.8	56.1	8	53
J-6978	22.6	0.6	0.3	51.4	55.8	0.6	52.6
J-6979	42.5	2.9	1.4	45.4	48.3	2.9	45.5
J-6980	32.3	3.8	1.8	47.8	52.1	3.8	49.1
J-6981	32.3	7.8	3.7	47.8	52.1	7.8	49.1
J-6982	43.4	4.5	2.2	46.2	49.3	4.5	47.9
J-6983	43	16.1	7.7	46.4	49.4	16.1	48.1
J-6984	37	0.9	0.5	46.2	50.4	0.9	47.3
J-6985	37	4.9	2.4	46.2	50.4	4.9	47.3
J-6986	45.6	2.8	1.4	46	48.6	2.8	47.8
J-6987	42.8	0	0	45.4	48.3	0	45.5
J-6988	21.2	7.8	3.7	52	56.3	7.8	53.2
J-6989	32.9	3.3	1.6	47.8	52.1	3.3	49.1
J-6990	32.5	1.9	0.9	48	52.2	1.9	49.3
J-6992	47.6	43.8	21.1	43.7	46.2	43.8	43.4
J-6993	28.3	7.9	3.8	48	53.7	7.9	49.1
J-6994	29.6	8.7	4.2	49.2	53.4	8.7	50.4
J-6995	31.5	0.8	0.4	47.6	52.4	0.8	48.6
J-6996	31.4	1.7	0.8	47.3	52.4	1.7	48.3
J-6997	31.5	4.2	2	47.3	52.4	4.2	48.3
J-6998	41.3	0.8	0.4	46	49	0.8	46.2
J-6999	41.4	12.9	6.2	45.9	48.9	12.9	46.1
J-7000	32.3	1.9	0.9	48	52.1	1.9	49.4
J-7001	31.8	5	2.4	48.2	52.5	5	49.5
J-7002	30.6	3.4	1.6	48.7	53	3.4	50
J-7003	37.9	2.4	1.2	47.8	51.3	2.4	49.5
J-7004	38.6	2.9	1.4	47.5	51	2.9	49.2
J-7005	48.5	0	0	43.3	45.8	0	43
J-7007	41.9	4.7	2.3	45.6	48.6	4.7	45.8
J-7008	38.9	2.2	1	46	49.6	2.2	46.7
J-7009	39.1	1.9	0.9	45.9	49.5	1.9	46.6
J-7010	28.6	3.3	1.6	49.7	53.8	3.3	51
J-7011	28.8	2.8	1.3	49.6	53.7	2.8	50.9
J-7012	37.1	7.4	3.6	46.1	53.3	7.4	47.8
J-7013	25	12.6	6.1	50.5	54.9	12.6	51.7
J-7014	30.6	1.2	0.6	48.5	53.2	1.2	49.8
J-7015	38.2	1.3	0.6	46.6	49.8	1.3	47.2
J-7016	37.9	9.4	4.5	46.7	50	9.4	47.3
J-7017	29.4	1.5	0.7	48.1	53.3	1.5	49.3
J-7018	29.3	9.5	4.5	48.1	53.3	9.5	49.3
J-7019	42.7	0.8	0.4	45.4	48.3	0.8	45.5
J-7020	38.7	3.5	1.7	46.4	49.7	3.5	46.9
J-7021	31.9	1.8	0.9	47.8	52.2	1.8	49.4
J-7022	31.9	7.6	3.6	47.8	52.2	7.6	49.3
J-7023	31.6	17.4	8.4	48.3	52.6	17.4	49.6
J-7024	38.6	3.4	1.7	46.5	49.9	3.4	47.1
J-7025	31.5	1.9	0.9	48.3	52.6	1.9	49.6
J-7026	46.4	35.5	17.1	44.2	46.7	35.5	44
J-7027	37.5	2.8	1.3	46.7	50.1	2.8	47.4
J-7028	37.2	0.9	0.4	46	50.3	0.9	47.3
J-7029	33.9	0.1	0	47.5	51.6	0.1	48.8
J-7030	32.9	0.4	0.2	47.8	52.3	0.4	49.1
J-7031	32.7	5.4	2.6	47.9	52.4	5.4	49.2
J-7032	28.9	2.1	1	49.5	53.6	2.1	50.8
J-7033	29.2	2.8	1.3	49.4	53.5	2.8	50.7
J-7034	43	2.7	1.3	45.9	48.1	2.7	45.4
J-7035	43.8	2.1	1	45.6	47.7	2.1	45.1
J-7036	44.3	2.2	1.1	45.3	48.7	2.2	47
J-7037	43.4	3.3	1.6	45.7	49.1	3.3	47.4
J-7038	32.7	2.3	1.1	47.9	52.2	2.3	49.1
J-7039	32.8	0.7	0.3	48.2	52.4	0.7	49.3
J-7040	32.4	5.6	2.7	48.3	52.6	5.6	49.5
J-7042	42.1	0.9	0.4	45.7	48.3	0.9	45.7
J-7043	40.4	0.3	0.2	46.4	49.4	0.3	46.8
J-7044	45.8	0.3	0.2	46.1	49.1	0.3	48.1
J-7045	45.7	4.5	2.2	46.3	49.1	4.5	48.3

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7046	25.3	12.3	5.9	49.3	55	12.3	50.3
J-7047	25.6	2.7	1.3	49.2	54.9	2.7	50.3
J-7048	39.9	2.9	1.4	45.9	49.3	2.9	46.4
J-7049	39.5	3.5	1.7	46.1	49.5	3.5	46.6
J-7050	38.1	1.3	0.6	46.5	49.9	1.3	47.2
J-7051	32.2	3.1	1.5	47.6	52.1	3.1	49
J-7052	32.2	9.4	4.5	47.6	52.1	9.4	49.1
J-7053	38.9	2.1	1	46.4	49.8	2.1	46.9
J-7054	32.4	3.5	1.7	51.3	54.1	3.5	50.8
J-7055	46.9	1.9	0.9	44.3	46.5	1.9	43.8
J-7056	40.8	3.4	1.6	46.7	50.1	3.4	48.4
J-7057	37.4	8.2	4	46	50.3	8.2	47.2
J-7058	38	4.6	2.2	46.3	49.9	4.6	47.1
J-7059	47.3	3.1	1.5	44.8	48.2	3.1	46.7
J-7060	47.8	48	23.1	44.6	48	48	46.5
J-7061	28.2	0.7	0.4	49.7	54.2	0.7	51
J-7062	28.1	3.3	1.6	49.8	54.2	3.3	51
J-7063	46.3	2.6	1.3	44.9	46.8	2.6	44.1
J-7065	31	11.2	5.4	48.6	52.9	11.2	49.9
J-7066	31.3	11.7	5.6	48.5	52.7	11.7	49.8
J-7067	33.2	4.1	2	51.7	55	4.1	51.4
J-7068	33.2	5.4	2.6	51.7	55.1	5.4	51.4
J-7069	27.7	3.7	1.8	50.6	54.2	3.7	51.8
J-7070	32.8	4.8	2.3	47.8	52.1	4.8	49.2
J-7071	33	1.8	0.9	47.7	52	1.8	49.1
J-7072	29.9	1.6	0.8	48.8	53.2	1.6	50.1
J-7073	29.6	1.1	0.5	48.9	53.3	1.1	50.2
J-7074	27.2	4.3	2.1	48.7	54.2	4.3	49.8
J-7075	26.8	3.1	1.5	48.9	54.4	3.1	50
J-7076	31.9	3.2	1.5	47.6	52.2	3.2	49
J-7077	32.3	2.7	1.3	47.5	52.1	2.7	48.9
J-7078	44.9	4.3	2	45.7	47.6	4.3	44.8
J-7079	45.6	1.8	0.9	45.3	47.3	1.8	44.4
J-7080	40.6	1.9	0.9	46.1	49.2	1.9	46.4
J-7081	41.3	0	0	45.4	48.3	0	45.8
J-7082	41.1	14.4	6.9	45.5	48.4	14.4	45.9
J-7084	35.7	3.9	1.9	46.7	51	3.9	47.9
J-7085	33.9	4.9	2.4	47.5	51.8	4.9	48.6
J-7086	31.8	4.8	2.3	47.4	52.3	4.8	48.7
J-7087	44.5	4.1	2	45.8	48	4.1	45
J-7088	45.1	1.2	0.6	45.6	47.8	1.2	44.7
J-7089	43.8	6.8	3.3	46	49.1	6.8	47.7
J-7090	44.2	5.3	2.5	45.9	48.9	5.3	47.6
J-7091	35.7	2.3	1.1	47.4	51.2	2.3	48.3
J-7092	34.2	5.3	2.5	48	51.8	5.3	48.8
J-7093	37.4	1.5	0.7	46	50.2	1.5	47.2
J-7094	37.5	3.4	1.6	45.9	50.2	3.4	47.2
J-7095	25.6	4.9	2.3	47.7	54.6	4.9	48.7
J-7096	38.9	6.3	3	47.7	51.1	6.3	49.4
J-7097	31.4	2.5	1.2	48.4	52.7	2.5	49.6
J-7098	31.4	3	1.5	48.4	52.7	3	49.7
J-7099	32.7	1.2	0.6	47.9	52.2	1.2	49.1
J-7100	32.5	3	1.5	48	52.3	3	49.2
J-7101	32.5	16.6	8	47.9	52.2	16.6	49.2
J-7102	32.3	3	1.5	48	52.3	3	49.3
J-7103	31.9	3.6	1.7	48.2	52.5	3.6	49.5
J-7104	32	3	1.5	48.2	52.5	3	49.4
J-7105	32.2	1.8	0.9	48.1	52.4	1.8	49.3
J-7106	32.1	3	1.5	48.1	52.4	3	49.4
J-7107	33.3	1.3	0.6	52.1	55.8	1.3	51.8
J-7108	30.8	6.1	2.9	48.1	52.7	6.1	49.5
J-7109	42.3	13.4	6.4	45.6	48.5	13.4	45.7
J-7110	38.8	6.7	3.2	46.1	49.6	6.7	46.8
J-7111	32.4	6.9	3.3	48.1	52.2	6.9	49.4
J-7112	45.9	3.1	1.5	44.9	48.1	3.1	46.6
J-7113	46.7	2	1	44.5	47.8	2	46.3
J-7114	33	7.6	3.7	47.9	51.9	7.6	49.1
J-7115	38.4	4	1.9	48	51.3	4	49.8
J-7116	40.2	3	1.4	47.3	50.5	3	49
J-7117	37.1	8.5	4.1	46	50.2	8.5	47.2
J-7118	32.4	1.9	0.9	46.2	51.9	1.9	47.2
J-7119	36.9	4.9	2.3	48.8	51.9	4.9	50.5
J-7120	41.5	1.8	0.9	47	50.2	1.8	48.8
J-7121	41.7	7.4	3.5	46.9	50.1	7.4	48.7
J-7122	40.2	5.2	2.5	46.4	49.5	5.2	46.8
J-7123	28.2	0.2	0.1	49.6	54	0.2	50.9
J-7124	29.2	1.7	0.8	49.3	53.9	1.7	50.6
J-7125	38.1	0	0	46.1	49.8	0	47
J-7126	27.1	3.8	1.8	50.6	54.4	3.8	51.8
J-7127	27.4	2.5	1.2	50.5	54.3	2.5	51.7
J-7128	31.7	6.6	3.2	48.5	52.8	6.6	49.7
J-7129	32.2	1.8	0.9	48.4	52.7	1.8	49.6
J-7130	32.3	4.5	2.2	48.4	52.6	4.5	49.5
J-7131	31.8	3.6	1.7	48	52.7	3.6	49.2
J-7132	32.3	31.5	15.1	47.7	52.5	31.5	49
J-7133	32.3	2	1	47.7	52.1	2	49.1
J-7134	38	6.5	3.1	48.1	51.4	6.5	49.8
J-7135	38	4.6	2.2	48.1	51.4	4.6	49.8
J-7136	38	1.7	0.8	48.4	51.5	1.7	50.2
J-7137	38.1	1.4	0.7	48.4	51.4	1.4	50.1
J-7138	32.4	1.7	0.8	47.4	52	1.7	48.7
J-7139	32.4	5.2	2.5	47.4	52	5.2	48.7
J-7140	43.7	0.2	0.1	45.2	48.2	0.2	45.9
J-7141	43.7	0	0	45.1	48.2	0	45.9
J-7142	30.4	0.6	0.3	46.4	52.7	0.6	47.3
J-7143	30.5	3.3	1.6	46.2	52.6	3.3	47.2
J-7144	23.8	12.6	6.1	50.9	55.4	12.6	52.1
J-7145	23.6	4.5	2.2	51	55.5	4.5	52.2
J-7146	26.3	27.3	13.2	48.9	54.6	27.3	50
J-7147	26.4	6.8	3.3	48.9	54.5	6.8	50
J-7149	44.1	5.6	2.7	45.7	49	5.6	47.5
J-7150	42.2	5.4	2.6	45.2	48.4	5.4	45.5
J-7151	32.4	0.6	0.3	48.1	52.6	0.6	49.4
J-7152	32.4	5.6	2.7	48.1	52.6	5.6	49.5
J-7153	37	2.3	1.1	46.2	50.4	2.3	47.3
J-7154	37	1.9	0.9	46.2	50.4	1.9	47.3
J-7155	36.8	17	8.2	46.9	50.4	17	47.7
J-7156	39.3	2.4	1.1	47.4	50.9	2.4	49.2
J-7157	38.7	2.6	1.3	47.7	51.1	2.6	49.4
J-7158	32.4	3.2	1.5	48.2	52.7	3.2	49.5
J-7159	42.4	1.4	0.7	46.3	49.6	1.4	48.1
J-7160	42.4	3.2	1.5	46.3	49.6	3.2	48.1

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7161	37.4	2.2	1.1	46.4	50.4	2.2	47.4
J-7162	39.4	2.8	1.4	47.7	50.8	2.8	49.4
J-7163	38.1	2.1	1	48.2	51.4	2.1	50
J-7164	33.1	1.6	0.8	47.8	51.9	1.6	49.2
J-7165	33	6.5	3.1	47.7	51.9	6.5	49.1
J-7166	43.6	3.1	1.5	46.1	49.4	3.1	47.9
J-7167	44.7	3	1.4	45.6	48.9	3	47.5
J-7168	32.3	5.4	2.6	48.1	52.4	5.4	49.3
J-7169	29	4.2	2	49.4	53.7	4.2	50.7
J-7170	43.5	3.9	1.9	45.7	49	3.9	47.4
J-7171	43.6	8.3	4	45.6	49	8.3	47.4
J-7172	47.6	0.6	0.3	46.7	48.3	0.6	48.8
J-7173	47.5	8.9	4.3	46.4	48.3	8.9	48.4
J-7174	36.1	6.6	3.2	46.5	50.7	6.6	47.8
J-7176	37.4	5.2	2.5	45.9	50.4	5.2	47.2
J-7177	37.4	9.8	4.7	45.9	50.4	9.8	47.2
J-7178	31.3	1.9	0.9	47.3	52.5	1.9	48.4
J-7179	30.8	4.7	2.3	47.5	52.7	4.7	48.6
J-7180	45.7	4.7	2.3	45	47	4.7	44.3
J-7181	45.7	3.9	1.9	45.1	47	3.9	44.3
J-7182	42.1	2.7	1.3	46.3	48.5	2.7	45.8
J-7183	42.1	2.8	1.4	46.3	48.4	2.8	45.8
J-7185	36.5	2.1	1	43.5	50	2.1	44.5
J-7186	37.4	0.2	0.1	46.6	50.1	0.2	47.4
J-7187	37.5	1.5	0.7	46.6	50.1	1.5	47.4
J-7188	41.7	1	0.5	45.8	48.8	1	46.1
J-7189	36.7	3.4	1.6	46.4	50.6	3.4	47.5
J-7190	37.2	2.5	1.2	48.8	51.8	2.5	50.6
J-7191	37.1	4.8	2.3	48.9	51.9	4.8	50.7
J-7192	32.3	3.7	1.8	46.7	52	3.7	47.7
J-7193	32.7	1.3	0.6	46.6	51.9	1.3	47.6
J-7195	48	5.8	2.8	44.6	48	5.8	46.5
J-7196	26.8	5.5	2.7	50	54.7	5.5	51.2
J-7197	26.5	3.4	1.6	50.1	54.8	3.4	51.3
J-7198	45.9	2.2	1.1	45.9	48.5	2.2	47.7
J-7199	18.3	2.8	1.3	53.3	57.5	2.8	54.5
J-7200	18.9	7.9	3.8	53.1	57.3	7.9	54.3
J-7201	24.2	0	0	47.8	55.2	0	48.8
J-7202	24.5	0	0	47.7	55.1	0	48.7
J-7203	40.7	3.1	1.5	46.7	50.2	3.1	48.4
J-7204	31.2	1.4	0.7	48.6	52.8	1.4	49.8
J-7205	29.5	14.3	6.9	49.3	53.5	14.3	50.5
J-7207	26.5	3.8	1.8	50	54.8	3.8	51.3
J-7208	45.1	1.9	0.9	46.9	49.5	1.9	49
J-7209	45.7	3.9	1.9	46.7	49.2	3.9	48.7
J-7210	36.8	1.4	0.7	46.5	50.6	1.4	47.5
J-7211	43.3	9.1	4.4	43.6	47.8	9.1	44.7
J-7212	41.7	2.8	1.4	46.8	50.1	2.8	48.6
J-7213	42.9	7.9	3.8	45.2	48.1	7.9	45.3
J-7215	34.6	4.4	2.1	47.9	51.2	4.4	48.7
J-7216	34.7	1.9	0.9	47.8	51.1	1.9	48.6
J-7217	26	9.7	4.7	48.8	54.7	9.7	49.9
J-7218	27.3	5.7	2.8	48.3	54.1	5.7	49.3
J-7219	37.3	2.1	1	46	49.8	2.1	47.2
J-7220	37.4	1.1	0.5	45.9	50.5	1.1	47.2
J-7221	37.4	4.9	2.4	45.9	50.4	4.9	47.2
J-7222	51.8	1.9	0.9	42.2	44.4	1.9	41.7
J-7223	34.9	5.9	2.8	47	51.4	5.9	48.3
J-7224	30.4	9.6	4.6	46.1	52.7	9.6	47
J-7225	30.4	8.3	4	46.2	52.7	8.3	47.1
J-7226	46	1.5	0.7	46.3	48.7	1.5	48.2
J-7227	32	3.2	1.6	48.2	52.5	3.2	49.4
J-7228	32.5	10.3	5	48	52.3	10.3	49.2
J-7229	19.4	6.6	3.2	52.8	57.1	6.6	54.1
J-7231	33.4	2.5	1.2	52.1	55.7	2.5	51.8
J-7232	31.8	6.6	3.2	47.1	52.2	6.6	48.1
J-7233	28.6	0.7	0.3	49.4	53.7	0.7	50.7
J-7234	28.4	3.8	1.8	49.5	53.8	3.8	50.8
J-7235	31.9	3	1.4	47.9	52.3	3	49.3
J-7236	32.2	6.2	3	47.8	52.2	6.2	49.1
J-7237	33.2	1.4	0.7	47.7	52.2	1.4	49
J-7238	27.6	8	3.9	50	54.5	8	51.3
J-7239	32	22.5	10.8	47.7	52.2	22.5	49.2
J-7240	26.7	2.5	1.2	50.3	54.5	2.5	51.6
J-7241	40.4	3.6	1.7	45.7	48.7	3.6	46.2
J-7242	39.6	5.4	2.6	46.1	49	5.4	46.5
J-7243	32.5	2.6	1.2	48.2	52.4	2.6	49.3
J-7244	42.9	35.7	17.2	45.3	48.2	35.7	45.4
J-7245	28.9	0.7	0.3	49.4	53.7	0.7	50.6
J-7246	28.8	3.8	1.8	49.5	53.8	3.8	50.7
J-7247	36.6	3.3	1.6	46.8	50.4	3.3	47.7
J-7248	38.2	2.7	1.3	45.5	49.9	2.7	46.8
J-7249	37.4	2.5	1.2	45.9	50.2	2.5	47.1
J-7250	33	7.5	3.6	47.8	52	7.5	49
J-7251	33.6	6.2	3	47.5	51.8	6.2	48.8
J-7252	42.1	0	0	45.8	48.7	0	46.1
J-7253	42	0	0	46	48.9	0	46.5
J-7254	37.4	5.3	2.5	46.4	50.3	5.3	47.3
J-7255	33	7.3	3.5	47.9	51.7	7.3	49.2
J-7257	45.4	6.8	3.3	45.5	48.8	6.8	47.4
J-7259	37.4	3.4	1.6	46.7	50.1	3.4	47.4
J-7260	37.2	3.9	1.9	46.8	50.2	3.9	47.5
J-7261	37.1	1.9	0.9	46.8	50.2	1.9	47.5
J-7262	47.4	1	0.5	44.8	48.2	1	46.7
J-7263	47.4	4.7	2.2	44.8	48.1	4.7	46.7
J-7264	37.3	11.8	5.7	46.3	50.4	11.8	47.3
J-7265	38.6	4.1	2	45.7	49.8	4.1	46.7
J-7266	32.5	8	3.8	48.1	51.9	8	49.6
J-7268	28.2	4	1.9	48.5	53.8	4	49.7
J-7269	27.5	4.6	2.2	48.8	54.1	4.6	50
J-7270	34.8	5.9	2.8	47	51.2	5.9	48.4
J-7271	35.4	7.1	3.4	46.8	51	7.1	48.1
J-7272	36.9	4.3	2.1	46.9	50.3	4.3	47.6
J-7273	36.7	4	1.9	46.9	50.4	4	47.7
J-7274	43.3	27.2	13.1	43.7	47.8	27.2	44.7
J-7275	38.4	3.7	1.8	46.2	49.7	3.7	46.9
J-7276	38.2	6.6	3.2	46.3	49.8	6.6	47
J-7277	41.1	0.7	0.3	45.8	48.9	0.7	46.1
J-7278	29.7	3.8	1.8	48.2	53.2	3.8	49.5
J-7279	29.8	7.5	3.6	48.2	53.1	7.5	49.5
J-7280	39.5	4.4	2.1	46.2	49.1	4.4	46.6
J-7281	39.1	3.6	1.7	46.3	49.3	3.6	46.7

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7282	42.5	1.7	0.8	46.3	49.6	1.7	48.1
J-7283	42.1	5.6	2.7	46.5	49.8	5.6	48.3
J-7284	38	4.6	2.2	46.3	49.9	4.6	47.1
J-7285	22.2	0	0	51.8	56.2	0	53.1
J-7286	30.7	1.8	0.9	48.6	53.2	1.8	49.9
J-7287	30.9	3.5	1.7	48.5	53.2	3.5	49.9
J-7288	25	3.7	1.8	50.5	55.2	3.7	51.8
J-7289	47.6	2	1	44.1	46.2	2	43.5
J-7290	47.5	3.9	1.9	44.1	46.3	3.9	43.5
J-7291	31.9	2.9	1.4	47.9	52.7	2.9	49.2
J-7292	19.4	20.3	9.7	53.1	57	20.3	54.3
J-7293	18.9	1.6	0.8	53.1	57.3	1.6	54.4
J-7294	41.6	7.7	3.7	45.4	48.6	7.7	45.8
J-7295	32.2	4.4	2.1	47.8	52.1	4.4	49.1
J-7296	32.5	11.4	5.5	47.6	52	11.4	49
J-7297	37.1	3	1.5	48.9	51.9	3	50.7
J-7298	35.8	3.7	1.8	43.8	50.3	3.7	44.8
J-7300	43.6	9.8	4.7	45	47.9	9.8	45.1
J-7301	43.6	4.2	2	45	47.9	4.2	45.1
J-7302	37.4	0.5	0.2	48.9	51.8	0.5	50.7
J-7303	37.7	1.9	0.9	48.7	51.6	1.9	50.5
J-7304	41.8	1.3	0.6	45.2	48.4	1.3	45.7
J-7305	42	9.4	4.5	45.1	48.3	9.4	45.6
J-7306	31.5	5.1	2.4	48.5	52.5	5.1	49.8
J-7307	32.1	2.4	1.1	48.3	52.3	2.4	49.5
J-7308	40.4	2	1	45.8	49.2	2	46.3
J-7309	28	2.3	1.1	49.7	54.1	2.3	51
J-7311	38.5	0.8	0.4	46.1	49.8	0.8	46.9
J-7312	28.6	4	1.9	48.2	53.6	4	49.3
J-7314	38.1	1.6	0.8	46.6	49.6	1.6	47.2
J-7315	37.7	4.1	1.9	45.8	50.2	4.1	47.1
J-7316	42.8	8.8	4.2	45.3	48.2	8.8	45.4
J-7317	28.9	5.8	2.8	47	53.3	5.8	48
J-7318	35.2	3.1	1.5	46.9	51.1	3.1	48.2
J-7319	35.8	6.7	3.2	46.6	50.8	6.7	47.9
J-7320	37.5	7	3.3	46.4	50.4	7	47.4
J-7321	31.9	4.2	2	47.9	52.3	4.2	49.2
J-7322	42.5	3.9	1.9	46.3	49.6	3.9	48.1
J-7323	44.1	1.3	0.6	45.7	48.9	1.3	47.4
J-7324	17.5	2	1	53.6	58.1	2	54.8
J-7325	18.1	3.2	1.5	53.4	57.9	3.2	54.6
J-7326	38.5	3.4	1.6	46.3	49.7	3.4	47
J-7327	38.8	3	1.4	46.1	49.6	3	46.8
J-7328	20.9	1.5	0.7	51.9	56.4	1.5	53.2
J-7329	32	3	1.4	47	52.1	3	48
J-7330	30	7.5	3.6	48.1	53	7.5	49.3
J-7331	29.9	9.7	4.7	48	53.1	9.7	49.2
J-7332	27.5	1.4	0.7	48.8	54.1	1.4	49.9
J-7333	27.2	2	1	48.8	54.2	2	49.9
J-7334	38.9	9.3	4.5	46	49.6	9.3	46.7
J-7335	20.3	3.7	1.8	52.8	56.7	3.7	54.1
J-7336	27.2	7.9	3.8	50.2	54.5	7.9	51.4
J-7337	27.2	6.1	2.9	50.2	54.5	6.1	51.4
J-7338	32.5	5.7	2.7	47.7	52	5.7	49
J-7339	32.6	2.4	1.2	47.6	52	2.4	49
J-7340	33.9	2	1	47.6	51.3	2	48.8
J-7341	34	3.8	1.8	47.5	51.3	3.8	48.7
J-7342	48.2	1.4	0.7	44.9	48.2	1.4	46.8
J-7343	32.4	4.9	2.4	48	52.3	4.9	49.2
J-7344	31.8	2.4	1.2	48.2	52.5	2.4	49.5
J-7345	42.4	9.9	4.8	45.5	48.4	9.9	45.6
J-7346	28	4.5	2.2	48.7	53.9	4.5	49.8
J-7347	27.5	2	0.9	48.9	54.1	2	50
J-7348	39.6	4	1.9	44.9	49.2	4	46.1
J-7349	31.4	10.7	5.2	47.3	52.4	10.7	48.4
J-7350	37.6	4.5	2.2	46.4	50.1	4.5	47.3
J-7351	37.7	3.9	1.9	46.4	50	3.9	47.2
J-7352	41.3	5.3	2.5	46	48.9	5.3	46.2
J-7353	41.5	4.5	2.2	45.9	48.8	4.5	46.1
J-7354	31.5	1.6	0.7	46.2	52.3	1.6	47.3
J-7356	32.6	2.2	1	48	52.1	2.2	49.3
J-7357	32.4	8	3.9	48	52.2	8	49.4
J-7358	35.2	2.9	1.4	47.1	51.3	2.9	48.2
J-7359	35	5.8	2.8	47.2	51.4	5.8	48.3
J-7360	33.6	1.5	0.7	47.8	52	1.5	49
J-7361	33.7	2.7	1.3	47.8	52	2.7	48.9
J-7362	32.4	6.8	3.3	48.1	52.2	6.8	49.4
J-7363	32.4	7.3	3.5	48.1	52.2	7.3	49.4
J-7364	19.6	4.1	2	52.7	57	4.1	54
J-7365	43.8	2.9	1.4	46.1	49.1	2.9	47.8
J-7366	43.4	4.8	2.3	46.2	49.3	4.8	47.9
J-7367	19.4	3.2	1.5	52.8	57.1	3.2	54
J-7368	18.8	3.6	1.7	53	57.3	3.6	54.3
J-7369	37.4	0.8	0.4	46.8	50.5	0.8	47.6
J-7370	19.4	6.7	3.2	52.8	57	6.7	54.1
J-7371	19.5	2.7	1.3	52.8	57	2.7	54
J-7372	29.1	3.3	1.6	48.2	53.4	3.3	49.4
J-7373	33.7	2.8	1.4	51.7	55.1	2.8	51.4
J-7374	33.4	3.5	1.7	51.8	55.2	3.5	51.5
J-7375	30.6	4.3	2.1	46.4	52.6	4.3	47.4
J-7376	33.9	3.7	1.8	47.5	51.3	3.7	48.8
J-7377	36	7.6	3.7	46.5	51.7	7.6	47.9
J-7378	36.8	3.5	1.7	46.1	51.2	3.5	47.5
J-7379	35.6	6.6	3.2	46.8	51.1	6.6	47.9
J-7380	37.3	3.7	1.8	46.1	50.3	3.7	47.2
J-7381	33.6	7.2	3.5	47.6	51.7	7.2	48.9
J-7382	32.9	3.9	1.9	47.9	52	3.9	49.2
J-7383	39	1.3	0.6	46	49.5	1.3	46.7
J-7384	33.8	5.7	2.7	47.7	51.9	5.7	48.9
J-7385	38.6	3.2	1.6	46.5	49.9	3.2	47
J-7386	32.4	3.1	1.5	48	52.3	3.1	49.2
J-7387	19	7.3	3.5	53.1	57.2	7.3	54.4
J-7388	46	6.2	3	46.6	48.8	6.2	48.6
J-7389	45.9	2.7	1.3	46.7	48.9	2.7	48.7
J-7390	36.5	8.3	4	47.2	50.9	8.3	48.1
J-7391	36.5	9.5	4.6	47.3	51	9.5	48.1
J-7392	43.3	0.7	0.3	43.7	47.8	0.7	44.7
J-7393	30.5	2.9	1.4	46.2	52.7	2.9	47.2
J-7394	29.8	6.1	2.9	46.5	53	6.1	47.5
J-7395	45	4.9	2.4	46.2	48.8	4.9	48
J-7396	32.7	7.4	3.6	51.2	53.9	7.4	50.7
J-7397	32.7	3.6	1.7	51.4	54.3	3.6	50.9

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7398	33.1	3.1	1.5	47.7	52	3.1	48.9
J-7399	28.6	1.4	0.7	49.4	53.7	1.4	50.7
J-7400	27.1	5	2.4	47.2	54	5	48.2
J-7401	27.5	6.8	3.3	47.1	53.9	6.8	48
J-7402	33.8	8	3.8	44.7	51.2	8	45.7
J-7403	32	3.5	1.7	47.9	52.2	3.5	49.2
J-7404	42.6	3.5	1.7	46.7	49.8	3.5	48.4
J-7405	38.3	7.8	3.8	46.6	50.1	7.8	47.2
J-7406	38.6	0.3	0.1	46.5	49.9	0.3	47.1
J-7408	31	4.9	2.3	45.9	52.4	4.9	46.9
J-7409	37.4	5.7	2.7	46.5	50.5	5.7	47.5
J-7410	37.6	2.8	1.3	45.9	50.2	2.8	47
J-7411	37.6	3.1	1.5	45.9	50.2	3.1	47.1
J-7412	27.4	3.6	1.7	48.4	54.1	3.6	49.5
J-7413	27.8	5	2.4	48.2	53.9	5	49.3
J-7414	42.4	1.6	0.8	46.2	48.3	1.6	45.7
J-7415	33.7	1.6	0.8	48.1	52.1	1.6	49.1
J-7416	34.7	12.8	6.1	47.7	51.6	12.8	48.6
J-7417	37.5	4.6	2.2	46.9	50.4	4.6	47.5
J-7418	44.6	4.7	2.3	45.2	48.5	4.7	46.9
J-7419	42.3	3.8	1.8	46.7	50	3.8	48.6
J-7420	42.1	3.7	1.8	46.9	50.1	3.7	48.7
J-7421	26.5	4.8	2.3	48.9	54.5	4.8	49.9
J-7422	26.4	6.8	3.3	48.9	54.5	6.8	50
J-7423	37.5	10.5	5	46.9	50.4	10.5	47.5
J-7424	33.3	3.6	1.7	47.9	52.2	3.6	49.1
J-7425	32.4	2.9	1.4	48	52.3	2.9	49.3
J-7426	32.4	4.1	2	48	52.2	4.1	49.2
J-7427	31.8	5.2	2.5	47.6	52.3	5.2	48.9
J-7428	32	7.6	3.7	47.5	52.2	7.6	48.8
J-7429	37.8	3.7	1.8	46.8	49.8	3.7	47.3
J-7430	37.3	2	1	47	50	2	47.5
J-7431	47.1	2.2	1.1	44.9	48.3	2.2	46.8
J-7432	42	6	2.9	45.7	48.7	6	45.9
J-7433	41.9	4.7	2.3	45.7	48.7	4.7	45.9
J-7434	36.5	6.2	3	46.3	52.2	6.2	47.8
J-7435	27.2	5.6	2.7	49.7	54.5	5.6	50.9
J-7436	27.2	3.4	1.7	49.7	54.5	3.4	50.9
J-7438	41.6	2.2	1.1	45.9	48.8	2.2	46
J-7439	37.4	0.6	0.3	46.7	50.5	0.6	47.6
J-7440	26.9	3.6	1.7	49.8	54.6	3.6	51.1
J-7441	26.8	127.6	61.3	49.8	54.6	127.6	51.1
J-7442	26.9	3.5	1.7	50	54.7	3.5	51.2
J-7443	41.7	3.2	1.5	45.3	48.6	3.2	45.7
J-7444	42.1	4.7	2.3	45.1	48.4	4.7	45.6
J-7445	30.5	2	1	48.8	53	2	50
J-7446	42.2	2.2	1.1	45.7	48.3	2.2	45.7
J-7447	27.9	1.5	0.7	48.3	53.9	1.5	49.3
J-7448	27.9	2.2	1.1	48.3	53.9	2.2	49.3
J-7449	41	1	0.5	45.6	48.7	1	46
J-7450	37	5.6	2.7	46.8	50.3	5.6	47.6
J-7452	32.3	4.1	2	47.9	52	4.1	50
J-7453	27.4	1.5	0.7	48.9	54.2	1.5	49.9
J-7454	30.5	1.9	0.9	46.1	52.6	1.9	47.1
J-7455	31.8	9.4	4.5	45.2	52	9.4	46.2
J-7456	31.4	2	1	45.4	52.2	2	46.4
J-7457	44.8	0.9	0.4	43	47.1	0.9	44
J-7458	46.2	6.4	3.1	42.4	46.5	6.4	43.4
J-7459	38.3	6.2	3	47.8	51.3	6.2	49.6
J-7460	37	27.9	13.4	46.3	50.5	27.9	47.4
J-7461	29.4	0.6	0.3	49.2	53.8	0.6	50.6
J-7462	27.5	2.4	1.2	50	54.6	2.4	51.3
J-7463	27.3	9	4.3	47.1	53.9	9	48.1
J-7464	27	3.4	1.6	47.3	54.1	3.4	48.3
J-7465	32.5	4.2	2	48.1	52.2	4.2	49.3
J-7466	27.6	3.2	1.6	49.6	54.3	3.2	50.8
J-7467	27.3	5.2	2.5	49.7	54.5	5.2	51
J-7468	40.6	14.8	7.1	45.7	48.6	14.8	46.1
J-7469	40.8	0	0	45.6	48.6	0	46
J-7470	27	2.8	1.3	47.2	54.1	2.8	48.2
J-7471	27	1	0.5	47.3	54.1	1	48.2
J-7472	37.3	3.7	1.8	46.4	50.4	3.7	47.4
J-7473	37.2	4.8	2.3	46.4	50.4	4.8	47.4
J-7474	29.6	8	3.9	46.1	52.9	8	47.1
J-7475	31.4	10.3	5	45.4	52.2	10.3	46.4
J-7476	31.7	1.1	0.5	45.2	52.1	1.1	46.2
J-7477	19.2	9.3	4.5	52.9	57.2	9.3	54.2
J-7478	47.9	5.5	2.6	43.5	46	5.5	43.3
J-7479	37.1	10	4.8	46	51.6	10	47.5
J-7480	37.1	4.6	2.2	46	50.6	4.6	47.3
J-7481	26.8	3.3	1.6	47.5	54.2	3.3	48.5
J-7482	27	11.1	5.3	47.5	54.1	11.1	48.5
J-7483	19.9	5.4	2.6	52.6	57.1	5.4	53.8
J-7484	18.8	2.9	1.4	53	57.6	2.9	54.3
J-7485	29.3	2.7	1.3	46.2	53.1	2.7	47.2
J-7486	27.5	10.6	5.1	48.6	54.1	10.6	49.7
J-7487	32.7	3.7	1.8	47.6	52	3.7	48.9
J-7488	34	7.4	3.6	47.3	51.7	7.4	48.7
J-7489	32.1	4.9	2.4	48.2	52.5	4.9	49.4
J-7490	32.2	5.5	2.6	48.1	52.4	5.5	49.3
J-7491	27.3	6.5	3.1	50.2	54.5	6.5	51.4
J-7492	32.1	1.3	0.6	48.1	52.4	1.3	49.3
J-7493	35.5	8.2	3.9	46.9	50.9	8.2	48.1
J-7495	36.1	5.3	2.6	46.6	50.7	5.3	47.8
J-7496	36.6	12.2	5.9	46.4	50.5	12.2	47.6
J-7497	33.2	0.6	0.3	47.8	51.6	0.6	49.2
J-7498	46.6	3.1	1.5	44.6	46.6	3.1	43.9
J-7499	47.6	0.6	0.3	44.5	47.1	0.6	43.7
J-7500	47.5	8.5	4.1	44.5	46.7	8.5	43.6
J-7501	30.9	1.3	0.6	48.6	52.9	1.3	49.8
J-7502	33	2.9	1.4	51.8	55.1	2.9	51.4
J-7503	41.4	2	0.9	46.8	50	2	48.5
J-7504	42.8	7.1	3.4	46.2	49.4	7.1	47.9
J-7505	33.4	3	1.4	47.6	51.9	3	48.9
J-7506	33.6	6.2	3	47.5	51.8	6.2	48.8
J-7507	31	3.1	1.5	48.6	52.8	3.1	49.8
J-7508	32.4	5.9	2.8	48	52.2	5.9	49.2
J-7509	26.2	7.5	3.6	49	54.6	7.5	50
J-7510	27.3	7	3.4	51	54.3	7	52.3
J-7511	36.8	6.6	3.2	46.2	50.4	6.6	47.5
J-7512	32.3	3.5	1.7	48	52.1	3.5	49.4
J-7513	32.4	11.2	5.4	48	52.1	11.2	49.4

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7514	33	3.5	1.7	51.8	55.1	3.5	51.4
J-7515	36.9	3.2	1.5	46.1	51	3.2	47.5
J-7517	32.9	2.9	1.4	47.9	52.2	2.9	49.1
J-7518	35.8	4.5	2.1	46.6	51	4.5	47.9
J-7519	35.7	10.3	5	46.6	51.2	10.3	48
J-7520	30.7	3.5	1.7	48.7	52.9	3.5	49.9
J-7521	34.2	3.2	1.6	47.6	51.8	3.2	48.8
J-7522	31.4	4.7	2.3	45.4	52.2	4.7	46.4
J-7523	30.9	3.3	1.6	45.6	52.4	3.3	46.6
J-7524	34.6	10.4	5	46.8	51.4	10.4	48.1
J-7525	39.9	6.1	3	47	50.5	6.1	48.7
J-7526	39.4	2.7	1.3	47.3	50.7	2.7	49
J-7527	31.5	3	1.4	47.3	52.4	3	48.6
J-7528	31.2	3.4	1.6	47.5	52.5	3.4	48.8
J-7529	45.2	21.4	10.3	44.5	47.3	21.4	44.5
J-7530	38.5	4.7	2.3	46.1	49.7	4.7	46.9
J-7531	42.5	7.1	3.4	45.4	48.3	7.1	45.5
J-7532	43.6	1.3	0.6	46.1	49.2	1.3	47.8
J-7533	27.3	2.2	1.1	47.8	54	2.2	48.8
J-7534	35.5	1.8	0.9	46.8	50.9	1.8	48.1
J-7536	27.7	2.7	1.3	50.5	54.2	2.7	51.8
J-7537	40.6	1	0.5	45.8	48.7	1	46.1
J-7538	40.5	0	0	45.8	48.7	0	46.1
J-7539	45.8	10.9	5.3	45.9	49	10.9	47.8
J-7540	47	3.4	1.6	45	48.3	3.4	46.9
J-7541	39.1	1	0.5	47.9	51	1	49.7
J-7543	38.8	3.5	1.7	46.4	49.4	3.5	46.9
J-7544	32.9	2.9	1.4	51.9	55.1	2.9	51.5
J-7545	32.8	3.4	1.7	51.9	55.2	3.4	51.5
J-7546	32.3	3.2	1.5	47.9	52	3.2	50.1
J-7547	32.3	8.9	4.3	47.9	52	8.9	50
J-7548	19.4	7.1	3.4	53.1	57	7.1	54.3
J-7549	19.4	4.4	2.1	52.8	57.1	4.4	54
J-7551	32.4	3.2	1.5	47.7	52.1	3.2	49
J-7552	32.4	7.1	3.4	47.7	52.1	7.1	49
J-7553	32.2	2.4	1.1	46.9	52	2.4	48.2
J-7554	32.8	7.7	3.7	47.9	52.1	7.7	49.2
J-7555	32.6	6.4	3.1	47.9	52.1	6.4	49.3
J-7556	30.5	7	3.3	48.9	53	7	50.2
J-7557	28.7	1.3	0.6	49.2	54.1	1.3	50.5
J-7558	32	5.7	2.7	47.5	52.2	5.7	48.8
J-7559	33.8	5.1	2.5	47.5	51.3	5.1	48.9
J-7560	45.7	0	0	47.8	49.4	0	49.9
J-7561	32.5	3.7	1.8	48.1	52.2	3.7	49.4
J-7562	33.8	11.2	5.4	47.5	51.3	11.2	48.8
J-7563	32.9	9.2	4.4	52.3	55.9	9.2	52
J-7564	40.8	3.1	1.5	45.7	48.6	3.1	46.1
J-7565	41.2	9.8	4.7	45.6	48.4	9.8	45.9
J-7566	43.1	3.9	1.9	45.1	48.1	3.9	45.3
J-7567	47.4	4.6	2.2	44.3	47.5	4.6	46
J-7568	45.7	6.5	3.1	46.6	49.2	6.5	48.6
J-7569	37.4	3.4	1.6	46.5	50.4	3.4	47.4
J-7570	37.7	6.5	3.1	46.4	50.3	6.5	47.4
J-7571	32.4	2.5	1.2	48.1	52.2	2.5	49.4
J-7572	27.7	2.5	1.2	49.6	54.4	2.5	50.9
J-7573	38	2.6	1.3	48.3	51.4	2.6	50.1
J-7574	37.9	5	2.4	48.4	51.5	5	50.1
J-7575	37.3	6.2	3	46.1	50.3	6.2	47.2
J-7576	38.1	6.3	3	45.7	50	6.3	46.9
J-7577	39.3	3.7	1.8	45.2	49.5	3.7	46.3
J-7578	38.8	3.3	1.6	45.4	49.7	3.3	46.6
J-7579	37	6.2	3	46.7	50.3	6.2	47.6
J-7580	40.9	0.1	0.1	45.6	48.5	0.1	46
J-7581	40.2	1.7	0.8	45.9	48.8	1.7	46.3
J-7582	45.7	3	1.4	46.4	48.8	3	48.3
J-7583	37.4	4.1	2	48.8	51.8	4.1	50.5
J-7584	42.4	2.3	1.1	45.2	48.3	2.3	45.5
J-7585	42.3	8.2	3.9	45.2	48.3	8.2	45.5
J-7586	31.1	4.1	2	48.6	52.7	4.1	49.9
J-7587	27.3	3.2	1.5	48.7	54.1	3.2	49.8
J-7588	27.4	1.7	0.8	48.6	54.1	1.7	49.8
J-7589	27.7	3.8	1.8	49.5	54.3	3.8	50.8
J-7590	27.8	3.8	1.8	49.5	54.3	3.8	50.7
J-7591	38.3	2.6	1.2	48	51.3	2.6	49.7
J-7592	36	10.4	5	46.5	50.8	10.4	47.8
J-7593	36.3	4.4	2.1	46.4	50.7	4.4	47.7
J-7594	27.4	1.1	0.5	47.4	54	1.1	48.4
J-7595	37.4	9.3	4.5	45.9	50.3	9.3	47.2
J-7597	32.7	3.8	1.8	51.3	54.2	3.8	50.8
J-7598	32.7	0	0	51.3	54.2	0	50.8
J-7599	21.6	1.8	0.9	51.6	56.1	1.8	52.9
J-7600	28	3.6	1.7	49.6	54.4	3.6	50.9
J-7601	41.8	0.6	0.3	45.3	48.5	0.6	45.7
J-7602	42.1	6	2.9	45.2	48.4	6	45.6
J-7603	27.6	6.3	3.1	49.8	54.5	6.3	51
J-7604	27.8	7	3.4	49.9	54.5	7	51.1
J-7605	19.8	5.4	2.6	52.6	56.9	5.4	53.9
J-7606	45.1	1.9	0.9	46.7	49.4	1.9	48.7
J-7607	37.7	4.8	2.3	46.6	50	4.8	47.3
J-7608	32.4	7.4	3.6	48.2	52.2	7.4	49.4
J-7609	44.5	2.7	1.3	45.8	47.9	2.7	44.9
J-7610	45	3.2	1.5	46.3	48.9	3.2	48.1
J-7611	44.9	3.9	1.9	46.3	48.9	3.9	48.1
J-7612	18.2	2	1	53.5	57.6	2	54.7
J-7613	32.4	9.8	4.7	48.1	52.2	9.8	49.4
J-7614	30.9	5.9	2.8	48.1	52.7	5.9	49.4
J-7615	31	4	1.9	48	52.6	4	49.3
J-7616	29.9	3	1.5	46.5	52.9	3	47.5
J-7617	26.5	5.4	2.6	50.4	54.6	5.4	51.7
J-7618	26.1	3.5	1.7	47.4	54.4	3.5	48.4
J-7619	30.8	2.6	1.2	45.7	52.5	2.6	46.7
J-7620	30.6	4.8	2.3	45.8	52.6	4.8	46.8
J-7621	32.1	2.8	1.3	48.2	52.3	2.8	49.5
J-7622	42.7	2.8	1.4	45.4	48.3	2.8	45.5
J-7623	39.5	8	3.8	46.1	49.3	8	46.6
J-7624	39.8	11	5.3	46	49.3	11	46.5
J-7625	37.6	6.7	3.2	48.2	51.6	6.7	50
J-7626	40.2	4.1	2	47.1	50.5	4.1	48.8
J-7627	41.9	4.2	2	45.4	48.5	4.2	45.7
J-7628	36.3	3.7	1.8	46.4	50.7	3.7	47.6
J-7629	37.1	4.6	2.2	46.1	50.4	4.6	47.3
J-7630	28.7	2.7	1.3	49.3	54	2.7	50.5

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7631	28.6	7.5	3.6	49.3	54.1	7.5	50.6
J-7632	46.4	5.7	2.8	46	48.9	5.7	48
J-7633	46.7	6.5	3.1	45.6	48.7	6.5	47.5
J-7634	45.6	6.2	3	46.8	49.2	6.2	48.8
J-7635	37.4	2.5	1.2	46	50.3	2.5	47.2
J-7636	32.3	5.9	2.8	47.9	52	5.9	49.6
J-7637	47.7	2.7	1.3	45.1	48.4	2.7	47.1
J-7638	23.1	4.5	2.2	51.2	55.7	4.5	52.4
J-7639	46.6	8.4	4	45.5	48.7	8.4	47.4
J-7640	46.4	3.4	1.6	45.6	48.8	3.4	47.5
J-7641	31	2.3	1.1	47.7	52.6	2.3	49
J-7642	27.4	2.5	1.2	49.6	54.4	2.5	50.9
J-7643	28.1	10.8	5.2	49.7	53.9	10.8	51
J-7644	27	2.4	1.1	50.1	54.4	2.4	51.4
J-7645	26	2.1	1	50.2	54.9	2.1	51.5
J-7646	32.5	7.2	3.5	47.9	52.2	7.2	49.2
J-7647	42	5.3	2.6	45.7	48.6	5.3	45.9
J-7648	41.6	3.4	1.6	45.9	48.8	3.4	46.1
J-7649	27.4	3.2	1.5	48.5	54.1	3.2	49.6
J-7650	27.5	2.9	1.4	48.5	54.1	2.9	49.5
J-7651	28.1	4.1	2	49.4	54.2	4.1	50.7
J-7652	27.6	4	1.9	49.6	54.4	4	50.9
J-7653	27.9	4.1	2	49.5	54.3	4.1	50.8
J-7654	34.5	3.9	1.9	47.2	51	3.9	48.6
J-7655	36.2	3.3	1.6	46.5	50.3	3.3	47.8
J-7656	35.6	3	1.4	46.8	50.6	3	48.1
J-7657	31.6	2.2	1.1	47.7	52.3	2.2	49
J-7658	27.6	9.1	4.4	51.4	54.2	9.1	52.6
J-7659	27.4	2.5	1.2	51.7	54.4	2.5	53
J-7660	45.8	4.9	2.3	44.7	46.9	4.9	44.2
J-7661	46.5	7	3.4	44.4	46.6	7	43.9
J-7662	27.7	2.8	1.3	49.6	54.4	2.8	50.9
J-7663	28.5	2.1	1	48.6	53.6	2.1	49.7
J-7664	28.3	1.6	0.8	48.6	53.8	1.6	49.7
J-7665	27.5	2.9	1.4	48.2	54	2.9	49.3
J-7666	27.7	5.1	2.5	48.1	53.9	5.1	49.1
J-7667	32.3	7.1	3.4	48	52.1	7.1	49.4
J-7668	32.3	7.3	3.5	48	52.1	7.3	49.4
J-7669	34.1	4.8	2.3	47.3	51.5	4.8	48.7
J-7670	37.1	7.7	3.7	46	52.2	7.7	47.6
J-7671	30.6	8.1	3.9	48.1	52.8	8.1	49.5
J-7672	30.4	6.2	3	48.1	52.9	6.2	49.4
J-7673	28.5	4	1.9	48.4	53.6	4	49.6
J-7674	41.3	18.4	8.9	46.7	48.8	18.4	46.2
J-7675	41.3	10	4.8	46.7	48.8	10	46.1
J-7676	32.5	6.1	2.9	48.1	52.2	6.1	49.4
J-7678	35.2	8	3.9	47	51.1	8	48.2
J-7679	47.2	2.6	1.3	44.3	46.4	2.6	43.7
J-7680	47.5	3.2	1.6	44.1	46.3	3.2	43.5
J-7681	39.2	3.1	1.5	45.4	49.6	3.1	46.5
J-7682	38.5	7.8	3.8	45.7	49.8	7.8	46.8
J-7683	40.9	14.2	6.8	45.6	48.5	14.2	46
J-7684	40.7	0	0	45.7	48.6	0	46.1
J-7685	32.2	11.4	5.5	48.3	52.8	11.4	49.6
J-7686	31.9	2.7	1.3	48.2	52.5	2.7	49.4
J-7687	32.4	3.7	1.8	48.1	52.2	3.7	49.4
J-7688	32.4	3.5	1.7	48.1	52.2	3.5	49.4
J-7689	36.1	0	0	47.1	51	0	48.1
J-7690	37.1	2.5	1.2	46.3	50.4	2.5	47.4
J-7691	28.8	5.4	2.6	49.5	53.8	5.4	50.8
J-7692	27.8	5.6	2.7	50	54.2	5.6	51.2
J-7693	37.4	0.7	0.3	46	50.3	0.7	47.2
J-7694	37.4	4.8	2.3	46	50.3	4.8	47.2
J-7695	32.4	7.4	3.5	48.1	52.2	7.4	49.4
J-7696	32.3	11.1	5.3	48.1	52.4	11.1	49.3
J-7697	32.6	3	1.4	48	52.3	3	49.2
J-7698	32.2	5.2	2.5	48.1	52.4	5.2	49.4
J-7699	47.4	3.1	1.5	44.4	47.5	3.1	46.1
J-7700	44.9	5.6	2.7	45.5	48.6	5.6	47.3
J-7701	31.2	2.4	1.1	48.5	52.7	2.4	49.7
J-7702	27.4	2.4	1.2	51.4	54.3	2.4	52.6
J-7703	26.5	15.6	7.5	51.7	54.7	15.6	53
J-7704	37.7	7.2	3.4	46.4	50.3	7.2	47.3
J-7705	37.5	16.8	8.1	45.9	50.2	16.8	47.2
J-7706	43.4	14.4	6.9	46.2	49.3	14.4	47.9
J-7707	32.5	4.3	2.1	51.3	54.1	4.3	50.8
J-7708	30.3	9	4.3	48.3	52.9	9	49.6
J-7709	33.7	4.9	2.3	47.5	51.6	4.9	48.8
J-7710	33.9	4.7	2.3	47.4	51.6	4.7	48.7
J-7711	32.1	1.6	0.8	48.2	52.5	1.6	49.4
J-7712	27.4	7.4	3.6	49.8	54.6	7.4	51.1
J-7713	28	4.7	2.3	49.6	54.3	4.7	50.8
J-7714	32.4	3.5	1.7	46.8	52	3.5	47.8
J-7715	32.4	5.6	2.7	46.8	52	5.6	47.8
J-7716	27.3	4.1	2	49.7	54.5	4.1	51
J-7717	43.5	2.2	1.1	46.2	49.2	2.2	47.9
J-7718	31.5	3	1.5	48.4	52.6	3	49.6
J-7719	24.3	3.2	1.6	48.2	55.2	3.2	49.2
J-7720	23.1	4.8	2.3	51.2	55.7	4.8	52.4
J-7721	22.8	3	1.4	51.3	55.9	3	52.5
J-7722	32.5	1.6	0.8	51.4	54.2	1.6	50.8
J-7723	29.8	1.4	0.7	48.6	53.2	1.4	49.9
J-7724	29.7	1.1	0.5	48.7	53.2	1.1	50
J-7725	51.2	60.6	29.2	43.4	47.2	60.6	45.4
J-7726	19.6	8.7	4.2	53.2	56.9	8.7	54.4
J-7727	19.5	5.6	2.7	53.2	57	5.6	54.4
J-7728	19.2	4.3	2.1	53.3	57.1	4.3	54.5
J-7729	42.2	8.5	4.1	46.3	49.7	8.5	48.1
J-7730	42.4	0.7	0.3	46.3	49.6	0.7	48
J-7731	26.1	3.5	1.7	50.2	54.9	3.5	51.5
J-7732	41	0	0	45.5	48.4	0	45.9
J-7733	38.3	4.9	2.4	46.6	49.6	4.9	47.1
J-7734	43.9	1.7	0.8	46	49.1	1.7	47.7
J-7736	29.3	5.1	2.4	49.4	53.5	5.1	50.7
J-7737	46.3	4.2	2	46.3	48.6	4.2	48.3
J-7738	39.5	2.6	1.3	45.2	49.4	2.6	46.3
J-7739	45.4	5.4	2.6	44.8	47.1	5.4	44.4
J-7740	45.8	9.2	4.4	44.6	46.9	9.2	44.2
J-7741	44.7	1.6	0.8	46.3	49	1.6	48.1
J-7742	45.5	0.4	0.2	44.7	47.1	0.4	44.3
J-7743	44.6	19	9.1	45	47.4	19	44.7
J-7744	30.9	4.2	2	48.7	53	4.2	49.9

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7745	29.1	10.3	5	46.3	53.2	10.3	47.3
J-7746	21.5	4.6	2.2	51.6	56.1	4.6	52.9
J-7747	21.2	4.7	2.3	51.8	56.2	4.7	53
J-7748	28	3	1.4	50.1	54	3	51.4
J-7749	28.4	2.1	1	50	53.9	2.1	51.3
J-7750	47.4	7.5	3.6	43.8	46.3	7.5	43.5
J-7751	34.3	3	1.5	47.2	51.4	3	48.6
J-7752	33.6	7	3.4	47.6	51.7	7	48.9
J-7753	33.7	7.9	3.8	47.5	51.7	7.9	48.9
J-7754	37.6	6.3	3	48.2	51.6	6.3	49.9
J-7755	29.1	7.6	3.7	48.2	53.4	7.6	49.3
J-7756	18.8	2.4	1.2	53.1	57.3	2.4	54.4
J-7757	41.5	3.8	1.8	46.8	50.1	3.8	48.6
J-7758	41.7	4.1	2	46.7	50	4.1	48.5
J-7759	27.8	2.3	1.1	49.5	54.2	2.3	50.7
J-7760	29.6	4.9	2.4	47.8	53.2	4.9	48.8
J-7761	31.4	2.1	1	47.1	52.4	2.1	48.1
J-7762	28.1	1.6	0.7	49.9	54	1.6	51.2
J-7763	37.4	3.7	1.8	46	50.3	3.7	47.2
J-7764	33.7	4.8	2.3	51.6	55	4.8	51.3
J-7765	43	6.8	3.3	44.8	48	6.8	45.2
J-7766	43	6	2.9	44.8	48	6	45.2
J-7767	47.4	18	8.7	44.7	48.1	18	46.6
J-7768	44	7.8	3.8	46	49	7.8	47.7
J-7769	37.5	8.1	3.9	45.9	50.3	8.1	47.2
J-7770	26.9	15	7.2	48.8	54.3	15	49.9
J-7771	26.9	4.5	2.1	48.8	54.3	4.5	49.9
J-7772	39	1.5	0.7	46.3	49.3	1.5	46.8
J-7773	46.3	8.6	4.1	44.7	47.9	8.6	46.4
J-7774	30	6.9	3.3	48.6	53.4	6.9	49.9
J-7775	32.4	3.4	1.7	48.1	52.7	3.4	49.5
J-7776	28	4.3	2.1	49.7	54.4	4.3	51
J-7777	25.6	0.9	0.4	47.7	54.6	0.9	48.7
J-7778	26.1	39.2	18.9	47.4	54.4	39.2	48.4
J-7779	31.4	2.4	1.2	48.5	52.8	2.4	49.8
J-7780	37.6	7.3	3.5	46.6	50	7.3	47.3
J-7781	31.4	1.7	0.8	48.5	52.6	1.7	49.8
J-7782	31.2	4.6	2.2	45.5	52.3	4.6	46.5
J-7783	27.1	15.9	7.7	47	54	15.9	48
J-7784	26.9	293.1	141	47.1	54.1	293.1	48.1
J-7785	32.2	1.2	0.6	48.1	52.3	1.2	49.4
J-7786	26.5	3.4	1.6	47.3	54.3	3.4	48.3
J-7787	27.7	3.6	1.7	49.7	54.5	3.6	51
J-7788	37.3	4.8	2.3	46.3	50.4	4.8	47.3
J-7789	37.4	2.5	1.2	46.3	50.4	2.5	47.3
J-7790	37.2	14.9	7.2	46.3	50.4	14.9	47.3
J-7791	41.8	2	1	46.8	50	2	48.6
J-7792	28	5.2	2.5	48.6	53.9	5.2	49.8
J-7793	27.6	5.7	2.8	48.5	54	5.7	49.5
J-7794	18.9	4.6	2.2	53	57.5	4.6	54.2
J-7795	18.1	2.5	1.2	53.3	57.9	2.5	54.6
J-7796	28	1.8	0.9	48.6	53.9	1.8	49.6
J-7797	20.9	3.8	1.8	51.9	56.4	3.8	53.2
J-7798	33.5	1.7	0.8	47.6	51.7	1.7	48.9
J-7799	32.5	11.2	5.4	48	52.2	11.2	49.2
J-7800	22.8	7.6	3.6	51.3	55.9	7.6	52.6
J-7801	20.9	3.4	1.6	52.1	56.7	3.4	53.4
J-7802	29.6	3.1	1.5	46.1	52.9	3.1	47.1
J-7803	27.4	5.3	2.6	50.1	54.5	5.3	51.4
J-7804	27.3	4.2	2	50.2	54.5	4.2	51.4
J-7805	29.4	2.9	1.4	49.3	53.6	2.9	50.5
J-7806	27.5	1.2	0.6	49.6	54.4	1.2	50.8
J-7807	27.7	3.4	1.6	49.5	54.3	3.4	50.8
J-7808	48.2	9.9	4.8	43.9	46	9.9	43.2
J-7809	34.7	1.3	0.6	47.1	51.2	1.3	48.4
J-7810	32.4	1.5	0.7	47.7	52.1	1.5	49.1
J-7811	50.1	5.6	2.7	43	45.1	5.6	42.4
J-7812	51.5	12.1	5.8	42.4	44.6	12.1	41.8
J-7813	31.8	4.6	2.2	47.1	52.2	4.6	48.1
J-7814	47.5	1.9	0.9	44.1	46.3	1.9	43.5
J-7815	31.5	4.3	2.1	48.4	52.6	4.3	49.6
J-7816	27.8	3.4	1.6	50.3	54.1	3.4	51.5
J-7817	28.6	8.6	4.1	49.8	53.8	8.6	51.1
J-7818	28.6	9.6	4.6	49.8	53.8	9.6	51.1
J-7819	27.1	3.2	1.5	49.7	54.5	3.2	51
J-7820	48.1	1.8	0.9	43.8	46	1.8	43.2
J-7821	41.5	6.7	3.2	46.6	48.7	6.7	46.1
J-7822	41.6	2.5	1.2	46.6	48.6	2.5	46
J-7823	28	6.7	3.2	48.5	53.9	6.7	49.6
J-7824	32.8	1.3	0.6	47.6	51.9	1.3	49.1
J-7825	32.7	26.7	12.8	47.6	51.9	26.7	49.1
J-7826	29.3	9.2	4.4	48.1	53.3	9.2	49.3
J-7827	36.3	10.8	5.2	46.4	51	10.8	47.7
J-7828	37.2	6.6	3.2	46.1	50.4	6.6	47.2
J-7829	41.3	10.3	4.9	45.4	48.6	10.3	45.9
J-7830	26.8	6.8	3.3	47.2	54.1	6.8	48.2
J-7831	26.7	4.5	2.2	47.2	54.2	4.5	48.2
J-7832	41.8	8.5	4.1	46.6	49.9	8.5	48.4
J-7833	41.3	3.3	1.6	46.8	50.1	3.3	48.6
J-7834	32.3	9.3	4.5	47.8	52.5	9.3	49
J-7835	37.8	2	1	48.5	51.6	2	50.3
J-7836	37.5	2.9	1.4	48.7	51.7	2.9	50.5
J-7837	34.3	5.9	2.8	47.3	51.4	5.9	48.6
J-7838	30.2	4.1	2	49	53.1	4.1	50.3
J-7839	30.1	26	12.5	49.1	53.1	26	50.4
J-7840	38.4	2.9	1.4	48.2	51.3	2.9	50
J-7841	32.1	4.4	2.1	47.8	52.6	4.4	49.1
J-7842	37.1	3.4	1.6	46.4	50.5	3.4	47.4
J-7843	37.1	2.1	1	46.4	50.5	2.1	47.4
J-7844	48.3	0.5	0.2	43.6	45.9	0.5	43.1
J-7845	30	3.8	1.8	48.7	53.5	3.8	50
J-7846	29.5	5.1	2.4	49	53.8	5.1	50.2
J-7847	18.5	5.3	2.5	53.2	57.7	5.3	54.4
J-7848	22.4	4.3	2.1	51.5	56	4.3	52.7
J-7849	32.5	5.5	2.6	47.7	52	5.5	49
J-7850	28.8	3.1	1.5	49.2	54	3.1	50.5
J-7851	43.1	0	0	45.3	48.3	0	45.6
J-7852	28.2	5	2.4	50	54	5	51.3
J-7853	42.1	2.3	1.1	46.5	48.5	2.3	45.9
J-7854	42.2	7.3	3.5	46.4	48.5	7.3	45.8
J-7855	46.8	2.9	1.4	44.3	46.5	2.9	43.8
J-7856	42.8	4	1.9	48	50.5	4	50

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7857	43.2	1.7	0.8	47.8	50.3	1.7	49.8
J-7858	28	2.3	1.1	47.3	53.7	2.3	48.2
J-7859	27.6	5	2.4	47.3	53.9	5	48.3
J-7860	28.5	5.9	2.9	47	53.5	5.9	47.9
J-7861	29.1	7.2	3.5	46.8	53.3	7.2	47.8
J-7862	46.6	5	2.4	44.8	47.9	5	46.5
J-7863	28.3	6.8	3.3	47	53.6	6.8	48
J-7864	41.5	2.2	1.1	46.6	48.7	2.2	46.1
J-7865	26.6	6.5	3.1	47.5	54.3	6.5	48.5
J-7866	26.9	4.9	2.4	47.5	54.2	4.9	48.5
J-7867	21.2	5.5	2.7	51.8	56.2	5.5	53
J-7868	27	10.9	5.3	47.5	54.1	10.9	48.5
J-7869	31.5	2.3	1.1	47.3	52.4	2.3	48.3
J-7870	32.1	1.6	0.7	51.5	54.3	1.6	51
J-7871	45.8	1.2	0.6	45.7	48.8	1.2	47.6
J-7872	45.8	4.2	2	45.8	49	4.2	47.8
J-7873	30.4	8.2	4	48.6	53.3	8.2	49.9
J-7874	29.5	3.9	1.9	46.6	53.1	3.9	47.6
J-7875	28.5	4.4	2.1	47	53.5	4.4	48
J-7876	28.2	2.3	1.1	48.3	53.8	2.3	49.4
J-7877	28.1	6.3	3	48.4	53.8	6.3	49.5
J-7878	42.9	5.5	2.7	46.3	49.6	5.5	48.1
J-7879	42.3	7.3	3.5	45.3	48.4	7.3	45.5
J-7880	27.4	4.1	2	47.5	54	4.1	48.5
J-7881	27.7	6.6	3.2	47.4	53.8	6.6	48.3
J-7882	41.6	3.5	1.7	45.9	48.8	3.5	46
J-7883	47.9	5.2	2.5	43.8	46.1	5.2	43.3
J-7884	42.2	3.9	1.9	46.5	48.5	3.9	45.8
J-7885	42.5	23.9	11.5	45.6	48.5	23.9	45.8
J-7886	37.7	2.3	1.1	46.6	50	2.3	47.3
J-7887	37.1	5.8	2.8	46.4	50.5	5.8	47.5
J-7888	37.1	7.2	3.5	46.3	50.5	7.2	47.4
J-7889	37.2	12.5	6	46.2	50.4	12.5	47.3
J-7890	40.4	5.9	2.8	45.7	49.1	5.9	46.2
J-7891	39	9.2	4.4	46.3	49.7	9.2	46.9
J-7892	37.8	2	0.9	48.1	51.5	2	49.8
J-7893	37.9	3.1	1.5	48	51.4	3.1	49.8
J-7894	26.3	6.7	3.2	47.4	54.3	6.7	48.4
J-7895	42.4	6.3	3.1	45.1	48.3	6.3	45.5
J-7896	43.1	9.4	4.5	46.1	49.4	9.4	47.9
J-7897	43.3	12.5	6	46.1	49.4	12.5	47.9
J-7898	37.4	6.1	2.9	43.1	49.6	6.1	44.1
J-7899	23.9	0	0	48	55.4	0	49
J-7900	22.5	10.8	5.2	48.9	56	10.8	49.9
J-7901	42.1	4.5	2.1	45.6	48.5	4.5	45.7
J-7902	27	6.4	3.1	48.8	54.3	6.4	49.9
J-7903	45.6	5.7	2.7	44.6	47	5.7	44.3
J-7904	40.3	3.9	1.9	45.9	49.2	3.9	46.3
J-7905	26.5	2.6	1.2	50.6	54.7	2.6	51.9
J-7906	34.9	1.4	0.7	47	51.3	1.4	48.3
J-7907	35	5.4	2.6	46.9	51.3	5.4	48.3
J-7908	29.2	2.9	1.4	49.4	53.5	2.9	50.7
J-7909	28.9	4.5	2.1	49.6	53.7	4.5	50.8
J-7910	31.9	5.2	2.5	47.9	52.7	5.2	49.2
J-7911	37.2	3.3	1.6	46.2	50.2	3.3	47.3
J-7912	32.3	1.2	0.6	48	52.1	1.2	49.4
J-7913	26.6	3.7	1.8	47.4	54.2	3.7	48.4
J-7914	31	3.3	1.6	48.6	53	3.3	49.8
J-7915	30.5	5.4	2.6	48.8	53.1	5.4	50
J-7916	37.3	3	1.5	48.5	51.7	3	50.3
J-7917	27.7	6.4	3.1	48.5	54.1	6.4	49.6
J-7918	27.5	12.7	6.1	48.5	54.1	12.7	49.6
J-7919	42.8	6.7	3.2	46.2	48.2	6.7	45.5
J-7920	25.7	8	3.8	47.6	54.6	8	48.6
J-7921	26	6.9	3.3	47.5	54.5	6.9	48.5
J-7922	45.1	2.4	1.2	45	47.2	2.4	44.5
J-7923	45	1.9	0.9	45.2	47.3	1.9	44.6
J-7924	36.4	5.1	2.4	46.7	50.8	5.1	47.7
J-7925	36.1	11.6	5.6	46.8	50.9	11.6	47.9
J-7926	37.3	4.2	2	46.3	50.4	4.2	47.4
J-7927	43.1	0	0	45.3	48.1	0	45.4
J-7929	38.6	7.1	3.4	46.9	50.2	7.1	47.5
J-7930	38.3	3.4	1.7	47.9	51.3	3.4	49.6
J-7931	30.2	4.2	2	48.1	53	4.2	49.4
J-7932	27.3	3.5	1.7	48.5	54.1	3.5	49.6
J-7933	42.5	4.2	2	46.3	49.6	4.2	48.1
J-7934	32.3	17.5	8.4	47.6	52.1	17.5	49.1
J-7935	29.6	1.9	0.9	46.1	52.9	1.9	47.1
J-7936	27.7	11.5	5.5	48.5	54	11.5	49.6
J-7937	27.8	7.2	3.4	48.4	53.9	7.2	49.5
J-7938	39.1	7.5	3.6	47.6	51	7.5	49.3
J-7939	43.3	1.3	0.6	45.8	49.2	1.3	47.6
J-7940	30.1	3.2	1.6	48.6	53.4	3.2	49.9
J-7941	30.7	4.4	2.1	47.9	52.8	4.4	49.2
J-7942	27	6.1	2.9	49.9	54.7	6.1	51.2
J-7943	27	4.1	2	47.3	54.1	4.1	48.3
J-7944	37	9.3	4.5	46.1	53.4	9.3	47.9
J-7945	28	2.3	1.1	48.3	53.9	2.3	49.4
J-7946	48	22.9	11	44.5	48	22.9	46.5
J-7947	48.2	2.1	1	44.5	47.9	2.1	46.4
J-7948	27.7	8.5	4.1	48.5	54	8.5	49.6
J-7949	27.5	4.5	2.2	48.5	54.1	4.5	49.6
J-7950	20.8	4.6	2.2	52.2	56.7	4.6	53.4
J-7951	38.8	5	2.4	48	51.1	5	49.8
J-7952	28.1	4	1.9	48.3	53.9	4	49.4
J-7953	28.1	6.6	3.2	48.3	53.9	6.6	49.3
J-7954	27.7	5.3	2.6	48.5	54	5.3	49.6
J-7955	31.6	4.5	2.2	45.4	52.1	4.5	46.3
J-7956	32.4	2.7	1.3	47.7	52.1	2.7	49.1
J-7957	27.3	4.6	2.2	49.9	54.6	4.6	51.1
J-7958	32.3	5.6	2.7	47.9	52	5.6	50
J-7959	28.9	3	1.5	46.5	53.3	3	47.4
J-7960	34	3.3	1.6	47.3	51.7	3.3	48.7
J-7961	34	3.6	1.7	47.3	51.7	3.6	48.7
J-7962	26.6	2.1	1	49.9	54.6	2.1	51.1
J-7963	26.8	4.6	2.2	49.8	54.6	4.6	51.1
J-7964	44.5	3.7	1.8	46.5	49.1	3.7	48.3
J-7965	33.3	4.3	2.1	47.6	51.9	4.3	48.9
J-7966	42.5	3.2	1.5	46.4	48.3	3.2	45.7
J-7967	46.1	4.3	2.1	46	48.9	4.3	47.9
J-7968	40	1.4	0.7	45.9	48.9	1.4	46.4
J-7969	32.4	2.9	1.4	47.9	52.1	2.9	49.4

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-7970	30.4	3.6	1.7	45.9	52.6	3.6	46.8
J-7971	30.9	4.8	2.3	48.2	53.1	4.8	49.5
J-7972	34.9	3.6	1.7	47.7	51	3.6	48.5
J-7973	31.5	6	2.9	48.4	52.7	6	49.6
J-7974	37.3	7	3.4	48.5	51.7	7	50.3
J-7975	38	3.8	1.8	47.8	51.3	3.8	49.5
J-7976	37.4	3.1	1.5	45.9	50.2	3.1	47.2
J-7977	37.1	7.6	3.6	46	50.4	7.6	47.3
J-7978	33.8	3.6	1.8	47.4	51.7	3.6	48.7
J-7979	27.5	2.5	1.2	49.8	54.5	2.5	51.1
J-7980	27.6	7.5	3.6	49.7	54.5	7.5	51
J-7981	36.7	3	1.4	46.3	50.4	3	47.5
J-7982	35	17.1	8.2	47	50.8	17.1	48.2
J-7983	43.9	5.5	2.7	47.4	50	5.5	49.5
J-7984	32.5	3.8	1.8	48	52.2	3.8	49.2
J-7985	37.5	3.9	1.9	46.3	50.3	3.9	47.3
J-7986	42	5.3	2.6	46.7	50	5.3	48.5
J-7987	36.4	8	3.9	47	50.5	8	47.8
J-7988	26.8	10.3	5	48.8	54.3	10.3	50
J-7989	26.8	6.3	3	48.9	54.4	6.3	50
J-7990	37.2	5.8	2.8	46.3	50.4	5.8	47.3
J-7991	43.4	4.3	2.1	45.9	49.3	4.3	47.7
J-7992	25.6	6.3	3	47.7	54.6	6.3	48.7
J-7993	42.2	3.5	1.7	46.4	48.5	3.5	45.8
J-7994	43.6	2.9	1.4	45.9	47.9	2.9	45.3
J-7995	43.3	5.7	2.8	46	48	5.7	45.4
J-7996	35.2	3.7	1.8	47	51.2	3.7	48.1
J-7997	36.3	4.2	2	46.5	50.7	4.2	47.7
J-7998	47.5	9.6	4.6	44.1	46.3	9.6	43.5
J-7999	22.3	0	0	51.5	56	0	52.8
J-8000	48	4.1	2	43.8	46	4.1	43.3
J-8001	47.3	3.8	1.8	44.1	46.3	3.8	43.6
J-8003	37.3	2.1	1	46.6	50.2	2.1	47.4
J-8004	40.5	1.9	0.9	47	50.4	1.9	48.7
J-8005	21.9	3.2	1.5	51.5	55.9	3.2	52.7
J-8006	28.2	3.2	1.5	49.8	54.1	3.2	51
J-8007	32	9.8	4.7	48.2	52.5	9.8	49.4
J-8008	28.6	9.1	4.4	49.8	53.8	9.1	51.1
J-8009	36.4	8	3.8	46.8	50.4	8	47.8
J-8010	27.3	5.2	2.5	46.9	53.9	5.2	47.9
J-8011	46.4	4.8	2.3	45.9	48.4	4.8	47.7
J-8012	46.4	12.4	6	45.9	48.4	12.4	47.7
J-8013	42.4	1.9	0.9	46.4	48.4	1.9	45.7
J-8014	43	2.2	1	46.2	48.1	2.2	45.5
J-8015	28	8.4	4	49.3	54.1	8.4	50.6
J-8016	27.2	36.7	17.7	46.4	53.9	36.7	47.4
J-8018	27.3	8.2	3.9	49.7	54.5	8.2	51
J-8019	43.7	3.2	1.5	45.5	48.9	3.2	47.2
J-8020	27.4	6.2	3	48.5	54.1	6.2	49.6
J-8021	27.3	2.3	1.1	50.1	54.5	2.3	51.4
J-8022	43.7	4.7	2.2	47.6	50.1	4.7	49.6
J-8023	32.1	9.9	4.7	48.1	52.4	9.9	49.4
J-8024	46.4	9.7	4.7	45.6	48.7	9.7	47.5
J-8025	36.2	6.5	3.1	46.4	52.2	6.5	47.9
J-8026	41.5	5.4	2.6	46.6	48.7	5.4	46.1
J-8027	31.5	3.4	1.6	48.4	52.7	3.4	49.6
J-8028	24.1	0	0	50.9	55.6	0	52.1
J-8029	23.8	0	0	51	55.7	0	52.3
J-8030	36.7	0.4	0.2	46	49.9	0.4	47
J-8031	36.9	1.9	0.9	45.9	49.8	1.9	46.9
J-8032	38.5	3.2	1.6	48.3	51.3	3.2	50.1
J-8033	40.4	4.7	2.3	47.5	50.5	4.7	49.2
J-8034	42.3	3	1.4	46.5	49.6	3	48.3
J-8035	42	9	4.3	46.6	49.7	9	48.4
J-8036	32.3	3.1	1.5	46.9	52	3.1	48.1
J-8037	41.8	3.9	1.9	45.8	48.7	3.9	45.9
J-8038	37.8	2.5	1.2	48.6	51.6	2.5	50.4
J-8039	42.4	2.2	1.1	44.9	47.8	2.2	45.3
J-8040	42.3	29.9	14.4	44.9	47.8	29.9	45.3
J-8041	37.8	6.7	3.2	48.5	51.6	6.7	50.3
J-8042	37.5	4.2	2	48.7	51.7	4.2	50.5
J-8043	41.8	3.9	1.9	45.8	48.7	3.9	45.9
J-8044	32.4	4.2	2	51.1	53.5	4.2	50.5
J-8045	32.4	5.9	2.8	50.6	53.1	5.9	50.2
J-8046	34.1	2.1	1	47.3	51.7	2.1	48.6
J-8047	27.1	2.9	1.4	49.8	54.6	2.9	51
J-8048	19.5	1.8	0.9	52.7	57	1.8	54
J-8049	31.7	9.8	4.7	45.3	52.1	9.8	46.3
J-8050	33.5	12.5	6	47.9	52	12.5	49
J-8051	31.1	3.2	1.5	47.4	52.5	3.2	48.6
J-8052	37.4	2.7	1.3	48.5	51.7	2.7	50.3
J-8053	37.5	3.2	1.5	48.4	51.6	3.2	50.2
J-8054	45.8	1.4	0.7	46.6	48.9	1.4	48.6
J-8055	43.8	6.4	3.1	45.6	47.7	6.4	45.1
J-8056	29	3.9	1.9	46.4	53.2	3.9	47.4
J-8057	28.6	4.7	2.3	46.6	53.4	4.7	47.6
J-8058	45.9	0.8	0.4	46.1	48.6	0.8	48
J-8059	27.4	0.6	0.3	49.8	54.6	0.6	51.1
J-8060	27.6	11.3	5.4	48.5	54	11.3	49.6
J-8061	38.6	2.7	1.3	47.8	51.2	2.7	49.5
J-8062	38.9	5.4	2.6	47.7	51.1	5.4	49.4
J-8063	33.1	2.3	1.1	47.4	51.8	2.3	48.7
J-8064	33	6.7	3.2	47.5	51.8	6.7	48.8
J-8065	29	3.3	1.6	49.4	54	3.3	50.7
J-8066	29.9	3.3	1.6	49	53.6	3.3	50.3
J-8067	27.5	7.7	3.7	49.6	54.4	7.7	50.9
J-8068	40.5	0.9	0.4	45.7	48.7	0.9	46.2
J-8069	40.2	3.2	1.6	45.9	48.8	3.2	46.3
J-8070	42.9	2.8	1.3	45.9	49.3	2.8	47.6
J-8071	43.7	4.8	2.3	46	49.3	4.8	47.8
J-8072	42.6	4.2	2	46.5	49.7	4.2	48.3
J-8073	36.9	1.3	0.6	46.4	50.5	1.3	47.4
J-8076	32.2	4.6	2.2	47.7	52.1	4.6	49.5
J-8077	33	2.9	1.4	45	51.6	2.9	46
J-8078	47.5	6.1	2.9	43.8	46.2	6.1	43.4
J-8079	26.7	44.7	21.5	47.2	54.2	44.7	48.2
J-8080	30.3	2	0.9	46.3	52.7	2	47.3
J-8081	29.9	3.2	1.5	46.5	52.9	3.2	47.4
J-8082	21.9	1.4	0.7	51.5	55.9	1.4	52.7
J-8083	31.5	4	1.9	48.3	52.9	4	49.7
J-8084	37.3	1.3	0.6	46.3	50.4	1.3	47.3
J-8085	30.7	1.2	0.6	46	52.5	1.2	47

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8086	27.8	4.1	2	47.3	53.8	4.1	48.3
J-8087	45.5	4.2	2	46.3	48.8	4.2	48.2
J-8088	47.4	0.3	0.2	44.3	47.8	0.3	46.2
J-8089	37.3	3.3	1.6	46	50.5	3.3	47.4
J-8090	36.6	3.1	1.5	46.3	50.8	3.1	47.7
J-8091	27	26.3	12.7	47.3	54.1	26.3	48.3
J-8092	26.9	1.7	0.8	47.4	54.1	1.7	48.3
J-8093	26.4	3.7	1.8	47.4	54.3	3.7	48.4
J-8094	33	4.7	2.3	48.3	52.3	4.7	49.3
J-8095	28.8	21.5	10.4	48.3	53.5	21.5	49.5
J-8096	29.1	12.2	5.9	48.2	53.4	12.2	49.4
J-8097	34.4	0.6	0.3	47.5	51.7	0.6	48.6
J-8098	43.5	3.7	1.8	46.4	49.5	3.7	48.2
J-8099	32.3	2.9	1.4	48.1	52.3	2.9	49.3
J-8100	34	3.4	1.6	47.3	51.6	3.4	48.5
J-8101	28.3	2.1	1	48.6	53.8	2.1	49.8
J-8102	37.1	6	2.9	48.8	51.8	6	50.5
J-8103	46.1	5.5	2.7	44.8	48.2	5.5	46.6
J-8104	30.1	3.8	1.8	46.3	52.8	3.8	47.3
J-8105	31.8	6.8	3.3	45.6	52.1	6.8	46.6
J-8106	38.1	16.4	7.9	45.8	50	16.4	46.9
J-8107	41.3	13.3	6.4	46	49	13.3	46.4
J-8109	33.5	1.7	0.8	44.8	51.3	1.7	45.8
J-8110	38.2	0	0	46.6	50.2	0	47.4
J-8111	37.9	4.4	2.1	47.8	51.3	4.4	49.5
J-8112	44.5	2.4	1.2	46.5	49.1	2.4	48.3
J-8113	38.7	8.8	4.2	47.8	51.2	8.8	49.6
J-8114	41.8	9.4	4.5	45.8	48.8	9.4	46.1
J-8115	42.2	59.5	28.6	45.6	48.6	59.5	46
J-8116	27.1	2.1	1	47.4	54.1	2.1	48.4
J-8117	27.8	3.8	1.8	47.2	53.8	3.8	48.2
J-8118	28.1	1.4	0.7	47.1	53.7	1.4	48.1
J-8119	42.1	8	3.9	45.3	48.5	8	45.6
J-8120	42.5	5.9	2.8	45.2	48.3	5.9	45.5
J-8121	40.5	0.9	0.4	47.1	50.4	0.9	48.8
J-8122	40.4	12.4	6	47.2	50.5	12.4	48.9
J-8123	34.9	15.2	7.3	47.1	51.2	15.2	48.3
J-8124	34.6	5.7	2.7	47.2	51.3	5.7	48.5
J-8125	42.5	7.6	3.7	45.4	48.5	7.6	45.8
J-8126	42.3	8.2	4	45.6	48.6	8.2	45.9
J-8127	30.1	5.3	2.6	48.7	53.4	5.3	50
J-8128	29.8	1.4	0.7	48.8	53.6	1.4	50.1
J-8129	27.3	7.6	3.7	50.1	54.5	7.6	51.4
J-8130	35.1	3.8	1.8	44.2	50.7	3.8	45.1
J-8131	32.7	5.2	2.5	47.9	52.1	5.2	49.1
J-8132	42.2	2.6	1.3	46.5	48.5	2.6	45.8
J-8133	30.4	8.1	3.9	45.8	52.6	8.1	46.8
J-8134	30.4	43.4	20.9	45.8	52.6	43.4	46.7
J-8135	44.8	3.1	1.5	45	47.3	3.1	44.6
J-8136	47.4	3.8	1.8	44.8	48.2	3.8	46.7
J-8137	31.2	1.9	0.9	45.5	52.3	1.9	46.5
J-8138	33.8	9.7	4.6	47.4	51.7	9.7	48.7
J-8139	41.7	17.4	8.4	46.4	49.8	17.4	48.1
J-8140	41.2	14	6.8	46.6	50	14	48.2
J-8141	38.6	14.2	6.9	46.4	49.8	14.2	47
J-8142	41.5	1.3	0.6	45.8	48.5	1.3	45.9
J-8143	43.2	2.6	1.3	46.3	48.2	2.6	45.5
J-8144	42.6	17.8	8.6	45.4	48.5	17.8	45.8
J-8145	29.3	4.5	2.2	46.3	53.1	4.5	47.3
J-8146	32.4	0.8	0.4	48.5	52.6	0.8	49.5
J-8147	32.7	3.3	1.6	48.4	52.4	3.3	49.4
J-8148	22.5	28.6	13.8	48.9	56	28.6	49.9
J-8149	38	6.2	3	48	51.4	6.2	49.7
J-8150	44.7	0.6	0.3	45.1	47.4	0.6	44.7
J-8151	34	19.3	9.3	47.5	51.2	19.3	48.8
J-8152	33.4	3.5	1.7	48.1	52.1	3.5	49.1
J-8153	22.7	4	1.9	51.4	55.9	4	52.6
J-8154	30.7	3.3	1.6	45.7	52.5	3.3	46.7
J-8155	46.8	3	1.5	44.6	48	3	46.4
J-8156	46.2	5.7	2.7	44.8	48.2	5.7	46.6
J-8157	45.3	7.1	3.4	46.2	48.7	7.1	48
J-8158	35.1	7.8	3.7	47.4	51.4	7.8	48.4
J-8159	35.5	7	3.4	47.1	51.2	7	48.2
J-8160	30.5	11.7	5.6	48.6	53.3	11.7	49.9
J-8161	22.6	3.2	1.5	48.8	55.9	3.2	49.8
J-8162	46.9	6.7	3.2	46.4	48.4	6.7	48.4
J-8165	32.5	1.3	0.6	48.1	52.6	1.3	49.5
J-8166	29.8	1.4	0.7	48.2	53.1	1.4	49.4
J-8167	27.6	3	1.4	50.1	54.2	3	51.4
J-8168	20.9	1.3	0.6	52.1	56.4	1.3	53.4
J-8169	42.6	6.1	2.9	46	49.4	6.1	47.7
J-8170	42.2	0	0	46.2	49.6	0	47.9
J-8171	31.8	8.5	4.1	45.6	52.1	8.5	46.6
J-8172	32.4	1.9	0.9	45.3	51.8	1.9	46.3
J-8174	44.4	6.2	3	46.3	49.4	6.2	48.2
J-8175	35.2	2.5	1.2	44.1	50.6	2.5	45.1
J-8176	27.1	2.6	1.3	48.8	54.2	2.6	49.9
J-8177	45.9	5	2.4	46.8	48.9	5	48.8
J-8178	45.7	4	1.9	46.9	48.9	4	48.9
J-8179	21.8	3.6	1.7	51.7	56.3	3.6	53
J-8180	39.3	8.8	4.2	46.3	49.4	8.8	46.7
J-8181	39.7	8.9	4.3	46.1	49.3	8.9	46.6
J-8182	43.6	5.6	2.7	45.7	47.8	5.6	45.2
J-8183	39.8	8.7	4.2	47.1	50.5	8.7	48.7
J-8184	37.6	1.7	0.8	46.6	50.3	1.7	47.4
J-8185	27.8	16	7.7	49.8	54	16	51.1
J-8186	30.6	24.3	11.7	46.2	52.6	24.3	47.2
J-8187	35.7	1.9	0.9	46.6	51	1.9	48
J-8188	37.4	11.1	5.3	46	50.2	11.1	47.2
J-8189	37.4	7.9	3.8	46	50.2	7.9	47.2
J-8190	42.5	3.5	1.7	46.1	48.3	3.5	45.6
J-8192	27.1	4	1.9	51.5	54.4	4	52.7
J-8193	32.4	5	2.4	48	52.4	5	49.1
J-8194	32.4	0.9	0.4	48	52.4	0.9	49.1
J-8195	42.5	11.3	5.4	45.6	48.1	11.3	45.5
J-8196	42.7	12.9	6.2	45.5	48	12.9	45.5
J-8197	46.9	1.7	0.8	44.9	48.2	1.7	46.7
J-8198	46.4	4.7	2.2	45.1	48.4	4.7	46.9
J-8199	44.8	6.1	2.9	46.3	48.9	6.1	48.2
J-8200	44.4	1.9	0.9	46.5	49.1	1.9	48.3
J-8201	37.2	6.1	2.9	48.9	51.9	6.1	50.7
J-8202	27.3	2.6	1.3	50.2	54.4	2.6	51.4

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8203	44.3	4.8	2.3	44.8	47.6	4.8	44.9
J-8204	37.4	2.1	1	46.7	50.1	2.1	47.4
J-8205	32.7	7.7	3.7	45.2	51.7	7.7	46.2
J-8206	42.3	3.9	1.9	46.3	48.4	3.9	45.7
J-8207	33.8	8.6	4.1	44.7	51.2	8.6	45.7
J-8208	20	3.6	1.8	52.5	57.1	3.6	53.8
J-8209	26.6	0	0	50.1	54.8	0	51.4
J-8210	46.4	7.1	3.4	45.7	51.5	7.1	45.1
J-8211	28	3.1	1.5	50.3	54	3.1	51.6
J-8212	32.3	7.6	3.7	47.7	52.1	7.6	49
J-8213	37.8	3.7	1.8	48.1	51.5	3.7	49.8
J-8214	22.4	2.2	1.1	51.5	56.1	2.2	52.7
J-8215	29.9	3.3	1.6	49	53.6	3.3	50.3
J-8216	37.8	5.7	2.7	48.4	51.5	5.7	50.1
J-8217	42	2.5	1.2	46.5	48.5	2.5	45.9
J-8218	40.8	5.8	2.8	44.7	48.9	5.8	45.7
J-8219	42.8	10.9	5.3	46.1	49.4	10.9	47.8
J-8220	42.3	13.7	6.6	46.2	49.5	13.7	47.9
J-8221	41.9	2.8	1.4	46.3	48.5	2.8	45.9
J-8222	41.9	2.6	1.2	46.4	48.5	2.6	45.9
J-8223	27.8	26.9	13	49.6	54	26.9	50.8
J-8224	43.7	3.2	1.6	45.5	47.8	3.2	45.1
J-8225	44.1	15.1	7.3	45.3	47.6	15.1	44.9
J-8226	28.5	2.4	1.2	47	53.5	2.4	48
J-8227	28.1	11.7	5.6	47.2	53.7	11.7	48.2
J-8228	27.9	1.9	0.9	48.8	53.9	1.9	50
J-8229	43.2	3	1.4	45.7	48	3	45.3
J-8230	17.9	7.5	3.6	53.4	58	7.5	54.7
J-8232	41.5	1.9	0.9	45.3	48.2	1.9	45.7
J-8233	33.1	0.6	0.3	47.7	52.1	0.6	49.1
J-8234	47.5	3.4	1.6	43.8	46.2	3.4	43.4
J-8235	33.1	3.8	1.8	48.1	52.2	3.8	49.2
J-8237	23.9	0	0	48.4	55.4	0	49.4
J-8238	23.4	15.4	7.4	48.6	55.6	15.4	49.6
J-8239	39.9	2.7	1.3	47.5	50.6	2.7	49.3
J-8240	44	6.7	3.2	46.6	49.3	6.7	48.4
J-8241	32.9	4.6	2.2	47.8	52	4.6	49
J-8243	27.3	2	0.9	50.1	54.5	2	51.4
J-8244	41.4	4.1	2	46.5	49.9	4.1	48.3
J-8245	45.2	6.9	3.3	46.3	48.9	6.9	48.1
J-8246	38.1	4.6	2.2	47.8	51.3	4.6	49.5
J-8247	32.4	1.9	0.9	47.8	52.1	1.9	49.1
J-8248	40.3	4.1	2	47.3	50.6	4.1	49.1
J-8249	30.4	4.3	2.1	48.8	53.4	4.3	50.1
J-8250	32.6	5.9	2.8	47.7	52.4	5.9	49
J-8251	41.8	0.6	0.3	45.1	48.5	0.6	45.6
J-8252	40.6	3.7	1.8	45.6	49	3.7	46.2
J-8253	37.7	5.6	2.7	48.1	51.5	5.6	49.9
J-8254	27.3	0	0	46.3	53.9	0	47.3
J-8255	42.5	3.4	1.6	45	48.2	3.4	45.4
J-8256	27.9	5.8	2.8	48.4	53.9	5.8	49.5
J-8257	32.7	0	0	47.9	52.4	0	49.2
J-8258	31.3	13.9	6.7	48.2	52.6	13.9	49.5
J-8259	21.9	5.2	2.5	51.5	55.9	5.2	52.7
J-8260	32.4	3.5	1.7	45.3	51.8	3.5	46.3
J-8261	28.5	0.6	0.3	47	53.5	0.6	48
J-8263	44.1	50.9	24.5	44.8	47.8	50.9	45.1
J-8264	18.9	4.3	2.1	53	57.3	4.3	54.3
J-8265	29.2	0.3	0.1	49.4	53.6	0.3	50.7
J-8266	29.5	2.4	1.2	49.3	53.4	2.4	50.5
J-8267	30.2	1.9	0.9	48.7	53.4	1.9	50
J-8268	37.8	3.9	1.9	48.1	51.5	3.9	49.8
J-8269	38.6	10	4.8	45.4	49.7	10	46.6
J-8270	43.6	7	3.4	44.6	47.8	7	44.9
J-8271	43.6	10.3	4.9	44.6	47.8	10.3	45
J-8272	38.7	4.7	2.3	46.4	49.9	4.7	47
J-8273	27.6	6.3	3.1	49.8	54.5	6.3	51
J-8274	38.6	3.3	1.6	46.3	49.8	3.3	46.9
J-8276	23.4	6.3	3	48.3	55.6	6.3	49.3
J-8277	23.2	1.3	0.6	48.3	55.7	1.3	49.3
J-8278	42.2	2.1	1	46.5	49.8	2.1	48.2
J-8279	40.8	9.1	4.4	47	50.3	9.1	48.8
J-8280	27.7	4.1	2	47.4	53.9	4.1	48.3
J-8281	47	0	0	44.2	46.5	0	43.7
J-8282	32.3	0	0	48.1	52.3	0	49.3
J-8283	32.8	0	0	48.2	52.6	0	49.6
J-8284	26.5	4.6	2.2	47.5	54.3	4.6	48.5
J-8285	37.8	4.8	2.3	45.8	50.1	4.8	47
J-8286	37.9	6.5	3.1	45.8	50.1	6.5	47
J-8287	30.8	4.2	2	48.7	52.9	4.2	50
J-8288	37.9	2.4	1.2	47.3	50.6	2.4	47.9
J-8289	31.5	1.9	0.9	48.4	52.5	1.9	49.7
J-8290	27.8	3.5	1.7	48.6	54.2	3.5	49.7
J-8291	33.4	1.3	0.6	47.6	51.8	1.3	48.9
J-8292	32.5	9.4	4.5	48.1	51.9	9.4	49.6
J-8293	32.1	0.8	0.4	47.6	52.1	0.8	49.2
J-8294	38.2	3.4	1.6	47.9	51.3	3.4	49.6
J-8295	41	6.7	3.2	46.6	50	6.7	48.3
J-8296	41.6	6.4	3.1	46.7	50	6.4	48.5
J-8297	42.3	4.2	2	46.5	49.7	4.2	48.2
J-8298	47.1	16.1	7.7	44.3	46.4	16.1	43.7
J-8299	46.1	4.4	2.1	46	48.5	4.4	47.9
J-8300	27.4	9	4.3	48.6	54.1	9	49.6
J-8301	29.5	17.2	8.3	49.2	53.5	17.2	50.4
J-8302	46.9	7.8	3.7	45.7	48.2	7.8	47.6
J-8303	22.2	0	0	51.7	56.1	0	53
J-8304	22.2	0	0	51.7	56.1	0	52.9
J-8305	31.2	7.9	3.8	48.6	52.6	7.9	49.9
J-8306	38.5	1.3	0.6	46.5	49.8	1.3	47
J-8307	47.4	12.1	5.8	45.5	48	12.1	47.3
J-8308	47.3	7.4	3.6	45.5	48	7.4	47.4
J-8309	38.8	2.4	1.2	46.8	50.1	2.4	47.5
J-8310	38.2	7.2	3.4	47	50.4	7.2	47.8
J-8311	28.4	12.9	6.2	48.2	53.7	12.9	49.4
J-8312	27.8	7.9	3.8	48.5	53.9	7.9	49.6
J-8313	44.6	11.7	5.6	44.6	47.4	11.7	44.6
J-8314	42.3	16.2	7.8	45.6	48.5	16.2	45.8
J-8315	34.2	4.6	2.2	44.5	51	4.6	45.5
J-8316	46.5	3.4	1.6	45.8	48.4	3.4	47.7
J-8317	30.3	4.2	2	48.8	53.1	4.2	50.1
J-8318	46.4	2.5	1.2	45.6	48.3	2.5	47.4
J-8319	39.7	1.6	0.8	46	49.5	1.6	46.6

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8320	39.7	1.6	0.8	46.1	49.5	1.6	46.6
J-8322	31.9	5.8	2.8	48.2	52.3	5.8	49.5
J-8323	43.1	0	0	45.3	48.2	0	45.6
J-8324	42.6	0	0	45.6	48.5	0	45.8
J-8325	44.3	3.3	1.6	46.1	49	3.3	47.8
J-8326	44.2	2.9	1.4	46.1	49	2.9	47.8
J-8327	41.1	7.7	3.7	44.3	48.5	7.7	45.5
J-8328	39.1	5.7	2.7	45.9	49.4	5.7	46.6
J-8329	31.8	4.9	2.3	48.2	52.8	4.9	49.5
J-8330	37.7	3.6	1.7	47	50.4	3.6	47.7
J-8331	43.1	2.3	1.1	46.5	49.6	2.3	48.3
J-8332	30.6	1.9	0.9	47.9	52.8	1.9	49.1
J-8333	49.4	1.1	0.5	44	47.4	1.1	45.9
J-8335	37.5	4.4	2.1	46.4	50.4	4.4	47.4
J-8336	40.2	2.2	1	47.1	50.5	2.2	48.8
J-8337	31.3	4.2	2	48.6	53.1	4.2	50
J-8338	37.3	0.4	0.2	46.8	50.5	0.4	47.7
J-8339	26.7	3.4	1.7	48.8	54.4	3.4	50
J-8340	39.5	7.6	3.6	46	49.4	7.6	46.6
J-8341	39.1	1.9	0.9	46.1	49.6	1.9	46.7
J-8342	48.8	4.9	2.3	44.3	47.7	4.9	46.2
J-8344	43.5	3.7	1.8	45.7	47.9	3.7	45.2
J-8345	29.9	4.2	2	49.1	53.2	4.2	50.4
J-8346	47.4	1.1	0.5	44.3	47.8	1.1	46.2
J-8347	38.2	4.5	2.2	47.9	51.3	4.5	49.6
J-8348	46.1	5.1	2.5	46.8	48.8	5.1	48.8
J-8349	45.5	1.9	0.9	47.1	49.1	1.9	49.1
J-8350	43.2	3.2	1.5	45.8	49.2	3.2	47.5
J-8351	32.9	5.4	2.6	48.2	52.3	5.4	49.2
J-8352	37.5	18.5	8.9	47.7	51.3	18.5	49.3
J-8353	43.6	1.7	0.8	46.4	49.3	1.7	48.1
J-8354	43.9	2.5	1.2	46.3	49.3	2.5	48.1
J-8355	34.8	11.3	5.4	47.7	51.6	11.3	48.6
J-8356	42	5.3	2.6	46.4	48.5	5.3	45.9
J-8357	41.7	4.7	2.2	46.5	48.6	4.7	46
J-8358	32.2	11	5.3	48	52	11	50.3
J-8360	32.9	0	0	47.8	52.4	0	49.1
J-8361	37.2	6.7	3.2	46.3	50.4	6.7	47.4
J-8362	28.8	4.1	2	48.3	53.5	4.1	49.4
J-8363	35	3.1	1.5	46.9	51.3	3.1	48.3
J-8364	42.2	3.8	1.8	46.4	48.4	3.8	45.8
J-8365	42	9	4.3	45.6	48.6	9	45.8
J-8366	32.4	10	4.8	47.4	52	10	48.8
J-8367	31.5	0.3	0.1	48.4	52.6	0.3	49.7
J-8368	36.6	1.3	0.6	46.5	50.7	1.3	47.6
J-8369	42.8	2.1	1	44.9	48.1	2.1	45.3
J-8370	43.3	4	1.9	44.7	47.9	4	45.1
J-8372	37.9	0.3	0.1	48.1	51.4	0.3	49.8
J-8373	32.5	2.5	1.2	47.7	52.1	2.5	49
J-8374	37	3.4	1.6	46.4	50.5	3.4	47.4
J-8375	32.7	2.6	1.2	47.8	52	2.6	49.3
J-8376	37.1	3.9	1.9	46.8	50.2	3.9	47.5
J-8377	30.3	3.3	1.6	48.9	53.1	3.3	50.2
J-8378	30.8	2	0.9	48.7	52.8	2	50
J-8379	38.6	4.8	2.3	48.1	51.2	4.8	49.9
J-8380	32	1.9	0.9	48.2	52.5	1.9	49.4
J-8381	37.5	3.5	1.7	47.2	51.1	3.5	48.7
J-8382	43.6	5.2	2.5	46.5	49.6	5.2	48.3
J-8383	44.3	5.5	2.6	46.3	49.4	5.5	48.2
J-8384	32.3	8.1	3.9	48.2	52	8.1	50.3
J-8385	26	1.3	0.6	49	54.7	1.3	50.1
J-8386	22.3	0	0	51.5	55.9	0	52.7
J-8387	34.9	2.5	1.2	47.1	51.1	2.5	48.3
J-8388	22.2	0	0	51.7	56.1	0	52.9
J-8389	32.3	7	3.4	48.2	52.7	7	49.6
J-8390	45.9	1.9	0.9	46.1	48.6	1.9	48
J-8391	44.7	5.6	2.7	45.8	49.1	5.6	47.7
J-8392	44.6	2.5	1.2	43.1	47.2	2.5	44.1
J-8393	27.7	4.1	1.9	47.3	53.9	4.1	48.3
J-8394	38.2	0.1	0	46.9	50.8	0.1	48.4
J-8395	25.1	0.6	0.3	47.9	54.8	0.6	48.9
J-8397	38.7	2.6	1.3	46.5	49.9	2.6	47.1
J-8398	45.2	9.1	4.4	46	49	9.1	47.9
J-8399	28.1	2.5	1.2	49.8	54.2	2.5	51.1
J-8400	27.6	3.4	1.6	48.5	54	3.4	49.6
J-8401	18.5	4.5	2.2	53.2	57.7	4.5	54.4
J-8402	31.8	1.3	0.6	47.4	52.3	1.3	48.7
J-8403	44	6.7	3.2	46	49	6.7	47.7
J-8404	44.6	5.8	2.8	45.7	48.8	5.8	47.4
J-8405	30.8	4.4	2.1	47.6	52.7	4.4	48.7
J-8406	35	3.1	1.5	47	51.3	3.1	48.2
J-8407	38.8	5	2.4	46.5	49.6	5	47
J-8408	44	3.4	1.6	44.8	47.7	3.4	44.9
J-8409	23.2	22.8	11	48.3	55.7	22.8	49.3
J-8410	24.6	4.5	2.2	50.7	55.4	4.5	51.9
J-8413	33.4	1.8	0.9	47.6	51.9	1.8	48.8
J-8414	33.9	8.1	3.9	47.7	51.9	8.1	48.9
J-8415	32.5	0.4	0.2	48	52.3	0.4	49.2
J-8416	27.6	1.3	0.6	48.5	54.1	1.3	49.5
J-8417	41.4	4.6	2.2	46.8	50.1	4.6	48.5
J-8418	41.1	4.9	2.4	44.5	48.7	4.9	45.6
J-8419	30.7	2.5	1.2	47.4	52.7	2.5	48.5
J-8420	45.9	3.7	1.8	45.9	48.5	3.7	47.7
J-8421	41.3	6.7	3.2	46	49	6.7	46.4
J-8422	26.9	5.4	2.6	48.9	54.3	5.4	50
J-8423	44.2	3.4	1.7	46.1	49	3.4	47.8
J-8424	32.1	9.5	4.5	47.8	52.1	9.5	49.4
J-8425	35	6.2	3	46.9	51.4	6.2	48.2
J-8426	41.2	1.5	0.7	46.9	50.2	1.5	48.7
J-8428	41.7	6.1	2.9	45.7	48.4	6.1	45.8
J-8429	33.3	5.3	2.6	47.8	52.3	5.3	49.1
J-8430	37.4	2.5	1.2	46.2	50.3	2.5	47.2
J-8431	37.2	5.2	2.5	46.1	50.4	5.2	47.2
J-8432	28.8	2.1	1	46.9	53.4	2.1	47.8
J-8433	42.1	0.6	0.3	46.3	48.4	0.6	45.8
J-8435	42	0.6	0.3	45.4	48.2	0.6	45.7
J-8436	29.4	4.2	2	48.9	53.7	4.2	50.1
J-8437	29.9	9	4.3	49.1	53.3	9	50.4
J-8438	30.7	1.9	0.9	48.5	52.8	1.9	49.8
J-8439	30.1	1.3	0.6	48	53	1.3	49.2
J-8440	26.7	0.8	0.4	48.9	54.4	0.8	50
J-8441	28.3	9	4.3	49.7	54.3	9	50.9

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8442	38.5	45.5	21.9	47.5	51	45.5	49.1
J-8443	31	1.3	0.6	48.6	52.8	1.3	49.8
J-8444	42.9	3.6	1.7	46.5	49.7	3.6	48.3
J-8445	31.1	1.3	0.6	48.6	52.7	1.3	49.9
J-8446	42.9	4.1	2	46.6	49.8	4.1	48.4
J-8447	42.4	6.2	3	46.7	49.9	6.2	48.5
J-8449	30.4	4.6	2.2	48.9	53.1	4.6	50.2
J-8450	47.6	1.5	0.7	44.3	46.2	1.5	43.5
J-8451	36.8	2.7	1.3	48.9	52	2.7	50.6
J-8452	40.6	15.2	7.3	45.7	49.1	15.2	46.2
J-8453	43.1	5.4	2.6	44.8	48	5.4	45.1
J-8454	38.7	2.9	1.4	45.5	49.7	2.9	46.6
J-8455	37.4	1.6	0.7	46	50.3	1.6	47.2
J-8456	43	5	2.4	46.5	49.7	5	48.4
J-8457	44.9	2.9	1.4	45	47.3	2.9	44.6
J-8458	32.5	10.1	4.8	46.5	51.9	10.1	47.5
J-8459	32.1	4.5	2.2	47.3	52.2	4.5	48.6
J-8460	32.4	10.9	5.2	47.3	52	10.9	48.6
J-8461	42.1	1.3	0.6	45	47.9	1.3	45.4
J-8462	42.2	0	0	45	47.9	0	45.4
J-8463	31.4	13.6	6.5	47.3	52.4	13.6	48.3
J-8464	31.1	1.9	0.9	48.5	52.8	1.9	49.7
J-8465	31.2	2.5	1.2	48.5	52.7	2.5	49.7
J-8466	49	17	8.2	43	45.5	17	42.8
J-8467	32.6	1.6	0.7	46.3	51.9	1.6	47.3
J-8468	40.2	5.7	2.7	46.2	49.5	5.7	46.9
J-8469	39.9	1.7	0.8	46.3	49.7	1.7	47.1
J-8470	32.7	13.9	6.7	47.9	52.2	13.9	49.2
J-8471	27.5	19.2	9.2	50.1	54.4	19.2	51.3
J-8472	27.1	1.2	0.6	50.2	54.5	1.2	51.4
J-8473	38.8	2	1	46.5	49.6	2	47
J-8474	34.2	8.5	4.1	47.7	52	8.5	48.9
J-8475	33.2	5.2	2.5	48.1	52.4	5.2	49.3
J-8476	32.9	1.3	0.6	47.9	52	1.3	49.2
J-8478	28.9	0.6	0.3	46.7	53.3	0.6	47.6
J-8479	36.5	8.3	4	46.3	50.7	8.3	47.6
J-8480	32.3	10.6	5.1	48.1	52.2	10.6	49.4
J-8481	42.3	0	0	45.7	48.6	0	45.9
J-8482	27.4	33.8	16.2	47.2	53.9	33.8	48.2
J-8483	18.4	9.5	4.6	53.2	57.5	9.5	54.5
J-8485	44.2	7.6	3.6	46.6	49.2	7.6	48.4
J-8486	19.3	3.9	1.9	52.8	57.1	3.9	54.1
J-8487	31.7	2.5	1.2	48.3	52.5	2.5	49.5
J-8488	38.5	1.5	0.7	46.7	50.1	1.5	47
J-8489	37.4	4.7	2.2	46	50.3	4.7	47.2
J-8490	33	6.3	3	47.7	51.9	6.3	49.2
J-8491	45.5	0.6	0.3	46.7	49.1	0.6	48.7
J-8493	38.2	3.1	1.5	46.2	49.8	3.1	47
J-8494	41.6	6.5	3.1	45.9	48.4	6.5	45.9
J-8495	41.4	35.3	17	45.8	48.4	35.3	45.9
J-8496	25	0	0	50.6	55.3	0	51.8
J-8497	34.7	5	2.4	47.2	51	5	48.5
J-8498	42.2	0	0	46.1	49.5	0	47.8
J-8499	38.3	0.9	0.4	46.6	49.6	0.9	47.1
J-8500	38.2	8.6	4.1	46.3	49.9	8.6	47.1
J-8501	42.3	8.1	3.9	46.4	49.6	8.1	48.1
J-8502	37.7	4.5	2.2	46.9	50.3	4.5	47.4
J-8503	41.6	2.3	1.1	46.5	49.9	2.3	48.2
J-8504	40.8	2.2	1.1	45.7	49	2.2	46.1
J-8505	27.3	7.3	3.5	50.2	54.5	7.3	51.4
J-8506	38.3	3.8	1.8	46.4	49.5	3.8	47
J-8507	26.4	2.5	1.2	50.1	54.8	2.5	51.3
J-8509	38.5	1.3	0.6	46.1	49.7	1.3	46.9
J-8510	38	5.2	2.5	46.5	49.9	5.2	47.2
J-8512	30.2	7.6	3.7	48.9	53.2	7.6	50.2
J-8513	29.7	0.6	0.3	48.7	53.2	0.6	50
J-8514	34.6	3.8	1.8	47.2	51.3	3.8	48.5
J-8515	27.4	4.5	2.1	51.7	54.3	4.5	53
J-8516	49.9	3.6	1.7	43.8	47.2	3.6	45.7
J-8517	29.9	1.3	0.6	49.1	53.2	1.3	50.4
J-8518	17.8	4.5	2.2	53.5	58	4.5	54.7
J-8519	41.5	4.3	2.1	45.8	48.5	4.3	45.9
J-8520	24.3	0	0	50.8	55.2	0	52
J-8521	36.1	5.9	2.8	46.6	50.8	5.9	47.7
J-8522	32.6	12.3	5.9	47.8	52	12.3	49.2
J-8523	29.1	0.3	0.2	49.2	53.5	0.3	50.5
J-8524	17.8	6.1	2.9	53.5	58	6.1	54.7
J-8525	32.2	2.7	1.3	48.1	52.4	2.7	49.3
J-8526	34.6	8.5	4.1	47.3	51.5	8.5	48.4
J-8527	37.3	7.4	3.6	46.1	50.3	7.4	47.2
J-8528	30	2.4	1.2	46.3	52.9	2.4	47.3
J-8529	46.9	4.6	2.2	44.9	48.3	4.6	46.8
J-8530	32.6	1.9	0.9	51	53.4	1.9	50.4
J-8532	42.8	1.9	0.9	45.9	48.1	1.9	45.5
J-8533	41.6	0	0	45.3	48.2	0	45.7
J-8534	43.4	1.9	0.9	45.6	47.9	1.9	45.2
J-8535	38.8	1.6	0.8	46.5	50	1.6	47.3
J-8536	30.7	1.3	0.6	48.8	52.9	1.3	50
J-8537	31.4	31.6	15.2	48.4	52.6	31.6	49.7
J-8540	46.8	3.2	1.6	44.4	46.6	3.2	43.8
J-8541	47.5	20.5	9.9	44	46.2	20.5	43.5
J-8544	42.2	7.1	3.4	45.7	48.6	7.1	45.8
J-8545	26.9	4.8	2.3	48.2	54.2	4.8	49.3
J-8546	29.7	1.9	0.9	48.6	53.2	1.9	49.9
J-8547	22.3	3.4	1.6	51.5	56.1	3.4	52.8
J-8548	38.8	2.6	1.3	45.4	49.7	2.6	46.6
J-8549	27.2	1.3	0.6	50.2	54.4	1.3	51.4
J-8551	27.9	15.3	7.3	47.9	53.8	15.3	49
J-8553	27.7	0.6	0.3	48.1	53.9	0.6	49.2
J-8554	43.3	0	0	45.2	48.1	0	45.4
J-8556	22.1	1.5	0.7	51.6	56.2	1.5	52.8
J-8557	42.3	9.8	4.7	45	48.2	9.8	45.4
J-8558	44	21.2	10.2	44.9	47.7	21.2	45
J-8559	37.1	1.3	0.6	46.3	50.5	1.3	47.4
J-8560	30.1	2.9	1.4	48.9	53.6	2.9	50.3
J-8561	42.9	1.3	0.6	46.2	49.4	1.3	48
J-8562	42.3	4.8	2.3	45.1	48.3	4.8	45.5
J-8563	44.9	2.2	1.1	44.5	47.4	2.2	44.6
J-8564	26.3	3.3	1.6	47.6	54.4	3.3	48.5
J-8565	46.4	6.5	3.1	43.9	46.7	6.5	43.9
J-8566	42.4	5.7	2.7	46.4	48.4	5.7	45.7
J-8567	28.9	3.6	1.7	46.8	53.3	3.6	47.8

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8568	27.7	5.1	2.5	48.5	54	5.1	49.6
J-8569	46	3.8	1.8	44.8	46.9	3.8	44.2
J-8571	30.7	2.5	1.2	48.7	53	2.5	49.9
J-8572	47.3	9	4.3	44.1	46.3	9	43.6
J-8573	27.4	2.5	1.2	50.2	54.5	2.5	51.4
J-8574	29.8	3.9	1.9	46.1	52.9	3.9	47
J-8575	38.9	2.3	1.1	46.6	50	2.3	47.4
J-8576	38.2	2.2	1	46.9	50.3	2.2	47.7
J-8577	32.4	2.5	1.2	47.7	52.1	2.5	49
J-8578	36.8	10.8	5.2	46.1	50	10.8	47.3
J-8579	28.4	3	1.4	49.6	53.8	3	50.9
J-8580	22.4	3.4	1.6	51.5	56	3.4	52.7
J-8581	26.3	0	0	46.8	54.3	0	47.7
J-8582	37.7	1.5	0.7	46.8	49.8	1.5	47.3
J-8583	30	15.1	7.3	49.1	53.7	15.1	50.5
J-8584	44	13.7	6.6	45.3	47.7	13.7	44.9
J-8585	39.1	11.8	5.7	46.5	50	11.8	47.3
J-8587	33.3	9.8	4.7	47.7	52.3	9.8	49
J-8588	44.1	4.8	2.3	46.3	49.3	4.8	48.1
J-8589	44.5	1.7	0.8	46.2	49.2	1.7	48
J-8590	38.8	6.6	3.2	46	49.6	6.6	46.8
J-8591	17.7	3.7	1.8	53.5	58.1	3.7	54.7
J-8592	44.1	0	0	44.9	47.7	0	44.9
J-8593	47.5	37.9	18.2	44.5	46.5	37.9	43.6
J-8595	32.1	2.5	1.2	48.2	52.4	2.5	49.4
J-8596	26.3	3.9	1.9	47.5	54.4	3.9	48.5
J-8597	26.5	0	0	47.6	54.3	0	48.7
J-8598	26.8	4.5	2.2	48.9	54.4	4.5	50
J-8601	30.9	0.7	0.3	48.6	52.9	0.7	49.8
J-8602	42.4	0	0	45.6	48.4	0	45.7
J-8603	42.9	0	0	45.4	48.3	0	45.5
J-8604	32.2	16.9	8.1	47.9	52.1	16.9	49.8
J-8605	27.9	4.5	2.2	49.8	54	4.5	51.1
J-8606	27.2	0	0	46.4	53.9	0	47.4
J-8607	30.2	10	4.8	48.9	53.2	10	50.2
J-8609	47.4	1.3	0.6	47.2	48.3	1.3	49.1
J-8610	27.3	5.7	2.8	50.3	54.4	5.7	51.5
J-8611	29.2	5.3	2.5	49.4	53.6	5.3	50.7
J-8612	36.1	7.1	3.4	46.7	50.9	7.1	47.8
J-8614	46.6	1.8	0.9	44.2	46.6	1.8	43.9
J-8615	45.7	8.5	4.1	45	48.3	8.5	46.8
J-8618	27	4	1.9	48.8	54.3	4	49.9
J-8619	27.3	0	0	46.4	53.9	0	47.4
J-8620	38.1	8.5	4.1	46.2	49.9	8.5	47.1
J-8621	42.1	4.9	2.4	45.7	48.8	4.9	46.3
J-8623	30.1	2.6	1.2	48.7	53.5	2.6	50
J-8624	42.9	5.2	2.5	46.4	49.5	5.2	48.1
J-8626	39.6	1.5	0.7	46.4	49.8	1.5	47.2
J-8627	34	5.7	2.7	47.5	51.2	5.7	48.7
J-8628	34.3	2.5	1.2	47.4	51.1	2.5	48.6
J-8629	32.3	6.8	3.3	47.9	52	6.8	49.9
J-8630	32.2	0.6	0.3	48	52	0.6	50.1
J-8631	31.3	0	0	48.5	52.8	0	49.8
J-8633	30.1	4.1	2	46.4	52.8	4.1	47.4
J-8634	47.5	5.2	2.5	43.7	46.2	5.2	43.4
J-8636	27.3	23.6	11.3	48.4	54.1	23.6	49.5
J-8637	20.7	5.9	2.8	52.2	56.8	5.9	53.5
J-8638	42.3	3.9	1.9	45.4	48.1	3.9	45.5
J-8639	42.3	2.8	1.3	45.4	48.1	2.8	45.5
J-8640	38.1	1.8	0.9	47.1	50.4	1.8	47.8
J-8641	37.4	3.4	1.6	46.6	50.1	3.4	47.4
J-8642	37.2	9.1	4.4	45.8	49.6	9.1	46.7
J-8643	41.7	7.2	3.5	45.7	48.4	7.2	45.8
J-8644	37.4	6.4	3.1	45.8	50.2	6.4	46.9
J-8645	41.3	0.1	0	45.3	48.3	0.1	45.8
J-8646	42	0.6	0.3	45.6	48.3	0.6	45.7
J-8648	37.5	5.9	2.8	46.9	50.4	5.9	47.5
J-8649	30.3	4.3	2	48.7	53.4	4.3	50
J-8651	36.1	6.4	3.1	46.6	50.9	6.4	47.8
J-8652	38.8	7.7	3.7	47.4	50.9	7.7	49.1
J-8653	45.5	10.7	5.2	46.1	48.7	10.7	47.9
J-8654	31.5	4.5	2.2	48.4	52.9	4.5	49.7
J-8655	27.4	1.5	0.7	49.5	54.3	1.5	50.8
J-8656	34	5.1	2.4	48	51.4	5.1	48.9
J-8657	29	2.1	1	49.3	53.7	2.1	50.6
J-8658	32.4	10.6	5.1	47.7	52	10.6	49.4
J-8659	30.1	0.6	0.3	48.7	53.5	0.6	49.9
J-8660	22.2	0	0	51.6	56.1	0	52.9
J-8661	45.9	5.9	2.8	45.2	48.5	5.9	47.1
J-8662	44.8	2.7	1.3	45	48.4	2.7	46.8
J-8663	39.6	6.8	3.3	46.4	49.8	6.8	47.1
J-8664	39.9	3.3	1.6	46.3	49.7	3.3	47
J-8665	39.4	0.8	0.4	46.4	49.8	0.8	47.2
J-8666	37.5	0.6	0.3	46.2	50.3	0.6	47.2
J-8667	37.6	1.9	0.9	46	50.2	1.9	47.1
J-8668	31.9	2.9	1.4	48.3	52.4	2.9	49.5
J-8670	31.6	1.9	0.9	47.7	52.4	1.9	49
J-8671	47.5	1.3	0.6	45.4	47.9	1.3	47.3
J-8672	33.3	0.9	0.4	47.9	52.1	0.9	49
J-8673	34.3	0.7	0.3	47.5	51.7	0.7	48.6
J-8674	32.5	0.6	0.3	46.5	51.9	0.6	47.5
J-8675	37.6	13.7	6.6	47.3	50.6	13.7	48
J-8676	40.2	1.8	0.9	47	50.5	1.8	48.8
J-8679	40.1	12.8	6.2	46.2	49.6	12.8	46.9
J-8680	27.5	14.8	7.1	48.5	54.1	14.8	49.5
J-8681	28.6	9.9	4.8	48.4	53.6	9.9	49.6
J-8682	40.7	3.1	1.5	45.6	48.9	3.1	46.1
J-8685	32.5	45.8	22	48.1	51.9	45.8	49.7
J-8686	27.1	4.1	2	48.6	54.2	4.1	49.7
J-8689	25.5	8.6	4.2	50.3	55	8.6	51.6
J-8691	20.6	5.4	2.6	52.3	56.8	5.4	53.5
J-8692	28.3	1	0.5	49.6	53.8	1	50.9
J-8694	31.6	1.9	0.9	47.8	52.4	1.9	49.1
J-8695	30.1	62	29.8	45.8	52.7	62	46.8
J-8696	19.9	46.4	22.3	52.3	56.8	46.4	53.5
J-8697	47	0.6	0.3	46	48.7	0.6	48
J-8698	32.1	6	2.9	45.1	51.9	6	46.1
J-8699	26.8	47.8	23	50.4	54.5	47.8	51.6
J-8700	40.2	4	1.9	45.8	48.8	4	46.3
J-8701	28.2	127.1	61.1	46.5	53.5	127.1	47.5
J-8702	45	69.5	33.4	44.5	47.3	69.5	44.5
J-8703	22.5	6.6	3.2	48.8	56	6.6	49.8

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8704	23.3	2	1	48.4	55.6	2	49.4
J-8705	25	0	0	47.4	54.9	0	48.4
J-8706	28.2	2.1	1	49.4	54.2	2.1	50.7
J-8708	31.7	2.9	1.4	48.3	52.5	2.9	49.6
J-8709	25.1	0	0	47.2	54.8	0	48.2
J-8710	30	1	0.5	48.8	53.5	1	50
J-8711	36.3	5.6	2.7	46.4	50.7	5.6	47.6
J-8712	39	2.1	1	46.9	50	2.1	47.3
J-8713	25.8	1.2	0.6	50.7	54.9	1.2	52
J-8715	37.5	6.4	3.1	46	50.3	6.4	47.2
J-8716	38.1	6.4	3.1	48.3	51.4	6.4	50.1
J-8717	35.6	3.9	1.9	46.7	51	3.9	47.9
J-8718	41.2	3.9	1.9	45.8	48.6	3.9	46
J-8719	28	17	8.2	49.7	54	17	50.9
J-8720	36.5	7.6	3.6	46.3	50.1	7.6	47.4
J-8722	27.3	54.5	26.2	50.2	54.3	54.5	51.5
J-8723	30.2	1	0.5	46.3	52.8	1	47.3
J-8724	27.9	2	1	49.9	54.3	2	51.2
J-8725	28.1	2.5	1.2	49.9	54.2	2.5	51.1
J-8726	37.2	4.4	2.1	46	50.6	4.4	47.3
J-8727	38.4	16.3	7.8	47.3	50.4	16.3	47.8
J-8728	36.1	5.1	2.4	46.6	50.8	5.1	47.7
J-8729	26.3	119.4	57.4	50.5	54.7	119.4	51.7
J-8731	29.5	1.7	0.8	48.9	53.7	1.7	50.2
J-8732	33.1	3.7	1.8	47.7	51.9	3.7	49
J-8733	32.9	22.3	10.7	47.8	52.1	22.3	49.1
J-8734	22	100.9	48.5	51.6	56.1	100.9	52.9
J-8735	43.6	8.4	4	45.9	49.2	8.4	47.7
J-8736	38.9	5	2.4	47.6	51	5	49.3
J-8737	41.8	2.9	1.4	46.2	48.5	2.9	45.9
J-8738	27.9	5.8	2.8	46.9	53.7	5.8	47.9
J-8740	43.7	3.7	1.8	46	49.1	3.7	47.7
J-8741	43.1	5.8	2.8	46.4	49.5	5.8	48.2
J-8742	37.5	0.6	0.3	48	51.5	0.6	49.7
J-8743	36.3	5.9	2.8	46.3	50.2	5.9	47.3
J-8744	17.6	4.5	2.2	53.5	58.1	4.5	54.8
J-8746	47.2	19.7	9.5	45.2	47.4	19.7	46.4
J-8747	42.3	3.8	1.8	45.5	48.1	3.8	45.5
J-8748	42.8	0	0	49.6	50.9	0	51.9
J-8749	37.5	4	1.9	48.2	51.6	4	49.9
J-8750	37.1	5.9	2.8	46.3	50.4	5.9	47.3
J-8751	32.4	16	7.7	47.9	52.1	16	49.1
J-8753	37.4	2.1	1	45.9	50.3	2.1	47.2
J-8754	36.7	2.5	1.2	47.2	50.8	2.5	48
J-8755	41.9	8.1	3.9	46.8	49.8	8.1	48.6
J-8757	38.4	3.1	1.5	47.3	50.4	3.1	47.8
J-8758	27.9	7	3.4	49.8	54.2	7	51.1
J-8761	45.8	1.6	0.8	48.7	49.4	1.6	50.9
J-8762	30.4	6.8	3.3	48.6	53.3	6.8	49.8
J-8763	26	0	0	46.8	54.4	0	47.8
J-8765	27.7	9.1	4.4	47.1	53.8	9.1	48.1
J-8766	28.4	9.8	4.7	46.9	53.5	9.8	47.9
J-8767	47.5	0	0	44	46.3	0	43.5
J-8768	28.2	0.3	0.2	49.7	54.5	0.3	51
J-8769	47.4	2.9	1.4	46.5	48	2.9	48.2
J-8771	46.9	15.7	7.6	44.7	47.2	15.7	45.6
J-8772	30.9	3.2	1.5	48.6	52.9	3.2	49.8
J-8774	29	8	3.8	49.4	53.9	8	50.6
J-8775	42.4	2.9	1.4	44.7	47.6	2.9	45.3
J-8776	41.8	2.9	1.4	45	47.8	2.9	45.5
J-8777	29.8	4.8	2.3	46.3	52.9	4.8	47.3
J-8778	21.6	3.2	1.6	51.7	56.1	3.2	53
J-8779	30.4	6	2.9	48.8	53.1	6	50
J-8783	47.2	46.5	22.4	46	48.9	46.5	48
J-8785	34.5	3.3	1.6	47.4	51.3	3.3	48.6
J-8786	27.2	0	0	50.2	54.4	0	51.4
J-8787	34.7	64.4	31	47.5	51.9	64.4	49
J-8788	37.4	5.9	2.8	46.8	50.9	5.9	48.2
J-8791	32.3	23.1	11.1	47.9	52.5	23.1	49.2
J-8793	28.3	2.7	1.3	49.4	54.1	2.7	50.6
J-8795	30.5	17.1	8.2	48.9	53.4	17.1	50.2
J-8796	33.7	3.1	1.5	47.6	51.7	3.1	48.8
J-8799	38.8	6.2	3	46.2	49.8	6.2	46.9
J-8800	37.6	5.5	2.6	46.5	50.2	5.5	47.1
J-8801	24	5.1	2.4	51.6	55.7	5.1	52.9
J-8802	37.4	4.2	2	46	50.3	4.2	47.2
J-8803	37.3	44.1	21.2	48.3	51.7	44.1	50.1
J-8804	38.2	5.6	2.7	47.4	50.4	5.6	47.9
J-8805	38.6	2.9	1.4	46.2	49.8	2.9	46.9
J-8806	37.5	2.1	1	46.6	50.3	2.1	47.4
J-8807	34.5	1.9	0.9	47.1	51.3	1.9	48.4
J-8808	28.7	1.9	0.9	48.4	53.6	1.9	49.6
J-8810	41.5	4.1	2	45.4	48.3	4.1	45.8
J-8811	38.7	4.4	2.1	47.1	50.8	4.4	48.8
J-8812	43.6	12.9	6.2	46.4	49.2	12.9	48.1
J-8813	37.5	6.3	3.1	47.3	50.7	6.3	48
J-8814	39.4	0.2	0.1	46.8	49.8	0.2	47.2
J-8815	32.2	0	0	47.5	52.1	0	48.8
J-8816	47.6	7.6	3.6	44.1	46.2	7.6	43.5
J-8817	42.5	0	0	45.6	48.5	0	45.8
J-8819	32.3	8.2	3.9	48	52.1	8.2	49.4
J-8821	42.5	37.8	18.2	44.8	47.8	37.8	45.3
J-8822	39.8	0.9	0.4	45.6	49.2	0.9	46.4
J-8826	41.8	17.8	8.5	44.9	47.9	17.8	45.5
J-8829	40	6.4	3.1	45.9	49.5	6.4	46.7
J-8831	33.4	2.8	1.3	44.9	51.4	2.8	45.9
J-8832	23.5	3.7	1.8	51.7	55.9	3.7	53
J-8833	25.6	13.9	6.7	50.8	55	13.9	52
J-8834	26.6	14.2	6.8	50.4	55.1	14.2	51.7
J-8838	37.8	0.6	0.3	46.4	49.7	0.6	47.2
J-8848	48.1	0	0	45.4	53.5	0	45
J-8851	42.1	1	0.5	45.7	48.8	1	46.2
J-8852	33.4	18.2	8.8	44.9	51.4	18.2	45.9
J-8853	33.1	10.7	5.2	48	52.2	10.7	49.1
J-8854	27.5	12.9	6.2	49.9	54.2	12.9	51.2
J-8863	47.9	5.3	2.5	44.3	46.5	5.3	43.5
J-8864	47.5	1.8	0.9	44.7	47.7	1.8	43.9
J-8865	47.6	1.1	0.5	45.1	50.2	1.1	44.4
J-8871	46.7	26.7	12.8	44.1	46.6	26.7	43.8
J-8897	38.2	4.1	2	47.4	50.5	4.1	47.9
J-8898	47.1	0	0	49.2	49.3	0	51.6
J-8915	46.7	1.4	0.7	44.7	46.6	1.4	43.9

		2045 MDD				2045 PHD	
Label	Elevation (ft)	Demand (Max.) (gpm)	Demand (Min.) (gpm)	Pressure (Min.) (psi)	Pressure (Max.) (psi)	Demand (gpm)	Pressure (psi)
J-8916	46.7	0.6	0.3	44.7	46.6	0.6	43.9
J-8917	46.6	1	0.5	44.8	46.6	1	44
J-8918	45.6	2.8	1.3	45.4	47.7	2.8	44.5
J-8919	45.6	0.3	0.2	45.4	47.8	0.3	44.6
J-8920	33.2	0	0	47.8	52.3	0	49.1
J-8921	33.2	0	0	47.8	52.3	0	49.1
J-8922	37	0	0	46.4	50	0	47.5
J-8923	37	0	0	46.4	50	0	47.5
J-8924	22.3	0	0	51.4	55.9	0	52.7
J-8925	22.4	0	0	51.4	55.9	0	52.6
J-8926	22.3	0	0	51.4	55.9	0	52.6
J-8927	22.3	70.2	33.7	51.4	55.9	70.2	52.6
J-8928	22.1	0	0	51.4	55.9	0	52.6
J-8929	22	0	0	51.4	56	0	52.7
J-8930	36.2	0	0	46.7	50.4	0	47.8
J-8931	36.2	0	0	46.7	50.4	0	47.8
J-8932	22.3	0	0	51.5	55.9	0	52.7
J-8933	22.3	0	0	51.5	55.9	0	52.7
J-8934	21.9	17.7	8.5	51.5	56	17.7	52.7
J-8935	21.9	49.5	23.8	51.4	56	49.5	52.7
J-8936	22.3	0	0	51.3	55.8	0	52.6
J-8937	22.3	0	0	51.3	55.8	0	52.6
J-8938	22	21.2	10.2	51.4	55.9	21.2	52.6
J-8940	35.5	7.1	3.4	46.6	50.5	7.1	47.6
J-8941	35.5	0	0	46.6	50.5	0	47.6
J-8942	22.3	0	0	51.5	56	0	52.7
J-8943	32.6	0	0	48	52.5	0	49.4
J-8944	32.6	0	0	48	52.5	0	49.3
J-8945	22.2	22.1	10.6	51.4	55.9	22.1	52.6
J-8946	22.3	0	0	51.4	55.9	0	52.6
J-8947	22.4	0	0	51.3	55.8	0	52.6
J-8948	37.3	0	0	46.3	49.9	0	47.4
J-8949	37.3	0	0	46.3	49.9	0	47.4
J-8950	32.6	0	0	48	52.6	0	49.4
J-8951	32.6	0	0	48	52.5	0	49.3
J-8952	32.7	0	0	48	52.5	0	49.4
J-8953	32.8	0	0	48	52.5	0	49.3
J-8956	36	0	0	46.4	50.3	0	47.4
J-8957	21.8	0	0	51.5	56	0	52.7
J-8958	30.3	0.9	0.4	48.7	53.3	0.9	49.9
J-8959	46.7	51.7	24.9	44.7	46.6	51.7	43.9
J-8963	33.8	0.3	0.1	47.9	51.9	0.3	48.9
J-8964	32.7	0	0	48.3	52.4	0	49.3
J-8965	36.2	0	0	46.3	50.2	0	47.3
J-8966	27.3	2.7	1.3	49.8	54.6	2.7	51.1
J-8967	27.3	1.5	0.7	49.8	54.6	1.5	51.1
J-8968	36.8	0	0	46.5	50.1	0	47.6
J-8969	37.2	6.1	2.9	46.3	50	6.1	47.4
J-8970	35.9	19	9.1	46.4	50.4	19	47.5
J-8971	28	0.1	0	49.6	54.3	0.1	50.8
J-8972	27.8	3.5	1.7	49.6	54.3	3.5	50.9
J-8974	36.4	0	0	46.7	50.3	0	47.8
J-8975	36.5	4.7	2.3	46.6	50.3	4.7	47.7
J-8976	46	2.7	1.3	45.2	47.2	2.7	44.3
J-8977	45.3	3.6	1.8	45.7	48.9	3.6	47.5
J-8978	45.5	2.5	1.2	45.6	48.8	2.5	47.5
J-8979	27.4	2.7	1.3	49.8	54.6	2.7	51.1
J-8980	27.7	3.5	1.7	49.7	54.4	3.5	50.9
J-8981	28	3.9	1.9	49.5	54.3	3.9	50.8
J-8982	28.6	3.7	1.8	49.3	54	3.7	50.6
J-8983	29.3	2.4	1.1	49	53.7	2.4	50.3
J-8984	27.6	4.2	2	49.8	54.5	4.2	51
J-8985	27.3	3.1	1.5	49.9	54.6	3.1	51.1
J-8986	27.3	3	1.5	49.8	54.6	3	51.1
J-8987	28.6	3	1.4	49.4	54	3	50.6
J-8988	28.4	2.4	1.2	49.4	54.1	2.4	50.7
J-8989	29.9	3	1.4	48.8	53.5	3	50.1
J-8990	28.6	2.8	1.3	49.3	54	2.8	50.6
J-8991	36.3	0	0	46.7	50.3	0	47.8
J-8992	36.2	0	0	46.7	50.4	0	47.8
J-8993	36.1	0	0	46.8	50.4	0	47.9
J-8994	29.2	2.2	1	49.1	53.8	2.2	50.4
J-8995	28.8	2.9	1.4	49.3	54	2.9	50.6
J-8996	28.9	2.7	1.3	49.2	53.9	2.7	50.5
J-8997	28.2	3.5	1.7	49.5	54.2	3.5	50.8
J-8998	28	4.3	2.1	49.6	54.3	4.3	50.9
J-9000	46.4	3.2	1.5	45.3	48.4	3.2	47.2
J-9001	27.4	3.4	1.6	49.8	54.6	3.4	51.1
J-9002	28.1	3.3	1.6	49.5	54.2	3.3	50.8
J-9003	34	3.2	1.5	47.5	51.3	3.2	48.7
J-9004	34.3	0	0	47.4	51.1	0	48.6
J-9006	28.5	3.2	1.6	49.4	54.1	3.2	50.7
J-9007	44.8	3.8	1.9	45.9	49.1	3.8	47.8
J-9009	36.3	0	0	46.7	50.3	0	47.8
J-9010	36.2	0	0	46.7	50.4	0	47.8
J-9011	28.4	2.9	1.4	49.4	54.1	2.9	50.7
J-9012	27.8	3	1.4	49.6	54.4	3	50.9
J-9014	39.2	0.3	0.1	46.2	49.7	0.3	46.8
J-9015	38.9	0	0	46.4	49.8	0	47
J-9016	33.3	0	0	47.8	52.3	0	49.1
J-9017	45.6	1.7	0.8	45.7	49.4	1.7	44.9
J-9018	36.6	14.6	7	46.6	50.2	14.6	47.7
J-9019	36.2	0	0	46.8	50.4	0	47.9
J-9020	36.1	0	0	46.8	50.4	0	47.9
J-9021	43.6	2.4	1.2	46.4	49.6	2.4	48.3
J-9022	36.3	0	0	46.7	50.3	0	47.8
J-9023	44.1	2.9	1.4	46.1	49.3	2.9	48
J-9024	43.8	2.1	1	46.3	49.5	2.1	48.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
HS-3	J-9099	H-295	8	150	0.06	0.24	0.3	0.7	0.24	0.7
HS-4	H-295	H-300	8	150	0.03	0.12	0.2	0.5	0.12	0.5
HS-5	H-300	H-287	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-6	H-287	H-351	8	150	0.03	0.12	0.2	0.5	0.12	0.5
HS-7	H-295	H-434	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-8	H-434	H-366	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-9	H-366	H-357	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-10	H-300	H-366	8	150	0	0	0	0	0	0
HS-11	H-252	H-357	8	150	0	0	0	0	0	0
HS-12	H-357	H-433	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-13	H-433	H-287	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-14	J-5286	H-344	12	150	0.07	0.2	0.5	0.8	0.2	0.8
HS-15	H-344	J-5284	12	150	0.16	0.23	0.7	0.9	0.24	0.9
HS-16	J-6564	H-222	12	150	0.01	0.02	0.1	0.2	0.02	0.3
HS-17	H-222	169-110	12	150	0.06	0.22	0.4	0.9	0.23	0.9
HS-18	H-309	H-297	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-19	H-297	H-212	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-20	H-212	H-213	8	150	0	0	0	0	0	0
HS-21	J-9067	H-330	8	150	0.11	0.17	0.5	0.6	0.17	0.6
HS-22	H-330	H-332	8	150	0.03	0.04	0.2	0.3	0.04	0.3
HS-23	H-332	H-205	8	150	0.03	0.04	0.2	0.3	0.04	0.3
HS-24	H-205	H-436	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-25	H-436	H-212	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-26	J-9120	H-313	8	150	0.04	0.11	0.3	0.5	0.07	0.4
HS-27	H-313	H-308	8	150	0	0.01	0	0.1	0	0
HS-28	H-308	H-297	8	150	0	0	0	0	0	0
HS-29	H-330	H-313	8	150	0.03	0.06	0.2	0.3	0.05	0.3
HS-30	H-308	H-205	8	150	0.01	0.01	0.1	0.1	0.01	0.1
HS-31	J-9129	H-289	8	150	0.16	0.64	0.6	1.2	0.42	1
HS-32	H-289	H-352	8	150	0	0.07	0	0.4	0.04	0.3
HS-33	H-352	H-292	8	150	0	0	0	0	0	0
HS-34	H-289	H-257	8	150	0.29	0.55	0.8	1.1	0.68	1.2
HS-35	H-257	H-386	8	150	0.65	1.41	1.2	1.8	1.68	2
HS-36	H-385	H-293	8	150	0.23	0.45	0.7	1	0.55	1.1
HS-37	H-293	H-257	8	150	0.09	0.26	0.4	0.7	0.29	0.8
HS-38	H-352	H-225	8	150	0	0.06	0	0.4	0.04	0.3
HS-39	H-225	H-293	8	150	0.6	1.25	1.2	1.7	1.48	1.9
HS-40	J-6413	H-225	8	150	0.44	1.66	1	2	1.81	2.1
HS-41	J-8938	H-394	12	150	0.03	0.07	0.3	0.5	0.06	0.4
HS-42	H-394	H-216	12	150	0.01	0.04	0.2	0.4	0.03	0.3
HS-43	J-6762	J-5098	12	150	0	0.2	0.1	0.8	0.01	0.1
HS-44	J-9162	H-253	12	150	0.08	0.3	0.5	1	0.3	1
HS-45	H-222	J-9238	4	152.5	0.17	0.68	0.4	0.8	0.68	0.8
HS-46	H-294	H-219	8	150	0	0.09	0	0.4	0	0
HS-47	H-219	H-236	8	150	0	0.03	0	0.2	0	0
HS-48	H-219	H-246	8	150	0	0.03	0.1	0.2	0.01	0.1
HS-49	H-246	H-228	8	150	0	0	0	0.1	0	0.1
HS-50	H-228	H-376	8	150	0	0	0	0.1	0	0.1
HS-51	H-376	H-285	8	150	0	0	0	0.1	0	0.1
HS-52	H-285	H-365	8	150	0	0	0	0	0	0
HS-53	H-246	H-341	8	150	0	0.02	0.1	0.2	0.02	0.2
HS-54	H-341	H-322	8	150	0.01	0.06	0.2	0.3	0.05	0.3
HS-55	H-341	H-285	8	150	0	0	0	0.1	0	0.1
HS-56	H-322	H-237	12	150	0.07	0.27	0.5	1	0.28	1
HS-57	H-237	J-8372	12	150	0.12	0.45	0.6	1.3	0.46	1.3
HS-58	H-322	H-372	12	150	0.02	0.09	0.3	0.5	0.1	0.6
HS-59	H-322	H-321	8	150	0.05	0.21	0.3	0.7	0.2	0.7
HS-60	H-321	H-231	8	150	0.06	0.23	0.3	0.7	0.23	0.7
HS-61	H-231	H-237	8	150	0.06	0.23	0.3	0.7	0.23	0.7
HS-62	H-372	H-256	8	150	0.13	0.54	0.5	1.1	0.53	1.1
HS-63	H-321	H-256	8	150	0.18	0.77	0.6	1.3	0.75	1.3
HS-64	H-236	H-372	12	150	0	0.01	0	0.2	0	0.1
HS-65	H-256	H-239	8	150	0.55	2.35	1.1	2.4	2.3	2.4
HS-66	H-239	H-303	8	150	1.06	4.14	1.6	3.3	4.14	3.3
HS-67	H-239	H-206	8	150	0.11	0.35	0.5	0.9	0.37	0.9
HS-68	H-206	H-299	8	150	0.03	0.09	0.2	0.4	0.09	0.4
HS-69	H-206	H-298	8	150	0.03	0.11	0.2	0.5	0.11	0.5
HS-70	H-298	H-211	8	150	0.03	0.11	0.2	0.5	0.11	0.5
HS-71	H-211	H-334	8	150	0.28	1.08	0.8	1.6	1.08	1.6
HS-72	H-334	H-226	8	150	0.06	0.24	0.3	0.7	0.24	0.7
HS-73	H-211	J-8676	8	150	0.76	2.71	1.3	2.6	2.76	2.7
HS-74	H-299	H-211	8	150	0.04	0.14	0.3	0.5	0.15	0.5
HS-75	H-226	H-324	8	150	0.06	0.24	0.3	0.7	0.24	0.7
HS-76	H-324	H-291	8	150	0.06	0.24	0.3	0.7	0.24	0.7
HS-77	H-291	H-303	8	150	0.28	1.08	0.8	1.6	1.08	1.6
HS-78	H-324	H-255	8	150	0	0	0	0	0	0
HS-79	H-291	H-334	8	150	0.09	0.36	0.4	0.9	0.36	0.9
HS-80	H-236	H-221	8	150	0	0	0	0	0	0
HS-81	H-221	H-349	8	150	0	0	0	0	0	0
HS-82	H-236	H-312	12	150	0	0	0	0.1	0	0.1
HS-83	H-312	H-349	8	150	0	0	0	0	0	0
HS-84	H-219	H-399	8	150	0	0.01	0	0.1	0.01	0.1
HS-85	H-399	H-312	8	150	0	0.01	0.1	0.2	0.01	0.2
HS-86	H-233	H-377	8	150	0	0.06	0	0.3	0.01	0.1
HS-87	H-377	H-294	8	150	0	0.07	0	0.4	0	0.1
HS-88	H-377	H-318	8	150	0	0	0	0	0	0
HS-89	H-233	J-9038	8	150	0	0.06	0	0.3	0.01	0.1
HS-90	H-302	H-240	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-91	H-240	H-328	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-92	H-328	H-333	8	150	0.02	0.07	0.2	0.4	0.07	0.4
HS-93	H-340	H-238	8	150	0.13	0.54	0.5	1.1	0.54	1.1
HS-94	H-238	H-305	8	150	0.05	0.22	0.3	0.7	0.22	0.7
HS-95	H-305	H-333	8	150	0.05	0.22	0.3	0.7	0.22	0.7
HS-96	H-240	H-323	8	150	0	0	0	0	0	0
HS-97	H-328	H-327	8	150	0	0	0	0	0	0
HS-98	H-220	H-301	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-99	H-333	H-220	8	150	0.01	0.06	0.2	0.3	0.06	0.3
HS-100	H-305	H-367	8	150	0	0	0	0	0	0
HS-101	H-238	H-362	8	150	0.02	0.09	0.2	0.4	0.09	0.4
HS-102	H-362	H-244	8	150	0.04	0.18	0.3	0.6	0.18	0.6
HS-103	H-244	H-277	8	150	0.04	0.18	0.3	0.6	0.18	0.6
HS-104	H-277	H-302	8	150	0.04	0.18	0.3	0.6	0.18	0.6
HS-105	H-251	H-362	8	150	0.01	0.02	0.1	0.2	0.02	0.2
HS-106	H-244	H-243	8	150	0	0	0	0	0	0
HS-107	H-277	H-314	8	150	0	0	0	0	0	0
HS-108	H-350	H-281	12	150	0.03	0.13	0.3	0.6	0.13	0.6
HS-109	H-281	H-329	12	150	0.01	0.02	0.1	0.3	0.02	0.3
HS-110	H-350	H-268	12	150	0	0.01	0.1	0.1	0.01	0.1
HS-111	H-350	H-302	8	150	0.09	0.39	0.4	0.9	0.39	0.9
HS-112	H-369	H-353	12	150	0.03	0.14	0.3	0.7	0.14	0.7
HS-113	H-353	H-350	12	150	0.04	0.16	0.3	0.7	0.16	0.7
HS-114	H-215	H-207	12	150	0.04	0.18	0.4	0.8	0.18	0.8

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
HS-115	H-207	H-369	12	150	0.03	0.14	0.3	0.7	0.14	0.7
HS-116	H-302	H-301	8	150	0	0	0	0	0	0
HS-117	H-281	H-251	8	150	0.08	0.35	0.4	0.9	0.35	0.9
HS-118	H-251	H-340	8	150	0.12	0.51	0.5	1.1	0.51	1.1
HS-119	H-340	J-6141	8	150	0.3	1.3	0.8	1.8	1.3	1.8
HS-120	H-209	H-207	8	150	0.01	0.04	0.1	0.3	0.04	0.3
HS-121	H-224	H-250	8	150	0	0.02	0.1	0.2	0.02	0.2
HS-122	H-209	H-258	8	150	0.03	0.15	0.3	0.6	0.15	0.6
HS-123	H-258	H-250	8	150	0.03	0.15	0.3	0.6	0.15	0.6
HS-124	H-288	H-317	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-125	H-250	H-317	8	150	0.06	0.25	0.3	0.7	0.25	0.7
HS-126	H-317	H-353	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-127	H-364	H-310	8	150	0.02	0.08	0.2	0.4	0.08	0.4
HS-128	H-310	H-208	8	150	0	0	0	0	0	0
HS-129	H-208	H-316	8	150	0	0	0	0	0	0
HS-130	H-310	H-331	8	150	0.02	0.1	0.2	0.5	0.1	0.5
HS-131	H-331	H-316	8	150	0.03	0.12	0.2	0.5	0.12	0.5
HS-132	H-316	H-342	8	150	0.03	0.14	0.2	0.5	0.14	0.5
HS-133	H-317	H-342	8	150	0.03	0.14	0.2	0.5	0.14	0.5
HS-134	H-307	H-209	8	150	0.01	0.05	0.1	0.3	0.05	0.3
HS-135	H-343	H-290	8	150	0.08	0.34	0.4	0.9	0.34	0.9
HS-136	H-315	H-326	8	150	0.08	0.36	0.4	0.9	0.35	0.9
HS-137	H-229	H-340	8	150	0.02	0.08	0.2	0.4	0.08	0.4
HS-138	H-229	H-325	8	150	0.12	0.51	0.5	1.1	0.51	1.1
HS-139	H-325	J-9041	8	150	0.12	0.53	0.5	1.1	0.53	1.1
HS-140	H-326	H-260	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-141	H-315	H-370	8	150	0.01	0.02	0.1	0.2	0.02	0.2
HS-142	H-319	H-214	8	150	0	0	0	0.1	0	0.1
HS-143	H-326	H-229	8	150	0.05	0.21	0.3	0.7	0.21	0.7
HS-144	H-325	H-259	8	150	0	0	0	0	0	0
HS-145	H-290	H-319	8	150	0.08	0.34	0.4	0.9	0.34	0.9
HS-146	H-319	H-315	8	150	0.09	0.38	0.4	0.9	0.38	0.9
HS-147	H-358	H-331	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-148	H-331	H-374	8	150	0.07	0.3	0.4	0.8	0.3	0.8
HS-149	H-374	H-329	8	150	0.07	0.3	0.4	0.8	0.3	0.8
HS-150	H-329	H-343	8	150	0.11	0.47	0.5	1	0.47	1
HS-151	J-5263	H-259	12	150	0.13	0.55	0.7	1.4	0.55	1.4
HS-152	H-259	H-260	12	150	0.13	0.56	0.7	1.4	0.56	1.4
HS-153	H-260	H-370	12	150	0.11	0.48	0.6	1.3	0.48	1.3
HS-154	H-370	H-214	12	150	0.1	0.43	0.6	1.2	0.42	1.2
HS-155	H-214	H-227	12	150	0.1	0.44	0.6	1.3	0.44	1.3
HS-156	H-227	H-306	12	150	0.09	0.39	0.5	1.2	0.39	1.2
HS-157	H-306	H-358	12	150	0.07	0.3	0.5	1	0.3	1
HS-158	H-358	H-364	12	150	0.06	0.27	0.4	1	0.27	1
HS-159	H-364	H-288	12	150	0.09	0.37	0.5	1.2	0.37	1.2
HS-160	H-288	H-224	12	150	0.08	0.34	0.5	1.1	0.34	1.1
HS-161	H-224	H-307	12	150	0.09	0.39	0.5	1.2	0.39	1.2
HS-162	H-307	H-215	12	150	0.11	0.47	0.6	1.3	0.47	1.3
HS-163	H-306	H-329	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-164	H-227	H-343	8	150	0	0.02	0.1	0.2	0.02	0.2
HS-165	J-5565	H-395	12	150	0	0.26	0	1	0.26	1
HS-166	H-395	H-274	12	150	0.02	0.11	0.2	0.6	0.03	0.3
HS-167	H-344	H-396	12	150	0.22	0.34	0.9	1.1	0.35	1.1
HS-168	H-396	H-274	12	150	0.15	0.23	0.7	0.9	0.22	0.9
HS-169	H-215	H-389	12	150	0.28	1.11	1	2.1	1.11	2.1
HS-171	H-216	H-391	12	150	0	0.03	0	0.3	0.01	0.1
HS-172	H-391	H-279	12	150	0	0.02	0	0.2	0	0
HS-173	H-279	H-392	12	150	0	0.05	0	0.4	0.05	0.4
HS-174	H-392	J-8696	12	150	0.01	0.2	0.2	0.8	0.2	0.8
HS-175	H-215	H-390	12	150	0.03	0.1	0.3	0.6	0.1	0.6
HS-176	H-390	H-279	12	150	0.16	0.54	0.7	1.4	0.54	1.4
HS-177	J-8778	H-393	12	150	0.12	0.33	0.6	1.1	0.34	1.1
HS-178	H-393	H-279	12	150	0.11	0.3	0.6	1	0.3	1
HS-179	J-5222	H-414	12	152.5	0	0.51	0	1.4	0.11	0.6
HS-180	H-414	H-415	12	152.5	0	0.42	0	1.3	0.06	0.5
HS-181	H-415	H-339	12	152.5	0	0.37	0	1.2	0.04	0.4
HS-182(1)	H-339	J-9231	12	152.5	0	0.26	0	1	0.01	0.1
HS-182(2)	J-9231	H-278	12	152.5	0	0.27	0	1	0	0.1
HS-183	H-272	H-242	12	150	0	0.3	0	1	0.06	0.4
HS-184(1)	H-242	J-9222	12	150	0.01	0.02	0.1	0.3	0.01	0.2
HS-184(2)	J-9222	H-339	12	150	0.01	0.03	0.1	0.3	0.01	0.2
HS-185	H-272	H-320	12	150	0	0.19	0	0.8	0	0
HS-186	H-320	H-278	12	150	0.02	0.04	0.2	0.4	0.04	0.4
HS-187	H-384	H-359	12	150	0	0.25	0	0.9	0.23	0.9
HS-188	J-8183	J-6592	12	150	0.05	0.1	0.4	0.6	0.12	0.6
HS-189	H-344	H-267	12	150	0.01	0.03	0.1	0.3	0.03	0.3
HS-190	J-6069	H-435	12	150	0.01	0.13	0.1	0.7	0.13	0.7
HS-191	H-435	J-5563	12	150	0.01	0.13	0.1	0.7	0.13	0.7
HS-192	J-9186	H-347	12	150	0	0.01	0.1	0.2	0.01	0.2
HS-193	J-5935	H-247	12	150	0.17	0.46	0.8	1.3	0.17	0.8
HS-194	H-247	H-428	12	150	0.49	0.86	1.4	1.8	0.49	1.3
HS-195(1)	H-428	J-9234	12	150	0.75	1.01	1.7	2	0.75	1.7
HS-195(2)	J-9234	H-230	16	152.5	0.65	0.81	1.9	2.2	0.81	2.2
HS-196	H-230	H-360	12	150	0.16	0.34	0.7	1.1	0.33	1.1
HS-197	J-5256	H-431	12	150	0	0.01	0	0.2	0	0.1
HS-198	H-431	H-346	12	150	0	0.02	0.1	0.2	0	0.1
HS-199	H-346	H-378	12	150	0.01	0.03	0.2	0.3	0.01	0.1
HS-200	H-378	H-273	12	150	0.06	0.08	0.4	0.5	0.08	0.5
HS-201	H-273	H-360	12	150	0.12	0.22	0.6	0.9	0.22	0.9
HS-202	J-6862	H-218	12	150	0	1.24	0.1	2.2	1.1	2.1
HS-203(1)	H-218	J-9232	12	150	0.05	1.93	0.4	2.8	1.76	2.7
HS-203(2)	J-9232	H-311	12	150	0	1.37	0	2.4	1.5	2.5
HS-204	H-311	H-371	12	150	0	0.79	0	1.7	0.81	1.8
HS-205	H-371	H-421	12	150	0.16	0.56	0.7	1.4	0.15	0.7
HS-206	H-421	H-286	12	150	0.17	0.57	0.8	1.5	0.15	0.7
HS-207	H-345	H-284	8	150	0.01	0.05	0.1	0.3	0.05	0.3
HS-208	J-8495	H-286	12	150	0.24	0.8	0.9	1.8	0.23	0.9
HS-209	J-8776	H-419	8	150	0	0.69	0	1.3	0.29	0.8
HS-210	H-419	H-311	8	150	0	0.48	0.1	1	0.62	1.2
HS-211	J-8776	H-420	12	150	0	0.01	0	0.2	0.01	0.2
HS-212	H-420	H-286	12	150	0	0.02	0	0.2	0.01	0.1
HS-213	H-286	H-345	8	150	0.04	0.14	0.3	0.5	0.14	0.5
HS-214	H-345	H-335	8	150	0	0	0	0	0	0
HS-215(1)	J-6155	J-9230	12	150	0.11	0.4	0.6	1.2	0.43	1.3
HS-215(2)	J-9230	H-388	12	150	0.09	0.3	0.5	1	0.32	1.1
HS-216	H-388	H-437	12	150	0.06	0.21	0.4	0.8	0.22	0.9
HS-217	H-437	H-438	12	150	0.02	0.06	0.2	0.4	0.07	0.5
HS-218	H-438	H-383	12	150	0	0	0	0.1	0	0.1
HS-219(1)	H-383	J-9233	12	150	0.02	0.1	0.3	0.6	0.09	0.5
HS-219(2)	J-9233	H-355	12	150	0.07	0.29	0.5	1	0.27	1
HS-220	H-383	H-304	12	152.5	0	0	0	0.1	0	0.1
HS-221	J-5149	H-430	12	150	0.11	0.13	0.6	0.7	0.11	0.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
HS-222	H-430	H-429	12	150	0.25	0.39	0.9	1.2	0.38	1.2
HS-223	H-429	H-230	12	150	0.41	0.81	1.2	1.8	0.8	1.8
HS-224	H-230	H-427	12	150	0.01	0.32	0.2	1.1	0.01	0.2
HS-225(1)	H-427	J-9273	12	150	0	0.18	0	0.8	0.06	0.4
HS-225(2)(1)	J-9273	H-338	12	150	0	0.05	0	0.4	0.02	0.2
HS-225(2)(2)	H-338	H-425	12	150	0	0.15	0	0.7	0.15	0.7
HS-226	H-425	H-275	12	150	0	0.15	0	0.7	0.15	0.7
HS-227	J-5260	H-275	12	150	0	0.01	0	0.2	0	0
HS-228	H-371	H-280	12	152.5	0.22	1.52	0.9	2.5	1.18	2.2
HS-229	H-296	H-280	12	152.5	0	0.07	0	0.5	0.01	0.2
HS-230	J-6637	H-296	12	150	0	0.05	0.1	0.4	0.04	0.4
HS-231	J-6888	H-423	12	150	0.01	1.89	0.2	2.8	1.89	2.8
HS-232	H-423	H-422	12	150	0	1.33	0	2.3	1.32	2.3
HS-233	H-422	H-361	12	150	0	1.32	0	2.3	1.32	2.3
HS-234	J-6018	H-417	12	150	0.01	0.65	0.1	1.6	0.07	0.5
HS-235	H-417	H-254	12	150	0.02	0.74	0.2	1.7	0.11	0.6
HS-236	H-254	H-282	12	150	0.01	0.33	0.2	1.1	0.06	0.4
HS-237	H-282	H-232	12	150	0	0.09	0.1	0.6	0.02	0.2
HS-238	H-232	H-262	12	150	0	0	0	0	0	0
HS-239	H-282	H-368	12	152.5	0	0.09	0.1	0.6	0.02	0.2
HS-240	H-368	H-356	12	152.5	0.02	0.48	0.2	1.4	0.11	0.6
HS-241	H-254	H-418	12	152.5	0.01	0.16	0.1	0.7	0.03	0.3
HS-242	H-418	H-368	12	152.5	0.01	0.17	0.1	0.8	0.04	0.3
HS-243	H-232	H-276	12	152.5	0	0.11	0.1	0.6	0.02	0.3
HS-244	J-9153	H-234	8	150	0.01	0.03	0.1	0.2	0.03	0.2
HS-245	H-234	H-210	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-246	H-234	H-381	8	150	0	0	0	0	0	0
HS-247	H-263	H-337	12	150	0	0.24	0	0.9	0.05	0.4
HS-248	H-337	H-320	12	150	0	0.22	0.1	0.9	0.03	0.3
HS-249	J-8871	H-416	12	150	0	0.25	0	0.9	0.04	0.3
HS-250	H-416	H-242	12	150	0	0.23	0	0.9	0.03	0.3
HS-251	H-359	H-400	12	150	0.02	0.74	0.3	1.7	0.15	0.7
HS-252	H-400	H-249	12	150	0.18	1.03	0.8	2	0.51	1.4
HS-253	J-7725	H-401	16	150	0.01	0.59	0.2	1.8	0.65	1.9
HS-254	H-401	H-249	16	150	0	0.53	0.1	1.7	0.59	1.8
HS-255	J-6660	H-248	12	150	1.15	19.49	2.1	9.8	3.19	3.7
HS-256	H-248	H-411	12	150	0.33	4.13	1.1	4.3	0.91	1.9
HS-257	H-411	H-261	12	150	0.29	4.07	1	4.2	0.85	1.8
HS-258	H-261	H-271	12	150	0.04	0.83	0.4	1.8	0.08	0.5
HS-259	H-271	H-235	12	150	0.01	0.16	0.1	0.7	0.02	0.2
HS-260	H-235	H-363	12	150	0	0.13	0	0.6	0	0
HS-261	H-363	H-406	12	150	0	0.22	0	0.9	0.04	0.4
HS-262	H-406	H-405	12	150	0	0.2	0	0.8	0.06	0.5
HS-263	H-405	H-241	12	150	0	0.17	0	0.8	0.11	0.6
HS-264(1)	H-241	J-9217	12	150	0	1.26	0	2.2	0.23	0.9
HS-264(2)	J-9217	H-249	12	150	0	0.92	0.1	1.9	0.69	1.6
HS-265	H-248	H-387	12	150	0.27	6.72	1	5.5	0.78	1.7
HS-266	H-387	H-403	12	150	0.24	0.83	0.9	1.8	0.5	1.4
HS-267	H-403	H-404	12	150	0.2	0.75	0.8	1.7	0.38	1.2
HS-268	H-404	H-241	12	150	0.19	0.73	0.8	1.7	0.35	1.1
HS-269	J-7725	H-402	12	150	0	1.76	0	2.7	0.82	1.8
HS-270	H-402	H-387	12	150	0	1.98	0	2.9	0.53	1.4
HS-271	H-387	H-407	12	150	0.17	0.4	0.8	1.2	0.59	1.5
HS-272	H-407	H-261	12	150	0.14	0.32	0.7	1.1	0.48	1.3
HS-273	H-363	H-408	12	150	0	0.27	0.1	1	0.01	0.2
HS-274	H-408	H-271	12	150	0.01	0.29	0.2	1	0.02	0.2
HS-275	H-336	H-270	12	150	0.01	1.27	0.1	2.3	0.49	1.3
HS-276	H-270	H-412	12	150	0.09	2.03	0.5	2.9	1.2	2.2
HS-277	H-412	H-245	12	150	0.13	2.12	0.7	3	1.35	2.3
HS-278	H-245	H-283	12	150	0.18	2.2	0.8	3	1.49	2.5
HS-279	H-265	H-264	8	150	0.01	0.3	0.1	0.8	0.22	0.7
HS-280(1)	H-270	J-9221	8	150	0.38	0.75	0.9	1.3	0.89	1.4
HS-280(2)	J-9221	H-354	8	150	0.12	0.35	0.5	0.9	0.2	0.6
HS-281	H-241	H-266	12	152.5	0	0.05	0.1	0.4	0.08	0.5
HS-282	H-363	H-380	12	152.5	0	0.1	0.1	0.6	0.01	0.1
HS-283	H-378	H-348	12	152.5	0	0.02	0.1	0.2	0.02	0.2
HS-284	H-273	H-375	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
HS-285	H-338	H-426	12	150	0.02	0.03	0.2	0.3	0.02	0.2
HS-286	H-426	H-373	12	150	0	0.09	0.1	0.5	0.09	0.5
HS-287	H-373	H-379	12	152.5	0	0.05	0	0.4	0.05	0.4
HS-288	H-361	H-373	12	150	0	0.39	0	1.2	0.39	1.2
HS-289	H-275	H-424	12	152.5	0	0.18	0	0.8	0.18	0.8
HS-290	H-424	H-361	12	152.5	0	0.25	0	0.9	0.25	0.9
HS-291	H-247	H-338	8	150	0.05	0.23	0.3	0.7	0.05	0.3
HS-292	044-014	H-432	8	150	0.01	0.05	0.1	0.3	0.05	0.3
HS-293	H-432	H-269	8	150	0	0.01	0.1	0.1	0.01	0.1
HS-294	H-278	H-413	12	152.5	0	0.42	0.1	1.3	0.03	0.3
HS-295	H-413	H-265	12	152.5	0	0.44	0.1	1.3	0.04	0.4
HS-296	H-265	H-336	12	152.5	0	0.41	0.1	1.2	0.17	0.8
HS-297	H-336	H-263	12	150	0	0.28	0	1	0.09	0.5
HS-298	H-274	H-217	12	150	0	0	0.1	0.1	0	0.1
HS-299	J-5143	H-398	12	150	0.05	0.18	0.4	0.8	0.18	0.8
HS-300	H-398	H-397	12	150	0.02	0.08	0.3	0.5	0.08	0.5
HS-302	J-8803	H-439	12	150	0	0.12	0	0.6	0.02	0.2
HS-303	H-439	H-440	12	150	0.01	0.18	0.1	0.8	0.09	0.5
HS-304	H-440	H-359	12	150	0.03	0.23	0.3	0.9	0.17	0.8
HS-306	H-266	H-380	12	152.5	0	0.07	0	0.5	0	0
HS-307	H-264	H-354	8	152.5	0	0.17	0	0.6	0.11	0.5
HS-308	H-276	J-9241	12	152.5	0.01	0.13	0.1	0.7	0.03	0.3
HS-309	J-9241	J-9240	12	152.5	0.04	1	0.4	2	0.23	0.9
HS-310	J-9240	150-005	12	152.5	0.04	1	0.4	2	0.23	0.9
HS-311	H-356	J-9241	12	152.5	0.02	0.48	0.2	1.4	0.11	0.6
P-72	J-5535	J-5125	16	152.5	0	1.14	0	2.6	1.6	3.1
P-84(1)	J-5170	TEMP395	8	152.5	5.3	5.98	3.8	4.1	5.49	3.9
P-84(2)	TEMP395	J-7238	8	152.5	5.3	5.98	3.8	4.1	5.49	3.9
P-85	J-6870	J-5170	8	152.5	3.63	5.44	3.1	3.9	5.19	3.8
P-88	J-5546	J-5346	18	152.5	0	0	0	0	0	0
P-93	J-5165	J-5502	12	152.5	0.56	0.64	1.5	1.6	0.62	1.6
P-94	J-5502	J-5202	12	152.5	0.13	0.15	0.7	0.7	0.14	0.7
P-110	J-5161	J-5163	12	152.5	0.02	0.15	0.3	0.7	0.17	0.8
P-111	J-5269	J-5161	10	152.5	0.05	0.27	0.4	0.9	0.17	0.7
P-112(1)	J-5069	TEMP399	12	152.5	0.77	3.38	1.7	3.9	2.03	3
P-112(2)	TEMP399	J-5320	12	152.5	0.76	3.37	1.7	3.9	2.03	2.9
P-113	J-5069	J-5079	12	152.5	1.34	6.31	2.4	5.4	3.88	4.2
P-114	J-5049	J-8873	16	130	0	0	0	0	0	0
P-115	J-6315	J-5047	16	130	0	0	0	0	0	0
P-116	J-5373	J-5053	16	130	0	0	0	0	0	0
P-118	J-5060	J-6315	16	130	0	0	0	0	0	0
P-185	H-261	H-283	12	152.5	0.22	2.2	0.9	3.1	1.56	2.6
P-188	H-280	J-9271	12	152.5	0.06	0.28	0.5	1	0.26	1
P-189	J-9271	H-355	12	152.5	0.06	0.28	0.5	1	0.26	1
P-190	H-379	J-9273	12	152.5	0	0.03	0	0.3	0.02	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0002	J-7435	J-7436	8	152.5	0	0	0	0	0	0
WMAIN-0003	169-043	J-5098	12	152.5	0	0.2	0.1	0.8	0.01	0.1
WMAIN-0005	J-7440	J-7441	8	152.5	0.08	0.3	0.4	0.8	0.3	0.8
WMAIN-0007(1)	J-7440	168-041	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-0007(2)	168-041	168-040	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-0009(1)	J-7435	168-042	8	152.5	0.09	0.14	0.4	0.5	0.14	0.5
WMAIN-0009(2)	168-042	J-7440	8	152.5	0.08	0.13	0.4	0.5	0.14	0.5
WMAIN-0010	J-5357	J-5126	30	152.5	0.26	1.16	1.7	3.9	1.33	4.2
WMAIN-0013	J-7590	J-7435	8	152.5	0.1	0.17	0.5	0.6	0.17	0.6
WMAIN-0015	168-040	J-7207	8	152.5	0	0	0	0	0	0
WMAIN-0018	J-8047	168-040	8	152.5	0	0.07	0	0.4	0.07	0.4
WMAIN-0020(1)	J-7819	168-039	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-0020(2)	168-039	J-8047	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-0021(1)	J-8015	168-044	8	152.5	0.02	0.07	0.2	0.4	0.04	0.3
WMAIN-0021(2)(1)	168-044	168-045	8	152.5	0.02	0.06	0.2	0.4	0.03	0.2
WMAIN-0021(2)(2)	168-045	J-7819	8	152.5	0.02	0.06	0.2	0.4	0.03	0.2
WMAIN-0022	J-7590	J-8015	8	152.5	0.03	0.08	0.2	0.4	0.05	0.3
WMAIN-0026(1)	J-7589	168-043	8	152.5	0.27	0.39	0.8	0.9	0.4	1
WMAIN-0026(2)	168-043	J-7590	8	152.5	0.27	0.38	0.8	0.9	0.39	0.9
WMAIN-0028	J-6193	J-7589	8	152.5	0.28	0.41	0.8	1	0.42	1
WMAIN-0032	J-5420	J-5421	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0033	J-7806	J-7819	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-0034	052-006	J-5068	6	140	0	0	0	0	0	0
WMAIN-0035(1)	J-6193	168-046	12	152.5	0	0.03	0	0.3	0.01	0.2
WMAIN-0035(2)	168-046	J-8793	12	152.5	0	0.03	0	0.3	0.01	0.2
WMAIN-0039(1)	J-6192	168-047	12	152.5	0.07	0.21	0.5	0.9	0.21	0.9
WMAIN-0039(2)	168-047	J-6193	12	152.5	0.07	0.21	0.5	0.9	0.21	0.9
WMAIN-0040	J-8442	J-8183	12	152.5	0.43	1.01	1.3	2	1.11	2.1
WMAIN-0043	J-5655	J-8442	12	152.5	0.39	0.89	1.2	1.9	0.99	2
WMAIN-0045	J-5654	J-5655	12	152.5	0.34	0.74	1.1	1.7	0.83	1.8
WMAIN-0047(1)	J-8352	170-157	12	152.5	0.34	0.73	1.1	1.7	0.82	1.8
WMAIN-0047(2)	170-157	J-5654	12	152.5	0.34	0.74	1.1	1.7	0.83	1.8
WMAIN-0049	J-6332	J-8352	12	152.5	0.32	0.69	1.1	1.7	0.78	1.8
WMAIN-0050	J-6332	J-5377	12	152.5	0.31	0.67	1.1	1.6	0.75	1.7
WMAIN-0051	J-8140	J-8183	12	152.5	0.22	0.58	0.9	1.5	0.6	1.5
WMAIN-0053	J-8139	J-8140	12	152.5	0.23	0.61	0.9	1.5	0.63	1.6
WMAIN-0054(1)	J-8220	170-158	12	152.5	0.25	0.66	1	1.6	0.69	1.6
WMAIN-0054(2)	170-158	J-8139	12	152.5	0.24	0.64	0.9	1.6	0.67	1.6
WMAIN-0056	J-8219	J-8220	12	152.5	0.26	0.69	1	1.7	0.72	1.7
WMAIN-0058(1)	J-8250	169-001	8	152.5	0.01	0.11	0.2	0.5	0.12	0.5
WMAIN-0058(2)	169-001	J-6669	8	152.5	0.01	0.11	0.2	0.5	0.11	0.5
WMAIN-0063	J-6256	169-094	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0064	169-094	J-5183	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0065	J-6256	J-7014	8	152.5	0.01	0.02	0.1	0.2	0.03	0.2
WMAIN-0068(1)	J-8160	169-096	8	152.5	0.03	0.08	0.2	0.4	0.09	0.4
WMAIN-0068(2)(1)	169-096	169-095	8	152.5	0.02	0.07	0.2	0.4	0.08	0.4
WMAIN-0068(2)(2)	169-095	J-6256	8	152.5	0.02	0.07	0.2	0.4	0.08	0.4
WMAIN-0070	J-6336	J-6318	8	152.5	0	0	0	0.1	0	0
WMAIN-0073	J-6336	J-5698	8	152.5	0.04	0.11	0.3	0.5	0.13	0.5
WMAIN-0075(1)	J-8649	169-091	8	152.5	0.04	0.13	0.3	0.5	0.15	0.6
WMAIN-0075(2)	169-091	J-6336	8	152.5	0.04	0.12	0.3	0.5	0.14	0.5
WMAIN-0078(1)	J-6668	169-090	8	152.5	0.05	0.16	0.3	0.6	0.18	0.6
WMAIN-0078(2)	169-090	J-8649	8	152.5	0.04	0.14	0.3	0.5	0.16	0.6
WMAIN-0080(1)	J-6668	169-089	8	152.5	0.01	0.11	0.2	0.5	0.11	0.5
WMAIN-0080(2)	169-089	J-6669	8	152.5	0.01	0.11	0.2	0.5	0.12	0.5
WMAIN-0083	J-7873	J-6668	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0085(1)	J-7873	169-088	8	152.5	0.04	0.12	0.3	0.5	0.13	0.5
WMAIN-0085(2)	169-088	J-8160	8	152.5	0.03	0.11	0.3	0.5	0.13	0.5
WMAIN-0087	J-6318	J-6294	8	152.5	0.05	0.22	0.3	0.7	0.25	0.7
WMAIN-0090(1)	J-7014	169-092	8	152.5	0.07	0.21	0.4	0.7	0.25	0.7
WMAIN-0090(2)	169-092	J-6318	8	152.5	0.07	0.21	0.4	0.7	0.25	0.7
WMAIN-0092(1)	J-7873	169-093	8	152.5	0.04	0.13	0.3	0.5	0.15	0.6
WMAIN-0092(2)	169-093	J-7014	8	152.5	0.04	0.12	0.3	0.5	0.13	0.5
WMAIN-0094	J-7286	J-7873	8	152.5	0.24	0.62	0.7	1.2	0.71	1.3
WMAIN-0096	J-6113	180-011	8	152.5	0	0	0	0	0	0
WMAIN-0097	J-8346	H-384	12	152.5	0	0.32	0.1	1.1	0.29	1
WMAIN-0098(1)	J-8661	180-001	12	152.5	0.18	0.61	0.8	1.5	0.66	1.6
WMAIN-0098(2)(1)	180-001	J-8088	12	152.5	0.17	0.6	0.8	1.5	0.65	1.6
WMAIN-0098(2)(2)	J-8088	J-8346	12	152.5	0.34	1.13	1.1	2.1	1.24	2.3
WMAIN-0101	J-8155	J-8156	8	152.5	0.02	0.2	0.2	0.7	0.12	0.5
WMAIN-0103(1)	J-8156	TEMP476	8	152.5	0.02	0.19	0.2	0.6	0.11	0.5
WMAIN-0103(2)	TEMP476	J-6257	8	152.5	0.02	0.19	0.2	0.6	0.1	0.5
WMAIN-0104(1)	J-6257	180-004	8	152.5	0	0	0	0	0	0
WMAIN-0104(2)	180-004	J-6258	8	152.5	0	0	0	0	0	0
WMAIN-0105	J-6648	J-6257	8	152.5	0.02	0.19	0.2	0.6	0.1	0.4
WMAIN-0107	J-6304	J-6648	8	152.5	0.05	0.36	0.3	0.9	0.25	0.7
WMAIN-0111(1)	J-6189	180-007	12	152.5	0.12	0.46	0.6	1.3	0.46	1.3
WMAIN-0111(2)	180-007	J-6190	12	152.5	0.12	0.46	0.6	1.3	0.46	1.3
WMAIN-0112	J-7991	J-6189	12	152.5	0.11	0.35	0.6	1.1	0.36	1.2
WMAIN-0124(1)	J-8155	180-002	12	152.5	0.07	0.69	0.5	1.6	0.39	1.2
WMAIN-0124(2)	180-002	J-8346	12	152.5	0.08	0.69	0.5	1.6	0.39	1.2
WMAIN-0126(1)	J-6648	180-003	12	152.5	0.05	0.47	0.4	1.3	0.26	1
WMAIN-0126(2)	180-003	J-8155	12	152.5	0.05	0.47	0.4	1.3	0.26	1
WMAIN-0128(1)	J-7991	180-005	12	152.5	0.03	0.39	0.3	1.2	0.19	0.8
WMAIN-0128(2)	180-005	J-6648	12	152.5	0.03	0.39	0.3	1.2	0.2	0.8
WMAIN-0131	J-8297	J-7991	12	152.5	0	0.14	0	0.7	0.01	0.2
WMAIN-0134	J-8296	J-8297	12	152.5	0	0.18	0	0.8	0.01	0.2
WMAIN-0136(1)	J-8248	180-009	12	152.5	0	0.16	0	0.7	0.04	0.4
WMAIN-0136(2)	180-009	J-8296	12	152.5	0	0.16	0	0.7	0.04	0.4
WMAIN-0140	J-6113	J-8248	12	152.5	0	0.17	0	0.8	0.13	0.7
WMAIN-0143	J-7283	J-6113	12	152.5	0	0.16	0	0.8	0.13	0.7
WMAIN-0145	J-7282	J-7283	12	152.5	0.01	0.22	0.1	0.9	0.18	0.8
WMAIN-0146	J-5592	J-5593	8	152.5	0	0	0	0	0	0
WMAIN-0147	125-112	J-5593	8	152.5	0	0	0	0	0	0
WMAIN-0152	J-7455	J-5592	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0153(1)	J-7620	125-114	8	152.5	0	0	0	0	0	0
WMAIN-0153(2)	125-114	J-8698	8	152.5	0	0	0	0	0	0
WMAIN-0155(1)	J-8698	125-113	8	152.5	0	0	0	0	0	0
WMAIN-0155(2)	125-113	J-5592	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-0156(1)	J-7619	125-115	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0156(2)	125-115	J-7620	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0160(1)	J-7522	125-116 125-116	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0160(2)	125-116 125-116	J-7619	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0162(1)	J-7455	125-117	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0162(2)	125-117	J-7522	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0166	J-5601	J-5602	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0167(1)	J-5602	125-105	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0167(2)	125-105	J-5618	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0168	J-5618	J-5619	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0169(1)	J-5601	125-104	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0169(2)	125-104	J-7970	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0171(1)	J-5619	125-106	8	152.5	0	0.01	0.1	0.1	0.01	0.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0171(2)	125-106	J-6170	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0173(1)	J-7970	125-107	8	152.5	0.02	0.08	0.2	0.4	0.07	0.4
WMAIN-0173(2)	125-107	J-6170	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0175	J-8154	J-5629	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0176	J-5629	J-5630	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0177(1)	J-5630	125-110	8	152.5	0	0.01	0.1	0.2	0.01	0.1
WMAIN-0177(2)	125-110	J-5631	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0178	J-5631	J-5632	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0180	J-6171	J-6168	8	152.5	0.1	0.28	0.5	0.8	0.27	0.8
WMAIN-0182	J-6170	J-6171	8	152.5	0.03	0.1	0.2	0.4	0.09	0.4
WMAIN-0185	J-6171	J-5743	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0186(1)	J-5743	125-108	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0186(2)	125-108	J-5744	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-0187	J-5744	J-5978	8	152.5	0.03	0.08	0.2	0.4	0.07	0.4
WMAIN-0189	J-5632	J-5978	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0191(1)	J-5978	125-109	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-0191(2)	125-109	J-8154	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-0199	J-7970	J-7523	8	152.5	0.06	0.2	0.3	0.7	0.19	0.6
WMAIN-0200(1)	J-7224	125-103	8	152.5	0.1	0.72	0.5	1.3	0.71	1.3
WMAIN-0200(2)(1)	125-103	125-102	8	152.5	0.1	0.69	0.4	1.3	0.68	1.3
WMAIN-0200(2)(2)	125-102	J-7523	8	152.5	0.1	0.69	0.4	1.3	0.68	1.3
WMAIN-0202	J-7522	J-7523	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-0204	J-8154	J-7782	8	152.5	0.04	0.12	0.3	0.5	0.12	0.5
WMAIN-0206	J-7523	J-7782	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-0208(1)	J-7455	125-111	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-0208(2)	125-111	J-7456	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-0210(1)	J-7782	125-101	8	152.5	0.02	0.03	0.2	0.2	0.02	0.2
WMAIN-0210(2)	125-101	J-7456	8	152.5	0.02	0.03	0.2	0.2	0.02	0.2
WMAIN-0218(1)	J-7456	125-100	8	152.5	0.05	0.08	0.3	0.4	0.05	0.3
WMAIN-0218(2)	125-100	J-7955	8	152.5	0.05	0.08	0.3	0.4	0.05	0.3
WMAIN-0220(1)	J-7955	125-099	12	152.5	0.24	0.54	0.9	1.4	0.53	1.4
WMAIN-0220(2)	125-099	J-5899	12	152.5	0.24	0.55	0.9	1.5	0.54	1.4
WMAIN-0221	J-8137	J-7955	8	152.5	0.07	0.18	0.4	0.6	0.18	0.6
WMAIN-0225	J-6014	J-5899	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0227	J-6140	J-6014	12	130	0	0.2	0	0.7	0.2	0.7
WMAIN-0229	J-5899	J-5935	12	152.5	0.15	0.43	0.7	1.3	0.15	0.7
WMAIN-0230(1)(1)	J-8528	125-096	12	152.5	0	0.19	0	0.8	0.19	0.8
WMAIN-0230(1)(2)	125-096	125-097	12	152.5	0	0.19	0	0.8	0.19	0.8
WMAIN-0230(2)(1)	125-097	125-098	12	152.5	0	0.18	0	0.8	0.18	0.8
WMAIN-0230(2)(2)	125-098	J-6140	12	152.5	0	0.15	0	0.7	0.15	0.7
WMAIN-0233	J-7224	J-7225	8	152.5	0.12	0.78	0.5	1.4	0.77	1.4
WMAIN-0235	J-5433	J-5739	12	152.5	0.02	0.4	0.3	1.2	0.4	1.2
WMAIN-0237	J-5432	J-5433	12	152.5	0.02	0.4	0.3	1.2	0.4	1.2
WMAIN-0240	J-5259	J-5260	12	130	0	0.01	0	0.2	0	0
WMAIN-0242	J-5259	J-5261	12	130	0	0	0	0	0	0
WMAIN-0243	J-5509	J-8852	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0245	J-5508	J-5509	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0246	J-5438	J-5439	8	130	0.02	0.15	0.1	0.5	0.15	0.5
WMAIN-0247(1)	J-5905	J-8831	12	130	0	0.01	0	0.1	0	0
WMAIN-0247(2)	J-8831	J-5259	12	130	0	0.01	0	0.2	0	0
WMAIN-0250(1)(1)	J-5508	126-056	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-0250(1)(2)	126-056	126-055	8	152.5	0.01	0.06	0.1	0.3	0.05	0.3
WMAIN-0250(2)	126-055	J-8260	8	152.5	0.01	0.06	0.1	0.3	0.05	0.3
WMAIN-0252(1)(1)	J-8831	126-058	8	152.5	0	0	0	0.1	0	0
WMAIN-0252(1)(2)	126-058	126-057	8	152.5	0	0	0	0.1	0	0
WMAIN-0252(2)	126-057	J-5508	8	152.5	0	0	0	0.1	0	0
WMAIN-0253	J-6532	J-6533	8	152.5	0	0	0	0	0	0
WMAIN-0255(1)	J-6533	126-052	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-0255(2)	126-052	J-6510	8	152.5	0.01	0.11	0.1	0.5	0.1	0.5
WMAIN-0256	J-6510	J-5438	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-0257(1)	J-8260	126-053	8	152.5	0	0.06	0.1	0.3	0.06	0.3
WMAIN-0257(2)	126-053	J-6533	8	152.5	0.01	0.07	0.1	0.4	0.06	0.3
WMAIN-0260(1)	J-6111	126-048	8	152.5	0.01	0.12	0.2	0.5	0.12	0.5
WMAIN-0260(2)	126-048	J-5439	8	152.5	0.01	0.12	0.2	0.5	0.11	0.5
WMAIN-0261	J-7143	J-6111	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-0262	J-6111	J-6112	8	152.5	0	0	0	0	0	0
WMAIN-0263(1)	J-8105	126-054	8	152.5	0	0	0	0	0	0
WMAIN-0263(2)	126-054	J-8260	8	152.5	0	0	0	0	0	0
WMAIN-0265(1)	J-6712	014-013	12	152.5	1.23	2.34	2.3	3.2	3.64	4
WMAIN-0265(2)	014-013	J-6713	12	152.5	1.23	2.35	2.3	3.2	3.64	4
WMAIN-0267	J-6713	J-8812	12	152.5	1.23	2.35	2.3	3.2	3.64	4
WMAIN-0268	014-017	014-016	16	152.5	0.22	0.51	1.1	1.7	0.53	1.7
WMAIN-0272(1)	J-6704	J-9017	12	152.5	0.57	12.27	1.5	7.8	2.54	3.3
WMAIN-0272(2)	J-9017	033-010	12	152.5	0.36	6.33	1.2	5.5	1.3	2.3
WMAIN-0274	149-001	J-6704	12	152.5	0.57	12.27	1.5	7.8	2.54	3.3
WMAIN-0275	J-5996	149-002	12	152.5	0.72	13.51	1.7	8.2	3.16	3.8
WMAIN-0277	J-5056	J-5057	16	152.5	0	0	0	0	0	0
WMAIN-0278A(1)	LAPS 16" PRV	139-002	16	152.5	0.47	9.33	1.6	8.1	2.18	3.7
WMAIN-0278A(2)(1)	139-002	139-001	16	152.5	0.47	9.33	1.6	8.1	2.17	3.7
WMAIN-0278A(2)(2)	139-001	J-5569	16	152.5	0.46	9.31	1.6	8.1	2.16	3.7
WMAIN-0278B	J-5057	LAPS 16" PRV	16	152.5	0.47	9.33	1.6	8.1	2.18	3.7
WMAIN-0279	J-5112	J-5113	6	140	0	0.58	0	0.9	0.16	0.4
WMAIN-0280(1)	036-052	029-001	6	140	0.06	0.92	0.3	1.1	0.35	0.7
WMAIN-0280(2)	029-001	J-5411	6	140	0.07	0.94	0.3	1.2	0.36	0.7
WMAIN-0282(1)	J-6717	H-555	6	140	0.07	0.15	0.3	0.4	0.06	0.3
WMAIN-0282(2)	H-555	J-5411	6	140	0.06	0.14	0.3	0.4	0.04	0.2
WMAIN-0284(1)	J-6049	J-8250	12	152.5	0.09	0.18	0.6	0.8	0.23	0.9
WMAIN-0284(2)	J-8250	J-7286	12	152.5	0.15	0.29	0.7	1	0.35	1.1
WMAIN-0285(1)	J-7391	021-036	12	152.5	0	0.03	0	0.3	0	0
WMAIN-0285(2)	021-036	J-8754	12	152.5	0	0.03	0	0.3	0	0
WMAIN-0286(1)	J-8754	021-049	12	152.5	0	0.02	0	0.3	0	0
WMAIN-0286(2)	021-049	J-5762	12	152.5	0	0.02	0	0.3	0	0
WMAIN-0288	J-6290	J-5691	6	140	0	1.31	0	1.4	0.46	0.8
WMAIN-0289	J-5691	J-5692	6	140	0	1.33	0	1.4	0.47	0.8
WMAIN-0291(1)	J-8560	169-002	12	152.5	0.19	0.36	0.8	1.2	0.43	1.3
WMAIN-0291(2)	169-002	J-8795	12	152.5	0.21	0.38	0.9	1.2	0.46	1.3
WMAIN-0292	J-7286	J-8560	12	152.5	0.19	0.35	0.8	1.1	0.43	1.3
WMAIN-0294(1)(1)	J-6631	028-021	6	140	0.07	0.17	0.3	0.5	0.07	0.3
WMAIN-0294(1)(2)	028-021	028-045	6	140	0.02	0.09	0.1	0.3	0.01	0.1
WMAIN-0294(2)	028-045	J-5692	6	140	0.02	0.09	0.1	0.3	0.01	0.1
WMAIN-0296(1)	J-7952	056-013	8	152.5	0	0	0	0	0	0
WMAIN-0296(2)	056-013	J-7945	8	152.5	0	0	0	0.1	0	0
WMAIN-0297(1)	J-8105	126-051	8	152.5	0.01	0.07	0.1	0.4	0.06	0.4
WMAIN-0297(2)(1)	126-051	126-050	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-0297(2)(2)(1)	126-050	126-049	8	152.5	0.01	0.1	0.1	0.4	0.09	0.4
WMAIN-0297(2)(2)(2)	126-049	J-6233	8	152.5	0.01	0.1	0.1	0.5	0.1	0.4
WMAIN-0298	J-6232	J-6233	8	152.5	0.01	0.11	0.1	0.5	0.1	0.5
WMAIN-0300(1)	J-7118	125-089	12	152.5	0.11	1.08	0.6	2.1	0.94	1.9
WMAIN-0300(2)	125-089	J-8467	12	152.5	0.11	1.09	0.6	2.1	0.94	2
WMAIN-0302(1)	J-7874	125-057	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-0302(2)	125-057	J-7881	8	152.5	0.01	0.09	0.2	0.4	0.09	0.4
WMAIN-0303(1)(1)	J-7875	125-083	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0303(1)(2)	125-083	125-058	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-0303(2)	125-058	J-7880	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-0307(1)(1)	J-6002	024-029	12	152.5	0	0.2	0.1	0.9	0.12	0.6
WMAIN-0307(1)(2)	024-029	156-044	12	152.5	0	0.21	0.1	0.9	0.13	0.7
WMAIN-0307(2)(1)	156-044	024-028	12	152.5	0	0.21	0.1	0.9	0.13	0.7
WMAIN-0307(2)(2)	024-028	J-8854	12	152.5	0.01	0.22	0.1	0.9	0.13	0.7
WMAIN-0308	J-6001	J-6002	12	152.5	0	0.2	0.1	0.8	0.11	0.6
WMAIN-0312	J-7881	J-7317	8	152.5	0.11	0.72	0.5	1.3	0.73	1.3
WMAIN-0315	J-7880	J-7881	8	152.5	0.05	0.33	0.3	0.9	0.33	0.9
WMAIN-0319	J-5530	J-5531	12	152.5	0	0	0	0	0	0
WMAIN-0320	040-003	J-8801	12	152.5	0	0.15	0	0.7	0.09	0.6
WMAIN-0322(1)	J-8722	J-9225	12	152.5	0	0.16	0	0.7	0.11	0.6
WMAIN-0322(2)	J-9225	040-003	12	152.5	0	0.15	0	0.7	0.09	0.6
WMAIN-0323	J-5804	J-5805	12	152.5	0	0.01	0	0.2	0.02	0.2
WMAIN-0324	J-5805	J-6688	12	152.5	0	0.01	0	0.2	0.02	0.2
WMAIN-0327	J-5710	J-5711	8	152.5	0	0	0	0	0	0
WMAIN-0331	J-7317	J-5791	8	152.5	0.02	0.28	0.2	0.8	0.31	0.8
WMAIN-0333	J-7248	J-8269	12	152.5	0	0.22	0	0.9	0.14	0.7
WMAIN-0335(1)	J-8467	055-032	12	140	0.13	1.28	0.6	2.1	1.11	2
WMAIN-0335(2)	055-032	J-8458	12	140	0.13	1.28	0.6	2.1	1.12	2
WMAIN-0337(1)	J-7248	J-9274	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-0337(2)	J-9274	J-7249	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0338(1)	J-8269	010-046	16	152.5	0	0.03	0	0.3	0.02	0.3
WMAIN-0338(2)(1)	010-046	011-012	16	152.5	0	0.03	0	0.4	0.02	0.3
WMAIN-0338(2)(2)	011-012	J-5213	16	152.5	0	0.03	0	0.4	0.02	0.3
WMAIN-0340	J-6662	056-041	12	152.5	0.1	0.76	0.6	1.7	0.81	1.8
WMAIN-0341(1)	J-8339	056-044	12	152.5	0.03	0.34	0.3	1.1	0.38	1.2
WMAIN-0341(2)	056-044	J-5958	12	152.5	0.03	0.34	0.3	1.1	0.38	1.2
WMAIN-0344(1)	J-7046	056-018	12	152.5	0.06	0.55	0.4	1.5	0.61	1.5
WMAIN-0344(2)	056-018	J-6662	12	152.5	0.06	0.54	0.4	1.4	0.59	1.5
WMAIN-0345	056-005	J-8545	12	152.5	0.07	0.44	0.5	1.3	0.44	1.3
WMAIN-0348(1)(1)	J-8269	011-013	8	152.5	0	0.23	0	0.7	0.05	0.3
WMAIN-0348(1)(2)	011-013	011-014	8	152.5	0	0.25	0	0.7	0.06	0.4
WMAIN-0348(2)	011-014	J-6984	8	152.5	0	0.25	0	0.7	0.06	0.4
WMAIN-0349	J-6001	J-6038	12	152.5	0	0.19	0.1	0.8	0.16	0.7
WMAIN-0351(1)	J-6430	025-011	12	152.5	0.02	0.1	0.2	0.6	0.08	0.5
WMAIN-0351(2)	025-011	J-6001	12	152.5	0.02	0.11	0.2	0.6	0.08	0.5
WMAIN-0354(1)	J-7146	056-022	12	152.5	0.01	0.27	0.2	1	0.31	1.1
WMAIN-0354(2)	056-022	J-7046	12	152.5	0.01	0.25	0.2	1	0.3	1
WMAIN-0355	J-5569	J-5996	12	152.5	0.73	13.59	1.7	8.2	3.2	3.8
WMAIN-0357	J-8210	149-001	12	152.5	0.58	12.33	1.5	7.8	2.57	3.4
WMAIN-0358	149-002	J-8210	12	152.5	0.58	12.39	1.5	7.8	2.6	3.4
WMAIN-0361(1)	J-5646	023-014	6	152.5	0	0.04	0	0.2	0	0
WMAIN-0361(2)	023-014	J-8282	6	152.5	0	0.04	0	0.2	0	0.1
WMAIN-0363	J-8805	J-8806	2	120	0.08	0.22	0.1	0.2	0.1	0.1
WMAIN-0365	J-6716	J-6717	6	140	0.01	0.54	0.1	0.9	0.17	0.5
WMAIN-0368	J-7311	J-5820	6	140	0.12	0.37	0.4	0.7	0.18	0.5
WMAIN-0369	J-5112	J-7311	6	140	0.12	0.36	0.4	0.7	0.18	0.5
WMAIN-0371(1)	J-5113	J-8806	6	140	0.06	0.91	0.3	1.1	0.33	0.7
WMAIN-0371(2)	J-8806	036-052	6	140	0.06	0.91	0.3	1.1	0.33	0.7
WMAIN-0372	J-5820	J-5821	6	140	0	0.42	0.1	0.7	0.1	0.3
WMAIN-0374(1)(1)	J-5821	029-006	6	140	0	0.42	0.1	0.7	0.1	0.4
WMAIN-0374(1)(2)	029-006	J-8805	6	140	0	0.42	0.1	0.8	0.1	0.4
WMAIN-0374(2)	J-8805	J-6716	6	140	0.01	0.48	0.1	0.8	0.13	0.4
WMAIN-0375	J-7952	J-7953	8	152.5	0	0	0	0	0	0.1
WMAIN-0377	J-6409	J-7945	8	152.5	0	0	0	0.1	0	0
WMAIN-0379(1)	J-6409	056-017	8	152.5	0.31	0.4	0.8	1	0.41	1
WMAIN-0379(2)	056-017	J-6410	8	152.5	0.32	0.41	0.8	1	0.41	1
WMAIN-0381(1)	J-6410	056-016	8	152.5	0.11	0.14	0.5	0.5	0.14	0.5
WMAIN-0381(2)	056-016	J-7953	8	152.5	0.1	0.14	0.5	0.5	0.13	0.5
WMAIN-0384(1)	J-7945	056-012	8	152.5	0	0	0	0	0	0
WMAIN-0384(2)	056-012	J-8416	8	152.5	0	0	0	0	0	0
WMAIN-0387	J-5403	J-5549	1	152.5	0.1	0.4	0.1	0.3	0.4	0.3
WMAIN-0388	J-5402	J-5403	2	152.5	0.03	0.11	0.1	0.2	0.11	0.2
WMAIN-0389(1)	J-5710	125-051	12	152.5	0.26	2.43	1	3.3	2.29	3.2
WMAIN-0389(2)(1)	125-051	126-038	12	152.5	0.27	2.47	1	3.3	2.34	3.2
WMAIN-0389(2)(2)	126-038	J-5546	12	152.5	0.27	2.47	1	3.3	2.34	3.2
WMAIN-0392	J-7874	J-7875	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0393(1)	J-7408	125-084	8	152.5	0	0	0	0	0	0
WMAIN-0393(2)	125-084	J-7874	8	152.5	0	0	0	0	0	0
WMAIN-0395	125-085	J-7408	8	152.5	0	0	0	0	0	0
WMAIN-0397	J-7354	125-087	8	152.5	0	0	0	0	0	0
WMAIN-0398	J-5546	J-5547	12	152.5	0.27	2.47	1	3.3	2.34	3.2
WMAIN-0401	J-5710	J-5850	8	152.5	0	0	0	0	0	0
WMAIN-0405	J-7317	J-7858	12	152.5	0.13	1.24	0.7	2.3	1.28	2.3
WMAIN-0407(1)	125-086	125-024	12	152.5	0.26	2.37	1	3.2	2.46	3.3
WMAIN-0407(2)	125-024	J-7317	12	152.5	0.26	2.37	1	3.2	2.45	3.3
WMAIN-0409(1)	J-6024	J-7354	12	152.5	0.26	2.41	1	3.2	2.5	3.3
WMAIN-0409(2)	J-7354	J-6025	12	152.5	0.26	2.38	1	3.2	2.47	3.3
WMAIN-0410	J-6025	125-086	12	152.5	0.26	2.38	1	3.2	2.46	3.3
WMAIN-0412(1)	J-7118	125-088	12	152.5	0.27	2.41	1	3.2	2.5	3.3
WMAIN-0412(2)	125-088	J-6024	12	152.5	0.27	2.41	1	3.2	2.5	3.3
WMAIN-0413	J-6528	J-7118	12	152.5	0.04	0.38	0.4	1.2	0.48	1.4
WMAIN-0414(1)(1)	J-8636	125-090	12	152.5	0	0.03	0.1	0.3	0.03	0.3
WMAIN-0414(1)(2)	125-090	125-091	12	152.5	0	0.03	0.1	0.3	0.03	0.3
WMAIN-0414(2)	125-091	J-6528	12	152.5	0	0.03	0.1	0.3	0.03	0.3
WMAIN-0415(1)(1)	J-8458	055-031	12	140	0.09	0.65	0.5	1.5	0.46	1.2
WMAIN-0415(1)(2)	055-031	055-033	12	140	0.09	0.66	0.5	1.5	0.47	1.2
WMAIN-0415(2)	055-033	J-5547	12	140	0.09	0.66	0.5	1.5	0.47	1.2
WMAIN-0418	J-5958	J-7146	12	152.5	0.01	0.15	0.1	0.7	0.18	0.8
WMAIN-0421	J-6528	J-6529	12	152.5	0.02	0.27	0.3	1	0.29	1
WMAIN-0423	J-5845	J-8458	8	152.5	0.03	0.97	0.2	1.5	1.22	1.7
WMAIN-0429A	171-024	171-023	12	152.5	0	0	0	0	0	0
WMAIN-0429B(1)	J-6469	171-021	12	152.5	0	0	0	0.1	0	0.1
WMAIN-0429B(2)	171-021	171-024	12	152.5	0	0	0	0	0	0
WMAIN-0430	J-6534	J-6535	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0431	J-6382	J-5226	4	140	1.39	5.36	1.1	2.3	2.49	1.5
WMAIN-0432	J-5826	J-5827	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0434(1)	J-5525	020-010	12	152.5	0.41	1.68	1.2	2.7	1.49	2.5
WMAIN-0434(2)	020-010	J-5526	12	152.5	0.41	1.68	1.2	2.7	1.49	2.5
WMAIN-0435	J-8330	J-5626	12	152.5	0.03	0.32	0.3	1.1	0.17	0.8
WMAIN-0438(1)	J-5526	020-018	16	152.5	0	0.12	0.1	0.8	0.1	0.7
WMAIN-0438(2)	020-018	J-8727	16	152.5	0	0.12	0.1	0.8	0.1	0.7
WMAIN-0439(1)(1)	J-8727	J-8757	16	152.5	0	0.11	0.1	0.7	0.09	0.7
WMAIN-0439(1)(2)	J-8757	020-019	16	152.5	0	0.1	0	0.7	0.08	0.6
WMAIN-0439(2)	020-019	J-8804	16	152.5	0	0.1	0	0.7	0.08	0.6
WMAIN-0441(1)	J-8804	020-020	16	152.5	0	0.1	0	0.7	0.08	0.6
WMAIN-0441(2)(1)	020-020	014-019	16	152.5	0	0.1	0	0.7	0.07	0.6
WMAIN-0441(2)(2)	014-019	J-5450	16	152.5	0	0.1	0	0.7	0.07	0.6
WMAIN-0442	J-5827	J-5525	12	152.5	0.28	1.21	1	2.2	0.95	2
WMAIN-0445	J-8330	J-5827	12	152.5	0.24	1.07	0.9	2.1	0.8	1.8
WMAIN-0448(1)(1)	J-6817	J-6788	12	152.5	0.15	0.43	0.7	1.3	0.41	1.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0448(1)(2)	J-6788	020-008	12	152.5	0.11	0.27	0.6	1	0.28	1
WMAIN-0448(2)	020-008	J-8330	12	152.5	0.11	0.27	0.6	1	0.28	1
WMAIN-0450A	J-8288	J-8897	16	152.5	0.06	0.64	0.5	1.9	0.39	1.4
WMAIN-0450B	J-8897	J-5055	16	152.5	0.05	0.65	0.5	1.9	0.4	1.5
WMAIN-0453	J-5209	J-8288	16	152.5	0.06	0.64	0.5	1.9	0.39	1.4
WMAIN-0455	J-5208	J-5209	10	152.5	0.43	1.71	1.1	2.4	1.32	2.1
WMAIN-0457	J-5116	J-6536	12	152.5	0.01	0.96	0.2	2	2.68	3.4
WMAIN-0461	J-5116	J-5916	16	152.5	0	0.43	0	1.5	1.17	2.6
WMAIN-0462	J-5916	J-6521	12	152.5	0	1.73	0.1	2.7	4.73	4.7
WMAIN-0467(1)(1)	J-5784	150-001	12	152.5	0.03	1.39	0.3	2.4	0.25	0.9
WMAIN-0467(1)(2)(1)	150-001	J-9153	12	152.5	0.03	1.42	0.3	2.4	0.26	1
WMAIN-0467(1)(2)(2)	J-9153	150-002	12	152.5	0.04	1.54	0.4	2.5	0.32	1.1
WMAIN-0467(2)	150-002	J-8863	12	152.5	0.05	1.55	0.4	2.5	0.32	1.1
WMAIN-0468(1)(1)	J-8863	150-003	12	152.5	0.05	1.56	0.4	2.6	0.33	1.1
WMAIN-0468(1)(2)(1)	150-003	J-7499	12	152.5	0.05	1.57	0.4	2.6	0.33	1.1
WMAIN-0468(1)(2)(2)	J-7499	150-004	12	152.5	0.15	3.54	0.7	4	0.76	1.7
WMAIN-0468(2)	150-004	J-8864	12	152.5	0.15	3.54	0.7	4	0.76	1.7
WMAIN-0469(1)	J-8865	150-006	12	152.5	0.32	7.59	1.1	6	1.69	2.7
WMAIN-0469(2)(1)	150-006	150-007	12	152.5	0.33	7.59	1.1	6	1.69	2.7
WMAIN-0469(2)(2)	150-007	J-8848	12	152.5	0.33	7.62	1.1	6	1.71	2.7
WMAIN-0470(1)	J-8864	150-005	12	152.5	0.15	3.55	0.7	4	0.76	1.7
WMAIN-0470(2)	150-005	J-8865	12	152.5	0.32	7.58	1.1	6	1.69	2.7
WMAIN-0471(1)(1)	J-8848	150-008	12	152.5	0.33	7.62	1.1	6	1.71	2.7
WMAIN-0471(1)(2)	150-008	150-009	12	152.5	0.33	7.66	1.1	6	1.73	2.7
WMAIN-0471(2)	150-009	J-5569	12	152.5	0.34	7.68	1.1	6.1	1.74	2.7
WMAIN-0472	J-5569	J-5570	12	152.5	0	0	0	0	0	0
WMAIN-0474	J-6270	J-6271	8	152.5	0	0	0	0	0	0
WMAIN-0476	J-7140	J-6712	12	152.5	1.23	2.34	2.2	3.2	3.64	4
WMAIN-0477(1)	J-7140	014-014	16	152.5	0	0.05	0	0.5	0.05	0.5
WMAIN-0477(2)	014-014	J-7141	16	152.5	0	0.05	0	0.5	0.05	0.5
WMAIN-0479	J-6508	126-046	8	152.5	0	0	0	0	0	0
WMAIN-0481(1)	J-8130	126-047	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0481(2)	126-047	J-6305	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0483	J-6305	J-6306	12	152.5	0	0	0	0	0	0
WMAIN-0484(1)	J-7898	126-045	8	152.5	0	0	0	0	0	0
WMAIN-0484(2)	126-045	J-6305	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0486	J-7185	J-7898	8	152.5	0	0	0	0	0	0
WMAIN-0488	J-7298	126-043	8	152.5	0	0	0	0	0	0
WMAIN-0490	J-6308	J-8175	8	152.5	0	0	0	0	0	0
WMAIN-0491	J-8077	J-6308	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0492(1)	J-6307	126-042	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-0492(2)	126-042	J-6308	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-0495	J-6508	J-6108	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0497	J-7185	J-6508	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0499(1)	J-7298	126-044	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0499(2)	126-044	J-7185	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0501	J-6308	J-7298	8	152.5	0	0	0	0	0	0
WMAIN-0503(1)	J-7943	125-077	8	152.5	0.08	0.37	0.4	0.9	0.35	0.9
WMAIN-0503(2)	125-077	J-7464	8	152.5	0.08	0.36	0.4	0.9	0.34	0.9
WMAIN-0504(1)	J-7913	125-074	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-0504(2)	125-074	J-7464	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-0506	J-6576	J-7913	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0510	J-7464	J-7400	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0511(1)	J-7463	125-076	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0511(2)	125-076	J-7464	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-0514	J-7401	J-7463	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-0517(1)	J-7400	125-075	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0517(2)	125-075	J-7401	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0519(1)	J-6576	125-073	8	152.5	0.01	0.07	0.2	0.4	0.06	0.3
WMAIN-0519(2)	125-073	J-7400	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0520	J-6575	J-6576	8	152.5	0.04	0.2	0.3	0.7	0.19	0.6
WMAIN-0522(1)	J-7992	125-092	8	152.5	0	0	0	0	0	0
WMAIN-0522(2)	125-092	J-8395	8	152.5	0	0	0	0	0	0
WMAIN-0523	J-7894	J-7992	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0524(1)	J-7831	125-093	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-0524(2)	125-093	J-7894	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0526(1)	J-7830	125-094	8	152.5	0	0	0	0	0	0
WMAIN-0526(2)	125-094	J-7831	8	152.5	0	0	0	0	0	0
WMAIN-0530	J-7618	J-7830	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-0532(1)	J-6541	125-095	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0532(2)	125-095	J-7618	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0533	J-6540	J-6541	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0535	J-6541	J-7831	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0536	J-7095	J-7894	8	152.5	0	0	0	0	0	0
WMAIN-0539	J-5298	J-5299	12	152.5	0	0	0	0	0	0
WMAIN-0542(1)	J-8682	036-043	12	152.5	0	0.06	0	0.4	0.01	0.1
WMAIN-0542(2)	036-043	J-5298	12	152.5	0	0.06	0	0.4	0	0.1
WMAIN-0544	J-6016	J-5298	12	152.5	0	0.06	0	0.5	0	0.1
WMAIN-0545(1)	J-5075	J-5123	6	130	0	0	0	0	0	0
WMAIN-0545(2)	J-5123	J-5076	6	130	0	0	0	0	0	0
WMAIN-0546	J-6016	J-6221	12	152.5	0.01	0.08	0.1	0.5	0.03	0.3
WMAIN-0548	J-6016	J-6017	12	152.5	0	0.15	0	0.7	0.04	0.4
WMAIN-0549(1)	J-6017	029-005	12	152.5	0	0.15	0	0.7	0.04	0.3
WMAIN-0549(2)	029-005	J-7048	12	152.5	0	0.15	0	0.7	0.04	0.3
WMAIN-0550	J-7048	J-8141	12	152.5	0	0.14	0	0.7	0.03	0.3
WMAIN-0552(1)	J-8141	036-044	12	152.5	0	0.14	0	0.7	0.03	0.3
WMAIN-0552(2)	036-044	J-6494	12	152.5	0	0.12	0	0.6	0.02	0.3
WMAIN-0553	J-6494	J-5667	12	152.5	0	0.11	0	0.6	0.02	0.2
WMAIN-0555	J-5271	J-5241	12	152.5	0.01	0.05	0.1	0.4	0.02	0.2
WMAIN-0556(1)	J-5667	036-035	12	152.5	0	0.09	0	0.6	0.01	0.2
WMAIN-0556(2)	036-035	J-5270	12	152.5	0	0.09	0	0.6	0.01	0.2
WMAIN-0558(1)	J-5133	029-008	12	152.5	0.04	0.16	0.4	0.8	0.08	0.5
WMAIN-0558(2)	029-008	J-5289	12	152.5	0.04	0.16	0.4	0.8	0.08	0.5
WMAIN-0559(1)	J-5289	029-002	12	152.5	0	0.1	0.1	0.6	0.02	0.3
WMAIN-0559(2)	029-002	J-5271	12	152.5	0	0.09	0.1	0.6	0.02	0.2
WMAIN-0562(1)	J-8141	029-004	6	140	0	0.18	0	0.5	0.01	0.1
WMAIN-0562(2)	029-004	J-6242	6	140	0.01	0.2	0.1	0.5	0.02	0.1
WMAIN-0564	J-7048	J-7049	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-0566	J-6017	J-6191	4	140	0	0	0	0	0	0
WMAIN-0567(1)	J-8251	J-5299	8	140	0	0	0	0	0	0
WMAIN-0567(2)(1)	J-5299	036-042	8	140	0	0	0	0	0	0
WMAIN-0567(2)(2)	036-042	J-8252	8	140	0	0	0	0	0	0
WMAIN-0568(1)	J-5071	J-5364	8	130	0	0	0	0	0	0
WMAIN-0568(2)	J-5364	J-5072	8	130	0	0	0	0	0	0
WMAIN-0569(1)	J-5073	J-8251	8	130	0	0	0	0	0	0
WMAIN-0569(2)	J-8251	J-5074	8	130	0	0	0	0	0	0
WMAIN-0570	J-5123	J-5124	6	130	0	0	0	0	0	0
WMAIN-0571	J-5240	J-5241	6	140	0	0	0	0	0	0
WMAIN-0572	J-5926	J-5927	8	140	0	0	0	0	0	0
WMAIN-0575	J-6521	J-5312	12	152.5	0	0.24	0	0.9	0.68	1.6
WMAIN-0579(1)(1)(1)	J-8813	020-026	16	152.5	0	0.18	0	1	0.08	0.6
WMAIN-0579(1)(1)(2)	020-026	020-025	16	152.5	0	0.18	0.1	1	0.08	0.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0579(1)(2)(1)	020-025	020-024	16	152.5	0	0.18	0.1	1	0.08	0.6
WMAIN-0579(1)(2)(2)	020-024	020-023	16	152.5	0	0.18	0.1	1	0.08	0.6
WMAIN-0579(2)	020-023	J-5209	16	152.5	0	0.18	0.1	1	0.08	0.6
WMAIN-0581	J-5915	J-5916	12	152.5	0	0	0	0	0	0
WMAIN-0588(1)	J-6599	J-5926	12	152.5	0	0.79	0	1.8	2.12	3
WMAIN-0588(2)	J-5926	J-6521	12	152.5	0	0.8	0	1.8	2.13	3
WMAIN-0589	J-5121	J-5122	6	130	0	0	0	0	0	0
WMAIN-0591	J-5526	J-5055	16	152.5	0.07	0.7	0.6	2	0.78	2.1
WMAIN-0592(1)	J-8801	J-5530	12	152.5	0.03	0.36	0.3	1.2	0.39	1.2
WMAIN-0592(2)(1)(1)	J-5530	145-016	12	152.5	0.03	0.36	0.3	1.2	0.39	1.2
WMAIN-0592(2)(1)(2)(1)	145-016	J-9099	12	152.5	0.03	0.36	0.3	1.2	0.39	1.2
WMAIN-0592(2)(1)(2)(2)	J-9099	145-015	12	152.5	0.01	0.24	0.2	0.9	0.22	0.9
WMAIN-0592(2)(2)	145-015	J-8832	12	152.5	0.01	0.24	0.2	0.9	0.22	0.9
WMAIN-0593(1)(1)	J-6038	145-013	12	152.5	0	0.19	0.1	0.8	0.16	0.8
WMAIN-0593(1)(2)	145-013	145-014	12	152.5	0	0.21	0.1	0.9	0.18	0.8
WMAIN-0593(2)	145-014	J-8833	12	152.5	0.01	0.22	0.1	0.9	0.19	0.8
WMAIN-0594	J-8832	J-8833	12	152.5	0.01	0.23	0.1	0.9	0.21	0.9
WMAIN-0597	J-5784	J-5785	16	152.5	0	0.24	0.1	1.1	0.04	0.4
WMAIN-0598	J-5785	J-6015	12	152.5	0	0	0	0	0	0
WMAIN-0599	J-5786	J-5784	16	152.5	0.01	0.24	0.2	1.1	0.03	0.4
WMAIN-0600	J-5784	J-6018	16	152.5	0	0.15	0.1	0.9	0.02	0.3
WMAIN-0601(1)	J-8272	020-013	4	140	0	0.02	0	0.1	0.04	0.2
WMAIN-0601(2)	020-013	J-8397	4	140	0.13	0.52	0.3	0.6	0.36	0.5
WMAIN-0603(1)	J-7530	036-047	6	140	0.11	0.28	0.4	0.6	0.07	0.3
WMAIN-0603(2)	036-047	J-8493	6	140	0.08	0.25	0.3	0.6	0.05	0.2
WMAIN-0604(1)	J-8590	036-056	8	152.5	0	0	0	0	0	0
WMAIN-0604(2)	036-056	J-7530	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0606	J-6367	J-6393	6	140	0.11	0.37	0.4	0.7	0.15	0.4
WMAIN-0607	J-5745	J-5746	6	130	0.08	0.69	0.3	0.9	0.3	0.6
WMAIN-0609	J-5340	J-5341	4	152.5	0	0.05	0	0.2	0.06	0.2
WMAIN-0611	J-5338	J-5339	4	152.5	0	0.09	0	0.3	0.14	0.3
WMAIN-0613	J-5336	J-5337	4	152.5	0	0.13	0	0.3	0.16	0.4
WMAIN-0615	J-5857	J-5858	6	140	0.03	1.69	0.2	1.6	0.47	0.8
WMAIN-0617(1)(1)	J-7125	H-520	6	140	0.15	0.51	0.4	0.8	0.04	0.2
WMAIN-0617(1)(2)	H-520	H-511	6	140	0.15	0.51	0.4	0.8	0.04	0.2
WMAIN-0617(2)	H-511	J-5858	6	140	0.16	0.52	0.4	0.8	0.05	0.2
WMAIN-0618	028-019	J-8106	8	140	0	0.1	0	0.4	0.03	0.2
WMAIN-0621	J-6494	036-053	8	152.5	0	0	0	0	0	0
WMAIN-0624(1)(1)	J-8720	053-040	8	140	0.08	0.35	0.4	0.8	0.42	0.9
WMAIN-0624(1)(2)	053-040	053-052	8	140	0.08	0.37	0.4	0.8	0.44	0.9
WMAIN-0624(2)(1)	053-052	053-051	8	140	0.08	0.37	0.4	0.8	0.44	0.9
WMAIN-0624(2)(2)	053-051	J-5110	8	140	0.08	0.37	0.4	0.8	0.44	0.9
WMAIN-0626(1)(1)	J-8743	053-054	8	152.5	0.11	0.42	0.5	1	0.56	1.1
WMAIN-0626(1)(2)	053-054	053-053	8	152.5	0.11	0.43	0.5	1	0.57	1.2
WMAIN-0626(2)	053-053	J-8720	8	152.5	0.12	0.44	0.5	1	0.59	1.2
WMAIN-0629(1)	J-6994	024-021	8	152.5	0	0	0	0	0	0
WMAIN-0629(2)	024-021	J-8607	8	152.5	0	0	0	0.1	0	0
WMAIN-0630(1)	J-6183	156-020	12	152.5	0.03	0.13	0.3	0.7	0.13	0.7
WMAIN-0630(2)	156-020	J-7285	12	152.5	0.04	0.13	0.3	0.7	0.13	0.7
WMAIN-0632	010-035	J-7169	6	152.5	0	0	0	0	0	0
WMAIN-0633	J-5568	J-5291	6	140	0	0	0	0	0	0
WMAIN-0636	J-6676	J-5762	16	152.5	0.15	0.7	0.9	2	0.47	1.6
WMAIN-0638	J-5281	J-6764	12	140	0.16	1.17	0.7	2	0.67	1.5
WMAIN-0641(1)	J-7390	021-025	12	152.5	0	0.06	0	0.4	0.01	0.1
WMAIN-0641(2)	021-025	J-7391	12	152.5	0	0.06	0	0.4	0.01	0.1
WMAIN-0643	J-5762	J-5302	16	152.5	0.18	0.61	1	1.9	0.48	1.6
WMAIN-0644	J-6764	J-6839	12	140	0.2	0.8	0.8	1.6	0.61	1.4
WMAIN-0645(1)	J-6839	020-022	10	140	0.49	1.95	1.1	2.4	1.5	2
WMAIN-0645(2)	020-022	J-5208	10	140	0.51	1.99	1.1	2.4	1.53	2.1
WMAIN-0648	J-5174	J-6602	6	140	0.1	0.3	0.4	0.6	0.2	0.5
WMAIN-0649	J-6852	J-5174	4	140	0.31	1.47	0.5	1.1	0.53	0.7
WMAIN-0650	J-5174	J-5175	4	140	1.85	6.17	1.3	2.5	3.15	1.7
WMAIN-0651(1)	J-8656	053-043	6	140	0.11	0.47	0.4	0.8	0.17	0.5
WMAIN-0651(2)	053-043	J-6227	6	140	0.12	0.51	0.4	0.8	0.2	0.5
WMAIN-0654	J-6205	J-6206	8	152.5	0.01	0.06	0.2	0.3	0.06	0.3
WMAIN-0655(1)	J-8501	170-054	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-0655(2)	170-054	J-5584	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-0657	J-6670	J-6671	12	152.5	0.03	0.18	0.3	0.8	0.05	0.4
WMAIN-0659(1)	J-5707	167-072	12	152.5	0.03	0.18	0.3	0.8	0.05	0.4
WMAIN-0659(2)	167-072	J-6670	12	152.5	0.03	0.18	0.3	0.8	0.05	0.4
WMAIN-0660(1)(1)	J-6847	167-070	12	152.5	0.03	0.17	0.3	0.8	0.04	0.4
WMAIN-0660(1)(2)	167-070	167-071	12	152.5	0.03	0.17	0.3	0.8	0.04	0.4
WMAIN-0660(2)	167-071	J-5707	12	152.5	0.03	0.18	0.3	0.8	0.05	0.4
WMAIN-0663	J-5707	J-5708	12	152.5	0	0	0	0	0	0
WMAIN-0665	167-075	J-7229	12	152.5	0	0.18	0	0.8	0.14	0.7
WMAIN-0667	J-6746	J-5264	12	152.5	0	0.13	0	0.7	0.11	0.6
WMAIN-0668	J-5264	J-5265	12	152.5	0	0.11	0	0.6	0.1	0.6
WMAIN-0670	J-5265	J-5268	12	152.5	0	0.18	0	0.8	0.15	0.7
WMAIN-0671	J-7370	J-7371	12	152.5	0	0.27	0	1	0.26	1
WMAIN-0674	J-7229	J-7200	8	152.5	0	0.15	0	0.6	0.15	0.6
WMAIN-0677(1)	J-5268	J-7368	12	152.5	0	0.09	0	0.5	0.07	0.5
WMAIN-0677(2)	J-7368	167-075	12	152.5	0	0.17	0	0.8	0.14	0.7
WMAIN-0680	J-7229	J-7370	12	152.5	0	0.12	0	0.6	0.11	0.6
WMAIN-0681(1)	J-7364	167-057	8	152.5	0.01	0.13	0.1	0.5	0.05	0.3
WMAIN-0681(2)	167-057	J-7229	8	152.5	0.01	0.13	0.1	0.5	0.05	0.3
WMAIN-0683(1)	J-8264	167-054	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-0683(2)	167-054	J-7364	8	152.5	0.02	0.06	0.2	0.4	0.06	0.3
WMAIN-0686(1)	J-6745	167-069	12	152.5	0	0.39	0	1.2	0.03	0.3
WMAIN-0686(2)	167-069	J-5751	12	152.5	0	0.39	0	1.2	0.03	0.3
WMAIN-0687	J-6745	J-6746	12	152.5	0	0.21	0	0.9	0.19	0.8
WMAIN-0688(1)(1)	J-8778	167-067	12	152.5	0.12	0.33	0.6	1.1	0.33	1.1
WMAIN-0688(1)(2)	167-067	167-068	12	152.5	0.12	0.34	0.6	1.1	0.34	1.1
WMAIN-0688(2)	167-068	J-6745	12	152.5	0.12	0.34	0.6	1.1	0.34	1.1
WMAIN-0690(1)	J-8751	156-041	12	152.5	0.01	0.25	0.2	1	0.18	0.8
WMAIN-0690(2)	156-041	J-5107	12	152.5	0.01	0.26	0.2	1	0.19	0.8
WMAIN-0692(1)	J-8854	156-043	12	152.5	0.01	0.23	0.1	0.9	0.15	0.7
WMAIN-0692(2)(1)	156-043	024-027	12	152.5	0.01	0.23	0.1	0.9	0.15	0.7
WMAIN-0692(2)(2)(1)	024-027	156-042	12	152.5	0.01	0.23	0.1	0.9	0.15	0.7
WMAIN-0692(2)(2)(2)	156-042	J-8751	12	152.5	0.01	0.24	0.1	0.9	0.16	0.7
WMAIN-0695	J-8283	J-5415	12	152.5	0.69	1.37	1.6	2.4	1.6	2.6
WMAIN-0697	J-8165	J-7151	12	152.5	0.1	0.18	0.6	0.8	0.22	0.9
WMAIN-0698	J-5232	J-5233	12	152.5	0.18	0.35	0.8	1.1	0.41	1.2
WMAIN-0699(1)(1)	J-7151	169-112	12	152.5	0.12	0.24	0.6	0.9	0.3	1.1
WMAIN-0699(1)(2)	169-112	169-111	12	152.5	0.12	0.24	0.6	0.9	0.3	1.1
WMAIN-0699(2)(1)	169-111	169-011	12	152.5	0.12	0.24	0.6	0.9	0.3	1.1
WMAIN-0699(2)(2)	169-011	J-5232	12	152.5	0.12	0.24	0.6	0.9	0.3	1.1
WMAIN-0702(1)	J-5233	169-010	12	152.5	0.1	0.24	0.6	0.9	0.27	1
WMAIN-0702(2)	169-010	J-6490	12	152.5	0.1	0.24	0.6	0.9	0.27	1
WMAIN-0704	J-5415	J-8165	12	152.5	0.21	0.38	0.9	1.2	0.47	1.3
WMAIN-0706	169-081	J-8283	12	152.5	0.69	1.37	1.6	2.4	1.6	2.6
WMAIN-0707	169-082	J-5275	12	152.5	0.73	1.48	1.7	2.5	1.72	2.7
WMAIN-0708(1)	J-5377	169-083	12	152.5	0.14	0.28	0.7	1	0.33	1.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0708(2)	169-083	J-5141	12	152.5	0.14	0.28	0.7	1	0.33	1.1
WMAIN-0711	J-5376	J-5377	12	152.5	0	0	0	0	0	0
WMAIN-0715	J-6004	J-6892	8	152.5	0.25	0.7	0.7	1.3	0.82	1.4
WMAIN-0716	J-6395	J-6396	8	152.5	0.19	0.3	0.6	0.8	0.41	1
WMAIN-0718(1)	J-8394	169-009	12	152.5	0.79	1.67	1.8	2.7	1.92	2.9
WMAIN-0718(2)	169-009	J-8811	12	152.5	0.81	1.71	1.8	2.7	1.97	2.9
WMAIN-0720	J-5333	J-5334	8	152.5	0	0	0	0	0	0
WMAIN-0721	J-6379	J-5333	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0724(1)	J-5333	169-084	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0724(2)	169-084	J-8394	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0726	J-6792	J-6379	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0728(1)	J-8381	169-085	8	152.5	0	0	0	0	0	0
WMAIN-0728(2)	169-085	J-6379	8	152.5	0	0	0	0	0	0
WMAIN-0731(1)	J-6339	126-036	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0731(2)	126-036	J-7402	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0732	J-8226	J-8227	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0735	J-8393	J-6339	8	152.5	0	0	0	0	0	0
WMAIN-0737	J-6339	J-6307	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-0739(1)	J-7402	126-035	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0739(2)(1)	126-035	126-034	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0739(2)(2)	126-034	J-8226	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0741(1)	J-8227	126-032	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0741(2)	126-032	J-6687	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0744(1)	J-8227	126-033	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0744(2)(1)	126-033	126-037	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0744(2)(2)	126-037	J-8393	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0746(1)	J-6687	126-031	8	152.5	0	0.01	0.1	0.1	0.01	0.2
WMAIN-0746(2)	126-031	J-6273	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0749	J-6273	J-8393	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0751(1)	J-6273	126-030	8	152.5	0	0	0	0	0	0
WMAIN-0751(2)	126-030	J-6976	8	152.5	0	0	0	0	0	0
WMAIN-0752	J-6272	J-6273	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-0753	J-6686	J-6687	8	152.5	0	0	0	0	0	0
WMAIN-0755(1)	J-7393	126-024	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-0755(2)	126-024	J-7394	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-0756(1)	J-7394	126-025	8	152.5	0.01	0.06	0.1	0.4	0.06	0.3
WMAIN-0756(2)	126-025	J-8633	8	152.5	0.01	0.08	0.1	0.4	0.07	0.4
WMAIN-0757(1)	J-8633	126-027	8	152.5	0.01	0.09	0.1	0.4	0.08	0.4
WMAIN-0757(2)	126-027	J-7143	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-0759(1)	J-6860	125-008	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0759(2)	125-008	J-7777	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-0760	J-7920	J-7921	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0762(1)	J-7921	125-012	8	152.5	0.01	0.05	0.1	0.3	0.04	0.3
WMAIN-0762(2)	125-012	J-6959	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0765	J-6959	J-6710	8	152.5	0.03	0.23	0.3	0.7	0.22	0.7
WMAIN-0768(1)	J-7786	125-013	8	152.5	0	0	0	0	0	0
WMAIN-0768(2)	125-013	J-8079	8	152.5	0	0	0	0	0	0
WMAIN-0771(1)	J-7778	125-010	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0771(2)	125-010	J-7786	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-0772	J-8079	J-6959	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0774(1)	J-7777	125-009	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-0774(2)	125-009	J-7778	8	152.5	0	0	0	0.1	0	0.1
WMAIN-0777	J-6860	J-7920	8	152.5	0	0	0	0.1	0	0
WMAIN-0780(1)	J-7920	125-011	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0780(2)	125-011	J-7778	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-0782	J-7786	J-7921	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-0785	J-8765	J-8766	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-0786	J-7594	J-7880	8	152.5	0.07	0.53	0.4	1.1	0.53	1.1
WMAIN-0787(1)	J-7868	125-061	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-0787(2)	125-061	J-7482	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-0791(1)	J-7482	125-059	8	152.5	0.07	0.51	0.4	1.1	0.51	1.1
WMAIN-0791(2)	125-059	J-7594	8	152.5	0.07	0.52	0.4	1.1	0.52	1.1
WMAIN-0792(1)	J-7482	125-060	12	152.5	0.08	0.46	0.5	1.3	0.46	1.3
WMAIN-0792(2)	125-060	J-7858	12	152.5	0.08	0.48	0.5	1.4	0.47	1.3
WMAIN-0794(1)	J-7868	125-062	8	152.5	0.06	0.31	0.3	0.8	0.3	0.8
WMAIN-0794(2)(1)	125-062	125-022	8	152.5	0.06	0.33	0.3	0.9	0.32	0.8
WMAIN-0794(2)(2)	125-022	J-7859	8	152.5	0.06	0.33	0.3	0.9	0.32	0.8
WMAIN-0796(1)	J-8284	125-064	8	152.5	0	0	0	0	0	0
WMAIN-0796(2)	125-064	J-8092	8	152.5	0	0	0	0	0	0
WMAIN-0798(1)	J-8564	125-065	8	152.5	0	0	0	0	0	0
WMAIN-0798(2)	125-065	J-8091	8	152.5	0	0	0	0	0	0
WMAIN-0800(1)	J-8596	125-067	8	152.5	0	0	0	0	0	0
WMAIN-0800(2)	125-067	J-7471	8	152.5	0	0	0	0	0	0
WMAIN-0802(1)	J-7470	125-068	8	152.5	0.03	0.21	0.2	0.7	0.2	0.7
WMAIN-0802(2)	125-068	J-7471	8	152.5	0.03	0.22	0.2	0.7	0.21	0.7
WMAIN-0804	J-8092	J-7481	8	152.5	0.11	0.59	0.5	1.2	0.58	1.2
WMAIN-0807(1)	J-7471	125-066	8	152.5	0.04	0.25	0.3	0.7	0.24	0.7
WMAIN-0807(2)	125-066	J-8091	8	152.5	0.06	0.37	0.4	0.9	0.36	0.9
WMAIN-0809	J-8091	J-8092	8	152.5	0.1	0.54	0.5	1.1	0.53	1.1
WMAIN-0811	J-7866	J-7868	8	152.5	0.07	0.43	0.4	1	0.43	1
WMAIN-0812	J-7943	J-7865	12	152.5	0.04	0.3	0.3	1.1	0.31	1.1
WMAIN-0817(1)	J-7865	125-063	12	152.5	0.05	0.34	0.4	1.1	0.34	1.1
WMAIN-0817(2)	125-063	J-7481	12	152.5	0.05	0.35	0.4	1.1	0.35	1.1
WMAIN-0820	J-7481	J-7482	12	152.5	0.12	0.71	0.6	1.7	0.7	1.7
WMAIN-0821(1)	J-8738	125-138	12	152.5	0.01	0.11	0.1	0.6	0.12	0.6
WMAIN-0821(2)	125-138	J-7943	12	152.5	0.01	0.12	0.2	0.6	0.13	0.7
WMAIN-0823(1)(1)	J-8765	125-079	8	152.5	0.02	0.12	0.2	0.5	0.11	0.5
WMAIN-0823(1)(2)	125-079	125-078	8	152.5	0.02	0.11	0.2	0.5	0.1	0.5
WMAIN-0823(2)	125-078	J-7866	8	152.5	0.02	0.11	0.2	0.5	0.1	0.5
WMAIN-0825	J-7783	J-7784	8	152.5	0.11	0.51	0.5	1.1	0.5	1.1
WMAIN-0828	J-6741	J-8010	8	152.5	0.04	0.18	0.3	0.6	0.18	0.6
WMAIN-0829(1)	J-8093	125-072	8	152.5	0.04	0.18	0.3	0.6	0.18	0.6
WMAIN-0829(2)	125-072	J-6741	8	152.5	0.04	0.18	0.3	0.6	0.18	0.6
WMAIN-0833(1)(1)	J-7784	125-070	8	152.5	0.09	0.28	0.4	0.8	0.29	0.8
WMAIN-0833(1)(2)	125-070	125-069	8	152.5	0.09	0.3	0.4	0.8	0.3	0.8
WMAIN-0833(2)	125-069	J-6711	8	152.5	0.09	0.3	0.4	0.8	0.3	0.8
WMAIN-0835	J-7783	J-8093	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-0837(1)	J-8010	125-071	8	152.5	0.04	0.17	0.3	0.6	0.16	0.6
WMAIN-0837(2)	125-071	J-7783	8	152.5	0.04	0.16	0.3	0.6	0.16	0.6
WMAIN-0839	J-5282	J-5283	8	152.5	0	0	0	0	0	0
WMAIN-0840	J-5283	J-6741	8	152.5	0.16	0.69	0.6	1.3	0.68	1.3
WMAIN-0841	J-6160	J-6161	8	152.5	0.06	1.44	0.3	1.9	1.41	1.9
WMAIN-0843	J-6225	J-6226	8	152.5	0	0.21	0.1	0.7	0.2	0.6
WMAIN-0844(1)	J-7658	040-018	8	152.5	0.02	0.38	0.2	0.9	0.38	0.9
WMAIN-0844(2)	040-018	J-7702	8	152.5	0.02	0.37	0.2	0.9	0.36	0.9
WMAIN-0846(1)(1)(1)	J-8523	041-034	12	152.5	0	0.36	0.1	1.2	0.25	0.9
WMAIN-0846(1)(1)(2)	041-034	J-7399	12	152.5	0	0.36	0.1	1.2	0.25	0.9
WMAIN-0846(1)(2)(1)	J-7399	041-035	12	152.5	0.01	0.25	0.1	1	0.18	0.8
WMAIN-0846(1)(2)(2)	041-035	J-8579	12	152.5	0.01	0.25	0.1	1	0.18	0.8
WMAIN-0846(2)	J-8579	J-8692	12	152.5	0.01	0.3	0.2	1.1	0.24	0.9
WMAIN-0847(1)(1)	J-8692	041-036	12	152.5	0.01	0.3	0.2	1.1	0.24	0.9
WMAIN-0847(1)(2)	041-036	041-037	12	152.5	0.01	0.3	0.2	1.1	0.24	0.9

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0847(2)	041-037	J-8605	12	152.5	0.01	0.31	0.2	1.1	0.24	0.9
WMAIN-0848(1)	040-035	041-038	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-0848(2)	041-038	J-5804	12	152.5	0	0.01	0	0.2	0.02	0.2
WMAIN-0850(1)(1)(1)	J-8713	145-018	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-0850(1)(1)(2)	145-018	145-019	12	152.5	0.02	0.06	0.2	0.5	0.06	0.5
WMAIN-0850(1)(2)	145-019	134-027	12	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-0850(2)(1)	134-027	134-001	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0850(2)(2)(1)	134-001	134-002	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-0850(2)(2)(2)	134-002	J-5471	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-0852(1)	J-6231	040-022	8	152.5	0.16	3.41	0.6	3	3.36	3
WMAIN-0852(2)	040-022	J-6392	8	152.5	0.16	3.41	0.6	3	3.36	3
WMAIN-0857	J-7073	J-8523	12	152.5	0	0.36	0.1	1.2	0.24	0.9
WMAIN-0858(1)	J-8699	145-017	12	152.5	0.05	0.36	0.4	1.2	0.32	1.1
WMAIN-0858(2)	145-017	J-8722	12	152.5	0.05	0.36	0.4	1.2	0.32	1.1
WMAIN-0861(1)	J-5471	134-003	12	152.5	0	0	0	0.1	0	0.1
WMAIN-0861(2)	134-003	134-004	12	152.5	0	0	0	0.1	0	0.1
WMAIN-0863	J-8605	040-035	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-0865(1)	J-6688	040-037	12	152.5	0.04	0.28	0.3	1	0.23	0.9
WMAIN-0865(2)(1)	040-037	145-020	12	152.5	0.04	0.28	0.3	1	0.23	0.9
WMAIN-0865(2)(2)	145-020	J-8699	12	152.5	0.04	0.29	0.4	1	0.25	0.9
WMAIN-0867(1)	J-6688	134-031	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-0867(2)	134-031	J-8713	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-0868(1)	J-6373	041-050	12	152.5	0.02	0.13	0.2	0.7	0.12	0.6
WMAIN-0868(2)(1)	041-050	134-030	12	152.5	0.02	0.13	0.2	0.7	0.12	0.6
WMAIN-0868(2)(2)	134-030	J-6688	12	152.5	0.02	0.13	0.2	0.7	0.12	0.6
WMAIN-0870	J-7072	J-7073	12	152.5	0	0.36	0.1	1.2	0.24	0.9
WMAIN-0871	J-5330	J-7622	16	152.5	0	0.11	0	0.7	0.01	0.1
WMAIN-0872	J-5406	J-5330	8	152.5	0.19	0.82	0.6	1.4	0.35	0.9
WMAIN-0876	J-6585	J-8397	6	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-0878	J-6584	J-8320	6	152.5	0	0	0	0	0	0
WMAIN-0879	J-5576	020-017	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-0880	020-017	J-6382	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-0882(1)(1)	J-5504	019-006	16	152.5	0.02	0.21	0.3	1	0.24	1.1
WMAIN-0882(1)(2)	019-006	J-7043	16	152.5	0.02	0.21	0.3	1	0.24	1.1
WMAIN-0882(2)	J-7043	J-5938	16	152.5	0.01	0.19	0.2	1	0.22	1.1
WMAIN-0883	J-5938	J-5507	16	152.5	0.01	0.19	0.2	1	0.22	1.1
WMAIN-0885	J-5144	J-5145	8	152.5	0	0	0	0	0	0
WMAIN-0886	J-5144	J-5503	8	152.5	0.02	0.23	0.2	0.7	0.27	0.8
WMAIN-0887	J-5503	J-5504	8	152.5	0.02	0.23	0.2	0.7	0.27	0.8
WMAIN-0891(1)	J-8114	019-046	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-0891(2)(1)	019-046	J-9299	8	152.5	0	0.03	0	0.3	0.01	0.1
WMAIN-0891(2)(2)	J-9299	J-8115	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-0893(1)	J-8107	J-9296	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-0893(2)	J-9296	J-8114	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-0895(1)	J-6368	019-040	8	152.5	0	0.07	0.1	0.4	0.04	0.3
WMAIN-0895(2)(1)	019-040	J-9267	8	152.5	0	0.06	0.1	0.4	0.04	0.3
WMAIN-0895(2)(2)	J-9267	J-8107	8	152.5	0	0.06	0.1	0.4	0.04	0.3
WMAIN-0896	J-5144	J-5318	8	152.5	0.02	0.23	0.2	0.7	0.27	0.8
WMAIN-0897	J-5318	J-6368	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-0898	J-5383	J-5384	2	152.5	1.28	4.96	0.7	1.5	4.96	1.5
WMAIN-0900(1)	J-5227	020-016	8	140	0	0.04	0	0.2	0.02	0.2
WMAIN-0900(2)	020-016	J-5487	8	140	0	0.04	0	0.2	0.02	0.2
WMAIN-0901(1)(1)	J-5487	J-9327	8	140	0	0.04	0	0.2	0.02	0.2
WMAIN-0901(1)(2)	J-9327	019-001	8	140	0	0.04	0	0.2	0.02	0.2
WMAIN-0901(2)	019-001	J-7080	8	140	0	0.03	0	0.2	0.02	0.2
WMAIN-0903	J-7237	J-6882	8	152.5	0.03	0.08	0.2	0.4	0.09	0.4
WMAIN-0906(1)	J-6026	169-059	8	152.5	0.03	0.11	0.2	0.5	0.12	0.5
WMAIN-0906(2)	169-059	J-6063	8	152.5	0.05	0.13	0.3	0.5	0.15	0.6
WMAIN-0907(1)	J-7030	169-044	8	152.5	0	0.65	0	1.2	0.25	0.7
WMAIN-0907(2)	169-044	J-5767	8	152.5	0	0.65	0	1.2	0.25	0.7
WMAIN-0911(1)	J-7030	169-045	8	152.5	0	0.08	0	0.4	0.02	0.2
WMAIN-0911(2)	169-045	J-7031	8	152.5	0	0.08	0	0.4	0.02	0.2
WMAIN-0913(1)	J-5596	169-046	8	152.5	0	0.08	0.1	0.4	0.03	0.2
WMAIN-0913(2)	169-046	J-7031	8	152.5	0	0.08	0.1	0.4	0.02	0.2
WMAIN-0915(1)(1)	J-8654	169-049	8	152.5	0.01	0.08	0.1	0.4	0.05	0.3
WMAIN-0915(1)(2)	169-049	169-050	8	152.5	0.01	0.08	0.1	0.4	0.06	0.3
WMAIN-0915(2)	169-050	J-5801	8	152.5	0.01	0.08	0.1	0.4	0.06	0.3
WMAIN-0918(1)	J-7030	169-048	8	152.5	0	0.07	0.1	0.4	0.04	0.3
WMAIN-0918(2)	169-048	J-8654	8	152.5	0	0.07	0.1	0.4	0.04	0.3
WMAIN-0921(1)	J-5997	169-047	8	152.5	0	0.12	0.1	0.5	0.05	0.3
WMAIN-0921(2)	169-047	J-7030	8	152.5	0	0.12	0.1	0.5	0.05	0.3
WMAIN-0923(1)	J-5880	169-052	8	152.5	0.01	0.02	0.1	0.2	0.03	0.2
WMAIN-0923(2)	169-052	J-5998	8	152.5	0.01	0.02	0.1	0.2	0.03	0.2
WMAIN-0927(1)	J-6642	169-115	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-0927(2)(1)	169-115	169-114	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-0927(2)(2)	169-114	J-5980	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-0928	J-5891	J-6642	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-0929	169-116	J-5891	8	152.5	0.01	0.05	0.1	0.3	0.04	0.3
WMAIN-0933	J-5880	169-116	8	152.5	0.01	0.05	0.1	0.3	0.04	0.3
WMAIN-0934	169-051	J-5880	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-0936	J-5801	169-051	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-0937	J-5800	J-5801	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0938(1)	169-061	169-062	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0938(2)	169-062	J-5800	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0941(1)	J-6026	169-060	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0941(2)	169-060	169-061	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-0943	J-5980	J-6026	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0945	J-5979	J-5980	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-0946	J-5979	J-6118	8	152.5	0.01	0.04	0.1	0.3	0.05	0.3
WMAIN-0948(1)	J-6968	035-043	8	152.5	0.01	0.18	0.1	0.6	0.01	0.1
WMAIN-0948(2)	035-043	J-8428	8	152.5	0.01	0.18	0.1	0.6	0.01	0.1
WMAIN-0949(1)	J-6969	035-036	8	152.5	0.01	0.14	0.1	0.5	0.01	0.1
WMAIN-0949(2)	035-036	J-8646	8	152.5	0.01	0.14	0.1	0.5	0.01	0.1
WMAIN-0950	J-6968	J-6969	8	152.5	0.04	0.6	0.3	1.2	0.04	0.3
WMAIN-0954	J-8519	J-6968	8	152.5	0.01	0.17	0.2	0.6	0.02	0.2
WMAIN-0957(1)	J-6439	035-035	8	152.5	0.07	1.18	0.4	1.7	0.07	0.4
WMAIN-0957(2)	035-035	J-6969	8	152.5	0.07	1.19	0.4	1.7	0.07	0.4
WMAIN-0961(1)	J-6845	156-005	10	152.5	0	0	0	0.1	0	0.1
WMAIN-0961(2)	156-005	J-8660	10	152.5	0	0	0	0.1	0	0.1
WMAIN-0964	J-5874	J-5816	10	152.5	0.02	0.18	0.2	0.7	0.16	0.7
WMAIN-0965(1)	J-6777	156-001	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0965(2)	156-001	J-6778	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0966	J-5230	J-5231	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0967(1)(1)	J-5231	156-023	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-0967(1)(2)	156-023	156-022	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0967(2)	156-022	J-6777	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-0968(1)	J-8388	156-024	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0968(2)	156-024	J-5244	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0969	J-5244	J-5230	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0970(1)	J-5874	156-046	12	152.5	0.08	0.52	0.5	1.4	0.47	1.3
WMAIN-0970(2)	156-046	J-8933	12	152.5	0.08	0.52	0.5	1.4	0.47	1.3
WMAIN-0971(1)	J-7999	156-002	12	152.5	0.04	0.23	0.4	0.9	0.22	0.9

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-0971(2)	156-002	J-5874	12	152.5	0.04	0.23	0.4	0.9	0.22	0.9
WMAIN-0972(1)	J-8660	156-003	12	152.5	0.04	0.23	0.4	0.9	0.22	0.9
WMAIN-0972(2)	156-003	J-7999	12	152.5	0.04	0.23	0.4	0.9	0.22	0.9
WMAIN-0974	J-8304	J-6864	12	152.5	0	0	0	0	0	0
WMAIN-0976(1)(1)	J-8304	156-021	12	152.5	0.04	0.25	0.4	0.9	0.23	0.9
WMAIN-0976(1)(2)	156-021	156-004	12	152.5	0.04	0.25	0.4	0.9	0.23	0.9
WMAIN-0976(2)	156-004	J-8660	12	152.5	0.04	0.25	0.4	0.9	0.23	0.9
WMAIN-0978(1)(1)	J-8304	156-026	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0978(1)(2)	156-026	156-025	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0978(2)	156-025	J-8388	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-0979(1)(1)	J-8303	156-011	12	152.5	0.11	0.43	0.6	1.3	0.43	1.3
WMAIN-0979(1)(2)	156-011	156-029	12	152.5	0.11	0.43	0.6	1.3	0.43	1.3
WMAIN-0979(2)	156-029	J-8304	12	152.5	0.11	0.43	0.6	1.3	0.43	1.3
WMAIN-0980(1)(1)	J-7285	156-031	12	152.5	0.13	0.48	0.7	1.4	0.48	1.4
WMAIN-0980(1)(2)	156-031	156-030	12	152.5	0.12	0.46	0.6	1.3	0.46	1.3
WMAIN-0980(2)	156-030	J-8303	12	152.5	0.11	0.43	0.6	1.3	0.43	1.3
WMAIN-0981(1)	156-033	156-032	12	152.5	0.28	1.01	1	2	1.01	2
WMAIN-0981(2)	156-032	J-7285	12	152.5	0.28	1	1	2	1	2
WMAIN-0985	J-5713	156-033	12	152.5	0.28	1.02	1	2	1.02	2
WMAIN-0986(1)(1)	J-5634	038-004	16	140	0	0.51	0	1.5	0.65	1.8
WMAIN-0986(1)(2)(1)	038-004	043-050	16	140	0	0.51	0	1.5	0.65	1.8
WMAIN-0986(1)(2)(2)	043-050	J-5336	16	140	0	0.51	0	1.5	0.65	1.8
WMAIN-0986(2)	J-5336	J-5534	16	140	0	0.5	0	1.5	0.64	1.7
WMAIN-0988(1)	J-6570	021-003	8	140	0.01	0.1	0.1	0.4	0.04	0.3
WMAIN-0988(2)	021-003	J-8672	8	140	0.01	0.11	0.1	0.4	0.05	0.3
WMAIN-0989	J-8672	J-8673	8	140	0	0.06	0.1	0.3	0.03	0.2
WMAIN-0991	J-5289	J-5124	6	140	0	0.05	0	0.2	0	0
WMAIN-0992(1)	J-7089	170-113	8	152.5	0	0.01	0	0.1	0	0
WMAIN-0992(2)	170-113	J-7090	8	152.5	0	0.01	0	0.1	0	0
WMAIN-0996	J-6657	033-010	12	152.5	0.36	6.33	1.2	5.5	1.3	2.3
WMAIN-0998	J-8222	J-6567	16	152.5	0.15	0.73	0.9	2	0.17	0.9
WMAIN-1000(1)	J-8221	034-021	16	152.5	0.14	0.71	0.8	2	0.16	0.9
WMAIN-1000(2)	034-021	J-8222	16	152.5	0.14	0.71	0.8	2	0.16	0.9
WMAIN-1002(1)	J-8737	034-022	16	152.5	0.16	0.92	0.9	2.3	0.18	0.9
WMAIN-1002(2)	034-022	J-8221	16	152.5	0.16	0.92	0.9	2.3	0.18	1
WMAIN-1003(1)	053-013	053-014	6	140	0	0.08	0	0.3	0.22	0.5
WMAIN-1003(2)	053-014	J-6138	6	140	0	0.07	0	0.3	0.17	0.5
WMAIN-1004	J-6214	J-5861	6	140	0.24	1.95	0.5	1.7	0.86	1.1
WMAIN-1006(1)	J-5308	022-005	6	140	0.21	0.69	0.5	1	0.29	0.6
WMAIN-1006(2)	022-005	J-6555	6	140	0.2	0.68	0.5	1	0.28	0.6
WMAIN-1007	J-5272	H-507	2	140	0.26	1.02	0.3	0.6	1.02	0.6
WMAIN-1008	J-5919	J-6150	4	140	0	0.02	0	0.1	0.03	0.1
WMAIN-1009(1)	J-8255	035-020	8	140	0	0.12	0	0.5	0.13	0.5
WMAIN-1009(2)(1)	035-020	J-5163	8	140	0	0.12	0	0.5	0.13	0.5
WMAIN-1009(2)(2)	J-5163	J-5317	8	140	0.04	1.19	0.2	1.6	0.79	1.3
WMAIN-1012(1)	J-6200	170-064	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1012(2)	170-064	J-8113	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1015	J-7159	J-7160	8	152.5	0	0	0	0	0	0
WMAIN-1016	J-7159	J-7933	12	152.5	0.16	0.36	0.8	1.2	0.41	1.2
WMAIN-1018(1)	J-7730	170-069	12	152.5	0.16	0.36	0.7	1.2	0.4	1.2
WMAIN-1018(2)	170-069	J-7159	12	152.5	0.16	0.36	0.7	1.2	0.41	1.2
WMAIN-1021(1)(1)	J-6200	170-065	12	152.5	0.09	0.19	0.5	0.8	0.22	0.9
WMAIN-1021(1)(2)	170-065	170-068	12	152.5	0.1	0.22	0.6	0.9	0.25	1
WMAIN-1021(2)	170-068	J-7730	12	152.5	0.1	0.22	0.6	0.9	0.25	1
WMAIN-1023	J-6199	J-6200	12	152.5	0.09	0.21	0.6	0.9	0.24	0.9
WMAIN-1026(1)	J-8113	170-063	8	152.5	0.08	0.19	0.4	0.6	0.21	0.7
WMAIN-1026(2)(1)	170-063	170-062	8	152.5	0.1	0.21	0.4	0.7	0.24	0.7
WMAIN-1026(2)(2)	170-062	J-8279	8	152.5	0.1	0.21	0.4	0.7	0.24	0.7
WMAIN-1027	J-5455	J-6568	12	140	0.11	0.5	0.6	1.3	0.7	1.5
WMAIN-1028(1)	J-7070	038-037	8	140	0	0.42	0	0.9	0.03	0.2
WMAIN-1028(2)	038-037	J-7071	8	140	0	0.42	0	0.9	0.03	0.2
WMAIN-1031(1)	J-5113	036-051	6	140	0.03	0.23	0.2	0.5	0.03	0.2
WMAIN-1031(2)(1)	036-051	036-032	6	140	0.03	0.21	0.2	0.5	0.02	0.2
WMAIN-1031(2)(2)(1)	036-032	J-9329	6	140	0.03	0.21	0.2	0.5	0.02	0.2
WMAIN-1031(2)(2)(2)	J-9329	J-5857	6	140	0.03	0.21	0.2	0.5	0.02	0.2
WMAIN-1033(1)	J-8500	036-034	8	140	0.02	0.53	0.1	1	0.15	0.5
WMAIN-1033(2)	036-034	J-5857	8	140	0.01	0.51	0.1	1	0.14	0.5
WMAIN-1036	J-7404	J-6395	8	152.5	0.18	0.29	0.6	0.8	0.39	0.9
WMAIN-1038(1)	J-6467	170-154	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1038(2)	170-154	J-6636	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1040(1)	J-6636	170-135	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1040(2)	170-135	J-7878	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1042	J-7791	J-7986	8	152.5	0.01	0.06	0.1	0.3	0.04	0.3
WMAIN-1043	J-8072	J-7986	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-1045	J-8446	J-8447	8	152.5	0.19	0.73	0.6	1.3	0.72	1.3
WMAIN-1048	J-7419	J-7420	6	152.5	0	0	0	0	0	0
WMAIN-1050(1)	J-8071	170-138	12	152.5	0.19	0.52	0.8	1.4	0.6	1.5
WMAIN-1050(2)	170-138	J-7166	12	152.5	0.19	0.53	0.8	1.4	0.61	1.5
WMAIN-1052	J-7166	J-6962	12	152.5	0.2	0.54	0.8	1.4	0.62	1.6
WMAIN-1054(1)	J-8098	170-129	8	152.5	0.19	0.32	0.6	0.8	0.43	1
WMAIN-1054(2)	170-129	J-6396	8	152.5	0.19	0.31	0.6	0.8	0.42	1
WMAIN-1055(1)	J-8382	170-148	12	152.5	0	0.18	0.1	0.8	0.14	0.7
WMAIN-1055(2)	170-148	J-8588	12	152.5	0	0.18	0.1	0.8	0.14	0.7
WMAIN-1060(2)(1)(1)(2)	J-9023	J-9024	12	152.5	0.03	0.34	0.3	1.1	0.34	1.1
WMAIN-1060(2)(1)(2)	J-9024	170-146	12	152.5	0	0.22	0.1	0.9	0.22	0.9
WMAIN-1060(2)(2)(1)	170-146	J-9021	12	152.5	0	0.23	0.1	0.9	0.22	0.9
WMAIN-1062(1)	J-8661	170-144	12	152.5	0.05	0.39	0.4	1.2	0.39	1.2
WMAIN-1062(2)	170-144	J-8391	12	152.5	0.05	0.39	0.4	1.2	0.4	1.2
WMAIN-1064	J-6362	J-6674	6	140	0	0.01	0	0.1	0	0
WMAIN-1065	J-5757	026-013	12	140	0.01	0.15	0.1	0.7	0.16	0.7
WMAIN-1067	J-6624	J-5687	4	140	0.03	0.65	0.1	0.7	0.4	0.6
WMAIN-1068	J-5677	J-5678	6	140	0	0	0	0	0	0
WMAIN-1070	J-5713	009-039	12	152.5	0	0	0	0	0	0
WMAIN-1071	J-5712	J-5713	8	152.5	2.04	7.34	2.3	4.6	7.34	4.6
WMAIN-1072	168-038	J-5524	12	152.5	0.01	0.12	0.2	0.6	0.07	0.5
WMAIN-1074(1)	J-5447	052-005	12	152.5	0.01	0.64	0.2	1.6	0.11	0.6
WMAIN-1074(2)	052-005	J-5473	12	152.5	0.01	0.64	0.2	1.6	0.11	0.6
WMAIN-1075	J-5493	J-5494	6	152.5	0	0	0	0	0	0
WMAIN-1076	J-5496	J-5497	6	140	0	0	0	0	0	0
WMAIN-1077(1)	J-5372	042-021	12	140	0	0.23	0.1	0.8	0.26	0.9
WMAIN-1077(2)	042-021	J-8212	12	140	0	0.23	0.1	0.8	0.26	0.9
WMAIN-1078	J-5371	J-5372	12	140	0.02	0.39	0.2	1.1	0.37	1.1
WMAIN-1079	J-5500	J-5501	6	140	0	0	0	0	0	0
WMAIN-1080(1)	J-5464	037-042	6	140	0.1	0.35	0.3	0.7	0.02	0.1
WMAIN-1080(2)	037-042	J-6364	6	140	0.09	0.33	0.3	0.7	0.01	0.1
WMAIN-1081(1)	J-7036	170-035	8	152.5	0.62	1.53	1.2	2	1.63	2
WMAIN-1081(2)	170-035	J-5584	8	152.5	0.62	1.54	1.2	2	1.64	2
WMAIN-1083	J-6840	J-6841	8	152.5	0	0	0	0	0	0
WMAIN-1084(1)	J-7498	034-043	8	152.5	0.08	0.23	0.4	0.7	0.09	0.4
WMAIN-1084(2)	034-043	J-8569	8	152.5	0.08	0.22	0.4	0.7	0.09	0.4
WMAIN-1085	J-8569	J-7923	8	152.5	0.07	0.21	0.4	0.7	0.08	0.4
WMAIN-1088(1)	J-6886	034-042	8	152.5	0.02	0.38	0.2	0.9	0.1	0.5

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1088(2)	034-042	J-7923	8	152.5	0.01	0.35	0.1	0.9	0.08	0.4
WMAIN-1091	J-6386	J-6387	6	140	0	0	0	0	0	0
WMAIN-1093	J-6551	J-6386	6	140	0	0.55	0	0.9	0.01	0.1
WMAIN-1095(1)	J-7221	037-050	6	140	0	0.59	0	0.9	0.03	0.2
WMAIN-1095(2)	037-050	J-6386	6	140	0	0.57	0	0.9	0.02	0.1
WMAIN-1098(1)	J-7839	039-057	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-1098(2)	039-057	J-8445	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-1100	J-7817	J-7818	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-1102(1)	J-7306	039-055	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1102(2)	039-055	J-7307	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1105(1)	J-6929	039-058	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1105(2)	039-058	J-8445	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-1106	J-7307	J-8305	8	152.5	0.01	0.3	0.1	0.8	0.25	0.7
WMAIN-1107	J-7816	J-7817	8	152.5	0	0.61	0	1.2	0.56	1.1
WMAIN-1108(1)	J-7817	040-027	8	152.5	0	0.35	0.1	0.9	0.3	0.8
WMAIN-1108(2)	040-027	J-7838	8	152.5	0	0.33	0.1	0.9	0.29	0.8
WMAIN-1110	J-7838	J-7306	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1113(1)(1)	J-7839	040-006	8	152.5	0	0.1	0.1	0.4	0.08	0.4
WMAIN-1113(1)(2)	040-006	040-005	8	152.5	0	0.06	0	0.4	0.04	0.3
WMAIN-1113(2)	040-005	J-7908	8	152.5	0	0.06	0	0.4	0.04	0.3
WMAIN-1115(1)	J-7838	039-056	8	152.5	0	0.34	0	0.9	0.3	0.8
WMAIN-1115(2)	039-056	J-7839	8	152.5	0	0.33	0	0.9	0.3	0.8
WMAIN-1116(1)	J-7556	039-053	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-1116(2)	039-053	J-8265	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-1119(1)	J-7908	J-8345	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-1119(2)	J-8345	J-8517	8	152.5	0	0	0	0	0	0
WMAIN-1121(1)	J-8345	039-059	8	152.5	0	0.03	0	0.2	0.01	0.2
WMAIN-1121(2)	039-059	J-6929	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1123	J-6929	J-6930	6	152.5	0	0	0	0	0	0
WMAIN-1124(1)(1)	J-8311	041-001	12	152.5	0.01	0.02	0.2	0.2	0.02	0.2
WMAIN-1124(1)(2)(1)	041-001	041-002	12	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-1124(1)(2)(2)	041-002	041-003	12	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-1124(2)	041-003	J-7333	12	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-1127	J-7902	J-7988	12	152.5	0.01	0.1	0.1	0.6	0.12	0.6
WMAIN-1129(1)	J-7988	041-011	12	152.5	0.01	0.14	0.1	0.7	0.17	0.8
WMAIN-1129(2)	041-011	J-7771	12	152.5	0.01	0.14	0.1	0.7	0.16	0.8
WMAIN-1133(1)	J-7988	041-006	8	152.5	0	0.06	0	0.4	0.08	0.4
WMAIN-1133(2)	041-006	J-7989	8	152.5	0	0.07	0	0.4	0.08	0.4
WMAIN-1134	J-8598	J-7989	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-1136	J-6640	J-6641	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-1139(1)	J-6640	041-009	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-1139(2)(1)	041-009	041-010	8	152.5	0	0.03	0	0.2	0.03	0.3
WMAIN-1139(2)(2)	041-010	J-8598	8	152.5	0	0.03	0	0.2	0.03	0.3
WMAIN-1142	J-6082	J-6083	6	152.5	0	0	0	0	0	0
WMAIN-1145	J-6029	J-6030	6	152.5	0	0	0	0	0	0
WMAIN-1147(1)	J-6029	056-052	8	152.5	0.03	0.26	0.2	0.8	0.28	0.8
WMAIN-1147(2)	056-052	J-6082	8	152.5	0.03	0.26	0.2	0.7	0.27	0.8
WMAIN-1149	J-6082	J-7421	8	152.5	0.03	0.24	0.2	0.7	0.25	0.7
WMAIN-1152	J-7421	J-7422	8	152.5	0	0	0	0	0	0
WMAIN-1154(1)	J-7421	056-053	8	152.5	0	0	0	0	0	0
WMAIN-1154(2)	056-053	J-8385	8	152.5	0	0	0	0	0	0
WMAIN-1157(1)	J-8221	047-007	8	152.5	0.04	0.66	0.3	1.2	0.03	0.2
WMAIN-1157(2)(1)	047-007	047-008	8	152.5	0.04	0.67	0.3	1.3	0.03	0.2
WMAIN-1157(2)(2)	047-008	J-7822	8	152.5	0.04	0.67	0.3	1.3	0.03	0.2
WMAIN-1158	J-6151	J-6152	8	152.5	0	0	0	0	0	0
WMAIN-1160(1)	J-6152	047-015	8	152.5	0.02	0.07	0.2	0.4	0.04	0.3
WMAIN-1160(2)	047-015	J-6547	8	152.5	0.02	0.09	0.2	0.4	0.05	0.3
WMAIN-1163	J-6547	J-6548	8	152.5	0	0	0	0	0	0
WMAIN-1165(1)	J-6547	047-016	8	152.5	0.02	0.07	0.2	0.4	0.02	0.2
WMAIN-1165(2)	047-016	J-8364	8	152.5	0.02	0.08	0.2	0.4	0.03	0.2
WMAIN-1167	J-8356	J-8364	8	152.5	0.02	0.09	0.2	0.4	0.04	0.3
WMAIN-1170	J-7675	J-8026	8	152.5	0	0	0	0	0	0
WMAIN-1172	J-6897	J-6664	12	152.5	0.03	0.13	0.3	0.7	0.07	0.5
WMAIN-1173	J-8496	J-6898	12	152.5	0.3	0.54	1	1.4	0.53	1.4
WMAIN-1174(1)	J-8029	168-010	12	152.5	0.3	0.54	1	1.4	0.53	1.4
WMAIN-1174(2)(1)	168-010	168-011	12	152.5	0.3	0.54	1	1.4	0.53	1.4
WMAIN-1174(2)(2)	168-011	J-8496	12	152.5	0.3	0.54	1	1.4	0.53	1.4
WMAIN-1175(1)	J-6896	J-5771	12	152.5	0.2	0.77	0.8	1.7	0.36	1.2
WMAIN-1175(2)	J-5771	J-8029	12	152.5	0.2	0.78	0.9	1.8	0.37	1.2
WMAIN-1177	J-7238	168-038	12	152.5	0.01	0.21	0.2	0.9	0.01	0.2
WMAIN-1178(1)(1)	J-8209	168-013	12	152.5	0.24	0.62	0.9	1.6	0.61	1.5
WMAIN-1178(1)(2)	168-013	TEMP391	12	152.5	0.24	0.62	0.9	1.6	0.61	1.5
WMAIN-1178(2)	TEMP391	J-7238	12	152.5	0.24	0.63	0.9	1.6	0.62	1.6
WMAIN-1181	J-6871	J-8209	12	152.5	0.24	0.62	0.9	1.6	0.61	1.5
WMAIN-1183(1)	J-6898	168-012	12	152.5	0.17	0.35	0.8	1.1	0.35	1.1
WMAIN-1183(2)	168-012	J-6871	12	152.5	0.18	0.37	0.8	1.2	0.37	1.2
WMAIN-1185(1)	J-7801	167-032	12	152.5	0	0.03	0.1	0.3	0.01	0.2
WMAIN-1185(2)	167-032	J-6665	12	152.5	0	0.03	0.1	0.3	0.01	0.2
WMAIN-1188(1)	J-7205	009-001	8	152.5	0	0.15	0	0.6	0.15	0.6
WMAIN-1188(2)	009-001	J-8437	8	152.5	0	0.14	0	0.5	0.14	0.5
WMAIN-1189(1)	J-7507	009-013	8	152.5	0.03	0.15	0.2	0.6	0.14	0.5
WMAIN-1189(2)	009-013	J-7508	8	152.5	0.03	0.14	0.2	0.5	0.13	0.5
WMAIN-1191	J-7508	J-7336	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-1195(1)	J-8611	009-027	8	152.5	0.01	0.12	0.1	0.5	0.12	0.5
WMAIN-1195(2)	009-027	J-6903	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-1197(1)	J-8131	009-028	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-1197(2)	009-028	J-6903	8	152.5	0.01	0.1	0.1	0.5	0.1	0.5
WMAIN-1200(1)	J-7491	009-029	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-1200(2)	009-029	J-8202	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-1202	J-7336	J-7337	8	152.5	0.05	0.21	0.3	0.7	0.18	0.6
WMAIN-1205(1)	J-7336	009-014	8	152.5	0.03	0.05	0.2	0.3	0.03	0.2
WMAIN-1205(2)	009-014	J-7491	8	152.5	0.03	0.04	0.2	0.3	0.04	0.3
WMAIN-1207(1)	J-7491	009-015	8	152.5	0	0	0	0	0	0
WMAIN-1207(2)	009-015	J-7492	8	152.5	0	0	0	0	0	0
WMAIN-1209	J-7508	J-7984	8	152.5	0	0	0	0	0	0
WMAIN-1211	J-7507	J-8287	8	152.5	0	0	0	0	0	0
WMAIN-1212	J-6902	J-6903	8	152.5	0	0	0	0	0	0
WMAIN-1215	J-8131	J-8241	8	152.5	0	0	0	0	0	0
WMAIN-1216	J-5897	J-7117	8	152.5	0	0.02	0.1	0.2	0.01	0.2
WMAIN-1217(1)	J-6933	010-008	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1217(2)	010-008	J-5897	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1221(1)	J-8100	010-007	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1221(2)	010-007	J-6933	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1222	J-6785	J-7490	12	152.5	0	0.18	0	0.8	0.06	0.5
WMAIN-1223	J-6784	J-6785	12	152.5	0	0.13	0	0.7	0.04	0.4
WMAIN-1225	J-7398	J-6784	12	152.5	0	0.11	0	0.6	0.02	0.2
WMAIN-1227(1)	J-8099	010-002	12	152.5	0	0.09	0.1	0.5	0	0.1
WMAIN-1227(2)	010-002	J-7398	12	152.5	0	0.09	0	0.5	0	0.1
WMAIN-1230	J-7398	J-8023	8	152.5	0.01	0.07	0.1	0.4	0.05	0.3
WMAIN-1232(1)	J-8099	010-004	8	152.5	0	0.06	0	0.3	0.06	0.3
WMAIN-1232(2)	010-004	J-8100	8	152.5	0	0.06	0	0.3	0.05	0.3
WMAIN-1233	J-5896	J-5897	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1236(1)	J-6776	023-021	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1236(2)	023-021	023-025	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1239(1)(1)	J-7815	023-032	8	152.5	0	0.13	0.1	0.5	0.05	0.3
WMAIN-1239(1)(2)	023-032	023-022	8	152.5	0	0.14	0	0.5	0.06	0.3
WMAIN-1239(2)	023-022	J-8027	8	152.5	0	0.14	0	0.5	0.06	0.3
WMAIN-1241	J-6776	J-5645	10	152.5	0	0.06	0.1	0.4	0.02	0.2
WMAIN-1243	J-8027	J-6776	10	152.5	0	0.03	0	0.3	0.01	0.1
WMAIN-1246(1)	J-8027	023-023	8	152.5	0	0.01	0	0.1	0	0
WMAIN-1246(2)	023-023	J-6815	8	152.5	0	0.01	0	0.1	0	0
WMAIN-1248(1)	J-6815	023-024	8	152.5	0	0.01	0	0.1	0	0
WMAIN-1248(2)	023-024	023-025	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1249	J-6815	J-6816	6	152.5	0	0	0	0	0	0
WMAIN-1252(1)	J-8023	023-027	8	152.5	0	0.05	0.1	0.3	0.03	0.2
WMAIN-1252(2)	023-027	J-8027	8	152.5	0	0.05	0.1	0.3	0.02	0.2
WMAIN-1254	J-8367	J-6156	8	152.5	0	0.07	0	0.4	0.06	0.3
WMAIN-1255(1)(1)	J-7251	027-005	8	152.5	0	0.11	0	0.5	0.02	0.2
WMAIN-1255(1)(2)	027-005	027-004	8	152.5	0	0.11	0	0.5	0.02	0.2
WMAIN-1255(2)	027-004	J-8733	8	152.5	0	0.11	0	0.5	0.02	0.2
WMAIN-1256(1)(1)	J-8733	027-003	8	152.5	0	0.08	0	0.4	0.06	0.3
WMAIN-1256(1)(2)	027-003	J-9332	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-1256(2)(1)	J-9332	027-002	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-1256(2)(2)	027-002	J-5517	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-1259(1)(1)	J-5517	027-055	16	140	0	0.17	0	0.8	0.04	0.4
WMAIN-1259(1)(2)	027-055	J-5192	16	140	0	0.17	0	0.8	0.05	0.4
WMAIN-1259(2)	J-5192	J-5511	16	140	0	0.17	0	0.8	0.05	0.4
WMAIN-1261(1)	J-8257	169-057	8	152.5	0.04	0.1	0.3	0.5	0.11	0.5
WMAIN-1261(2)	169-057	J-5979	8	152.5	0.04	0.1	0.3	0.5	0.11	0.5
WMAIN-1265(1)	J-6064	169-058	8	152.5	0.04	0.1	0.3	0.5	0.11	0.5
WMAIN-1265(2)	169-058	J-8257	8	152.5	0.04	0.1	0.3	0.5	0.11	0.5
WMAIN-1267(1)	J-6064	169-065	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1267(2)	169-065	J-6213	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1269	J-6063	J-6064	8	152.5	0	0	0	0	0	0
WMAIN-1272(1)	J-8360	169-063	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1272(2)(1)	169-063	169-064	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1272(2)(2)	169-064	J-6063	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1273	169-069	J-8360	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1274	169-068	169-069	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1275	J-5468	169-068	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1278(1)	J-6201	J-8944	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-1278(2)	J-8944	169-067	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1279	169-067	J-5468	8	152.5	0.05	0.12	0.3	0.5	0.14	0.5
WMAIN-1280	169-070	J-8165	10	152.5	0.06	0.12	0.4	0.6	0.16	0.7
WMAIN-1282	J-6201	169-070	10	152.5	0.06	0.12	0.4	0.6	0.15	0.7
WMAIN-1284(1)	J-6213	169-072	8	152.5	0.2	0.49	0.7	1.1	0.57	1.2
WMAIN-1284(2)	169-072	J-6201	8	152.5	0.2	0.49	0.7	1.1	0.57	1.2
WMAIN-1286	J-6212	J-6213	8	152.5	0.07	0.15	0.4	0.6	0.18	0.6
WMAIN-1288(1)	J-6212	169-071	8	152.5	0	0	0	0	0	0
WMAIN-1288(2)	169-071	J-6331	8	152.5	0	0	0	0	0	0
WMAIN-1290	J-5315	J-6212	8	152.5	0.05	0.14	0.3	0.5	0.16	0.6
WMAIN-1292	169-073	J-5315	8	152.5	0.05	0.14	0.3	0.5	0.16	0.6
WMAIN-1293	J-5838	169-073	8	152.5	0.05	0.14	0.3	0.5	0.16	0.6
WMAIN-1296(1)	169-077	169-076	8	152.5	0.04	0.13	0.3	0.5	0.14	0.5
WMAIN-1296(2)(1)	169-076	169-075	8	152.5	0.05	0.13	0.3	0.5	0.15	0.6
WMAIN-1296(2)(2)	169-075	J-5838	8	152.5	0.05	0.14	0.3	0.5	0.16	0.6
WMAIN-1297	J-5724	169-077	8	152.5	0.04	0.12	0.3	0.5	0.14	0.5
WMAIN-1299	J-6501	J-5724	8	152.5	0.04	0.12	0.3	0.5	0.14	0.5
WMAIN-1302(1)	J-8791	TEMP398	12	152.5	0.01	0.14	0.1	0.7	0.07	0.5
WMAIN-1302(2)	TEMP398	J-6490	12	152.5	0.02	0.16	0.2	0.7	0.09	0.6
WMAIN-1303(1)	J-5597	169-080	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1303(2)	169-080	J-6882	8	152.5	0.02	0.08	0.2	0.4	0.08	0.4
WMAIN-1305(1)	J-6501	169-079	8	152.5	0.03	0.08	0.2	0.4	0.1	0.4
WMAIN-1305(2)	169-079	J-7237	8	152.5	0.03	0.08	0.2	0.4	0.1	0.4
WMAIN-1309(1)	J-6118	169-078	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1309(2)	169-078	J-6501	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1312(1)	J-5998	169-054	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-1312(2)(1)	169-054	169-055	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-1312(2)(2)(1)	169-055	169-056	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-1312(2)(2)(2)	169-056	J-6118	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-1313	J-5997	J-5998	8	152.5	0.04	0.14	0.3	0.5	0.16	0.6
WMAIN-1316(1)	J-5597	169-053	8	152.5	0	0.03	0	0.3	0.03	0.2
WMAIN-1316(2)	169-053	J-5997	8	152.5	0	0.03	0	0.3	0.03	0.2
WMAIN-1317	J-5596	J-5597	8	152.5	0.07	0.17	0.4	0.6	0.2	0.7
WMAIN-1320	J-5232	J-5596	8	152.5	0	0.13	0	0.5	0.09	0.4
WMAIN-1322(1)	J-5319	054-005	8	152.5	4.03	18.05	3.3	7.4	10.83	5.6
WMAIN-1322(2)	054-005	J-6597	8	152.5	4.03	18.03	3.3	7.4	10.81	5.6
WMAIN-1323	J-5319	J-5320	12	152.5	0.76	3.37	1.7	3.9	2.02	2.9
WMAIN-1328	J-5069	J-5173	12	152.5	0	0	0	0	0	0
WMAIN-1329	030-037	J-5717	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1332	J-5715	030-037	6	152.5	0	0.05	0	0.3	0	0
WMAIN-1334(1)	J-6194	167-066	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-1334(2)	167-066	J-6195	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-1335	J-6070	J-6071	8	152.5	0	0.17	0	0.6	0	0
WMAIN-1336(1)	J-6071	167-064	8	152.5	0.02	0.11	0.2	0.5	0.03	0.2
WMAIN-1336(2)	167-064	J-6978	8	152.5	0.01	0.11	0.2	0.5	0.02	0.2
WMAIN-1339	J-6988	J-6977	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-1341	J-6988	J-6070	8	152.5	0	0.17	0	0.6	0	0
WMAIN-1344(1)	J-6977	167-065	8	152.5	0.01	0.1	0.1	0.5	0.02	0.2
WMAIN-1344(2)	167-065	J-6978	8	152.5	0.01	0.1	0.2	0.5	0.02	0.2
WMAIN-1345(1)	J-6128	013-027	6	130	0	0	0	0	0	0
WMAIN-1345(2)	013-027	J-6129	6	130	0	0	0	0	0	0
WMAIN-1347	J-6437	J-8206	6	152.5	0	0	0	0	0	0
WMAIN-1348	J-5300	J-5301	8	152.5	0	0	0	0	0	0
WMAIN-1349	J-5301	J-6437	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1351(1)	J-8217	047-003	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1351(2)	047-003	J-6437	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1352	J-8217	J-7966	8	152.5	0.13	0.52	0.5	1.1	0.2	0.6
WMAIN-1355(1)	J-7822	047-004	8	152.5	0.1	0.43	0.5	1	0.13	0.5
WMAIN-1355(2)	047-004	J-8217	8	152.5	0.1	0.43	0.5	1	0.13	0.5
WMAIN-1358(1)	J-7966	J-5162	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1358(2)(1)	J-5162	047-002	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1358(2)(2)	047-002	J-7919	12	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1360(1)	J-6567	048-001	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-1360(2)(1)	048-001	047-001	12	152.5	0.01	0.03	0.2	0.3	0.02	0.3
WMAIN-1360(2)(2)	047-001	J-7966	12	152.5	0.01	0.03	0.2	0.3	0.02	0.3
WMAIN-1362	J-6807	J-6808	8	152.5	0	0	0	0	0	0
WMAIN-1364	J-7966	J-6807	8	152.5	0.05	0.99	0.3	1.6	0.17	0.6
WMAIN-1366(1)	J-6807	048-005	8	152.5	0.06	1.07	0.3	1.6	0.2	0.7
WMAIN-1366(2)(1)	048-005	048-003	8	152.5	0.07	1.1	0.4	1.6	0.22	0.7
WMAIN-1366(2)(2)	048-003	J-8143	8	152.5	0.07	1.1	0.4	1.6	0.22	0.7
WMAIN-1367	J-6884	J-8143	8	152.5	0.07	1.12	0.4	1.7	0.23	0.7
WMAIN-1369(1)	J-6657	048-002	8	152.5	0.29	4.28	0.8	3.4	0.95	1.5
WMAIN-1369(2)	048-002	J-6884	8	152.5	0.29	4.27	0.8	3.4	0.95	1.5

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1371(1)	J-6181	048-004	8	152.5	0.09	1.22	0.4	1.7	0.28	0.8
WMAIN-1371(2)	048-004	J-6884	8	152.5	0.09	1.23	0.4	1.7	0.29	0.8
WMAIN-1374	J-6181	J-6182	8	152.5	0	0	0	0	0	0
WMAIN-1375	J-6205	J-6181	8	152.5	0.08	1.15	0.4	1.7	0.25	0.7
WMAIN-1378(1)	J-7919	048-007	8	152.5	0.01	0.23	0.1	0.7	0.02	0.2
WMAIN-1378(2)	048-007	J-6205	8	152.5	0.01	0.25	0.1	0.7	0.02	0.2
WMAIN-1380(1)	J-8356	047-005	8	152.5	0.12	0.52	0.5	1.1	0.18	0.6
WMAIN-1380(2)	047-005	J-7919	8	152.5	0.13	0.53	0.5	1.1	0.19	0.6
WMAIN-1382	J-6405	J-7919	12	152.5	0	0.01	0	0.2	0	0
WMAIN-1384(1)	J-6404	047-006	12	152.5	0	0	0	0	0	0
WMAIN-1384(2)	047-006	J-6405	12	152.5	0	0	0	0	0	0
WMAIN-1387	J-6405	J-8566	8	152.5	0	0	0	0	0	0
WMAIN-1390(1)	J-6405	048-006	8	152.5	0	0.16	0.1	0.6	0.01	0.1
WMAIN-1390(2)	048-006	J-6205	8	152.5	0.01	0.18	0.1	0.6	0.02	0.2
WMAIN-1391A(1)	J-6794	171-044	8	152.5	0.04	0.36	0.3	0.9	0.36	0.9
WMAIN-1391A(2)	171-044	J-6003	8	152.5	0.04	0.36	0.3	0.9	0.36	0.9
WMAIN-1391B	J-6003	J-6004	8	152.5	0.03	0.29	0.2	0.8	0.29	0.8
WMAIN-1393	J-6892	J-8423	8	152.5	0.82	2.18	1.4	2.4	2.57	2.6
WMAIN-1396(1)	J-6892	171-075	8	152.5	0.21	0.53	0.7	1.1	0.63	1.2
WMAIN-1396(2)	171-075	J-6492	8	152.5	0.21	0.53	0.7	1.1	0.63	1.2
WMAIN-1398(1)	J-6493	171-074	8	152.5	0.03	0.07	0.2	0.4	0.09	0.4
WMAIN-1398(2)	171-074	J-8240	8	152.5	0.03	0.08	0.2	0.4	0.09	0.4
WMAIN-1400(1)	J-8240	171-073	8	152.5	0.04	0.1	0.3	0.4	0.11	0.5
WMAIN-1400(2)	171-073	J-7741	8	152.5	0.04	0.11	0.3	0.5	0.13	0.5
WMAIN-1403	J-6492	J-6493	8	152.5	0.03	0.07	0.2	0.4	0.08	0.4
WMAIN-1405(1)	J-7395	171-072	8	152.5	0.1	0.27	0.5	0.8	0.31	0.8
WMAIN-1405(2)	171-072	J-6492	8	152.5	0.1	0.26	0.4	0.7	0.3	0.8
WMAIN-1406	J-7395	J-6385	8	152.5	0.26	0.7	0.8	1.3	0.81	1.4
WMAIN-1408	J-7741	J-7395	8	152.5	0.04	0.12	0.3	0.5	0.13	0.5
WMAIN-1411(1)	J-8199	171-043	8	152.5	0	0	0	0	0	0
WMAIN-1411(2)	171-043	J-8200	8	152.5	0	0	0	0	0	0
WMAIN-1413	J-6794	J-8199	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-1414(1)	J-7964	171-042	8	152.5	0	0	0	0	0	0
WMAIN-1414(2)	171-042	J-7611	8	152.5	0	0	0	0	0	0
WMAIN-1417	171-071	J-8245	8	152.5	0	0	0	0	0	0
WMAIN-1418(1)	J-8087	171-070	8	152.5	0	0	0	0	0	0
WMAIN-1418(2)	171-070	J-8058	8	152.5	0	0	0	0	0	0
WMAIN-1421	J-7226	J-7582	8	152.5	0	0	0	0	0	0
WMAIN-1422(1)	J-8054	171-064	8	152.5	0.15	0.58	0.6	1.2	0.67	1.3
WMAIN-1422(2)	171-064	J-6893	8	152.5	0.15	0.58	0.6	1.2	0.66	1.2
WMAIN-1424(1)	J-7388	171-065	8	152.5	0.15	0.61	0.6	1.2	0.69	1.3
WMAIN-1424(2)	171-065	J-8054	8	152.5	0.15	0.59	0.6	1.2	0.68	1.3
WMAIN-1428	J-8177	J-7388	8	152.5	0.17	0.67	0.6	1.3	0.75	1.3
WMAIN-1430	J-8348	J-8177	8	152.5	0.11	0.43	0.5	1	0.49	1.1
WMAIN-1432	J-8177	J-8178	8	152.5	0	0	0	0	0	0
WMAIN-1434(1)(1)	J-8162	171-058	8	152.5	0.01	0.06	0.2	0.3	0.07	0.4
WMAIN-1434(1)(2)	171-058	171-066	8	152.5	0.01	0.05	0.1	0.3	0.06	0.3
WMAIN-1434(2)	171-066	J-8177	8	152.5	0.01	0.05	0.1	0.3	0.06	0.3
WMAIN-1437(1)	J-8348	171-067	8	152.5	0	0	0	0	0	0
WMAIN-1437(2)	171-067	J-8349	8	152.5	0	0	0	0	0	0
WMAIN-1439(1)	J-7173	171-068	8	152.5	0.14	0.55	0.5	1.1	0.61	1.2
WMAIN-1439(2)	171-068	J-8348	8	152.5	0.13	0.49	0.5	1.1	0.56	1.1
WMAIN-1441(1)	J-8302	171-051	8	152.5	0.02	0.05	0.2	0.3	0.06	0.3
WMAIN-1441(2)	171-051	J-8671	8	152.5	0.02	0.04	0.2	0.3	0.05	0.3
WMAIN-1444(1)(1)	J-8307	171-053	8	152.5	0.04	0.08	0.3	0.4	0.1	0.5
WMAIN-1444(1)(2)	171-053	171-054	8	152.5	0.03	0.07	0.2	0.4	0.08	0.4
WMAIN-1444(2)	171-054	J-8011	8	152.5	0.03	0.07	0.2	0.4	0.08	0.4
WMAIN-1446	J-6915	J-8307	8	152.5	0.08	0.19	0.4	0.6	0.22	0.7
WMAIN-1447(1)	J-8302	171-052	8	152.5	0.03	0.06	0.2	0.4	0.08	0.4
WMAIN-1447(2)	171-052	J-6915	8	152.5	0.03	0.07	0.2	0.4	0.08	0.4
WMAIN-1449	J-6915	171-056	8	152.5	0.19	0.47	0.6	1	0.56	1.1
WMAIN-1451	J-6914	J-6915	8	152.5	0	0	0	0	0	0
WMAIN-1453	J-8011	J-8012	8	152.5	0.01	0.01	0.1	0.1	0.02	0.2
WMAIN-1457	J-8316	J-8011	8	152.5	0.06	0.1	0.3	0.4	0.14	0.5
WMAIN-1458(1)	171-056	171-057	8	152.5	0.64	1.52	1.2	2	1.81	2.1
WMAIN-1458(2)	171-057	J-7737	8	152.5	0.64	1.53	1.2	2	1.82	2.2
WMAIN-1460(1)	J-6270	171-055	8	152.5	0.16	0.35	0.6	0.9	0.43	1
WMAIN-1460(2)	171-055	171-056	8	152.5	0.16	0.36	0.6	0.9	0.44	1
WMAIN-1463	J-8316	J-6270	8	152.5	0.15	0.32	0.6	0.8	0.4	1
WMAIN-1466(1)	J-8653	171-046	8	152.5	0.34	0.66	0.9	1.2	0.86	1.4
WMAIN-1466(2)	171-046	J-8316	8	152.5	0.35	0.69	0.9	1.3	0.89	1.5
WMAIN-1468	J-8112	J-7610	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1471(1)(1)	J-8485	171-039	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-1471(1)(2)	171-039	171-040	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1471(2)	171-040	J-8112	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1472	J-8157	J-7198	8	152.5	0	0.12	0	0.5	0.1	0.5
WMAIN-1474(1)	J-8485	171-038	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1474(2)	171-038	J-8157	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1476	J-7611	J-8199	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1478	J-7610	J-7611	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-1482(1)	J-8157	171-041	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1482(2)	171-041	J-7610	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1483(1)	J-8308	171-050	8	152.5	0.01	0.03	0.2	0.2	0.04	0.3
WMAIN-1483(2)	171-050	J-8671	8	152.5	0.02	0.04	0.2	0.3	0.05	0.3
WMAIN-1485(1)	J-8012	171-049	8	152.5	0.02	0.04	0.2	0.3	0.05	0.3
WMAIN-1485(2)	171-049	J-8308	8	152.5	0.03	0.06	0.2	0.3	0.07	0.4
WMAIN-1487(1)	J-8299	171-048	8	152.5	0	0	0	0	0	0
WMAIN-1487(2)	171-048	J-8012	8	152.5	0	0	0	0	0	0
WMAIN-1490(1)	J-8011	171-047	8	152.5	0	0	0	0	0	0
WMAIN-1490(2)	171-047	J-8390	8	152.5	0	0	0	0	0	0
WMAIN-1493	J-8307	J-8308	8	152.5	0	0.01	0.1	0.1	0.01	0.2
WMAIN-1495	J-7388	J-7389	8	152.5	0	0	0	0	0	0
WMAIN-1497(1)	J-8491	171-063	8	152.5	0.22	0.57	0.7	1.1	0.45	1
WMAIN-1497(2)	171-063	J-6894	8	152.5	0.22	0.56	0.7	1.1	0.45	1
WMAIN-1499(1)	J-7198	171-037	8	152.5	0	0.1	0	0.5	0	0.1
WMAIN-1499(2)	171-037	J-5828	8	152.5	0	0.1	0	0.5	0	0.1
WMAIN-1501(1)	J-8653	171-045	8	152.5	0.04	0.11	0.3	0.5	0.15	0.6
WMAIN-1501(2)	171-045	J-7198	8	152.5	0.04	0.11	0.3	0.5	0.14	0.5
WMAIN-1504	J-6794	J-8653	8	152.5	0.1	0.26	0.4	0.8	0.29	0.8
WMAIN-1507	J-6385	J-6004	8	152.5	0.08	0.13	0.4	0.5	0.17	0.6
WMAIN-1509	171-071	J-6385	8	152.5	0.59	1.29	1.2	1.8	1.59	2
WMAIN-1511	J-8058	171-071	8	152.5	0.62	1.37	1.2	1.9	1.68	2.1
WMAIN-1513	J-7226	J-8058	8	152.5	0.64	1.43	1.2	1.9	1.74	2.1
WMAIN-1515(1)	J-6894	171-069	8	152.5	0.66	1.47	1.2	1.9	1.79	2.1
WMAIN-1515(2)	171-069	J-7226	8	152.5	0.66	1.47	1.2	1.9	1.79	2.1
WMAIN-1517	J-6893	J-6894	8	152.5	0.02	0.52	0.2	1.1	0.55	1.1
WMAIN-1519	J-7737	J-6893	8	152.5	0	0.06	0.1	0.4	0.01	0.1
WMAIN-1520	J-8162	J-7737	8	152.5	0.41	1.48	1	1.9	1.68	2.1
WMAIN-1521	J-7173	J-8162	8	152.5	0.55	2.08	1.1	2.3	2.35	2.5
WMAIN-1524(1)	J-7172	171-059	8	152.5	1.19	4.48	1.7	3.5	5.02	3.7
WMAIN-1524(2)	171-059	J-7173	8	152.5	1.18	4.47	1.7	3.5	5.02	3.7
WMAIN-1526(1)	J-6651	171-062	12	152.5	0.87	2.26	1.9	3.1	2.63	3.4

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1526(2)	171-062	J-8491	12	152.5	0.87	2.25	1.9	3.1	2.63	3.4
WMAIN-1527	J-7560	J-6651	12	152.5	1.36	5.41	2.4	5	6.15	5.4
WMAIN-1528	J-8491	171-076	12	152.5	0.51	1.78	1.4	2.7	2.01	2.9
WMAIN-1530(1)(1)	171-076	J-9129	12	152.5	0.51	1.78	1.4	2.7	2.01	2.9
WMAIN-1530(1)(2)	J-9129	171-077	12	152.5	0.89	2.21	1.9	3.1	2.59	3.4
WMAIN-1530(2)	171-077	J-8589	12	152.5	0.89	2.21	1.9	3.1	2.59	3.4
WMAIN-1533(1)	J-6086	126-018	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-1533(2)	126-018	J-6087	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-1535	J-8205	J-6086	12	152.5	0	0	0	0.1	0	0
WMAIN-1537	J-6198	J-5905	12	152.5	0	0.01	0	0.1	0	0
WMAIN-1539(1)	J-8171	126-020	8	152.5	0	0	0	0	0	0
WMAIN-1539(2)	126-020	J-8172	8	152.5	0	0	0	0	0	0
WMAIN-1543	J-6107	J-6108	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1544	J-6087	J-6107	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1546	J-6198	J-6086	12	152.5	0	0.01	0	0.2	0	0.1
WMAIN-1548(1)	J-8171	126-019	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-1548(2)	126-019	J-6198	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-1551	J-8105	J-8171	8	152.5	0	0.07	0.1	0.4	0.06	0.4
WMAIN-1553	J-6087	J-8315	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1555(1)	J-8315	126-017	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1555(2)(1)	126-017	126-016	8	152.5	0	0	0	0.1	0	0
WMAIN-1555(2)(2)	126-016	J-8130	8	152.5	0	0	0	0.1	0	0
WMAIN-1559	J-6107	J-8130	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1560(1)	J-6107	126-015	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1560(2)(1)	126-015	126-014	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1560(2)(2)	126-014	J-8109	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-1563(1)	J-6581	126-008	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-1563(2)	126-008	J-6272	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-1566	J-7143	J-6232	8	152.5	0.03	0.28	0.2	0.8	0.27	0.8
WMAIN-1570(1)(1)	J-8104	126-022	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1570(1)(2)	126-022	126-021	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1570(2)	126-021	J-8105	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1572(1)	J-8207	126-029	8	152.5	0	0	0	0	0	0
WMAIN-1572(2)	126-029	J-8085	8	152.5	0	0	0	0	0	0
WMAIN-1572(1)	J-8207	126-029	8	152.5	0	0	0	0	0	0
WMAIN-1572(2)	126-029	J-8085	8	152.5	0	0	0	0	0	0
WMAIN-1575	J-8205	J-8085	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1578(1)	J-8085	126-012	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1578(2)	126-012	J-8086	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1580(1)	J-8086	126-011	8	152.5	0	0	0	0	0	0
WMAIN-1580(2)	126-011	J-8077	8	152.5	0	0	0	0	0	0
WMAIN-1581(1)	J-6232	126-026	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-1581(2)	126-026	J-7393	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-1583(1)	J-7393	126-023	8	152.5	0.01	0.13	0.1	0.5	0.13	0.5
WMAIN-1583(2)	126-023	J-8104	8	152.5	0.01	0.13	0.1	0.5	0.12	0.5
WMAIN-1585	J-8104	J-8205	8	152.5	0.01	0.09	0.1	0.4	0.08	0.4
WMAIN-1587(1)	J-8205	126-013	12	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1587(2)	126-013	J-8109	12	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1589	J-8109	J-8207	12	152.5	0	0	0	0.1	0	0
WMAIN-1591	J-8207	J-8077	12	152.5	0	0	0	0.1	0	0
WMAIN-1594(1)	J-6581	126-009	12	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-1594(2)(1)	126-009	126-010	12	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-1594(2)(2)	126-010	J-8077	12	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-1595	J-8567	J-6581	12	152.5	0.01	0.04	0.2	0.3	0.03	0.3
WMAIN-1596(1)	J-6961	125-044	8	152.5	0	0	0	0	0	0
WMAIN-1596(2)	125-044	J-7454	8	152.5	0	0	0	0	0	0
WMAIN-1598(1)(1)	J-8766	125-039	8	152.5	0.03	0.18	0.2	0.6	0.17	0.6
WMAIN-1598(1)(2)	125-039	125-040	8	152.5	0.04	0.19	0.3	0.6	0.19	0.6
WMAIN-1598(2)	125-040	J-8777	8	152.5	0.04	0.19	0.3	0.6	0.19	0.6
WMAIN-1600(1)	J-7533	125-001	12	152.5	0.2	1.61	0.8	2.6	1.68	2.7
WMAIN-1600(2)	125-001	J-8545	12	152.5	0.2	1.61	0.8	2.6	1.68	2.7
WMAIN-1602(1)(1)	J-8597	125-003	12	152.5	0.18	1.53	0.8	2.5	1.6	2.6
WMAIN-1602(1)(2)	125-003	J-6245	12	152.5	0.19	1.55	0.8	2.6	1.62	2.6
WMAIN-1602(2)	J-6245	J-6249	12	152.5	0.15	1.24	0.7	2.3	1.3	2.3
WMAIN-1603(1)	125-005	125-004	12	152.5	0.18	1.53	0.8	2.5	1.6	2.6
WMAIN-1603(2)	125-004	J-8597	12	152.5	0.18	1.53	0.8	2.5	1.6	2.6
WMAIN-1605	J-6859	J-6860	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-1615(1)	J-5710	125-050	12	152.5	0.26	2.4	1	3.2	2.26	3.1
WMAIN-1615(2)(1)(1)	125-050	125-080	12	152.5	0.26	2.4	1	3.2	2.26	3.1
WMAIN-1615(2)(1)(2)	125-080	125-049	12	152.5	0.26	2.4	1	3.2	2.26	3.1
WMAIN-1615(2)(2)	125-049	J-7375	12	152.5	0.26	2.4	1	3.2	2.26	3.1
WMAIN-1617(1)	J-7142	125-048	12	152.5	0.15	1.51	0.7	2.5	1.43	2.4
WMAIN-1617(2)	125-048	J-7375	12	152.5	0.15	1.51	0.7	2.5	1.43	2.4
WMAIN-1620(1)	J-7142	126-028	8	152.5	0.16	1.28	0.6	1.8	1.23	1.7
WMAIN-1620(2)	126-028	J-7143	8	152.5	0.16	1.28	0.6	1.8	1.23	1.7
WMAIN-1623(1)	J-8723	125-046	12	152.5	0	0.19	0	0.8	0.19	0.8
WMAIN-1623(2)	125-046	J-8528	12	152.5	0	0.19	0	0.8	0.19	0.8
WMAIN-1624(1)	J-8723	125-047	12	152.5	0.06	0.74	0.5	1.7	0.7	1.7
WMAIN-1624(2)	125-047	J-7142	12	152.5	0.06	0.75	0.5	1.7	0.7	1.7
WMAIN-1625	J-5790	J-5791	8	152.5	0	0.01	0.1	0.2	0.02	0.2
WMAIN-1628(1)	J-7860	125-028	8	152.5	0.08	0.46	0.4	1	0.46	1
WMAIN-1628(2)	125-028	J-7861	8	152.5	0.08	0.47	0.4	1	0.46	1
WMAIN-1630	J-7861	J-5995	8	152.5	0.07	0.63	0.4	1.2	0.61	1.2
WMAIN-1632(1)	J-5791	125-025	8	152.5	0.01	0.17	0.1	0.6	0.19	0.6
WMAIN-1632(2)	125-025	J-5994	8	152.5	0.01	0.16	0.1	0.6	0.19	0.6
WMAIN-1634	J-5994	J-5995	8	152.5	0.02	0.19	0.2	0.6	0.19	0.6
WMAIN-1636(1)	J-5995	125-026	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-1636(2)	125-026	J-6078	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-1638	J-6078	J-7616	8	152.5	0.04	0.23	0.3	0.7	0.19	0.6
WMAIN-1640	J-7616	J-8081	8	152.5	0.03	0.31	0.2	0.8	0.31	0.8
WMAIN-1643	J-8081	J-6734	8	152.5	0.03	0.29	0.2	0.8	0.28	0.8
WMAIN-1646	J-5994	J-6078	8	152.5	0	0	0	0.1	0	0
WMAIN-1649(1)	J-7375	125-031	8	152.5	0.14	1.02	0.5	1.6	0.94	1.5
WMAIN-1649(2)	125-031	J-7616	8	152.5	0.13	0.99	0.5	1.6	0.91	1.5
WMAIN-1650(1)	J-8080	125-032	8	152.5	0	0	0	0	0	0
WMAIN-1650(2)	125-032	J-8081	8	152.5	0	0	0	0	0	0
WMAIN-1652	J-6733	J-6734	8	152.5	0	0	0	0	0	0
WMAIN-1654(1)	J-6734	125-033	8	152.5	0.02	0.27	0.2	0.8	0.27	0.8
WMAIN-1654(2)	125-033	J-6944	8	152.5	0.02	0.27	0.2	0.8	0.26	0.8
WMAIN-1656	J-6960	J-6961	8	152.5	0	0	0	0	0	0
WMAIN-1660(1)	J-8528	125-045	8	152.5	0	0.06	0	0.4	0	0
WMAIN-1660(2)(1)	125-045	125-043	8	152.5	0	0.06	0	0.3	0	0
WMAIN-1660(2)(2)	125-043	J-7454	8	152.5	0	0.06	0	0.3	0	0
WMAIN-1661	J-7454	J-7225	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-1665(1)	J-7861	125-027	12	152.5	0	0.03	0	0.3	0.03	0.3
WMAIN-1665(2)	125-027	J-7858	12	152.5	0	0.03	0	0.3	0.04	0.3
WMAIN-1667(1)	J-6944	125-030	12	152.5	0	0.03	0	0.3	0.04	0.4
WMAIN-1667(2)	125-030	J-7861	12	152.5	0	0.04	0	0.3	0.05	0.4
WMAIN-1670	J-6943	J-6944	12	152.5	0	0.12	0	0.6	0.13	0.7
WMAIN-1671(1)	J-7225	125-042	12	152.5	0	0.13	0.1	0.7	0.13	0.7
WMAIN-1671(2)(1)	125-042	125-035	12	152.5	0	0.13	0.1	0.7	0.14	0.7
WMAIN-1671(2)(2)	125-035	J-6943	12	152.5	0	0.13	0.1	0.7	0.14	0.7
WMAIN-1673	J-7860	J-7859	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-1677(1)	J-7863	125-029	8	152.5	0.01	0.1	0.1	0.4	0.1	0.5

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1677(2)	125-029	J-7860	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-1678(1)	J-8777	125-041	8	152.5	0.04	0.21	0.3	0.7	0.2	0.7
WMAIN-1678(2)	125-041	J-7863	8	152.5	0.04	0.22	0.3	0.7	0.22	0.7
WMAIN-1682	J-6554	J-7470	8	152.5	0.03	0.2	0.2	0.7	0.19	0.6
WMAIN-1684(1)	J-8723	126-006	12	152.5	0.01	0.04	0.2	0.4	0.04	0.3
WMAIN-1684(2)(1)	126-006	126-007	12	152.5	0.01	0.04	0.2	0.4	0.04	0.3
WMAIN-1684(2)(2)	126-007	J-8567	12	152.5	0.01	0.04	0.2	0.4	0.04	0.3
WMAIN-1686(1)	J-6943	125-034	12	152.5	0.05	0.09	0.4	0.6	0.08	0.5
WMAIN-1686(2)	125-034	J-8723	12	152.5	0.05	0.09	0.4	0.6	0.08	0.5
WMAIN-1689	J-7863	J-6943	8	152.5	0.14	0.57	0.5	1.2	0.54	1.1
WMAIN-1691	J-8118	J-7863	8	152.5	0.07	0.34	0.4	0.9	0.32	0.8
WMAIN-1692(1)	J-8482	125-038	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-1692(2)	125-038	J-8116	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-1694(1)	J-8116	125-020	8	152.5	0.07	0.39	0.4	0.9	0.38	0.9
WMAIN-1694(2)	125-020	J-8117	8	152.5	0.07	0.4	0.4	1	0.39	0.9
WMAIN-1696(1)	J-8482	125-037	8	152.5	0.03	0.17	0.2	0.6	0.16	0.6
WMAIN-1696(2)	125-037	J-8478	8	152.5	0.05	0.29	0.3	0.8	0.28	0.8
WMAIN-1699(1)	J-8117	125-055	8	152.5	0	0	0	0	0	0
WMAIN-1699(2)	125-055	J-8118	8	152.5	0	0	0	0.1	0	0
WMAIN-1701(1)	J-8118	125-036	8	152.5	0.06	0.3	0.3	0.8	0.29	0.8
WMAIN-1701(2)	125-036	J-8478	8	152.5	0.06	0.29	0.3	0.8	0.29	0.8
WMAIN-1702(1)	J-7866	125-019	12	152.5	0.02	0.1	0.2	0.6	0.09	0.6
WMAIN-1702(2)	125-019	J-8116	12	152.5	0.02	0.1	0.2	0.6	0.1	0.6
WMAIN-1704(1)	J-7865	125-018	12	152.5	0.06	0.38	0.4	1.2	0.38	1.2
WMAIN-1704(2)	125-018	J-7866	12	152.5	0.06	0.38	0.4	1.2	0.38	1.2
WMAIN-1706(1)	J-6575	125-017	12	152.5	0.07	0.41	0.5	1.2	0.4	1.2
WMAIN-1706(2)	125-017	J-7865	12	152.5	0.08	0.42	0.5	1.3	0.4	1.2
WMAIN-1708	J-5283	J-6575	12	152.5	0.11	0.6	0.6	1.5	0.57	1.5
WMAIN-1710(1)	J-6554	125-016	12	152.5	0.04	0.25	0.4	1	0.24	0.9
WMAIN-1710(2)	125-016	J-5283	12	152.5	0.04	0.25	0.4	1	0.24	0.9
WMAIN-1713(1)	J-6711	J-9229	12	152.5	0.06	0.41	0.5	1.2	0.38	1.2
WMAIN-1713(2)	J-9229	J-6554	12	152.5	0.06	0.41	0.5	1.2	0.39	1.2
WMAIN-1716	J-6710	J-6711	12	152.5	0.02	0.21	0.3	0.9	0.19	0.8
WMAIN-1718(1)	J-6540	125-015	12	152.5	0.01	0.09	0.1	0.6	0.08	0.5
WMAIN-1718(2)	125-015	J-6710	12	152.5	0.01	0.09	0.2	0.6	0.08	0.5
WMAIN-1719(1)	J-7095	125-014	12	152.5	0	0.05	0.1	0.4	0.05	0.4
WMAIN-1719(2)	125-014	J-6540	12	152.5	0	0.06	0.1	0.4	0.05	0.4
WMAIN-1720	J-6859	J-7095	12	152.5	0	0.05	0.1	0.4	0.05	0.4
WMAIN-1723(1)	J-7719	125-007	12	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-1723(2)	125-007	J-6859	12	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-1726(1)	J-5432	125-006	12	152.5	0.02	0.4	0.3	1.2	0.4	1.2
WMAIN-1726(2)	125-006	J-7719	12	152.5	0.03	0.41	0.3	1.2	0.42	1.3
WMAIN-1728(1)	056-041	J-9186	12	152.5	0.09	0.75	0.6	1.7	0.8	1.8
WMAIN-1728(2)	J-9186	J-8545	12	152.5	0.04	0.46	0.4	1.3	0.5	1.4
WMAIN-1729(1)	J-7719	J-5959	12	152.5	0.02	0.23	0.3	0.9	0.25	1
WMAIN-1729(2)(1)	J-5959	J-5961	12	152.5	0.02	0.23	0.3	0.9	0.25	1
WMAIN-1729(2)(2)	J-5961	J-5413	12	152.5	0.08	0.51	0.5	1.4	0.54	1.4
WMAIN-1730	J-5413	125-005	12	152.5	0.18	1.53	0.8	2.5	1.6	2.6
WMAIN-1731(1)	J-7859	125-021	8	152.5	0.07	0.41	0.4	1	0.41	1
WMAIN-1731(2)	125-021	J-8117	8	152.5	0.06	0.4	0.4	1	0.4	1
WMAIN-1734(1)	J-7858	125-023	8	152.5	0.12	0.77	0.5	1.4	0.78	1.4
WMAIN-1734(2)	125-023	J-7859	8	152.5	0.12	0.77	0.5	1.4	0.77	1.4
WMAIN-1735(1)	J-6819	022-049	8	152.5	0.04	0.1	0.3	0.4	0.04	0.3
WMAIN-1735(2)	022-049	J-6820	8	152.5	0.04	0.1	0.3	0.4	0.05	0.3
WMAIN-1738	J-5766	J-6819	8	152.5	0.04	0.09	0.3	0.4	0.04	0.3
WMAIN-1739	J-5294	019-047	8	152.5	0	0	0	0	0	0
WMAIN-1740	019-047	J-6546	8	152.5	0	0	0	0	0	0
WMAIN-1741	J-7043	J-5384	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-1742(1)	J-5384	J-8814	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1742(2)	J-8814	J-6546	8	152.5	0	0	0	0	0	0
WMAIN-1744	J-6546	J-6975	8	152.5	0	0	0	0	0	0
WMAIN-1746(1)	H-498	J-8851	8	152.5	0.13	0.36	0.5	0.9	0.53	1.1
WMAIN-1746(2)	J-8851	J-8621	8	152.5	0.26	0.81	0.8	1.4	1.29	1.8
WMAIN-1749	J-5471	J-5472	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-1750(1)	J-8494	047-018	12	152.5	0.28	0.86	1	1.9	0.28	1
WMAIN-1750(2)	047-018	J-8495	12	152.5	0.27	0.85	1	1.8	0.28	1
WMAIN-1752	J-5941	018-052	8	152.5	0	0	0	0	0	0
WMAIN-1754	J-5939	J-5940	8	152.5	0	0	0	0	0	0
WMAIN-1755(1)(1)(1)(1)	J-8871	017-024	12	152.5	0	0.28	0	1	0.05	0.4
WMAIN-1755(1)(1)(1)(2)	017-024	017-023	12	152.5	0	0.31	0	1.1	0.07	0.5
WMAIN-1755(1)(1)(2)	017-023	017-022	12	152.5	0	0.35	0	1.1	0.09	0.6
WMAIN-1755(1)(2)	017-022	017-021	12	152.5	0	0.35	0	1.1	0.09	0.6
WMAIN-1755(2)(1)	017-021	017-020	12	152.5	0	0.37	0	1.2	0.1	0.6
WMAIN-1755(2)(2)	017-020	J-7844	12	152.5	0	0.37	0	1.2	0.1	0.6
WMAIN-1757(1)	J-8449	009-025	12	152.5	0.02	0.36	0.2	1.2	0.35	1.1
WMAIN-1757(2)	009-025	J-8786	12	152.5	0.02	0.35	0.2	1.1	0.34	1.1
WMAIN-1759(1)	J-6185	009-035	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1759(2)(1)	009-035	009-034	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-1759(2)(2)	009-034	J-8449	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-1761	J-6184	J-6185	8	152.5	0	0	0	0	0	0
WMAIN-1763	J-5598	J-5599	2	152.5	0	0.02	0	0.1	0.02	0.1
WMAIN-1764	J-5794	J-5795	2	152.5	0	0	0	0	0	0
WMAIN-1765	J-5603	J-5604	2	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1766	J-5813	J-5814	2	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-1767	015-026	J-5825	2	152.5	0.01	0.03	0	0.1	0.03	0.1
WMAIN-1768	J-5834	J-5835	2	152.5	0.33	1.28	0.4	0.7	1.28	0.7
WMAIN-1769	J-5796	J-5797	2	152.5	0.01	0.03	0	0.1	0.03	0.1
WMAIN-1770	J-5836	J-5837	2	152.5	0.01	0.02	0	0.1	0.02	0.1
WMAIN-1771	J-5636	J-5637	2	152.5	0.01	0.03	0	0.1	0.03	0.1
WMAIN-1772	J-5684	J-5685	2	152.5	0	0	0	0	0	0
WMAIN-1773	J-5620	J-5621	2	152.5	0	0.02	0	0.1	0.02	0.1
WMAIN-1774	J-5722	J-5723	8	152.5	0	0	0	0	0	0
WMAIN-1777	J-5421	J-5719	8	152.5	0	0	0	0	0	0
WMAIN-1778(1)	J-5421	015-021	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1778(2)	015-021	J-6240	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-1779(1)	015-024	J-5620	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1779(2)(1)	J-5620	015-023	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1779(2)(2)	015-023	J-8817	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1781(1)(1)	J-6646	J-5636	8	152.5	0	0	0	0	0	0
WMAIN-1781(1)(2)	J-5636	J-5684	8	152.5	0	0	0	0	0	0
WMAIN-1781(2)	J-5684	015-024	8	152.5	0	0	0	0	0	0
WMAIN-1782(1)	J-7851	J-5834	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1782(2)(1)	J-5834	J-5796	8	152.5	0	0	0	0	0	0
WMAIN-1782(2)(2)(1)	J-5796	J-5836	8	152.5	0	0	0	0	0	0
WMAIN-1782(2)(2)(2)(1)	J-5836	015-025	8	152.5	0	0	0	0	0	0
WMAIN-1782(2)(2)(2)(2)	015-025	J-6646	8	152.5	0	0	0	0	0	0
WMAIN-1784(1)	J-5420	J-5598	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(1)	J-5598	J-5794	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(1)(1)	J-5794	015-027	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(1)(2)	015-027	J-5603	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(2)(1)	J-5603	J-5813	8	152.5	0	0	0	0.1	0	0.1
WMAIN-1784(2)(2)(2)(2)(1)	J-5813	015-026	8	152.5	0	0	0	0.1	0	0.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1784(2)(2)(2)(2)(2)	015-026	J-7851	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-1785(1)(1)	J-8326	J-8423	12	152.5	0.16	0.43	0.7	1.3	0.55	1.5
WMAIN-1785(1)(2)	J-8423	170-059	12	152.5	0	0.12	0.1	0.7	0.03	0.3
WMAIN-1785(2)	170-059	J-8353	12	152.5	0	0.12	0.1	0.7	0.03	0.3
WMAIN-1788	J-5828	J-5829	8	152.5	0	0	0	0	0	0
WMAIN-1789(1)	J-5828	171-035	16	152.5	0.62	1.5	1.9	3	1.81	3.3
WMAIN-1789(2)(1)	171-035	171-036	16	152.5	0.61	1.47	1.8	3	1.79	3.3
WMAIN-1789(2)(2)	171-036	J-8812	16	152.5	0.61	1.47	1.8	3	1.79	3.3
WMAIN-1791(1)(1)	J-7172	171-030	16	152.5	0.6	1.6	1.8	3.1	1.88	3.4
WMAIN-1791(1)(2)	171-030	171-031	16	152.5	0.6	1.6	1.8	3.1	1.88	3.4
WMAIN-1791(2)(1)	171-031	171-032	16	152.5	0.6	1.6	1.8	3.1	1.88	3.4
WMAIN-1791(2)(2)	171-032	J-5870	16	152.5	0.6	1.6	1.8	3.1	1.88	3.4
WMAIN-1794(1)	J-5870	171-033	16	152.5	0.59	1.57	1.8	3.1	1.84	3.4
WMAIN-1794(2)(1)	171-033	171-034	16	152.5	0.59	1.55	1.8	3.1	1.83	3.3
WMAIN-1794(2)(2)	171-034	J-5828	16	152.5	0.59	1.55	1.8	3.1	1.83	3.3
WMAIN-1796	J-5870	J-5871	8	152.5	0	0	0	0	0	0
WMAIN-1798	J-5842	J-5843	8	152.5	0	0	0	0	0	0
WMAIN-1799(1)	J-5060	J-5842	16	152.5	0.89	2.54	2.3	4	2.95	4.3
WMAIN-1799(2)	J-5842	J-6956	16	152.5	0.89	2.54	2.3	4	2.95	4.3
WMAIN-1800(1)	J-6956	171-029	16	152.5	0.89	2.54	2.3	4	2.95	4.3
WMAIN-1800(2)	171-029	J-7172	16	152.5	0.89	2.54	2.3	4	2.95	4.3
WMAIN-1803	J-5060	J-5841	8	152.5	0	0	0	0	0	0
WMAIN-1805(1)	J-5382	171-028	16	152.5	0.89	2.54	2.3	4	2.96	4.3
WMAIN-1805(2)	171-028	J-5060	16	152.5	0.89	2.54	2.3	4	2.96	4.3
WMAIN-1808	J-6427	J-6428	8	152.5	0	0	0	0	0	0
WMAIN-1810(1)	J-7364	167-055	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-1810(2)	167-055	J-6427	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-1811(1)	J-8483	167-053	8	152.5	0.01	0.05	0.2	0.3	0.04	0.3
WMAIN-1811(2)	167-053	J-8264	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-1813	037-005	J-5934	12	140	0	0.04	0	0.3	0.01	0.2
WMAIN-1815(1)	J-7605	167-061	8	152.5	0	0	0	0	0	0
WMAIN-1815(2)	167-061	J-8168	8	152.5	0	0	0	0	0	0
WMAIN-1816(1)	J-7477	167-060	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-1816(2)	167-060	J-7199	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-1819(1)	J-7477	167-059	8	152.5	0	0.15	0	0.6	0.14	0.5
WMAIN-1819(2)	167-059	J-7756	8	152.5	0	0.17	0	0.6	0.17	0.6
WMAIN-1820	J-7293	J-7756	8	152.5	0	0.18	0	0.6	0.17	0.6
WMAIN-1823	J-7199	J-7200	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-1826(1)	J-7200	167-058	8	152.5	0	0.28	0	0.8	0.27	0.8
WMAIN-1826(2)	167-058	J-7293	8	152.5	0	0.3	0	0.8	0.29	0.8
WMAIN-1828	J-7605	J-7199	8	152.5	0	0.21	0	0.7	0.19	0.6
WMAIN-1829(1)	J-7292	167-050	8	152.5	0	2.22	0	2.4	2.18	2.4
WMAIN-1829(2)	167-050	J-7293	8	152.5	0	2.21	0	2.4	2.18	2.4
WMAIN-1832	J-7726	J-7292	8	152.5	0	1.02	0	1.6	1	1.6
WMAIN-1835(1)	J-7292	167-049	8	152.5	0	0.4	0	1	0.4	0.9
WMAIN-1835(2)	167-049	J-7728	8	152.5	0	0.41	0	1	0.4	1
WMAIN-1836	J-7726	J-7727	8	152.5	0	0.46	0	1	0.45	1
WMAIN-1838	J-7727	J-7728	8	152.5	0	0.43	0	1	0.42	1
WMAIN-1840(1)	J-5168	031-022	16	152.5	0	0.16	0	0.9	0	0.1
WMAIN-1840(2)(1)	031-022	018-015	16	152.5	0	0.15	0	0.9	0	0.1
WMAIN-1840(2)(2)	018-015	J-5329	16	152.5	0	0.15	0	0.9	0	0.1
WMAIN-1842	J-5267	J-5268	8	152.5	0	0	0	0	0	0
WMAIN-1844	J-5268	J-7605	8	152.5	0	0.18	0	0.6	0.16	0.6
WMAIN-1846(1)	J-6957	167-045	12	152.5	0.02	0.26	0.2	1	0.26	1
WMAIN-1846(2)	167-045	J-8696	12	152.5	0.02	0.26	0.2	1	0.26	1
WMAIN-1847(1)(1)	167-041	167-077	12	152.5	0.01	0.42	0.1	1.3	0.06	0.4
WMAIN-1847(1)(2)	167-077	167-042	12	152.5	0.01	0.42	0.1	1.3	0.06	0.4
WMAIN-1847(2)(1)	167-042	J-9224	12	152.5	0.01	0.42	0.1	1.3	0.05	0.4
WMAIN-1847(2)(2)	J-9224	J-6830	12	152.5	0.01	0.42	0.1	1.3	0.05	0.4
WMAIN-1848	J-6972	167-041	12	152.5	0.01	0.42	0.1	1.3	0.06	0.4
WMAIN-1850	J-7387	J-6958	8	152.5	0.04	1.46	0.3	1.9	1.44	1.9
WMAIN-1853	J-6958	J-8483	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-1856(1)	J-6958	167-052	8	152.5	0.07	0.18	0.4	0.6	0.17	0.6
WMAIN-1856(2)	167-052	J-7549	8	152.5	0.08	0.19	0.4	0.6	0.18	0.6
WMAIN-1860	J-6746	J-6977	8	152.5	0.03	0.08	0.2	0.4	0.06	0.4
WMAIN-1862	J-6746	J-6194	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-1864	J-5265	J-6988	8	152.5	0	0.18	0	0.6	0.05	0.3
WMAIN-1869	167-075	J-5185	8	152.5	0	0	0	0	0	0
WMAIN-1871(1)	J-7371	167-051	8	152.5	0	0.7	0	1.3	0.68	1.3
WMAIN-1871(2)	167-051	J-7612	8	152.5	0	0.71	0	1.3	0.69	1.3
WMAIN-1873	J-7612	J-7387	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-1877	J-7293	J-7371	8	152.5	0	0.41	0	1	0.4	1
WMAIN-1879(1)	J-7335	167-047	8	152.5	0	1.28	0	1.8	1.26	1.8
WMAIN-1879(2)	167-047	J-7612	8	152.5	0	1.26	0	1.8	1.24	1.8
WMAIN-1881	J-7548	J-7387	8	152.5	0	0.92	0.1	1.5	0.91	1.5
WMAIN-1884(1)	J-7549	167-056	8	152.5	0.06	0.26	0.3	0.8	0.26	0.8
WMAIN-1884(2)	167-056	J-7370	8	152.5	0.06	0.27	0.3	0.8	0.26	0.8
WMAIN-1887	J-6957	J-6958	8	152.5	0.37	2.69	0.9	2.7	2.68	2.7
WMAIN-1889	J-7549	J-6427	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-1892(1)	J-6831	167-048	8	152.5	0	2.69	0	2.7	2.66	2.6
WMAIN-1892(2)	167-048	J-7726	8	152.5	0	2.68	0	2.7	2.64	2.6
WMAIN-1895	J-7335	J-6831	8	152.5	0	4.13	0	3.4	4.07	3.3
WMAIN-1896(1)	J-7548	167-046	8	152.5	0	0.97	0.1	1.5	0.96	1.5
WMAIN-1896(2)	167-046	J-7335	8	152.5	0	0.99	0.1	1.5	0.97	1.5
WMAIN-1900	J-5262	J-5263	12	152.5	0.13	0.53	0.7	1.4	0.53	1.4
WMAIN-1902(1)	J-5262	167-044	12	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1902(2)	167-044	J-6957	12	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-1904(1)(1)	J-6830	167-076	12	152.5	0.13	0.64	0.7	1.6	0.64	1.6
WMAIN-1904(1)(2)	167-076	167-043	12	152.5	0.13	0.64	0.7	1.6	0.64	1.6
WMAIN-1904(2)	167-043	J-5262	12	152.5	0.13	0.64	0.7	1.6	0.64	1.6
WMAIN-1906	J-6830	J-6831	8	152.5	0.03	11.48	0.2	5.8	11.31	5.8
WMAIN-1909(1)	J-6439	J-8718	16	140	0	0.19	0	0.9	0.01	0.2
WMAIN-1909(2)(1)	J-8718	035-044	16	140	0.07	0.84	0.5	2	0.09	0.6
WMAIN-1909(2)(2)	035-044	J-8494	16	140	0.07	0.84	0.5	2	0.09	0.6
WMAIN-1913	J-6041	J-7042	8	152.5	0.23	1.68	0.7	2.1	0.27	0.8
WMAIN-1914(1)	J-8638	035-039	8	152.5	0.01	0.06	0.1	0.3	0.01	0.1
WMAIN-1914(2)	035-039	J-8639	8	152.5	0.01	0.06	0.1	0.3	0.01	0.1
WMAIN-1916(1)	J-8643	035-038	8	152.5	0	0.04	0.1	0.3	0	0.1
WMAIN-1916(2)	035-038	J-8638	8	152.5	0	0.05	0.1	0.3	0	0.1
WMAIN-1918(1)	J-8643	035-037	8	152.5	0.01	0.15	0.1	0.6	0.01	0.1
WMAIN-1918(2)	035-037	J-8646	8	152.5	0.01	0.15	0.1	0.6	0.01	0.1
WMAIN-1920	J-8639	J-6618	8	152.5	0	0	0	0	0	0
WMAIN-1922	J-8747	J-8639	8	152.5	0.01	0.07	0.1	0.4	0.01	0.2
WMAIN-1924	J-6041	J-8747	8	152.5	0.04	0.29	0.3	0.8	0.05	0.3
WMAIN-1925(1)	J-6040	035-041	8	152.5	0.08	0.66	0.4	1.2	0.1	0.4
WMAIN-1925(2)	035-041	J-6041	8	152.5	0.08	0.66	0.4	1.2	0.1	0.4
WMAIN-1926(1)	J-8142	J-8519	8	152.5	0	0	0	0	0	0
WMAIN-1926(2)(1)	J-8519	035-042	8	152.5	0.02	0.18	0.2	0.6	0.02	0.2
WMAIN-1926(2)(2)	035-042	J-6040	8	152.5	0.02	0.19	0.2	0.6	0.03	0.2
WMAIN-1929	J-8428	J-6040	8	152.5	0.02	0.17	0.2	0.6	0.03	0.2
WMAIN-1932	J-8643	J-8428	8	152.5	0.01	0.06	0.1	0.3	0.01	0.1
WMAIN-1936(1)	J-8428	035-040	8	152.5	0.01	0.07	0.1	0.4	0.01	0.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-1936(2)	035-040	J-8747	8	152.5	0.01	0.08	0.1	0.4	0.01	0.1
WMAIN-1937	J-8799	J-8800	2	140	0.23	0.89	0.3	0.6	0.89	0.6
WMAIN-1938(1)	J-7818	040-028	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-1938(2)	040-028	J-8008	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-1946(1)	J-6641	041-024	8	152.5	0.02	0.17	0.2	0.6	0.19	0.6
WMAIN-1946(2)	041-024	J-7486	8	152.5	0.02	0.18	0.2	0.6	0.2	0.7
WMAIN-1947(1)	J-7587	041-028	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-1947(2)	041-028	J-7588	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-1948	J-8311	J-8312	8	152.5	0.03	0.17	0.3	0.6	0.18	0.6
WMAIN-1949	J-5566	J-5567	6	152.5	0	0	0	0	0	0
WMAIN-1950(1)	J-5533	021-013	10	140	0.02	0.25	0.2	0.8	0.13	0.6
WMAIN-1950(2)	021-013	J-6879	10	140	0.02	0.25	0.2	0.8	0.13	0.6
WMAIN-1951(1)	J-8146	021-014	6	140	0.03	0.28	0.2	0.6	0.16	0.4
WMAIN-1951(2)	021-014	J-6153	6	140	0.03	0.28	0.2	0.6	0.15	0.4
WMAIN-1952	J-7091	J-8355	4	140	0.09	0.76	0.2	0.8	0.39	0.6
WMAIN-1954	J-6334	J-6406	3	140	0.02	0.07	0.1	0.2	0.07	0.2
WMAIN-1955	J-6406	J-6236	3	140	0.02	0.16	0.1	0.3	0.18	0.3
WMAIN-1956	J-6880	J-6627	6	140	0.1	0.38	0.3	0.7	0.21	0.5
WMAIN-1957	J-5527	J-5591	4	140	0.03	0.61	0.1	0.7	0.3	0.5
WMAIN-1958	J-5591	J-5807	4	140	0.03	0.61	0.1	0.7	0.3	0.5
WMAIN-1959	J-6162	J-6163	6	152.5	0	0	0	0	0	0
WMAIN-1960	J-6447	021-001	6	152.5	0	0	0	0	0	0
WMAIN-1961	J-5108	J-5109	6	140	0	0	0	0	0	0
WMAIN-1962(1)(1)(1)	J-7161	J-9306	6	140	0.14	1.35	0.4	1.4	0.62	0.9
WMAIN-1962(1)(1)(2)	J-9306	028-040	6	140	0.15	1.36	0.4	1.4	0.63	0.9
WMAIN-1962(1)(2)	028-040	028-042	6	140	0.15	1.37	0.4	1.4	0.64	0.9
WMAIN-1962(2)	028-042	J-6679	6	140	0.15	1.37	0.4	1.4	0.64	0.9
WMAIN-1963(1)	028-044	028-031	6	140	0	0.07	0	0.3	0.06	0.3
WMAIN-1963(2)	028-031	J-6591	6	140	0	0.07	0	0.3	0.06	0.3
WMAIN-1966(1)	J-7852	040-031	8	152.5	0	0.27	0	0.8	0.25	0.7
WMAIN-1966(2)	040-031	J-7748	8	152.5	0	0.27	0	0.8	0.25	0.7
WMAIN-1968	J-5460	J-5461	6	140	0.03	0.2	0.2	0.5	0.29	0.6
WMAIN-1969	J-5465	J-5466	6	130	0.01	0.19	0.1	0.5	0.1	0.3
WMAIN-1970	J-5436	J-5437	8	140	0.13	0.69	0.5	1.2	0.17	0.6
WMAIN-1971(1)	J-5430	027-030	6	140	0.03	0.24	0.2	0.6	0.01	0.1
WMAIN-1971(2)(1)	027-030	027-029	6	140	0.03	0.24	0.2	0.5	0.01	0.1
WMAIN-1971(2)(2)	027-029	J-5216	6	140	0.03	0.24	0.2	0.5	0.01	0.1
WMAIN-1973	J-6444	J-5431	6	140	0.06	0.27	0.3	0.6	0.08	0.3
WMAIN-1974	J-5387	J-5322	6	140	0	0.13	0	0.4	0.11	0.4
WMAIN-1975	J-5251	J-5252	6	140	0.12	0.32	0.4	0.6	0.2	0.5
WMAIN-1976	J-5272	J-5273	4	140	0	0.3	0	0.5	0.08	0.2
WMAIN-1978	J-5272	J-5972	6	130	0	0.01	0	0.1	0	0
WMAIN-1980(1)	J-5519	021-002	6	140	0.06	0.57	0.3	0.9	0.27	0.6
WMAIN-1980(2)	021-002	J-5520	6	140	0.05	0.58	0.3	0.9	0.27	0.6
WMAIN-1981(1)	J-5732	022-027	6	140	0	0	0	0	0	0
WMAIN-1981(2)	022-027	J-8097	6	140	0	0	0	0	0	0
WMAIN-1982(1)	J-7376	053-015	6	140	0	0.03	0	0.2	0	0.1
WMAIN-1982(2)	053-015	J-6138	6	140	0	0.03	0.1	0.2	0.01	0.1
WMAIN-1984	J-5434	J-5435	8	140	0	0.13	0	0.5	0.11	0.4
WMAIN-1986	J-7057	J-5435	8	140	0	0.23	0.1	0.7	0.06	0.3
WMAIN-1987	J-5234	J-5235	8	140	0	0.14	0	0.5	0.07	0.3
WMAIN-1988	J-5235	J-7057	8	140	0	0.16	0.1	0.5	0.07	0.4
WMAIN-1989(1)	J-5566	029-017A	2	130	0.05	0.17	0.1	0.2	0.12	0.2
WMAIN-1989(2)	029-017A	J-5470	2	130	0	0.04	0	0.1	0	0
WMAIN-1990(1)	J-5567	029-027	6	140	0.07	0.19	0.3	0.5	0.14	0.4
WMAIN-1990(2)	029-027	J-5166	6	140	0.08	0.19	0.3	0.5	0.14	0.4
WMAIN-1992(1)	J-7748	040-036	8	152.5	0	0.29	0	0.8	0.27	0.8
WMAIN-1992(2)	040-036	J-7816	8	152.5	0	0.3	0	0.8	0.28	0.8
WMAIN-1994	J-8147	J-5808	10	140	0.05	0.33	0.3	0.9	0.19	0.7
WMAIN-1995(1)	J-7425	023-030	10	152.5	0.02	0.21	0.2	0.8	0.1	0.5
WMAIN-1995(2)	023-030	J-7426	10	152.5	0.02	0.22	0.2	0.8	0.1	0.5
WMAIN-1997	J-7278	J-7279	8	140	0	0.12	0.1	0.5	0.09	0.4
WMAIN-1998(1)	J-7941	042-008	8	140	0.05	1.11	0.3	1.5	1.31	1.7
WMAIN-1998(2)	042-008	J-5559	8	140	0.05	1.12	0.3	1.5	1.32	1.7
WMAIN-2002	J-7278	J-7941	8	140	0.02	0.58	0.2	1.1	0.69	1.2
WMAIN-2004(1)(1)	J-7279	042-006	8	140	0.01	0.35	0.1	0.8	0.33	0.8
WMAIN-2004(1)(2)	042-006	042-053	8	140	0.01	0.34	0.1	0.8	0.32	0.8
WMAIN-2004(2)	042-053	J-7330	8	140	0.01	0.34	0.1	0.8	0.32	0.8
WMAIN-2005	J-7239	J-7934	6	140	0.01	0.17	0.1	0.5	0.14	0.4
WMAIN-2007	J-7138	J-8366	8	140	0.03	0.43	0.2	0.9	0.29	0.7
WMAIN-2009(1)	J-7139	042-060	8	140	0	0.3	0.1	0.8	0.5	1
WMAIN-2009(2)	042-060	J-7077	8	140	0	0.31	0.1	0.8	0.51	1
WMAIN-2011(1)	J-7077	042-061	8	140	0.01	0.34	0.1	0.8	0.54	1
WMAIN-2011(2)	042-061	J-7051	8	140	0.01	0.35	0.1	0.8	0.56	1
WMAIN-2014	J-7051	J-7052	8	140	0.03	0.68	0.2	1.2	0.89	1.3
WMAIN-2017(1)	J-7138	042-059	8	140	0	0.04	0	0.2	0.09	0.4
WMAIN-2017(2)	042-059	J-7139	8	140	0	0.03	0	0.2	0.09	0.4
WMAIN-2019	J-7076	J-7077	6	140	0	0	0	0	0	0
WMAIN-2022(1)	J-8460	042-058	8	152.5	0.01	0.36	0.1	0.9	0.49	1.1
WMAIN-2022(2)	042-058	J-7138	8	152.5	0.02	0.4	0.2	0.9	0.54	1.1
WMAIN-2026	J-6928	J-7051	6	140	0.02	0.38	0.1	0.7	0.2	0.5
WMAIN-2029	J-5839	J-7139	6	140	0.03	0.89	0.2	1.1	0.7	1
WMAIN-2031(1)	J-7810	043-003	8	140	0.04	0.79	0.3	1.3	0.67	1.1
WMAIN-2031(2)	043-003	J-7934	8	140	0.04	0.78	0.3	1.3	0.66	1.1
WMAIN-2034(1)	J-7558	042-057	8	152.5	0	0.07	0.1	0.4	0.03	0.2
WMAIN-2034(2)	042-057	J-8460	8	152.5	0	0.06	0.1	0.3	0.02	0.2
WMAIN-2035(1)	J-8459	042-056	8	152.5	0.02	0.49	0.2	1.1	0.59	1.2
WMAIN-2035(2)	042-056	J-8460	8	152.5	0.02	0.51	0.2	1.1	0.61	1.2
WMAIN-2036	J-8036	J-7553	8	152.5	0	0.01	0	0.1	0.01	0.2
WMAIN-2039	J-7330	J-7331	8	140	0.03	1.47	0.2	1.8	1.57	1.8
WMAIN-2041(1)	J-8036	042-049	8	152.5	0.01	0.21	0.1	0.7	0.26	0.8
WMAIN-2041(2)	042-049	J-6061	8	152.5	0.01	0.2	0.1	0.7	0.25	0.7
WMAIN-2043(1)(1)	J-7331	042-051	8	152.5	0	0.22	0.1	0.7	0.2	0.7
WMAIN-2043(1)(2)	042-051	042-050	8	152.5	0	0.2	0.1	0.7	0.18	0.6
WMAIN-2043(2)	042-050	J-8036	8	152.5	0	0.2	0.1	0.7	0.18	0.6
WMAIN-2047(1)(1)	J-7330	042-054	8	152.5	0.01	0.44	0.1	1	0.53	1.1
WMAIN-2047(1)(2)	042-054	042-055	8	152.5	0.02	0.47	0.2	1	0.57	1.1
WMAIN-2047(2)	042-055	J-8459	8	152.5	0.02	0.47	0.2	1	0.57	1.1
WMAIN-2049(1)(1)(1)	J-7331	041-020	8	140	0.01	0.54	0.1	1	0.63	1.1
WMAIN-2049(1)(1)(2)	041-020	042-052	8	140	0	0.52	0.1	1	0.6	1.1
WMAIN-2049(1)(2)	042-052	042-048	8	140	0.01	0.51	0.1	1	0.59	1.1
WMAIN-2049(2)	042-048	J-6798	8	140	0.01	0.51	0.1	1	0.59	1.1
WMAIN-2052	J-6061	J-6798	8	152.5	0	0.19	0.1	0.6	0.24	0.7
WMAIN-2055(1)	J-6797	042-047	8	152.5	0.04	1.92	0.3	2.2	2.37	2.5
WMAIN-2055(2)	042-047	J-7312	8	152.5	0.04	1.91	0.3	2.2	2.36	2.5
WMAIN-2057	J-6061	J-6062	6	152.5	0	0	0	0	0	0
WMAIN-2059	J-5664	J-5493	6	152.5	0	0.14	0.1	0.4	0.18	0.5
WMAIN-2062(1)	J-7528	042-034	6	152.5	0.01	0.17	0.1	0.5	0.22	0.6
WMAIN-2062(2)	042-034	J-5493	6	152.5	0.01	0.16	0.1	0.5	0.2	0.6
WMAIN-2063(1)	J-7641	042-041	8	152.5	0.01	0.67	0.1	1.3	0.88	1.5
WMAIN-2063(2)	042-041	J-7086	8	152.5	0.01	0.67	0.1	1.3	0.88	1.5
WMAIN-2065	J-7528	J-7641	8	152.5	0.03	0.84	0.2	1.4	1.08	1.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2067(1)	J-7527	042-035	8	152.5	0.02	0.53	0.2	1.1	0.69	1.3
WMAIN-2067(2)	042-035	J-7528	8	152.5	0.02	0.53	0.2	1.1	0.7	1.3
WMAIN-2070	J-5840	J-7086	8	140	0.02	0.87	0.2	1.3	1.14	1.5
WMAIN-2072(1)	J-7086	042-042	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2072(2)	042-042	J-6751	6	152.5	0	0	0	0.1	0	0.1
WMAIN-2073	J-6751	J-6752	6	152.5	0	0	0	0	0	0
WMAIN-2074(1)	J-7931	042-033	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-2074(2)	042-033	J-7641	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-2076(1)	J-7553	042-037	8	152.5	0.02	0.71	0.2	1.3	0.94	1.5
WMAIN-2076(2)	042-037	J-7527	8	152.5	0.02	0.72	0.2	1.3	0.95	1.5
WMAIN-2080(1)	J-7672	042-032	8	140	0.01	1.01	0.1	1.4	1.43	1.7
WMAIN-2080(2)	042-032	J-7931	8	140	0.01	1	0.1	1.4	1.42	1.7
WMAIN-2081	J-6947	J-7931	8	152.5	0	0.73	0	1.3	0.92	1.5
WMAIN-2084(1)	J-6588	J-9284	6	152.5	0	0	0	0	0	0
WMAIN-2084(2)	J-9284	J-8439	6	152.5	0	0	0	0	0	0
WMAIN-2086	J-6947	J-6948	6	152.5	0	0	0	0	0	0
WMAIN-2087(1)	J-6588	055-017	12	152.5	0.01	0.63	0.2	1.6	0.81	1.8
WMAIN-2087(2)	055-017	J-6561	12	152.5	0.01	0.63	0.2	1.6	0.81	1.8
WMAIN-2089	J-6561	J-6562	12	152.5	0.02	0.31	0.2	1.1	0.3	1.1
WMAIN-2092(1)	J-6562	055-016	12	152.5	0.03	0.63	0.3	1.6	0.72	1.7
WMAIN-2092(2)	055-016	J-8101	12	152.5	0.03	0.63	0.3	1.6	0.72	1.7
WMAIN-2094(1)	J-6517	J-9283	6	152.5	0	0	0	0	0	0
WMAIN-2094(2)	J-9283	J-6754	6	152.5	0	0	0	0	0	0
WMAIN-2095	J-5220	J-5178	8	140	0	0.44	0	0.9	0.13	0.5
WMAIN-2096	J-5178	J-5179	8	140	0	0.38	0	0.9	0.1	0.4
WMAIN-2097(1)	J-5179	028-025	8	140	0	0.38	0	0.8	0.09	0.4
WMAIN-2097(2)	028-025	J-5234	8	140	0	0.37	0	0.8	0.09	0.4
WMAIN-2098	J-5417	J-5094	12	140	0	0.32	0	1	0.02	0.2
WMAIN-2101	J-5197	029-031	6	130	0.08	0.2	0.3	0.5	0.14	0.4
WMAIN-2102	J-5197	J-6927	6	130	0.16	1.19	0.4	1.2	0.57	0.8
WMAIN-2103	J-5100	J-5101	6	152.5	0.08	0.25	0.3	0.6	0.17	0.5
WMAIN-2104	J-5101	J-5201	6	152.5	0.31	0.92	0.7	1.2	0.62	1
WMAIN-2106	J-5119	J-5120	10	140	0	0.12	0	0.5	0.04	0.3
WMAIN-2107	J-5104	J-5105	16	140	0	0.12	0.1	0.7	0	0.1
WMAIN-2109	J-6150	J-6910	4	140	0	0	0	0	0	0
WMAIN-2110	J-5195	J-5196	6	152.5	0.04	0.1	0.2	0.4	0.06	0.3
WMAIN-2113	J-5321	J-5322	6	140	0.04	0.24	0.2	0.6	0.05	0.2
WMAIN-2115	J-5236	J-5237	12	110	0.03	0.28	0.2	0.7	0.14	0.5
WMAIN-2116	J-6627	J-6628	6	140	0.09	0.45	0.3	0.8	0.23	0.5
WMAIN-2117(1)	J-6628	J-8673	6	140	0.06	0.33	0.3	0.7	0.16	0.4
WMAIN-2117(2)	J-8673	J-5519	6	140	0.01	0.09	0.1	0.3	0.01	0.1
WMAIN-2118(1)	J-6619	J-9325	4	140	0.05	0.16	0.2	0.3	0.07	0.2
WMAIN-2118(2)	J-9325	J-5527	4	140	0.05	0.16	0.2	0.3	0.08	0.2
WMAIN-2120(1)	J-7361	022-026	10	140	0.03	0.15	0.3	0.6	0.1	0.5
WMAIN-2120(2)	022-026	J-7384	10	140	0.03	0.15	0.3	0.6	0.1	0.5
WMAIN-2121	J-7384	J-6966	10	140	0	0.08	0.1	0.4	0.04	0.3
WMAIN-2122	J-8361	J-5291	6	140	0.03	0.23	0.2	0.5	0.12	0.4
WMAIN-2123	J-8351	J-5238	10	140	0	0.09	0	0.4	0.02	0.2
WMAIN-2124(1)	J-8050	021-019	6	140	0	0.03	0	0.2	0	0
WMAIN-2124(2)(1)	021-019	021-020	6	140	0	0.06	0	0.3	0.02	0.1
WMAIN-2124(2)(2)	021-020	J-7924	6	140	0	0.06	0	0.3	0.02	0.1
WMAIN-2125	J-7924	021-031	6	140	0	0.02	0	0.1	0	0.1
WMAIN-2126	021-031	J-5290	6	140	0.03	0.23	0.2	0.5	0.13	0.4
WMAIN-2127	J-5290	J-5291	6	140	0.03	0.23	0.2	0.5	0.13	0.4
WMAIN-2128	J-6569	J-6570	6	140	0	0.14	0.1	0.4	0.01	0.1
WMAIN-2130	J-5430	J-5431	6	140	0.06	0.34	0.3	0.7	0.06	0.3
WMAIN-2131	J-6398	J-6905	6	140	0.06	0.72	0.3	1	0.2	0.5
WMAIN-2133	J-5955	J-5956	8	140	0.11	0.24	0.4	0.7	0.16	0.5
WMAIN-2135	J-7385	J-6366	6	140	0.01	0.34	0.1	0.7	0.06	0.3
WMAIN-2136	J-6391	J-6388	6	140	0.05	0.14	0.2	0.4	0.09	0.3
WMAIN-2138	J-6390	J-6391	6	140	0.05	0.35	0.2	0.7	0.11	0.4
WMAIN-2140	029-029	J-6244	6	140	0	0.05	0	0.2	0	0
WMAIN-2142	J-6244	J-7423	6	140	0.06	0.15	0.3	0.4	0.08	0.3
WMAIN-2144	J-5587	J-5588	4	140	0.63	2.59	0.7	1.5	1.07	1
WMAIN-2146	J-5975	J-5470	6	140	0.03	0.08	0.2	0.3	0.04	0.2
WMAIN-2148	J-6750	J-5321	6	130	0	0.06	0	0.3	0.05	0.2
WMAIN-2149	J-6926	J-6803	6	140	0.07	0.77	0.3	1	0.3	0.6
WMAIN-2151	J-6809	J-6810	6	140	0.1	1	0.4	1.2	0.41	0.7
WMAIN-2152(1)	J-6121	028-034	6	140	0.24	1.95	0.5	1.7	0.86	1.1
WMAIN-2152(2)	028-034	J-6214	6	140	0.24	1.95	0.5	1.7	0.86	1.1
WMAIN-2153	J-8152	J-8094	6	140	0.1	0.52	0.3	0.8	0.31	0.6
WMAIN-2155(1)	J-7161	028-039	6	140	0.14	1.3	0.4	1.4	0.59	0.9
WMAIN-2155(2)	028-039	J-6065	6	140	0.13	1.29	0.4	1.4	0.59	0.9
WMAIN-2157	J-5481	028-043	6	130	0.01	0.6	0.1	0.8	0.14	0.4
WMAIN-2158	J-6302	J-5197	6	130	0.01	0.63	0.1	0.9	0.16	0.4
WMAIN-2159(1)	028-043	J-9309	6	130	0.01	0.62	0.1	0.9	0.15	0.4
WMAIN-2159(2)	J-9309	J-6302	6	130	0.01	0.62	0.1	0.9	0.16	0.4
WMAIN-2161	J-6495	J-5745	6	130	0.08	0.67	0.3	0.9	0.29	0.6
WMAIN-2162	J-6885	J-6821	6	140	0	0.11	0	0.4	0.03	0.2
WMAIN-2164(1)	J-6822	020-004	6	140	0.11	0.31	0.4	0.6	0.28	0.6
WMAIN-2164(2)(1)	020-004	029-033	6	140	0.11	0.31	0.4	0.6	0.28	0.6
WMAIN-2164(2)(2)	029-033	J-5322	6	140	0.11	0.31	0.4	0.6	0.28	0.6
WMAIN-2166	J-6789	J-6530	6	140	0.21	0.93	0.5	1.1	0.7	1
WMAIN-2168(1)	J-6530	020-009	6	140	0.21	0.93	0.5	1.2	0.7	1
WMAIN-2168(2)	020-009	J-5826	6	140	0.21	0.93	0.5	1.2	0.7	1
WMAIN-2169	J-5826	J-7929	6	140	0.03	0.3	0.2	0.6	0.09	0.3
WMAIN-2170(1)	J-6584	020-015	6	152.5	0.05	0.16	0.2	0.5	0.1	0.4
WMAIN-2170(2)	020-015	J-6585	6	152.5	0.05	0.16	0.3	0.5	0.1	0.4
WMAIN-2172	J-6623	J-6584	6	152.5	0.04	0.13	0.2	0.4	0.07	0.3
WMAIN-2174	J-6677	J-5383	2	120	1.8	6.98	0.7	1.5	6.98	1.5
WMAIN-2175(1)(1)	J-7122	J-9300	6	140	0.01	0.39	0.1	0.7	0.07	0.3
WMAIN-2175(1)(2)	J-9300	019-004	6	140	0.01	0.39	0.1	0.7	0.07	0.3
WMAIN-2175(2)	019-004	J-5873	6	140	0.01	0.39	0.1	0.7	0.07	0.3
WMAIN-2177	J-6340	J-5084	6	140	0	0.09	0.1	0.3	0.05	0.2
WMAIN-2178	J-5084	J-5085	6	140	0	0.12	0	0.4	0.03	0.2
WMAIN-2179(1)	J-8126	J-9268	6	140	0	0.06	0	0.3	0.03	0.2
WMAIN-2179(2)	J-9268	J-6340	6	140	0	0.07	0	0.3	0.02	0.1
WMAIN-2180	J-6769	J-6237	6	140	0	0	0	0.1	0	0
WMAIN-2182	J-6241	J-6053	6	140	0	0.38	0	0.7	0.07	0.3
WMAIN-2183	J-6053	021-037	6	140	0	0.37	0	0.7	0.06	0.3
WMAIN-2186(1)	J-6426	021-010	8	140	0.02	0.07	0.2	0.3	0.05	0.3
WMAIN-2186(2)	021-010	J-5100	8	140	0.02	0.07	0.2	0.3	0.05	0.3
WMAIN-2187	J-5201	J-5538	12	140	0	0	0	0	0	0
WMAIN-2188	J-5626	J-5999	8	140	0.17	0.43	0.6	0.9	0.38	0.8
WMAIN-2189	J-6153	J-5532	6	140	0.05	0.44	0.2	0.8	0.24	0.6
WMAIN-2191	J-6879	J-5343	10	140	0	0.14	0.1	0.6	0.06	0.4
WMAIN-2193	J-8235	J-6879	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-2195	J-5808	J-5737	10	140	0.03	0.25	0.3	0.8	0.14	0.6
WMAIN-2196	J-5737	J-5738	10	140	0.03	0.25	0.3	0.8	0.14	0.6
WMAIN-2198	J-6629	J-6630	8	140	0	0	0	0	0	0
WMAIN-2200	J-6313	J-6314	6	130	0.01	0.29	0.1	0.6	0.18	0.4
WMAIN-2201	J-6314	J-5485	6	130	0.11	0.67	0.3	0.9	0.39	0.7

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2202	J-5485	J-5486	6	130	0.05	0.41	0.2	0.7	0.24	0.5
WMAIN-2203	J-5486	J-5466	6	130	0.05	0.38	0.2	0.7	0.21	0.5
WMAIN-2205	J-5643	J-6629	8	140	0.05	0.24	0.3	0.7	0.13	0.5
WMAIN-2206(1)	J-5642	021-005	8	140	0	0.04	0	0.2	0.03	0.2
WMAIN-2206(2)	021-005	J-5643	8	140	0	0.04	0	0.2	0.03	0.2
WMAIN-2208	J-6046	J-6021	6	140	0	0.27	0	0.6	0.14	0.4
WMAIN-2209	J-6021	J-5561	6	140	0	0.28	0	0.6	0.15	0.4
WMAIN-2210	J-5561	J-5562	6	140	0	0.18	0	0.5	0.1	0.3
WMAIN-2211(1)	J-5562	J-9335	6	140	0	0.2	0	0.5	0.11	0.4
WMAIN-2211(2)(1)	J-9335	J-9313	6	140	0	0.21	0	0.5	0.12	0.4
WMAIN-2211(2)(2)	J-9313	J-5642	6	140	0	0.21	0	0.5	0.12	0.4
WMAIN-2213	J-6649	J-6046	6	140	0.04	0.16	0.2	0.4	0.08	0.3
WMAIN-2215(1)	J-6649	021-008	6	130	0.01	0.18	0.1	0.4	0.09	0.3
WMAIN-2215(2)	021-008	J-5465	6	130	0.01	0.19	0.1	0.5	0.1	0.3
WMAIN-2216(1)(1)	J-7486	041-025	8	152.5	0	0.03	0.1	0.2	0.04	0.3
WMAIN-2216(1)(2)	041-025	041-026	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-2216(2)	041-026	J-8312	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-2217(1)	J-8312	041-027	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-2217(2)	041-027	J-7588	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-2218	J-7588	J-7486	8	152.5	0.01	0.09	0.1	0.4	0.11	0.5
WMAIN-2219	J-6797	J-6798	8	152.5	0.02	1.03	0.2	1.6	1.28	1.8
WMAIN-2221(1)	J-5535	038-005	16	140	0	0.19	0	0.9	0.23	1
WMAIN-2221(2)	038-005	J-7164	16	140	0	0.19	0	0.9	0.23	1
WMAIN-2222(1)	J-7164	J-5338	16	140	0	0.09	0	0.6	0.12	0.7
WMAIN-2222(2)	J-5338	J-6423	16	140	0	0.08	0	0.6	0.12	0.7
WMAIN-2224	J-5848	J-5849	16	140	0	0.06	0	0.5	0.04	0.4
WMAIN-2225	J-7895	J-8255	8	140	0	0.03	0	0.2	0.04	0.2
WMAIN-2227(1)	J-7585	030-012	6	140	0.07	0.34	0.3	0.7	0.09	0.3
WMAIN-2227(2)	030-012	J-7879	6	140	0.07	0.36	0.3	0.7	0.1	0.3
WMAIN-2228(1)	J-7879	030-013	6	140	0.14	0.59	0.4	0.9	0.2	0.5
WMAIN-2228(2)	030-013	J-6889	6	140	0.14	0.6	0.4	0.9	0.21	0.5
WMAIN-2230	J-6351	J-6889	8	140	0.04	0.16	0.3	0.5	0.06	0.3
WMAIN-2231	J-6106	J-7904	6	140	0	0.01	0	0.1	0	0
WMAIN-2232(1)	J-7904	030-014	6	140	0.02	0.07	0.2	0.3	0.04	0.2
WMAIN-2232(2)	030-014	J-5478	6	140	0.03	0.08	0.2	0.3	0.05	0.2
WMAIN-2234	J-6289	J-7294	8	140	0.11	0.4	0.4	0.9	0.13	0.5
WMAIN-2235	027-017	J-7744	8	140	0	0.1	0	0.4	0.02	0.2
WMAIN-2237	J-6722	J-5058	6	140	0.24	1.45	0.6	1.5	0.67	1
WMAIN-2238	J-6868	J-6805	6	140	0	0.63	0	0.9	0.17	0.5
WMAIN-2240(1)	J-6805	029-016	6	140	0.11	1.01	0.4	1.2	0.43	0.8
WMAIN-2240(2)	029-016	J-6806	6	140	0.11	0.97	0.4	1.2	0.4	0.7
WMAIN-2241	J-6806	028-029	6	140	0.23	1.15	0.5	1.3	0.59	0.9
WMAIN-2242	028-046	J-6631	6	140	0.24	1.92	0.6	1.7	0.86	1.1
WMAIN-2243(1)	J-6631	028-028	6	140	0.02	1	0.2	1.2	0.34	0.7
WMAIN-2243(2)	028-028	J-6632	6	140	0.02	0.99	0.2	1.2	0.33	0.7
WMAIN-2245(1)	J-6744	028-027	6	110	0.03	1.49	0.1	1.2	0.49	0.6
WMAIN-2245(2)	028-027	J-6718	6	110	0.03	1.46	0.1	1.2	0.47	0.6
WMAIN-2246	J-6718	J-6719	6	140	0.08	1.34	0.3	1.4	0.46	0.8
WMAIN-2248(1)	J-5818	028-033	8	140	0.14	0.67	0.5	1.2	0.3	0.8
WMAIN-2248(2)	028-033	J-6066	8	140	0.14	0.7	0.5	1.2	0.32	0.8
WMAIN-2249	J-5058	J-5289	6	140	0.24	1.46	0.6	1.5	0.68	1
WMAIN-2250(1)	J-5579	036-050	8	140	0	0.31	0	0.8	0.08	0.4
WMAIN-2250(2)	036-050	J-8500	8	140	0	0.3	0	0.7	0.07	0.3
WMAIN-2253(1)	J-6056	036-037	8	140	0	0.28	0.1	0.7	0.09	0.4
WMAIN-2253(2)	036-037	J-5579	8	140	0	0.22	0	0.6	0.06	0.3
WMAIN-2254	J-6281	J-6282	8	152.5	0.11	0.73	0.5	1.3	0.13	0.5
WMAIN-2256(1)	J-8584	034-027	8	152.5	0	0	0	0.1	0	0.1
WMAIN-2256(2)	034-027	J-6281	8	152.5	0	0	0	0.1	0	0.1
WMAIN-2259(1)	J-7740	034-032	8	152.5	0.05	0.18	0.3	0.6	0.06	0.3
WMAIN-2259(2)	034-032	J-8001	8	152.5	0.06	0.2	0.3	0.7	0.07	0.4
WMAIN-2261	J-8001	J-7883	8	152.5	0.03	0.23	0.2	0.7	0.07	0.4
WMAIN-2262	J-7883	J-7855	8	152.5	0.03	0.25	0.2	0.7	0.08	0.4
WMAIN-2264(1)	J-5087	037-048	8	140	0.02	1.11	0.2	1.5	0.26	0.7
WMAIN-2264(2)	037-048	J-6523	8	140	0.02	1.09	0.2	1.5	0.26	0.7
WMAIN-2265(1)	J-6609	037-001	12	140	0	0.12	0	0.6	0.02	0.2
WMAIN-2265(2)	037-001	J-6355	12	140	0	0.12	0	0.6	0.02	0.2
WMAIN-2266(1)	J-6423	038-006	16	140	0	0.05	0	0.5	0.07	0.5
WMAIN-2266(2)	038-006	J-5848	16	140	0	0.05	0	0.5	0.07	0.5
WMAIN-2268	J-7553	J-8051	8	152.5	0.01	0.61	0.1	1.2	0.75	1.3
WMAIN-2270(1)	J-8051	042-039	8	152.5	0.01	0.24	0.1	0.7	0.28	0.8
WMAIN-2270(2)	042-039	J-6945	8	152.5	0.01	0.23	0.1	0.7	0.27	0.8
WMAIN-2271	J-6945	J-7372	8	152.5	0.01	0.21	0.1	0.7	0.25	0.7
WMAIN-2272(1)	J-7372	042-040	8	152.5	0.01	0.2	0.1	0.7	0.24	0.7
WMAIN-2272(2)	042-040	J-6797	8	152.5	0.01	0.2	0.1	0.6	0.24	0.7
WMAIN-2274(1)	J-7211	012-065	8	152.5	0	0	0	0	0	0
WMAIN-2274(2)	012-065	J-8073	8	152.5	0	0	0	0	0	0
WMAIN-2276(1)	J-8129	009-032	12	152.5	0	0.28	0.1	1	0.04	0.4
WMAIN-2276(2)	009-032	J-8243	12	152.5	0	0.28	0.1	1	0.04	0.4
WMAIN-2278(1)	J-7205	009-002	8	152.5	0.02	0.07	0.2	0.4	0.03	0.2
WMAIN-2278(2)	009-002	J-8610	8	152.5	0.01	0.09	0.1	0.4	0.04	0.3
WMAIN-2280(1)	J-6965	009-009	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-2280(2)(1)	009-009	009-005	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-2280(2)(2)	009-005	J-6739	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-2282(1)	J-7729	170-067	8	152.5	0.07	0.16	0.4	0.6	0.18	0.6
WMAIN-2282(2)	170-067	J-7730	8	152.5	0.07	0.16	0.4	0.6	0.18	0.6
WMAIN-2286(1)	J-7729	170-066	8	152.5	0.06	0.13	0.3	0.5	0.15	0.6
WMAIN-2286(2)	170-066	J-7939	8	152.5	0.05	0.12	0.3	0.5	0.13	0.5
WMAIN-2287	J-8998	J-6418	8	152.5	0.12	0.22	0.5	0.7	0.1	0.4
WMAIN-2288(1)	J-6453	168-025	8	152.5	0.12	0.26	0.5	0.8	0.24	0.7
WMAIN-2288(2)	168-025	J-8273	8	152.5	0.12	0.27	0.5	0.8	0.25	0.7
WMAIN-2290	J-8273	J-6418	8	152.5	0.17	0.37	0.6	0.9	0.36	0.9
WMAIN-2293	J-6418	J-7776	8	152.5	0.73	1	1.3	1.6	0.94	1.5
WMAIN-2295	J-7776	J-8441	8	152.5	0.32	0.45	0.8	1	0.43	1
WMAIN-2296(1)	J-6335	168-103	8	152.5	0.24	0.48	0.7	1	0.47	1
WMAIN-2296(2)(1)	168-103	168-026	8	152.5	0.24	0.48	0.7	1.1	0.47	1
WMAIN-2296(2)(2)	168-026	J-7957	8	152.5	0.24	0.48	0.7	1.1	0.47	1
WMAIN-2298	J-7957	J-7603	8	152.5	0.2	0.42	0.6	1	0.4	0.9
WMAIN-2301	J-7603	J-7604	8	152.5	1.09	1.52	1.6	2	1.45	1.9
WMAIN-2303(1)	J-7604	168-023	8	152.5	1.09	1.59	1.6	2	1.52	2
WMAIN-2303(2)	168-023	J-6870	8	152.5	1.09	1.6	1.6	2	1.53	2
WMAIN-2309(1)	J-8441	168-024	8	152.5	0.34	0.5	0.9	1.1	0.47	1
WMAIN-2309(2)	168-024	J-6870	8	152.5	0.35	0.53	0.9	1.1	0.5	1.1
WMAIN-2311	J-6872	J-7196	8	152.5	0	0.22	0.1	0.7	0.02	0.2
WMAIN-2313(1)	J-6871	168-014	8	152.5	0	0.17	0	0.6	0.16	0.6
WMAIN-2313(2)	168-014	J-6872	8	152.5	0	0.17	0	0.6	0.16	0.6
WMAIN-2315(1)	J-7196	168-015	8	152.5	0.06	0.31	0.3	0.8	0.3	0.8
WMAIN-2315(2)	168-015	J-7197	8	152.5	0.06	0.31	0.3	0.8	0.3	0.8
WMAIN-2317(1)	J-7197	168-027	8	152.5	0.14	0.27	0.5	0.8	0.21	0.7
WMAIN-2317(2)	168-027	J-7731	8	152.5	0.13	0.26	0.5	0.8	0.2	0.7
WMAIN-2318	J-6950	J-7197	8	152.5	0	0.08	0	0.4	0.01	0.1
WMAIN-2320	J-8507	J-7731	8	152.5	0	0	0	0	0	0
WMAIN-2322(1)	J-7963	168-028	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2322(2)	168-028	J-7645	8	152.5	0.06	0.19	0.3	0.6	0.18	0.6
WMAIN-2325	J-6899	J-7645	8	152.5	0	0.07	0	0.4	0	0
WMAIN-2327(1)	J-6898	168-035	8	152.5	0.12	0.37	0.5	0.9	0.2	0.6
WMAIN-2327(2)	168-035	J-6899	8	152.5	0.13	0.38	0.5	0.9	0.2	0.7
WMAIN-2329	J-6300	J-6301	8	152.5	0	0	0	0	0	0
WMAIN-2331	J-8410	J-8689	8	152.5	0.05	0.11	0.3	0.5	0.09	0.4
WMAIN-2333(1)	J-7288	168-032	8	152.5	0.04	0.1	0.3	0.5	0.07	0.4
WMAIN-2333(2)	168-032	J-8410	8	152.5	0.05	0.11	0.3	0.5	0.08	0.4
WMAIN-2334	J-7962	J-7963	8	152.5	0.37	0.67	0.9	1.3	0.61	1.2
WMAIN-2338(1)	J-6300	168-030	8	152.5	0.12	0.24	0.5	0.7	0.2	0.7
WMAIN-2338(2)	168-030	J-7962	8	152.5	0.13	0.24	0.5	0.7	0.21	0.7
WMAIN-2340(1)	J-7288	168-034	8	152.5	0.11	0.22	0.5	0.7	0.18	0.6
WMAIN-2340(2)	168-034	J-6300	8	152.5	0.11	0.22	0.5	0.7	0.18	0.6
WMAIN-2342(1)	J-6068	168-033	8	152.5	0.24	0.55	0.7	1.1	0.41	1
WMAIN-2342(2)	168-033	J-7288	8	152.5	0.24	0.56	0.7	1.1	0.41	1
WMAIN-2344	J-6068	J-6069	12	152.5	0.01	0.14	0.1	0.7	0.13	0.7
WMAIN-2346(1)	J-8029	167-002	12	152.5	0	0.04	0	0.3	0.02	0.3
WMAIN-2346(2)	167-002	J-6068	12	152.5	0	0.04	0	0.3	0.02	0.3
WMAIN-2347(1)	J-8028	167-001	8	152.5	0	0	0	0	0	0
WMAIN-2347(2)	167-001	J-8029	8	152.5	0	0	0	0	0	0
WMAIN-2349	J-8524	J-8547	8	152.5	0	0	0	0	0	0
WMAIN-2352(1)	J-5818	J-9242	6	140	0.1	1.2	0.3	1.3	0.47	0.8
WMAIN-2352(2)	J-9242	J-6121	6	140	0.1	1.2	0.3	1.3	0.47	0.8
WMAIN-2353	J-5862	J-5923	6	140	0.12	1.22	0.4	1.3	0.51	0.8
WMAIN-2354(1)(1)	J-5923	J-9307	6	140	0.12	1.23	0.4	1.3	0.52	0.8
WMAIN-2354(1)(2)	J-9307	028-035	6	140	0.12	1.23	0.4	1.3	0.52	0.8
WMAIN-2354(2)	028-035	J-5668	6	140	0.12	1.23	0.4	1.3	0.52	0.8
WMAIN-2355	J-5668	J-5669	6	140	0.12	1.23	0.4	1.3	0.52	0.8
WMAIN-2356(1)	J-7530	036-055	6	140	0.2	0.39	0.5	0.7	0.17	0.5
WMAIN-2356(2)	036-055	J-5578	6	140	0.21	0.4	0.5	0.7	0.18	0.5
WMAIN-2357	J-5578	J-5579	6	140	0.21	0.4	0.5	0.7	0.18	0.5
WMAIN-2359(1)	J-7042	035-045	12	152.5	0.09	0.5	0.6	1.4	0.09	0.5
WMAIN-2359(2)	035-045	034-014	12	152.5	0.09	0.5	0.6	1.4	0.09	0.5
WMAIN-2361(1)	J-8494	034-010	12	152.5	0.06	0.33	0.5	1.1	0.05	0.4
WMAIN-2361(2)	034-010	J-7042	12	152.5	0.06	0.33	0.5	1.1	0.05	0.4
WMAIN-2363(1)	J-8494	034-003	16	140	0.2	1.16	0.9	2.4	0.21	1
WMAIN-2363(2)(1)	034-003	034-004	16	140	0.2	1.17	0.9	2.4	0.22	1
WMAIN-2363(2)(2)	034-004	J-8737	16	140	0.2	1.17	0.9	2.4	0.22	1
WMAIN-2365	J-8013	J-8014	8	152.5	0	0	0	0	0	0
WMAIN-2368(1)	J-8013	033-008	8	152.5	0.01	0.14	0.1	0.5	0.01	0.1
WMAIN-2368(2)	033-008	J-7995	8	152.5	0.01	0.14	0.2	0.5	0.01	0.1
WMAIN-2370(1)(1)	J-6473	032-022	8	140	0	0.02	0.1	0.1	0.02	0.1
WMAIN-2370(1)(2)	032-022	032-020	8	140	0	0	0	0	0	0
WMAIN-2370(2)(1)	032-020	032-013	8	140	0	0	0	0	0	0
WMAIN-2370(2)(2)	032-013	J-8816	8	140	0	0	0	0	0	0
WMAIN-2371	031-023	J-5884	8	140	0.1	0.2	0.4	0.6	0.19	0.6
WMAIN-2373	J-6269	J-5588	4	140	0.17	1.05	0.4	1	0.3	0.5
WMAIN-2374(1)	J-6829	030-043	6	140	0.03	0.21	0.2	0.5	0.07	0.3
WMAIN-2374(2)	030-043	J-5587	6	140	0.03	0.21	0.2	0.5	0.06	0.3
WMAIN-2375(1)	J-5436	030-008	8	140	0.22	1.17	0.6	1.6	0.3	0.8
WMAIN-2375(2)	030-008	J-6351	8	140	0.23	1.17	0.6	1.6	0.31	0.8
WMAIN-2377(1)	J-8502	J-9289	4	152.5	0.11	0.41	0.3	0.6	0.14	0.3
WMAIN-2377(2)	J-9289	J-7904	4	152.5	0.14	0.48	0.3	0.7	0.18	0.4
WMAIN-2379	J-6105	J-6106	6	140	0	0	0	0	0	0
WMAIN-2380(1)	J-7308	030-026	6	140	0.04	0.32	0.2	0.6	0.09	0.3
WMAIN-2380(2)	030-026	J-6390	6	140	0.05	0.34	0.2	0.7	0.1	0.3
WMAIN-2383(1)	J-7294	030-015	8	140	0.04	0.1	0.2	0.4	0.04	0.3
WMAIN-2383(2)	030-015	J-6905	8	140	0.04	0.11	0.2	0.4	0.05	0.3
WMAIN-2384	J-5956	J-6144	8	140	0.09	0.27	0.4	0.7	0.13	0.5
WMAIN-2386(1)	J-6889	031-001	8	140	0.15	0.58	0.5	1.1	0.21	0.6
WMAIN-2386(2)	031-001	J-5955	8	140	0.15	0.58	0.5	1.1	0.21	0.6
WMAIN-2387(1)(1)	J-6383	J-9328	6	130	0.07	0.24	0.3	0.5	0.13	0.4
WMAIN-2387(1)(2)	J-9328	029-036	6	130	0.07	0.24	0.3	0.5	0.13	0.4
WMAIN-2387(2)	029-036	J-6823	6	130	0.07	0.23	0.3	0.5	0.13	0.4
WMAIN-2389	J-5553	J-7385	6	140	0	0.25	0	0.6	0.02	0.1
WMAIN-2392	J-6868	J-6926	2	130	0.06	0.16	0.1	0.2	0.11	0.2
WMAIN-2393	029-031	J-5328	6	140	0.07	0.18	0.3	0.5	0.13	0.4
WMAIN-2394	J-5328	J-6809	6	140	0.06	0.17	0.3	0.5	0.11	0.4
WMAIN-2396	J-5095	J-5096	6	140	0	0.05	0	0.2	0.02	0.1
WMAIN-2398(1)	J-5096	029-039	6	140	0	0.09	0	0.3	0.01	0.1
WMAIN-2398(2)(1)	029-039	029-038	6	140	0	0.14	0.1	0.4	0.03	0.2
WMAIN-2398(2)(2)	029-038	J-6243	6	140	0.01	0.14	0.1	0.4	0.03	0.2
WMAIN-2399	J-5270	J-5271	6	140	0.01	1.97	0.1	1.7	0	0
WMAIN-2400	J-5241	J-5536	6	140	0.22	1.54	0.5	1.5	0.65	0.9
WMAIN-2402(1)	J-7423	029-023	6	140	0.02	0.24	0.2	0.6	0.05	0.2
WMAIN-2402(2)	029-023	J-7308	6	140	0.04	0.3	0.2	0.6	0.08	0.3
WMAIN-2404	J-7417	J-7423	6	140	0.01	0.24	0.1	0.6	0.03	0.2
WMAIN-2407	J-6388	J-6389	6	140	0.06	0.38	0.3	0.7	0.12	0.4
WMAIN-2408	J-6927	J-6495	6	130	0.06	0.59	0.2	0.8	0.24	0.5
WMAIN-2410(1)	J-6678	028-041	8	140	0.2	0.64	0.6	1.1	0.49	1
WMAIN-2410(2)(1)	028-041	J-9263	8	140	0.2	0.64	0.6	1.1	0.5	1
WMAIN-2410(2)(2)	J-9263	J-7369	8	140	0.2	0.65	0.6	1.1	0.5	1
WMAIN-2412	J-6678	J-5481	6	140	0.01	0.23	0.1	0.5	0.06	0.3
WMAIN-2414	J-5583	J-5818	8	140	0.24	1.65	0.7	1.9	0.69	1.2
WMAIN-2416	J-5861	J-6679	6	140	0.09	0.34	0.3	0.7	0.21	0.5
WMAIN-2418	J-5171	J-5172	6	140	0	0.15	0	0.4	0	0
WMAIN-2419	J-6719	028-019	8	140	0	0.13	0	0.5	0.01	0.1
WMAIN-2421	J-6555	J-6444	6	140	0.11	0.39	0.4	0.7	0.18	0.5
WMAIN-2423	J-7223	J-6341	8	152.5	0	0	0	0.1	0	0.1
WMAIN-2425	J-6569	J-6362	6	140	0	0.08	0	0.3	0.01	0.1
WMAIN-2428(1)(1)	022-020	022-013	4	140	0.01	0.17	0.1	0.4	0.05	0.2
WMAIN-2428(1)(2)	022-013	022-019	4	140	0	0.13	0	0.3	0.03	0.1
WMAIN-2428(2)	022-019	J-6674	4	140	0	0.1	0	0.3	0.02	0.1
WMAIN-2429	J-5252	022-020	4	140	0.02	0.25	0.1	0.4	0.1	0.3
WMAIN-2430	J-7424	J-7360	10	140	0.05	0.17	0.3	0.6	0.13	0.5
WMAIN-2431(1)	J-6570	J-9291	6	140	0.14	0.4	0.4	0.7	0.19	0.5
WMAIN-2431(2)	J-9291	J-5307	6	140	0.13	0.39	0.4	0.7	0.18	0.5
WMAIN-2432	J-5307	J-5308	6	140	0.13	0.39	0.4	0.7	0.18	0.5
WMAIN-2435(1)	J-7887	021-043	6	140	0.01	0.15	0.1	0.4	0.1	0.3
WMAIN-2435(2)	021-043	J-7926	6	140	0	0.11	0	0.4	0.07	0.3
WMAIN-2437(1)	J-8094	J-9324	10	140	0.07	0.42	0.4	1	0.25	0.8
WMAIN-2437(2)	J-9324	J-8147	10	140	0.06	0.41	0.4	1	0.25	0.8
WMAIN-2439(1)	J-8152	021-015	6	140	0.01	0.17	0.1	0.5	0.1	0.3
WMAIN-2439(2)	021-015	J-8146	6	140	0	0.15	0.1	0.4	0.08	0.3
WMAIN-2440(1)(1)	J-5308	J-9292	8	140	0.02	0.13	0.2	0.5	0.05	0.3
WMAIN-2440(1)(2)	J-9292	J-6447	8	140	0.02	0.14	0.2	0.5	0.07	0.3
WMAIN-2440(2)	J-6447	J-5519	8	140	0.03	0.16	0.2	0.5	0.08	0.4
WMAIN-2442	J-5520	J-6046	6	140	0.06	0.62	0.3	0.9	0.31	0.6
WMAIN-2443	J-5239	J-5732	6	140	0.01	0.05	0.1	0.2	0.05	0.2
WMAIN-2445	J-5120	J-8050	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-2446(1)	J-6100	021-016	4	140	0.17	1.15	0.4	1	0.69	0.8
WMAIN-2446(2)(1)	021-016	J-9322	4	140	0.17	1.14	0.4	1	0.68	0.8

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2446(2)(2)	J-9322	J-7091	4	140	0.17	1.14	0.4	1	0.68	0.8
WMAIN-2447	J-5101	J-6426	8	140	0.02	0.08	0.2	0.4	0.05	0.3
WMAIN-2450	J-6356	J-6885	6	140	0.04	0.49	0.2	0.8	0.17	0.5
WMAIN-2451	J-6765	J-5625	8	140	0	0.41	0	0.9	0.03	0.2
WMAIN-2452(1)	J-5625	020-007	8	140	0	0.43	0	0.9	0.03	0.2
WMAIN-2452(2)	020-007	J-5626	8	140	0	0.43	0	0.9	0.03	0.2
WMAIN-2454(1)(1)	J-5999	J-9303	8	140	0.04	0.15	0.2	0.5	0.11	0.4
WMAIN-2454(1)(2)	J-9303	020-002	8	140	0.03	0.15	0.2	0.5	0.11	0.4
WMAIN-2454(2)	020-002	J-6075	8	140	0.03	0.15	0.2	0.5	0.11	0.4
WMAIN-2456	J-6822	J-6818	6	152.5	0.11	0.28	0.4	0.7	0.27	0.6
WMAIN-2458	J-6356	J-6241	6	140	0.03	0.29	0.2	0.6	0.16	0.4
WMAIN-2460(1)	021-037	J-9304	6	140	0.12	0.31	0.4	0.6	0.29	0.6
WMAIN-2460(2)	J-9304	021-040	6	140	0.13	0.32	0.4	0.6	0.3	0.6
WMAIN-2462(1)(1)	J-6622	J-9014	6	152.5	0	0.01	0	0.1	0	0
WMAIN-2462(1)(2)	J-9014	020-014	6	152.5	0.03	0.1	0.2	0.4	0.05	0.3
WMAIN-2462(2)	020-014	J-6623	6	152.5	0.03	0.1	0.2	0.4	0.05	0.3
WMAIN-2464	J-7053	J-6622	2	140	0.04	0.15	0.1	0.2	0.15	0.2
WMAIN-2465	J-8355	J-5280	8	140	0.19	1.03	0.6	1.5	0.66	1.1
WMAIN-2467	J-5318	J-6237	4	140	0	0.06	0	0.2	0.08	0.2
WMAIN-2469(1)(1)	J-8421	J-9294	6	140	0	0.08	0	0.3	0.11	0.4
WMAIN-2469(1)(2)	J-9294	014-018	6	140	0	0.07	0	0.3	0.11	0.4
WMAIN-2469(2)	014-018	J-6769	6	140	0	0.07	0	0.3	0.11	0.4
WMAIN-2471(1)	J-6236	014-001	6	140	0.01	0.04	0.1	0.2	0.05	0.2
WMAIN-2471(2)	014-001	J-5709	6	140	0.01	0.04	0.1	0.2	0.05	0.2
WMAIN-2474	J-5451	J-5709	8	140	0.01	0.17	0.1	0.5	0.15	0.5
WMAIN-2477	J-7472	J-7473	8	152.5	0.21	0.82	0.7	1.4	0.61	1.2
WMAIN-2478	J-7472	J-7569	16	140	0.13	0.61	0.7	1.7	0.39	1.3
WMAIN-2480(1)	J-7887	021-044	16	140	0.08	0.39	0.6	1.3	0.24	1
WMAIN-2480(2)	021-044	J-7472	16	140	0.08	0.39	0.6	1.3	0.24	1
WMAIN-2483	J-6918	J-7810	8	140	0.02	0.15	0.2	0.5	0.02	0.2
WMAIN-2485(1)	J-8658	043-012	6	140	0.01	0.64	0.1	0.9	0.69	1
WMAIN-2485(2)	043-012	J-7636	6	140	0.01	0.67	0.1	1	0.73	1
WMAIN-2488(1)	J-7650	055-039	8	152.5	0.07	0.29	0.4	0.8	0.33	0.9
WMAIN-2488(2)	055-039	J-8020	8	152.5	0.07	0.28	0.4	0.8	0.32	0.8
WMAIN-2491	J-6410	J-6696	8	152.5	0.73	0.96	1.3	1.5	0.97	1.5
WMAIN-2493	J-6696	J-6697	8	152.5	0	0	0	0	0	0
WMAIN-2495(1)	J-7649	056-008	8	152.5	0.29	0.36	0.8	0.9	0.38	0.9
WMAIN-2495(2)	056-008	J-6409	8	152.5	0.3	0.37	0.8	0.9	0.39	0.9
WMAIN-2498(1)	J-8636	056-009	12	152.5	0.1	0.52	0.6	1.4	0.61	1.5
WMAIN-2498(2)	056-009	J-7649	12	152.5	0.1	0.53	0.6	1.4	0.61	1.5
WMAIN-2500	J-6945	J-6946	8	152.5	0	0	0	0	0	0
WMAIN-2501	J-5664	J-5665	6	152.5	0	0	0	0	0	0
WMAIN-2502(1)	J-7527	042-036	6	152.5	0	0.11	0	0.4	0.14	0.5
WMAIN-2502(2)	042-036	J-5664	6	152.5	0	0.12	0	0.4	0.16	0.5
WMAIN-2504(1)	J-7615	042-010	6	140	0	0	0	0.1	0	0.1
WMAIN-2504(2)	042-010	J-8670	6	140	0	0	0	0	0	0
WMAIN-2507(1)	J-7818	040-029	8	152.5	0	0.1	0	0.4	0.08	0.4
WMAIN-2507(2)	040-029	J-8305	8	152.5	0	0.08	0.1	0.4	0.07	0.4
WMAIN-2509(1)	J-7686	023-031	8	152.5	0	0	0	0	0	0
WMAIN-2509(2)	023-031	J-8487	8	152.5	0	0	0	0	0	0
WMAIN-2510(1)	J-7425	023-029	8	152.5	0	0	0	0	0	0
WMAIN-2510(2)	023-029	J-8595	8	152.5	0	0	0	0	0	0
WMAIN-2512(1)	J-8607	024-022	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-2512(2)	024-022	J-5458	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2515(1)	J-6312	024-020	8	152.5	0	0	0	0.1	0	0
WMAIN-2515(2)	024-020	J-6994	8	152.5	0	0	0	0.1	0	0
WMAIN-2517(1)	J-6311	024-023	8	152.5	0	0.09	0	0.4	0.06	0.3
WMAIN-2517(2)	024-023	J-6520	8	152.5	0	0.09	0	0.4	0.06	0.3
WMAIN-2519	J-7204	J-7205	8	152.5	0.01	0.1	0.1	0.5	0.09	0.4
WMAIN-2520	J-6451	J-6311	10	152.5	0	0	0	0	0	0
WMAIN-2522(1)	J-6964	009-007	8	152.5	0.04	0.12	0.3	0.5	0.09	0.4
WMAIN-2522(2)	009-007	J-6965	8	152.5	0.04	0.12	0.3	0.5	0.1	0.4
WMAIN-2523(1)	J-8471	009-030	8	152.5	0	0.13	0	0.5	0.01	0.1
WMAIN-2523(2)	009-030	J-8472	8	152.5	0	0.12	0	0.5	0.01	0.1
WMAIN-2526(1)	J-8471	009-031	8	152.5	0	0.16	0	0.6	0	0
WMAIN-2526(2)	009-031	J-8243	8	152.5	0	0.18	0	0.6	0.01	0.1
WMAIN-2528	J-7855	J-6796	8	152.5	0.29	1.2	0.8	1.7	0.44	1
WMAIN-2530(1)	J-7661	034-031	8	152.5	0.13	0.42	0.5	1	0.15	0.6
WMAIN-2530(2)	034-031	J-7855	8	152.5	0.14	0.44	0.5	1	0.16	0.6
WMAIN-2532	J-7740	J-7661	8	152.5	0.02	0.24	0.2	0.7	0.06	0.3
WMAIN-2534(1)	J-7739	034-029	8	152.5	0.11	0.68	0.5	1.3	0.17	0.6
WMAIN-2534(2)	034-029	J-7740	8	152.5	0.12	0.69	0.5	1.3	0.18	0.6
WMAIN-2537	J-8135	J-7739	8	152.5	0.05	0.18	0.3	0.6	0.05	0.3
WMAIN-2540	J-6281	J-8135	8	152.5	0.15	0.82	0.6	1.4	0.17	0.6
WMAIN-2542(1)	J-6899	168-036	8	152.5	0.11	0.23	0.5	0.7	0.23	0.7
WMAIN-2542(2)	168-036	J-6872	8	152.5	0.12	0.25	0.5	0.7	0.25	0.7
WMAIN-2546(1)	J-8689	168-031	8	152.5	0.07	0.13	0.4	0.5	0.11	0.5
WMAIN-2546(2)	168-031	J-7962	8	152.5	0.07	0.13	0.4	0.5	0.12	0.5
WMAIN-2548	J-7645	J-7731	8	152.5	0.12	0.25	0.5	0.7	0.18	0.6
WMAIN-2552	J-8273	J-7957	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-2554(1)	J-7603	168-017	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2554(2)(1)	168-017	168-018	8	152.5	0	0.01	0	0.1	0.01	0.2
WMAIN-2554(2)(2)	168-018	J-6418	8	152.5	0	0.01	0	0.1	0.01	0.2
WMAIN-2557(1)	J-7604	168-019	8	152.5	0.12	0.17	0.5	0.6	0.16	0.6
WMAIN-2557(2)	168-019	J-7776	8	152.5	0.11	0.16	0.5	0.6	0.15	0.6
WMAIN-2559(1)	J-8834	168-022	8	152.5	0.16	0.25	0.6	0.7	0.24	0.7
WMAIN-2559(2)	168-022	J-6870	8	152.5	0.17	0.27	0.6	0.8	0.26	0.8
WMAIN-2563(1)(1)	J-8834	168-021	8	152.5	0.14	0.19	0.5	0.6	0.18	0.6
WMAIN-2563(1)(2)	168-021	168-020	8	152.5	0.13	0.17	0.5	0.6	0.16	0.6
WMAIN-2563(2)	168-020	J-7604	8	152.5	0.13	0.17	0.5	0.6	0.16	0.6
WMAIN-2565(1)	J-7196	168-016	8	152.5	0.34	0.49	0.9	1.1	0.45	1
WMAIN-2565(2)	168-016	J-7603	8	152.5	0.35	0.5	0.9	1.1	0.47	1
WMAIN-2566(1)	J-6416	168-029	8	152.5	0.12	0.36	0.5	0.9	0.19	0.6
WMAIN-2566(2)	168-029	J-7963	8	152.5	0.12	0.35	0.5	0.9	0.18	0.6
WMAIN-2569(1)	J-6779	024-026	8	152.5	0	0	0	0	0	0
WMAIN-2569(2)	024-026	J-8443	8	152.5	0	0	0	0	0	0
WMAIN-2572	J-8610	J-6814	8	152.5	0.04	0.54	0.3	1.1	0.45	1
WMAIN-2575(1)	J-7954	J-5078	8	152.5	1.08	1.19	1.6	1.7	1.1	1.6
WMAIN-2575(2)(1)	J-5078	056-015	8	152.5	3.5	4.37	3.1	3.5	4.27	3.4
WMAIN-2575(2)(2)	056-015	J-8290	8	152.5	3.5	4.36	3.1	3.5	4.27	3.4
WMAIN-2576(1)	J-5105	023-005	16	140	0.01	0.15	0.2	0.8	0	0
WMAIN-2576(2)	023-005	J-6072	16	140	0.01	0.15	0.2	0.8	0	0
WMAIN-2577(1)(1)	J-6763	010-011	12	152.5	0	0.21	0	0.9	0.12	0.7
WMAIN-2577(1)(2)(1)(1)	010-011	011-039	12	152.5	0	0.21	0	0.9	0.13	0.7
WMAIN-2577(1)(2)(1)(2)	011-039	011-040	12	152.5	0	0.21	0	0.9	0.13	0.7
WMAIN-2577(1)(2)(2)	011-040	J-5863	12	152.5	0	0.21	0	0.9	0.13	0.7
WMAIN-2577(2)(1)	J-5863	010-010	12	152.5	0	0.21	0	0.9	0.13	0.7
WMAIN-2577(2)(2)(1)	010-010	011-033	12	152.5	0	0.21	0	0.9	0.13	0.7
WMAIN-2577(2)(2)(2)	011-033	J-7248	12	152.5	0	0.21	0	0.9	0.13	0.7
WMAIN-2578(1)	J-6762	011-041	12	152.5	0	0.19	0.1	0.8	0.01	0.1
WMAIN-2578(2)	011-041	J-6763	12	152.5	0	0.19	0.1	0.8	0.01	0.1
WMAIN-2579	J-8404	J-7862	8	152.5	0.05	0.24	0.3	0.7	0.22	0.7

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2581	J-8403	J-8404	8	152.5	0.12	0.38	0.5	0.9	0.38	0.9
WMAIN-2585(1)(1)	J-6866	170-106	8	152.5	0.05	0.13	0.3	0.5	0.14	0.5
WMAIN-2585(1)(2)	170-106	170-107	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-2585(2)	170-107	J-8403	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-2588	J-8325	J-8403	8	152.5	0.32	0.92	0.8	1.5	0.94	1.5
WMAIN-2590(1)	J-6280	012-063	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-2590(2)	012-063	J-7274	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-2592(1)	J-6279	012-064	8	152.5	0	0	0	0	0	0
WMAIN-2592(2)	012-064	J-8392	8	152.5	0	0	0	0	0	0
WMAIN-2593(1)	J-6666	J-9285	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2593(2)	J-9285	J-6667	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-2597	J-7990	J-7788	8	152.5	0.01	0.07	0.2	0.4	0.04	0.3
WMAIN-2598	J-7843	J-7990	8	152.5	0.02	0.09	0.2	0.4	0.06	0.4
WMAIN-2601(1)	J-7264	012-010	8	152.5	0.03	0.16	0.2	0.6	0.09	0.4
WMAIN-2601(2)	012-010	J-7265	8	152.5	0.03	0.15	0.2	0.6	0.08	0.4
WMAIN-2603(1)	J-7738	011-028	8	152.5	0.07	0.28	0.4	0.8	0.2	0.6
WMAIN-2603(2)	011-028	J-6504	8	152.5	0.07	0.27	0.4	0.8	0.19	0.6
WMAIN-2605	J-7264	J-7788	8	152.5	0.01	0.05	0.1	0.3	0.03	0.2
WMAIN-2608(1)	J-7842	012-013	8	152.5	0.02	0.07	0.2	0.4	0.06	0.3
WMAIN-2608(2)	012-013	J-7843	8	152.5	0.02	0.07	0.2	0.4	0.05	0.3
WMAIN-2609(1)(1)	J-7264	012-014	8	152.5	0.01	0.06	0.1	0.3	0.04	0.3
WMAIN-2609(1)(2)	012-014	012-015	8	152.5	0.02	0.08	0.2	0.4	0.05	0.3
WMAIN-2609(2)	012-015	J-7842	8	152.5	0.02	0.08	0.2	0.4	0.05	0.3
WMAIN-2612(1)	J-6814	009-003	12	152.5	0.08	0.62	0.5	1.6	0.62	1.5
WMAIN-2612(2)	009-003	J-6740	12	152.5	0.08	0.62	0.5	1.6	0.61	1.5
WMAIN-2613(1)	J-6964	009-008	12	152.5	0.08	0.57	0.5	1.5	0.56	1.5
WMAIN-2613(2)	009-008	J-5963	12	152.5	0.09	0.58	0.5	1.5	0.57	1.5
WMAIN-2616(1)	J-6965	009-006	8	152.5	0.02	0.04	0.2	0.3	0.04	0.3
WMAIN-2616(2)	009-006	J-6739	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-2618	J-6739	J-6740	8	152.5	0.08	0.18	0.4	0.6	0.17	0.6
WMAIN-2621	J-7686	J-7425	10	152.5	0.01	0.2	0.2	0.8	0.08	0.5
WMAIN-2623	J-7815	J-7686	10	152.5	0.01	0.19	0.2	0.7	0.07	0.4
WMAIN-2625	J-7701	J-7815	10	152.5	0.08	0.16	0.5	0.7	0.14	0.6
WMAIN-2627	J-6278	J-7701	10	152.5	0.07	0.14	0.4	0.6	0.13	0.6
WMAIN-2628	J-6137	J-6278	10	152.5	0.07	0.14	0.4	0.6	0.11	0.6
WMAIN-2630(1)	J-5964	024-003	12	152.5	0.01	0.62	0.1	1.6	0.56	1.5
WMAIN-2630(2)(1)	024-003	024-002	12	152.5	0.03	0.5	0.3	1.4	0.42	1.3
WMAIN-2630(2)(2)	024-002	J-7204	12	152.5	0.03	0.5	0.3	1.4	0.42	1.3
WMAIN-2632	J-5963	J-5964	18	110	0.08	0.9	0.5	1.8	0.9	1.8
WMAIN-2635(1)	J-5963	009-004	12	152.5	0.05	1	0.4	2	1	2
WMAIN-2635(2)	009-004	J-6814	12	152.5	0.05	1	0.4	2	1	2
WMAIN-2636(1)(1)	J-8796	024-005	8	152.5	0.01	0.58	0.1	1.2	0.49	1.1
WMAIN-2636(1)(2)	024-005	024-004	8	152.5	0.01	0.59	0.1	1.2	0.51	1.1
WMAIN-2636(2)	024-004	J-5963	8	152.5	0.01	0.59	0.1	1.2	0.51	1.1
WMAIN-2639(1)	J-5459	024-007	8	152.5	0.01	0.56	0.1	1.1	0.47	1
WMAIN-2639(2)(1)	024-007	024-006	8	152.5	0.01	0.56	0.1	1.1	0.47	1
WMAIN-2639(2)(2)	024-006	J-8796	8	152.5	0.01	0.56	0.1	1.1	0.47	1
WMAIN-2640	J-5458	J-5459	10	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-2641(1)	J-6780	024-009	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-2641(2)	024-009	J-5459	8	152.5	0	0.12	0	0.5	0.08	0.4
WMAIN-2643	J-6779	J-6780	8	152.5	0	0.02	0	0.2	0	0
WMAIN-2645	J-8512	J-6779	8	152.5	0	0.03	0.1	0.2	0	0.1
WMAIN-2647	J-6312	J-5458	10	152.5	0	0.03	0.1	0.3	0.03	0.3
WMAIN-2651	J-6311	J-6312	10	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-2653(1)	J-6520	024-024	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-2653(2)	024-024	J-8512	8	152.5	0	0.01	0	0.1	0	0
WMAIN-2657	J-8008	J-7852	8	152.5	0	0.25	0	0.7	0.23	0.7
WMAIN-2659	J-8305	J-8008	8	152.5	0	0.1	0	0.5	0.09	0.4
WMAIN-2660	J-6696	J-8290	8	152.5	0.74	1	1.3	1.6	1	1.6
WMAIN-2662(1)	J-8290	056-014	8	152.5	1.21	1.41	1.7	1.9	1.35	1.8
WMAIN-2662(2)	056-014	J-7917	8	152.5	1.2	1.39	1.7	1.9	1.33	1.8
WMAIN-2665(1)(1)(1)	J-5547	126-041	8	152.5	3.31	16.94	3	7.2	10.62	5.6
WMAIN-2665(1)(1)(2)	126-041	J-5945	8	152.5	3.33	17.01	3	7.2	10.68	5.6
WMAIN-2665(1)(2)	J-5945	J-5950	8	152.5	3.36	17.14	3	7.2	10.78	5.6
WMAIN-2665(2)	J-5950	J-6594	8	152.5	3.57	18.02	3.1	7.4	11.49	5.8
WMAIN-2667	J-7649	J-7650	12	152.5	0.02	0.3	0.2	1.1	0.35	1.1
WMAIN-2669(1)	J-7650	056-006	12	152.5	0.05	0.49	0.4	1.4	0.6	1.5
WMAIN-2669(2)	056-006	J-7954	12	152.5	0.05	0.5	0.4	1.4	0.61	1.5
WMAIN-2670	J-7994	J-7995	8	152.5	0	0	0	0	0	0
WMAIN-2672(1)	J-5324	031-024	8	140	0.12	0.23	0.4	0.6	0.22	0.6
WMAIN-2672(2)	031-024	031-023	8	140	0.1	0.2	0.4	0.6	0.19	0.6
WMAIN-2674(1)	J-6020	036-049	6	140	0	0	0	0	0	0
WMAIN-2674(2)	036-049	J-7050	6	140	0	0	0	0	0	0
WMAIN-2676(1)	J-7595	028-010	6	140	0	0.02	0	0.1	0	0.1
WMAIN-2676(2)	028-010	028-011	6	140	0	0.02	0	0.2	0.01	0.1
WMAIN-2679(1)	J-8106	037-047	6	140	0	0.26	0	0.6	0.07	0.3
WMAIN-2679(2)	037-047	J-5463	6	140	0	0.23	0	0.5	0.1	0.3
WMAIN-2680	J-5463	J-5464	6	140	0	0.23	0	0.5	0.11	0.4
WMAIN-2682	J-5418	J-5537	8	140	0	0.3	0	0.7	0.11	0.4
WMAIN-2684	J-6868	J-6722	2	140	0.12	0.28	0.2	0.3	0.17	0.2
WMAIN-2687(1)	J-8500	036-033	6	140	0.15	0.31	0.4	0.6	0.13	0.4
WMAIN-2687(2)	036-033	J-5536	6	140	0.18	0.33	0.5	0.7	0.16	0.4
WMAIN-2690(1)	J-5917	037-046	8	152.5	0	0	0	0	0	0
WMAIN-2690(2)	037-046	J-8430	8	152.5	0	0	0	0	0	0
WMAIN-2692	J-7584	J-7585	6	140	0.06	0.39	0.3	0.7	0.08	0.3
WMAIN-2694(1)	J-6221	036-059	6	152.5	0	0	0	0	0	0
WMAIN-2694(2)	036-059	J-6222	6	152.5	0	0	0	0	0	0
WMAIN-2696	J-7008	J-7009	4	140	0	0	0	0	0	0
WMAIN-2698(1)	J-7701	023-033	8	152.5	0	0	0	0	0	0
WMAIN-2698(2)	023-033	J-8465	8	152.5	0	0	0	0	0	0
WMAIN-2700(1)	J-6278	023-034	6	152.5	0	0	0	0.1	0	0.1
WMAIN-2700(2)	023-034	J-8464	6	152.5	0	0	0	0	0	0
WMAIN-2702(1)	J-6341	027-052	8	152.5	0	0	0	0	0	0
WMAIN-2702(2)	027-052	J-6342	8	152.5	0	0	0	0	0	0
WMAIN-2704(1)	J-7676	038-027	6	140	0	0.03	0	0.2	0.03	0.2
WMAIN-2704(2)	038-027	J-5832	6	140	0	0.03	0	0.2	0.05	0.2
WMAIN-2705	J-8641	J-5422	6	140	0	0.15	0	0.4	0.12	0.4
WMAIN-2707	J-7569	J-7570	16	140	0.14	0.69	0.8	1.8	0.45	1.4
WMAIN-2710(1)	J-6520	024-025	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-2710(2)	024-025	J-8512	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-2713	J-8607	J-6994	8	152.5	0	0	0	0.1	0	0
WMAIN-2716	J-6719	J-5220	8	140	0	0.36	0	0.8	0.12	0.5
WMAIN-2718(1)	J-5499	027-026	12	140	0	0.15	0.1	0.7	0.06	0.4
WMAIN-2718(2)	027-026	J-5215	12	140	0	0.15	0.1	0.7	0.06	0.4
WMAIN-2721	J-6474	J-5431	4	140	0	0.06	0	0.2	0.01	0.1
WMAIN-2725(1)	J-6475	027-033	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-2725(2)	027-033	J-6444	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-2726	J-7243	J-6150	2	130	0.06	0.25	0.1	0.3	0.25	0.3
WMAIN-2728	J-5273	J-5919	4	140	0	0.03	0	0.1	0.04	0.2
WMAIN-2730	J-5238	J-6966	10	140	0	0.05	0.1	0.3	0.01	0.1
WMAIN-2732(1)	J-5119	021-011	10	140	0	0.11	0	0.5	0.04	0.3
WMAIN-2732(2)(1)	021-011	J-9326	10	140	0	0.11	0	0.5	0.04	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2732(2)(2)	J-9326	J-8351	10	140	0	0.11	0	0.5	0.04	0.3
WMAIN-2733(1)	J-6150	J-9245	2	130	0.09	0.39	0.2	0.3	0.22	0.2
WMAIN-2733(2)	J-9245	J-5119	2	130	0.22	0.81	0.2	0.5	0.57	0.4
WMAIN-2734	021-012	J-6883	4	140	0.04	0.11	0.2	0.3	0.05	0.2
WMAIN-2735	J-6883	J-6880	4	140	0.01	0.06	0.1	0.2	0.01	0.1
WMAIN-2736	J-6879	J-6880	6	140	0.09	0.4	0.3	0.7	0.23	0.5
WMAIN-2738	J-5533	J-6649	6	140	0.09	0.35	0.3	0.7	0.2	0.5
WMAIN-2740	J-5738	J-5532	10	140	0.03	0.25	0.3	0.8	0.14	0.6
WMAIN-2742(1)(1)	J-7925	021-029	6	140	0	0.09	0.1	0.3	0.05	0.2
WMAIN-2742(1)(2)	021-029	021-021	6	140	0	0.05	0	0.2	0.02	0.1
WMAIN-2742(2)	021-021	J-8235	6	140	0	0.05	0	0.2	0.02	0.1
WMAIN-2743(1)	J-8355	021-023	8	140	0.21	1.21	0.6	1.6	0.73	1.2
WMAIN-2743(2)	021-023	J-8094	8	140	0.2	1.19	0.6	1.6	0.72	1.2
WMAIN-2747(1)	J-7390	021-024	6	140	0.18	0.93	0.5	1.1	0.62	0.9
WMAIN-2747(2)	021-024	J-7415	6	140	0.15	0.81	0.4	1.1	0.52	0.8
WMAIN-2749(1)(1)	J-7416	021-026	4	140	0.11	0.64	0.3	0.7	0.39	0.6
WMAIN-2749(1)(2)	021-026	J-9266	4	140	0.25	1.16	0.4	1	0.82	0.8
WMAIN-2749(2)	J-9266	J-7391	4	140	0.25	1.16	0.4	1	0.82	0.8
WMAIN-2752	J-8235	J-8050	2	140	0.02	0.27	0.1	0.3	0.12	0.2
WMAIN-2754	J-8351	021-018	6	140	0	0.02	0	0.2	0.03	0.2
WMAIN-2756(1)	J-8361	021-030	6	140	0	0.02	0	0.2	0	0
WMAIN-2756(2)	021-030	021-018	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-2758(1)	J-6966	022-028	6	140	0	0.09	0	0.3	0.09	0.3
WMAIN-2758(2)	022-028	J-8368	6	140	0	0.08	0	0.3	0.06	0.3
WMAIN-2759(1)	J-8374	022-037	6	140	0	0.07	0	0.3	0.02	0.2
WMAIN-2759(2)	022-037	J-8368	6	140	0	0.06	0	0.2	0.01	0.1
WMAIN-2762	J-8374	J-8361	6	140	0	0.14	0	0.4	0.1	0.3
WMAIN-2764	J-7360	J-7361	10	140	0.04	0.15	0.3	0.6	0.11	0.5
WMAIN-2765(1)	J-5251	J-8193	2	140	0.26	1.01	0.3	0.6	1.01	0.6
WMAIN-2767	J-5732	J-8853	4	140	0.03	0.1	0.1	0.3	0.1	0.3
WMAIN-2768(1)	J-7424	022-018	10	140	0.25	0.43	0.8	1.1	0.3	0.9
WMAIN-2768(2)	022-018	J-7039	10	140	0.25	0.43	0.8	1	0.3	0.9
WMAIN-2769(1)	J-6109	J-9258	10	140	0.46	0.67	1.1	1.3	0.5	1.1
WMAIN-2769(2)	J-9258	J-7039	10	140	0.47	0.67	1.1	1.3	0.51	1.1
WMAIN-2770(1)	J-6904	022-008	6	140	0.04	0.08	0.2	0.3	0.05	0.2
WMAIN-2770(2)	022-008	J-7128	6	140	0.03	0.07	0.2	0.3	0.05	0.2
WMAIN-2771	J-7128	J-5062	4	140	0.14	0.31	0.3	0.5	0.17	0.4
WMAIN-2772	J-5062	J-5063	4	140	0.11	0.27	0.3	0.5	0.14	0.3
WMAIN-2773	J-5063	J-5875	6	140	0.33	0.67	0.7	1	0.37	0.7
WMAIN-2774(1)	J-5875	022-003	6	140	0.3	0.61	0.6	0.9	0.32	0.6
WMAIN-2774(2)	022-003	J-5876	6	140	0.3	0.61	0.6	0.9	0.32	0.6
WMAIN-2776(1)	J-5507	019-005	6	140	0	0.32	0	0.6	0.03	0.2
WMAIN-2776(2)	019-005	J-7122	6	140	0	0.3	0	0.6	0.03	0.2
WMAIN-2777(1)	J-8125	J-9295	6	140	0	0.03	0	0.2	0.02	0.2
WMAIN-2777(2)	J-9295	J-8126	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-2778(1)	J-8144	J-9298	4	140	0	0.11	0	0.3	0.04	0.2
WMAIN-2778(2)	J-9298	J-8125	4	140	0.01	0.14	0.1	0.3	0.06	0.2
WMAIN-2782(1)	J-7122	J-9282	4	140	0.06	0.16	0.2	0.3	0.2	0.4
WMAIN-2782(2)	J-9282	J-8814	4	140	0.1	0.25	0.3	0.4	0.3	0.5
WMAIN-2783	J-8488	J-6677	2	140	0.02	0.08	0.1	0.2	0.08	0.2
WMAIN-2784	J-6488	J-6677	2	140	0.32	1.24	0.3	0.7	1.24	0.7
WMAIN-2785	J-6488	J-6489	2	140	0.01	0.05	0.1	0.1	0.05	0.1
WMAIN-2786	019-002	J-5084	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-2789	J-5806	J-5318	8	140	0	0.15	0.1	0.5	0.18	0.6
WMAIN-2790	J-5085	J-5806	8	140	0	0.14	0.1	0.5	0.17	0.5
WMAIN-2793(1)(1)	J-8114	019-012	6	140	0.02	0.11	0.2	0.4	0.15	0.4
WMAIN-2793(1)(2)	019-012	019-011	6	140	0	0.31	0.2	0.4	0.31	0.5
WMAIN-2793(2)	019-011	J-5461	6	140	0.05	0.15	0.2	0.4	0.22	0.5
WMAIN-2796(1)	J-8125	019-009	6	140	0	0.07	0	0.3	0.09	0.3
WMAIN-2796(2)(1)	019-009	019-008	6	140	0	0.33	0.1	0.3	0	0.4
WMAIN-2796(2)(2)	019-008	J-8114	6	140	0.01	0.1	0.1	0.3	0.13	0.4
WMAIN-2799	J-8126	J-8107	4	140	0.01	0.1	0.1	0.3	0.13	0.3
WMAIN-2802	J-8144	J-8115	4	140	0.03	0.1	0.2	0.3	0.13	0.3
WMAIN-2805	J-8107	J-8421	4	140	0.03	0.09	0.1	0.2	0.12	0.3
WMAIN-2808(1)	J-6340	019-007	4	140	0	0.1	0	0.3	0.11	0.3
WMAIN-2808(2)	019-007	J-6368	4	140	0.01	0.15	0.1	0.3	0.19	0.4
WMAIN-2811(1)	J-6368	019-010	6	140	0	0.05	0	0.2	0.07	0.3
WMAIN-2811(2)	019-010	J-6769	6	140	0.01	0.06	0.1	0.3	0.09	0.3
WMAIN-2812(1)	J-8115	014-005	6	140	0.05	0.17	0.2	0.5	0.24	0.6
WMAIN-2812(2)	014-005	H-498	6	140	0.17	0.33	0.5	0.7	0.48	0.8
WMAIN-2814	H-498	J-5461	6	140	0.15	0.64	0.4	0.9	0.93	1.1
WMAIN-2816(1)(1)	J-5460	J-9297	6	140	0.02	0.18	0.1	0.5	0.26	0.6
WMAIN-2816(1)(2)	J-9297	014-004	6	140	0.02	0.18	0.1	0.5	0.26	0.6
WMAIN-2816(2)	014-004	J-8421	6	140	0.02	0.18	0.1	0.5	0.26	0.6
WMAIN-2818	J-6236	J-6237	2	140	0.2	1.54	0.3	0.8	1.8	0.8
WMAIN-2819	J-6406	J-5460	2	140	0.07	0.58	0.1	0.4	0.39	0.4
WMAIN-2821	J-6333	J-6334	2	140	0.01	0.04	0	0.1	0.04	0.1
WMAIN-2822	J-6673	J-6334	3	140	0.01	0.02	0	0.1	0.02	0.1
WMAIN-2823	J-6601	J-7080	6	140	0.6	1.88	0.9	1.7	1.17	1.3
WMAIN-2826(1)	J-5375	030-033	6	140	0.21	0.68	0.5	1	0.38	0.7
WMAIN-2826(2)	030-033	J-6601	6	140	0.22	0.72	0.5	1	0.41	0.7
WMAIN-2827	J-6601	J-6602	8	140	0.03	0.08	0.2	0.4	0.06	0.3
WMAIN-2829	J-5477	J-6391	6	140	0	0.08	0	0.3	0	0.1
WMAIN-2831	J-6106	J-6289	3	140	0	0.66	0	0.6	0.2	0.3
WMAIN-2833	J-5859	J-9251	4	140	0.2	0.53	0.4	0.7	0.47	0.6
WMAIN-2834(1)	J-9251	030-036	4	140	0.12	0.32	0.3	0.5	0.27	0.5
WMAIN-2834(2)	030-036	J-5587	4	140	0.08	0.21	0.2	0.4	0.17	0.4
WMAIN-2836	J-5588	J-5550	4	140	0.11	0.33	0.3	0.5	0.19	0.4
WMAIN-2839	J-5780	J-7024	6	140	0.02	0.13	0.1	0.4	0.08	0.3
WMAIN-2840(1)	J-7423	029-020	6	140	0.02	0.11	0.2	0.4	0.05	0.2
WMAIN-2840(2)	029-020	J-5553	6	140	0.02	0.11	0.2	0.4	0.05	0.2
WMAIN-2843(1)	J-5167	H-501	4	140	0.05	0.16	0.2	0.3	0.11	0.3
WMAIN-2843(2)	H-501	J-5196	4	140	0.01	0.11	0.1	0.3	0.05	0.2
WMAIN-2845(1)	J-5195	J-9319	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-2845(2)	J-9319	J-5606	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-2846	J-6755	J-5166	6	140	0	0.08	0	0.3	0.05	0.2
WMAIN-2848	J-6803	J-6755	6	140	0	0.03	0	0.2	0.02	0.2
WMAIN-2850	J-5387	J-5566	2	130	0.08	0.2	0.1	0.2	0.15	0.2
WMAIN-2852	J-5321	J-5567	6	140	0.08	0.2	0.3	0.5	0.15	0.4
WMAIN-2855	J-6750	J-6755	4	130	0.08	0.19	0.2	0.3	0.14	0.3
WMAIN-2858(1)	J-6802	029-037	6	140	0.02	0.05	0.1	0.2	0.03	0.2
WMAIN-2858(2)	029-037	J-6823	6	140	0.02	0.05	0.2	0.2	0.04	0.2
WMAIN-2861	J-6802	J-7024	6	140	0.01	0.04	0.1	0.2	0.02	0.1
WMAIN-2863	J-5780	J-6823	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-2864	J-5387	J-7405	6	130	0	0.11	0	0.3	0.09	0.3
WMAIN-2867(1)	J-5746	J-9248	6	130	0.01	0.19	0.1	0.5	0.16	0.4
WMAIN-2867(2)	J-9248	J-6750	6	130	0.01	0.18	0.1	0.4	0.15	0.4
WMAIN-2869	J-6495	J-6926	2	130	0.09	0.24	0.2	0.3	0.2	0.2
WMAIN-2872	J-6810	J-6926	6	140	0.06	0.68	0.3	1	0.25	0.6
WMAIN-2874(1)	J-6821	J-9249	6	140	0	0.01	0	0.1	0	0
WMAIN-2874(2)	J-9249	J-6822	6	140	0	0.01	0	0.1	0	0
WMAIN-2876	J-6678	J-6679	6	140	0.44	2.86	0.8	2.1	1.48	1.5

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-2877	J-6382	J-6383	6	140	0.06	0.21	0.3	0.5	0.11	0.4
WMAIN-2878	J-6526	J-6382	4	140	0.07	0.26	0.2	0.4	0.14	0.3
WMAIN-2881	J-6622	J-6526	4	140	0.04	0.17	0.2	0.4	0.07	0.2
WMAIN-2883	J-6623	J-8319	6	152.5	0	0	0	0	0	0
WMAIN-2886(1)	J-6817	J-9247	8	152.5	0.03	0.08	0.3	0.4	0.08	0.4
WMAIN-2886(2)(1)	J-9247	020-006	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-2886(2)(2)	020-006	J-6818	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-2887	J-6000	J-6817	8	152.5	0	0.03	0	0.2	0	0
WMAIN-2889	J-5992	J-5993	6	140	0	0	0	0	0	0
WMAIN-2890	J-6075	J-5992	6	140	0.14	0.62	0.4	0.9	0.44	0.8
WMAIN-2891	J-6356	020-001	6	140	0.22	0.67	0.5	1	0.56	0.9
WMAIN-2892(1)	020-001	J-9264	6	140	0.21	0.63	0.5	0.9	0.52	0.8
WMAIN-2892(2)	J-9264	J-6927	6	140	0.21	0.63	0.5	0.9	0.52	0.8
WMAIN-2896(1)(1)	J-6927	H-540	6	140	0.09	0.24	0.3	0.6	0.21	0.5
WMAIN-2896(1)(2)	H-540	029-025	6	140	0.09	0.24	0.3	0.6	0.21	0.5
WMAIN-2896(2)	029-025	J-6810	6	140	0.09	0.24	0.3	0.6	0.21	0.5
WMAIN-2898(1)(1)	J-6810	H-539	6	140	0.05	0.13	0.2	0.4	0.09	0.3
WMAIN-2898(1)(2)	H-539	H-538	6	140	0.05	0.13	0.2	0.4	0.09	0.3
WMAIN-2898(2)	H-538	J-6805	6	140	0.05	0.13	0.2	0.4	0.09	0.3
WMAIN-2900	J-5606	J-6868	6	140	0.02	0.87	0.1	1.1	0.3	0.6
WMAIN-2901(1)(1)	J-5669	J-9310	6	140	0.1	0.95	0.4	1.2	0.39	0.7
WMAIN-2901(1)(2)	J-9310	029-024	6	140	0.1	0.96	0.4	1.2	0.39	0.7
WMAIN-2901(2)	029-024	J-6809	6	140	0.1	0.96	0.4	1.2	0.39	0.7
WMAIN-2902	J-5869	J-5669	6	140	0.1	0.26	0.3	0.6	0.19	0.5
WMAIN-2905	J-6809	J-6806	6	130	0.05	0.15	0.2	0.4	0.09	0.3
WMAIN-2907	028-046	J-5869	6	140	0.09	0.24	0.3	0.5	0.15	0.4
WMAIN-2909	028-029	028-046	6	140	0.03	1.14	0.2	1.3	0.38	0.7
WMAIN-2912	J-5861	J-5862	6	140	0.04	0.81	0.2	1.1	0.28	0.6
WMAIN-2914	J-5862	J-7254	4	140	0.14	0.42	0.3	0.6	0.3	0.5
WMAIN-2915	J-7254	J-6632	4	140	0.09	0.27	0.2	0.5	0.17	0.4
WMAIN-2917	J-6632	J-6744	6	140	0.06	1.24	0.3	1.3	0.44	0.8
WMAIN-2918	J-6122	J-6718	6	140	0.03	0.12	0.2	0.4	0.05	0.2
WMAIN-2922(1)	J-6719	028-026	8	140	0	0.09	0	0.4	0	0
WMAIN-2922(2)(1)	028-026	H-530	8	140	0	0.09	0	0.4	0	0
WMAIN-2922(2)(2)(1)	H-530	H-531	8	140	0	0.09	0	0.4	0	0
WMAIN-2922(2)(2)(2)	H-531	J-5583	8	140	0	0.09	0	0.4	0	0
WMAIN-2924	J-6781	J-5220	6	140	0	0.09	0	0.3	0	0.1
WMAIN-2926	J-5179	J-8802	2	130	0	0.09	0	0.2	0.01	0
WMAIN-2929(1)(1)	J-5235	H-528	4	140	0	0.11	0	0.3	0.01	0.1
WMAIN-2929(1)(2)(1)	H-528	H-529	4	140	0	0.11	0	0.3	0.01	0.1
WMAIN-2929(1)(2)(2)	H-529	J-9243	4	140	0	0.11	0	0.3	0.01	0.1
WMAIN-2929(2)	J-9243	J-5236	4	140	0	0.11	0	0.3	0.01	0.1
WMAIN-2931	J-6394	J-7057	6	140	0	0.1	0.1	0.3	0	0
WMAIN-2934	J-5207	028-023	6	140	0	0	0	0	0	0
WMAIN-2936	J-5434	J-8455	4	140	0	0	0	0	0	0
WMAIN-2939	J-8717	J-6591	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2940	J-6591	J-5792	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-2941	J-5792	028-037	6	140	0	0.01	0	0.1	0	0
WMAIN-2943	J-6555	J-6749	6	140	0.02	0.16	0.1	0.4	0.01	0.1
WMAIN-2945	J-5430	J-7524	2	140	0.75	2.92	0.5	1.1	2.92	1.1
WMAIN-2947(1)	021-037	021-038	6	140	0.13	1.16	0.4	1.3	0.53	0.8
WMAIN-2947(2)	021-038	J-7369	6	140	0.13	1.14	0.4	1.3	0.51	0.8
WMAIN-2950(1)	J-7369	021-039	8	140	0.07	0.25	0.3	0.7	0.16	0.5
WMAIN-2950(2)	021-039	J-6425	8	140	0.07	0.25	0.3	0.7	0.16	0.5
WMAIN-2951	J-8338	J-5538	10	140	0	0	0	0	0	0
WMAIN-2955(1)	J-5642	J-9331	4	140	0.03	0.18	0.1	0.4	0.03	0.1
WMAIN-2955(2)(1)	J-9331	H-551	4	140	0.07	0.26	0.2	0.4	0.12	0.3
WMAIN-2955(2)(2)	H-551	J-5485	4	140	0.08	0.27	0.2	0.5	0.13	0.3
WMAIN-2957(1)(1)	J-5466	H-463	4	140	0.05	0.19	0.2	0.4	0.08	0.2
WMAIN-2957(1)(2)	H-463	021-004	4	140	0.04	0.16	0.2	0.3	0.06	0.2
WMAIN-2957(2)	021-004	J-5561	4	140	0.04	0.16	0.2	0.3	0.06	0.2
WMAIN-2959	J-6629	J-6313	6	130	0.25	1.15	0.5	1.2	0.65	0.9
WMAIN-2960	J-6627	J-6649	6	130	0.03	0.33	0.2	0.6	0.16	0.4
WMAIN-2961	J-5527	J-5528	6	152.5	0.02	0.15	0.1	0.5	0.07	0.3
WMAIN-2962(1)	J-5528	021-007	6	152.5	0.02	0.17	0.2	0.5	0.09	0.3
WMAIN-2962(2)	021-007	J-6627	6	152.5	0.02	0.19	0.2	0.5	0.1	0.4
WMAIN-2963	J-6628	J-6619	4	140	0.01	0.07	0.1	0.2	0.03	0.1
WMAIN-2965(1)	J-6643	J-8672	4	140	0	0	0	0	0	0
WMAIN-2965(2)	J-8672	J-6619	4	140	0.06	0.31	0.2	0.5	0.14	0.3
WMAIN-2966(1)	J-5807	021-006	6	130	0	0.08	0	0.3	0.04	0.2
WMAIN-2966(2)	021-006	J-5273	6	130	0	0.07	0	0.3	0.03	0.2
WMAIN-2968(1)	J-5972	022-014	6	140	0.05	0.25	0.2	0.6	0.11	0.4
WMAIN-2968(2)(1)	022-014	J-9260	6	140	0.05	0.24	0.2	0.6	0.09	0.3
WMAIN-2968(2)(2)	J-9260	J-6569	6	140	0.05	0.24	0.2	0.6	0.09	0.3
WMAIN-2969	J-5972	J-5251	6	140	0.09	0.26	0.3	0.6	0.13	0.4
WMAIN-2970(1)	J-5252	J-9259	6	140	0.16	0.46	0.4	0.8	0.31	0.6
WMAIN-2970(2)	J-9259	J-5239	6	140	0.16	0.47	0.4	0.8	0.32	0.6
WMAIN-2972	J-6100	J-5201	12	140	0.01	0.04	0.2	0.3	0.03	0.3
WMAIN-2974	J-6313	J-6100	6	140	0.36	2.13	0.7	1.8	1.24	1.3
WMAIN-2976	J-6100	J-5910	12	152.5	0.05	0.18	0.4	0.8	0.14	0.7
WMAIN-2978	J-7091	J-7092	2	130	0.24	0.95	0.3	0.5	0.95	0.5
WMAIN-2981	J-5626	021-040	8	140	0.07	0.39	0.3	0.9	0.23	0.6
WMAIN-2982(1)	J-5195	029-010	6	140	0.04	0.17	0.2	0.5	0.09	0.3
WMAIN-2982(2)(1)	029-010	J-9255	6	140	0	0.11	0.1	0.4	0.03	0.2
WMAIN-2982(2)(2)	J-9255	J-5095	6	140	0.01	0.11	0.1	0.4	0.03	0.2
WMAIN-2986	J-6806	J-6716	2	140	0.15	0.34	0.2	0.3	0.19	0.2
WMAIN-2988(1)	J-5124	029-009	6	140	0	0.06	0.1	0.3	0	0
WMAIN-2988(2)	029-009	J-5095	6	140	0	0.07	0.1	0.3	0	0
WMAIN-2989(1)(1)	J-6717	029-007	6	140	0.17	1.1	0.5	1.3	0.43	0.8
WMAIN-2989(1)(2)	029-007	J-8799	6	140	0.18	1.12	0.5	1.3	0.44	0.8
WMAIN-2989(2)	J-8799	J-6722	6	140	0.23	1.35	0.5	1.4	0.59	0.9
WMAIN-2991	J-5096	029-003	4	140	0.02	0.15	0.1	0.3	0.02	0.1
WMAIN-2992	029-003	J-5667	4	140	0	0.1	0	0.3	0.01	0.1
WMAIN-2994	J-5058	J-5059	6	152.5	0	0	0	0	0	0
WMAIN-2995	J-8644	J-5178	2	130	0.35	1.35	0.3	0.7	1.35	0.7
WMAIN-2997	J-5085	J-5507	6	140	0.01	0.87	0.1	1.1	0.9	1.1
WMAIN-2998	J-5215	J-5216	6	152.5	0.29	2.87	0.7	2.3	1.05	1.3
WMAIN-2999	J-5411	J-5412	6	152.5	0	0.45	0	0.8	0.15	0.5
WMAIN-3000	J-5412	J-5536	6	152.5	0	0.45	0	0.8	0.15	0.5
WMAIN-3001	J-5470	J-5196	6	152.5	0.02	0.06	0.2	0.3	0.03	0.2
WMAIN-3006(1)	J-8425	027-051	8	152.5	0	0	0	0	0	0
WMAIN-3006(2)	027-051	J-6341	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3008	J-6567	J-6657	12	152.5	0.18	3.45	0.8	3.9	0.68	1.6
WMAIN-3010(1)	J-7333	041-029	8	152.5	0.01	0.1	0.1	0.5	0.11	0.5
WMAIN-3010(2)	041-029	J-8176	8	152.5	0.01	0.1	0.1	0.5	0.11	0.5
WMAIN-3013	J-7748	J-7749	8	152.5	0	0	0	0	0	0
WMAIN-3017(1)	J-8568	041-030	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-3017(2)	041-030	J-8176	8	152.5	0	0.02	0.1	0.2	0.03	0.2
WMAIN-3019(1)	J-8422	041-033	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-3019(2)	041-033	J-7587	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-3022(1)	J-6252	041-031	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3022(2)	041-031	J-8568	8	152.5	0	0.01	0	0.1	0.01	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3023	J-8176	J-8422	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-3026(1)	J-6251	041-032	8	152.5	0	0	0	0	0	0
WMAIN-3026(2)	041-032	J-6252	8	152.5	0	0	0	0	0	0
WMAIN-3028	J-7587	J-6252	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3029	J-5159	J-5100	6	152.5	0	0	0	0	0	0
WMAIN-3032(1)	028-011	028-014	6	140	0	0.04	0.1	0.2	0	0
WMAIN-3032(2)	028-014	J-7769	6	140	0	0.04	0.1	0.2	0	0
WMAIN-3036(1)	J-8090	169-032	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3036(2)	169-032	J-6620	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3037	J-7685	J-6836	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3040	J-6827	J-6828	8	152.5	0	0	0	0	0	0
WMAIN-3042(1)	J-6827	169-030	8	152.5	0	0	0	0	0	0
WMAIN-3042(2)	169-030	J-8089	8	152.5	0	0	0	0	0	0
WMAIN-3044	J-8429	J-6827	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-3046	J-6836	J-8429	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3048(1)	J-6774	169-038	8	152.5	0	0	0	0	0	0
WMAIN-3048(2)	169-038	J-6775	8	152.5	0	0	0	0	0	0
WMAIN-3049	J-8583	J-8389	8	152.5	0.15	0.29	0.6	0.8	0.38	0.9
WMAIN-3051	J-8337	J-7775	8	152.5	0	0	0	0	0	0
WMAIN-3054(1)	J-8089	169-031	8	152.5	0	0	0	0	0	0
WMAIN-3054(2)	169-031	J-8090	8	152.5	0	0	0	0	0	0
WMAIN-3055(1)	J-6620	169-033	8	152.5	0	0	0	0.1	0	0
WMAIN-3055(2)(1)	169-033	169-029	8	152.5	0	0	0	0	0	0
WMAIN-3055(2)(2)	169-029	J-8429	8	152.5	0	0	0	0	0	0
WMAIN-3058	J-6620	J-6621	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-3060(1)	J-6621	169-034	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-3060(2)	169-034	J-7158	8	152.5	0	0.03	0	0.3	0.03	0.2
WMAIN-3063(1)	J-7158	169-037	8	152.5	0.12	0.22	0.5	0.7	0.28	0.8
WMAIN-3063(2)	169-037	J-7775	8	152.5	0.11	0.21	0.5	0.7	0.27	0.8
WMAIN-3066	J-7775	J-7152	8	152.5	0.1	0.19	0.4	0.6	0.24	0.7
WMAIN-3067	J-6836	J-5365	12	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-3069(1)	J-8389	169-027	12	152.5	0	0.02	0	0.3	0.01	0.1
WMAIN-3069(2)(1)	169-027	169-028	12	152.5	0	0.02	0	0.3	0.01	0.1
WMAIN-3069(2)(2)	169-028	J-6836	12	152.5	0	0.02	0	0.3	0.01	0.1
WMAIN-3073	J-8389	J-6774	12	152.5	0	0.03	0.1	0.3	0.03	0.3
WMAIN-3074	J-6774	J-7158	12	152.5	0	0.04	0.1	0.3	0.03	0.3
WMAIN-3076(1)	J-7158	169-035	12	152.5	0.05	0.16	0.4	0.8	0.17	0.8
WMAIN-3076(2)	169-035	J-5415	12	152.5	0.05	0.16	0.4	0.8	0.17	0.8
WMAIN-3079	J-7287	J-8066	8	152.5	0.02	0.16	0.2	0.6	0.17	0.6
WMAIN-3081(1)	J-6049	169-016	12	152.5	0	0.18	0	0.8	0.17	0.8
WMAIN-3081(2)	169-016	J-5699	12	152.5	0	0.18	0	0.8	0.17	0.8
WMAIN-3083	168-037	169-042	8	152.5	0	0.4	0	0.9	0.31	0.8
WMAIN-3085	J-5767	169-043	12	152.5	0.01	0.21	0.1	0.9	0	0.1
WMAIN-3086(1)	J-8329	169-023	8	152.5	0	0	0	0	0	0
WMAIN-3086(2)	169-023	J-6873	8	152.5	0	0	0	0	0	0
WMAIN-3088	J-6873	J-6381	8	152.5	0	0	0	0	0	0
WMAIN-3089	J-6380	J-6381	8	152.5	0	0	0	0	0	0
WMAIN-3093(1)	J-6381	169-022	8	152.5	0	0	0	0.1	0	0
WMAIN-3093(2)(1)	169-022	169-021	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3093(2)(2)	169-021	J-7462	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3094(1)	J-8249	169-020	8	152.5	0	0	0	0	0	0
WMAIN-3094(2)	169-020	J-7461	8	152.5	0	0	0	0	0	0
WMAIN-3097(1)	J-7124	169-019	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-3097(2)	169-019	J-7461	8	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-3099	J-7461	J-7462	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-3102	J-8083	J-7462	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3104	J-8215	J-7287	8	152.5	0.03	0.09	0.2	0.4	0.1	0.4
WMAIN-3106(1)	J-8065	169-025	8	152.5	0.04	0.12	0.3	0.5	0.13	0.5
WMAIN-3106(2)	169-025	J-8215	8	152.5	0.03	0.1	0.3	0.4	0.11	0.5
WMAIN-3108(1)	J-7151	169-036	8	152.5	0.01	0.1	0.1	0.5	0.08	0.4
WMAIN-3108(2)	169-036	J-7152	8	152.5	0.01	0.1	0.1	0.5	0.08	0.4
WMAIN-3111(1)	J-7152	169-026	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-3111(2)	169-026	J-8583	8	152.5	0.01	0.04	0.1	0.3	0.03	0.2
WMAIN-3113(1)(1)	J-8583	169-014	8	152.5	0.23	0.41	0.7	1	0.5	1.1
WMAIN-3113(1)(2)	169-014	169-012A	8	152.5	0.16	0.29	0.6	0.8	0.36	0.9
WMAIN-3113(2)	169-012A	J-8065	8	152.5	0.16	0.29	0.6	0.8	0.36	0.9
WMAIN-3115	J-8065	J-8066	8	152.5	0.02	0.09	0.2	0.4	0.07	0.4
WMAIN-3119(1)	J-8066	169-024	8	152.5	0	0.01	0	0.1	0	0
WMAIN-3119(2)	169-024	J-8083	8	152.5	0	0.01	0	0.1	0	0
WMAIN-3120	J-8083	J-6873	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3123(1)	J-5233	J-9256	8	152.5	0	0.19	0	0.6	0.16	0.6
WMAIN-3123(2)	J-9256	J-7124	8	152.5	0	0.19	0	0.6	0.15	0.6
WMAIN-3125(1)	J-7124	169-012B	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-3125(2)	169-012B	J-8066	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-3128(1)	J-7286	169-015	8	152.5	0.1	0.42	0.4	1	0.45	1
WMAIN-3128(2)	169-015	J-7287	8	152.5	0.1	0.42	0.4	1	0.45	1
WMAIN-3130	J-7056	J-8295	8	152.5	0.04	0.1	0.3	0.5	0.11	0.5
WMAIN-3134	J-7203	J-7056	8	152.5	0	0.06	0.1	0.3	0.05	0.3
WMAIN-3136	J-7003	J-7004	8	152.5	0	0	0	0	0	0
WMAIN-3137(1)	J-6593	170-156	8	152.5	0.13	0.24	0.5	0.7	0.31	0.8
WMAIN-3137(2)	170-156	J-6433	8	152.5	0.13	0.25	0.5	0.7	0.31	0.8
WMAIN-3139(1)	J-6592	170-088	8	152.5	0.37	0.71	0.9	1.3	0.87	1.4
WMAIN-3139(2)	170-088	J-6593	8	152.5	0.37	0.71	0.9	1.3	0.87	1.4
WMAIN-3142(1)	J-6593	170-087	8	152.5	0.17	0.4	0.6	0.9	0.44	1
WMAIN-3142(2)(1)	170-087	170-086	8	152.5	0.18	0.43	0.6	1	0.47	1
WMAIN-3142(2)(2)	170-086	J-7036	8	152.5	0.18	0.43	0.6	1	0.48	1
WMAIN-3144	J-7203	J-6593	8	152.5	0.01	0.06	0.1	0.4	0.06	0.3
WMAIN-3146	J-7056	J-6434	8	152.5	0.17	0.38	0.6	0.9	0.43	1
WMAIN-3148(1)	J-8246	170-090	8	152.5	0.11	0.27	0.5	0.8	0.28	0.8
WMAIN-3148(2)(1)	170-090	170-089	8	152.5	0.11	0.27	0.5	0.8	0.29	0.8
WMAIN-3148(2)(2)	170-089	J-7056	8	152.5	0.11	0.27	0.5	0.8	0.29	0.8
WMAIN-3151(1)(1)	J-6743	170-095	8	152.5	0.07	0.18	0.4	0.6	0.19	0.6
WMAIN-3151(1)(2)	170-095	170-091	8	152.5	0.08	0.19	0.4	0.6	0.2	0.7
WMAIN-3151(2)	170-091	J-7975	8	152.5	0.08	0.18	0.4	0.6	0.2	0.7
WMAIN-3154	J-6742	J-6743	8	152.5	0.13	0.33	0.5	0.9	0.36	0.9
WMAIN-3156(1)	J-8652	170-094	8	152.5	0.02	0.04	0.2	0.3	0.05	0.3
WMAIN-3156(2)	170-094	J-6743	8	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-3159	J-8111	J-8652	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3161(1)	J-7003	170-093	8	152.5	0.03	0.07	0.2	0.4	0.08	0.4
WMAIN-3161(2)	170-093	J-8111	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-3163(1)	J-7975	170-092	8	152.5	0.04	0.09	0.3	0.4	0.09	0.4
WMAIN-3163(2)	170-092	J-7003	8	152.5	0.03	0.08	0.3	0.4	0.09	0.4
WMAIN-3165	J-8246	J-7975	8	152.5	0.21	0.5	0.7	1.1	0.53	1.1
WMAIN-3168(1)	J-7525	170-096	8	152.5	0.03	0.06	0.2	0.4	0.07	0.4
WMAIN-3168(2)	170-096	J-8246	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3169	J-7525	J-7526	8	152.5	0	0	0	0	0	0
WMAIN-3172	J-8295	J-7525	8	152.5	0.03	0.08	0.3	0.4	0.09	0.4
WMAIN-3173(1)	J-8295	170-097	8	152.5	0	0	0	0	0	0
WMAIN-3173(2)	170-097	J-8498	8	152.5	0	0	0	0	0	0
WMAIN-3176(1)	J-8503	170-082	8	152.5	0.21	0.47	0.7	1	0.52	1.1
WMAIN-3176(2)	170-082	J-6931	8	152.5	0.21	0.47	0.7	1	0.51	1.1
WMAIN-3177	J-6931	J-6932	8	152.5	0.01	0.05	0.1	0.3	0.02	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3181	J-6434	J-6931	8	152.5	0.14	0.28	0.5	0.8	0.34	0.9
WMAIN-3182	J-6433	J-6434	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3183	J-6932	J-6433	8	152.5	0.17	0.35	0.6	0.9	0.41	1
WMAIN-3187	J-8350	J-8169	8	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-3190	J-8350	J-6932	8	152.5	0.1	0.28	0.5	0.8	0.3	0.8
WMAIN-3192(1)	J-7418	170-083	8	152.5	0.06	0.15	0.3	0.6	0.15	0.6
WMAIN-3192(2)	170-083	J-8350	8	152.5	0.05	0.14	0.3	0.5	0.15	0.6
WMAIN-3194(1)	J-8169	170-084	8	152.5	0	0	0	0	0	0
WMAIN-3194(2)	170-084	J-8170	8	152.5	0	0	0	0	0	0
WMAIN-3196	J-8019	J-8169	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3197(1)	J-7418	170-085	8	152.5	0.02	0.06	0.2	0.3	0.06	0.4
WMAIN-3197(2)	170-085	J-8019	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3198	J-7036	J-7418	8	152.5	0.15	0.39	0.6	0.9	0.4	1
WMAIN-3201	J-7036	J-7037	8	152.5	0	0	0	0	0	0
WMAIN-3202	J-7958	J-7452	6	140	0	0	0	0	0	0
WMAIN-3205(1)	J-5199	031-026	12	152.5	0.02	0.09	0.2	0.5	0.02	0.2
WMAIN-3205(2)	031-026	J-7478	12	152.5	0.02	0.09	0.2	0.5	0.02	0.2
WMAIN-3206	J-5199	J-5200	8	152.5	0	0	0	0	0	0
WMAIN-3208	J-5281	J-7390	12	152.5	0	0.16	0	0.8	0.04	0.4
WMAIN-3209	020-030	J-5303	16	140	0	0	0	0	0	0
WMAIN-3212	J-7493	037-014	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-3213	022-006	J-7779	6	152.5	0.15	0.34	0.5	0.7	0.19	0.5
WMAIN-3218	J-7723	J-7724	6	140	0.02	0.31	0.2	0.6	0.33	0.7
WMAIN-3219	041-022	J-7770	8	152.5	0	0.06	0.1	0.3	0.07	0.4
WMAIN-3221(1)	J-5521	041-023	8	152.5	0.01	0.1	0.1	0.4	0.11	0.5
WMAIN-3221(2)	041-023	041-022	8	152.5	0	0.07	0.1	0.4	0.09	0.4
WMAIN-3223	J-5521	J-5522	8	152.5	0	0	0	0	0	0
WMAIN-3226	J-5221	161-001	10	152.5	0	0	0	0	0	0
WMAIN-3227	J-5221	J-5222	12	152.5	0	0.52	0	1.4	0.11	0.6
WMAIN-3229	J-5785	J-5221	12	152.5	0	0.55	0	1.5	0.13	0.7
WMAIN-3231	J-5080	J-5785	16	152.5	0	0.03	0	0.4	0	0
WMAIN-3232	J-5080	J-5081	16	152.5	0	0	0	0	0	0
WMAIN-3233	J-5786	J-5080	16	152.5	0	0.03	0	0.4	0	0
WMAIN-3237	032-046	J-5786	16	152.5	0.02	0.42	0.3	1.5	0.04	0.4
WMAIN-3239	J-5881	032-046	16	152.5	0.02	0.41	0.3	1.5	0.03	0.4
WMAIN-3240(1)	J-8592	018-010	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3240(2)	018-010	J-6987	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3241	J-9320	029-028	8	152.5	0	0	0	0	0	0
WMAIN-3243(1)(1)	J-5608	J-9317	12	152.5	0	0.03	0.1	0.3	0	0.1
WMAIN-3243(1)(2)(1)	J-9317	J-9318	12	152.5	0	0.02	0.1	0.3	0	0.1
WMAIN-3243(1)(2)(2)	J-9318	029-042	12	152.5	0	0.02	0.1	0.3	0	0.1
WMAIN-3243(2)	029-042	J-5108	12	152.5	0	0.02	0.1	0.3	0	0.1
WMAIN-3244	J-5108	J-5133	12	152.5	0	0.02	0.1	0.3	0	0.1
WMAIN-3247(1)	J-7252	014-011	8	152.5	0.88	2.67	1.5	2.7	4.1	3.3
WMAIN-3247(2)	014-011	J-7253	8	152.5	0.88	2.67	1.5	2.7	4.1	3.3
WMAIN-3249(1)(1)	015-003	015-010	12	152.5	0.62	1.24	1.6	2.3	1.72	2.7
WMAIN-3249(1)(2)	015-010	015-011	12	152.5	0.61	1.21	1.5	2.2	1.68	2.7
WMAIN-3249(2)	015-011	J-6707	12	152.5	0.61	1.21	1.5	2.2	1.68	2.7
WMAIN-3251(1)	J-7019	019-033	12	152.5	0.02	0.05	0.2	0.4	0.03	0.3
WMAIN-3251(2)	019-033	J-7109	12	152.5	0.02	0.05	0.2	0.4	0.03	0.3
WMAIN-3252	J-5882	J-7222	8	152.5	0	0	0	0	0	0
WMAIN-3254	023-055	023-056	8	152.5	0	0	0	0	0	0
WMAIN-3256	J-6057	023-055	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3257	028-044	J-5764	6	152.5	0	0.07	0	0.3	0.06	0.3
WMAIN-3259	J-5206	J-5207	12	140	0.01	0.14	0.2	0.6	0.08	0.5
WMAIN-3260	J-5206	J-5309	12	140	0	0	0	0	0	0
WMAIN-3263	J-5398	J-5399	8	152.5	0	0	0	0	0	0
WMAIN-3264	J-5217	J-5191	8	152.5	0	0	0	0	0	0
WMAIN-3265	J-5191	J-5192	8	152.5	0	0	0	0	0	0
WMAIN-3266	027-054	J-5191	8	152.5	0	0	0	0	0	0
WMAIN-3268	J-6955	026-030	12	140	0	0.09	0	0.5	0.08	0.5
WMAIN-3269(1)	J-7245	026-025	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-3269(2)	026-025	J-5675	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-3272(1)	J-7246	026-029	6	152.5	0	0.04	0	0.2	0	0.1
WMAIN-3272(2)	026-029	J-6955	6	152.5	0	0.04	0	0.2	0	0.1
WMAIN-3276	J-7245	J-7246	6	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-3278	J-5701	J-5702	8	152.5	0	0	0	0	0	0
WMAIN-3280	J-5703	J-5704	8	152.5	0	0	0	0	0	0
WMAIN-3283(1)	031-040	J-9253	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3283(2)	J-9253	J-7026	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3285(1)(1)	J-8811	170-155	12	152.5	0.15	0.31	0.7	1.1	0.37	1.2
WMAIN-3285(1)(2)(1)	170-155	170-150	12	152.5	0.15	0.31	0.7	1.1	0.36	1.2
WMAIN-3285(1)(2)(2)	170-150	170-151	12	152.5	0.15	0.3	0.7	1.1	0.36	1.2
WMAIN-3285(2)	170-151	J-5146	12	152.5	0.14	0.3	0.7	1	0.35	1.2
WMAIN-3286(1)(1)	J-8149	170-079	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3286(1)(2)	170-079	170-078	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3286(2)	170-078	J-8736	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3287	J-8736	J-7459	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-3289	J-6788	J-6789	6	140	0.2	0.9	0.5	1.1	0.67	1
WMAIN-3290	J-8624	J-7089	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-3293(1)	J-6173	170-111	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-3293(2)	170-111	J-8624	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3295	J-5990	J-5991	10	152.5	0.22	0.4	0.8	1.1	0.26	0.9
WMAIN-3296	J-5105	J-5687	8	140	0.12	0.26	0.5	0.7	0.18	0.6
WMAIN-3298	J-5881	J-5882	8	152.5	0.01	0.34	0.1	0.9	0.02	0.2
WMAIN-3300	J-5986	J-5931	8	140	0	0.08	0	0.4	0.04	0.2
WMAIN-3301(1)(1)	J-6992	032-015	8	140	0.01	0.13	0.1	0.5	0.02	0.2
WMAIN-3301(1)(2)	032-015	032-001	8	140	0.02	0.14	0.1	0.5	0.02	0.2
WMAIN-3301(2)	032-001	J-6268	8	140	0.02	0.14	0.1	0.5	0.02	0.2
WMAIN-3303	J-6288	J-6289	8	140	0.08	0.32	0.4	0.8	0.1	0.4
WMAIN-3305	J-8397	020-012	4	140	0.8	2.42	0.8	1.5	2.33	1.5
WMAIN-3306(1)	J-7864	047-011	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3306(2)	047-011	J-8026	8	152.5	0	0	0	0	0	0.1
WMAIN-3307	J-7674	J-7675	8	152.5	0	0.01	0	0.1	0	0
WMAIN-3308(1)(1)	J-8344	034-017	8	152.5	0.03	0.15	0.2	0.6	0.03	0.2
WMAIN-3308(1)(2)	034-017	034-016	8	152.5	0.02	0.14	0.2	0.5	0.03	0.2
WMAIN-3308(2)	034-016	J-8190	8	152.5	0.02	0.14	0.2	0.5	0.03	0.2
WMAIN-3309(1)(1)(1)	J-7478	031-031	12	152.5	0.02	0.08	0.2	0.5	0.04	0.4
WMAIN-3309(1)(1)(2)	031-031	031-027	12	152.5	0.02	0.08	0.2	0.5	0.05	0.4
WMAIN-3309(1)(2)(1)(1)	031-027	031-028	12	152.5	0.02	0.08	0.2	0.5	0.05	0.4
WMAIN-3309(1)(2)(1)(2)	031-028	031-041	12	152.5	0.02	0.08	0.2	0.5	0.05	0.4
WMAIN-3309(1)(2)(2)	031-041	031-029	12	152.5	0.02	0.08	0.2	0.5	0.05	0.4
WMAIN-3309(2)	031-029	J-5361	12	152.5	0.02	0.08	0.2	0.5	0.05	0.4
WMAIN-3311(1)	J-5881	032-028	16	140	0.01	0.36	0.2	1.3	0.03	0.3
WMAIN-3311(2)	032-028	J-7844	16	140	0.01	0.36	0.2	1.3	0.03	0.3
WMAIN-3313	J-6008	J-6721	8	140	0.03	0.19	0.2	0.6	0.06	0.3
WMAIN-3314(1)	J-7015	J-8473	16	140	0.11	0.96	0.7	2.2	0.35	1.3
WMAIN-3314(2)	J-8473	J-8407	16	140	0.02	1.14	0.2	2.4	0.43	1.4
WMAIN-3316	J-6020	J-7015	16	140	0.06	0.65	0.5	1.8	0.23	1
WMAIN-3317(1)	J-6482	045-009	8	140	0.07	0.18	0.3	0.6	0.07	0.3
WMAIN-3317(2)	045-009	J-7187	8	140	0.08	0.19	0.4	0.6	0.08	0.4
WMAIN-3318(1)	J-5953	045-002	6	140	0.07	0.3	0.3	0.6	0.01	0.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3318(2)(1)	045-002	045-003	6	140	0.06	0.3	0.3	0.6	0.01	0.1
WMAIN-3318(2)(2)	045-003	052-006	6	140	0.06	0.3	0.3	0.6	0.01	0.1
WMAIN-3320(1)(1)(1)	J-5952	H-515	8	140	0.08	0.36	0.4	0.8	0	0.1
WMAIN-3320(1)(1)(2)	H-515	044-016	8	140	0.09	0.37	0.4	0.8	0.01	0.1
WMAIN-3320(1)(2)	044-016	044-051	8	140	0.09	0.37	0.4	0.8	0.01	0.1
WMAIN-3320(2)(1)	044-051	H-514	8	140	0.09	0.37	0.4	0.8	0.01	0.1
WMAIN-3320(2)(2)	H-514	J-5613	8	140	0.09	0.37	0.4	0.8	0.01	0.1
WMAIN-3321(1)	J-5429	044-012	8	140	0	0.08	0	0.4	0.02	0.2
WMAIN-3321(2)(1)	044-012	044-013	8	140	0	0.09	0	0.4	0.01	0.1
WMAIN-3321(2)(2)	044-013	J-5943	8	140	0	0.09	0	0.4	0.01	0.1
WMAIN-3323	J-6321	J-6322	12	140	0	0	0	0	0	0
WMAIN-3324	J-7219	J-6861	12	140	0.05	0.31	0.3	1	0.31	1
WMAIN-3326	J-6568	J-5628	12	140	0.07	0.36	0.4	1.1	0.48	1.2
WMAIN-3327	J-7497	J-7559	8	140	0.01	0.29	0.1	0.7	0.66	1.1
WMAIN-3328(1)	J-7266	053-003	8	140	0.01	0.21	0.1	0.6	0.49	1
WMAIN-3328(2)	053-003	J-7497	8	140	0.01	0.21	0.1	0.6	0.48	1
WMAIN-3329(1)	J-8292	044-009	12	140	0	0.17	0	0.7	0.68	1.5
WMAIN-3329(2)(1)	044-009	044-010	12	140	0	0.17	0	0.7	0.67	1.5
WMAIN-3329(2)(2)	044-010	J-8497	12	140	0	0.17	0	0.7	0.67	1.5
WMAIN-3330	J-5748	J-8292	12	140	0	0.13	0	0.6	0.48	1.2
WMAIN-3331	J-6133	J-5747	12	140	0	0.32	0	1	0.98	1.8
WMAIN-3332	J-5747	J-5748	12	140	0	0.31	0	1	0.97	1.8
WMAIN-3333(1)	J-6132	044-004	12	140	0	0.48	0.1	1.2	1.4	2.2
WMAIN-3333(2)	044-004	J-6133	12	140	0	0.48	0.1	1.2	1.4	2.2
WMAIN-3334	J-6995	J-5968	12	152.5	0	0.14	0	0.7	0.26	1
WMAIN-3336(1)	J-5969	054-030	12	152.5	0.03	0.98	0.3	2	1.21	2.2
WMAIN-3336(2)	054-030	J-8463	12	152.5	0.03	0.97	0.3	2	1.2	2.2
WMAIN-3337(1)	J-8463	054-025	12	152.5	0.01	0.66	0.1	1.6	0.94	1.9
WMAIN-3337(2)	054-025	J-5547	12	152.5	0.01	0.66	0.1	1.6	0.94	1.9
WMAIN-3339	J-7917	J-7918	8	152.5	0.47	0.7	1	1.3	0.43	1
WMAIN-3341	J-7217	J-7218	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-3343	J-6499	J-6500	12	152.5	0	0.07	0	0.5	0.09	0.6
WMAIN-3346(1)	J-7770	041-021	8	152.5	0	0	0	0	0	0
WMAIN-3346(2)	041-021	J-8440	8	152.5	0	0	0	0	0	0
WMAIN-3347(1)	J-6773	043-028	8	140	0	0.1	0	0.4	0.44	0.9
WMAIN-3347(2)	043-028	J-6900	8	140	0	0.11	0	0.4	0.45	0.9
WMAIN-3348	J-6076	J-6077	12	152.5	0.03	0.54	0.3	1.4	0.29	1
WMAIN-3349	J-5839	J-5840	8	140	0.03	1.19	0.2	1.6	1.47	1.8
WMAIN-3350(1)	J-6736	042-024	6	140	0	0	0	0.1	0	0
WMAIN-3350(2)	042-024	J-7551	6	140	0	0	0	0	0.01	0.1
WMAIN-3352	J-7052	J-6917	12	140	0.04	0.69	0.3	1.5	0.49	1.3
WMAIN-3354(1)	J-7239	043-004	8	140	0.01	0.54	0.1	1	0.41	0.9
WMAIN-3354(2)	043-004	J-6077	8	140	0.01	0.53	0.1	1	0.4	0.9
WMAIN-3356	J-7934	J-7239	8	140	0.02	0.42	0.2	0.9	0.34	0.8
WMAIN-3359	J-7512	J-7513	6	140	0.01	0.1	0.1	0.3	0.01	0.1
WMAIN-3360	J-5594	J-5595	6	140	0	0	0	0	0	0
WMAIN-3361(1)	J-5878	044-022	6	140	0	0.01	0	0.1	0	0
WMAIN-3361(2)	044-022	J-7465	6	140	0	0	0	0.1	0	0
WMAIN-3363(1)	J-5895	044-018	6	140	0.02	0.06	0.1	0.3	0.05	0.2
WMAIN-3363(2)	044-018	J-7381	6	140	0.02	0.07	0.1	0.3	0.06	0.3
WMAIN-3365	J-7029	J-5225	8	140	0	0.03	0	0.2	0.06	0.3
WMAIN-3367	J-6438	J-5634	12	140	0.17	2.31	0.7	2.9	1.99	2.7
WMAIN-3368(1)	J-5849	J-5340	16	140	0	0.06	0	0.5	0.04	0.4
WMAIN-3368(2)	J-5340	J-6790	16	140	0	0.05	0	0.5	0.03	0.3
WMAIN-3370	J-5888	J-5889	6	140	0	0	0	0	0	0
WMAIN-3371	J-5802	J-5803	6	140	0	0	0	0	0	0
WMAIN-3372(1)	J-6411	038-029	8	140	0	0.16	0	0.5	0.22	0.6
WMAIN-3372(2)	038-029	J-7356	8	140	0	0.17	0	0.5	0.22	0.6
WMAIN-3373	J-5830	J-5831	6	140	0	0	0	0	0	0
WMAIN-3374	J-5832	J-5833	6	140	0	0	0	0	0	0
WMAIN-3376	J-5931	J-5932	8	140	0	0.08	0	0.4	0.07	0.3
WMAIN-3378	J-5970	J-5971	6	140	0	0	0	0	0	0
WMAIN-3379	037-014	J-7495	6	140	0	0.08	0.1	0.3	0.01	0.1
WMAIN-3381(1)	J-6524	037-015	8	140	0	0.08	0	0.4	0.09	0.4
WMAIN-3381(2)	037-015	J-7493	8	140	0	0.08	0	0.4	0.08	0.4
WMAIN-3382(1)	J-7493	037-013	8	140	0	0.07	0	0.3	0.02	0.2
WMAIN-3382(2)	037-013	J-7495	8	140	0	0.07	0	0.3	0.02	0.2
WMAIN-3383	J-7495	J-7496	8	140	0	0.14	0	0.5	0.01	0.1
WMAIN-3387(1)	J-7977	037-033	6	140	0	0.1	0	0.3	0	0
WMAIN-3387(2)	037-033	J-6952	6	140	0	0.09	0	0.3	0	0.1
WMAIN-3388	J-6364	J-6365	8	140	0	0.34	0	0.8	0.07	0.4
WMAIN-3390	J-6180	J-5953	6	140	0.34	1.66	0.7	1.6	0.19	0.5
WMAIN-3393(1)	J-8620	036-030	6	140	0.05	0.18	0.2	0.5	0.02	0.2
WMAIN-3393(2)	036-030	036-029	6	140	0.03	0.13	0.2	0.4	0.01	0.1
WMAIN-3394	036-029	J-5933	6	140	0.03	0.13	0.2	0.4	0.01	0.1
WMAIN-3396	J-6260	J-7275	6	140	0	0.11	0.1	0.4	0	0.1
WMAIN-3398(1)	J-6248	036-021	6	140	0	0.19	0	0.5	0.13	0.4
WMAIN-3398(2)	036-021	J-7886	6	140	0	0.21	0	0.5	0.16	0.4
WMAIN-3400	J-5782	J-5783	8	140	0	0	0	0.1	0	0.1
WMAIN-3401	J-6055	J-6056	8	140	0.04	0.65	0.2	1.1	0.25	0.7
WMAIN-3403(1)	J-5363	J-8682	8	140	0.02	0.45	0.2	0.9	0.21	0.6
WMAIN-3403(2)	J-8682	J-6285	8	140	0.02	1.42	0.2	1.7	0.06	0.3
WMAIN-3406(1)	J-7765	035-021	8	140	0	0.07	0	0.3	0.02	0.2
WMAIN-3406(2)	035-021	J-8255	8	140	0	0.06	0	0.3	0.03	0.2
WMAIN-3407	J-8370	J-7765	8	140	0.02	0.05	0.2	0.3	0.02	0.2
WMAIN-3408	J-5864	J-5865	6	140	0	0	0	0	0	0
WMAIN-3409(1)	J-7444	030-003	8	140	0.04	0.34	0.2	0.8	0.04	0.2
WMAIN-3409(2)	030-003	J-6012	8	140	0.04	0.34	0.3	0.8	0.04	0.3
WMAIN-3411(1)	J-6549	035-027	6	140	0.01	0.14	0.1	0.4	0.02	0.1
WMAIN-3411(2)	035-027	J-7443	6	140	0.01	0.12	0.1	0.4	0.01	0.1
WMAIN-3412	J-7766	J-6850	8	140	0.03	0.36	0.2	0.8	0.04	0.3
WMAIN-3414(1)	J-6732	030-005	6	140	0.01	0.16	0.1	0.4	0.04	0.2
WMAIN-3414(2)	030-005	J-7150	6	140	0.02	0.17	0.1	0.5	0.05	0.2
WMAIN-3416(1)	J-6731	030-004	6	140	0.05	0.47	0.2	0.8	0.1	0.3
WMAIN-3416(2)	030-004	J-6732	6	140	0.05	0.48	0.2	0.8	0.1	0.3
WMAIN-3417(1)	J-6028	030-006	6	140	0.01	0.18	0.1	0.5	0.08	0.3
WMAIN-3417(2)	030-006	J-6851	6	140	0.02	0.19	0.1	0.5	0.08	0.3
WMAIN-3419(1)	J-6874	030-010	6	140	0.08	0.34	0.3	0.7	0.12	0.4
WMAIN-3419(2)	030-010	J-7584	6	140	0.09	0.36	0.3	0.7	0.13	0.4
WMAIN-3421(1)	J-7890	029-013	6	140	0.06	0.37	0.2	0.7	0.12	0.4
WMAIN-3421(2)	029-013	J-7891	6	140	0.05	0.35	0.2	0.7	0.11	0.4
WMAIN-3422(1)	J-7891	029-012	6	140	0.06	0.26	0.3	0.6	0.06	0.3
WMAIN-3422(2)	029-012	J-6242	6	140	0.06	0.25	0.3	0.6	0.05	0.2
WMAIN-3424(1)	J-6243	029-011	6	140	0.01	0.11	0.1	0.4	0.03	0.2
WMAIN-3424(2)	029-011	J-5552	6	140	0.03	0.14	0.2	0.4	0.06	0.3
WMAIN-3426	J-8502	J-6366	6	140	0	0.04	0	0.2	0	0.1
WMAIN-3428	J-7627	J-5550	6	140	0.21	0.84	0.5	1.1	0.31	0.6
WMAIN-3429(1)	J-6513	030-017	6	140	0.04	0.31	0.2	0.6	0.08	0.3
WMAIN-3429(2)	030-017	J-5733	6	140	0.04	0.31	0.2	0.6	0.09	0.3
WMAIN-3431	J-5734	J-7531	10	140	0.04	0.11	0.3	0.5	0.06	0.3
WMAIN-3433	J-5908	J-5759	6	140	0.01	0.19	0.1	0.5	0.02	0.1
WMAIN-3435(1)	J-6095	039-045	8	152.5	0	0.25	0	0.7	0.19	0.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3435(2)	039-045	J-7307	8	152.5	0	0.26	0	0.8	0.19	0.6
WMAIN-3437	J-6156	026-004	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3438(1)	J-7066	027-001	16	152.5	0	0.06	0	0.5	0.03	0.4
WMAIN-3438(2)	027-001	J-5518	16	152.5	0	0.06	0	0.5	0.03	0.4
WMAIN-3440(1)(1)	J-7065	026-017	16	140	0	0.09	0.1	0.6	0.04	0.4
WMAIN-3440(1)(2)	026-017	027-011	16	140	0	0.09	0.1	0.6	0.04	0.4
WMAIN-3440(2)	027-011	J-7066	16	140	0	0.09	0.1	0.6	0.04	0.4
WMAIN-3441(1)	J-7711	027-022B	16	140	0	0.07	0	0.5	0.02	0.3
WMAIN-3441(2)(1)	027-022B	027-031	16	140	0	0.07	0	0.5	0.02	0.3
WMAIN-3441(2)(2)	027-031	J-7168	16	140	0	0.07	0	0.5	0.02	0.3
WMAIN-3443(1)	J-7094	037-039	6	140	0	0.31	0	0.6	0.01	0.1
WMAIN-3443(2)	037-039	J-5810	6	140	0	0.32	0	0.6	0.01	0.1
WMAIN-3445	J-5810	J-8106	6	140	0	0.76	0.1	1	0.04	0.2
WMAIN-3447	J-7595	J-5419	4	140	0.01	0.45	0.1	0.6	0.12	0.3
WMAIN-3449	028-011	J-6895	6	140	0	0.12	0.1	0.4	0.03	0.2
WMAIN-3451(1)	J-6895	028-015	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-3451(2)	028-015	J-7693	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-3453	J-7694	J-5234	6	140	0.02	0.38	0.1	0.7	0.01	0.1
WMAIN-3455	J-7763	J-5171	6	140	0.02	0.33	0.1	0.7	0.03	0.2
WMAIN-3457(1)	J-6474	H-496	8	152.5	0.04	0.14	0.3	0.5	0.04	0.3
WMAIN-3457(2)	H-496	J-6475	8	152.5	0.04	0.15	0.3	0.6	0.05	0.3
WMAIN-3459	J-6475	J-5987	8	152.5	0.03	0.19	0.2	0.6	0.04	0.3
WMAIN-3461(1)	J-5692	028-018	6	140	0	1.1	0	1.3	0.4	0.7
WMAIN-3461(2)	028-018	J-5688	6	140	0	1.12	0	1.3	0.41	0.7
WMAIN-3462	J-6558	J-6638	6	140	0.01	0.05	0.1	0.2	0.01	0.1
WMAIN-3463	J-6749	J-6557	6	140	0.01	0.15	0.1	0.4	0.01	0.1
WMAIN-3465	J-5812	J-5424	8	140	0	0.09	0	0.4	0	0.1
WMAIN-3466	J-5811	J-5812	8	140	0	0.15	0	0.5	0	0
WMAIN-3467	J-5855	J-5856	6	140	0	0	0	0	0	0
WMAIN-3468	J-6503	J-7244	8	140	0.12	0.22	0.5	0.6	0.22	0.6
WMAIN-3470(1)	J-7244	030-038	8	140	0.19	0.37	0.6	0.8	0.39	0.9
WMAIN-3470(2)	030-038	J-5406	8	140	0.22	0.42	0.6	0.9	0.45	0.9
WMAIN-3471(1)	J-6502	030-032	8	140	0.07	0.17	0.3	0.5	0.16	0.5
WMAIN-3471(2)	030-032	J-6503	8	140	0.07	0.17	0.3	0.5	0.17	0.5
WMAIN-3472	031-046	J-7566	8	140	0.08	0.26	0.4	0.7	0.12	0.5
WMAIN-3473	J-6089	J-7213	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-3474(1)	J-7213	031-002	6	140	0.07	0.26	0.3	0.6	0.09	0.3
WMAIN-3474(2)	031-002	J-5352	6	140	0.06	0.25	0.3	0.6	0.09	0.3
WMAIN-3475(1)	J-6287	031-006	8	140	0.01	0.35	0.1	0.8	0.05	0.3
WMAIN-3475(2)	031-006	J-7345	8	140	0.01	0.36	0.1	0.8	0.05	0.3
WMAIN-3476	J-7316	J-5673	6	140	0.01	0.22	0.1	0.5	0.03	0.2
WMAIN-3478	J-5672	J-5673	8	140	0.05	0.11	0.3	0.4	0.07	0.3
WMAIN-3480	J-5552	J-5553	6	140	0.05	0.44	0.2	0.8	0.11	0.4
WMAIN-3481(1)	J-6366	029-021	6	140	0.09	0.32	0.3	0.6	0.12	0.4
WMAIN-3481(2)	029-021	J-6367	6	140	0.09	0.33	0.3	0.7	0.12	0.4
WMAIN-3482	J-5755	J-7531	6	140	0	0.19	0.1	0.5	0.02	0.1
WMAIN-3483	J-5754	J-5755	6	140	0	0.04	0	0.2	0.02	0.2
WMAIN-3484(1)	030-037	J-9252	4	152.5	0	0.11	0	0.3	0.01	0.1
WMAIN-3484(2)	J-9252	J-5679	4	152.5	0	0.09	0	0.3	0	0
WMAIN-3488	J-6639	J-5408	16	152.5	0	0.11	0	0.7	0.01	0.2
WMAIN-3490(1)	J-8203	018-001	16	140	0	0.08	0	0.6	0	0
WMAIN-3490(2)	018-001	J-5325	16	140	0	0.09	0	0.6	0	0
WMAIN-3492	J-5400	J-5401	8	152.5	0	0	0	0	0	0
WMAIN-3493	J-7109	019-025	12	152.5	0.01	0.04	0.2	0.4	0.05	0.4
WMAIN-3494(1)	018-043	018-041	8	152.5	0	0.1	0	0.5	0.01	0.1
WMAIN-3494(2)	018-041	J-5726	8	152.5	0	0.13	0	0.5	0	0.1
WMAIN-3496	J-5726	J-5727	16	140	0	0.08	0	0.6	0	0
WMAIN-3498(1)	J-6987	018-006	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3498(2)	018-006	J-5680	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-3499(1)	J-6967	018-007	12	152.5	0.02	0.05	0.2	0.4	0.07	0.5
WMAIN-3499(2)	018-007	J-5681	12	152.5	0.02	0.05	0.2	0.4	0.07	0.5
WMAIN-3501(1)	J-6589	018-008	12	152.5	0.02	0.06	0.2	0.4	0.08	0.5
WMAIN-3501(2)	018-008	J-6590	12	152.5	0.02	0.06	0.2	0.4	0.08	0.5
WMAIN-3502	J-6590	J-6967	12	152.5	0.02	0.06	0.2	0.4	0.08	0.5
WMAIN-3503	J-7024	J-5258	6	140	0.05	0.25	0.2	0.6	0.13	0.4
WMAIN-3504	J-6823	J-6824	6	140	0	0	0	0	0	0
WMAIN-3505	J-5610	J-5676	8	140	0.1	0.23	0.4	0.7	0.22	0.6
WMAIN-3507(1)	J-5676	019-023	8	140	0.03	0.17	0.2	0.6	0.05	0.3
WMAIN-3507(2)	019-023	J-5292	8	140	0.03	0.17	0.2	0.6	0.05	0.3
WMAIN-3508	J-5885	J-5082	4	140	0	0	0	0	0	0
WMAIN-3509(1)	J-8314	019-026	12	152.5	0.03	0.11	0.3	0.6	0.07	0.5
WMAIN-3509(2)(1)	019-026	019-041	12	152.5	0.03	0.12	0.3	0.6	0.08	0.5
WMAIN-3509(2)(2)	019-041	J-8602	12	152.5	0.03	0.12	0.3	0.6	0.08	0.5
WMAIN-3511(1)	J-8602	019-042	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3511(2)	019-042	J-8603	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3512(1)	J-8603	019-043	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3512(2)	019-043	J-8554	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3514	J-8324	J-7252	12	152.5	0.12	0.37	0.6	1.2	0.57	1.5
WMAIN-3517	J-5576	J-6585	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-3518	J-8712	J-6250	8	152.5	0.01	0.18	0.2	0.6	0.16	0.6
WMAIN-3520	J-5992	J-6241	6	152.5	0.11	0.5	0.4	0.9	0.35	0.7
WMAIN-3522	J-7415	J-7416	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3526	J-7925	J-7924	4	140	0.02	0.27	0.1	0.5	0.13	0.3
WMAIN-3527	J-8159	J-7925	4	140	0.02	0.28	0.1	0.5	0.14	0.3
WMAIN-3529	J-6327	J-6328	4	140	0.17	0.8	0.4	0.8	0.54	0.7
WMAIN-3530(1)	J-6328	021-047	4	140	0.22	0.98	0.4	0.9	0.69	0.8
WMAIN-3530(2)	021-047	J-7439	4	140	0.24	1.07	0.4	1	0.77	0.8
WMAIN-3531	J-7409	J-5392	6	140	0.04	0.21	0.2	0.5	0.15	0.4
WMAIN-3533(1)	J-7704	021-035	6	140	0.04	0.18	0.2	0.5	0.15	0.4
WMAIN-3533(2)	021-035	J-7409	6	140	0.04	0.17	0.2	0.5	0.14	0.4
WMAIN-3534(1)	J-7473	012-037	8	152.5	0.04	0.15	0.3	0.6	0.11	0.5
WMAIN-3534(2)	012-037	J-7789	8	152.5	0.03	0.13	0.3	0.5	0.1	0.5
WMAIN-3536(1)	J-5695	012-017	16	140	0.07	0.35	0.5	1.3	0.21	1
WMAIN-3536(2)	012-017	J-7887	16	140	0.07	0.36	0.5	1.3	0.22	1
WMAIN-3538(1)	J-5394	022-009	10	152.5	0	0.01	0.1	0.2	0	0.1
WMAIN-3538(2)	022-009	J-6820	10	152.5	0	0.01	0.1	0.2	0	0.1
WMAIN-3540(1)	J-6820	H-505	10	152.5	0.03	0.07	0.3	0.4	0.03	0.3
WMAIN-3540(2)	H-505	J-6904	10	152.5	0.03	0.08	0.3	0.4	0.04	0.3
WMAIN-3542	J-5991	J-6109	10	152.5	0.26	0.37	0.9	1	0.26	0.9
WMAIN-3544	J-5687	J-6110	4	140	2.84	4.34	1.6	2	3.11	1.7
WMAIN-3545	J-7129	J-7130	6	152.5	0.05	0.12	0.3	0.4	0.1	0.4
WMAIN-3547(1)	J-7040	022-017	6	152.5	0.13	0.18	0.4	0.5	0.15	0.5
WMAIN-3547(2)	022-017	J-7129	6	152.5	0.14	0.19	0.5	0.5	0.16	0.5
WMAIN-3548(1)	J-6059	022-031	6	152.5	0.58	0.84	1	1.2	0.77	1.1
WMAIN-3548(2)(1)	022-031	022-032	6	152.5	0.61	0.89	1	1.2	0.82	1.2
WMAIN-3548(2)(2)	022-032	J-5787	6	152.5	0.61	0.89	1	1.2	0.82	1.2
WMAIN-3550(1)	J-5787	022-048	6	152.5	0.02	0.09	0.2	0.4	0.08	0.3
WMAIN-3550(2)	022-048	J-8474	6	152.5	0.01	0.06	0.1	0.3	0.05	0.3
WMAIN-3552	J-7521	J-7424	10	152.5	0.62	0.7	1.4	1.5	0.65	1.4
WMAIN-3554	J-6101	J-6102	6	140	0	0.02	0	0.1	0	0
WMAIN-3556	J-6760	J-6761	6	152.5	0.03	0.11	0.2	0.4	0.1	0.4
WMAIN-3558	J-8454	J-6505	8	152.5	0.04	0.24	0.3	0.7	0.13	0.5

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3560(1)	J-6073	023-004	16	152.5	0.01	0.13	0.2	0.8	0	0
WMAIN-3560(2)	023-004	J-5682	16	152.5	0.01	0.13	0.2	0.8	0	0
WMAIN-3562(1)(1)	J-6974	027-050	16	140	0	0.2	0.1	0.9	0.02	0.2
WMAIN-3562(1)(2)	027-050	026-016	16	140	0	0.2	0.1	0.9	0.02	0.2
WMAIN-3562(2)	026-016	J-6598	16	140	0	0.2	0.1	0.9	0.02	0.2
WMAIN-3563(1)(1)	J-6539	025-002	10	152.5	0.01	0.03	0.1	0.3	0.02	0.2
WMAIN-3563(1)(2)	025-002	025-003	10	152.5	0.01	0.03	0.1	0.3	0.03	0.2
WMAIN-3563(2)	025-003	J-8657	10	152.5	0.01	0.03	0.1	0.3	0.03	0.2
WMAIN-3565	J-7309	025-006	8	152.5	0.01	0.07	0.1	0.4	0.06	0.3
WMAIN-3566	J-6359	J-8413	16	140	0.01	0.15	0.2	0.8	0	0
WMAIN-3567(1)(1)(1)	J-8413	023-011	16	140	0.01	0.15	0.2	0.8	0	0
WMAIN-3567(1)(1)(2)	023-011	J-5347	16	140	0.01	0.15	0.2	0.8	0	0
WMAIN-3567(1)(2)	J-5347	J-5348	16	140	0.01	0.14	0.2	0.8	0	0
WMAIN-3567(2)	J-5348	J-5104	16	140	0.01	0.15	0.2	0.8	0	0
WMAIN-3568	J-7697	J-6690	16	140	0.02	0.14	0.3	0.8	0	0.1
WMAIN-3570(1)	J-7696	J-9330	16	140	0.03	0.13	0.3	0.7	0.01	0.2
WMAIN-3570(2)	J-9330	J-7697	16	140	0.03	0.13	0.3	0.7	0.01	0.2
WMAIN-3571(1)	J-8724	010-019	8	152.5	0	0.05	0	0.3	0.01	0.2
WMAIN-3571(2)	010-019	J-8725	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-3573(1)	J-8725	010-021	8	152.5	0	0.07	0.1	0.4	0.02	0.2
WMAIN-3573(2)	010-021	J-6319	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-3575(1)	J-8437	009-012	8	152.5	0.02	0.17	0.2	0.6	0.17	0.6
WMAIN-3575(2)	009-012	J-7507	8	152.5	0.02	0.17	0.2	0.6	0.16	0.6
WMAIN-3577	J-7794	J-7847	8	152.5	0	0	0	0	0	0
WMAIN-3580	J-8580	J-6664	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-3581(1)	J-7720	167-034	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3581(2)	167-034	J-7721	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3584(1)(1)	J-6983	170-125	12	152.5	0.28	0.77	1	1.7	0.8	1.8
WMAIN-3584(1)(2)	170-125	170-126	12	152.5	0.27	0.72	1	1.7	0.74	1.7
WMAIN-3584(2)	170-126	J-8219	12	152.5	0.27	0.72	1	1.7	0.74	1.7
WMAIN-3585	J-7717	J-7706	8	152.5	0.03	0.09	0.3	0.4	0.09	0.4
WMAIN-3587	J-7706	J-6982	8	152.5	0.05	0.09	0.3	0.4	0.11	0.5
WMAIN-3590(1)	J-6982	170-109	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-3590(2)(1)	170-109	170-110	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-3590(2)(2)	170-110	J-6173	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-3591(1)	J-6982	170-152	8	152.5	0	0.11	0	0.5	0	0
WMAIN-3591(2)	170-152	J-6983	8	152.5	0	0.11	0	0.5	0	0
WMAIN-3595(1)	J-7090	170-108	8	152.5	0	0.03	0	0.3	0.02	0.2
WMAIN-3595(2)	170-108	J-6982	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-3596	J-7700	J-7768	8	152.5	0.12	0.34	0.5	0.9	0.35	0.9
WMAIN-3598(1)	J-8325	170-159	12	152.5	0.01	0.22	0.2	0.9	0.19	0.8
WMAIN-3598(2)	170-159	J-8326	12	152.5	0.01	0.22	0.2	0.9	0.19	0.8
WMAIN-3599	J-8354	J-8589	12	152.5	0.43	0.64	1.3	1.6	0.9	1.9
WMAIN-3601	J-7268	J-7673	8	152.5	0	0.1	0.1	0.4	0.12	0.5
WMAIN-3603	J-7673	J-7755	8	152.5	0.01	0.21	0.1	0.7	0.25	0.7
WMAIN-3605(1)	J-7332	041-004	8	152.5	0.03	1.45	0.2	1.9	1.7	2.1
WMAIN-3605(2)	041-004	J-7333	8	152.5	0.03	1.45	0.2	1.9	1.7	2.1
WMAIN-3608(1)	J-7269	041-016	8	152.5	0	0.14	0.1	0.5	0.17	0.6
WMAIN-3608(2)	041-016	J-7792	8	152.5	0	0.15	0.1	0.6	0.17	0.6
WMAIN-3610	J-7792	J-8362	8	152.5	0	0.08	0.1	0.4	0.09	0.4
WMAIN-3611(1)(1)	J-7755	041-018	8	152.5	0	0.09	0.1	0.4	0.11	0.5
WMAIN-3611(1)(2)	041-018	041-017	8	152.5	0	0.09	0.1	0.4	0.1	0.5
WMAIN-3611(2)	041-017	J-8362	8	152.5	0	0.09	0.1	0.4	0.1	0.5
WMAIN-3614	J-7826	J-7755	8	152.5	0.03	0.58	0.2	1.2	0.68	1.3
WMAIN-3618(1)	J-7826	041-014	8	152.5	0.01	0.2	0.1	0.7	0.24	0.7
WMAIN-3618(2)	041-014	J-8681	8	152.5	0.01	0.19	0.1	0.6	0.22	0.7
WMAIN-3619(1)	J-8681	041-015	8	152.5	0.01	0.43	0.1	1	0.5	1.1
WMAIN-3619(2)	041-015	J-7332	8	152.5	0.01	0.42	0.1	1	0.49	1.1
WMAIN-3621	J-7018	J-7826	8	152.5	0.01	0.11	0.1	0.5	0.13	0.5
WMAIN-3624	J-7332	J-7269	8	152.5	0.01	0.4	0.1	0.9	0.46	1
WMAIN-3627(1)	J-7792	041-019	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-3627(2)	041-019	J-7673	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-3629	J-7268	J-7269	8	152.5	0	0.09	0.1	0.4	0.11	0.5
WMAIN-3633(1)	J-7017	041-013	8	152.5	0	0	0	0	0	0
WMAIN-3633(2)	041-013	J-7018	8	152.5	0	0	0	0	0	0
WMAIN-3636	J-8681	J-7018	8	152.5	0	0.08	0.1	0.4	0.1	0.4
WMAIN-3638	J-7074	J-7075	8	152.5	0	0	0	0	0	0
WMAIN-3640(1)	J-6641	041-008	8	152.5	0	0.04	0.1	0.3	0.05	0.3
WMAIN-3640(2)	041-008	J-7074	8	152.5	0	0.04	0.1	0.3	0.05	0.3
WMAIN-3641(1)	J-7989	041-007	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-3641(2)	041-007	J-8618	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-3644	J-7074	J-8618	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-3645(1)(1)	J-7333	J-9228	12	152.5	0.01	0.19	0.2	0.8	0.22	0.9
WMAIN-3645(1)(2)	J-9228	041-005	12	152.5	0.02	0.19	0.2	0.8	0.22	0.9
WMAIN-3645(2)	041-005	J-7902	12	152.5	0.01	0.19	0.2	0.8	0.22	0.9
WMAIN-3648	J-5477	J-5478	6	140	0.09	0.79	0.3	1	0.23	0.5
WMAIN-3649	J-5478	J-6398	6	140	0.26	1.24	0.6	1.3	0.45	0.8
WMAIN-3651(1)	J-6408	023-016	6	140	0.02	0.18	0.1	0.5	0.1	0.3
WMAIN-3651(2)	023-016	J-7698	6	140	0.02	0.19	0.2	0.5	0.11	0.4
WMAIN-3652	J-5479	J-5480	12	152.5	0	0.13	0	0.7	0.03	0.3
WMAIN-3653(1)	J-5359	032-036	12	152.5	0	0.09	0.1	0.5	0.01	0.2
WMAIN-3653(2)	032-036	J-7289	12	152.5	0	0.08	0.1	0.5	0.01	0.2
WMAIN-3655	J-5362	017-001	12	152.5	0	0.05	0	0.4	0	0
WMAIN-3657	J-5361	J-5362	12	152.5	0.02	0.08	0.2	0.5	0.05	0.4
WMAIN-3658	J-5658	J-5659	8	140	0.3	1.45	0.7	1.7	0.54	1
WMAIN-3659	J-5659	J-5390	8	140	0.3	1.45	0.7	1.7	0.54	1
WMAIN-3660(1)	J-5473	J-8838	12	152.5	0.01	0.64	0.2	1.6	0.11	0.6
WMAIN-3660(2)	J-8838	J-5474	12	152.5	0	0	0	0	0	0
WMAIN-3661(1)	J-6781	J-8802	12	140	0.03	0.2	0.3	0.8	0.09	0.5
WMAIN-3661(2)	J-8802	J-5236	12	140	0.02	0.19	0.2	0.8	0.09	0.5
WMAIN-3662(1)	J-6565	010-009	12	152.5	0	0.17	0.1	0.8	0.08	0.5
WMAIN-3662(2)	010-009	J-5214	12	152.5	0	0.17	0.1	0.8	0.08	0.5
WMAIN-3665	J-5302	J-5303	16	140	0.01	0.03	0.2	0.3	0.02	0.3
WMAIN-3666	J-5316	J-5317	8	140	0.04	1.19	0.2	1.6	0.79	1.3
WMAIN-3667	J-5331	J-5332	12	152.5	0	0	0	0	0	0
WMAIN-3670	J-5613	J-5086	8	140	0.3	4.6	0.7	3.3	0.84	1.3
WMAIN-3671	J-5247	J-5248	16	140	0	0.16	0	0.8	0	0.1
WMAIN-3673	J-5238	J-5239	10	140	0.02	0.06	0.2	0.4	0.05	0.3
WMAIN-3675(1)	J-5924	J-9022	12	140	0	0.21	0	0.8	0	0
WMAIN-3675(2)	J-9022	J-5428	12	140	0	0.39	0.1	1.1	0	0.1
WMAIN-3677	J-5253	J-5254	6	140	0	0	0	0	0	0
WMAIN-3678	J-5133	J-5134	12	140	0	0	0	0	0	0
WMAIN-3679	J-5679	J-5292	10	152.5	0.12	0.27	0.6	0.9	0.24	0.8
WMAIN-3681	J-5293	J-5408	16	140	0	0.11	0	0.7	0	0
WMAIN-3682	J-6084	J-6085	8	140	0.49	2.1	1	2.1	0.7	1.2
WMAIN-3683	J-6139	J-6471	6	140	0	0.5	0	0.8	0.03	0.2
WMAIN-3685	J-6138	J-6139	6	140	0	0.18	0	0.5	0.12	0.4
WMAIN-3686	J-7255	053-013	6	140	0.01	0.22	0.1	0.5	0.54	0.9
WMAIN-3687	J-6134	J-6135	12	152.5	0	0.65	0.1	1.6	0.66	1.6
WMAIN-3689	J-7363	J-7613	6	140	0	0.03	0.1	0.2	0.01	0.1
WMAIN-3691(1)	J-7114	044-036	8	140	0.02	0.08	0.2	0.4	0.1	0.4
WMAIN-3691(2)	044-036	J-7571	8	140	0.02	0.08	0.2	0.4	0.1	0.4

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3692(1)	J-5093	044-025	8	140	0	0.13	0	0.5	0	0.1
WMAIN-3692(2)	044-025	J-6354	8	140	0	0.13	0	0.5	0	0.1
WMAIN-3694	J-5422	J-5423	8	140	0	0.02	0	0.2	0.02	0.2
WMAIN-3695	J-5550	J-5551	6	140	0.13	0.61	0.4	0.9	0.21	0.5
WMAIN-3698	J-5167	J-6701	6	140	0.04	0.26	0.2	0.6	0.18	0.5
WMAIN-3699	J-5166	J-5167	6	140	0.1	0.44	0.3	0.8	0.32	0.6
WMAIN-3700(1)	J-5580	028-005	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-3700(2)	028-005	J-6706	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-3702(1)	J-5488	028-004	6	140	0	0.13	0	0.4	0.05	0.2
WMAIN-3702(2)	028-004	J-5580	6	140	0	0.12	0	0.4	0.04	0.2
WMAIN-3703	J-6791	J-7753	8	140	0	0.21	0	0.6	0.15	0.5
WMAIN-3704	J-7223	J-7519	12	152.5	0	0.58	0	1.5	0.11	0.6
WMAIN-3706	J-6727	J-7403	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-3708	J-6324	J-7069	8	152.5	0.07	2.38	0.4	2.5	2.33	2.5
WMAIN-3710	J-5517	J-5518	16	140	0	0.16	0.1	0.8	0.03	0.3
WMAIN-3711	J-5475	J-5476	16	140	0	0.17	0	0.9	0.07	0.5
WMAIN-3712(1)	J-6001	145-012	12	152.5	0.23	0.89	0.9	1.9	0.89	1.9
WMAIN-3712(2)	145-012	J-6238	12	152.5	0.23	0.89	0.9	1.9	0.89	1.9
WMAIN-3713	J-6238	J-8223	12	152.5	0.23	0.88	0.9	1.9	0.88	1.9
WMAIN-3714	J-5224	J-6538	10	152.5	0	0.01	0	0.1	0	0
WMAIN-3715	J-7997	J-7189	16	140	0.02	0.18	0.3	0.9	0.08	0.6
WMAIN-3716	J-7690	J-7888	16	140	0.05	0.27	0.4	1.1	0.15	0.8
WMAIN-3717(1)	J-7460	011-008	16	140	0.04	0.24	0.4	1	0.13	0.7
WMAIN-3717(2)	011-008	J-7690	16	140	0.04	0.24	0.4	1	0.13	0.7
WMAIN-3718	J-5612	J-7460	16	140	0.03	0.22	0.4	1	0.11	0.7
WMAIN-3719	J-5611	J-5612	16	140	0.03	0.23	0.3	1	0.11	0.7
WMAIN-3722(1)	J-6922	043-041	8	140	0.01	0.12	0.1	0.5	0	0
WMAIN-3722(2)	043-041	J-6923	8	140	0.01	0.12	0.1	0.5	0	0
WMAIN-3723(1)	J-5918	028-017	6	140	0	1.16	0	1.3	0.37	0.7
WMAIN-3723(2)	028-017	J-6290	6	140	0	1.16	0	1.3	0.37	0.7
WMAIN-3724	J-5424	J-5425	8	140	0	0.13	0	0.5	0	0
WMAIN-3726	J-5374	J-5375	6	140	0.44	1.6	0.8	1.5	0.73	1
WMAIN-3727	J-5335	J-5248	8	152.5	0.11	0.49	0.5	1.1	0.17	0.6
WMAIN-3729	J-5172	028-007	6	140	0	0.03	0.1	0.2	0	0
WMAIN-3730	J-5498	J-5499	12	152.5	0.01	0.19	0.2	0.8	0.07	0.5
WMAIN-3731	J-5157	J-5158	8	152.5	0	0	0	0	0	0
WMAIN-3732(1)	J-5683	022-002	10	140	0.01	0.05	0.2	0.3	0.02	0.2
WMAIN-3732(2)(1)	022-002	H-504	10	140	0.01	0.05	0.2	0.3	0.03	0.2
WMAIN-3732(2)(2)	H-504	J-5876	10	140	0.01	0.05	0.2	0.3	0.03	0.2
WMAIN-3734	J-5456	J-5457	16	140	0	0.19	0.1	0.9	0.02	0.2
WMAIN-3735	J-5688	J-5112	6	140	0.03	1.67	0.2	1.6	0.61	0.9
WMAIN-3737	J-5257	J-5258	6	140	0.04	0.26	0.2	0.6	0.13	0.4
WMAIN-3740(1)	J-6284	055-018	12	152.5	0.01	0.65	0.2	1.6	0.83	1.8
WMAIN-3740(2)	055-018	J-6588	12	152.5	0.01	0.65	0.2	1.6	0.83	1.8
WMAIN-3742(1)(1)	J-8637	167-005	12	152.5	0.04	0.41	0.4	1.2	0.11	0.6
WMAIN-3742(1)(2)	167-005	167-004	12	152.5	0.04	0.41	0.4	1.2	0.11	0.6
WMAIN-3742(2)(1)	167-004	167-003	12	152.5	0.05	0.41	0.4	1.2	0.12	0.6
WMAIN-3742(2)(2)	167-003	J-5564	12	152.5	0.05	0.41	0.4	1.3	0.12	0.6
WMAIN-3743	J-6661	J-7120	8	152.5	0.08	0.76	0.4	1.3	0.68	1.3
WMAIN-3746	J-5541	J-5542	6	140	0.19	1.13	0.5	1.3	0.73	1
WMAIN-3747	J-5391	J-5392	6	140	0	0.06	0	0.3	0.02	0.2
WMAIN-3748	021-012	J-5343	6	140	0.01	0.02	0.1	0.1	0.01	0.1
WMAIN-3749	J-5426	J-5427	16	152.5	0.03	0.28	0.3	1.2	0.17	0.9
WMAIN-3751	J-5741	J-5742	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-3753	J-5418	J-5419	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-3755	J-5442	J-5443	8	140	0	0.63	0	1.1	0	0.1
WMAIN-3756	037-036	J-6952	8	140	0	0.27	0	0.7	0	0.1
WMAIN-3758(1)	171-060	171-061	12	152.5	1.36	5.41	2.4	5	6.15	5.4
WMAIN-3758(2)	171-061	J-7560	12	152.5	1.36	5.41	2.4	5	6.15	5.4
WMAIN-3759(1)(1)	J-8761	171-026	12	152.5	0.79	1.71	1.8	2.7	2.25	3.1
WMAIN-3759(1)(2)	171-026	171-027	12	152.5	0.8	1.75	1.8	2.7	2.29	3.2
WMAIN-3759(2)	171-027	J-5381	12	152.5	0.81	1.78	1.8	2.7	2.33	3.2
WMAIN-3760	J-5381	J-5382	16	152.5	2.11	6.84	3.6	6.8	7.87	7.4
WMAIN-3761	J-5382	171-060	12	152.5	1.36	5.41	2.4	5	6.15	5.4
WMAIN-3762	J-6470	J-8761	12	152.5	0.78	1.71	1.8	2.7	2.25	3.1
WMAIN-3764	J-6469	J-6470	12	152.5	0.78	1.68	1.8	2.7	2.22	3.1
WMAIN-3765(1)	J-8609	171-088	12	152.5	0.75	1.61	1.7	2.6	2.13	3
WMAIN-3765(2)	171-088	J-6469	12	152.5	0.75	1.61	1.7	2.6	2.14	3
WMAIN-3767(1)	171-019	171-020	12	152.5	0.74	1.59	1.7	2.6	2.11	3
WMAIN-3767(2)	171-020	J-8609	12	152.5	0.75	1.6	1.7	2.6	2.13	3
WMAIN-3768(1)	J-8769	171-018	12	152.5	0.73	1.55	1.7	2.6	2.07	3
WMAIN-3768(2)	171-018	171-019	12	152.5	0.73	1.57	1.7	2.6	2.09	3
WMAIN-3769(1)(1)	J-8746	171-079	12	152.5	0.68	1.4	1.6	2.4	1.9	2.8
WMAIN-3769(1)(2)	171-079	171-016	12	152.5	0.69	1.44	1.6	2.4	1.94	2.9
WMAIN-3769(2)(1)	171-016	171-017	12	152.5	0.72	1.53	1.7	2.5	2.04	3
WMAIN-3769(2)(2)	171-017	J-8769	12	152.5	0.73	1.54	1.7	2.5	2.06	3
WMAIN-3770(1)	171-001	171-002	12	152.5	0.65	1.34	1.6	2.4	1.83	2.8
WMAIN-3770(2)	171-002	J-8746	12	152.5	0.66	1.34	1.6	2.4	1.83	2.8
WMAIN-3771(1)	J-8323	014-012	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3771(2)	014-012	J-8324	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3773(1)	J-8554	019-044	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3773(2)(1)	019-044	019-045	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3773(2)(2)	019-045	J-8323	12	152.5	0.01	0.18	0.2	0.8	0.27	1
WMAIN-3775	J-5305	J-5306	8	152.5	0.01	0.05	0.1	0.3	0.03	0.2
WMAIN-3777	J-5086	J-5087	8	152.5	0	1.24	0.1	1.8	0.57	1.2
WMAIN-3778	J-5662	J-5663	8	152.5	0	12.09	0	6	19.55	7.8
WMAIN-3780	038-059	J-5511	16	140	0	0.24	0.1	1	0.01	0.1
WMAIN-3782	J-8456	J-8098	8	152.5	0.05	0.21	0.3	0.7	0.19	0.6
WMAIN-3784	J-8588	J-8589	12	152.5	0.04	0.58	0.4	1.5	0.55	1.5
WMAIN-3787	J-7166	J-7167	8	152.5	0	0	0	0	0	0
WMAIN-3790(1)	J-8382	170-147	8	152.5	0.42	0.94	1	1.5	1.11	1.7
WMAIN-3790(2)	170-147	J-8446	8	152.5	0.41	0.92	1	1.5	1.1	1.6
WMAIN-3793	J-8456	J-8446	8	152.5	0.01	0.09	0.1	0.4	0.05	0.3
WMAIN-3797(1)	J-7878	170-136	8	152.5	0.01	0.01	0.1	0.2	0.02	0.2
WMAIN-3797(2)	170-136	J-8072	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3798	J-6635	J-6636	6	152.5	0	0	0	0	0	0
WMAIN-3801	J-6467	J-6468	6	152.5	0	0	0	0	0	0
WMAIN-3803(1)	J-7986	170-134	8	152.5	0	0.01	0	0.1	0	0
WMAIN-3803(2)	170-134	J-6467	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-3806	J-8071	J-8072	8	152.5	0.06	0.1	0.3	0.4	0.11	0.5
WMAIN-3808(1)(1)	J-7419	170-142	8	152.5	0	0.05	0	0.3	0	0
WMAIN-3808(1)(2)	170-142	170-143	8	152.5	0	0.05	0	0.3	0	0
WMAIN-3808(2)	170-143	J-8447	8	152.5	0	0.05	0	0.3	0	0
WMAIN-3810(1)	J-8444	170-141	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-3810(2)	170-141	J-7419	8	152.5	0	0.06	0	0.3	0	0.1
WMAIN-3812(1)	J-6962	170-140	8	152.5	0	0.07	0	0.4	0.02	0.2
WMAIN-3812(2)	170-140	J-8444	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-3815	J-6962	J-6963	8	152.5	0	0	0	0	0	0
WMAIN-3817(1)	J-6962	170-139	12	152.5	0.26	0.61	1	1.5	0.7	1.7
WMAIN-3817(2)	170-139	J-8391	12	152.5	0.26	0.62	1	1.5	0.7	1.7
WMAIN-3819(1)	J-7897	170-024	12	152.5	0.12	0.39	0.6	1.2	0.44	1.3
WMAIN-3819(2)(1)	170-024	170-137	12	152.5	0.13	0.4	0.7	1.2	0.45	1.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3819(2)(2)	170-137	J-8071	12	152.5	0.13	0.4	0.7	1.2	0.45	1.3
WMAIN-3821	J-8712	J-8757	4	140	0.15	0.56	0.3	0.7	0.67	0.7
WMAIN-3822(1)(1)	J-8563	018-037	8	152.5	0	0.02	0	0.2	0	0
WMAIN-3822(1)(2)(1)	018-037	018-040	8	152.5	0	0.02	0	0.2	0	0
WMAIN-3822(1)(2)(2)	018-040	018-036	8	152.5	0	0.02	0	0.2	0	0
WMAIN-3822(2)	018-036	J-5400	8	152.5	0	0.02	0	0.2	0	0
WMAIN-3825(1)	J-8203	018-038	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-3825(2)	018-038	J-8563	8	152.5	0	0.02	0	0.2	0	0
WMAIN-3826	J-6176	J-6177	12	152.5	0	0	0	0	0	0
WMAIN-3829(1)	J-7144	167-021	8	152.5	0	0.05	0.1	0.3	0.01	0.1
WMAIN-3829(2)(1)	167-021	167-020	8	152.5	0	0.04	0.1	0.3	0.01	0.1
WMAIN-3829(2)(2)	167-020	J-6177	8	152.5	0	0.04	0.1	0.3	0.01	0.1
WMAIN-3831	J-6177	J-7638	12	152.5	0	0.05	0	0.4	0	0.1
WMAIN-3834(1)	J-7145	167-012	8	152.5	0	0.05	0.1	0.3	0.01	0.1
WMAIN-3834(2)	167-012	J-7638	8	152.5	0	0.04	0.1	0.3	0.01	0.1
WMAIN-3836	J-7638	J-7800	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3837(1)	J-8556	167-023	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-3837(2)	167-023	J-6664	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-3840	J-7800	J-7483	8	152.5	0	0	0	0.1	0	0
WMAIN-3843(1)	J-7800	167-013	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3843(2)(1)	167-013	167-039	8	152.5	0	0	0	0	0	0
WMAIN-3843(2)(2)	167-039	J-8547	8	152.5	0	0	0	0	0	0
WMAIN-3844(1)	J-7144	167-024	8	152.5	0.02	0.08	0.2	0.4	0.04	0.3
WMAIN-3844(2)	167-024	J-6897	8	152.5	0.02	0.09	0.2	0.4	0.04	0.3
WMAIN-3847(1)	J-7145	167-022	8	152.5	0.01	0.03	0.1	0.3	0.01	0.1
WMAIN-3847(2)	167-022	J-8556	8	152.5	0.01	0.04	0.1	0.3	0.01	0.2
WMAIN-3849	J-7144	J-7145	8	152.5	0	0	0	0.1	0	0
WMAIN-3851(1)	J-6177	167-019	8	152.5	0.01	0.54	0.1	1.1	0.04	0.3
WMAIN-3851(2)	167-019	J-6071	8	152.5	0	0.52	0.1	1.1	0.03	0.2
WMAIN-3854(1)	167-026	167-025	12	152.5	0.04	0.19	0.4	0.8	0.06	0.4
WMAIN-3854(2)	167-025	J-6671	12	152.5	0.03	0.18	0.3	0.8	0.05	0.4
WMAIN-3856(1)	167-026	167-027	12	152.5	0.04	0.19	0.4	0.8	0.06	0.5
WMAIN-3856(2)	167-027	J-6896	12	152.5	0.05	0.2	0.4	0.9	0.08	0.5
WMAIN-3859	J-8353	J-8354	12	152.5	0.42	0.64	1.3	1.6	0.89	1.9
WMAIN-3862(1)	J-7365	170-040	8	152.5	0.02	0.05	0.2	0.3	0.05	0.3
WMAIN-3862(2)	170-040	J-7366	8	152.5	0.02	0.04	0.2	0.3	0.05	0.3
WMAIN-3865(1)	J-7768	170-041	8	152.5	0.28	0.79	0.8	1.4	0.81	1.4
WMAIN-3865(2)(1)	170-041	170-058	8	152.5	0.29	0.81	0.8	1.4	0.84	1.4
WMAIN-3865(2)(2)	170-058	J-8326	8	152.5	0.29	0.81	0.8	1.4	0.84	1.4
WMAIN-3867(1)	J-7699	170-037	8	152.5	0.21	0.57	0.7	1.2	0.59	1.2
WMAIN-3867(2)	170-037	J-7700	8	152.5	0.21	0.58	0.7	1.2	0.6	1.2
WMAIN-3868(1)	J-7700	170-038	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-3868(2)(1)	170-038	170-039	8	152.5	0.02	0.06	0.2	0.4	0.07	0.4
WMAIN-3868(2)(2)	170-039	J-7734	8	152.5	0.02	0.06	0.2	0.4	0.07	0.4
WMAIN-3870	J-7734	J-7366	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-3872(1)	J-7366	170-060	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3872(2)	170-060	J-7365	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3875	J-7768	J-7365	8	152.5	0.04	0.1	0.3	0.5	0.1	0.5
WMAIN-3879(1)	J-8812	170-153	12	152.5	0	0.08	0.1	0.5	0.01	0.1
WMAIN-3879(2)(1)	170-153	171-078	12	152.5	0	0.08	0.1	0.5	0.01	0.1
WMAIN-3879(2)(2)	171-078	J-8325	12	152.5	0	0.08	0.1	0.5	0.01	0.1
WMAIN-3882(1)	J-8741	170-061	12	152.5	0.19	0.67	0.8	1.6	0.63	1.6
WMAIN-3882(2)	170-061	J-8353	12	152.5	0.2	0.68	0.8	1.6	0.63	1.6
WMAIN-3883	J-8740	J-8741	12	152.5	0.32	0.68	1.1	1.6	0.76	1.7
WMAIN-3885(1)	J-7567	170-036	8	152.5	0.05	0.15	0.3	0.6	0.16	0.6
WMAIN-3885(2)	170-036	J-7112	8	152.5	0.05	0.15	0.3	0.6	0.15	0.6
WMAIN-3887(1)	J-7322	170-055	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-3887(2)	170-055	J-8501	8	152.5	0.04	0.1	0.3	0.5	0.11	0.5
WMAIN-3890(1)	J-7112	170-057	8	152.5	0.05	0.13	0.3	0.5	0.14	0.5
WMAIN-3890(2)	170-057	J-7322	8	152.5	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-3891	J-5584	J-5585	8	152.5	0.42	1.05	1	1.6	1.13	1.7
WMAIN-3893	J-5585	J-7567	8	152.5	0.19	0.58	0.6	1.2	0.59	1.2
WMAIN-3895	J-7567	J-7699	8	152.5	0.42	1.25	1	1.8	1.27	1.8
WMAIN-3896	J-7773	J-5585	8	152.5	0.05	0.1	0.3	0.5	0.12	0.5
WMAIN-3898(1)	J-6626	170-031	8	152.5	0.03	0.08	0.3	0.4	0.09	0.4
WMAIN-3898(2)	170-031	J-7773	8	152.5	0.03	0.08	0.2	0.4	0.09	0.4
WMAIN-3901	J-7699	J-7862	8	152.5	0	0.39	0	0.9	0.28	0.8
WMAIN-3904	J-6625	J-6626	8	152.5	0.07	0.16	0.4	0.6	0.19	0.6
WMAIN-3906(1)	J-7773	170-034	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-3906(2)(1)	170-034	170-032	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3906(2)(2)	170-032	J-6626	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-3909(1)	J-7322	170-056	8	152.5	0	0	0	0	0	0
WMAIN-3909(2)	170-056	J-7323	8	152.5	0	0	0	0	0	0
WMAIN-3911	J-7112	J-7113	8	152.5	0	0	0	0	0	0
WMAIN-3912(1)	J-8740	170-033	8	152.5	0	0.05	0	0.3	0.01	0.2
WMAIN-3912(2)	170-033	J-7699	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-3912(1)	J-8740	170-033	8	152.5	0	0.05	0	0.3	0.01	0.2
WMAIN-3912(2)	170-033	J-7699	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-3918(1)	J-7675	047-014	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-3918(2)	047-014	J-6152	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-3921	J-6149	J-7674	8	152.5	0	0	0	0	0	0
WMAIN-3922	J-6148	J-6149	8	152.5	0	0	0	0	0	0
WMAIN-3925	J-7822	J-8357	8	152.5	0.01	0.13	0.2	0.5	0.01	0.1
WMAIN-3927	J-8357	J-6547	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3929	J-6149	J-7821	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-3933	J-7821	J-7822	8	152.5	0.01	0.06	0.1	0.3	0.09	0.4
WMAIN-3935(1)	J-7821	047-010	8	152.5	0	0.01	0	0.1	0.02	0.2
WMAIN-3935(2)	047-010	J-7864	8	152.5	0	0.01	0	0.1	0.01	0.2
WMAIN-3936(1)(1)	J-6149	047-013	8	152.5	0	0	0	0	0	0
WMAIN-3936(1)(2)	047-013	047-017	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3936(2)	047-017	J-7821	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3938(1)	J-7674	047-012	8	152.5	0	0	0	0	0	0
WMAIN-3938(2)	047-012	J-7864	8	152.5	0	0	0	0.1	0	0.1
WMAIN-3940(1)	J-8356	047-009	8	152.5	0.04	0.19	0.3	0.6	0.06	0.3
WMAIN-3940(2)	047-009	J-8357	8	152.5	0.04	0.19	0.3	0.6	0.05	0.3
WMAIN-3942	J-8767	J-5247	16	152.5	0.01	0.2	0.2	1	0.05	0.5
WMAIN-3944(1)	J-8281	032-008	16	152.5	0.01	0.2	0.2	1	0.05	0.5
WMAIN-3944(2)	032-008	J-8767	16	152.5	0.01	0.2	0.2	1	0.05	0.5
WMAIN-3945	J-8572	J-6937	16	152.5	0.01	0.13	0.1	0.8	0.04	0.4
WMAIN-3948(1)	J-7808	033-016	8	152.5	0	0.17	0	0.6	0.01	0.1
WMAIN-3948(2)	033-016	033-017	8	152.5	0	0.16	0	0.6	0.01	0.1
WMAIN-3949(1)(1)	J-8450	033-013	8	152.5	0	0.18	0	0.6	0.04	0.3
WMAIN-3949(1)(2)	033-013	033-014	8	152.5	0	0.18	0	0.6	0.03	0.3
WMAIN-3949(2)	033-014	J-6496	8	152.5	0	0.17	0	0.6	0.03	0.2
WMAIN-3953(1)	J-6796	033-001	16	152.5	0.05	0.28	0.5	1.2	0.14	0.8
WMAIN-3953(2)	033-001	J-5128	16	152.5	0.05	0.28	0.5	1.2	0.14	0.8
WMAIN-3956(1)	J-7812	034-046	16	152.5	0.11	0.41	0.7	1.5	0.26	1.2
WMAIN-3956(2)	034-046	J-5128	16	152.5	0.11	0.41	0.7	1.5	0.26	1.2
WMAIN-3958	J-7498	J-6796	16	152.5	0	0.19	0.1	1	0.07	0.6
WMAIN-3960(1)	J-6840	033-002	16	152.5	0	0.15	0	0.9	0.05	0.5
WMAIN-3960(2)	033-002	J-7498	16	152.5	0	0.15	0	0.9	0.05	0.5
WMAIN-3962	J-6886	J-6840	16	152.5	0	0.15	0	0.9	0.05	0.5
WMAIN-3964(1)	J-7922	034-037	8	152.5	0.14	0.98	0.5	1.5	0.28	0.8
WMAIN-3964(2)	034-037	J-7923	8	152.5	0.14	0.98	0.5	1.5	0.28	0.8

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-3965	J-6203	J-6204	8	152.5	0	0	0	0	0	0
WMAIN-3967	J-7034	J-7035	8	152.5	0	0	0	0	0	0
WMAIN-3969(1)	J-8182	034-039	8	152.5	0.05	0.21	0.3	0.7	0.05	0.3
WMAIN-3969(2)	034-039	J-7035	8	152.5	0.04	0.21	0.3	0.7	0.05	0.3
WMAIN-3972	J-8182	J-7854	8	152.5	0.05	0.23	0.3	0.7	0.06	0.4
WMAIN-3974	J-7854	J-7993	8	152.5	0	0	0	0	0	0
WMAIN-3976	J-6566	J-8132	8	152.5	0	0	0	0	0	0
WMAIN-3979(1)(1)	J-6204	034-036	8	152.5	0.07	0.27	0.4	0.8	0.08	0.4
WMAIN-3979(1)(2)	034-036	034-035	8	152.5	0.06	0.26	0.3	0.7	0.07	0.4
WMAIN-3979(2)	034-035	J-8150	8	152.5	0.06	0.26	0.3	0.7	0.07	0.4
WMAIN-3982	J-8225	J-8150	8	152.5	0	0.06	0.1	0.3	0	0
WMAIN-3985(1)(1)	J-8225	034-045	8	152.5	0.07	0.32	0.4	0.8	0.08	0.4
WMAIN-3985(1)(2)	034-045	034-044	8	152.5	0.09	0.36	0.4	0.9	0.1	0.5
WMAIN-3985(2)	034-044	J-7922	8	152.5	0.09	0.36	0.4	0.9	0.1	0.5
WMAIN-3987	J-7660	J-7922	8	152.5	0	0.19	0.1	0.6	0.05	0.3
WMAIN-3989(1)	J-7808	033-015	12	152.5	0	0.35	0	1.1	0.03	0.3
WMAIN-3989(2)	033-015	J-6496	12	152.5	0	0.41	0	1.2	0.05	0.4
WMAIN-3990	J-7995	J-7181	8	152.5	0.02	0.17	0.2	0.6	0.02	0.2
WMAIN-3993(1)	J-7181	033-009	8	152.5	0.09	1.22	0.4	1.7	0.13	0.5
WMAIN-3993(2)	033-009	J-7063	8	152.5	0.09	1.23	0.4	1.7	0.13	0.5
WMAIN-3995	J-7180	J-7181	8	152.5	0.02	0.55	0.2	1.1	0.04	0.3
WMAIN-3997(1)	J-6496	TEMP424	12	152.5	0	0.3	0	1.1	0.05	0.4
WMAIN-3997(2)	TEMP424	J-8915	12	152.5	0	0.31	0	1.1	0.05	0.4
WMAIN-3998	J-6545	J-7998	12	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-4000(1)	J-7998	032-035	12	152.5	0	0.05	0	0.4	0.04	0.3
WMAIN-4000(2)	032-035	J-5359	12	152.5	0	0.06	0	0.4	0.05	0.4
WMAIN-4003	J-5359	J-7808	12	152.5	0	0.21	0	0.9	0.02	0.2
WMAIN-4005(1)	J-7680	032-039	8	152.5	0	0	0	0	0	0
WMAIN-4005(2)	032-039	J-7814	8	152.5	0	0	0	0	0	0
WMAIN-4008(1)	J-7811	032-038	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4008(2)	032-038	J-8540	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-4010	J-8572	J-7812	16	152.5	0.01	0.16	0.2	0.9	0.06	0.5
WMAIN-4012	J-6937	J-6938	16	152.5	0.01	0.2	0.2	1	0.05	0.5
WMAIN-4014	J-6938	J-8281	16	152.5	0.01	0.2	0.2	1	0.05	0.5
WMAIN-4016(1)	J-7679	032-041	8	152.5	0	0.27	0	0.8	0	0
WMAIN-4016(2)	032-041	J-7998	8	152.5	0	0.27	0	0.8	0	0
WMAIN-4019(1)	J-6937	032-045	8	152.5	0	0.28	0	0.8	0.01	0.2
WMAIN-4019(2)	032-045	J-7679	8	152.5	0	0.29	0	0.8	0.02	0.2
WMAIN-4021	J-7289	J-7290	8	152.5	0	0	0	0	0	0
WMAIN-4023	J-7680	J-8540	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-4025(1)	J-7679	032-040	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-4025(2)	032-040	J-7680	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4026	J-8541	J-6937	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4030(1)	J-8572	032-044	8	152.5	0.01	0.09	0.1	0.4	0.04	0.3
WMAIN-4030(2)(1)	032-044	032-043	8	152.5	0	0.08	0.1	0.4	0.03	0.2
WMAIN-4030(2)(2)	032-043	J-8541	8	152.5	0	0.08	0.1	0.4	0.03	0.2
WMAIN-4031	J-8298	J-6545	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4034(1)	J-6938	032-042	8	152.5	0	0	0	0	0	0
WMAIN-4034(2)	032-042	J-7055	8	152.5	0	0	0	0	0	0
WMAIN-4035(1)	033-017	033-018	8	152.5	0	0.08	0.1	0.4	0.01	0.1
WMAIN-4035(2)	033-018	J-7811	8	152.5	0.01	0.06	0.1	0.3	0.02	0.2
WMAIN-4038(1)	J-7884	033-012	8	152.5	0.04	0.24	0.3	0.7	0.03	0.3
WMAIN-4038(2)(1)	033-012	033-007	8	152.5	0.04	0.25	0.3	0.7	0.04	0.3
WMAIN-4038(2)(2)	033-007	J-8013	8	152.5	0.04	0.25	0.3	0.7	0.04	0.3
WMAIN-4040	J-6887	J-7180	8	152.5	0	0.33	0	0.9	0	0.1
WMAIN-4042(1)(1)	J-7180	033-005	8	152.5	0.02	0.06	0.2	0.3	0.02	0.2
WMAIN-4042(1)(2)	033-005	033-006	8	152.5	0.01	0.05	0.2	0.3	0.01	0.1
WMAIN-4042(2)	033-006	J-8013	8	152.5	0.01	0.05	0.2	0.3	0.01	0.1
WMAIN-4045	J-7853	J-7854	8	152.5	0.29	1.2	0.8	1.7	0.34	0.9
WMAIN-4046(1)	J-7660	034-030	8	152.5	0.01	0.07	0.2	0.4	0.01	0.2
WMAIN-4046(2)	034-030	J-7661	8	152.5	0.02	0.07	0.2	0.4	0.02	0.2
WMAIN-4048(1)	J-6566	034-054	16	152.5	0.02	0.11	0.3	0.7	0.01	0.2
WMAIN-4048(2)	034-054	J-6567	16	152.5	0.02	0.11	0.3	0.7	0.01	0.2
WMAIN-4050	J-7884	J-6566	16	152.5	0.02	0.11	0.3	0.7	0.01	0.2
WMAIN-4052	J-7853	J-7884	16	152.5	0.01	0.07	0.2	0.6	0.01	0.1
WMAIN-4054(1)	J-6887	033-011	16	152.5	0	0.14	0	0.8	0.03	0.4
WMAIN-4054(2)(1)	033-011	034-040	16	152.5	0	0.14	0	0.8	0.03	0.4
WMAIN-4054(2)(2)	034-040	J-7853	16	152.5	0	0.14	0	0.8	0.03	0.4
WMAIN-4056	J-6886	J-6887	16	152.5	0.01	0.13	0.2	0.8	0.03	0.4
WMAIN-4058	J-6204	J-7660	8	152.5	0.08	0.31	0.4	0.8	0.1	0.4
WMAIN-4060	J-7289	J-7811	12	152.5	0	0.08	0.1	0.5	0.01	0.2
WMAIN-4062(1)	J-7811	032-037	12	152.5	0.01	0.1	0.2	0.6	0.05	0.4
WMAIN-4062(2)	032-037	J-7812	12	152.5	0.01	0.1	0.2	0.6	0.05	0.4
WMAIN-4064	J-5358	J-5359	12	152.5	0	0	0	0	0	0
WMAIN-4066(1)	J-8135	034-028	8	152.5	0	0.31	0.1	0.8	0.05	0.3
WMAIN-4066(2)	034-028	J-8150	8	152.5	0	0.31	0.1	0.8	0.05	0.3
WMAIN-4068(1)	J-8336	170-016	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-4068(2)	170-016	J-6832	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-4070	J-8121	J-8122	12	152.5	0.11	0.22	0.6	0.9	0.27	1
WMAIN-4071	J-6431	J-6432	8	152.5	0	0.2	0	0.7	0.1	0.5
WMAIN-4073(1)	J-8741	170-001	8	152.5	0	0.27	0	0.8	0.08	0.4
WMAIN-4073(2)	170-001	J-6431	8	152.5	0	0.28	0	0.8	0.09	0.4
WMAIN-4074(1)	J-6432	170-132	8	152.5	0	0.2	0	0.7	0.1	0.4
WMAIN-4074(2)	170-132	J-6661	8	152.5	0	0.2	0	0.7	0.1	0.4
WMAIN-4076	J-8113	J-7591	8	152.5	0.04	0.1	0.3	0.4	0.09	0.4
WMAIN-4079(1)	J-8061	170-017	8	152.5	0	0.1	0	0.4	0.08	0.4
WMAIN-4079(2)	170-017	J-7135	8	152.5	0	0.09	0	0.4	0.08	0.4
WMAIN-4080	J-7591	J-7134	8	152.5	0.2	0.41	0.7	1	0.49	1.1
WMAIN-4082(1)	J-7134	170-014	8	152.5	0.15	0.48	0.6	1.1	0.34	0.9
WMAIN-4082(2)	170-014	J-7135	8	152.5	0.15	0.48	0.6	1	0.34	0.9
WMAIN-4086(1)	J-7135	170-015	8	152.5	0.04	0.11	0.3	0.5	0.1	0.5
WMAIN-4086(2)	170-015	J-6832	8	152.5	0.04	0.11	0.3	0.5	0.09	0.4
WMAIN-4088	J-6832	J-6833	8	152.5	0	0	0	0	0	0
WMAIN-4090(1)	J-8061	J-5070	12	152.5	0.11	0.21	0.6	0.9	0.26	1
WMAIN-4090(2)	J-5070	J-8062	12	152.5	0.11	0.21	0.6	0.9	0.26	1
WMAIN-4091(1)	J-8062	170-018	12	152.5	0.11	0.22	0.6	0.9	0.27	1
WMAIN-4091(2)(1)	170-018	170-019	12	152.5	0.11	0.22	0.6	0.9	0.27	1
WMAIN-4091(2)(2)	170-019	J-8121	12	152.5	0.11	0.22	0.6	0.9	0.27	1
WMAIN-4093	J-8336	J-8061	12	152.5	0.08	0.18	0.5	0.8	0.17	0.8
WMAIN-4096(1)(1)	J-8122	170-011	8	152.5	0.09	0.21	0.4	0.7	0.23	0.7
WMAIN-4096(1)(2)	170-011	170-012	8	152.5	0.08	0.18	0.4	0.6	0.2	0.7
WMAIN-4096(2)(1)	170-012	170-013	8	152.5	0.08	0.18	0.4	0.6	0.2	0.7
WMAIN-4096(2)(2)	170-013	J-7591	8	152.5	0.08	0.18	0.4	0.6	0.21	0.7
WMAIN-4098(1)	J-8503	170-081	12	152.5	0.06	0.24	0.4	0.9	0.14	0.7
WMAIN-4098(2)	170-081	J-8336	12	152.5	0.06	0.24	0.4	0.9	0.14	0.7
WMAIN-4100(1)	J-8426	170-002	8	152.5	0.24	0.88	0.7	1.5	0.94	1.5
WMAIN-4100(2)	170-002	J-7120	8	152.5	0.24	0.89	0.7	1.5	0.95	1.5
WMAIN-4102(1)	J-8122	170-003	8	152.5	0.19	0.41	0.6	1	0.47	1
WMAIN-4102(2)	170-003	J-8426	8	152.5	0.2	0.43	0.7	1	0.49	1.1
WMAIN-4103(1)	J-6625	170-030	12	152.5	0.28	0.78	1	1.8	0.81	1.8
WMAIN-4103(2)(1)	170-030	170-029	12	152.5	0.28	0.78	1	1.8	0.81	1.8
WMAIN-4103(2)(2)	170-029	J-8740	12	152.5	0.28	0.78	1	1.8	0.81	1.8

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4105	J-8503	J-6625	12	152.5	0.17	0.57	0.8	1.5	0.58	1.5
WMAIN-4108	J-8122	J-8279	12	152.5	0.09	0.18	0.5	0.8	0.22	0.9
WMAIN-4110(1)	J-7212	170-005	8	152.5	0.15	0.56	0.6	1.1	0.61	1.2
WMAIN-4110(2)	170-005	J-7791	8	152.5	0.15	0.56	0.6	1.1	0.62	1.2
WMAIN-4113	J-7757	J-7212	8	152.5	0.21	0.43	0.7	1	0.51	1.1
WMAIN-4115	J-7896	J-7897	12	152.5	0.09	0.38	0.5	1.2	0.43	1.3
WMAIN-4118	J-6337	J-6338	8	152.5	0	0	0	0	0	0
WMAIN-4121(1)	J-7933	170-028	12	152.5	0.01	0.22	0.1	0.9	0.17	0.8
WMAIN-4121(2)	170-028	J-7282	12	152.5	0.01	0.22	0.1	0.9	0.17	0.8
WMAIN-4123(1)	J-8278	170-022	8	152.5	0.08	0.15	0.4	0.6	0.19	0.6
WMAIN-4123(2)	170-022	J-7896	8	152.5	0.08	0.15	0.4	0.6	0.19	0.6
WMAIN-4125(1)	J-7757	170-004	8	152.5	0	0.1	0	0.4	0.09	0.4
WMAIN-4125(2)	170-004	J-8426	8	152.5	0	0.1	0.1	0.5	0.1	0.4
WMAIN-4128	J-7757	J-7758	8	152.5	0.02	0.19	0.2	0.6	0.19	0.6
WMAIN-4130(1)	J-7758	170-006	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4130(2)	170-006	J-8278	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4132	J-7832	J-7933	12	152.5	0	0.07	0.1	0.5	0.05	0.4
WMAIN-4133	J-7832	J-7833	12	152.5	0.03	0.11	0.3	0.6	0.12	0.6
WMAIN-4136(1)	J-8279	170-009	12	152.5	0.08	0.17	0.5	0.8	0.21	0.9
WMAIN-4136(2)	170-009	J-7833	12	152.5	0.08	0.18	0.5	0.8	0.21	0.9
WMAIN-4138	J-7212	J-5491	8	152.5	0	0	0	0	0	0
WMAIN-4139	J-5491	J-5492	8	152.5	0	0	0	0	0	0
WMAIN-4141(1)	J-7897	170-025	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4141(2)(1)	170-025	170-026	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4141(2)(2)	170-026	J-7212	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4144(1)	J-6338	170-027	12	152.5	0.07	0.2	0.5	0.8	0.23	0.9
WMAIN-4144(2)	170-027	J-7896	12	152.5	0.07	0.2	0.5	0.8	0.23	0.9
WMAIN-4146	J-6338	J-7933	12	152.5	0.07	0.19	0.5	0.8	0.22	0.9
WMAIN-4149(1)(1)	J-7832	170-020	8	152.5	0.04	0.12	0.3	0.5	0.14	0.5
WMAIN-4149(1)(2)	170-020	170-021	8	152.5	0.04	0.14	0.3	0.5	0.16	0.6
WMAIN-4149(2)	170-021	J-8278	8	152.5	0.04	0.14	0.3	0.5	0.16	0.6
WMAIN-4151(1)	J-8417	170-007	8	152.5	0.06	0.16	0.3	0.6	0.18	0.6
WMAIN-4151(2)	170-007	J-7758	8	152.5	0.07	0.17	0.4	0.6	0.19	0.6
WMAIN-4154(1)	J-7833	170-008	8	152.5	0.05	0.13	0.3	0.5	0.16	0.6
WMAIN-4154(2)	170-008	J-8417	8	152.5	0.06	0.14	0.3	0.5	0.16	0.6
WMAIN-4156(1)	J-8279	170-010	8	152.5	0.11	0.26	0.5	0.8	0.3	0.8
WMAIN-4156(2)	170-010	J-7757	8	152.5	0.13	0.28	0.5	0.8	0.32	0.8
WMAIN-4158(1)	J-6509	170-046	8	152.5	0.05	0.11	0.3	0.5	0.12	0.5
WMAIN-4158(2)	170-046	J-7939	8	152.5	0.05	0.11	0.3	0.5	0.13	0.5
WMAIN-4159	J-5296	J-5297	4	152.5	0	0	0	0	0	0
WMAIN-4161	J-5297	J-7096	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4164(1)	J-7938	170-049	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4164(2)	170-049	J-8004	4	152.5	0	0	0	0	0	0
WMAIN-4166	J-7170	J-7171	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4169	J-8244	J-7930	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4171	J-6478	J-8347	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4173(1)	J-8749	J-9038	12	152.5	0.04	0.23	0.4	0.9	0.13	0.7
WMAIN-4173(2)	J-9038	J-8662	12	152.5	0.05	0.16	0.4	0.8	0.14	0.7
WMAIN-4174	J-8742	J-8749	12	152.5	0.2	0.43	0.8	1.3	0.5	1.4
WMAIN-4177	J-6478	J-6479	8	152.5	0.04	0.17	0.3	0.6	0.11	0.5
WMAIN-4178	J-7930	J-7754	8	152.5	0	0.07	0	0.4	0.01	0.1
WMAIN-4181	J-7754	J-7625	12	152.5	0.07	0.26	0.5	1	0.29	1
WMAIN-4183(1)	J-7754	170-043	8	152.5	0.05	0.2	0.3	0.6	0.14	0.5
WMAIN-4183(2)(1)	170-043	170-050	8	152.5	0.04	0.19	0.3	0.6	0.13	0.5
WMAIN-4183(2)(2)	170-050	J-6478	8	152.5	0.04	0.19	0.3	0.6	0.13	0.5
WMAIN-4185(1)	J-7625	170-044	12	152.5	0.06	0.17	0.5	0.8	0.19	0.8
WMAIN-4185(2)	170-044	J-7626	12	152.5	0.06	0.17	0.5	0.8	0.19	0.8
WMAIN-4187	J-7625	J-7938	8	152.5	0	0.09	0	0.4	0.09	0.4
WMAIN-4190	J-7626	J-6509	12	152.5	0.08	0.22	0.5	0.9	0.24	0.9
WMAIN-4193	J-6509	J-6199	12	152.5	0.09	0.21	0.6	0.9	0.24	0.9
WMAIN-4195	J-7096	J-7938	8	152.5	0	0.12	0.1	0.5	0.12	0.5
WMAIN-4197(1)	J-7096	170-047	8	152.5	0.04	0.09	0.3	0.4	0.1	0.4
WMAIN-4197(2)	170-047	J-6509	8	152.5	0.04	0.1	0.3	0.4	0.11	0.5
WMAIN-4199(1)	J-7134	170-048	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-4199(2)	170-048	J-7096	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4200(1)	J-8070	170-051	8	152.5	0	0.08	0	0.4	0	0
WMAIN-4200(2)	170-051	J-7930	8	152.5	0	0.08	0	0.4	0	0.1
WMAIN-4204(1)	J-7171	170-052	8	152.5	0	0.01	0.1	0.1	0.01	0.2
WMAIN-4204(2)	170-052	J-7625	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4206(1)	J-7171	170-045	6	152.5	0.04	0.11	0.2	0.4	0.12	0.4
WMAIN-4206(2)	170-045	J-7626	6	152.5	0.05	0.12	0.2	0.4	0.13	0.4
WMAIN-4209(1)	J-8662	170-053	8	152.5	0	0.09	0	0.4	0	0
WMAIN-4209(2)	170-053	J-8070	8	152.5	0	0.08	0	0.4	0	0
WMAIN-4211(1)	J-8749	170-042	12	152.5	0.04	0.13	0.3	0.7	0.15	0.7
WMAIN-4211(2)	170-042	J-7754	12	152.5	0.04	0.14	0.3	0.7	0.15	0.7
WMAIN-4214(1)	J-8811	170-080	12	152.5	0.4	0.82	1.2	1.8	0.98	2
WMAIN-4214(2)	170-080	J-8742	12	152.5	0.4	0.82	1.2	1.8	0.98	2
WMAIN-4215(1)	J-8811	170-099	12	152.5	0.44	0.95	1.3	2	1.08	2.1
WMAIN-4215(2)(1)(1)	170-099	J-6742	12	152.5	0.44	0.95	1.3	2	1.08	2.1
WMAIN-4215(2)(1)(2)	J-6742	170-098	12	152.5	0.29	0.64	1	1.6	0.73	1.7
WMAIN-4215(2)(2)	170-098	J-8503	12	152.5	0.29	0.64	1	1.6	0.73	1.7
WMAIN-4217(1)	J-8788	169-007	12	152.5	0.74	1.54	1.7	2.5	1.78	2.8
WMAIN-4217(2)(1)	169-007	169-008	12	152.5	0.76	1.57	1.7	2.6	1.82	2.8
WMAIN-4217(2)(2)	169-008	J-8394	12	152.5	0.76	1.59	1.7	2.6	1.84	2.8
WMAIN-4218(1)	J-8787	169-006	12	152.5	0.71	1.46	1.7	2.5	1.7	2.7
WMAIN-4218(2)	169-006	J-8788	12	152.5	0.74	1.52	1.7	2.5	1.76	2.7
WMAIN-4219A(1)(1)	J-5135	169-004	12	152.5	0.64	1.26	1.6	2.3	1.48	2.5
WMAIN-4219A(1)(2)	169-004	169-005	12	152.5	0.64	1.26	1.6	2.3	1.48	2.5
WMAIN-4219A(2)	169-005	J-8787	12	152.5	0.64	1.26	1.6	2.3	1.49	2.5
WMAIN-4219B	J-5365	J-5135	12	152.5	0.26	0.54	1	1.4	0.68	1.6
WMAIN-4220(1)	J-8795	169-003	12	152.5	0.22	0.41	0.9	1.2	0.5	1.4
WMAIN-4220(2)	169-003	J-5365	12	152.5	0.22	0.43	0.9	1.3	0.51	1.4
WMAIN-4221(1)(1)	J-8762	168-008	12	152.5	0.08	0.2	0.5	0.8	0.22	0.9
WMAIN-4221(1)(2)	168-008	168-009	12	152.5	0.08	0.21	0.5	0.9	0.23	0.9
WMAIN-4221(2)	168-009	J-6049	12	152.5	0.08	0.21	0.5	0.9	0.23	0.9
WMAIN-4223	J-6207	J-6208	12	152.5	0.13	0.23	0.7	0.9	0.22	0.9
WMAIN-4224(1)	J-8706	168-057	12	152.5	0.1	0.18	0.6	0.8	0.19	0.8
WMAIN-4224(2)(1)(1)	168-057	J-8971	12	152.5	0.11	0.18	0.6	0.8	0.19	0.8
WMAIN-4224(2)(1)(2)	J-8971	168-005	12	152.5	0.13	0.23	0.7	0.9	0.22	0.9
WMAIN-4224(2)(2)	168-005	J-6207	12	152.5	0.13	0.23	0.7	0.9	0.22	0.9
WMAIN-4225(1)	J-8793	168-004	12	152.5	0.1	0.17	0.6	0.8	0.18	0.8
WMAIN-4225(2)(1)	168-004	168-056	12	152.5	0.1	0.18	0.6	0.8	0.18	0.8
WMAIN-4225(2)(2)	168-056	J-8706	12	152.5	0.1	0.18	0.6	0.8	0.18	0.8
WMAIN-4226(1)	J-7807	168-003	12	152.5	0.18	0.28	0.8	1	0.28	1
WMAIN-4226(2)	168-003	J-8793	12	152.5	0.19	0.28	0.8	1	0.28	1
WMAIN-4227(1)	J-8655	168-002	12	152.5	0.24	0.43	0.9	1.3	0.39	1.2
WMAIN-4227(2)	168-002	J-7806	12	152.5	0.25	0.43	0.9	1.3	0.39	1.2
WMAIN-4228	J-7806	J-7807	12	152.5	0.18	0.28	0.8	1	0.27	1
WMAIN-4229(1)	168-001	J-9120	12	152.5	0.2	0.4	0.9	1.2	0.33	1.1
WMAIN-4229(2)(1)	J-9120	J-9067	12	152.5	0.15	0.28	0.7	1	0.24	0.9
WMAIN-4229(2)(2)	J-9067	J-8655	12	152.5	0.24	0.43	0.9	1.3	0.38	1.2
WMAIN-4230	J-5564	168-001	12	152.5	0.17	0.37	0.8	1.2	0.28	1

Label	Start Node	Stop Node	Diameter (in)	C Factor	2045 MDD				2045 PHD	
					Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4232(1)	J-8637	167-006	12	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4232(2)	167-006	J-7324	12	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-4235	167-040	J-8637	12	152.5	0.01	0.43	0.2	1.3	0.07	0.5
WMAIN-4236(1)	J-7950	167-007	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-4236(2)	167-007	J-7324	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-4239	J-7324	J-8230	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4241(1)	J-8230	167-017	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-4241(2)(1)	167-017	167-016	8	152.5	0	0	0	0	0	0
WMAIN-4241(2)(2)	167-016	J-8744	8	152.5	0	0	0	0	0	0
WMAIN-4244	J-7484	J-7801	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4245(1)	J-8518	167-014	8	152.5	0	0	0	0	0	0
WMAIN-4245(2)	167-014	J-7484	8	152.5	0	0	0	0	0	0
WMAIN-4247	J-7483	J-7484	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4251(1)	J-8744	167-015	8	152.5	0	0	0	0	0	0
WMAIN-4251(2)	167-015	J-8591	8	152.5	0	0	0	0	0	0
WMAIN-4252	J-8591	J-7847	8	152.5	0	0	0	0	0	0
WMAIN-4255(1)	J-8208	167-010	12	152.5	0	0	0	0.1	0	0
WMAIN-4255(2)	167-010	J-7801	12	152.5	0	0	0	0.1	0	0
WMAIN-4258(1)	J-7638	167-011	12	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-4258(2)	167-011	J-7801	12	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-4260(1)	J-7324	167-008	12	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4260(2)	167-008	J-7325	12	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4262	J-7325	J-8208	12	152.5	0	0	0	0.1	0	0.1
WMAIN-4263(1)	J-7794	167-018	8	152.5	0	0	0	0	0	0
WMAIN-4263(2)	167-018	J-7795	8	152.5	0	0	0	0	0	0
WMAIN-4264	J-8401	J-7325	8	152.5	0	0	0	0	0	0
WMAIN-4266(1)	J-8691	167-009	8	152.5	0	0	0	0	0	0
WMAIN-4266(2)	167-009	J-8208	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4269	J-8230	J-7794	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-4270	J-7484	J-7847	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4273(1)	J-6664	167-031	12	152.5	0.01	0.07	0.2	0.5	0.03	0.3
WMAIN-4273(2)	167-031	J-6665	12	152.5	0.01	0.07	0.2	0.5	0.03	0.3
WMAIN-4275(1)	J-6896	167-028	12	152.5	0.05	0.21	0.4	0.9	0.11	0.6
WMAIN-4275(2)	167-028	J-6897	12	152.5	0.05	0.21	0.4	0.9	0.11	0.6
WMAIN-4278(1)	J-6512	055-048	8	152.5	0	0.05	0	0.3	0.01	0.2
WMAIN-4278(2)	055-048	J-8419	8	152.5	0	0.05	0.1	0.3	0.02	0.2
WMAIN-4280(1)	J-8419	055-047	8	152.5	0.01	0.24	0.1	0.7	0.29	0.8
WMAIN-4280(2)	055-047	J-7761	8	152.5	0.01	0.23	0.1	0.7	0.28	0.8
WMAIN-4282(1)	J-7793	055-052	8	152.5	0.1	1.51	0.4	1.9	1.47	1.9
WMAIN-4282(2)	055-052	J-7760	8	152.5	0.1	1.52	0.4	2	1.48	1.9
WMAIN-4284(1)	J-7760	055-046	8	152.5	0.05	0.76	0.3	1.3	0.68	1.3
WMAIN-4284(2)	055-046	J-7761	8	152.5	0.06	0.77	0.3	1.4	0.69	1.3
WMAIN-4287	J-7761	J-7192	8	152.5	0.02	0.2	0.2	0.7	0.13	0.5
WMAIN-4289(1)	J-7192	055-045	8	152.5	0	0	0	0	0	0
WMAIN-4289(2)	055-045	J-7193	8	152.5	0	0	0	0	0	0
WMAIN-4291(1)	J-7760	055-053	8	152.5	0	0	0	0	0	0
WMAIN-4291(2)	055-053	J-8674	8	152.5	0	0	0	0	0	0
WMAIN-4292	J-7742	J-7743	12	152.5	0.09	0.71	0.6	1.7	0.16	0.8
WMAIN-4295(1)	J-6282	034-026	12	152.5	0.05	0.21	0.4	0.9	0.05	0.4
WMAIN-4295(2)	034-026	J-7743	12	152.5	0.05	0.21	0.4	0.9	0.05	0.4
WMAIN-4299	J-8000	J-8001	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4301	J-7903	J-8457	6	152.5	0	0	0	0	0	0
WMAIN-4303(1)	J-7812	034-033	12	152.5	0.13	0.56	0.7	1.5	0.15	0.7
WMAIN-4303(2)	034-033	J-8000	12	152.5	0.12	0.55	0.7	1.5	0.15	0.7
WMAIN-4305	J-8000	J-5440	12	152.5	0.11	0.54	0.6	1.4	0.14	0.7
WMAIN-4308(1)	J-7903	034-034	8	152.5	0	0.17	0	0.6	0.02	0.2
WMAIN-4308(2)	034-034	J-7742	8	152.5	0	0.16	0	0.6	0.02	0.2
WMAIN-4311	J-7739	J-7903	8	152.5	0	0.19	0	0.6	0.03	0.3
WMAIN-4313(1)	J-8020	055-040	8	152.5	0	0.02	0.1	0.2	0.01	0.2
WMAIN-4313(2)	055-040	J-8680	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4314(1)	J-6993	055-043	8	152.5	0.02	0.14	0.2	0.5	0.17	0.6
WMAIN-4314(2)	055-043	J-8020	8	152.5	0.03	0.17	0.2	0.6	0.2	0.6
WMAIN-4316(1)	J-8680	055-044	8	152.5	0.02	0.14	0.2	0.5	0.16	0.6
WMAIN-4316(2)	055-044	J-6993	8	152.5	0.01	0.12	0.1	0.5	0.14	0.5
WMAIN-4318	J-6529	J-6993	8	152.5	0.05	0.44	0.3	1	0.52	1.1
WMAIN-4321(1)	J-8680	055-041	8	152.5	0	0.17	0.1	0.6	0.15	0.6
WMAIN-4321(2)	055-041	J-7793	8	152.5	0.01	0.2	0.1	0.7	0.17	0.6
WMAIN-4323(1)	J-7793	055-042	8	152.5	0.05	0.67	0.3	1.3	0.69	1.3
WMAIN-4323(2)	055-042	J-6529	8	152.5	0.05	0.65	0.3	1.2	0.67	1.3
WMAIN-4326(1)	J-5844	055-035	8	152.5	0.02	0.23	0.2	0.7	0.15	0.6
WMAIN-4326(2)	055-035	J-7192	8	152.5	0.02	0.22	0.2	0.7	0.14	0.5
WMAIN-4327	J-5652	J-5653	8	152.5	0	0	0	0	0	0
WMAIN-4329	J-5653	J-6705	8	152.5	0	0	0	0	0	0
WMAIN-4332	J-5844	J-5845	8	152.5	0	0.02	0	0.2	0.04	0.3
WMAIN-4335(1)	J-7715	055-034	8	152.5	0.04	0.5	0.3	1.1	0.44	1
WMAIN-4335(2)	055-034	J-8419	8	152.5	0.03	0.49	0.3	1.1	0.43	1
WMAIN-4337	J-7715	J-6705	8	152.5	0	0.28	0.1	0.8	0.35	0.9
WMAIN-4339	J-6705	J-5844	8	152.5	0	0.25	0.1	0.7	0.32	0.8
WMAIN-4340	J-6522	J-5110	10	152.5	0	0.1	0.1	0.5	0.01	0.1
WMAIN-4342(1)	J-6103	053-064	8	152.5	0	0	0	0	0	0
WMAIN-4342(2)	053-064	J-6698	8	152.5	0	0	0	0.1	0	0
WMAIN-4344	J-6103	J-6699	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4347	J-5847	J-6700	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4350(1)	J-6695	053-059	10	152.5	0	0.02	0	0.2	0	0
WMAIN-4350(2)	053-059	J-6522	10	152.5	0	0.03	0	0.3	0	0.1
WMAIN-4352(1)	J-6103	053-065	8	152.5	0	0	0	0.1	0.01	0.1
WMAIN-4352(2)	053-065	J-5846	8	152.5	0	0	0	0.1	0.01	0.1
WMAIN-4355	J-5846	J-5847	10	152.5	0	0.03	0	0.3	0	0
WMAIN-4357(1)	J-5847	053-058	10	152.5	0	0.02	0	0.2	0	0
WMAIN-4357(2)	053-058	J-6695	10	152.5	0	0.02	0	0.2	0	0
WMAIN-4359	J-6861	J-5846	10	152.5	0	0.03	0	0.3	0	0.1
WMAIN-4361(1)(1)	J-6698	053-063	8	152.5	0	0	0	0.1	0	0
WMAIN-4361(1)(2)	053-063	053-062	8	152.5	0	0	0	0.1	0	0
WMAIN-4361(2)	053-062	J-6699	8	152.5	0	0	0	0.1	0	0
WMAIN-4364(1)	J-6699	053-061	8	152.5	0	0.03	0.1	0.2	0	0.1
WMAIN-4364(2)	053-061	J-6700	8	152.5	0	0.03	0.1	0.2	0	0.1
WMAIN-4365(1)	J-6700	053-060	8	152.5	0	0.08	0.1	0.4	0.01	0.1
WMAIN-4365(2)	053-060	J-6522	8	152.5	0	0.08	0.1	0.4	0.01	0.1
WMAIN-4366	J-8202	J-8131	8	152.5	0.02	0.08	0.2	0.4	0.07	0.4
WMAIN-4368(1)(1)	J-8437	009-010	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-4368(1)(2)	009-010	009-011	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-4368(2)	009-011	J-8611	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-4371	J-8610	J-8611	8	152.5	0.02	0.22	0.2	0.7	0.22	0.7
WMAIN-4373	J-7692	J-7646	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4375	J-7646	J-6920	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4378(1)	J-6920	009-018	8	152.5	0	0	0	0	0	0
WMAIN-4378(2)	009-018	J-7025	8	152.5	0	0	0	0	0	0
WMAIN-4380	J-7692	J-7336	8	152.5	0	0.06	0	0.3	0	0
WMAIN-4381	J-6919	J-6920	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-4382	J-7691	J-6919	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4385(1)	J-7691	009-016	8	152.5	0	0.01	0	0.2	0	0
WMAIN-4385(2)	009-016	J-7692	8	152.5	0	0.02	0	0.2	0	0

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4387(1)	J-6740	009-026	12	152.5	0.03	0.43	0.3	1.3	0.43	1.3
WMAIN-4387(2)	009-026	J-8449	12	152.5	0.03	0.43	0.3	1.3	0.42	1.3
WMAIN-4389(1)	J-8786	009-023	12	152.5	0.17	0.42	0.8	1.3	0.42	1.3
WMAIN-4389(2)(1)	009-023	009-024	12	152.5	0.17	0.42	0.8	1.3	0.42	1.3
WMAIN-4389(2)(2)	009-024	J-5712	12	152.5	0.17	0.42	0.8	1.3	0.42	1.3
WMAIN-4392(1)(1)(1)	J-8472	009-021	12	152.5	0	0.18	0	0.8	0.02	0.2
WMAIN-4392(1)(1)(2)	009-021	J-5913	12	152.5	0	0.18	0	0.8	0.02	0.2
WMAIN-4392(1)(2)(1)	J-5913	009-022	12	152.5	0	0.17	0	0.8	0.02	0.2
WMAIN-4392(1)(2)(2)	009-022	J-5928	12	152.5	0	0.17	0	0.8	0.01	0.2
WMAIN-4392(2)(1)	J-5928	J-8549	12	152.5	0	0.17	0	0.8	0.01	0.2
WMAIN-4392(2)(2)	J-8549	J-8786	12	152.5	0	0.16	0	0.7	0.01	0.1
WMAIN-4394(1)	J-7337	009-020	12	152.5	0	0.11	0	0.6	0.03	0.3
WMAIN-4394(2)	009-020	J-8472	12	152.5	0	0.11	0	0.6	0.03	0.3
WMAIN-4396(1)	J-8129	009-019	12	152.5	0	0.18	0	0.8	0	0
WMAIN-4396(2)	009-019	J-7337	12	152.5	0	0.18	0	0.8	0	0
WMAIN-4398	J-7803	J-8129	12	152.5	0	0.07	0	0.5	0.06	0.4
WMAIN-4400(1)	J-5050	027-048	8	152.5	0	6.52	0	4.3	1.28	1.8
WMAIN-4400(2)	027-048	J-7944	8	152.5	0	6.47	0	4.3	1.23	1.7
WMAIN-4402(1)	J-7944	027-049	8	152.5	0	7.02	0.1	4.5	1.29	1.8
WMAIN-4402(2)	027-049	J-7434	8	152.5	0	6.98	0.1	4.5	1.26	1.8
WMAIN-4406	J-7012	J-7944	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-4407	J-5050	J-7012	8	152.5	0	11.21	0	5.8	2.13	2.3
WMAIN-4411	J-7480	J-8726	8	152.5	0	0.07	0	0.4	0.01	0.2
WMAIN-4412	J-5720	J-5721	6	152.5	0	0	0	0	0	0
WMAIN-4413	J-7488	J-5720	8	152.5	0	0.22	0	0.7	0.05	0.3
WMAIN-4417(1)	J-7555	038-035	8	140	0	0	0	0.1	0	0.1
WMAIN-4417(2)	038-035	J-8807	8	140	0	0	0	0	0	0
WMAIN-4419(1)	J-7960	038-056	12	152.5	0	0.36	0	1.2	0.05	0.4
WMAIN-4419(2)	038-056	J-5720	12	152.5	0	0.36	0	1.2	0.05	0.4
WMAIN-4423(1)	J-7505	038-063	8	152.5	0	0	0	0	0	0
WMAIN-4423(2)	038-063	J-8233	8	152.5	0	0	0	0	0	0
WMAIN-4425(1)	J-7488	038-062	8	152.5	0	0.2	0	0.7	0.03	0.2
WMAIN-4425(2)	038-062	J-7505	8	152.5	0	0.2	0	0.6	0.02	0.2
WMAIN-4427	J-7960	J-7961	6	152.5	0	0	0	0	0	0
WMAIN-4431	J-7505	J-7506	8	152.5	0	0.19	0	0.6	0.02	0.2
WMAIN-4433(1)	J-7510	040-025	8	152.5	0.08	1.33	0.4	1.8	1.31	1.8
WMAIN-4433(2)	040-025	J-6811	8	152.5	0.07	1.3	0.4	1.8	1.27	1.8
WMAIN-4435	J-8211	J-6811	8	152.5	0.06	1.24	0.4	1.8	1.22	1.7
WMAIN-4438	J-6655	J-6656	6	152.5	0	0	0	0	0	0
WMAIN-4439	J-6811	J-6655	6	152.5	0	0	0	0	0	0
WMAIN-4440(1)	J-7510	040-023	8	152.5	0.01	0.54	0.2	1.1	0.53	1.1
WMAIN-4440(2)	040-023	J-6363	8	152.5	0.01	0.53	0.1	1.1	0.52	1.1
WMAIN-4442	J-6392	J-7510	8	152.5	0.15	3.31	0.6	3	3.26	3
WMAIN-4444	J-7536	J-6363	8	152.5	0.11	3.31	0.5	3	3.25	2.9
WMAIN-4446(1)	J-8211	040-024	8	152.5	0.1	0.43	0.5	1	0.41	1
WMAIN-4446(2)	040-024	J-7536	8	152.5	0.1	0.44	0.5	1	0.42	1
WMAIN-4449(1)	J-7536	040-026	8	152.5	0	1.63	0	2	1.51	1.9
WMAIN-4449(2)	040-026	J-7816	8	152.5	0	1.62	0	2	1.5	1.9
WMAIN-4453	J-8192	J-6392	8	152.5	0	0	0	0	0	0
WMAIN-4456(1)	J-8605	040-034	8	152.5	0.28	2.78	0.8	2.7	2.7	2.7
WMAIN-4456(2)	040-034	J-8211	8	152.5	0.29	2.81	0.8	2.7	2.74	2.7
WMAIN-4457	J-8686	056-049	8	152.5	0.01	0.06	0.1	0.3	0.07	0.4
WMAIN-4459(1)	J-6726	056-048	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-4459(2)	056-048	J-8686	8	152.5	0.01	0.07	0.1	0.4	0.08	0.4
WMAIN-4461	056-049	J-7147	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-4463(1)	J-7147	056-050	8	152.5	0.01	0.13	0.1	0.5	0.15	0.6
WMAIN-4463(2)	056-050	J-6726	8	152.5	0.02	0.14	0.2	0.5	0.16	0.6
WMAIN-4466(1)	J-6725	056-047	8	152.5	0.05	0.41	0.3	1	0.45	1
WMAIN-4466(2)	056-047	J-6726	8	152.5	0.05	0.41	0.3	1	0.45	1
WMAIN-4467	J-5957	J-5958	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-4469(1)	J-7146	056-043	8	152.5	0.02	0.27	0.2	0.8	0.3	0.8
WMAIN-4469(2)	056-043	J-7147	8	152.5	0.02	0.27	0.2	0.8	0.31	0.8
WMAIN-4471(1)	J-6725	056-045	12	152.5	0.02	0.04	0.2	0.4	0.04	0.3
WMAIN-4471(2)	056-045	J-8339	12	152.5	0.02	0.04	0.2	0.4	0.04	0.3
WMAIN-4473	J-7771	J-8339	12	152.5	0.01	0.17	0.1	0.8	0.2	0.9
WMAIN-4476(1)(1)	J-6999	019-027	10	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4476(1)(2)	019-027	019-028	10	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-4476(2)	019-028	J-7433	10	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-4478(1)	J-7882	019-030	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4478(2)	019-030	J-8043	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4480(1)	J-8043	019-029	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4480(2)	019-029	J-7432	8	152.5	0	0.01	0	0.1	0	0
WMAIN-4484	J-7432	J-7433	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-4486(1)	J-7433	019-037	8	152.5	0	0.13	0	0.5	0	0.1
WMAIN-4486(2)	019-037	J-8544	8	152.5	0	0.14	0	0.5	0	0
WMAIN-4488(1)	J-8801	040-002	12	152.5	0.02	0.12	0.2	0.6	0.13	0.7
WMAIN-4488(2)(1)(1)	040-002	J-9216	12	152.5	0.02	0.13	0.2	0.7	0.13	0.7
WMAIN-4488(2)(1)(2)	J-9216	040-001	12	152.5	0.02	0.13	0.2	0.7	0.13	0.7
WMAIN-4488(2)(2)	040-001	J-7905	12	152.5	0.02	0.13	0.2	0.7	0.13	0.7
WMAIN-4491(1)	J-7905	040-009	12	152.5	0	0.1	0.1	0.6	0.03	0.3
WMAIN-4491(2)	040-009	J-8167	12	152.5	0	0.1	0.1	0.6	0.03	0.3
WMAIN-4493(1)	J-6226	040-020	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4493(2)	040-020	J-6552	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4496	J-6552	J-6553	8	152.5	0	0	0	0	0	0
WMAIN-4498	J-5656	J-5657	8	152.5	0	0	0	0	0	0
WMAIN-4499(1)	J-6324	040-013	8	152.5	0	0	0	0	0	0
WMAIN-4499(2)	040-013	J-5656	8	152.5	0	0	0	0	0	0
WMAIN-4501	J-6378	J-7658	8	152.5	0.06	1.14	0.3	1.7	1.13	1.7
WMAIN-4505(1)(1)	J-7659	J-9235	12	152.5	0.02	0.39	0.3	1.2	0.38	1.2
WMAIN-4505(1)(2)	J-9235	040-015	12	152.5	0.2	3.94	0.9	4.2	3.89	4.2
WMAIN-4505(2)	040-015	J-6230	12	152.5	0.2	3.94	0.9	4.2	3.88	4.2
WMAIN-4507	J-6230	J-6161	8	152.5	0.09	2	0.4	2.3	1.97	2.2
WMAIN-4510	J-6230	J-6231	12	152.5	0.02	0.48	0.3	1.3	0.47	1.3
WMAIN-4511(1)	J-7126	040-010	8	152.5	0.04	2.09	0.3	2.3	1.99	2.3
WMAIN-4511(2)	040-010	J-7905	8	152.5	0.04	2.08	0.3	2.3	1.98	2.3
WMAIN-4513	J-7069	J-7126	8	152.5	0.05	2.15	0.3	2.4	2.07	2.3
WMAIN-4515	J-6323	J-6324	8	152.5	0.08	2.45	0.4	2.5	2.41	2.5
WMAIN-4517(1)	J-6161	040-014	8	152.5	0	0.06	0.1	0.4	0.06	0.4
WMAIN-4517(2)	040-014	J-6323	8	152.5	0	0.06	0.1	0.4	0.06	0.4
WMAIN-4519	J-6363	J-6160	8	152.5	0.06	1.42	0.3	1.9	1.39	1.9
WMAIN-4522(1)	J-8722	040-004	8	152.5	0.35	6.15	0.9	4.2	6.08	4.1
WMAIN-4522(2)	040-004	J-6230	8	152.5	0.36	6.21	0.9	4.2	6.13	4.2
WMAIN-4524(1)	J-7658	040-016	8	152.5	0.15	2.68	0.6	2.7	2.65	2.6
WMAIN-4524(2)	040-016	J-7659	8	152.5	0.15	2.69	0.6	2.7	2.66	2.6
WMAIN-4526	J-7659	J-8515	8	152.5	0	0	0	0	0	0
WMAIN-4528(1)	J-7069	040-012	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4528(2)	040-012	J-5693	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4529	J-5693	J-5694	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4531(1)	J-7126	040-011	8	152.5	0	0	0	0	0	0
WMAIN-4531(2)	040-011	J-7127	8	152.5	0	0	0	0	0	0
WMAIN-4532	J-7702	J-7703	8	152.5	0.02	0.36	0.2	0.9	0.35	0.9
WMAIN-4534(1)	J-7703	040-021	8	152.5	0	0.07	0.1	0.4	0.07	0.4

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4534(2)	040-021	J-6552	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-4537(1)	J-7703	040-019	8	152.5	0	0.09	0.1	0.4	0.09	0.4
WMAIN-4537(2)	040-019	J-6226	8	152.5	0	0.08	0.1	0.4	0.08	0.4
WMAIN-4540(1)	J-6378	040-017	8	152.5	0	0.2	0.1	0.7	0.19	0.6
WMAIN-4540(2)	040-017	J-6225	8	152.5	0	0.21	0.1	0.7	0.19	0.6
WMAIN-4542	J-6323	J-6378	8	152.5	0.05	1.88	0.3	2.2	1.82	2.2
WMAIN-4544(1)(1)	J-7217	056-029	8	152.5	0.04	0.16	0.3	0.6	0.17	0.6
WMAIN-4544(1)(2)	056-029	056-028	8	152.5	0.04	0.19	0.3	0.6	0.19	0.6
WMAIN-4544(2)	056-028	J-7665	8	152.5	0.04	0.19	0.3	0.6	0.19	0.6
WMAIN-4546	J-8551	056-005	12	152.5	0.07	0.47	0.5	1.3	0.47	1.3
WMAIN-4549(1)	J-7953	056-032	8	152.5	0.31	0.66	0.8	1.2	0.64	1.2
WMAIN-4549(2)	056-032	J-7447	8	152.5	0.31	0.65	0.8	1.2	0.63	1.2
WMAIN-4550(1)(1)	J-8636	056-010	12	152.5	0.06	0.37	0.5	1.2	0.35	1.1
WMAIN-4550(1)(2)	056-010	056-011	12	152.5	0.05	0.32	0.4	1.1	0.3	1.1
WMAIN-4550(2)	056-011	J-8551	12	152.5	0.05	0.29	0.4	1	0.27	1
WMAIN-4551	J-7665	J-7413	8	152.5	0.26	1.21	0.8	1.7	1.27	1.8
WMAIN-4553	J-7218	J-7666	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-4555(1)	J-7666	056-007	8	152.5	0.05	0.29	0.3	0.8	0.34	0.9
WMAIN-4555(2)	056-007	J-8551	8	152.5	0.04	0.27	0.3	0.8	0.32	0.8
WMAIN-4559	J-7447	J-7448	8	152.5	0	0	0	0	0	0
WMAIN-4561(1)	J-7413	056-042	8	152.5	0.3	0.61	0.8	1.2	0.59	1.2
WMAIN-4561(2)	056-042	J-7447	8	152.5	0.3	0.62	0.8	1.2	0.61	1.2
WMAIN-4563(1)	J-7218	056-031	8	152.5	0	0	0	0	0	0
WMAIN-4563(2)	056-031	J-8553	8	152.5	0	0	0	0	0	0
WMAIN-4566(1)	J-7665	056-030	8	152.5	0.11	0.51	0.5	1.1	0.54	1.1
WMAIN-4566(2)	056-030	J-7666	8	152.5	0.1	0.49	0.5	1.1	0.53	1.1
WMAIN-4569	J-6662	J-7217	8	152.5	0.06	0.23	0.3	0.7	0.22	0.7
WMAIN-4572(1)	J-7918	056-026	8	152.5	0	0.08	0	0.4	0.08	0.4
WMAIN-4572(2)(1)	056-026	056-027	8	152.5	0	0.11	0	0.5	0.1	0.5
WMAIN-4572(2)(2)	056-027	J-7936	8	152.5	0	0.11	0	0.5	0.1	0.5
WMAIN-4574	J-7953	J-7917	8	152.5	0.09	0.25	0.4	0.7	0.29	0.8
WMAIN-4576	J-7412	J-7413	8	152.5	0	0.15	0	0.6	0.19	0.6
WMAIN-4577	J-7932	J-7918	8	152.5	0.15	0.85	0.6	1.4	0.9	1.5
WMAIN-4581(1)	J-7509	056-024	8	152.5	0.04	0.09	0.3	0.4	0.08	0.4
WMAIN-4581(2)(1)	056-024	056-025	8	152.5	0.04	0.1	0.3	0.5	0.1	0.4
WMAIN-4581(2)(2)	056-025	J-7932	8	152.5	0.04	0.1	0.3	0.5	0.1	0.4
WMAIN-4583(1)	J-7047	056-023	8	152.5	0.09	0.43	0.4	1	0.44	1
WMAIN-4583(2)	056-023	J-7509	8	152.5	0.09	0.43	0.4	1	0.44	1
WMAIN-4584	J-6220	J-7047	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-4587	J-7918	J-8300	8	152.5	0	0.12	0	0.5	0.02	0.2
WMAIN-4589	J-7932	J-7412	8	152.5	0.03	0.4	0.2	1	0.44	1
WMAIN-4592(1)	J-6220	056-019	8	152.5	0.03	0.04	0.2	0.3	0.03	0.2
WMAIN-4592(2)(1)(1)	056-019	056-020	8	152.5	0.03	0.05	0.2	0.3	0.05	0.3
WMAIN-4592(2)(1)(2)	056-020	056-021	8	152.5	0.04	0.07	0.3	0.4	0.06	0.3
WMAIN-4592(2)(2)	056-021	J-7412	8	152.5	0.04	0.07	0.3	0.4	0.06	0.3
WMAIN-4593	J-6219	J-6220	8	152.5	0	0	0	0	0	0
WMAIN-4596(1)	J-7046	J-9269	8	152.5	0.19	0.62	0.6	1.2	0.6	1.2
WMAIN-4596(2)	J-9269	J-7047	8	152.5	0.19	0.62	0.6	1.2	0.61	1.2
WMAIN-4598	J-7509	J-7421	8	152.5	0.02	0.18	0.2	0.6	0.19	0.6
WMAIN-4599	J-8400	J-7948	8	152.5	0	0.05	0.1	0.3	0.06	0.3
WMAIN-4603(1)	J-8256	056-037	8	152.5	0.01	0.07	0.1	0.4	0.08	0.4
WMAIN-4603(2)	056-037	J-8400	8	152.5	0	0.06	0.1	0.3	0.07	0.4
WMAIN-4605(1)	J-8300	056-035	8	152.5	0	0.09	0	0.4	0.15	0.6
WMAIN-4605(2)	056-035	J-7949	8	152.5	0	0.1	0	0.4	0.17	0.6
WMAIN-4607(1)	J-7949	056-040	8	152.5	0	0.1	0.1	0.4	0.12	0.5
WMAIN-4607(2)	056-040	J-8060	8	152.5	0	0.1	0.1	0.5	0.12	0.5
WMAIN-4609(1)	056-033	056-034	8	152.5	0.01	0.12	0.1	0.5	0.12	0.5
WMAIN-4609(2)	056-034	J-8300	8	152.5	0	0.11	0.1	0.5	0.11	0.5
WMAIN-4613(1)	J-8300	056-051	8	152.5	0.04	0.29	0.3	0.8	0.31	0.8
WMAIN-4613(2)	056-051	J-6029	8	152.5	0.03	0.28	0.2	0.8	0.29	0.8
WMAIN-4614	J-7877	J-7948	12	152.5	0.01	0.14	0.2	0.7	0.16	0.7
WMAIN-4616(1)	J-7948	056-036	12	152.5	0.01	0.19	0.2	0.8	0.22	0.9
WMAIN-4616(2)	056-036	J-7949	12	152.5	0.01	0.19	0.2	0.8	0.21	0.9
WMAIN-4620(1)	J-7949	056-046	12	152.5	0.04	0.18	0.4	0.8	0.19	0.8
WMAIN-4620(2)	056-046	J-6725	12	152.5	0.04	0.18	0.3	0.8	0.18	0.8
WMAIN-4622(1)	J-7877	056-038	8	152.5	0.01	0.09	0.1	0.4	0.1	0.4
WMAIN-4622(2)	056-038	J-8256	8	152.5	0.01	0.08	0.1	0.4	0.09	0.4
WMAIN-4624(1)	J-7434	027-045	8	152.5	0	1.11	0	1.6	0.19	0.6
WMAIN-4624(2)	027-045	J-8025	8	152.5	0	1.1	0	1.6	0.18	0.6
WMAIN-4626	J-8025	J-7479	8	152.5	0	1.07	0	1.6	0.16	0.6
WMAIN-4629	J-7434	J-7670	8	152.5	0	1.3	0	1.8	0.24	0.7
WMAIN-4632(1)	J-7377	027-044	8	152.5	0.01	7.36	0.1	4.6	1.3	1.8
WMAIN-4632(2)	027-044	J-7434	8	152.5	0.01	7.37	0.1	4.6	1.31	1.8
WMAIN-4633(1)	J-7479	027-046	8	152.5	0	9.51	0	5.3	1.48	1.9
WMAIN-4633(2)	027-046	J-7480	8	152.5	0	9.49	0	5.3	1.47	1.9
WMAIN-4635	J-7670	J-7479	8	152.5	0	4.89	0	3.7	0.83	1.4
WMAIN-4637(1)	J-7012	027-047	8	152.5	0	10.34	0	5.5	1.88	2.2
WMAIN-4637(2)	027-047	J-7670	8	152.5	0	10.31	0.1	5.5	1.85	2.2
WMAIN-4640	J-7519	J-7377	8	152.5	0	2.83	0	2.7	0.38	0.9
WMAIN-4642	J-7377	J-7378	8	152.5	0.01	1.33	0.1	1.8	0.31	0.8
WMAIN-4644(1)	J-6998	019-014	8	152.5	0.01	0.52	0.1	1.1	0.56	1.1
WMAIN-4644(2)	019-014	J-6999	8	152.5	0.01	0.52	0.1	1.1	0.55	1.1
WMAIN-4646	J-6999	J-7438	8	152.5	0	0.07	0.1	0.4	0.08	0.4
WMAIN-4649(1)	J-7353	019-021	8	152.5	0	0	0	0	0	0
WMAIN-4649(2)	019-021	J-7648	8	152.5	0	0	0	0	0	0
WMAIN-4650(1)	J-7352	019-022	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4650(2)	019-022	J-7353	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4652(1)	J-7352	019-015	8	152.5	0	0.03	0	0.3	0.04	0.3
WMAIN-4652(2)	019-015	J-6999	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-4655	J-8037	J-8043	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4657	J-7647	J-7432	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4658(1)	J-5558	019-019	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-4658(2)	019-019	J-7647	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-4660	J-5557	J-5408	8	152.5	0.01	0.11	0.2	0.5	0.1	0.5
WMAIN-4662	J-5557	J-5558	8	152.5	0.01	0.04	0.1	0.3	0.03	0.2
WMAIN-4663(1)	J-7353	019-020	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-4663(2)	019-020	J-5557	8	152.5	0	0.03	0.1	0.2	0.02	0.2
WMAIN-4664(1)	J-8037	019-018	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4664(2)	019-018	J-7647	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4668(1)	J-7648	019-016	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4668(2)(1)	019-016	019-017	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4668(2)(2)	019-017	J-8037	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4670(1)	J-7438	019-031	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4670(2)	019-031	J-7882	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-4672	J-7648	J-7438	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-4674(1)	J-7936	055-054	8	152.5	0	0.34	0	0.9	0.25	0.7
WMAIN-4674(2)(1)(1)	055-054	055-050	8	152.5	0	0.38	0	0.9	0.29	0.8
WMAIN-4674(2)(1)(2)	055-050	055-049	8	152.5	0	0.38	0	0.9	0.29	0.8
WMAIN-4674(2)(2)	055-049	J-7823	8	152.5	0	0.38	0	0.9	0.29	0.8
WMAIN-4677	J-7954	J-7936	12	152.5	0	0.12	0	0.7	0.19	0.8
WMAIN-4678	J-7823	J-6512	8	152.5	0.01	0.37	0.1	0.9	0.31	0.8
WMAIN-4681(1)	J-7823	055-051	8	152.5	0.02	0.23	0.2	0.7	0.26	0.8

Label	Start Node	Stop Node	Diameter (in)	C Factor	2045 MDD				2045 PHD	
					Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4681(2)	055-051	J-7760	8	152.5	0.01	0.21	0.1	0.7	0.24	0.7
WMAIN-4683	J-5542	J-7320	8	152.5	0.01	0.05	0.1	0.3	0.04	0.3
WMAIN-4684	J-7985	J-7472	6	152.5	0	0	0	0	0	0
WMAIN-4687	J-7320	J-8335	6	152.5	0	0	0	0	0	0
WMAIN-4690(1)	J-7320	021-042	8	152.5	0.01	0.07	0.2	0.4	0.06	0.3
WMAIN-4690(2)(1)	021-042	021-045	8	152.5	0.02	0.08	0.2	0.4	0.07	0.4
WMAIN-4690(2)(2)	021-045	J-7569	8	152.5	0.02	0.08	0.2	0.4	0.07	0.4
WMAIN-4693(1)	J-5911	032-034	12	152.5	0	0.04	0	0.4	0.02	0.2
WMAIN-4693(2)	032-034	J-6545	12	152.5	0	0.04	0	0.4	0.02	0.2
WMAIN-4695	J-6556	J-6441	12	152.5	0	0.27	0.1	1	0.08	0.5
WMAIN-4697	J-6578	J-6556	12	152.5	0	0.32	0	1.1	0.08	0.5
WMAIN-4699	J-6577	J-6578	12	152.5	0	0.24	0	0.9	0.06	0.4
WMAIN-4701	J-6574	J-6577	12	152.5	0	0.26	0	1	0.05	0.4
WMAIN-4703	J-6573	J-6574	12	152.5	0	0.17	0	0.8	0.02	0.3
WMAIN-4704	J-7820	J-6573	12	152.5	0	0.21	0	0.9	0.03	0.3
WMAIN-4706	J-7844	J-7820	12	152.5	0	0.21	0	0.9	0.02	0.3
WMAIN-4707(1)	J-6556	032-033	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4707(2)	032-033	J-6472	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4708	J-6472	J-6473	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4709(1)	J-6473	032-024	8	152.5	0	0.1	0	0.5	0.04	0.3
WMAIN-4709(2)	032-024	J-6441	8	152.5	0	0.1	0	0.5	0.04	0.3
WMAIN-4710(1)	J-6577	032-031	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4710(2)	032-031	J-6579	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4711	J-6579	J-6580	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-4712(1)	J-6580	032-032	8	152.5	0	0.06	0	0.3	0.01	0.2
WMAIN-4712(2)	032-032	J-6578	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-4713(1)	J-6573	032-029	8	152.5	0	0.03	0	0.2	0	0
WMAIN-4713(2)	032-029	J-6571	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-4714	J-6571	J-6572	8	152.5	0	0.04	0	0.3	0	0.1
WMAIN-4715(1)	J-6572	032-030	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-4715(2)	032-030	J-6574	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-4718(1)	J-8418	012-061	6	152.5	0	0.02	0.1	0.1	0.01	0.1
WMAIN-4718(2)	012-061	J-8612	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4721	J-8218	J-6504	6	152.5	0	0.04	0	0.2	0.01	0.1
WMAIN-4723	J-5768	J-5769	6	152.5	0	0	0	0	0	0
WMAIN-4724(1)	J-8218	012-060	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4724(2)	012-060	J-5768	6	152.5	0	0	0	0	0	0
WMAIN-4725	J-8418	J-8218	6	152.5	0.01	0.09	0.1	0.3	0.04	0.2
WMAIN-4728(1)	J-5921	023-050	8	152.5	0	0.12	0	0.5	0.06	0.3
WMAIN-4728(2)(1)	023-050	023-051	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-4728(2)(2)	023-051	J-8601	8	152.5	0	0.12	0	0.5	0.07	0.4
WMAIN-4729(1)	J-8571	023-052	8	152.5	0	0	0	0	0	0
WMAIN-4729(2)	023-052	J-6692	8	152.5	0	0	0	0	0	0
WMAIN-4732	J-6137	J-8601	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-4733(1)	J-8317	023-047	8	152.5	0	0	0	0	0	0
WMAIN-4733(2)	023-047	J-6691	8	152.5	0	0	0	0	0	0
WMAIN-4735(1)	J-7520	023-048	8	152.5	0	0	0	0	0	0
WMAIN-4735(2)	023-048	J-7445	8	152.5	0	0	0	0	0	0
WMAIN-4738(1)	J-6136	023-049	8	152.5	0	0	0	0	0	0
WMAIN-4738(2)	023-049	J-7501	8	152.5	0	0	0	0	0	0
WMAIN-4739(1)	J-8601	024-017	8	152.5	0.01	0.17	0.1	0.6	0.04	0.3
WMAIN-4739(2)	024-017	024-008	8	152.5	0.01	0.18	0.1	0.6	0.04	0.3
WMAIN-4741	J-5921	J-5922	8	152.5	0	0	0	0	0	0
WMAIN-4743	J-6692	J-5921	8	152.5	0	0.09	0	0.4	0.03	0.2
WMAIN-4745	J-6691	J-6692	8	152.5	0	0.07	0	0.4	0.02	0.2
WMAIN-4746	J-6691	J-7445	10	152.5	0.02	0.15	0.2	0.6	0.07	0.4
WMAIN-4748	J-7445	J-6136	10	152.5	0.02	0.16	0.2	0.7	0.08	0.5
WMAIN-4750	J-6136	J-6137	10	152.5	0.03	0.16	0.3	0.7	0.09	0.5
WMAIN-4754(1)(1)	J-6116	023-045	10	152.5	0	0.23	0.1	0.8	0.08	0.5
WMAIN-4754(1)(2)	023-045	023-046	10	152.5	0	0.25	0.1	0.8	0.09	0.5
WMAIN-4754(2)	023-046	J-6691	10	152.5	0.01	0.25	0.1	0.9	0.1	0.5
WMAIN-4756	J-7892	J-7893	8	152.5	0	0	0	0	0	0
WMAIN-4757(1)	J-6748	170-072	8	152.5	0.04	0.16	0.3	0.6	0.17	0.6
WMAIN-4757(2)	170-072	J-7892	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-4759	J-6747	J-6748	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-4762	J-6748	J-6544	8	152.5	0.03	0.15	0.2	0.6	0.08	0.4
WMAIN-4765	J-6544	J-8294	6	152.5	0	0	0	0	0	0
WMAIN-4766(1)	J-6479	170-071	8	152.5	0.04	0.16	0.3	0.6	0.1	0.4
WMAIN-4766(2)	170-071	J-6544	8	152.5	0.03	0.16	0.3	0.6	0.1	0.4
WMAIN-4769(1)	J-8742	170-070	8	152.5	0.33	0.69	0.9	1.3	0.79	1.4
WMAIN-4769(2)	170-070	J-6748	8	152.5	0.33	0.7	0.9	1.3	0.8	1.4
WMAIN-4771(1)	J-8253	170-073	8	152.5	0.06	0.2	0.3	0.7	0.21	0.7
WMAIN-4771(2)	170-073	J-7892	8	152.5	0.05	0.2	0.3	0.6	0.2	0.7
WMAIN-4773	J-7892	J-8213	8	152.5	0	0	0	0	0	0
WMAIN-4775	J-8253	J-8268	8	152.5	0	0	0	0	0	0
WMAIN-4778	J-6875	J-8253	8	152.5	0	0.02	0	0.2	0	0
WMAIN-4780	J-6747	J-8149	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4782(1)	J-7459	170-077	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-4782(2)	170-077	J-6747	8	152.5	0.01	0.05	0.1	0.3	0.06	0.3
WMAIN-4785	J-7157	J-7459	8	152.5	0.03	0.14	0.2	0.5	0.15	0.6
WMAIN-4786(1)	J-7156	170-076	8	152.5	0	0	0	0	0	0
WMAIN-4786(2)	170-076	J-7157	8	152.5	0	0	0	0	0	0
WMAIN-4789	J-6875	J-7157	8	152.5	0.04	0.16	0.3	0.6	0.17	0.6
WMAIN-4790(1)	J-6875	170-075	8	152.5	0.01	0.19	0.1	0.6	0.17	0.6
WMAIN-4790(2)	170-075	J-6832	8	152.5	0.01	0.19	0.1	0.6	0.17	0.6
WMAIN-4793	J-6875	J-6876	8	152.5	0	0	0	0	0	0
WMAIN-4796	J-7770	J-7771	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-4798	J-7902	J-5521	8	152.5	0.01	0.12	0.1	0.5	0.14	0.5
WMAIN-4800(1)	J-7506	038-057	12	152.5	0	0.35	0	1.1	0.05	0.4
WMAIN-4800(2)	038-057	J-7960	12	152.5	0	0.35	0	1.1	0.05	0.4
WMAIN-4802	J-7506	J-7070	8	140	0	0.46	0	0.9	0.01	0.1
WMAIN-4804(1)	J-7506	038-058	12	152.5	0.01	0.29	0.2	1	0.08	0.5
WMAIN-4804(2)	038-058	J-5511	12	152.5	0.01	0.29	0.2	1	0.07	0.5
WMAIN-4807(1)	J-6761	011-037	8	152.5	0.02	0.1	0.2	0.5	0.06	0.3
WMAIN-4807(2)	011-037	J-7577	8	152.5	0.02	0.1	0.2	0.5	0.05	0.3
WMAIN-4809	J-8285	J-8489	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4811(1)	J-7577	011-038	8	152.5	0.01	0.08	0.1	0.4	0.04	0.3
WMAIN-4811(2)	011-038	J-8285	8	152.5	0.01	0.08	0.1	0.4	0.04	0.3
WMAIN-4813(1)	J-8527	011-011	6	152.5	0.05	0.16	0.3	0.5	0.14	0.5
WMAIN-4813(2)	011-011	J-6760	6	152.5	0.04	0.14	0.2	0.4	0.13	0.4
WMAIN-4814(1)	J-6761	011-036	8	152.5	0	0.04	0.1	0.3	0.01	0.1
WMAIN-4814(2)(1)	011-036	011-035	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-4814(2)(2)	011-035	J-8454	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-4816(1)	J-7576	011-034	8	152.5	0.02	0.08	0.2	0.4	0.05	0.3
WMAIN-4816(2)	011-034	J-8454	8	152.5	0.02	0.09	0.2	0.4	0.06	0.3
WMAIN-4818	J-7577	J-7578	6	152.5	0	0	0	0	0	0
WMAIN-4820(1)	J-7490	010-041	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4820(2)	010-041	J-8327	8	152.5	0	0	0	0	0	0
WMAIN-4822	J-7489	J-7490	6	140	0	0.16	0	0.4	0	0
WMAIN-4825(1)	J-7990	012-039	8	152.5	0	0	0	0	0	0
WMAIN-4825(2)	012-039	J-8559	8	152.5	0	0	0	0	0	0
WMAIN-4826	J-7789	J-7790	8	152.5	0.03	0.13	0.2	0.5	0.09	0.4

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4827(1)	J-7842	012-016	8	152.5	0.07	0.29	0.4	0.8	0.21	0.7
WMAIN-4827(2)	012-016	J-7473	8	152.5	0.07	0.3	0.4	0.8	0.22	0.7
WMAIN-4829(1)	J-7788	012-012	8	152.5	0	0	0	0	0	0
WMAIN-4829(2)	012-012	J-8084	8	152.5	0	0	0	0	0	0
WMAIN-4832(1)(1)	J-7790	012-036	8	152.5	0.01	0.05	0.1	0.3	0.03	0.3
WMAIN-4832(1)(2)	012-036	012-035	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-4832(2)(1)	012-035	012-034	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-4832(2)(2)	012-034	J-7392	8	152.5	0.01	0.04	0.1	0.3	0.02	0.2
WMAIN-4835(1)	J-7790	012-038	6	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-4835(2)	012-038	J-7843	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4836	J-6531	J-6667	8	152.5	0.19	0.83	0.6	1.4	0.55	1.1
WMAIN-4838(1)(1)(1)(1)	J-6667	012-028	8	152.5	0.22	0.96	0.7	1.5	0.66	1.2
WMAIN-4838(1)(1)(1)(2)	012-028	012-029	8	152.5	0.26	1.07	0.7	1.6	0.76	1.3
WMAIN-4838(1)(1)(2)(1)	012-029	012-056	8	152.5	0.26	1.07	0.7	1.6	0.76	1.3
WMAIN-4838(1)(1)(2)(2)(1)	012-056	012-030	8	152.5	0.26	1.07	0.7	1.6	0.76	1.3
WMAIN-4838(1)(1)(2)(2)(2)	012-030	012-031	8	152.5	0.26	1.08	0.7	1.6	0.76	1.3
WMAIN-4838(1)(2)	012-031	012-057	8	152.5	0.26	1.09	0.8	1.6	0.77	1.4
WMAIN-4838(2)	012-057	J-5243	8	152.5	0.26	1.09	0.8	1.6	0.77	1.4
WMAIN-4841	J-7210	J-7211	8	152.5	0.02	0.11	0.2	0.5	0.05	0.3
WMAIN-4843(1)	J-7211	012-027	8	152.5	0.03	0.14	0.2	0.5	0.08	0.4
WMAIN-4843(2)	012-027	J-6279	8	152.5	0.04	0.18	0.3	0.6	0.11	0.5
WMAIN-4845	J-6279	J-6280	8	152.5	0.05	0.22	0.3	0.7	0.14	0.5
WMAIN-4847	J-6280	J-6531	8	152.5	0.09	0.35	0.4	0.9	0.25	0.7
WMAIN-4849	J-7392	J-6531	8	152.5	0.02	0.13	0.2	0.5	0.07	0.4
WMAIN-4851	J-7457	J-7392	8	152.5	0.06	0.27	0.3	0.8	0.16	0.6
WMAIN-4855(1)	J-7458	012-033	6	152.5	0.05	0.24	0.3	0.6	0.15	0.5
WMAIN-4855(2)(1)	012-033	012-062	6	152.5	0.04	0.2	0.2	0.5	0.11	0.4
WMAIN-4855(2)(2)	012-062	J-8418	6	152.5	0.04	0.2	0.2	0.5	0.11	0.4
WMAIN-4859(1)(1)	J-8612	012-024	8	152.5	0.03	0.17	0.2	0.6	0.09	0.4
WMAIN-4859(1)(2)	012-024	012-025	8	152.5	0.04	0.19	0.3	0.6	0.11	0.5
WMAIN-4859(2)	012-025	J-7210	8	152.5	0.04	0.19	0.3	0.6	0.11	0.5
WMAIN-4862	J-7457	J-7458	8	152.5	0.04	0.15	0.3	0.6	0.11	0.5
WMAIN-4863(1)	J-7458	012-026	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-4863(2)	012-026	J-7210	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-4866(1)	J-7265	012-011	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4866(2)	012-011	J-7457	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-4869(1)	J-6853	010-042	8	152.5	0	0	0	0	0	0
WMAIN-4869(2)	010-042	J-6854	8	152.5	0	0	0	0	0	0
WMAIN-4871(1)	J-7379	011-025	8	152.5	0.03	0.18	0.2	0.6	0.1	0.4
WMAIN-4871(2)	011-025	J-8728	8	152.5	0.04	0.2	0.3	0.6	0.11	0.5
WMAIN-4873(1)	J-8728	012-023	8	152.5	0.03	0.16	0.2	0.6	0.08	0.4
WMAIN-4873(2)	012-023	J-8612	8	152.5	0.03	0.17	0.2	0.6	0.09	0.4
WMAIN-4876(1)	J-6505	011-026	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4876(2)	011-026	J-8728	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4878	J-7575	J-7576	8	152.5	0.01	0.07	0.1	0.4	0.04	0.3
WMAIN-4879(1)	J-8431	011-032	8	152.5	0	0	0	0	0	0
WMAIN-4879(2)	011-032	J-7411	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4883(1)	J-7379	011-030	8	152.5	0	0.02	0.1	0.2	0.01	0.2
WMAIN-4883(2)	011-030	J-7380	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-4885A(1)	J-7575	011-031	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4885A(2)	011-031	J-7380	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-4885B	J-7411	J-7575	8	152.5	0.01	0.09	0.1	0.4	0.05	0.3
WMAIN-4888(1)	J-7380	011-029	8	152.5	0	0	0	0	0	0
WMAIN-4888(2)	011-029	J-8667	8	152.5	0	0	0	0	0	0
WMAIN-4890(1)	J-7803	010-045	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-4890(2)	010-045	J-7804	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-4891(1)	J-7804	010-044	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4891(2)	010-044	J-8505	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-4894(1)	J-6539	025-007	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-4894(2)	025-007	J-7309	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-4897	J-5224	J-5157	8	152.5	0.01	0.04	0.1	0.3	0.03	0.3
WMAIN-4898(1)	J-8758	026-022	8	152.5	0.02	0.23	0.2	0.7	0.23	0.7
WMAIN-4898(2)	026-022	J-5224	8	152.5	0	0.1	0	0.5	0.1	0.5
WMAIN-4901	J-7123	025-006	8	152.5	0	0.06	0.1	0.3	0.05	0.3
WMAIN-4903(1)	J-8657	025-004	12	152.5	0.03	0.1	0.3	0.6	0.1	0.6
WMAIN-4903(2)(1)	025-004	025-005	12	152.5	0.03	0.09	0.3	0.5	0.09	0.5
WMAIN-4903(2)(2)	025-005	J-7123	12	152.5	0.03	0.09	0.3	0.5	0.08	0.5
WMAIN-4905(1)(1)	J-5157	025-008	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4905(1)(2)	025-008	025-009	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4905(2)	025-009	J-7309	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4906(1)	J-6538	025-001	10	152.5	0	0.01	0	0.1	0	0
WMAIN-4906(2)	025-001	J-6539	10	152.5	0	0.01	0	0.1	0	0
WMAIN-4907	J-5223	J-5224	10	152.5	0	0	0	0	0	0
WMAIN-4909(1)	J-6117	023-053	12	140	0.08	0.2	0.5	0.8	0.19	0.8
WMAIN-4909(2)	023-053	J-8657	12	140	0.08	0.2	0.5	0.8	0.19	0.8
WMAIN-4910	J-5335	J-5395	8	140	0.13	0.57	0.5	1.1	0.2	0.6
WMAIN-4911	J-5395	J-6812	8	140	0.13	0.57	0.5	1.1	0.19	0.6
WMAIN-4914	J-8095	J-8096	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-4917(1)	J-8060	056-039	8	152.5	0.01	0.13	0.1	0.5	0.16	0.6
WMAIN-4917(2)(1)	056-039	056-004	8	152.5	0.01	0.16	0.1	0.6	0.19	0.6
WMAIN-4917(2)(2)	056-004	J-6499	8	152.5	0.01	0.17	0.1	0.6	0.19	0.6
WMAIN-4919(1)	J-7937	056-001	8	152.5	0.01	0.15	0.1	0.6	0.16	0.6
WMAIN-4919(2)	056-001	056-033	8	152.5	0.01	0.13	0.1	0.5	0.14	0.5
WMAIN-4921(1)	J-7796	055-024	8	152.5	0.01	0.28	0.1	0.8	0.27	0.8
WMAIN-4921(2)	055-024	J-7823	8	152.5	0.01	0.27	0.1	0.8	0.27	0.8
WMAIN-4923	J-6511	J-6512	8	152.5	0	0.2	0	0.7	0.23	0.7
WMAIN-4925	J-7453	J-6511	8	152.5	0	0.21	0.1	0.7	0.25	0.7
WMAIN-4927	J-7876	J-6499	12	152.5	0	0.02	0	0.3	0.02	0.3
WMAIN-4928	J-6500	J-7312	12	152.5	0	0.08	0	0.5	0.1	0.6
WMAIN-4930(1)	J-7937	056-002	12	152.5	0	0.19	0	0.8	0.28	1
WMAIN-4930(2)	056-002	J-7876	12	152.5	0	0.19	0	0.8	0.28	1
WMAIN-4934	J-7936	J-7937	12	152.5	0	0.1	0	0.6	0.15	0.7
WMAIN-4936(1)	J-7876	056-003	12	152.5	0.02	0.23	0.2	0.9	0.26	1
WMAIN-4936(2)	056-003	J-7877	12	152.5	0.02	0.23	0.2	0.9	0.26	1
WMAIN-4938(1)	J-8095	055-026	12	152.5	0.01	0.66	0.2	1.6	0.79	1.8
WMAIN-4938(2)(1)	055-026	055-027	12	152.5	0.01	0.62	0.2	1.6	0.75	1.7
WMAIN-4938(2)(2)	055-027	J-7876	12	152.5	0.01	0.62	0.2	1.6	0.75	1.7
WMAIN-4939	J-8101	J-8095	12	152.5	0.02	0.62	0.3	1.6	0.71	1.7
WMAIN-4941	J-7453	J-7796	8	152.5	0.01	0.28	0.1	0.8	0.28	0.8
WMAIN-4942(1)	J-8096	042-038	8	152.5	0	0.13	0	0.5	0.12	0.5
WMAIN-4942(2)	042-038	J-8051	8	152.5	0	0.14	0	0.5	0.14	0.5
WMAIN-4945(1)(1)	J-8096	055-028	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4945(1)(2)	055-028	055-029	8	152.5	0	0	0	0	0	0
WMAIN-4945(2)	055-029	J-8808	8	152.5	0	0	0	0	0	0
WMAIN-4947(1)	J-8101	055-025	4	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-4947(2)	055-025	J-8228	4	152.5	0	0	0	0	0	0
WMAIN-4948	J-6909	J-7586	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-4950	J-6094	J-6095	6	152.5	0	0	0	0	0	0
WMAIN-4953(1)	J-6939	039-044	6	152.5	0	0	0	0	0	0
WMAIN-4953(2)	039-044	J-6940	6	152.5	0	0	0	0	0	0
WMAIN-4955	J-6935	J-6939	8	152.5	0	0.05	0	0.3	0.03	0.2
WMAIN-4958	J-6939	J-7621	8	152.5	0	0.05	0	0.3	0.04	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-4960	J-7621	J-6095	8	152.5	0	0.24	0	0.7	0.17	0.6
WMAIN-4962(1)	J-7586	039-047	8	152.5	0	0	0	0	0	0
WMAIN-4962(2)	039-047	J-8289	8	152.5	0	0	0	0	0	0
WMAIN-4964(1)	J-6935	039-043	6	152.5	0	0	0	0	0	0
WMAIN-4964(2)	039-043	J-6936	6	152.5	0	0	0	0	0	0
WMAIN-4966	J-6909	J-6935	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-4967(1)	J-6321	044-046	6	152.5	0	0	0	0	0	0
WMAIN-4967(2)(1)	044-046	044-045	6	152.5	0	0	0	0	0	0
WMAIN-4967(2)(2)	044-045	J-8151	6	152.5	0	0	0	0	0	0
WMAIN-4969(1)	J-8151	044-047	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-4969(2)	044-047	J-6321	6	152.5	0	0	0	0.1	0	0.1
WMAIN-4971(1)	J-7465	044-021	6	140	0.02	0.08	0.2	0.3	0.05	0.2
WMAIN-4971(2)	044-021	J-6855	6	140	0.02	0.07	0.1	0.3	0.04	0.2
WMAIN-4974	J-6855	J-6856	6	140	0	0	0	0.1	0	0.1
WMAIN-4976(1)	J-6855	044-044	6	140	0	0	0	0.1	0	0.1
WMAIN-4976(2)	044-044	J-8387	6	140	0	0	0	0	0	0
WMAIN-4978(1)	J-7613	044-032	6	140	0	0.01	0	0.1	0	0
WMAIN-4978(2)(1)	044-032	044-033	6	140	0	0.02	0.1	0.2	0.01	0.1
WMAIN-4978(2)(2)	044-033	J-6855	6	140	0	0.02	0.1	0.2	0.01	0.1
WMAIN-4980	J-8151	J-6321	12	140	0	0	0	0.1	0	0.1
WMAIN-4982	J-8497	J-8151	12	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-4983	J-7247	J-8009	6	140	0.09	0.38	0.3	0.7	0.07	0.3
WMAIN-4984(1)	J-8009	045-033	6	140	0.06	0.29	0.3	0.6	0.04	0.2
WMAIN-4984(2)	045-033	J-6606	6	140	0.04	0.24	0.2	0.6	0.02	0.1
WMAIN-4986	J-6605	J-6606	6	140	0.17	0.95	0.5	1.2	0.06	0.3
WMAIN-4988(1)	J-7446	034-011	8	152.5	0.11	0.86	0.5	1.4	0.11	0.5
WMAIN-4988(2)	034-011	J-7042	8	152.5	0.11	0.85	0.5	1.4	0.11	0.5
WMAIN-4991	J-8195	J-8196	8	152.5	0	0	0	0.1	0	0.1
WMAIN-4993(1)	J-7446	034-013	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-4993(2)	034-013	J-8195	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-4994(1)	J-8055	034-018	8	152.5	0.03	0.17	0.2	0.6	0.04	0.3
WMAIN-4994(2)	034-018	J-8344	8	152.5	0.03	0.16	0.2	0.6	0.04	0.3
WMAIN-4997(1)	J-7035	034-038	8	152.5	0.04	0.19	0.3	0.6	0.04	0.3
WMAIN-4997(2)	034-038	J-8055	8	152.5	0.03	0.19	0.3	0.6	0.04	0.3
WMAIN-4998	J-7182	J-7183	6	152.5	0	0	0	0	0	0
WMAIN-5000	J-7183	J-8222	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5004(1)	J-7854	034-041	8	152.5	0.09	0.4	0.4	1	0.1	0.5
WMAIN-5004(2)	034-041	J-7414	8	152.5	0.08	0.39	0.4	0.9	0.09	0.4
WMAIN-5005(1)	J-7414	034-020	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5005(2)	034-020	J-7183	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5008	J-7414	J-8190	8	152.5	0.07	0.43	0.4	1	0.1	0.4
WMAIN-5011(1)	J-8190	034-015	8	152.5	0	0	0	0	0	0
WMAIN-5011(2)	034-015	J-8433	8	152.5	0	0	0	0	0	0
WMAIN-5013(1)	J-8055	034-019	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5013(2)	034-019	J-7414	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5015(1)	J-7978	022-047	8	152.5	0	0	0	0	0	0
WMAIN-5015(2)	022-047	J-6358	8	152.5	0	0	0	0	0	0
WMAIN-5018	J-6565	J-6804	6	152.5	0	0	0	0	0	0
WMAIN-5020	J-7490	J-6565	12	152.5	0	0.17	0.1	0.8	0.07	0.5
WMAIN-5023	J-6924	J-6615	8	152.5	0	0.02	0	0.2	0	0
WMAIN-5025	J-6924	J-6925	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5028(1)	J-8285	011-022	8	152.5	0	0.06	0.1	0.3	0.02	0.2
WMAIN-5028(2)	011-022	J-8286	8	152.5	0	0.05	0.1	0.3	0.02	0.2
WMAIN-5029(1)	J-8286	011-021	8	152.5	0.02	0.1	0.2	0.4	0.06	0.3
WMAIN-5029(2)	011-021	J-6985	8	152.5	0.01	0.09	0.2	0.4	0.05	0.3
WMAIN-5033(1)	J-8286	011-004	6	140	0.02	0.07	0.1	0.3	0.08	0.3
WMAIN-5033(2)	011-004	J-7154	6	140	0.03	0.09	0.2	0.3	0.11	0.4
WMAIN-5034(1)	J-6924	011-016	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5034(2)(1)	011-016	011-015	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5034(2)(2)	011-015	J-6984	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5037(1)	J-6985	011-020	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5037(2)	011-020	J-7410	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5039	J-6984	J-6985	8	152.5	0.01	0.19	0.1	0.6	0.08	0.4
WMAIN-5042(1)	J-6615	011-017	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5042(2)(1)	011-017	011-018	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5042(2)(2)(1)	011-018	J-9220	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5042(2)(2)(2)	J-9220	J-7828	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5044	J-6615	J-6616	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5046	J-7410	J-7411	8	152.5	0	0.07	0.1	0.4	0.03	0.2
WMAIN-5048(1)(1)(1)	J-7828	011-019	8	152.5	0	0.06	0.1	0.3	0.02	0.2
WMAIN-5048(1)(1)(2)	011-019	011-023	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5048(1)(2)	011-023	011-024	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5048(2)	011-024	J-7379	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5050	J-7410	J-7828	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5051(1)	J-7343	010-030	8	152.5	0.04	0.07	0.3	0.4	0.06	0.4
WMAIN-5051(2)	010-030	J-7799	8	152.5	0.04	0.07	0.3	0.4	0.07	0.4
WMAIN-5052(1)	J-7799	010-029	8	152.5	0.03	0.1	0.2	0.4	0.09	0.4
WMAIN-5052(2)	010-029	J-7785	8	152.5	0.02	0.12	0.2	0.5	0.12	0.5
WMAIN-5055(1)	J-7718	010-027	8	152.5	0	0	0	0	0	0
WMAIN-5055(2)	010-027	J-5574	8	152.5	0	0	0	0	0	0
WMAIN-5056	J-5574	J-5575	8	152.5	0	0	0	0	0	0
WMAIN-5057	J-5622	J-5623	8	152.5	0	0	0	0	0	0
WMAIN-5058(1)	J-5623	010-023	8	152.5	0	0	0	0	0	0
WMAIN-5058(2)	010-023	J-6768	8	152.5	0	0	0	0	0	0
WMAIN-5061(1)	J-7426	010-028	10	152.5	0	0.12	0	0.6	0.1	0.5
WMAIN-5061(2)	010-028	J-7718	10	152.5	0	0.11	0.1	0.5	0.1	0.5
WMAIN-5063	J-7718	J-7973	10	152.5	0	0.1	0	0.5	0.09	0.5
WMAIN-5064	J-7204	J-7785	12	152.5	0.05	0.46	0.4	1.3	0.31	1.1
WMAIN-5066(1)	J-7785	024-001	12	152.5	0.03	0.35	0.3	1.1	0.2	0.8
WMAIN-5066(2)	024-001	J-7426	12	152.5	0.03	0.35	0.3	1.1	0.2	0.8
WMAIN-5069	J-7426	J-6768	12	152.5	0	0.12	0	0.6	0	0.1
WMAIN-5071(1)	J-6768	010-001	12	152.5	0	0.11	0	0.6	0	0.1
WMAIN-5071(2)	010-001	J-8099	12	152.5	0	0.11	0	0.6	0	0.1
WMAIN-5074(1)	J-8525	010-033	8	152.5	0	0	0	0	0	0
WMAIN-5074(2)	010-033	J-5670	8	152.5	0	0	0	0	0	0
WMAIN-5075	J-5670	J-5671	8	152.5	0	0	0	0	0	0
WMAIN-5077	J-7973	J-7343	10	152.5	0	0.04	0	0.3	0.03	0.3
WMAIN-5080	J-7343	J-7344	10	152.5	0	0.09	0	0.5	0.08	0.5
WMAIN-5082(1)	J-7343	010-034	8	152.5	0	0	0	0	0	0
WMAIN-5082(2)	010-034	J-5749	8	152.5	0	0	0	0	0	0
WMAIN-5083	J-5749	J-5750	8	152.5	0	0	0	0	0	0
WMAIN-5085(1)(1)	J-7973	010-031	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-5085(1)(2)	010-031	010-032	8	152.5	0	0.04	0.1	0.3	0.03	0.3
WMAIN-5085(2)	010-032	J-8525	8	152.5	0	0.04	0.1	0.3	0.03	0.3
WMAIN-5087(1)	J-7386	010-040	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5087(2)	010-040	J-8525	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5090	J-7386	J-7001	8	152.5	0	0.03	0	0.3	0	0.1
WMAIN-5091(1)	J-8505	010-043	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-5091(2)	010-043	J-8006	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-5094(1)	J-5480	010-017	8	152.5	0	0.15	0.1	0.6	0.01	0.1
WMAIN-5094(2)	010-017	J-7386	8	152.5	0.01	0.15	0.1	0.6	0.01	0.1
WMAIN-5095	J-7344	J-6146	10	152.5	0	0.12	0	0.6	0.03	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5098(1)	J-6146	010-038	10	152.5	0	0.12	0	0.6	0.03	0.3
WMAIN-5098(2)	010-038	J-8021	10	152.5	0	0.12	0	0.6	0.03	0.3
WMAIN-5100(1)	J-7344	010-036	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-5100(2)	010-036	J-6737	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-5102(1)	J-6737	009-017	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-5102(2)	009-017	J-6919	8	152.5	0	0.06	0	0.3	0.01	0.2
WMAIN-5105(1)	J-7001	010-037	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5105(2)	010-037	J-7344	8	152.5	0	0.03	0	0.2	0	0
WMAIN-5107	J-8021	J-7803	12	152.5	0	0.06	0	0.4	0.05	0.4
WMAIN-5110(1)	J-8006	010-039	12	152.5	0	0.04	0	0.4	0.02	0.2
WMAIN-5110(2)	010-039	J-8021	12	152.5	0	0.04	0	0.4	0.02	0.2
WMAIN-5112	J-5480	J-8006	12	152.5	0	0.06	0.1	0.4	0.04	0.4
WMAIN-5114	J-6737	010-035	8	152.5	0	0	0	0	0	0
WMAIN-5116	J-6146	J-6147	6	152.5	0	0	0	0	0	0
WMAIN-5118	J-7001	J-7002	6	152.5	0	0	0	0	0	0
WMAIN-5120(1)	J-5479	010-018	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5120(2)	010-018	J-8724	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5123	J-6763	J-6881	12	152.5	0	0.17	0	0.8	0.07	0.5
WMAIN-5125(1)	J-7805	010-016	12	152.5	0	0.09	0.1	0.6	0.03	0.3
WMAIN-5125(2)	010-016	J-5479	12	152.5	0	0.09	0.1	0.6	0.03	0.3
WMAIN-5127(1)	J-7915	010-014	12	152.5	0	0.1	0.1	0.6	0.03	0.3
WMAIN-5127(2)	010-014	J-7805	12	152.5	0	0.1	0.1	0.6	0.03	0.3
WMAIN-5129	J-7914	J-7915	12	152.5	0	0.1	0.1	0.6	0.03	0.3
WMAIN-5131	J-6090	J-7914	12	152.5	0	0.1	0.1	0.6	0.04	0.3
WMAIN-5133(1)	J-6881	010-012	12	152.5	0	0.1	0.1	0.6	0.04	0.4
WMAIN-5133(2)	010-012	J-6090	12	152.5	0	0.1	0.1	0.6	0.04	0.4
WMAIN-5134	J-6853	J-6881	8	152.5	0	0.08	0	0.4	0.04	0.3
WMAIN-5136(1)	J-6319	010-022	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-5136(2)	010-022	J-6853	8	152.5	0	0.08	0	0.4	0.03	0.2
WMAIN-5139(1)	J-7805	010-015	8	152.5	0	0	0	0	0	0
WMAIN-5139(2)	010-015	J-8573	8	152.5	0	0	0	0	0	0
WMAIN-5142(1)	J-7915	010-020	8	152.5	0	0	0	0.1	0	0
WMAIN-5142(2)	010-020	J-8725	8	152.5	0	0	0	0	0	0
WMAIN-5144(1)	J-7914	010-013	8	152.5	0	0	0	0	0	0
WMAIN-5144(2)	010-013	J-8399	8	152.5	0	0	0	0	0	0
WMAIN-5146	J-6319	J-6320	8	152.5	0	0	0	0	0	0
WMAIN-5148	J-6090	J-6091	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5150(1)(1)	J-7827	038-054	8	152.5	0	0.06	0	0.3	0.01	0.1
WMAIN-5150(1)(2)	038-054	038-061	8	152.5	0	0.06	0	0.4	0.01	0.1
WMAIN-5150(2)	038-061	J-8726	8	152.5	0	0.06	0	0.4	0.01	0.1
WMAIN-5152	J-7518	J-7519	8	140	0	1.15	0	1.5	0.04	0.2
WMAIN-5153(1)(1)	J-5720	038-055	12	152.5	0	0.56	0	1.5	0.09	0.6
WMAIN-5153(1)(2)	038-055	038-050	12	152.5	0	0.56	0	1.5	0.09	0.6
WMAIN-5153(2)	038-050	J-7223	12	152.5	0	0.56	0	1.5	0.09	0.6
WMAIN-5155(1)	J-7827	038-053	12	152.5	0	0.2	0	0.8	0.03	0.3
WMAIN-5155(2)	038-053	J-7480	12	152.5	0	0.2	0	0.8	0.04	0.3
WMAIN-5157	J-7519	J-7827	12	152.5	0	0.26	0	1	0.04	0.3
WMAIN-5159(1)	J-8479	038-046	8	152.5	0	0	0	0.1	0	0
WMAIN-5159(2)	038-046	J-7906	8	152.5	0	0	0	0.1	0	0
WMAIN-5161(1)	J-7907	038-052	8	152.5	0	0	0	0	0	0
WMAIN-5161(2)	038-052	J-8187	8	152.5	0	0	0	0	0	0
WMAIN-5163(1)	J-8479	038-047	8	140	0	0.41	0	0.9	0.01	0.1
WMAIN-5163(2)	038-047	J-7518	8	140	0	0.42	0	0.9	0.01	0.1
WMAIN-5164(1)	J-7593	038-042	8	140	0	0.32	0	0.8	0	0
WMAIN-5164(2)	038-042	J-8479	8	140	0	0.33	0	0.8	0	0
WMAIN-5166(1)	J-8046	038-045	8	152.5	0	0.18	0	0.6	0	0
WMAIN-5166(2)	038-045	J-7906	8	152.5	0	0.18	0	0.6	0	0
WMAIN-5168	J-7906	J-7907	8	152.5	0	0.16	0	0.6	0	0
WMAIN-5170	J-7907	J-8363	8	152.5	0	0.17	0	0.6	0	0.1
WMAIN-5173(1)	J-7518	038-048	8	152.5	0	0.19	0	0.6	0.01	0.1
WMAIN-5173(2)(1)	038-048	038-051	8	152.5	0	0.18	0	0.6	0	0.1
WMAIN-5173(2)(2)	038-051	J-8363	8	152.5	0	0.18	0	0.6	0.01	0.1
WMAIN-5175(1)	J-8510	045-019	8	140	0.05	0.28	0.3	0.7	0.09	0.4
WMAIN-5175(2)	045-019	J-6007	8	140	0.05	0.26	0.3	0.7	0.08	0.4
WMAIN-5178	J-6316	J-6317	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5181(1)	J-6516	046-003	8	140	0.02	0.08	0.2	0.4	0.03	0.2
WMAIN-5181(2)	046-003	J-6317	8	140	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-5183	J-6317	J-8510	8	140	0.01	0.06	0.1	0.3	0.02	0.2
WMAIN-5185(1)	J-7016	045-018	6	140	0.1	0.49	0.3	0.8	0.2	0.5
WMAIN-5185(2)	045-018	J-8510	6	140	0.09	0.44	0.3	0.8	0.17	0.5
WMAIN-5188(1)	J-7016	046-001	6	140	0.09	0.43	0.3	0.8	0.19	0.5
WMAIN-5188(2)(1)	046-001	046-002	6	140	0.08	0.38	0.3	0.7	0.15	0.4
WMAIN-5188(2)(2)	046-002	J-6516	6	140	0.08	0.38	0.3	0.7	0.15	0.4
WMAIN-5189	J-6515	J-6516	4	140	0	0	0	0	0	0
WMAIN-5192	J-7607	J-7016	6	140	0.16	1.01	0.4	1.2	0.38	0.7
WMAIN-5195(1)	J-7015	045-025	8	140	0.24	1.26	0.7	1.6	0.53	1
WMAIN-5195(2)	045-025	J-7016	8	140	0.24	1.25	0.7	1.6	0.53	1
WMAIN-5197	J-6019	J-6020	16	140	0.06	0.65	0.5	1.8	0.23	1
WMAIN-5198(1)	J-8407	035-033	16	140	0.02	1.14	0.2	2.4	0.43	1.4
WMAIN-5198(2)	035-033	J-5118	16	140	0.02	1.14	0.2	2.4	0.43	1.4
WMAIN-5201(1)	J-7260	045-006	8	140	0.09	0.32	0.4	0.8	0.12	0.5
WMAIN-5201(2)	045-006	J-7450	8	140	0.08	0.32	0.4	0.8	0.11	0.4
WMAIN-5203	J-7027	J-7260	8	140	0.1	0.36	0.4	0.8	0.14	0.5
WMAIN-5204(1)	J-7027	045-005	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-5204(2)	045-005	J-7780	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-5206(1)	J-7780	045-016	6	140	0.02	0.28	0.1	0.6	0.08	0.3
WMAIN-5206(2)	045-016	J-7607	6	140	0.02	0.29	0.1	0.6	0.09	0.3
WMAIN-5208	J-7886	J-6019	16	152.5	0.03	0.43	0.3	1.5	0.14	0.8
WMAIN-5210(1)	J-7607	045-017	6	140	0.06	0.22	0.3	0.5	0.09	0.3
WMAIN-5210(2)	045-017	J-8204	6	140	0.05	0.19	0.2	0.5	0.07	0.3
WMAIN-5211	J-7259	J-7027	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5214(1)	J-7260	J-9280	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-5214(2)	J-9280	J-7261	4	140	0	0	0	0	0	0
WMAIN-5217(1)	J-6019	045-004	8	140	0.15	0.38	0.5	0.8	0.2	0.6
WMAIN-5217(2)	045-004	J-7027	8	140	0.15	0.38	0.5	0.8	0.2	0.6
WMAIN-5219	J-7187	J-7886	16	140	0.03	0.46	0.4	1.5	0.15	0.8
WMAIN-5222(1)	J-7744	027-012	16	140	0	0.1	0	0.6	0.03	0.3
WMAIN-5222(2)	027-012	J-7065	16	140	0	0.09	0.1	0.6	0.03	0.3
WMAIN-5224(1)	J-8367	026-038	12	152.5	0	0.12	0.1	0.6	0.01	0.1
WMAIN-5224(2)	026-038	J-5518	12	152.5	0	0.12	0.1	0.7	0.01	0.1
WMAIN-5226(1)	J-8536	026-001	12	152.5	0	0.17	0.1	0.8	0.03	0.3
WMAIN-5226(2)	026-001	J-8367	12	152.5	0	0.17	0.1	0.8	0.03	0.3
WMAIN-5227	026-002	J-7066	8	152.5	0	0.1	0	0.4	0	0
WMAIN-5229(1)	J-6156	026-003	8	152.5	0	0.1	0	0.4	0	0
WMAIN-5229(2)	026-003	026-002	8	152.5	0	0.1	0	0.4	0	0
WMAIN-5232(1)	J-7965	027-008	8	152.5	0.01	0.07	0.1	0.4	0	0.1
WMAIN-5232(2)	027-008	J-8138	8	152.5	0.01	0.07	0.1	0.4	0	0.1
WMAIN-5235(1)	J-8470	027-007	6	140	0.01	0.08	0.1	0.3	0.01	0.1
WMAIN-5235(2)	027-007	J-8415	6	140	0.01	0.09	0.1	0.3	0.02	0.1
WMAIN-5237	J-8138	J-8470	6	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5239(1)	J-8470	027-006	6	152.5	0	0.05	0.1	0.3	0.01	0.1
WMAIN-5239(2)	027-006	J-6296	6	152.5	0	0.04	0	0.2	0	0

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5241	J-6295	J-6296	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5243(1)	J-7250	J-9279	6	152.5	0	0.02	0	0.1	0.03	0.2
WMAIN-5243(2)	J-9279	J-7251	6	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-5247	J-6296	J-7250	6	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5249	J-8138	J-7251	8	152.5	0	0.09	0	0.4	0	0
WMAIN-5251	J-6799	J-6800	6	152.5	0	0	0	0	0	0
WMAIN-5252	J-6799	J-8138	6	152.5	0	0.17	0	0.5	0	0.1
WMAIN-5255(1)	J-6799	027-034	6	152.5	0	0.21	0	0.6	0.03	0.2
WMAIN-5255(2)(1)	027-034	027-042	6	152.5	0	0.22	0	0.6	0.04	0.2
WMAIN-5255(2)(2)	027-042	J-7038	6	152.5	0	0.22	0	0.6	0.04	0.2
WMAIN-5258(1)	J-7592	038-044	6	152.5	0	0.04	0	0.2	0.01	0.1
WMAIN-5258(2)	038-044	J-7028	6	152.5	0	0.04	0	0.2	0	0
WMAIN-5261(1)	J-7592	038-041	8	140	0	0.19	0	0.6	0	0.1
WMAIN-5261(2)	038-041	J-7593	8	140	0	0.2	0	0.6	0	0.1
WMAIN-5264	J-7271	J-7592	8	140	0	0.81	0	1.3	0.04	0.2
WMAIN-5265	J-7028	J-6031	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5266	J-6031	J-6032	6	152.5	0	0	0	0	0	0
WMAIN-5267(1)	J-7450	045-007	8	140	0.04	0.2	0.2	0.6	0.06	0.3
WMAIN-5267(2)(1)	045-007	045-008	8	140	0.03	0.18	0.2	0.6	0.05	0.3
WMAIN-5267(2)(2)	045-008	J-7155	8	140	0.03	0.18	0.2	0.6	0.05	0.3
WMAIN-5269(1)	J-7780	045-015	6	140	0.05	0.17	0.2	0.5	0.08	0.3
WMAIN-5269(2)	045-015	J-6721	6	140	0.04	0.13	0.2	0.4	0.05	0.2
WMAIN-5273	J-7450	J-7272	8	140	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-5274	J-8204	J-6008	6	140	0.04	0.17	0.2	0.5	0.06	0.3
WMAIN-5277(1)	J-6007	045-020	8	140	0.01	0.07	0.1	0.3	0.02	0.2
WMAIN-5277(2)	045-020	J-6008	8	140	0.01	0.07	0.1	0.3	0.02	0.2
WMAIN-5279	J-6721	J-7272	8	140	0.05	0.27	0.3	0.7	0.08	0.4
WMAIN-5281(1)	J-7272	045-014	8	140	0.07	0.33	0.3	0.8	0.09	0.4
WMAIN-5281(2)	045-014	J-6349	8	140	0.07	0.33	0.3	0.8	0.09	0.4
WMAIN-5283	J-7272	J-7273	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-5286A	J-6350	J-6051	8	140	0.05	0.18	0.3	0.6	0.03	0.2
WMAIN-5286B	J-6349	J-6350	8	140	0.05	0.18	0.3	0.6	0.04	0.2
WMAIN-5289A	J-6007	J-8376	6	140	0.07	0.31	0.3	0.6	0.09	0.3
WMAIN-5289B(1)	J-8376	045-021	6	140	0.06	0.27	0.2	0.6	0.07	0.3
WMAIN-5289B(2)	045-021	J-6050	6	140	0.04	0.24	0.2	0.5	0.05	0.2
WMAIN-5290(1)	J-7987	045-012	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-5290(2)(1)	045-012	045-013	8	140	0	0.03	0	0.2	0.01	0.1
WMAIN-5290(2)(2)	045-013	J-6349	8	140	0	0.03	0	0.2	0.01	0.1
WMAIN-5292	J-6586	J-6587	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5296(1)	J-7155	045-028	8	140	0.07	0.39	0.3	0.9	0.08	0.4
WMAIN-5296(2)(1)	045-028	045-027	8	140	0.05	0.34	0.3	0.8	0.06	0.3
WMAIN-5296(2)(2)	045-027	J-6180	8	140	0.05	0.34	0.3	0.8	0.06	0.3
WMAIN-5297(1)	J-7155	045-010	8	140	0.03	0.12	0.2	0.4	0.02	0.2
WMAIN-5297(2)	045-010	J-6482	8	140	0.06	0.16	0.3	0.5	0.05	0.3
WMAIN-5299(1)	J-6587	045-011	8	140	0	0.01	0	0.1	0	0
WMAIN-5299(2)	045-011	J-7155	8	140	0	0.01	0	0.1	0	0
WMAIN-5301(1)	J-7186	J-8641	16	140	0.01	0.36	0.2	1.3	0.1	0.6
WMAIN-5301(2)	J-8641	J-7187	16	140	0.02	0.39	0.2	1.3	0.12	0.7
WMAIN-5304(1)	J-7579	036-001	16	140	0.01	0.35	0.2	1.3	0.1	0.6
WMAIN-5304(2)	036-001	J-7186	16	140	0.01	0.36	0.2	1.3	0.1	0.6
WMAIN-5306(1)	J-5086	045-032	16	140	0.01	0.35	0.2	1.3	0.09	0.6
WMAIN-5306(2)	045-032	J-7579	16	140	0.01	0.35	0.2	1.3	0.09	0.6
WMAIN-5308	J-6482	J-6483	4	140	0	0	0	0	0	0
WMAIN-5310	J-7987	J-6587	8	140	0	0.01	0	0.1	0	0.1
WMAIN-5313	J-6360	J-6361	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5315	J-6050	J-6299	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5316	J-6050	J-6051	6	152.5	0.03	0.18	0.2	0.5	0.03	0.2
WMAIN-5318	J-6051	J-7247	6	140	0.37	1.52	0.7	1.5	0.28	0.6
WMAIN-5319(1)	J-6360	045-023	6	140	0.09	0.41	0.3	0.7	0.06	0.3
WMAIN-5319(2)(1)	045-023	045-022	6	140	0.1	0.43	0.3	0.8	0.07	0.3
WMAIN-5319(2)(2)	045-022	J-7247	6	140	0.1	0.43	0.3	0.8	0.07	0.3
WMAIN-5321(1)	J-6606	045-024	6	140	0.06	0.31	0.3	0.6	0.03	0.2
WMAIN-5321(2)	045-024	J-6360	6	140	0.07	0.35	0.3	0.7	0.04	0.2
WMAIN-5325(1)	J-7601	035-014	6	152.5	0	0	0	0	0	0
WMAIN-5325(2)(1)	035-014	035-015	6	152.5	0	0	0	0	0	0
WMAIN-5325(2)(2)	035-015	J-7602	6	152.5	0	0	0	0	0	0
WMAIN-5326	035-013	J-7304	6	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5329	J-7305	J-8557	6	152.5	0.03	0.18	0.2	0.5	0.02	0.2
WMAIN-5330	J-7449	J-6210	6	152.5	0.01	0.06	0.1	0.3	0.04	0.2
WMAIN-5332	J-6210	035-013	6	152.5	0	0.02	0	0.1	0.01	0.1
WMAIN-5335(1)	J-6210	035-009	6	152.5	0.09	0.47	0.4	0.9	0.31	0.7
WMAIN-5335(2)	035-009	J-6211	6	152.5	0.09	0.47	0.4	0.9	0.31	0.7
WMAIN-5337(1)	J-8181	035-010	6	152.5	0.07	0.29	0.3	0.7	0.06	0.3
WMAIN-5337(2)	035-010	J-6210	6	152.5	0.09	0.32	0.3	0.7	0.08	0.3
WMAIN-5340(1)	J-7829	035-003	8	152.5	0.02	0.11	0.2	0.5	0.01	0.2
WMAIN-5340(2)(1)	035-003	035-004	8	152.5	0.03	0.13	0.3	0.5	0.03	0.2
WMAIN-5340(2)(2)	035-004	J-8557	8	152.5	0.03	0.13	0.3	0.5	0.03	0.2
WMAIN-5342(1)	J-8557	035-005	8	152.5	0.08	0.32	0.4	0.8	0.07	0.4
WMAIN-5342(2)(1)	035-005	035-023	8	152.5	0.1	0.35	0.4	0.9	0.09	0.4
WMAIN-5342(2)(2)	035-023	J-8453	8	152.5	0.1	0.35	0.4	0.9	0.09	0.4
WMAIN-5345	J-7304	J-7305	6	152.5	0	0.02	0	0.2	0	0.1
WMAIN-5348(1)(1)	J-7305	035-006	6	152.5	0.02	0.05	0.1	0.3	0.01	0.1
WMAIN-5348(1)(2)	035-006	035-007	6	152.5	0.01	0.04	0.1	0.2	0	0.1
WMAIN-5348(2)	035-007	J-7449	6	152.5	0.01	0.04	0.1	0.2	0	0.1
WMAIN-5351(1)	J-7829	035-008	6	152.5	0.04	0.17	0.2	0.5	0.05	0.3
WMAIN-5351(2)	035-008	J-7449	6	152.5	0.04	0.18	0.2	0.5	0.06	0.3
WMAIN-5353(1)(1)	J-8180	035-001	8	152.5	0.04	0.23	0.3	0.7	0.02	0.2
WMAIN-5353(1)(2)	035-001	035-002	8	152.5	0.05	0.24	0.3	0.7	0.03	0.2
WMAIN-5353(2)	035-002	J-7829	8	152.5	0.05	0.24	0.3	0.7	0.03	0.2
WMAIN-5355A(1)	J-7624	036-004	6	152.5	0.09	0.52	0.3	0.9	0.28	0.7
WMAIN-5355A(2)	036-004	035-012	6	152.5	0.1	0.57	0.4	1	0.32	0.7
WMAIN-5355B	035-012	J-5269	6	152.5	0.11	0.61	0.4	1	0.35	0.7
WMAIN-5358(1)	J-7623	035-011	6	152.5	0.04	0.22	0.2	0.6	0.09	0.4
WMAIN-5358(2)	035-011	J-6211	6	152.5	0.05	0.27	0.3	0.6	0.13	0.4
WMAIN-5361	J-7624	J-6285	12	140	0	0.08	0	0.5	0.02	0.3
WMAIN-5362	J-8180	J-8181	12	152.5	0	0.15	0	0.7	0.03	0.3
WMAIN-5364	J-7623	J-7624	12	152.5	0	0.13	0	0.7	0.01	0.1
WMAIN-5365	J-6787	J-8181	12	152.5	0	0.1	0	0.6	0.04	0.3
WMAIN-5368(1)	J-6787	036-003	12	152.5	0	0.17	0.1	0.8	0	0.1
WMAIN-5368(2)	036-003	J-7623	12	152.5	0.01	0.17	0.1	0.8	0	0.1
WMAIN-5369	J-6786	J-6787	8	152.5	0	0	0	0	0	0
WMAIN-5372(1)	J-8473	036-002	12	152.5	0	0.27	0	1	0.02	0.2
WMAIN-5372(2)	036-002	J-8180	12	152.5	0	0.27	0	1	0.02	0.2
WMAIN-5375(1)	J-6035	036-048	6	140	0	0	0	0	0	0
WMAIN-5375(2)	036-048	J-8306	6	140	0	0	0	0	0	0
WMAIN-5376	J-6034	J-6035	6	140	0	0	0	0	0	0
WMAIN-5379	J-7020	J-7326	6	140	0.15	1.17	0.4	1.3	0.46	0.8
WMAIN-5381(1)	J-7327	036-009	6	140	0	0	0	0	0	0
WMAIN-5381(2)	036-009	J-7383	6	140	0	0	0	0	0	0
WMAIN-5383(1)	J-5782	036-006	6	140	0	0	0	0	0	0
WMAIN-5383(2)	036-006	J-6846	6	140	0	0	0	0	0	0
WMAIN-5385	J-6846	J-5782	8	140	0	0	0	0	0	0

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5387	J-5783	J-7020	8	140	0.05	0.34	0.3	0.8	0.15	0.5
WMAIN-5389	J-7110	J-8328	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-5391(1)	J-7326	036-008	6	140	0.14	1.11	0.4	1.3	0.42	0.7
WMAIN-5391(2)	036-008	J-7327	6	140	0.14	1.09	0.4	1.2	0.41	0.7
WMAIN-5392(1)	J-6758	036-005	8	140	0	0	0	0	0	0
WMAIN-5392(2)	036-005	J-6846	8	140	0	0	0	0	0	0
WMAIN-5396(1)	J-7327	036-019	8	140	0.03	0.24	0.2	0.7	0.08	0.4
WMAIN-5396(2)	036-019	J-7275	8	140	0.03	0.23	0.2	0.7	0.08	0.4
WMAIN-5398(1)(1)	J-7334	036-023	8	140	0	0	0	0.1	0	0.1
WMAIN-5398(1)(2)	036-023	036-024	8	140	0	0	0	0	0	0
WMAIN-5398(2)	036-024	J-8822	8	140	0	0	0	0	0	0
WMAIN-5399	J-8274	J-6055	6	140	0	0	0	0	0	0
WMAIN-5402(1)	J-7020	036-007	8	140	0	0	0	0	0	0
WMAIN-5402(2)	036-007	J-6035	8	140	0	0	0	0	0	0
WMAIN-5405	J-5783	J-6787	8	140	0.06	0.4	0.3	0.9	0.19	0.6
WMAIN-5408	J-8224	J-8225	8	152.5	0.07	0.26	0.4	0.8	0.06	0.3
WMAIN-5410(1)	J-8224	034-009	6	152.5	0	0	0	0	0	0
WMAIN-5410(2)	034-009	J-8534	6	152.5	0	0	0	0	0	0
WMAIN-5412(1)	J-8229	034-008	8	152.5	0.06	0.24	0.3	0.7	0.04	0.3
WMAIN-5412(2)	034-008	J-8224	8	152.5	0.06	0.25	0.3	0.7	0.05	0.3
WMAIN-5414(1)	J-8229	034-007	6	152.5	0	0	0	0	0	0
WMAIN-5414(2)	034-007	J-8532	6	152.5	0	0	0	0	0	0
WMAIN-5416(1)	J-6612	034-006	8	152.5	0.04	0.23	0.3	0.7	0.03	0.2
WMAIN-5416(2)	034-006	J-8229	8	152.5	0.05	0.23	0.3	0.7	0.03	0.2
WMAIN-5419	J-8190	J-6612	8	152.5	0.15	0.93	0.6	1.5	0.19	0.6
WMAIN-5420	J-6612	J-6613	8	152.5	0.32	1.73	0.8	2.1	0.33	0.9
WMAIN-5422(1)	J-6613	034-005	8	152.5	0.2	1.1	0.7	1.6	0.23	0.7
WMAIN-5422(2)(1)	034-005	034-012	8	152.5	0.18	1.04	0.6	1.6	0.2	0.7
WMAIN-5422(2)(2)	034-012	J-7446	8	152.5	0.18	1.04	0.6	1.6	0.2	0.7
WMAIN-5425	J-8737	J-6613	8	152.5	0.01	0.09	0.1	0.4	0.01	0.1
WMAIN-5429(1)	J-6502	031-044	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-5429(2)	031-044	J-7300	8	152.5	0	0.03	0.1	0.2	0.03	0.2
WMAIN-5431	J-7300	J-7301	8	152.5	0	0	0	0	0	0
WMAIN-5432(1)	J-7300	031-051	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-5432(2)	031-051	J-8408	8	152.5	0	0.04	0	0.3	0	0.1
WMAIN-5434(1)	J-8408	031-049	8	152.5	0	0.04	0	0.3	0	0.1
WMAIN-5434(2)	031-049	J-5672	8	152.5	0	0.05	0	0.3	0	0.1
WMAIN-5436	032-016	J-6992	6	140	0.02	0.2	0.2	0.5	0.03	0.2
WMAIN-5438	J-6992	J-8634	8	140	0	0.15	0	0.5	0	0
WMAIN-5439	032-018	032-016	6	140	0.02	0.21	0.2	0.5	0.04	0.2
WMAIN-5441	J-7005	032-018	6	140	0.03	0.21	0.2	0.5	0.04	0.2
WMAIN-5442	J-8078	J-7750	8	140	0.04	0.21	0.2	0.6	0.06	0.3
WMAIN-5444	J-6267	J-6268	8	140	0	0	0	0	0	0
WMAIN-5446	J-6268	J-8078	8	140	0.02	0.15	0.2	0.5	0.03	0.2
WMAIN-5449	J-6435	J-6436	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-5450	J-7750	J-6812	8	140	0.12	0.55	0.5	1	0.18	0.6
WMAIN-5452(1)	J-6435	032-004	8	140	0.01	0.05	0.1	0.3	0.01	0.1
WMAIN-5452(2)	032-004	J-7005	8	140	0.01	0.05	0.1	0.3	0.01	0.1
WMAIN-5454(1)	J-8078	032-002	8	140	0	0	0	0.1	0	0.1
WMAIN-5454(2)	032-002	J-8234	8	140	0	0	0	0	0	0
WMAIN-5456(1)	J-7750	032-003	8	140	0.02	0.09	0.2	0.4	0.03	0.2
WMAIN-5456(2)	032-003	J-6435	8	140	0.01	0.07	0.1	0.3	0.02	0.2
WMAIN-5458(1)	J-7888	012-004	16	140	0.06	0.33	0.5	1.2	0.19	0.9
WMAIN-5458(2)	012-004	J-5695	16	140	0.07	0.33	0.5	1.2	0.19	0.9
WMAIN-5460(1)(1)	J-7889	011-009	8	152.5	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-5460(1)(2)	011-009	011-010	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-5460(2)	011-010	J-7738	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-5462	J-7888	J-7889	8	152.5	0.02	0.1	0.2	0.5	0.13	0.5
WMAIN-5464	J-7681	J-7682	8	152.5	0.02	0.09	0.2	0.4	0.04	0.3
WMAIN-5466(1)	J-7682	012-009	8	152.5	0.03	0.23	0.3	0.7	0.1	0.5
WMAIN-5466(2)	012-009	J-7265	8	152.5	0.04	0.23	0.3	0.7	0.11	0.5
WMAIN-5468(1)(1)	J-8750	012-006	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-5468(1)(2)	012-006	012-008	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5468(2)	012-008	J-7681	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5472(1)	J-7889	012-005	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5472(2)	012-005	J-8750	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5474(1)	J-7682	012-007	8	152.5	0	0.03	0.1	0.2	0.01	0.1
WMAIN-5474(2)	012-007	J-8750	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5476	J-7738	J-7681	8	152.5	0.03	0.12	0.2	0.5	0.07	0.4
WMAIN-5478(1)	J-8023	023-028	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5478(2)	023-028	J-8380	6	152.5	0	0	0	0	0	0
WMAIN-5480(1)	J-6785	010-003	6	152.5	0	0.12	0	0.4	0.07	0.3
WMAIN-5480(2)(1)	010-003	010-006	6	152.5	0	0.1	0	0.4	0.05	0.3
WMAIN-5480(2)(2)	010-006	J-7348	6	152.5	0	0.1	0	0.4	0.05	0.3
WMAIN-5483	J-7117	J-7348	6	152.5	0	0.09	0	0.4	0.03	0.2
WMAIN-5485	J-6933	J-6934	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5487	J-7105	J-6784	8	152.5	0.01	0.09	0.2	0.4	0.04	0.3
WMAIN-5490(1)	J-7117	010-005	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5490(2)	010-005	J-8100	8	152.5	0	0.01	0	0.2	0.01	0.1
WMAIN-5493(1)	J-7592	038-040	8	152.5	0	0.17	0	0.6	0	0.1
WMAIN-5493(2)	038-040	J-8046	8	152.5	0	0.18	0	0.6	0	0
WMAIN-5495(1)	J-7593	038-043	6	152.5	0	0.06	0	0.3	0	0.1
WMAIN-5495(2)	038-043	J-7028	6	152.5	0	0.06	0	0.3	0	0
WMAIN-5499(1)	J-8537	039-003	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5499(2)	039-003	J-8377	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-5501(1)(1)	J-8537	039-002	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5501(1)(2)	039-002	039-001	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5501(2)	039-001	J-8708	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5503(1)	J-8266	039-005	12	152.5	0	0.09	0.1	0.6	0.02	0.3
WMAIN-5503(2)	039-005	J-8536	12	152.5	0	0.09	0.1	0.6	0.02	0.3
WMAIN-5506(1)	J-8536	039-004	8	152.5	0	0.14	0	0.5	0	0.1
WMAIN-5506(2)	039-004	J-8537	8	152.5	0	0.14	0	0.5	0	0.1
WMAIN-5509(1)	J-8708	039-006	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5509(2)	039-006	J-8378	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5511	J-8266	J-8377	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5513(1)	J-8378	039-009	8	152.5	0	0.15	0	0.6	0.05	0.3
WMAIN-5513(2)	039-009	J-7781	8	152.5	0	0.15	0	0.6	0.05	0.3
WMAIN-5515(1)	J-8377	039-008	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5515(2)	039-008	J-8378	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5518(1)	J-8265	039-007	12	152.5	0	0.11	0.1	0.6	0.03	0.3
WMAIN-5518(2)	039-007	J-8266	12	152.5	0	0.11	0.1	0.6	0.03	0.3
WMAIN-5519(1)	J-8167	039-041	12	152.5	0	0.08	0.1	0.5	0.02	0.3
WMAIN-5519(2)	039-041	J-8265	12	152.5	0	0.08	0.1	0.5	0.02	0.3
WMAIN-5521(1)	J-8322	039-011	8	152.5	0	0	0	0	0	0
WMAIN-5521(2)	039-011	J-8668	8	152.5	0	0	0	0	0	0
WMAIN-5523(1)	J-7781	039-010	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5523(2)	039-010	J-8322	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5524(1)	J-7586	039-048	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5524(2)	039-048	J-7781	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-5527(1)	J-8322	039-046	8	152.5	0	0.07	0.1	0.4	0.04	0.3
WMAIN-5527(2)	039-046	J-7621	8	152.5	0	0.08	0	0.4	0.05	0.3
WMAIN-5528(1)	J-7010	039-038	8	152.5	0	0.04	0	0.3	0.02	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5528(2)	039-038	J-7762	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-5531	J-7010	J-7011	6	152.5	0	0	0	0	0	0
WMAIN-5532	J-7032	J-7010	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-5535	J-7032	J-7033	6	152.5	0	0	0	0	0	0
WMAIN-5536(1)	J-7736	039-037	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5536(2)	039-037	J-7032	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5537	J-5645	J-5646	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-5538	J-5646	J-7103	8	152.5	0.01	0.07	0.1	0.4	0.02	0.2
WMAIN-5541(1)	J-7101	023-010	6	152.5	0	0.41	0.1	0.8	0.11	0.4
WMAIN-5541(2)	023-010	J-6407	6	152.5	0	0.43	0.1	0.8	0.12	0.4
WMAIN-5543	J-7101	J-7102	6	152.5	0	0	0	0	0	0
WMAIN-5545	J-7099	J-7101	6	152.5	0	0.28	0	0.7	0.02	0.2
WMAIN-5547	J-7099	J-7100	6	152.5	0	0	0	0	0	0
WMAIN-5549(1)	J-6707	014-008	12	152.5	0.14	0.4	0.7	1.2	0.61	1.5
WMAIN-5549(2)(1)	014-008	014-009	12	152.5	0.12	0.37	0.6	1.2	0.57	1.5
WMAIN-5549(2)(2)(1)	014-009	014-010	12	152.5	0.12	0.37	0.6	1.2	0.57	1.5
WMAIN-5549(2)(2)(2)	014-010	J-7253	12	152.5	0.12	0.37	0.6	1.2	0.57	1.5
WMAIN-5551(1)(1)	J-5420	015-020	12	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-5551(1)(2)	015-020	J-5723	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-5551(2)(1)	J-5723	J-8817	12	152.5	0.01	0.03	0.2	0.3	0.03	0.3
WMAIN-5551(2)(2)	J-8817	J-7885	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-5554(1)	J-7885	015-019	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5554(2)	015-019	J-8481	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5555(1)	J-8481	015-018	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5555(2)	015-018	J-8324	12	152.5	0.02	0.07	0.2	0.5	0.07	0.5
WMAIN-5557	J-8558	J-8702	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-5560(1)	J-8313	031-017	6	140	0.02	0.07	0.1	0.3	0.03	0.2
WMAIN-5560(2)	031-017	J-8565	6	140	0.03	0.11	0.2	0.4	0.06	0.3
WMAIN-5562	017-001	J-5753	8	152.5	0	0.37	0	0.9	0	0
WMAIN-5563(1)	J-8614	031-050	16	140	0.02	0.62	0.3	1.7	0.04	0.4
WMAIN-5563(2)	031-050	J-5362	16	140	0.02	0.62	0.3	1.7	0.04	0.4
WMAIN-5565(1)	J-5815	017-004	8	152.5	0.01	0.33	0.1	0.9	0.02	0.2
WMAIN-5565(2)	017-004	017-005	8	152.5	0.01	0.34	0.1	0.9	0.02	0.2
WMAIN-5566(1)	017-005	017-018	8	152.5	0.01	0.34	0.1	0.9	0.02	0.2
WMAIN-5566(2)	017-018	J-5882	8	152.5	0.01	0.34	0.1	0.9	0.02	0.2
WMAIN-5568	J-5952	J-5953	8	140	0.03	0.19	0.2	0.6	0.02	0.2
WMAIN-5569(1)(1)	J-5933	036-010	6	140	0.09	0.26	0.3	0.6	0.03	0.2
WMAIN-5569(1)(2)	036-010	045-001	6	140	0.02	0.16	0.2	0.4	0.01	0.1
WMAIN-5569(2)(1)	045-001	045-026	6	140	0.02	0.15	0.1	0.4	0.01	0.1
WMAIN-5569(2)(2)	045-026	J-6180	6	140	0.02	0.15	0.1	0.4	0.01	0.1
WMAIN-5571	J-5429	052-006	6	140	0.06	0.3	0.3	0.6	0.01	0.1
WMAIN-5573	J-5428	J-5429	8	140	0.02	0.27	0.2	0.7	0.01	0.1
WMAIN-5574	044-020	J-6757	4	140	0.02	0.08	0.1	0.2	0.08	0.2
WMAIN-5576(1)	J-6523	037-003	8	140	0.02	0.37	0.2	0.8	0.04	0.3
WMAIN-5576(2)	037-003	J-8514	8	140	0.02	0.36	0.2	0.8	0.04	0.3
WMAIN-5578	J-8514	J-7029	8	140	0	0.04	0	0.3	0.03	0.2
WMAIN-5580	J-5094	J-6609	12	140	0	0.13	0	0.6	0	0.1
WMAIN-5581	J-5225	J-5093	8	140	0.02	0.21	0.1	0.6	0.33	0.8
WMAIN-5582(1)	J-8120	J-9277	4	140	0.05	0.15	0.2	0.3	0.08	0.2
WMAIN-5582(2)	J-9277	J-5551	4	140	0.07	0.21	0.2	0.4	0.13	0.3
WMAIN-5585(1)	J-8119	030-016	6	140	0.14	0.58	0.4	0.9	0.2	0.5
WMAIN-5585(2)	030-016	J-8120	6	140	0.15	0.61	0.4	0.9	0.21	0.5
WMAIN-5586	J-6269	J-6852	4	140	0.15	0.63	0.3	0.7	0.22	0.4
WMAIN-5590(1)	J-6269	J-9250	3	130	0	0.09	0	0.2	0.02	0.1
WMAIN-5590(2)	J-9250	J-7277	3	130	0	0.11	0	0.2	0.12	0.2
WMAIN-5591	J-7007	J-5754	8	152.5	0.06	0.15	0.3	0.6	0.12	0.5
WMAIN-5593	J-8120	J-6513	6	140	0.12	0.52	0.4	0.8	0.19	0.5
WMAIN-5595(1)(1)	J-5551	030-021	6	140	0.21	0.86	0.5	1.1	0.33	0.7
WMAIN-5595(1)(2)	030-021	030-042	6	140	0.21	0.87	0.5	1.1	0.34	0.7
WMAIN-5595(2)	030-042	J-5754	6	140	0.21	0.87	0.5	1.1	0.34	0.7
WMAIN-5599	J-6513	J-5755	6	140	0.03	0.07	0.2	0.3	0.06	0.3
WMAIN-5601	J-8365	J-7007	6	140	0	0.12	0	0.4	0.01	0.1
WMAIN-5604(1)	J-8365	030-045	10	152.5	0.11	0.25	0.6	0.8	0.21	0.8
WMAIN-5604(2)(1)	030-045	030-044	10	152.5	0.12	0.26	0.6	0.9	0.22	0.8
WMAIN-5604(2)(2)	030-044	J-5679	10	152.5	0.12	0.26	0.6	0.9	0.22	0.8
WMAIN-5606	J-7531	J-8365	10	152.5	0.06	0.12	0.4	0.6	0.11	0.6
WMAIN-5607	J-7901	J-8365	6	152.5	0.04	0.11	0.2	0.4	0.12	0.4
WMAIN-5609	J-6877	J-7901	4	140	0	0.08	0	0.2	0.08	0.2
WMAIN-5612	J-5760	J-5811	6	140	0.08	0.19	0.3	0.5	0.12	0.4
WMAIN-5614(1)	J-5759	030-018	6	140	0.01	0.2	0.1	0.5	0.02	0.1
WMAIN-5614(2)	030-018	J-5760	6	140	0.01	0.2	0.1	0.5	0.02	0.1
WMAIN-5616	J-5734	J-5908	6	140	0.19	0.43	0.5	0.8	0.29	0.6
WMAIN-5617(1)	J-5760	030-019	6	140	0.01	0.04	0.1	0.2	0.02	0.2
WMAIN-5617(2)	030-019	J-5956	6	140	0.01	0.04	0.1	0.2	0.01	0.1
WMAIN-5618	J-7584	J-5908	6	140	0.27	1.02	0.6	1.2	0.37	0.7
WMAIN-5619(1)	J-7130	022-016	6	152.5	0.41	0.63	0.8	1	0.46	0.9
WMAIN-5619(2)(1)	022-016	022-015	6	152.5	0.38	0.59	0.8	1	0.43	0.8
WMAIN-5619(2)(2)	022-015	J-6110	6	152.5	0.38	0.59	0.8	1	0.43	0.8
WMAIN-5622	J-6110	J-5741	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5625	J-7779	J-6624	6	140	0.06	0.16	0.3	0.4	0.05	0.2
WMAIN-5627	J-7094	J-7705	6	140	0	0.09	0	0.3	0	0
WMAIN-5629(1)	J-5443	037-035	6	140	0	0.02	0	0.1	0	0
WMAIN-5629(2)(1)	037-035	037-034	6	140	0	0.01	0	0.1	0	0
WMAIN-5629(2)(2)	037-034	J-6551	6	140	0	0.01	0	0.1	0	0
WMAIN-5631	J-6551	J-7977	6	140	0	0.44	0	0.8	0	0.1
WMAIN-5632	J-5512	J-8188	8	140	0	0.08	0	0.4	0	0.1
WMAIN-5635(1)	J-7837	037-022	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-5635(2)	037-022	J-7534	6	140	0	0.05	0	0.2	0	0.1
WMAIN-5636	J-7174	037-028	6	140	0	0.06	0	0.3	0	0
WMAIN-5639(1)	J-8124	037-020	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-5639(2)	037-020	J-8123	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-5643(1)	J-6524	037-016	6	140	0	0.14	0	0.4	0	0
WMAIN-5643(2)(1)	037-016	037-017	6	140	0	0.11	0	0.4	0.01	0.1
WMAIN-5643(2)(2)	037-017	J-6610	6	140	0	0.11	0	0.4	0.01	0.1
WMAIN-5645(1)	J-7176	028-002	6	140	0	0.23	0	0.5	0.2	0.5
WMAIN-5645(2)	028-002	J-7177	6	140	0	0.23	0	0.5	0.19	0.5
WMAIN-5646(1)	J-7319	038-014	6	140	0	0.06	0	0.3	0	0
WMAIN-5646(2)	038-014	J-7271	6	140	0	0.07	0	0.3	0	0
WMAIN-5650(1)	J-5931	038-031	6	140	0	0.02	0	0.1	0.02	0.2
WMAIN-5650(2)	038-031	J-5970	6	140	0	0.01	0	0.1	0.02	0.1
WMAIN-5652	J-5985	J-6916	6	140	0	0.07	0	0.3	0	0
WMAIN-5653(1)	J-8480	044-028	6	140	0	0	0	0.1	0	0.1
WMAIN-5653(2)	044-028	J-7687	6	140	0	0	0	0	0	0
WMAIN-5657(1)	J-8480	044-027	6	140	0	0.02	0	0.2	0.03	0.2
WMAIN-5657(2)	044-027	J-7561	6	140	0	0.03	0.1	0.2	0.04	0.2
WMAIN-5658	J-5895	J-6757	6	152.5	0.01	0.02	0.1	0.2	0.02	0.1
WMAIN-5661(1)	J-8732	038-034	8	140	0	0.04	0	0.2	0.01	0.1
WMAIN-5661(2)	038-034	J-7555	8	140	0	0.04	0	0.2	0.01	0.1
WMAIN-5664(1)	J-6790	J-5341	8	140	0	0.21	0.1	0.6	0.14	0.5
WMAIN-5664(2)	J-5341	J-6791	8	140	0	0.23	0.1	0.7	0.17	0.6
WMAIN-5665	J-6399	J-6400	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5666	J-5877	J-5878	6	140	0	0	0	0	0	0

Label	Start Node	Stop Node	Diameter (in)	C Factor	2045 MDD				2045 PHD	
					Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5668(1)(1)	J-8514	044-017	8	140	0.05	0.16	0.3	0.5	0.11	0.4
WMAIN-5668(1)(2)	044-017	044-048	8	140	0.04	0.15	0.3	0.5	0.1	0.4
WMAIN-5668(2)	044-048	J-7381	8	140	0.04	0.15	0.3	0.5	0.1	0.4
WMAIN-5669	J-5894	J-5895	6	140	0	0	0	0	0	0
WMAIN-5671(1)	J-7608	044-035	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-5671(2)	044-035	J-5594	6	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5674(1)	J-7736	039-036	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-5674(2)	039-036	J-6376	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-5677	J-6377	J-6908	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5678(1)	J-6908	039-042	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5678(2)	039-042	J-6909	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5679(1)(1)	J-6377	039-035	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5679(1)(2)	039-035	039-034	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5679(2)	039-034	J-7909	8	152.5	0	0.05	0	0.3	0.02	0.2
WMAIN-5682	J-6376	J-6377	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5686	J-7908	J-7909	8	152.5	0	0.13	0	0.5	0.07	0.4
WMAIN-5687(1)	J-7909	039-039	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5687(2)	039-039	J-7762	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5689(1)	J-7762	039-040	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-5689(2)	039-040	J-8167	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-5691(1)	J-7556	039-054	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-5691(2)	039-054	J-6376	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-5695(1)(1)	J-8258	039-026	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5695(1)(2)	039-026	039-025	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5695(2)	039-025	J-8577	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5696(1)	J-8577	039-024	6	152.5	0	0.04	0	0.2	0.05	0.3
WMAIN-5696(2)	039-024	J-7849	6	152.5	0	0.05	0	0.2	0.05	0.3
WMAIN-5698(1)	J-7849	039-016	6	152.5	0.02	0.15	0.1	0.5	0.13	0.4
WMAIN-5698(2)	039-016	J-7338	6	152.5	0.02	0.15	0.1	0.5	0.14	0.4
WMAIN-5701(1)	J-7849	039-023	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-5701(2)	039-023	J-6487	8	152.5	0	0.01	0	0.1	0	0
WMAIN-5705(1)	J-7338	039-017	8	152.5	0	0	0	0	0	0
WMAIN-5705(2)	039-017	J-8063	8	152.5	0	0	0	0.1	0	0.1
WMAIN-5706	J-7338	J-7339	6	152.5	0.02	0.14	0.2	0.5	0.12	0.4
WMAIN-5708(1)	J-7339	039-013	6	152.5	0.03	0.18	0.2	0.5	0.16	0.5
WMAIN-5708(2)	039-013	J-7487	6	152.5	0.03	0.18	0.2	0.5	0.17	0.5
WMAIN-5711(1)	J-7339	039-015	8	152.5	0	0	0	0	0	0
WMAIN-5711(2)	039-015	J-8247	8	152.5	0	0	0	0	0	0
WMAIN-5712(1)	J-7487	039-012	6	152.5	0.23	1.26	0.6	1.5	1.16	1.4
WMAIN-5712(2)	039-012	038-059	6	152.5	0.25	1.3	0.6	1.5	1.2	1.4
WMAIN-5715	J-7487	J-6309	8	152.5	0.02	0.13	0.2	0.5	0.12	0.5
WMAIN-5716	038-001	J-6611	16	140	0	0.17	0	0.8	0.04	0.4
WMAIN-5717	038-059	038-001	16	140	0	0.17	0	0.8	0.03	0.4
WMAIN-5719(1)	J-6309	039-014	8	152.5	0.02	0.11	0.2	0.5	0.1	0.4
WMAIN-5719(2)	039-014	J-8063	8	152.5	0.02	0.1	0.2	0.5	0.09	0.4
WMAIN-5720	J-6309	J-6310	8	152.5	0	0	0	0	0	0
WMAIN-5722(1)	J-8063	039-018	8	152.5	0.01	0.07	0.1	0.4	0.05	0.3
WMAIN-5722(2)	039-018	J-8064	8	152.5	0.01	0.06	0.1	0.4	0.05	0.3
WMAIN-5724(1)	J-8064	039-020	8	152.5	0	0.04	0.1	0.3	0.03	0.2
WMAIN-5724(2)	039-020	J-6486	8	152.5	0	0.04	0.1	0.3	0.02	0.2
WMAIN-5726(1)	J-8064	039-019	8	152.5	0	0	0	0	0	0
WMAIN-5726(2)	039-019	J-8373	8	152.5	0	0	0	0	0	0
WMAIN-5728	J-6486	J-6487	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-5731(1)	J-6487	039-022	8	152.5	0	0.04	0	0.3	0.04	0.3
WMAIN-5731(2)	039-022	J-7235	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-5733	J-5371	J-7133	8	152.5	0	0.08	0	0.4	0.13	0.5
WMAIN-5735(1)	J-6727	039-032	6	152.5	0	0	0	0	0	0
WMAIN-5735(2)	039-032	J-6728	6	152.5	0	0	0	0	0	0
WMAIN-5737(1)	J-7133	039-030	8	152.5	0	0.05	0	0.3	0.07	0.4
WMAIN-5737(2)	039-030	J-6782	8	152.5	0	0.05	0	0.3	0.07	0.4
WMAIN-5739	J-6782	J-7236	8	152.5	0	0.04	0	0.3	0.05	0.3
WMAIN-5740	J-7235	J-7236	8	152.5	0	0	0	0.1	0	0
WMAIN-5743(1)	J-7236	039-029	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-5743(2)	039-029	J-6518	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-5746	J-6518	J-7295	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-5747	J-8258	J-7235	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-5749(1)	J-7295	039-027	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5749(2)	039-027	J-7296	8	152.5	0	0.01	0	0.1	0.01	0.2
WMAIN-5750	J-7403	J-7295	8	152.5	0	0.04	0	0.3	0.06	0.3
WMAIN-5753(1)	J-6438	042-028	12	140	0.01	0.5	0.2	1.3	0.53	1.3
WMAIN-5753(2)	042-028	J-5371	12	140	0.01	0.49	0.2	1.3	0.52	1.3
WMAIN-5755(1)	J-7403	039-031	8	152.5	0	0	0	0	0	0
WMAIN-5755(2)	039-031	J-8438	8	152.5	0	0	0	0	0	0
WMAIN-5757(1)	J-7072	039-033	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-5757(2)	039-033	J-6727	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-5759(1)	J-6518	039-028	8	152.5	0	0	0	0	0	0
WMAIN-5759(2)	039-028	J-6519	8	152.5	0	0	0	0	0	0
WMAIN-5761(1)	J-6486	039-021	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5761(2)	039-021	J-7133	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5762	J-7296	J-8258	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-5765	J-6782	J-6783	8	152.5	0	0	0	0	0	0
WMAIN-5767	J-6325	J-6326	8	140	0.13	1.77	0.5	1.9	1.89	2
WMAIN-5769(1)(1)	J-6326	042-002	6	140	0.03	0.34	0.2	0.7	0.37	0.7
WMAIN-5769(1)(2)	042-002	J-7724	6	140	0.02	0.33	0.2	0.7	0.35	0.7
WMAIN-5769(2)	J-7724	J-8513	6	140	0	0	0	0	0	0
WMAIN-5771	J-6326	J-7708	8	140	0.08	1.16	0.4	1.5	1.23	1.6
WMAIN-5773(1)(1)	J-7708	042-003	6	140	0.01	0.26	0.1	0.6	0.27	0.6
WMAIN-5773(1)(2)	042-003	J-7723	6	140	0.02	0.28	0.1	0.6	0.3	0.6
WMAIN-5773(2)	J-7723	J-8546	6	140	0	0	0	0	0	0
WMAIN-5775(1)	J-7708	042-004	8	140	0.1	1.56	0.4	1.8	1.65	1.9
WMAIN-5775(2)	042-004	J-8166	8	140	0.09	1.52	0.4	1.8	1.6	1.8
WMAIN-5776(1)	J-7826	041-012	8	152.5	0.11	2.14	0.5	2.4	2.52	2.6
WMAIN-5776(2)	041-012	J-8166	8	152.5	0.11	2.16	0.5	2.4	2.54	2.6
WMAIN-5779(1)	J-8166	042-005	8	140	0	0.22	0.1	0.6	0.29	0.7
WMAIN-5779(2)	042-005	J-7278	8	140	0.01	0.23	0.1	0.6	0.3	0.8
WMAIN-5781	J-8212	J-6542	12	140	0	0.12	0	0.6	0.15	0.7
WMAIN-5783(1)	J-6542	042-001	12	140	0	0.04	0.1	0.3	0.01	0.1
WMAIN-5783(2)	042-001	J-6325	12	140	0	0.04	0.1	0.3	0.01	0.2
WMAIN-5785	J-6325	J-7072	12	140	0.02	0.43	0.2	1.2	0.35	1
WMAIN-5788(1)	J-7279	042-007	6	140	0.01	0.38	0.1	0.7	0.44	0.8
WMAIN-5788(2)	042-007	J-7941	6	140	0.02	0.42	0.1	0.8	0.49	0.8
WMAIN-5790(1)	J-6561	055-015	8	152.5	0	0.78	0	1.4	1.14	1.7
WMAIN-5790(2)	055-015	J-7663	8	152.5	0	0.78	0	1.4	1.13	1.7
WMAIN-5793	J-7663	J-8405	8	152.5	0	0	0	0	0	0
WMAIN-5795(1)	J-6284	J-9276	6	152.5	0	0	0	0	0	0
WMAIN-5795(2)	J-9276	J-8332	6	152.5	0	0	0	0	0	0
WMAIN-5798(1)	J-6562	055-020	8	152.5	0	0.69	0	1.3	0.87	1.4
WMAIN-5798(2)	055-020	J-6947	8	152.5	0	0.7	0	1.3	0.88	1.5
WMAIN-5801	J-5662	J-6517	12	152.5	0.02	0.69	0.2	1.6	0.88	1.9
WMAIN-5802	J-6283	J-6284	12	152.5	0.01	0.66	0.2	1.6	0.85	1.8
WMAIN-5804(1)	J-6517	055-019	12	152.5	0.02	0.68	0.2	1.6	0.87	1.9
WMAIN-5804(2)	055-019	J-6283	12	152.5	0.02	0.68	0.2	1.6	0.87	1.9

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5807(1)	J-6283	055-021	6	152.5	0	0	0	0.1	0	0.1
WMAIN-5807(2)	055-021	J-8402	6	152.5	0	0	0	0	0	0
WMAIN-5808(1)	J-7663	055-014	8	152.5	0	0.74	0	1.3	1.08	1.6
WMAIN-5808(2)	055-014	J-7664	8	152.5	0	0.73	0	1.3	1.08	1.6
WMAIN-5810	J-7178	J-7179	8	152.5	0.01	0.14	0.1	0.5	0.17	0.6
WMAIN-5811(1)(1)	J-7179	055-009	8	152.5	0.01	0.13	0.1	0.5	0.16	0.6
WMAIN-5811(1)(2)	055-009	055-008	8	152.5	0	0.12	0.1	0.5	0.15	0.6
WMAIN-5811(2)	055-008	J-7346	8	152.5	0	0.12	0.1	0.5	0.15	0.6
WMAIN-5813	J-7664	J-7347	8	152.5	0	0.53	0	1.1	0.74	1.3
WMAIN-5816(1)	J-7347	055-023	8	152.5	0.02	0.91	0.2	1.5	0.97	1.5
WMAIN-5816(2)	055-023	J-7453	8	152.5	0.02	0.9	0.2	1.5	0.96	1.5
WMAIN-5817	J-7346	J-7347	8	152.5	0.01	0.08	0.1	0.4	0.03	0.2
WMAIN-5820(1)	J-7349	055-011	8	152.5	0.01	0.16	0.1	0.6	0.19	0.6
WMAIN-5820(2)	055-011	J-7178	8	152.5	0.01	0.15	0.1	0.6	0.18	0.6
WMAIN-5823(1)	J-7349	055-012	8	152.5	0	0.02	0	0.2	0.03	0.2
WMAIN-5823(2)(1)	055-012	055-013	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-5823(2)(2)	055-013	J-7664	8	152.5	0	0.03	0	0.2	0.04	0.3
WMAIN-5824(1)	J-7349	055-010	8	152.5	0.04	0.25	0.3	0.7	0.1	0.5
WMAIN-5824(2)	055-010	J-6996	8	152.5	0.04	0.25	0.3	0.7	0.1	0.5
WMAIN-5827	J-7813	J-7346	8	152.5	0	0.03	0	0.2	0.05	0.3
WMAIN-5829(1)(1)	J-5662	055-022	12	152.5	0	0.38	0	1.2	0.63	1.6
WMAIN-5829(1)(2)	055-022	054-001	12	152.5	0	0.38	0	1.2	0.63	1.6
WMAIN-5829(2)	054-001	J-6995	12	152.5	0	0.38	0	1.2	0.63	1.6
WMAIN-5831(1)	J-6995	055-005	6	152.5	0.28	3.32	0.7	2.5	3.11	2.4
WMAIN-5831(2)	055-005	J-6996	6	152.5	0.28	3.31	0.7	2.5	3.1	2.4
WMAIN-5833	J-6996	J-7232	8	152.5	0	0.24	0	0.7	0.35	0.9
WMAIN-5835(1)(1)	J-7232	055-006	8	152.5	0.03	0.3	0.2	0.8	0.26	0.7
WMAIN-5835(1)(2)	055-006	055-007	8	152.5	0.03	0.28	0.2	0.8	0.24	0.7
WMAIN-5835(2)	055-007	J-7813	8	152.5	0.03	0.28	0.2	0.8	0.24	0.7
WMAIN-5838	J-7232	J-7329	8	152.5	0	0.03	0	0.3	0	0.1
WMAIN-5840	J-7813	J-7715	8	152.5	0	0.32	0	0.8	0.44	1
WMAIN-5842	J-6401	J-6477	8	152.5	0.03	0.36	0.2	0.9	0.35	0.9
WMAIN-5844(1)	J-6477	055-003	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5844(2)	055-003	J-7714	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-5847	J-7714	J-7715	8	152.5	0.05	0.48	0.3	1.1	0.38	0.9
WMAIN-5850	J-7329	J-7714	8	152.5	0.02	0.4	0.2	1	0.51	1.1
WMAIN-5851	J-6997	J-7869	8	152.5	0.04	0.38	0.3	0.9	0.38	0.9
WMAIN-5855	J-5969	J-6997	8	152.5	0.2	1.8	0.7	2.1	1.55	2
WMAIN-5857(1)	J-6997	055-004	8	152.5	0.08	0.6	0.4	1.2	0.46	1
WMAIN-5857(2)	055-004	J-7329	8	152.5	0.07	0.59	0.4	1.2	0.45	1
WMAIN-5859	J-6401	J-6402	8	152.5	0	0	0	0	0	0
WMAIN-5860(1)	J-7869	055-001	8	152.5	0.03	0.37	0.3	0.9	0.37	0.9
WMAIN-5860(2)	055-001	J-6401	8	152.5	0.03	0.37	0.3	0.9	0.36	0.9
WMAIN-5863(1)	J-6476	055-002	8	152.5	0	0.3	0.1	0.8	0.43	1
WMAIN-5863(2)	055-002	J-6477	8	152.5	0	0.3	0.1	0.8	0.44	1
WMAIN-5864	J-5968	J-5969	12	152.5	0.12	2.05	0.7	3	2.27	3.1
WMAIN-5866(1)	J-8045	054-020	8	152.5	2.9	14.25	2.8	6.5	8.33	4.9
WMAIN-5866(2)	054-020	J-5968	8	152.5	2.87	14.13	2.8	6.5	8.24	4.9
WMAIN-5869(1)	J-8044	054-019	8	152.5	0	0	0	0	0	0
WMAIN-5869(2)	054-019	J-8530	8	152.5	0	0	0	0	0	0
WMAIN-5871(1)	J-7054	054-018	8	152.5	0.9	4.3	1.5	3.4	2.51	2.6
WMAIN-5871(2)	054-018	J-8044	8	152.5	0.9	4.27	1.5	3.4	2.49	2.6
WMAIN-5873	J-8044	J-8045	8	152.5	0.86	4.14	1.4	3.4	2.39	2.5
WMAIN-5874	J-7397	J-7597	8	152.5	0.21	1.2	0.7	1.7	0.79	1.4
WMAIN-5876(1)	J-7396	054-022	8	152.5	0.81	4.02	1.4	3.3	2.44	2.5
WMAIN-5876(2)	054-022	J-7397	8	152.5	0.81	4.04	1.4	3.3	2.45	2.5
WMAIN-5879(1)	J-7396	054-021	8	152.5	0.78	3.92	1.4	3.3	2.35	2.5
WMAIN-5879(2)	054-021	J-8045	8	152.5	0.77	3.84	1.4	3.2	2.29	2.4
WMAIN-5882	J-6595	J-7054	8	152.5	0.32	1.31	0.8	1.8	0.7	1.3
WMAIN-5884(1)	J-7707	054-024	8	152.5	0.2	1.15	0.7	1.7	0.75	1.3
WMAIN-5884(2)	054-024	J-7597	8	152.5	0.2	1.16	0.7	1.7	0.76	1.3
WMAIN-5886(1)	J-7597	054-023	8	152.5	0	0	0	0	0	0
WMAIN-5886(2)	054-023	J-7598	8	152.5	0	0	0	0	0	0
WMAIN-5888	J-7707	J-7722	8	152.5	0	0	0	0	0	0
WMAIN-5890	J-7054	J-7707	8	152.5	0.19	1.1	0.6	1.6	0.71	1.3
WMAIN-5892(1)	J-6594	054-017	8	152.5	0.33	1.35	0.9	1.8	0.73	1.3
WMAIN-5892(2)	054-017	J-6595	8	152.5	0.33	1.34	0.9	1.8	0.73	1.3
WMAIN-5894	J-6595	J-7870	8	152.5	0	0	0	0	0	0
WMAIN-5896	J-5079	J-5319	8	152.5	0.74	3.25	1.3	2.9	1.95	2.2
WMAIN-5897	J-6594	J-5079	8	152.5	5.66	27.27	4	9.3	16.89	7.2
WMAIN-5899(1)	J-7502	054-009	8	152.5	0.02	0.12	0.2	0.5	0.07	0.4
WMAIN-5899(2)	054-009	J-7544	8	152.5	0.02	0.12	0.2	0.5	0.07	0.4
WMAIN-5903	J-7764	J-7068	6	152.5	0.15	0.9	0.5	1.2	0.61	1
WMAIN-5905(1)	J-7373	054-013	6	152.5	0.18	1	0.5	1.3	0.7	1.1
WMAIN-5905(2)	054-013	J-7764	6	152.5	0.17	0.98	0.5	1.3	0.67	1
WMAIN-5907	J-7373	J-7374	6	152.5	0	0	0	0	0	0
WMAIN-5908	J-5448	J-5449	6	152.5	0.23	1.24	0.6	1.5	0.9	1.2
WMAIN-5909(1)	J-5449	054-014	6	152.5	0.21	1.17	0.6	1.4	0.84	1.2
WMAIN-5909(2)	054-014	J-7373	6	152.5	0.2	1.11	0.5	1.4	0.79	1.1
WMAIN-5911	J-7502	J-7514	8	152.5	0	0	0	0	0	0
WMAIN-5913	J-7067	J-7068	6	152.5	0.1	0.65	0.4	1	0.4	0.8
WMAIN-5914(1)	J-7067	054-010	8	152.5	0.02	0.15	0.2	0.6	0.09	0.4
WMAIN-5914(2)	054-010	J-7502	8	152.5	0.02	0.14	0.2	0.5	0.08	0.4
WMAIN-5918	J-7544	J-7397	8	152.5	1.71	8.85	2.1	5.1	5.54	3.9
WMAIN-5920	J-7544	J-7545	8	152.5	0	0	0	0	0	0
WMAIN-5922	J-7563	J-7544	8	152.5	1.5	7.44	1.9	4.6	4.73	3.6
WMAIN-5924	J-6597	J-7563	8	152.5	1.75	7.89	2.1	4.8	4.73	3.6
WMAIN-5925	J-7231	J-7107	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5929(1)(1)	J-7563	054-008	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-5929(1)(2)	054-008	054-007	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5929(2)	054-007	J-7231	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-5930	J-7107	J-5448	8	152.5	0.7	2.71	1.3	2.7	1.39	1.9
WMAIN-5932(1)	J-6596	054-015	8	152.5	0.4	1.43	1	1.9	0.58	1.2
WMAIN-5932(2)	054-015	J-5448	8	152.5	0.4	1.44	1	1.9	0.58	1.2
WMAIN-5935(1)	J-6597	054-006	8	152.5	0.6	2.66	1.2	2.6	1.59	2
WMAIN-5935(2)	054-006	J-7107	8	152.5	0.59	2.63	1.2	2.6	1.56	2
WMAIN-5938(1)(1)	J-5319	126-005	8	152.5	1.45	6.24	1.9	4.2	3.73	3.2
WMAIN-5938(1)(2)	126-005	054-016	8	152.5	1.32	5.72	1.8	4	3.33	3
WMAIN-5938(2)(1)	054-016	126-001	8	152.5	1.2	5.26	1.7	3.8	2.97	2.8
WMAIN-5938(2)(2)	126-001	J-6596	8	152.5	1.2	5.26	1.7	3.8	2.97	2.8
WMAIN-5940	J-7109	018-043	8	152.5	0	0.08	0	0.4	0.02	0.2
WMAIN-5941	J-7751	J-7752	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-5942(1)	J-7752	038-009	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-5942(2)	038-009	J-7753	6	140	0	0.06	0	0.3	0.05	0.2
WMAIN-5945(1)	J-7177	028-003	6	140	0	0.14	0	0.4	0.09	0.3
WMAIN-5945(2)	028-003	J-5488	6	140	0	0.13	0	0.4	0.08	0.3
WMAIN-5946(1)	J-5434	028-024	8	140	0	0.09	0	0.4	0.08	0.4
WMAIN-5946(2)	028-024	J-8753	8	140	0	0.08	0	0.4	0.06	0.3
WMAIN-5947	J-5765	J-5766	6	140	0.11	0.34	0.4	0.7	0.16	0.4
WMAIN-5949	J-5766	J-5920	6	140	0.53	1.37	0.8	1.4	0.63	0.9
WMAIN-5950(1)	J-5920	022-004	6	140	0.53	1.37	0.8	1.4	0.63	0.9
WMAIN-5950(2)	022-004	J-5987	6	140	0.53	1.37	0.8	1.4	0.63	0.9

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-5951(1)	J-7378	027-024	8	140	0.01	1.54	0.1	1.8	0.34	0.8
WMAIN-5951(2)	027-024	J-7515	8	140	0.01	1.54	0.1	1.8	0.33	0.8
WMAIN-5952	J-5347	J-5348	4	152.5	0.01	0.08	0.1	0.3	0	0
WMAIN-5955	J-6234	J-6235	10	152.5	0	0	0	0	0	0
WMAIN-5956(1)	J-6115	036-031	6	140	0.09	0.34	0.3	0.7	0.05	0.2
WMAIN-5956(2)(1)	036-031	J-9290	6	140	0.09	0.33	0.3	0.7	0.04	0.2
WMAIN-5956(2)(2)	J-9290	J-8620	6	140	0.09	0.33	0.3	0.7	0.04	0.2
WMAIN-5958	J-5317	J-5349	8	152.5	0	0	0	0	0	0
WMAIN-5960	J-6758	J-6759	6	140	0	0	0	0	0	0
WMAIN-5962	J-8634	J-8466	8	140	0	0.13	0	0.5	0	0
WMAIN-5964(1)	J-8466	031-042	8	140	0	0.09	0	0.4	0.01	0.1
WMAIN-5964(2)	031-042	J-7478	8	140	0	0.06	0	0.3	0.04	0.2
WMAIN-5967(1)	019-002	019-013	6	152.5	0	0	0	0	0	0
WMAIN-5967(2)	019-013	J-7188	6	152.5	0	0	0	0	0	0
WMAIN-5968	J-5082	019-002	6	152.5	0	0	0	0	0	0
WMAIN-5969	J-5714	J-5715	6	152.5	0	0.06	0	0.3	0	0
WMAIN-5971	J-5863	J-5403	8	152.5	0	0	0	0	0	0
WMAIN-5974	J-6229	J-5689	8	140	0	0	0	0	0	0
WMAIN-5975	J-5689	J-5690	8	140	0	0	0	0	0	0
WMAIN-5977(1)(1)	J-8620	036-058	6	140	0	0.04	0	0.2	0	0
WMAIN-5977(1)(2)	036-058	J-9254	6	140	0	0.06	0	0.3	0	0.1
WMAIN-5977(2)	J-9254	J-6535	6	140	0	0.06	0	0.3	0.01	0.1
WMAIN-5980(1)	037-006	H-512	12	140	0	0.05	0	0.3	0.02	0.2
WMAIN-5980(2)	H-512	J-7125	12	140	0	0.04	0	0.3	0.01	0.2
WMAIN-5981(1)	J-5934	H-513	12	140	0	0.05	0	0.4	0.02	0.2
WMAIN-5981(2)	H-513	037-006	12	140	0	0.05	0	0.4	0.02	0.2
WMAIN-5983(1)	J-5087	037-004	12	140	0	0.04	0	0.3	0.02	0.2
WMAIN-5983(2)(1)	037-004	H-518	12	140	0	0.04	0	0.3	0.02	0.2
WMAIN-5983(2)(2)	H-518	037-005	12	140	0	0.04	0	0.3	0.02	0.2
WMAIN-5985	J-7350	J-7351	6	140	0	0	0	0	0	0
WMAIN-5987	J-5422	J-6921	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5988(1)	J-5423	036-016	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-5988(2)	036-016	J-6197	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-5990	J-7284	J-6196	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-5993(1)	J-7276	036-018	6	140	0	0.1	0	0.4	0.04	0.2
WMAIN-5993(2)	036-018	J-8509	6	140	0	0.08	0	0.3	0.03	0.2
WMAIN-5994	J-6259	J-6260	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-5996(1)(1)	J-5674	026-028	12	140	0	0.08	0	0.5	0.07	0.5
WMAIN-5996(1)(2)	026-028	023-059	12	140	0	0.08	0	0.5	0.07	0.5
WMAIN-5996(2)	023-059	J-6955	12	140	0	0.08	0	0.5	0.07	0.5
WMAIN-5997	026-030	J-6116	12	140	0	0.09	0	0.5	0.08	0.5
WMAIN-5999(1)	J-6116	026-031	12	140	0.08	0.2	0.5	0.8	0.19	0.8
WMAIN-5999(2)	026-031	J-6117	12	140	0.08	0.2	0.5	0.8	0.19	0.8
WMAIN-6001(1)(1)	J-8758	026-023	8	152.5	0.01	0.09	0.1	0.4	0.02	0.2
WMAIN-6001(1)(2)	026-023	026-024	8	152.5	0.01	0.1	0.1	0.4	0.03	0.2
WMAIN-6001(2)	026-024	J-7245	8	152.5	0.01	0.1	0.1	0.4	0.03	0.2
WMAIN-6004	J-7123	J-6234	12	152.5	0.03	0.14	0.3	0.7	0.13	0.7
WMAIN-6005(1)	J-6234	025-010	12	152.5	0.03	0.12	0.3	0.6	0.11	0.6
WMAIN-6005(2)	025-010	J-8719	12	152.5	0.03	0.12	0.3	0.6	0.1	0.6
WMAIN-6006	J-8719	J-6430	12	152.5	0.02	0.11	0.2	0.6	0.09	0.5
WMAIN-6007(1)(1)(1)(1)	J-8223	145-001	12	152.5	0.21	0.81	0.9	1.8	0.81	1.8
WMAIN-6007(1)(1)(1)(2)	145-001	145-003	12	152.5	0.19	0.74	0.8	1.7	0.74	1.7
WMAIN-6007(1)(1)(2)(1)	145-003	145-004	12	152.5	0.17	0.67	0.8	1.6	0.67	1.6
WMAIN-6007(1)(1)(2)(2)	145-004	145-005	12	152.5	0.15	0.59	0.7	1.5	0.59	1.5
WMAIN-6007(1)(2)(1)(1)	145-005	J-9162	12	152.5	0.14	0.56	0.7	1.5	0.56	1.5
WMAIN-6007(1)(2)(1)(2)	J-9162	145-006	12	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-6007(1)(2)(2)	145-006	J-5756	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-6007(2)	J-5756	145-007	12	152.5	0.01	0.03	0.1	0.3	0.03	0.3
WMAIN-6009(1)(1)(1)	J-5391	H-552	4	140	0.01	0.09	0.1	0.3	0.05	0.2
WMAIN-6009(1)(1)(2)	H-552	J-7689	4	140	0.04	0.21	0.2	0.4	0.14	0.3
WMAIN-6009(1)(2)	J-7689	021-034	4	140	0.04	0.21	0.2	0.4	0.14	0.3
WMAIN-6009(2)	021-034	J-6327	4	140	0.05	0.23	0.2	0.4	0.16	0.3
WMAIN-6012(1)	J-7409	J-9278	4	140	0.01	0.09	0.1	0.3	0.05	0.2
WMAIN-6012(2)(1)	J-9278	H-553	4	140	0.04	0.19	0.2	0.4	0.12	0.3
WMAIN-6012(2)(2)	H-553	J-6327	4	140	0.04	0.19	0.2	0.4	0.12	0.3
WMAIN-6014(1)	J-7704	H-554	4	140	0.09	0.47	0.3	0.6	0.3	0.5
WMAIN-6014(2)	H-554	J-7439	4	140	0.15	0.68	0.3	0.8	0.47	0.6
WMAIN-6015(1)	J-5302	013-001	16	140	0.15	0.5	0.8	1.5	0.4	1.3
WMAIN-6015(2)	013-001	J-8110	16	140	0.15	0.5	0.8	1.5	0.4	1.4
WMAIN-6016(1)	J-8110	013-002	16	140	0.15	0.5	0.8	1.5	0.4	1.4
WMAIN-6016(2)	013-002	J-5242	16	140	0.15	0.5	0.8	1.5	0.4	1.4
WMAIN-6017(1)(1)	J-5303	013-028	8	152.5	0.2	0.78	0.7	1.4	0.58	1.2
WMAIN-6017(1)(2)	013-028	J-6128	8	152.5	0.25	0.94	0.7	1.5	0.72	1.3
WMAIN-6017(2)	J-6128	J-5483	8	152.5	0.25	0.94	0.7	1.5	0.72	1.3
WMAIN-6018	J-5483	J-5484	8	152.5	0.25	0.94	0.7	1.5	0.72	1.3
WMAIN-6019(1)	J-5484	013-026	8	152.5	0.27	0.99	0.8	1.6	0.77	1.4
WMAIN-6019(2)(1)	013-026	013-025	8	152.5	0.28	1.05	0.8	1.6	0.81	1.4
WMAIN-6019(2)(2)	013-025	J-5427	8	152.5	0.28	1.05	0.8	1.6	0.81	1.4
WMAIN-6021(1)	J-8626	013-036	16	140	0.08	0.18	0.6	0.9	0.18	0.9
WMAIN-6021(2)	013-036	J-8468	16	140	0.08	0.19	0.6	0.9	0.18	0.9
WMAIN-6022(1)	013-034	013-035	16	140	0.08	0.18	0.6	0.9	0.18	0.9
WMAIN-6022(2)	013-035	J-8626	16	140	0.08	0.18	0.6	0.9	0.18	0.9
WMAIN-6023(1)	J-8585	013-033	16	140	0.08	0.18	0.6	0.9	0.18	0.9
WMAIN-6023(2)	013-033	013-034	16	140	0.08	0.18	0.6	0.9	0.18	0.9
WMAIN-6025(1)	J-8575	013-032	16	140	0.07	0.17	0.5	0.8	0.17	0.8
WMAIN-6025(2)	013-032	J-8585	16	140	0.08	0.17	0.5	0.9	0.17	0.9
WMAIN-6027(1)	J-7103	023-015	8	152.5	0.01	0.08	0.1	0.4	0.03	0.3
WMAIN-6027(2)	023-015	J-7105	8	152.5	0.01	0.08	0.1	0.4	0.04	0.3
WMAIN-6029	J-7105	J-7106	6	152.5	0	0	0	0	0	0
WMAIN-6031	J-7103	J-7104	6	152.5	0	0	0	0	0	0
WMAIN-6032(1)	J-6355	038-007	16	140	0	0.05	0	0.4	0.01	0.2
WMAIN-6032(2)	038-007	J-6790	16	140	0	0.05	0	0.4	0.01	0.2
WMAIN-6034	J-6354	J-6355	8	140	0	0.1	0	0.4	0.07	0.3
WMAIN-6036(1)	J-6837	043-038	8	140	0.02	0.17	0.2	0.6	0.03	0.2
WMAIN-6036(2)	043-038	J-8490	8	140	0.02	0.17	0.2	0.5	0.03	0.2
WMAIN-6037(1)(1)	J-7513	043-046	8	140	0	0.01	0	0.1	0	0
WMAIN-6037(1)(2)	043-046	043-045	8	140	0	0	0	0.1	0	0.1
WMAIN-6037(2)(1)	043-045	043-044	8	140	0	0	0	0.1	0	0.1
WMAIN-6037(2)(2)	043-044	J-8819	8	140	0	0	0	0.1	0	0.1
WMAIN-6038(1)(1)	J-7668	043-048	6	140	0	0	0	0	0	0
WMAIN-6038(1)(2)	043-048	043-047	6	140	0	0	0	0	0	0
WMAIN-6038(2)	043-047	J-7512	6	140	0	0	0	0	0	0
WMAIN-6042	J-7667	J-7668	6	140	0	0.02	0.1	0.1	0.01	0.1
WMAIN-6044	J-6923	J-7667	6	140	0	0.01	0	0.1	0.03	0.2
WMAIN-6046(1)	J-7165	043-034	8	140	0.05	0.54	0.3	1	0.45	0.9
WMAIN-6046(2)	043-034	J-8522	8	140	0.05	0.52	0.3	1	0.43	0.9
WMAIN-6048(1)	J-8522	043-033	8	140	0.04	0.45	0.2	0.9	0.36	0.8
WMAIN-6048(2)	043-033	J-7824	8	140	0.03	0.4	0.2	0.9	0.32	0.8
WMAIN-6050	J-7824	J-7825	6	140	0	0.15	0	0.4	0.14	0.4
WMAIN-6053(1)	J-6918	043-032	8	140	0	0.32	0.1	0.8	0.48	1
WMAIN-6053(2)	043-032	J-7824	8	140	0	0.34	0.1	0.8	0.5	1
WMAIN-6056(1)	J-6917	043-002	8	140	0	0.07	0	0.3	0.31	0.8

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6056(2)	043-002	J-6918	8	140	0	0.07	0	0.3	0.31	0.8
WMAIN-6059(1)	J-7552	042-025	6	140	0	0	0	0.1	0.01	0.1
WMAIN-6059(2)	042-025	J-6736	6	140	0	0	0	0	0	0.1
WMAIN-6061(1)	J-6543	042-014	6	140	0.03	0.41	0.2	0.7	0.37	0.7
WMAIN-6061(2)	042-014	J-8815	6	140	0.03	0.38	0.2	0.7	0.34	0.7
WMAIN-6063(1)	J-7614	042-012	6	140	0	0	0	0.1	0	0.1
WMAIN-6063(2)	042-012	J-8694	6	140	0	0	0	0	0	0
WMAIN-6065	J-6077	J-7052	12	140	0.02	0.32	0.2	1	0.14	0.6
WMAIN-6066	J-8658	J-8424	6	140	0	0.51	0	0.8	0.55	0.9
WMAIN-6068	J-8424	J-6772	6	140	0.01	0.77	0.1	1	2.24	1.8
WMAIN-6069(1)	J-6863	043-009	8	140	0	0.39	0	0.9	0.92	1.4
WMAIN-6069(2)	043-009	J-7021	8	140	0	0.41	0	0.9	0.95	1.4
WMAIN-6071	J-6135	J-6863	12	140	0	0.17	0	0.7	0.48	1.2
WMAIN-6073(1)	J-6857	043-008	8	140	0	0.34	0	0.8	1.04	1.5
WMAIN-6073(2)	043-008	J-8293	8	140	0	0.34	0	0.8	1.04	1.5
WMAIN-6074	J-8293	J-6863	8	140	0	0.33	0	0.8	1.03	1.5
WMAIN-6078(1)	J-6857	043-007	6	140	0	0	0	0	0	0
WMAIN-6078(2)	043-007	J-6858	6	140	0	0	0	0	0	0
WMAIN-6080(1)	J-6634	043-006	8	140	0	0.36	0	0.8	1.09	1.5
WMAIN-6080(2)	043-006	J-6857	8	140	0	0.36	0	0.8	1.08	1.5
WMAIN-6083(1)	J-5663	043-005	12	140	0	0.65	0	1.5	1.68	2.4
WMAIN-6083(2)	043-005	J-6633	12	140	0	0.66	0.1	1.5	1.7	2.5
WMAIN-6084	J-6633	J-6599	12	140	0	1.23	0	2.1	3.11	3.4
WMAIN-6086	J-6599	J-5506	12	140	0	0.07	0	0.4	0.08	0.5
WMAIN-6088	J-7546	J-7547	4	140	0.02	0.07	0.1	0.2	0.07	0.2
WMAIN-6089(1)	J-8685	044-006	8	140	0.01	0.19	0.1	0.6	0.53	1
WMAIN-6089(2)	044-006	J-6132	8	140	0.01	0.21	0.1	0.6	0.55	1
WMAIN-6092(1)(1)	J-8578	053-038	6	140	0.03	0.16	0.2	0.4	0.2	0.5
WMAIN-6092(1)(2)	053-038	053-037	6	140	0.02	0.12	0.1	0.4	0.16	0.4
WMAIN-6092(2)(1)	053-037	053-036	6	140	0.02	0.12	0.1	0.4	0.16	0.4
WMAIN-6092(2)(2)	053-036	J-5462	6	140	0.02	0.12	0.1	0.4	0.16	0.4
WMAIN-6093	J-5462	J-5455	6	140	0.02	0.12	0.1	0.4	0.16	0.4
WMAIN-6095	J-8578	J-8720	8	140	0.02	0.05	0.2	0.3	0.06	0.3
WMAIN-6097	J-5628	J-8578	8	140	0.05	0.18	0.3	0.6	0.25	0.7
WMAIN-6099(1)	J-7982	053-034	8	140	0.05	0.19	0.3	0.6	0.18	0.6
WMAIN-6099(2)(1)	053-034	053-033	8	140	0.04	0.17	0.3	0.6	0.16	0.5
WMAIN-6099(2)(2)	053-033	J-5627	8	140	0.04	0.17	0.3	0.6	0.16	0.5
WMAIN-6100	J-5627	J-5628	8	140	0.04	0.17	0.3	0.6	0.16	0.5
WMAIN-6102(1)	J-7982	053-035	8	140	0.06	0.24	0.3	0.7	0.28	0.7
WMAIN-6102(2)	053-035	J-6568	8	140	0.05	0.19	0.3	0.6	0.23	0.6
WMAIN-6104	J-7655	J-7656	6	140	0	0.04	0	0.2	0.09	0.3
WMAIN-6106(1)	J-7559	053-005	6	140	0	0.06	0.1	0.3	0.12	0.4
WMAIN-6106(2)	053-005	J-7656	6	140	0	0.04	0	0.2	0.1	0.3
WMAIN-6109(1)	J-7654	053-007	6	140	0	0.02	0	0.1	0.05	0.2
WMAIN-6109(2)	053-007	J-7655	6	140	0	0.03	0	0.2	0.07	0.3
WMAIN-6112(1)(1)	J-6096	053-031	8	140	0	0.29	0	0.7	0.06	0.3
WMAIN-6112(1)(2)	053-031	053-032	8	140	0	0.29	0	0.7	0.06	0.3
WMAIN-6112(2)	053-032	J-6139	8	140	0	0.29	0	0.7	0.06	0.3
WMAIN-6114	J-6096	J-6097	8	140	0.04	0.24	0.2	0.7	0.48	1
WMAIN-6116(1)	J-6097	053-030	6	140	0.33	1.42	0.7	1.4	0.49	0.8
WMAIN-6116(2)	053-030	J-5799	6	140	0.35	1.51	0.7	1.5	0.55	0.9
WMAIN-6119	J-6084	J-5799	6	140	0.08	0.33	0.3	0.7	0.15	0.4
WMAIN-6120(1)(1)	J-5822	053-028	6	140	0.13	0.58	0.4	0.9	0.18	0.5
WMAIN-6120(1)(2)	053-028	053-029	6	140	0.13	0.55	0.4	0.9	0.17	0.5
WMAIN-6120(2)	053-029	J-5798	6	140	0.12	0.54	0.4	0.9	0.17	0.5
WMAIN-6121	J-5798	J-5799	6	140	0.12	0.54	0.4	0.9	0.16	0.4
WMAIN-6123	J-5822	J-5823	6	140	0	0	0	0	0	0
WMAIN-6126	J-7972	J-5822	6	140	0.15	0.65	0.4	0.9	0.23	0.5
WMAIN-6128(1)	J-7215	053-025	6	140	0	0	0	0	0	0
WMAIN-6128(2)	053-025	J-7216	6	140	0	0	0	0	0	0
WMAIN-6130	J-6227	J-6228	4	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-6132	J-6369	J-6096	8	152.5	0.14	0.59	0.5	1.2	0.21	0.7
WMAIN-6134	J-7341	J-6369	8	140	0.03	0.17	0.2	0.6	0.03	0.2
WMAIN-6136(1)	J-7340	053-019	8	140	0.02	0.1	0.2	0.4	0.01	0.1
WMAIN-6136(2)	053-019	J-7341	8	140	0.02	0.1	0.2	0.4	0.01	0.1
WMAIN-6138(1)	J-7153	J-9302	8	140	0	0	0	0	0	0
WMAIN-6138(2)	J-9302	J-7635	8	140	0	0	0	0	0	0
WMAIN-6139	J-7084	J-7085	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-6142	168-038	J-8243	12	152.5	0.01	0.44	0.1	1.3	0.03	0.3
WMAIN-6146(1)	J-8524	167-038	8	152.5	0	0	0	0.1	0	0
WMAIN-6146(2)	167-038	J-7483	8	152.5	0	0	0	0.1	0	0
WMAIN-6147	J-6247	J-6248	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6150	J-6097	J-7982	8	140	0.22	0.89	0.6	1.3	0.95	1.4
WMAIN-6151	J-6425	J-6426	8	140	0.07	0.25	0.4	0.7	0.16	0.5
WMAIN-6152	J-7085	J-7517	4	140	0	0.13	0	0.3	0.14	0.3
WMAIN-6154(1)	J-7153	011-003	4	140	0.09	0.37	0.3	0.5	0.21	0.4
WMAIN-6154(2)	011-003	J-7154	4	140	0.1	0.39	0.3	0.6	0.23	0.4
WMAIN-6158(1)	J-7628	011-002	4	140	0.02	0.14	0.1	0.3	0.05	0.2
WMAIN-6158(2)	011-002	J-7153	4	140	0.03	0.19	0.1	0.4	0.08	0.2
WMAIN-6160(1)	J-7085	011-001	4	140	0	0.03	0	0.1	0.01	0.1
WMAIN-6160(2)	011-001	J-7628	4	140	0	0.04	0	0.2	0	0
WMAIN-6162(1)	J-7135	170-074	8	152.5	0.11	0.25	0.5	0.7	0.28	0.8
WMAIN-6162(2)	170-074	J-8253	8	152.5	0.11	0.24	0.5	0.7	0.27	0.8
WMAIN-6163	J-5663	J-6134	12	152.5	0	0.39	0	1.2	0.28	1
WMAIN-6164	J-5867	J-5868	6	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6165(1)	J-7068	054-011	6	152.5	0	0.02	0.1	0.1	0.02	0.1
WMAIN-6165(2)	054-011	J-5867	6	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6166	J-6352	J-6353	8	140	0.89	3.76	1.3	2.9	1.45	1.7
WMAIN-6168	J-7340	J-7562	6	140	0.05	0.42	0.2	0.7	0.01	0.1
WMAIN-6170(1)	J-7562	053-018	6	140	0.03	0.17	0.2	0.5	0.04	0.2
WMAIN-6170(2)(1)	053-018	053-017	6	140	0	0.01	0	0.1	0.04	0.2
WMAIN-6170(2)(2)	053-017	J-7255	6	140	0.02	0.1	0.1	0.4	0.2	0.5
WMAIN-6172(1)	J-7215	053-027	6	140	0.17	0.72	0.5	1	0.27	0.6
WMAIN-6172(2)	053-027	J-7972	6	140	0.16	0.7	0.5	1	0.26	0.6
WMAIN-6174	J-6352	J-7215	6	140	0.2	0.84	0.5	1.1	0.35	0.7
WMAIN-6175	J-6227	J-6352	6	140	0.14	0.57	0.4	0.9	0.24	0.5
WMAIN-6179(1)(1)	J-6085	053-023	8	140	0.35	1.51	0.8	1.8	0.54	1
WMAIN-6179(1)(2)	053-023	053-024	8	140	0.36	1.53	0.8	1.8	0.55	1
WMAIN-6179(2)	053-024	J-6352	8	140	0.36	1.53	0.8	1.8	0.55	1
WMAIN-6181(1)	J-7654	053-008	8	140	0	0.21	0	0.6	0.51	1
WMAIN-6181(2)	053-008	J-6471	8	140	0	0.2	0	0.6	0.5	1
WMAIN-6183(1)	J-7559	053-006	8	140	0	0.18	0.1	0.6	0.42	0.9
WMAIN-6183(2)	053-006	J-7654	8	140	0	0.17	0.1	0.6	0.41	0.9
WMAIN-6184(1)(1)(1)	J-6861	053-011	12	140	0.04	0.26	0.3	0.9	0.37	1.1
WMAIN-6184(1)(1)(2)	053-011	053-057	12	140	0.04	0.27	0.3	0.9	0.38	1.1
WMAIN-6184(1)(2)(1)(1)	053-057	053-048	12	140	0.04	0.27	0.3	0.9	0.38	1.1
WMAIN-6184(1)(2)(1)(2)	053-048	053-047	12	140	0.04	0.27	0.3	0.9	0.39	1.1
WMAIN-6184(1)(2)(2)(1)	053-047	053-012	12	140	0.05	0.3	0.4	1	0.42	1.2
WMAIN-6184(1)(2)(2)(2)	053-012	053-046	12	140	0.05	0.3	0.4	1	0.42	1.2
WMAIN-6184(2)	053-046	J-8497	12	140	0.05	0.3	0.4	1	0.42	1.2
WMAIN-6187	J-5628	J-7219	12	140	0.07	0.42	0.5	1.2	0.53	1.3
WMAIN-6189	J-5454	J-5455	12	140	0.12	0.57	0.6	1.4	0.8	1.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6190(1)(1)	J-5777	J-8940	12	140	0.07	0.49	0.5	1.3	0.69	1.5
WMAIN-6190(1)(2)	J-8940	053-056	12	140	0.12	0.57	0.6	1.4	0.79	1.6
WMAIN-6190(2)	053-056	J-5454	12	140	0.12	0.57	0.6	1.4	0.8	1.6
WMAIN-6192	J-5218	J-5219	12	140	0.04	0.16	0.3	0.7	0.1	0.5
WMAIN-6194(1)(1)	J-5943	J-8975	8	140	0.07	0.22	0.3	0.6	0.05	0.3
WMAIN-6194(1)(2)(1)(1)	J-8975	H-517	8	140	0.18	0.74	0.6	1.2	0.04	0.2
WMAIN-6194(1)(2)(1)(2)	H-517	H-516	8	140	0.18	0.74	0.6	1.2	0.04	0.2
WMAIN-6194(1)(2)(2)	H-516	044-015	8	140	0.18	0.74	0.6	1.2	0.04	0.2
WMAIN-6194(2)	044-015	J-5952	8	140	0.18	0.74	0.6	1.2	0.04	0.2
WMAIN-6195(1)	J-6757	044-019	6	140	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-6195(2)	044-019	J-7382	6	140	0.01	0.04	0.1	0.2	0.04	0.2
WMAIN-6197	J-5093	J-5094	6	140	0.43	1.62	0.7	1.6	1.16	1.3
WMAIN-6198	J-6186	J-5063	6	152.5	0.23	0.44	0.6	0.8	0.26	0.6
WMAIN-6199	J-5248	J-5815	6	152.5	0.02	0.5	0.2	0.9	0.11	0.4
WMAIN-6201(1)	J-8263	015-022	6	152.5	0.06	0.22	0.3	0.6	0.22	0.6
WMAIN-6201(2)	015-022	J-6240	6	152.5	0.06	0.22	0.3	0.6	0.22	0.6
WMAIN-6204	J-6638	J-5350	6	152.5	0	0	0	0	0	0
WMAIN-6205	J-5350	J-5176	6	152.5	0	0	0	0	0	0
WMAIN-6206	J-5176	J-5177	6	152.5	0	0	0	0	0	0
WMAIN-6208	J-5943	044-014	6	152.5	0.08	0.3	0.3	0.7	0.3	0.7
WMAIN-6210	J-5777	J-5778	8	152.5	0	0	0	0	0	0
WMAIN-6212	J-5292	J-5293	10	152.5	0.18	0.35	0.7	1	0.4	1.1
WMAIN-6214(1)	J-7404	170-128	6	152.5	0	0	0	0	0	0
WMAIN-6214(2)	170-128	J-8331	6	152.5	0	0	0	0	0	0
WMAIN-6215(1)	J-7848	167-033	8	152.5	0	0	0	0	0	0
WMAIN-6215(2)	167-033	J-7721	8	152.5	0	0	0	0	0	0
WMAIN-6217	J-8214	J-7848	8	152.5	0	0	0	0.1	0	0.1
WMAIN-6221(1)	J-7950	167-029	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-6221(2)	167-029	J-8214	8	152.5	0	0.04	0.1	0.3	0.01	0.2
WMAIN-6222(1)	J-7721	167-037	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-6222(2)	167-037	J-8580	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-6223	167-035	J-7720	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-6225	J-8153	167-035	8	152.5	0	0.01	0	0.1	0	0
WMAIN-6227(1)	J-7950	167-036	8	152.5	0	0	0	0.1	0	0
WMAIN-6227(2)	167-036	J-8153	8	152.5	0	0.01	0	0.1	0	0
WMAIN-6230	J-7848	J-8179	8	152.5	0	0	0	0	0	0
WMAIN-6233(1)	J-6665	167-030	12	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6233(2)	167-030	J-8214	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-6235(1)	J-8588	170-149	8	152.5	0.42	0.98	1	1.5	1.12	1.7
WMAIN-6235(2)	170-149	J-8098	8	152.5	0.41	0.96	1	1.5	1.1	1.6
WMAIN-6236(1)(1)	J-5887	018-012	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6236(1)(2)	018-012	018-011	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6236(2)	018-011	J-8592	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6237	J-5886	J-5887	4	152.5	0.56	2.17	0.7	1.5	2.17	1.5
WMAIN-6239	J-6866	J-6867	8	152.5	0	0	0	0	0	0
WMAIN-6241(1)	J-7089	170-112	8	152.5	0	0	0	0	0	0
WMAIN-6241(2)	170-112	J-7532	8	152.5	0	0	0	0	0	0
WMAIN-6242	J-6172	J-6173	8	152.5	0	0	0	0	0	0
WMAIN-6244(1)	J-6866	170-105	8	152.5	0.04	0.1	0.3	0.4	0.11	0.5
WMAIN-6244(2)	170-105	J-7717	8	152.5	0.04	0.09	0.3	0.4	0.1	0.4
WMAIN-6247(1)	J-8812	170-124	12	152.5	0.23	0.94	0.9	2	0.91	1.9
WMAIN-6247(2)	170-124	J-6983	12	152.5	0.21	0.85	0.9	1.8	0.82	1.8
WMAIN-6249(1)	J-8602	018-009	12	152.5	0.02	0.06	0.2	0.4	0.08	0.5
WMAIN-6249(2)	018-009	J-6589	12	152.5	0.02	0.06	0.2	0.4	0.08	0.5
WMAIN-6250	J-5680	J-5681	12	152.5	0.02	0.06	0.2	0.4	0.06	0.4
WMAIN-6253	J-5680	J-6164	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-6254	J-6164	J-8558	12	152.5	0.01	0.02	0.1	0.3	0.02	0.3
WMAIN-6255(1)	J-5681	018-005	16	140	0	0.05	0	0.4	0	0
WMAIN-6255(2)	018-005	J-7927	16	140	0	0.05	0	0.4	0	0
WMAIN-6256(1)	J-7927	018-004	16	140	0	0.05	0	0.4	0	0
WMAIN-6256(2)	018-004	J-5726	16	140	0	0.05	0	0.4	0	0
WMAIN-6258(1)	J-5727	018-039	8	152.5	0	0.01	0	0.2	0	0
WMAIN-6258(2)	018-039	J-5400	8	152.5	0	0.02	0	0.2	0	0
WMAIN-6259(1)	J-8544	019-038	8	152.5	0	0.16	0	0.6	0	0
WMAIN-6259(2)(1)	019-038	019-039	8	152.5	0	0.17	0	0.6	0	0
WMAIN-6259(2)(2)	019-039	J-8314	8	152.5	0	0.17	0	0.6	0	0
WMAIN-6261(1)(1)(1)	J-5727	018-003	16	140	0	0.07	0	0.5	0	0
WMAIN-6261(1)(1)(2)	018-003	J-5941	16	140	0	0.07	0	0.5	0	0
WMAIN-6261(1)(2)	J-5941	J-5939	16	140	0	0.07	0	0.5	0	0
WMAIN-6261(2)	J-5939	J-8203	16	140	0	0.07	0	0.5	0	0
WMAIN-6262	019-025	J-8314	12	152.5	0.02	0.04	0.2	0.4	0.06	0.4
WMAIN-6265(1)	J-5329	019-024	12	152.5	0.01	0.05	0.2	0.4	0.03	0.3
WMAIN-6265(2)	019-024	J-7019	12	152.5	0.02	0.05	0.2	0.4	0.03	0.3
WMAIN-6267	J-7121	J-8447	8	152.5	0.25	0.57	0.7	1.2	0.7	1.3
WMAIN-6269(1)	J-7121	170-133	8	152.5	0.07	0.42	0.4	1	0.42	1
WMAIN-6269(2)	170-133	J-7791	8	152.5	0.06	0.4	0.4	1	0.4	1
WMAIN-6271	J-7120	J-7121	8	152.5	0	0.08	0.1	0.4	0.04	0.3
WMAIN-6273(1)(1)	J-6661	170-131	8	152.5	0.15	0.25	0.6	0.7	0.33	0.9
WMAIN-6273(1)(2)	170-131	170-130	8	152.5	0.17	0.28	0.6	0.8	0.37	0.9
WMAIN-6273(2)	170-130	J-8456	8	152.5	0.17	0.28	0.6	0.8	0.37	0.9
WMAIN-6276(1)	J-6431	170-127	8	152.5	0.15	0.26	0.6	0.8	0.35	0.9
WMAIN-6276(2)	170-127	J-7404	8	152.5	0.16	0.27	0.6	0.8	0.35	0.9
WMAIN-6277	J-5257	029-029	6	140	0	0.08	0	0.3	0.01	0.1
WMAIN-6279	J-6702	J-6813	4	140	0	0	0	0	0	0
WMAIN-6280(1)	J-5129	029-028	12	140	0.01	0.01	0.1	0.2	0.01	0.1
WMAIN-6281(1)	029-028	029-022	12	140	0.01	0.01	0.1	0.2	0.01	0.1
WMAIN-6281(2)	029-022	J-7417	12	140	0	0.01	0.1	0.2	0.01	0.1
WMAIN-6283	J-5607	J-5608	12	152.5	0	0.04	0.1	0.3	0.01	0.1
WMAIN-6285(1)	J-7417	029-019	12	140	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-6285(2)	029-019	J-5607	12	140	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-6289	J-5555	J-7417	6	140	0	0.01	0	0.1	0	0
WMAIN-6290	J-5129	J-5257	6	140	0.06	0.27	0.3	0.6	0.07	0.3
WMAIN-6294(1)	J-6701	J-9321	6	140	0	0.08	0	0.3	0.05	0.2
WMAIN-6294(2)	J-9321	J-5129	6	140	0	0.08	0	0.3	0.04	0.2
WMAIN-6295	J-8648	J-5258	2	130	0.02	0.19	0.1	0.2	0.1	0.2
WMAIN-6297	J-6702	J-5554	6	140	0.01	0.05	0.1	0.2	0.03	0.2
WMAIN-6298	J-5554	J-5555	6	140	0	0.04	0.1	0.2	0.02	0.1
WMAIN-6299	J-5974	J-5975	6	140	0.01	0.03	0.1	0.2	0.01	0.1
WMAIN-6300	J-5555	J-5974	6	140	0.01	0.04	0.1	0.2	0.02	0.1
WMAIN-6301	J-6239	J-5607	6	140	0.01	0.02	0.1	0.1	0.01	0.1
WMAIN-6303	J-6239	J-5975	6	140	0	0.02	0.1	0.1	0.01	0.1
WMAIN-6304	J-5606	J-5133	12	152.5	0.01	0.13	0.1	0.7	0.06	0.4
WMAIN-6305(1)	J-6803	029-041	12	152.5	0.05	0.17	0.4	0.8	0.12	0.6
WMAIN-6305(2)(1)	029-041	029-017B	12	152.5	0.05	0.17	0.4	0.8	0.12	0.6
WMAIN-6305(2)(2)	029-017B	J-5606	12	152.5	0.05	0.17	0.4	0.8	0.12	0.6
WMAIN-6307(1)	J-5746	029-026	12	152.5	0.09	0.24	0.6	0.9	0.2	0.8
WMAIN-6307(2)	029-026	J-6803	12	152.5	0.09	0.24	0.6	0.9	0.2	0.8
WMAIN-6310	J-6801	J-6802	6	140	0	0	0	0	0	0
WMAIN-6311(1)	029-035	J-9015	6	140	0	0.15	0	0.4	0	0
WMAIN-6311(2)	J-9015	J-5780	6	140	0	0.11	0	0.4	0.06	0.3
WMAIN-6313	J-7405	029-035	6	140	0	0.13	0	0.4	0	0
WMAIN-6316(1)(1)	J-6821	020-003	12	152.5	0.12	0.31	0.7	1.1	0.3	1.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6316(1)(2)	020-003	020-027	12	152.5	0.12	0.31	0.7	1.1	0.3	1.1
WMAIN-6316(2)	020-027	J-6817	12	152.5	0.12	0.31	0.7	1.1	0.3	1.1
WMAIN-6319(1)	J-6885	J-9246	6	152.5	0.11	0.27	0.4	0.6	0.29	0.7
WMAIN-6319(2)	J-9246	J-6000	6	152.5	0.12	0.29	0.4	0.7	0.31	0.7
WMAIN-6320(1)	J-5999	020-005	8	152.5	0.01	0.14	0.1	0.5	0.08	0.4
WMAIN-6320(2)	020-005	J-6000	8	152.5	0.01	0.14	0.1	0.5	0.08	0.4
WMAIN-6323	J-6121	J-6122	6	140	0.04	0.14	0.2	0.4	0.08	0.3
WMAIN-6324(1)(1)	J-6557	028-036	6	140	0	0.03	0	0.2	0	0
WMAIN-6324(1)(2)(1)	028-036	J-9293	6	140	0	0.03	0	0.2	0	0
WMAIN-6324(1)(2)(2)	J-9293	J-8717	6	140	0	0.03	0	0.2	0	0
WMAIN-6324(2)(1)(1)	J-8717	J-9316	6	140	0	0.01	0	0.1	0	0
WMAIN-6324(2)(1)(2)	J-9316	J-9244	6	140	0	0.01	0	0.1	0	0
WMAIN-6324(2)(2)	J-9244	028-037	6	140	0	0.01	0	0.1	0	0
WMAIN-6326	J-6347	J-6348	2	130	0.09	0.37	0.2	0.3	0.37	0.3
WMAIN-6329	J-6557	J-6558	6	140	0.01	0.05	0.1	0.2	0.01	0.1
WMAIN-6331	J-6638	J-6348	6	140	0	0.03	0	0.2	0	0
WMAIN-6332	J-6682	J-6558	6	140	0	0	0	0	0	0
WMAIN-6334	J-5910	J-5280	8	152.5	0.31	0.76	0.8	1.3	0.76	1.3
WMAIN-6336	028-029	J-8184	6	140	0	0.15	0	0.4	0.03	0.2
WMAIN-6337(1)	J-8184	028-022	6	140	0	0.14	0	0.4	0.02	0.2
WMAIN-6337(2)	028-022	J-5866	6	140	0	0.14	0	0.4	0.02	0.1
WMAIN-6340(1)	J-5918	028-020	4	140	0	0.05	0	0.2	0.01	0.1
WMAIN-6340(2)	028-020	J-6744	4	140	0.06	0.21	0.2	0.4	0.1	0.3
WMAIN-6342	J-7693	J-7694	6	140	0.03	0.33	0.2	0.7	0	0
WMAIN-6344	J-7763	J-7694	4	140	0	0.07	0	0.2	0.04	0.2
WMAIN-6347	J-5171	J-6895	6	140	0	0.04	0	0.2	0.04	0.2
WMAIN-6350(1)	J-7769	H-521	6	140	0.01	0.14	0.1	0.4	0.03	0.2
WMAIN-6350(2)	H-521	J-7693	6	140	0.02	0.15	0.1	0.4	0.02	0.2
WMAIN-6352	J-5809	J-7769	6	140	0	0.05	0	0.2	0.09	0.3
WMAIN-6355	J-7315	028-011	6	140	0	0.17	0	0.5	0.09	0.3
WMAIN-6357(1)	J-5809	028-013	8	140	0.02	0.29	0.2	0.7	0	0.1
WMAIN-6357(2)	028-013	J-7315	8	140	0.02	0.29	0.2	0.7	0	0.1
WMAIN-6360(1)	J-7315	028-009	8	140	0.02	0.52	0.2	1	0.05	0.3
WMAIN-6360(2)	028-009	J-5418	8	140	0.02	0.52	0.2	1	0.05	0.3
WMAIN-6361	J-8753	J-5398	8	140	0	0.07	0	0.4	0.05	0.3
WMAIN-6363(1)	J-5398	027-027	12	140	0	0.01	0	0.2	0.01	0.1
WMAIN-6363(2)	027-027	J-6143	12	140	0	0.01	0	0.2	0.01	0.1
WMAIN-6366(1)	J-5215	027-035	12	140	0	0.01	0	0.1	0	0.1
WMAIN-6366(2)	027-035	J-6143	12	140	0	0.01	0	0.2	0.01	0.1
WMAIN-6369	J-5308	J-5765	6	140	0.02	0.18	0.1	0.5	0.06	0.3
WMAIN-6371	J-6059	J-6060	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6372	J-5120	J-5343	6	140	0.01	1.42	0.1	1.4	0.63	0.9
WMAIN-6374	J-5532	J-5533	10	140	0.05	0.43	0.3	1	0.23	0.8
WMAIN-6376(1)	J-5808	H-547	4	140	0.03	0.2	0.1	0.4	0.11	0.3
WMAIN-6376(2)	H-547	J-6153	4	140	0.03	0.19	0.1	0.4	0.1	0.3
WMAIN-6378(1)	J-8159	H-548	4	140	0	0.03	0	0.1	0.03	0.1
WMAIN-6378(2)	H-548	J-5808	4	140	0.01	0.1	0.1	0.3	0.09	0.2
WMAIN-6381(1)	J-8147	H-549	4	140	0.05	0.26	0.2	0.4	0.16	0.3
WMAIN-6381(2)	H-549	J-8146	4	140	0.04	0.22	0.2	0.4	0.13	0.3
WMAIN-6384(1)	J-8158	H-550	4	140	0	0.02	0	0.1	0.02	0.1
WMAIN-6384(2)	H-550	J-8147	4	140	0	0.06	0	0.2	0.06	0.2
WMAIN-6387(1)	J-8094	021-022	6	140	0.1	0.65	0.4	0.9	0.39	0.7
WMAIN-6387(2)	021-022	J-7415	6	140	0.11	0.68	0.4	1	0.41	0.7
WMAIN-6388(1)	J-7416	021-027	6	140	0	0.06	0	0.3	0.03	0.2
WMAIN-6388(2)	021-027	J-5391	6	140	0	0.05	0	0.2	0.02	0.2
WMAIN-6390(1)	J-8158	021-028	4	140	0.06	0.39	0.2	0.6	0.23	0.4
WMAIN-6390(2)	021-028	J-8159	4	140	0.04	0.32	0.2	0.5	0.18	0.4
WMAIN-6393	J-5541	J-8158	4	140	0.09	0.51	0.2	0.6	0.34	0.5
WMAIN-6394	J-7925	J-7926	6	140	0.01	0.16	0.1	0.4	0.1	0.4
WMAIN-6396	J-5392	J-5542	6	140	0.07	0.42	0.3	0.8	0.24	0.6
WMAIN-6399(1)	J-5541	021-033	6	140	0.1	0.6	0.3	0.9	0.37	0.7
WMAIN-6399(2)	021-033	J-7926	6	140	0.08	0.53	0.3	0.9	0.32	0.6
WMAIN-6402(1)	J-7926	021-032	6	140	0.04	0.39	0.2	0.7	0.21	0.5
WMAIN-6402(2)	021-032	021-031	6	140	0.03	0.35	0.2	0.7	0.18	0.5
WMAIN-6404(1)	J-7888	022-045	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6404(2)	022-045	J-8374	6	140	0	0.05	0	0.2	0.02	0.1
WMAIN-6405	J-8193	J-8194	2	100	0.02	0.06	0	0.1	0.06	0.1
WMAIN-6406(1)	J-5165	022-023	10	152.5	0.83	0.94	1.6	1.7	0.88	1.7
WMAIN-6406(2)	022-023	J-7521	10	152.5	0.82	0.93	1.6	1.7	0.88	1.7
WMAIN-6408(1)	J-5991	022-012	10	140	0	0	0	0.1	0	0
WMAIN-6408(2)	022-012	J-6362	10	140	0	0	0	0.1	0	0
WMAIN-6409	J-5393	J-5394	10	152.5	0	0	0	0	0	0
WMAIN-6410	J-6079	J-8712	8	152.5	0.03	0.27	0.2	0.8	0.26	0.8
WMAIN-6414(1)(1)	J-5709	014-002	8	140	0.03	0.2	0.2	0.6	0.24	0.7
WMAIN-6414(1)(2)	014-002	014-003	8	140	0.03	0.2	0.2	0.6	0.24	0.7
WMAIN-6414(2)	014-003	J-8851	8	140	0.03	0.21	0.2	0.6	0.25	0.7
WMAIN-6415	J-8621	J-5331	12	152.5	0.04	0.24	0.4	0.9	0.31	1.1
WMAIN-6418(1)	J-6708	014-007	12	152.5	0.16	0.63	0.8	1.6	0.91	1.9
WMAIN-6418(2)(1)	014-007	014-006	12	152.5	0.16	0.62	0.7	1.6	0.89	1.9
WMAIN-6418(2)(2)	014-006	J-8621	12	152.5	0.15	0.61	0.7	1.5	0.88	1.9
WMAIN-6419	030-047	J-5610	8	140	0.12	0.29	0.5	0.7	0.25	0.7
WMAIN-6420	J-6443	J-5375	6	140	0.04	0.27	0.2	0.6	0.09	0.3
WMAIN-6421(1)	J-6388	J-9288	6	140	0.25	0.89	0.6	1.1	0.39	0.7
WMAIN-6421(2)	J-9288	J-5374	6	140	0.25	0.89	0.6	1.1	0.39	0.7
WMAIN-6423(1)	J-6442	J-5175	6	140	0.06	0.18	0.3	0.5	0.13	0.4
WMAIN-6423(2)	J-5175	J-6443	6	140	0.06	0.32	0.3	0.6	0.11	0.4
WMAIN-6425(1)	J-6398	030-028	6	140	0.05	0.15	0.2	0.4	0.1	0.3
WMAIN-6425(2)	030-028	J-6442	6	140	0.07	0.17	0.3	0.5	0.13	0.4
WMAIN-6428(1)	J-7891	029-014	4	140	0	0.05	0	0.2	0	0
WMAIN-6428(2)	029-014	J-7385	4	140	0.02	0.12	0.1	0.3	0.05	0.2
WMAIN-6430(1)	J-7890	029-015	6	140	0.01	0.09	0.1	0.3	0.01	0.1
WMAIN-6430(2)	029-015	J-8502	6	140	0.01	0.1	0.1	0.4	0.03	0.2
WMAIN-6431	J-6454	J-6288	4	140	0	0	0	0	0	0
WMAIN-6433	J-6905	J-7627	6	140	0.15	0.68	0.4	1	0.22	0.5
WMAIN-6434	J-8119	J-7627	4	140	0.02	0.04	0.1	0.2	0.03	0.1
WMAIN-6438(1)	J-5683	022-001	8	140	0.11	0.2	0.4	0.6	0.1	0.4
WMAIN-6438(2)	022-001	J-7779	8	140	0.11	0.2	0.4	0.6	0.1	0.4
WMAIN-6440	J-5682	J-5683	10	140	0.08	0.19	0.4	0.7	0.09	0.5
WMAIN-6442(1)(1)	J-5457	026-015	12	140	0.01	0.17	0.2	0.7	0.17	0.7
WMAIN-6442(1)(2)	026-015	026-014	12	140	0.01	0.15	0.1	0.7	0.16	0.7
WMAIN-6442(2)	026-014	J-5757	12	140	0.01	0.15	0.1	0.7	0.16	0.7
WMAIN-6444(1)(1)	026-013	023-058	12	140	0.04	0.2	0.3	0.8	0.2	0.8
WMAIN-6444(1)(2)	023-058	026-026	12	140	0.03	0.19	0.3	0.8	0.19	0.8
WMAIN-6444(2)	026-026	J-8301	12	140	0.03	0.19	0.3	0.8	0.19	0.8
WMAIN-6446	J-7227	J-7228	6	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6448	J-6953	J-6954	6	152.5	0	0	0	0	0	0
WMAIN-6449	J-7023	J-6953	6	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-6452	J-7097	J-7098	6	152.5	0	0	0	0	0	0
WMAIN-6454(1)	J-6359	023-012	6	140	0	0.09	0	0.3	0.04	0.2
WMAIN-6454(2)	023-012	J-5677	6	140	0	0.09	0	0.3	0.03	0.2
WMAIN-6456(1)	J-6689	023-013	6	140	0	0.1	0	0.3	0.02	0.2
WMAIN-6456(2)	023-013	J-5677	6	140	0	0.1	0	0.3	0.03	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6457(1)	J-5579	036-036	6	140	0.27	0.8	0.6	1.1	0.35	0.7
WMAIN-6457(2)(1)	036-036	036-045	6	140	0.31	0.93	0.6	1.1	0.44	0.8
WMAIN-6457(2)(2)	036-045	J-5270	6	140	0.31	0.93	0.6	1.1	0.44	0.8
WMAIN-6460(1)	J-8106	028-016	6	140	0	0.84	0.1	1.1	0.16	0.4
WMAIN-6460(2)	028-016	J-5917	6	140	0	0.86	0.1	1.1	0.17	0.5
WMAIN-6461	J-7093	J-7094	6	140	0	0.26	0	0.6	0.02	0.1
WMAIN-6463(1)	J-8189	037-040	6	152.5	0	0.19	0	0.5	0.03	0.2
WMAIN-6463(2)	037-040	J-7093	6	152.5	0	0.21	0	0.6	0.02	0.1
WMAIN-6464	J-7168	J-5498	16	140	0	0.09	0.1	0.6	0.03	0.3
WMAIN-6467(1)	J-8631	027-022A	16	140	0	0.07	0	0.5	0.02	0.3
WMAIN-6467(2)	027-022A	J-7711	16	140	0	0.07	0	0.5	0.02	0.3
WMAIN-6469(1)	J-5475	027-021	16	140	0	0.06	0	0.5	0.02	0.3
WMAIN-6469(2)	027-021	J-8631	16	140	0	0.06	0	0.5	0.02	0.3
WMAIN-6472(1)(1)	J-6848	027-018	8	152.5	0	0.07	0.1	0.4	0	0.1
WMAIN-6472(1)(2)	027-018	027-019	8	152.5	0.01	0.1	0.1	0.4	0	0
WMAIN-6472(2)	027-019	J-8631	8	152.5	0.01	0.1	0.1	0.4	0	0
WMAIN-6474	J-7168	J-6720	8	152.5	0	0.19	0	0.6	0.02	0.2
WMAIN-6475	J-6720	027-043	8	152.5	0	0.18	0	0.6	0.02	0.2
WMAIN-6476	027-043	J-6188	8	152.5	0	0.12	0	0.5	0	0
WMAIN-6479(1)	J-7965	027-010	8	152.5	0	0.05	0	0.3	0	0.1
WMAIN-6479(2)	027-010	J-8415	8	152.5	0	0.05	0	0.3	0	0.1
WMAIN-6481	J-6188	J-7965	8	152.5	0	0.18	0	0.6	0.02	0.2
WMAIN-6482(1)	J-7038	027-040	6	152.5	0.01	0.61	0.1	1	0.1	0.4
WMAIN-6482(2)	027-040	J-6188	6	152.5	0.01	0.61	0.1	1	0.1	0.4
WMAIN-6484(1)	J-8415	027-009	8	140	0	0.07	0	0.3	0	0
WMAIN-6484(2)	027-009	J-6848	8	140	0	0.07	0	0.3	0	0
WMAIN-6486	J-6848	027-017	8	140	0	0.11	0	0.4	0.01	0.1
WMAIN-6489(1)(1)	J-5812	030-023	6	140	0.02	0.05	0.2	0.2	0.05	0.2
WMAIN-6489(1)(2)	030-023	030-030	6	140	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-6489(2)	030-030	J-7901	6	140	0.03	0.06	0.2	0.3	0.06	0.3
WMAIN-6490(1)	J-5425	030-031	6	140	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-6490(2)	030-031	J-6877	6	140	0.02	0.04	0.1	0.2	0.04	0.2
WMAIN-6492	J-5424	031-046	4	140	0.04	0.08	0.2	0.2	0.06	0.2
WMAIN-6494	J-6088	J-5955	8	140	0	0.12	0	0.4	0.01	0.1
WMAIN-6497	J-6089	J-6979	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6499	J-7585	J-7879	4	140	0.03	0.13	0.1	0.3	0.04	0.2
WMAIN-6501	030-009	J-6275	6	140	0.03	0.16	0.2	0.4	0.04	0.2
WMAIN-6502	J-6275	J-6874	6	140	0.04	0.18	0.2	0.5	0.05	0.2
WMAIN-6503	J-5352	J-6351	8	140	0.1	0.56	0.4	1	0.13	0.5
WMAIN-6505	J-6027	J-6028	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6508	J-6042	J-6043	4	140	0	0	0	0	0	0
WMAIN-6510	J-6549	J-6550	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6512(1)	J-8340	036-039	6	152.5	0	0	0	0	0	0
WMAIN-6512(2)	036-039	J-8341	6	152.5	0	0	0	0	0	0
WMAIN-6513	J-5674	J-5675	12	140	0	0.1	0.1	0.5	0.1	0.5
WMAIN-6515	J-5452	J-5453	8	152.5	0	0	0	0	0	0
WMAIN-6516(1)	J-5453	023-035	8	152.5	0	0	0	0.1	0	0.1
WMAIN-6516(2)(1)	023-035	023-036	8	152.5	0	0	0	0.1	0	0.1
WMAIN-6516(2)(2)	023-036	J-8779	8	152.5	0	0	0	0.1	0	0.1
WMAIN-6517(1)	J-8779	023-037	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6517(2)(1)(1)	023-037	023-043	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6517(2)(1)(2)	023-043	023-038	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-6517(2)(2)	023-038	J-5674	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-6519	J-7976	J-7977	6	140	0	0.12	0	0.4	0	0
WMAIN-6523(1)	J-5513	037-030	6	140	0	0.08	0	0.3	0.02	0.1
WMAIN-6523(2)(1)	037-030	037-031	6	140	0	0.11	0	0.4	0	0
WMAIN-6523(2)(2)(1)	037-031	037-032	6	140	0	0.11	0	0.4	0	0
WMAIN-6523(2)(2)(2)	037-032	J-7976	6	140	0	0.11	0	0.4	0	0
WMAIN-6525	J-7554	J-7555	8	140	0	0.06	0	0.3	0	0
WMAIN-6527(1)	J-7554	038-036	6	140	0	0	0	0	0	0
WMAIN-6527(2)	038-036	J-8291	6	140	0	0	0	0	0	0
WMAIN-6529	J-7071	J-7554	8	140	0	0.07	0.1	0.3	0	0
WMAIN-6530	J-7070	J-6989	8	140	0	0	0	0	0	0
WMAIN-6531(1)	J-6989	038-038	8	140	0	0	0	0	0	0
WMAIN-6531(2)	038-038	J-6990	8	140	0	0	0	0	0	0
WMAIN-6533(1)	J-5932	038-033	8	140	0	0.03	0	0.2	0.04	0.2
WMAIN-6533(2)	038-033	J-8732	8	140	0	0.03	0	0.2	0.02	0.2
WMAIN-6534	J-5830	J-5832	6	140	0	0.05	0	0.2	0.07	0.3
WMAIN-6536	J-5125	J-5266	18	140	0	0	0	0	0	0
WMAIN-6538	J-6916	J-5970	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6540	J-6411	J-6412	6	140	0	0	0	0	0	0
WMAIN-6542(1)	J-5893	038-023	6	140	0	0.19	0	0.5	0.25	0.6
WMAIN-6542(2)	038-023	J-7356	6	140	0	0.16	0	0.4	0.22	0.5
WMAIN-6545(1)	J-6422	038-025	6	140	0	0.09	0	0.3	0.11	0.4
WMAIN-6545(2)	038-025	J-5830	6	140	0	0.06	0	0.3	0.08	0.3
WMAIN-6546	J-5893	J-6422	6	140	0	0.25	0	0.6	0.32	0.6
WMAIN-6548	J-5892	J-5893	6	140	0	0	0	0	0	0
WMAIN-6551	J-5633	J-5634	16	140	0	0.14	0	0.8	0.02	0.2
WMAIN-6553(1)	J-7710	038-016	8	140	0	0.13	0	0.5	0.01	0.1
WMAIN-6553(2)	038-016	J-7809	8	140	0	0.14	0	0.5	0.01	0.1
WMAIN-6555(1)	J-7709	038-018	8	140	0	0.08	0	0.4	0.02	0.2
WMAIN-6555(2)	038-018	J-7710	8	140	0	0.08	0	0.4	0.02	0.2
WMAIN-6557(1)	J-7710	038-017	6	140	0	0.03	0	0.2	0	0
WMAIN-6557(2)	038-017	J-5802	6	140	0	0.03	0	0.2	0	0
WMAIN-6559	J-7798	J-7709	8	140	0	0.2	0	0.6	0.18	0.6
WMAIN-6561(1)	J-6424	038-021	8	140	0	0.25	0	0.7	0.26	0.7
WMAIN-6561(2)	038-021	J-7798	8	140	0	0.24	0	0.7	0.26	0.7
WMAIN-6563(1)	J-6423	J-5339	8	140	0	0.17	0	0.6	0.21	0.6
WMAIN-6563(2)	J-5339	J-6424	8	140	0	0.2	0	0.6	0.27	0.7
WMAIN-6565(1)	J-6424	038-039	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6565(2)	038-039	J-5849	6	140	0	0.06	0	0.3	0.02	0.1
WMAIN-6567(1)	J-7270	038-012	6	140	0	0.03	0	0.2	0.02	0.2
WMAIN-6567(2)	038-012	J-7318	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6568	J-7318	J-7319	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6571(1)	J-7669	038-011	6	140	0	0.06	0	0.3	0	0.1
WMAIN-6571(2)	038-011	J-7751	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-6573(1)	J-6791	038-008	6	140	0	0	0	0	0	0
WMAIN-6573(2)	038-008	J-8476	6	140	0	0	0	0	0	0
WMAIN-6575(1)	J-7174	037-029	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-6575(2)	037-029	J-8124	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-6577(1)	J-8124	037-019	6	140	0	0.12	0	0.4	0.09	0.3
WMAIN-6577(2)	037-019	J-6604	6	140	0	0.11	0	0.4	0.12	0.4
WMAIN-6579	J-6609	J-6603	6	140	0	0.23	0	0.5	0.17	0.5
WMAIN-6582(1)	037-024	037-025	6	140	0	0.03	0	0.2	0.02	0.1
WMAIN-6582(2)	037-025	J-5253	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-6585(1)	J-7496	037-012	6	140	0	0.02	0	0.2	0	0
WMAIN-6585(2)	037-012	J-7911	6	140	0	0.04	0.1	0.2	0	0.1
WMAIN-6586(1)	J-7911	037-010	8	140	0.01	0.2	0.1	0.6	0	0.1
WMAIN-6586(2)	037-010	J-6365	8	140	0.01	0.2	0.1	0.6	0.01	0.1
WMAIN-6588(1)	J-7496	037-011	8	140	0	0.12	0.1	0.5	0	0
WMAIN-6588(2)	037-011	J-7911	8	140	0	0.12	0.1	0.5	0	0
WMAIN-6590	J-6523	J-6524	8	140	0	0.24	0	0.7	0.1	0.4

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6591(1)	J-6400	044-037	6	140	0.02	0.08	0.1	0.3	0.03	0.2
WMAIN-6591(2)	044-037	J-7029	6	140	0.02	0.08	0.1	0.3	0.03	0.2
WMAIN-6593	J-5500	J-5594	6	140	0	0.01	0.1	0.1	0.01	0.1
WMAIN-6595(1)	J-7695	044-034	6	140	0	0	0	0	0	0
WMAIN-6595(2)	044-034	J-5500	6	140	0	0.01	0	0.1	0	0.1
WMAIN-6599(1)	J-7363	044-030	6	140	0	0	0	0.1	0	0
WMAIN-6599(2)	044-030	J-7688	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6601	J-7111	J-7561	6	140	0.02	0.15	0.1	0.4	0.21	0.5
WMAIN-6604(1)	J-6354	044-026	6	140	0	0.15	0	0.4	0.2	0.5
WMAIN-6604(2)	044-026	J-7111	6	140	0	0.14	0	0.4	0.19	0.5
WMAIN-6605	J-7561	J-7687	6	140	0	0.04	0.1	0.2	0.06	0.3
WMAIN-6607(1)	J-7687	044-029	6	140	0	0.03	0	0.2	0.04	0.2
WMAIN-6607(2)	044-029	J-7688	6	140	0	0.03	0	0.2	0.04	0.2
WMAIN-6609	J-7688	J-7362	6	140	0	0	0	0.1	0.01	0.1
WMAIN-6611	J-7695	J-7613	6	152.5	0.01	0.04	0.1	0.2	0.03	0.2
WMAIN-6613	J-7608	J-7695	6	152.5	0.02	0.05	0.1	0.3	0.05	0.2
WMAIN-6614	J-7571	J-7608	6	152.5	0.06	0.2	0.3	0.5	0.17	0.5
WMAIN-6617	J-7114	J-7111	6	140	0	0.09	0.1	0.3	0.01	0.1
WMAIN-6619	J-6400	J-7114	6	140	0.01	0.04	0.1	0.2	0.01	0.1
WMAIN-6622	J-7381	J-7382	8	140	0.02	0.06	0.2	0.3	0.05	0.3
WMAIN-6625(1)	J-7381	044-023	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6625(2)	044-023	J-7571	6	140	0	0.02	0	0.2	0.03	0.2
WMAIN-6627	J-7382	J-7465	6	140	0.02	0.08	0.2	0.3	0.06	0.3
WMAIN-6629	J-6757	J-5878	6	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-6630(1)	J-7362	044-031	6	140	0	0	0	0.1	0	0
WMAIN-6630(2)	044-031	J-7363	6	140	0	0.01	0	0.1	0	0
WMAIN-6632(1)	J-8497	044-011	12	140	0.01	0.52	0.2	1.3	0.01	0.2
WMAIN-6632(2)(1)	044-011	053-045	12	140	0.01	0.53	0.2	1.3	0.01	0.2
WMAIN-6632(2)(2)	053-045	J-5428	12	140	0.01	0.53	0.2	1.3	0.01	0.2
WMAIN-6636(1)	J-7667	043-049	6	140	0	0.04	0	0.2	0	0
WMAIN-6636(2)	043-049	J-7000	6	140	0.01	0.05	0.1	0.2	0.01	0.1
WMAIN-6637	J-7912	J-8375	8	140	0.01	0.15	0.1	0.5	0.04	0.3
WMAIN-6641	J-6922	J-7912	8	140	0	0	0	0	0.01	0.1
WMAIN-6643	J-6838	J-6922	8	140	0.02	0.16	0.1	0.5	0.02	0.2
WMAIN-6645	J-6837	J-6838	8	140	0.06	0.44	0.3	0.9	0.07	0.4
WMAIN-6647	J-7000	J-7512	6	140	0.02	0.12	0.1	0.4	0.02	0.2
WMAIN-6649(1)	J-6923	043-042	8	140	0	0.12	0.1	0.5	0	0.1
WMAIN-6649(2)	043-042	J-7969	8	140	0	0.12	0.1	0.4	0	0.1
WMAIN-6653	J-7969	J-6891	6	140	0.01	0.43	0.1	0.8	0.17	0.5
WMAIN-6655(1)	J-7636	043-014	6	140	0	0.33	0	0.7	1.45	1.5
WMAIN-6655(2)	043-014	J-8629	6	140	0	0.36	0	0.7	1.54	1.5
WMAIN-6657(1)	J-8629	043-015	6	140	0	0.17	0	0.5	0.59	0.9
WMAIN-6657(2)	043-015	J-8630	6	140	0	0.2	0	0.5	0.64	0.9
WMAIN-6659	J-8629	J-7958	6	140	0	0.07	0	0.3	0.36	0.7
WMAIN-6661(1)	J-7546	043-016	6	140	0	0.13	0	0.4	0.49	0.8
WMAIN-6661(2)	043-016	J-7958	6	140	0	0.12	0	0.4	0.47	0.8
WMAIN-6662(1)	J-8384	044-050	12	140	0.01	0.7	0.1	1.5	2.01	2.7
WMAIN-6662(2)	044-050	J-6132	12	140	0.01	0.69	0.1	1.5	1.99	2.7
WMAIN-6664(1)	J-6537	043-018	6	140	0	0.39	0	0.7	1.01	1.2
WMAIN-6664(2)(1)	043-018	043-017	6	140	0	0.24	0	0.5	0.71	1
WMAIN-6664(2)(2)	043-017	J-7546	6	140	0	0.2	0	0.5	0.65	0.9
WMAIN-6666	J-8358	J-6537	8	140	0	0.24	0	0.7	0.35	0.8
WMAIN-6668	J-6900	J-5505	8	140	0	0.15	0	0.5	0.55	1
WMAIN-6669	J-5505	J-5506	8	140	0	0.16	0	0.5	0.56	1.1
WMAIN-6672(1)	J-7021	043-011	8	140	0	0.46	0	0.9	1.03	1.5
WMAIN-6672(2)	043-011	J-8424	8	140	0	0.47	0	1	1.04	1.5
WMAIN-6674	J-6634	J-8076	6	140	0	0	0	0.1	0	0.1
WMAIN-6675(1)(1)	J-5312	043-025	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-6675(1)(2)	043-025	J-5122	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-6675(2)	J-5122	J-8358	8	140	0	0.05	0	0.3	0.01	0.1
WMAIN-6677(1)	J-8604	043-026	8	140	0	0.34	0	0.8	1.18	1.6
WMAIN-6677(2)	043-026	J-5313	8	140	0	0.38	0	0.9	1.27	1.6
WMAIN-6678	J-5312	J-5313	8	140	0	2.06	0	2.1	5.99	3.8
WMAIN-6679	J-7636	J-8604	8	140	0	0.17	0	0.5	0.79	1.3
WMAIN-6681(1)	J-6891	043-013	8	140	0	0.58	0	1.1	1.05	1.5
WMAIN-6681(2)	043-013	J-7636	8	140	0	0.58	0	1.1	1.06	1.5
WMAIN-6683	J-6890	J-6891	8	140	0	0.28	0	0.7	0.71	1.2
WMAIN-6685	J-8375	J-6890	8	140	0.05	0.69	0.3	1.2	0.07	0.3
WMAIN-6688(1)	J-7165	043-036	8	140	0.03	0.26	0.2	0.7	0.01	0.1
WMAIN-6688(2)	043-036	J-8375	8	140	0.03	0.24	0.2	0.7	0.01	0.1
WMAIN-6691(1)	J-7825	043-031	8	140	0	0.42	0.1	0.9	0.62	1.1
WMAIN-6691(2)	043-031	J-7810	8	140	0	0.34	0	0.8	0.52	1
WMAIN-6693	J-6135	J-6076	12	152.5	0.02	0.23	0.2	0.9	0.04	0.4
WMAIN-6694	J-6917	J-6980	12	152.5	0.06	0.54	0.4	1.4	0.24	0.9
WMAIN-6696(1)	J-6980	043-052	12	152.5	0.07	0.71	0.5	1.7	0.46	1.3
WMAIN-6696(2)(1)	043-052	043-001	12	152.5	0.07	0.72	0.5	1.7	0.47	1.3
WMAIN-6696(2)(2)	043-001	J-6438	12	152.5	0.07	0.73	0.5	1.7	0.48	1.4
WMAIN-6697	J-6543	J-7614	8	140	0.08	0.94	0.4	1.4	0.91	1.4
WMAIN-6699(1)	J-7614	042-011	8	140	0.06	0.86	0.3	1.3	0.82	1.3
WMAIN-6699(2)	042-011	J-7615	8	140	0.06	0.85	0.3	1.3	0.81	1.3
WMAIN-6701(1)	J-7615	042-009	8	140	0.05	0.79	0.3	1.3	0.75	1.2
WMAIN-6701(2)	042-009	J-5559	8	140	0.05	0.78	0.3	1.2	0.74	1.2
WMAIN-6703	J-5534	J-5535	16	140	0	0.71	0	1.8	0.91	2.1
WMAIN-6704	J-5888	J-5802	6	140	0	0.02	0	0.1	0	0
WMAIN-6706(1)	J-5985	038-032	8	140	0	0.09	0	0.4	0.04	0.2
WMAIN-6706(2)	038-032	J-5986	8	140	0	0.09	0	0.4	0.04	0.2
WMAIN-6707	J-7071	J-5985	8	140	0	0.17	0	0.5	0.04	0.3
WMAIN-6710	J-7356	J-7357	8	152.5	0	0.05	0	0.3	0.07	0.4
WMAIN-6712(1)	J-6916	038-030	6	140	0	0.05	0	0.2	0	0
WMAIN-6712(2)	038-030	J-6411	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-6714(1)	J-5932	038-028	8	140	0	0.18	0	0.6	0.24	0.7
WMAIN-6714(2)	038-028	J-7357	8	140	0	0.18	0	0.6	0.24	0.7
WMAIN-6716	J-7357	J-7676	8	140	0	0.27	0	0.7	0.37	0.8
WMAIN-6720(1)	J-7357	038-022	8	140	0	0.05	0	0.3	0.04	0.2
WMAIN-6720(2)	038-022	J-7709	8	140	0	0.05	0	0.3	0.05	0.3
WMAIN-6721(1)	J-7676	038-026	8	140	0	0.24	0	0.7	0.33	0.8
WMAIN-6721(2)	038-026	J-6422	8	140	0	0.25	0	0.7	0.33	0.8
WMAIN-6723(1)(1)	J-6422	038-024	8	140	0	0.72	0	1.2	0.94	1.4
WMAIN-6723(1)(2)	038-024	J-5337	8	140	0	0.72	0	1.2	0.94	1.4
WMAIN-6723(2)	J-5337	J-5534	8	140	0	0.81	0	1.3	1.06	1.5
WMAIN-6726(1)	J-7709	038-019	6	140	0	0.02	0	0.2	0.02	0.1
WMAIN-6726(2)	038-019	J-5888	6	140	0	0.02	0	0.1	0.01	0.1
WMAIN-6728(1)	J-7753	038-010	8	140	0	0.15	0	0.5	0.09	0.4
WMAIN-6728(2)	038-010	J-7669	8	140	0	0.15	0	0.5	0.09	0.4
WMAIN-6730(1)	J-7753	038-020	8	140	0	0.03	0	0.2	0	0.1
WMAIN-6730(2)	038-020	J-7798	8	140	0	0.02	0	0.2	0.01	0.1
WMAIN-6733	J-7669	J-7270	8	140	0	0.25	0	0.7	0.09	0.4
WMAIN-6735(1)	J-7270	038-013	8	140	0	0.2	0	0.6	0.04	0.3
WMAIN-6735(2)	038-013	J-7271	8	140	0	0.2	0	0.6	0.04	0.3
WMAIN-6737(1)	J-7271	038-015	8	140	0	0.15	0	0.5	0	0.1
WMAIN-6737(2)	038-015	J-7809	8	140	0	0.14	0	0.5	0.01	0.1
WMAIN-6739	037-036	J-6654	6	140	0	0	0	0	0	0

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6740	J-7981	J-5253	6	140	0	0.04	0	0.2	0	0.1
WMAIN-6742(1)	J-7678	037-023	6	140	0	0.11	0	0.4	0.03	0.2
WMAIN-6742(2)	037-023	J-7534	6	140	0	0.14	0.1	0.4	0.05	0.2
WMAIN-6744	J-7534	037-014	6	140	0	0.34	0	0.7	0.03	0.2
WMAIN-6745	J-8123	J-7678	6	140	0	0.1	0.1	0.3	0.04	0.2
WMAIN-6749	J-8123	037-028	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-6750	037-028	J-7511	6	140	0	0.23	0	0.5	0.01	0.1
WMAIN-6753(1)	J-7511	037-026	6	140	0	0.06	0	0.3	0	0
WMAIN-6753(2)	037-026	J-7981	6	140	0	0.05	0	0.2	0	0
WMAIN-6756	J-5537	J-5443	8	140	0	0.6	0	1.1	0.01	0.1
WMAIN-6757	J-5442	037-036	8	140	0	0.29	0	0.7	0	0
WMAIN-6758	J-6952	J-5512	8	140	0	0.41	0	0.9	0.01	0.1
WMAIN-6760	J-5512	J-5513	8	140	0	0.41	0	0.9	0	0.1
WMAIN-6763(1)	J-5513	037-027	8	140	0	0.53	0	1	0.02	0.2
WMAIN-6763(2)	037-027	J-7511	8	140	0	0.53	0	1	0.03	0.2
WMAIN-6764	J-7511	037-024	8	140	0	0.17	0	0.5	0.03	0.2
WMAIN-6766	037-024	J-7678	8	140	0	0.21	0	0.6	0.06	0.3
WMAIN-6768(1)	J-7678	037-021	8	140	0	0.14	0	0.5	0.09	0.4
WMAIN-6768(2)	037-021	J-7837	8	140	0	0.14	0	0.5	0.1	0.4
WMAIN-6770	J-7837	J-6610	8	140	0	0.16	0	0.5	0.14	0.5
WMAIN-6773	J-7705	J-5442	6	140	0	0.34	0	0.7	0.01	0.1
WMAIN-6774(1)	J-8785	037-002	12	140	0	0.46	0	1.2	0.08	0.5
WMAIN-6774(2)	037-002	J-5417	12	140	0	0.45	0	1.2	0.08	0.5
WMAIN-6777(1)	J-5613	044-041	12	140	0	0.47	0	1.2	0.09	0.5
WMAIN-6777(2)(1)	044-041	044-052	12	140	0	0.47	0	1.2	0.09	0.5
WMAIN-6777(2)(2)(1)	044-052	044-049	12	140	0	0.46	0	1.2	0.09	0.5
WMAIN-6777(2)(2)(2)	044-049	J-8785	12	140	0	0.46	0	1.2	0.09	0.5
WMAIN-6780	J-6610	J-5417	8	140	0	0.16	0	0.5	0.17	0.6
WMAIN-6782(1)	J-6610	037-018	6	140	0	0.1	0	0.4	0	0
WMAIN-6782(2)	037-018	J-6603	6	140	0	0.09	0	0.3	0	0.1
WMAIN-6784	J-6603	J-6604	6	140	0	0.11	0	0.4	0.13	0.4
WMAIN-6787	J-8188	J-8189	8	140	0	0.21	0.1	0.6	0.04	0.2
WMAIN-6789(1)	J-8189	037-041	8	140	0.02	0.42	0.2	0.9	0.09	0.4
WMAIN-6789(2)	037-041	J-6364	8	140	0.02	0.44	0.2	0.9	0.1	0.4
WMAIN-6791(1)	J-6365	037-009	8	140	0	0.54	0.1	1	0.13	0.5
WMAIN-6791(2)	037-009	J-5690	8	140	0	0.57	0.1	1.1	0.15	0.5
WMAIN-6793(1)	J-5690	037-008	6	140	0	2.46	0	1.9	0.68	1
WMAIN-6793(2)	037-008	J-7125	6	140	0	2.47	0	1.9	0.69	1
WMAIN-6796	J-5917	J-5918	6	140	0	0.97	0	1.2	0.22	0.5
WMAIN-6799(1)	J-5858	037-044	6	140	0.05	0.22	0.2	0.5	0.02	0.2
WMAIN-6799(2)(1)(1)	037-044	H-509	6	140	0.06	0.22	0.3	0.5	0.03	0.2
WMAIN-6799(2)(1)(2)	H-509	H-508	6	140	0.06	0.22	0.3	0.5	0.03	0.2
WMAIN-6799(2)(2)	H-508	J-5688	6	140	0.06	0.22	0.3	0.5	0.03	0.2
WMAIN-6801	J-5857	J-6115	6	140	0.1	0.35	0.3	0.7	0.05	0.2
WMAIN-6803	J-7008	J-7334	6	140	0.14	0.27	0.4	0.6	0.11	0.4
WMAIN-6806	J-7334	J-7110	6	140	0.05	0.18	0.2	0.5	0.03	0.2
WMAIN-6807(1)	J-7110	036-022	6	140	0.02	0.13	0.1	0.4	0	0
WMAIN-6807(2)	036-022	J-6260	6	140	0.01	0.13	0.1	0.4	0	0
WMAIN-6810	J-7276	J-6196	8	140	0.03	0.26	0.2	0.7	0.06	0.3
WMAIN-6813(1)	J-6196	036-017	8	140	0.02	0.22	0.2	0.6	0.04	0.3
WMAIN-6813(2)	036-017	J-6197	8	140	0.02	0.22	0.2	0.6	0.04	0.2
WMAIN-6815(1)	J-6197	036-013	8	140	0.01	0.29	0.1	0.7	0.07	0.3
WMAIN-6815(2)	036-013	J-8003	8	140	0	0.28	0.1	0.7	0.06	0.3
WMAIN-6818	J-8003	J-5933	8	140	0.01	0.32	0.1	0.8	0.04	0.3
WMAIN-6822(1)	J-7350	036-028	6	140	0.02	0.1	0.1	0.3	0	0
WMAIN-6822(2)	036-028	J-7058	6	140	0.02	0.1	0.1	0.3	0	0
WMAIN-6824(1)	J-7058	036-057	6	140	0	0.13	0	0.4	0.04	0.2
WMAIN-6824(2)	036-057	J-6535	6	140	0	0.12	0	0.4	0.03	0.2
WMAIN-6826(1)	J-8493	J-9301	6	140	0	0.06	0	0.3	0.02	0.1
WMAIN-6826(2)(1)	J-9301	036-026	6	140	0	0.07	0	0.3	0.02	0.2
WMAIN-6826(2)(2)	036-026	J-8509	6	140	0	0.07	0	0.3	0.02	0.2
WMAIN-6828	J-5933	J-5934	8	140	0	0.3	0	0.7	0.02	0.2
WMAIN-6831(1)	J-7275	036-020	6	140	0	0.12	0	0.4	0.08	0.3
WMAIN-6831(2)	036-020	J-6248	6	140	0	0.13	0	0.4	0.08	0.3
WMAIN-6832	J-7275	J-7276	8	140	0.03	0.45	0.2	0.9	0.13	0.5
WMAIN-6836(1)	J-5858	037-043	6	140	0	0.99	0.1	1.2	0.29	0.6
WMAIN-6836(2)	037-043	J-5464	6	140	0	0.87	0	1.1	0.23	0.5
WMAIN-6838(1)	J-8340	036-038	8	140	0.04	0.7	0.3	1.2	0.28	0.7
WMAIN-6838(2)	036-038	J-6055	8	140	0.04	0.68	0.3	1.2	0.27	0.7
WMAIN-6840	J-5118	J-8435	16	140	0.01	0.38	0.2	1.3	0	0.1
WMAIN-6841(1)	J-8435	035-034	16	140	0.01	0.38	0.2	1.3	0	0.1
WMAIN-6841(2)	035-034	J-6439	16	140	0.01	0.38	0.2	1.3	0	0.1
WMAIN-6843(1)	J-7766	035-029	6	140	0.05	0.28	0.2	0.6	0.09	0.3
WMAIN-6843(2)(1)	035-029	035-028	6	140	0.03	0.23	0.2	0.5	0.06	0.3
WMAIN-6843(2)(2)	035-028	J-6042	6	140	0.03	0.23	0.2	0.5	0.06	0.3
WMAIN-6845	J-6042	J-6549	6	140	0.03	0.2	0.2	0.5	0.05	0.2
WMAIN-6847	J-7443	J-5864	6	140	0	0.31	0.1	0.6	0.13	0.4
WMAIN-6850(1)	J-7443	035-026	8	140	0	0.11	0.1	0.4	0.06	0.3
WMAIN-6850(2)	035-026	J-7444	8	140	0	0.12	0.1	0.4	0.05	0.3
WMAIN-6852(1)	J-6285	036-040	8	140	0.06	0.81	0.3	1.3	0.36	0.8
WMAIN-6852(2)	036-040	J-8340	8	140	0.06	0.78	0.3	1.2	0.34	0.8
WMAIN-6853(1)(1)	J-5316	035-019	8	140	0.03	0.5	0.2	1	0.24	0.7
WMAIN-6853(1)(2)	035-019	036-041	8	140	0.02	0.45	0.2	0.9	0.21	0.6
WMAIN-6853(2)	036-041	J-5363	8	140	0.02	0.45	0.2	0.9	0.21	0.6
WMAIN-6854	J-8369	J-8370	6	140	0	0.05	0	0.2	0.01	0.1
WMAIN-6856	J-7602	J-7895	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-6857(1)	J-8453	035-024	8	152.5	0.04	0.24	0.3	0.7	0.04	0.3
WMAIN-6857(2)	035-024	J-8270	8	152.5	0.04	0.26	0.3	0.7	0.04	0.3
WMAIN-6859	J-8270	J-8271	8	152.5	0.05	0.38	0.3	0.9	0.07	0.4
WMAIN-6861(1)	J-8271	035-032	8	152.5	0.09	0.54	0.4	1.1	0.12	0.5
WMAIN-6861(2)	035-032	J-5437	8	152.5	0.1	0.56	0.4	1.1	0.13	0.5
WMAIN-6863	034-025	J-6282	12	152.5	0.11	0.53	0.6	1.4	0.1	0.6
WMAIN-6864(1)	034-023	034-024	12	152.5	0.1	0.52	0.6	1.4	0.1	0.6
WMAIN-6864(2)	034-024	034-025	12	152.5	0.1	0.52	0.6	1.4	0.1	0.6
WMAIN-6865(1)	034-014	035-046	12	152.5	0.09	0.5	0.6	1.4	0.09	0.5
WMAIN-6865(2)	035-046	034-023	12	152.5	0.09	0.5	0.6	1.4	0.09	0.5
WMAIN-6867(1)	J-5305	031-014	8	140	0.02	0.23	0.2	0.6	0.06	0.3
WMAIN-6867(2)	031-014	J-8313	8	140	0.02	0.22	0.1	0.6	0.06	0.3
WMAIN-6869	J-6286	J-7316	6	140	0.01	0.17	0.1	0.5	0.1	0.3
WMAIN-6871	J-6209	J-5199	12	152.5	0.01	0.09	0.2	0.5	0.02	0.2
WMAIN-6872(1)(1)	J-7743	031-035	12	152.5	0	0.23	0	0.9	0.03	0.3
WMAIN-6872(1)(2)	031-035	031-034	12	152.5	0	0.22	0	0.9	0.03	0.3
WMAIN-6872(2)(1)	031-034	031-033	12	152.5	0	0.22	0	0.9	0.03	0.3
WMAIN-6872(2)(2)	031-033	J-6209	12	152.5	0	0.22	0	0.9	0.03	0.3
WMAIN-6873(1)	J-5884	031-018	8	140	0.09	0.16	0.4	0.5	0.15	0.5
WMAIN-6873(2)	031-018	J-8565	8	140	0.08	0.13	0.4	0.5	0.13	0.5
WMAIN-6875(1)	J-8565	031-016	8	140	0.02	0.07	0.2	0.3	0.05	0.3
WMAIN-6875(2)	031-016	J-5306	8	140	0.02	0.06	0.2	0.3	0.04	0.3
WMAIN-6877(1)	J-6266	031-010	8	152.5	0.11	1.22	0.5	1.7	0.28	0.8
WMAIN-6877(2)	031-010	J-7345	8	152.5	0.1	1.19	0.5	1.7	0.27	0.8
WMAIN-6879	J-6265	J-6266	6	140	0.01	2.14	0.1	1.8	0.32	0.6
WMAIN-6882	J-8313	J-5672	8	140	0.03	0.29	0.2	0.7	0.06	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-6883(1)(1)	J-5673	031-013	8	140	0.01	0.24	0.1	0.7	0.03	0.2
WMAIN-6883(1)(2)	031-013	031-045	8	140	0.01	0.22	0.1	0.6	0.03	0.2
WMAIN-6883(2)	031-045	J-7566	8	140	0.01	0.21	0.1	0.6	0.02	0.2
WMAIN-6886	J-6286	J-6287	8	140	0	0.1	0	0.4	0	0.1
WMAIN-6888(1)	J-6088	031-008	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-6888(2)	031-008	J-6089	6	140	0	0.04	0	0.2	0.03	0.2
WMAIN-6889	J-5733	J-5734	10	140	0	0.03	0.1	0.2	0.01	0.1
WMAIN-6890(1)	030-047	030-046	8	152.5	0.1	0.23	0.4	0.7	0.2	0.6
WMAIN-6890(2)	030-046	J-7007	8	152.5	0.09	0.22	0.4	0.7	0.18	0.6
WMAIN-6892	J-7007	J-6829	6	152.5	0.03	0.19	0.2	0.5	0.06	0.3
WMAIN-6894	J-6877	J-5855	6	140	0.01	0.05	0.1	0.2	0.01	0.1
WMAIN-6896	J-6503	J-5855	4	140	0.1	0.46	0.3	0.6	0.16	0.3
WMAIN-6899	J-7150	J-6874	4	140	0.02	0.1	0.1	0.3	0.02	0.1
WMAIN-6900	J-8562	J-6731	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-6902	030-009	J-6732	6	140	0.02	0.14	0.2	0.4	0.03	0.2
WMAIN-6905	J-6443	J-8504	2	120	0.06	0.23	0.1	0.2	0.23	0.2
WMAIN-6908(1)	J-5293	J-9281	16	140	0	0.06	0	0.5	0.06	0.5
WMAIN-6908(2)	J-9281	J-5389	16	140	0	0.06	0	0.5	0.06	0.5
WMAIN-6909	J-7150	J-6028	6	140	0.01	0.14	0.1	0.4	0.05	0.2
WMAIN-6911	J-6644	J-6221	8	140	0.06	0.67	0.3	1.2	0.23	0.6
WMAIN-6912(1)	J-5425	030-024	8	140	0	0.1	0	0.4	0	0
WMAIN-6912(2)	030-024	J-7566	8	140	0	0.11	0	0.4	0	0
WMAIN-6915(1)	J-7531	030-022	8	140	0	0.04	0	0.2	0.02	0.2
WMAIN-6915(2)	030-022	J-5811	8	140	0	0.04	0	0.2	0.02	0.2
WMAIN-6916	J-6393	J-5477	6	140	0.13	0.41	0.4	0.7	0.18	0.5
WMAIN-6919(1)	J-7277	030-035	6	140	0.23	0.71	0.5	1	0.45	0.8
WMAIN-6919(2)	030-035	J-5658	6	140	0.24	0.72	0.5	1	0.46	0.8
WMAIN-6921(1)	J-6852	030-034	6	140	0.22	0.7	0.5	1	0.37	0.7
WMAIN-6921(2)	030-034	J-7277	6	140	0.23	0.71	0.5	1	0.38	0.7
WMAIN-6924(1)(1)	J-6905	030-020	6	140	0.14	0.42	0.4	0.8	0.23	0.5
WMAIN-6924(1)(2)	030-020	030-029	6	140	0.15	0.45	0.4	0.8	0.25	0.6
WMAIN-6924(2)	030-029	J-6852	6	140	0.15	0.45	0.4	0.8	0.25	0.6
WMAIN-6926(1)	J-6013	030-002	8	140	0.07	0.3	0.4	0.8	0.09	0.4
WMAIN-6926(2)	030-002	J-6288	8	140	0.08	0.31	0.4	0.8	0.09	0.4
WMAIN-6927	J-6012	J-6013	8	140	0.01	0.22	0.1	0.6	0.01	0.1
WMAIN-6930	J-8119	J-7294	6	140	0.13	0.57	0.4	0.9	0.18	0.5
WMAIN-6931	J-6850	J-6851	8	140	0.03	0.28	0.2	0.7	0.03	0.2
WMAIN-6933(1)	J-6851	030-011	8	140	0.04	0.25	0.3	0.7	0.06	0.3
WMAIN-6933(2)	030-011	J-7584	8	140	0.05	0.26	0.3	0.7	0.06	0.3
WMAIN-6935(1)	J-6851	030-007	6	140	0.05	0.3	0.2	0.6	0.07	0.3
WMAIN-6935(2)	030-007	J-5436	6	140	0.07	0.35	0.3	0.7	0.1	0.3
WMAIN-6937	J-6144	031-046	8	140	0.09	0.28	0.4	0.7	0.14	0.5
WMAIN-6939(1)(1)	J-7566	030-025	8	140	0.03	0.15	0.2	0.5	0.05	0.3
WMAIN-6939(1)(2)	030-025	031-043	8	140	0.04	0.16	0.2	0.5	0.05	0.3
WMAIN-6939(2)(1)	031-043	J-9286	8	140	0.04	0.16	0.2	0.5	0.05	0.3
WMAIN-6939(2)(2)	J-9286	J-6502	8	140	0.04	0.16	0.2	0.5	0.05	0.3
WMAIN-6940(1)(1)	J-6821	J-9265	12	152.5	0.14	0.35	0.7	1.1	0.32	1.1
WMAIN-6940(1)(2)	J-9265	029-032	12	152.5	0.14	0.35	0.7	1.1	0.32	1.1
WMAIN-6940(2)	029-032	J-5746	12	152.5	0.14	0.35	0.7	1.1	0.32	1.1
WMAIN-6942	J-6701	J-6702	6	140	0.02	0.06	0.1	0.3	0.04	0.2
WMAIN-6944	J-5607	J-5552	6	140	0	0.22	0	0.5	0	0.1
WMAIN-6946(1)	J-6013	030-001	6	140	0	0.39	0	0.7	0.13	0.4
WMAIN-6946(2)	030-001	J-7890	6	140	0	0.33	0	0.7	0.09	0.3
WMAIN-6948	J-7444	J-6644	8	140	0.07	0.41	0.3	0.9	0.15	0.5
WMAIN-6950	J-6242	J-6243	6	140	0	0.12	0	0.4	0.01	0.1
WMAIN-6953(1)(1)	J-6389	030-027	6	140	0.04	0.33	0.2	0.7	0.1	0.3
WMAIN-6953(1)(2)	030-027	029-030	6	140	0.03	0.29	0.2	0.6	0.07	0.3
WMAIN-6953(2)	029-030	J-6244	6	140	0.03	0.29	0.2	0.6	0.07	0.3
WMAIN-6955	029-029	J-8452	4	140	0.01	0.21	0.1	0.4	0.02	0.1
WMAIN-6957	J-8452	J-5374	4	140	0.17	0.75	0.3	0.8	0.31	0.5
WMAIN-6959	J-5820	J-5866	6	140	0	0.13	0	0.4	0.02	0.1
WMAIN-6960	J-5580	J-5581	6	140	0	0.02	0	0.1	0.02	0.1
WMAIN-6961(1)	J-5581	028-006	6	140	0	0.01	0	0.1	0	0
WMAIN-6961(2)	028-006	J-6706	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-6963	J-5488	J-5489	4	140	0	0.05	0	0.2	0.02	0.1
WMAIN-6965	J-5489	J-7177	4	140	0	0.04	0	0.2	0.02	0.1
WMAIN-6967(1)	J-7176	028-008	8	152.5	0.01	0.09	0.1	0.4	0	0.1
WMAIN-6967(2)	028-008	J-5419	8	152.5	0.01	0.09	0.1	0.4	0	0.1
WMAIN-6970	J-6066	J-5643	8	140	0.05	0.25	0.3	0.7	0.05	0.3
WMAIN-6971(1)	J-6065	J-9261	8	152.5	0.03	0.27	0.2	0.8	0.12	0.5
WMAIN-6971(2)	J-9261	J-6066	8	152.5	0.03	0.27	0.2	0.8	0.12	0.5
WMAIN-6976	J-5583	J-6781	12	140	0.03	0.23	0.3	0.8	0.1	0.5
WMAIN-6977	J-5582	J-5583	12	152.5	0	0	0	0	0	0
WMAIN-6979(1)	J-6394	028-032	12	140	0.02	0.18	0.2	0.7	0.09	0.5
WMAIN-6979(2)	028-032	J-5237	12	140	0.02	0.18	0.2	0.7	0.09	0.5
WMAIN-6980	J-5206	J-6394	12	140	0.01	0.14	0.2	0.6	0.08	0.5
WMAIN-6981	J-5764	J-5207	12	140	0.01	0.14	0.1	0.6	0.08	0.5
WMAIN-6984	J-6348	J-5764	12	140	0.01	0.11	0.1	0.5	0.05	0.4
WMAIN-6985	028-007	J-7595	4	140	0.01	0.16	0.1	0.3	0.05	0.2
WMAIN-6987	J-5809	J-5810	6	140	0.08	0.92	0.3	1.1	0.06	0.3
WMAIN-6989(1)	J-7176	028-001	8	140	0	0.3	0	0.8	0.04	0.3
WMAIN-6989(2)	028-001	J-7220	8	140	0	0.31	0	0.8	0.05	0.3
WMAIN-6992(1)	J-7480	028-047	12	152.5	0	0.5	0	1.4	0.06	0.4
WMAIN-6992(2)	028-047	J-7220	12	152.5	0	0.5	0	1.4	0.06	0.4
WMAIN-6994	J-7220	J-7221	12	152.5	0	0.3	0	1	0.03	0.3
WMAIN-6996	J-7221	J-5537	12	152.5	0	0.19	0	0.8	0.02	0.2
WMAIN-6998(1)	J-8711	027-028	4	140	0.01	0.03	0.1	0.1	0.03	0.1
WMAIN-6998(2)	027-028	J-8406	4	140	0.03	0.1	0.1	0.3	0.1	0.3
WMAIN-7001(1)(1)	J-8406	027-036	12	140	0.01	0.1	0.1	0.5	0.05	0.4
WMAIN-7001(1)(2)	027-036	028-030	12	140	0.01	0.11	0.1	0.6	0.05	0.4
WMAIN-7001(2)	028-030	J-6348	12	140	0.01	0.11	0.1	0.6	0.05	0.4
WMAIN-7003	J-5216	J-8406	12	140	0	0.09	0.1	0.5	0.04	0.3
WMAIN-7004	J-7515	J-8587	8	152.5	0.01	1.3	0.2	1.8	0.27	0.8
WMAIN-7005(1)	J-8587	027-025	6	152.5	0	1.37	0.1	1.5	0.24	0.6
WMAIN-7005(2)	027-025	J-5498	6	152.5	0.01	1.34	0.1	1.5	0.21	0.6
WMAIN-7008(1)	J-5499	027-037	6	152.5	0.1	0.42	0.4	0.8	0.11	0.4
WMAIN-7008(2)	027-037	J-6474	6	152.5	0.12	0.46	0.4	0.9	0.15	0.5
WMAIN-7010(1)	J-8587	027-041	6	152.5	0	1.45	0.1	1.6	0.28	0.7
WMAIN-7010(2)	027-041	J-7038	6	152.5	0.01	1.44	0.1	1.6	0.27	0.6
WMAIN-7012(1)	J-8772	023-041	8	152.5	0	0	0	0	0	0
WMAIN-7012(2)(1)	023-041	023-042	8	152.5	0	0	0	0	0	0
WMAIN-7012(2)(2)	023-042	J-5572	8	152.5	0	0	0	0	0	0
WMAIN-7013	J-5572	J-5573	8	152.5	0	0	0	0	0	0
WMAIN-7014	J-7227	J-5104	8	140	0.08	0.2	0.4	0.6	0.2	0.6
WMAIN-7016(1)	J-6953	023-007	8	140	0.05	0.15	0.3	0.5	0.15	0.5
WMAIN-7016(2)	023-007	J-7227	8	140	0.06	0.15	0.3	0.5	0.15	0.5
WMAIN-7019	J-7097	J-8007	8	152.5	0.03	0.11	0.3	0.5	0.06	0.3
WMAIN-7021(1)(1)	J-8007	023-008	8	152.5	0	0.06	0	0.3	0	0
WMAIN-7021(1)(2)	023-008	023-009	8	152.5	0	0.06	0	0.4	0	0.1
WMAIN-7021(2)	023-009	J-7099	8	152.5	0	0.06	0	0.4	0	0.1
WMAIN-7023(1)(1)	026-013	023-001	8	152.5	0.02	0.08	0.2	0.4	0.02	0.2
WMAIN-7023(1)(2)	023-001	J-6057	8	152.5	0.02	0.08	0.2	0.4	0.02	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7023(2)(1)	J-6057	023-002	8	152.5	0.03	0.1	0.2	0.4	0.04	0.3
WMAIN-7023(2)(2)	023-002	J-7097	8	152.5	0.03	0.1	0.2	0.5	0.05	0.3
WMAIN-7024	J-5645	J-6407	10	152.5	0	0.04	0	0.3	0	0.1
WMAIN-7026(1)	J-6407	J-8282	8	140	0	0.12	0	0.5	0.09	0.4
WMAIN-7026(2)	J-8282	J-6408	8	140	0	0.17	0	0.6	0.1	0.4
WMAIN-7028	J-6408	J-6689	6	140	0.01	0.24	0.1	0.5	0.15	0.4
WMAIN-7030(1)	J-6689	023-018	6	140	0	0.16	0	0.4	0.09	0.3
WMAIN-7030(2)	023-018	J-6690	6	140	0	0.16	0	0.4	0.09	0.3
WMAIN-7033(1)	J-7698	023-017	6	140	0.02	0.1	0.1	0.3	0.02	0.1
WMAIN-7033(2)	023-017	J-7489	6	140	0.02	0.11	0.1	0.4	0.03	0.2
WMAIN-7035	J-6186	022-006	6	152.5	0.18	0.41	0.5	0.8	0.23	0.6
WMAIN-7036(1)	J-5990	022-007	10	152.5	0.07	0.13	0.4	0.6	0.08	0.5
WMAIN-7036(2)	022-007	J-6186	10	152.5	0.06	0.13	0.4	0.6	0.08	0.5
WMAIN-7040(1)	J-6109	022-011	6	152.5	0.19	0.38	0.5	0.8	0.24	0.6
WMAIN-7040(2)(1)	022-011	022-010	6	152.5	0.14	0.29	0.5	0.7	0.17	0.5
WMAIN-7040(2)(2)	022-010	J-6624	6	152.5	0.14	0.29	0.5	0.7	0.17	0.5
WMAIN-7042	J-7039	J-7040	6	152.5	0.39	0.51	0.8	0.9	0.41	0.8
WMAIN-7045	J-8414	J-7040	6	152.5	0.11	0.13	0.4	0.4	0.11	0.4
WMAIN-7048(1)	J-8414	022-022	6	152.5	0.02	0.04	0.1	0.2	0.02	0.2
WMAIN-7048(2)	022-022	J-7129	6	152.5	0.01	0.03	0.1	0.2	0.02	0.1
WMAIN-7050	J-7521	J-8414	6	152.5	0.24	0.36	0.6	0.8	0.29	0.7
WMAIN-7051	J-6904	J-5990	10	152.5	0.05	0.1	0.4	0.5	0.06	0.4
WMAIN-7053	J-8526	J-6059	6	152.5	0.51	0.72	0.9	1.1	0.66	1
WMAIN-7055	J-8474	J-8475	4	152.5	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-7056(1)	J-8521	022-042	8	140	0	0	0	0	0	0
WMAIN-7056(2)	022-042	J-7997	8	140	0	0	0	0.1	0	0.1
WMAIN-7058(1)(1)	J-8474	022-029	6	152.5	1.14	1.34	1.4	1.5	1.28	1.5
WMAIN-7058(1)(2)(1)	022-029	J-5202	6	152.5	1.21	1.45	1.4	1.6	1.39	1.6
WMAIN-7058(1)(2)(2)	J-5202	022-021	6	152.5	0.89	1.03	1.2	1.3	0.97	1.3
WMAIN-7058(2)	022-021	J-7130	6	152.5	0.89	1.03	1.2	1.3	0.97	1.3
WMAIN-7062(1)	J-8526	022-030	6	152.5	1.14	1.54	1.4	1.6	1.42	1.6
WMAIN-7062(2)	022-030	J-8474	6	152.5	1.17	1.58	1.4	1.7	1.46	1.6
WMAIN-7064(1)	J-8526	022-041	10	140	0.27	0.36	0.8	0.9	0.33	0.9
WMAIN-7064(2)	022-041	J-7996	10	140	0.26	0.35	0.8	0.9	0.32	0.9
WMAIN-7066	J-5876	J-5954	6	140	0	0.05	0	0.2	0	0
WMAIN-7067	J-5394	J-5765	6	140	0.06	0.14	0.3	0.4	0.05	0.2
WMAIN-7070	J-5954	J-5456	6	140	0.03	0.07	0.2	0.3	0.03	0.2
WMAIN-7074(1)	J-5987	027-032	6	140	0.01	0.19	0.1	0.5	0.11	0.4
WMAIN-7074(2)(1)	027-032	027-053	6	140	0	0.14	0	0.4	0.06	0.3
WMAIN-7074(2)(2)	027-053	J-5954	6	140	0	0.13	0	0.4	0.05	0.2
WMAIN-7075(1)	J-7361	J-9270	4	140	0	0.03	0	0.1	0.02	0.1
WMAIN-7075(2)	J-9270	J-7358	4	140	0	0.01	0	0.1	0	0
WMAIN-7076	J-7358	J-7359	4	140	0	0.02	0	0.1	0	0
WMAIN-7077(1)	J-7359	022-024	4	140	0.03	0.06	0.1	0.2	0.05	0.2
WMAIN-7077(2)	022-024	J-7360	4	140	0.04	0.07	0.2	0.2	0.08	0.2
WMAIN-7080(1)	J-7384	022-025	6	140	0.05	0.17	0.2	0.5	0.18	0.5
WMAIN-7080(2)(1)(1)	022-025	J-9334	6	140	0.03	0.15	0.2	0.4	0.14	0.4
WMAIN-7080(2)(1)(2)	J-9334	J-9333	6	140	0.03	0.15	0.2	0.4	0.14	0.4
WMAIN-7080(2)(2)	J-9333	J-6101	6	140	0.03	0.15	0.2	0.4	0.14	0.4
WMAIN-7082(1)	J-6676	021-048	6	140	0.1	0.46	0.4	0.8	0.33	0.7
WMAIN-7082(2)	021-048	J-7439	6	140	0.1	0.44	0.3	0.8	0.31	0.6
WMAIN-7084(1)	J-7570	021-046	6	140	0.02	0.08	0.1	0.3	0.08	0.3
WMAIN-7084(2)	021-046	J-7704	6	140	0.02	0.07	0.1	0.3	0.07	0.3
WMAIN-7086	J-5695	J-5696	8	140	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7088(1)	J-6314	021-009	6	140	0.04	0.17	0.2	0.5	0.06	0.3
WMAIN-7088(2)(1)	021-009	J-9323	6	140	0.04	0.17	0.2	0.5	0.06	0.3
WMAIN-7088(2)(2)	J-9323	J-8152	6	140	0.04	0.17	0.2	0.5	0.06	0.3
WMAIN-7089(1)	J-7405	029-034	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7089(2)	029-034	J-7406	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7091	J-7406	J-8272	4	140	0	0.07	0	0.2	0.11	0.3
WMAIN-7092(1)	J-6764	020-021	8	152.5	0	0.33	0	0.9	0.02	0.2
WMAIN-7092(2)	020-021	J-6765	8	152.5	0	0.33	0	0.9	0.02	0.2
WMAIN-7093	021-040	J-5729	6	140	0.03	0.55	0.2	0.9	0.2	0.5
WMAIN-7094(1)	J-5729	021-017	6	140	0.03	0.53	0.2	0.9	0.19	0.5
WMAIN-7094(2)	021-017	J-5910	6	140	0.03	0.52	0.2	0.8	0.18	0.5
WMAIN-7096	020-012	J-7929	6	152.5	0.1	0.3	0.4	0.7	0.29	0.7
WMAIN-7098	J-7929	J-6250	6	140	0.3	1.31	0.6	1.4	0.82	1.1
WMAIN-7101(1)	J-6250	020-011	6	152.5	0.51	2.12	0.9	2	2.47	2.1
WMAIN-7101(2)	020-011	J-5525	6	152.5	0.51	2.12	0.9	2	2.47	2.1
WMAIN-7103	J-5280	J-5281	12	152.5	0.12	0.42	0.6	1.3	0.34	1.1
WMAIN-7104	J-8648	J-7405	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7107	J-5873	J-6079	8	152.5	0.03	0.26	0.2	0.8	0.25	0.7
WMAIN-7108	J-5226	J-5227	8	140	0.05	0.19	0.3	0.6	0.09	0.4
WMAIN-7109	J-5872	J-5873	8	140	0.1	0.34	0.4	0.8	0.41	0.9
WMAIN-7110(1)	J-5227	020-028	8	140	0.06	0.23	0.3	0.6	0.25	0.7
WMAIN-7110(2)	020-028	J-5872	8	140	0.08	0.27	0.4	0.7	0.32	0.8
WMAIN-7112(1)(1)	J-5406	J-5714	8	140	0	0.15	0	0.5	0	0.1
WMAIN-7112(1)(2)	J-5714	J-5717	8	140	0	0.07	0	0.3	0	0.1
WMAIN-7112(2)	J-5717	J-5292	8	140	0	0.08	0	0.4	0.01	0.1
WMAIN-7113(1)	J-5390	J-5859	8	140	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-7113(2)(1)	J-5859	030-039	8	140	0	0.07	0	0.4	0.07	0.3
WMAIN-7113(2)(2)	030-039	J-5676	8	140	0	0.07	0	0.4	0.07	0.3
WMAIN-7114(1)	J-7622	019-032	16	152.5	0	0.11	0	0.7	0.01	0.2
WMAIN-7114(2)	019-032	J-6639	16	152.5	0	0.11	0	0.7	0.01	0.2
WMAIN-7116	J-5329	J-5330	16	152.5	0	0.23	0	1.1	0	0.1
WMAIN-7120	J-5610	J-6033	4	152.5	0	0	0	0	0	0
WMAIN-7122(1)	J-5679	J-9275	4	152.5	0.03	0.17	0.2	0.4	0.05	0.2
WMAIN-7122(2)	J-9275	J-5610	4	152.5	0.03	0.16	0.1	0.4	0.05	0.2
WMAIN-7125	J-7080	J-5658	8	140	0.09	0.7	0.4	1.2	0.19	0.6
WMAIN-7127	J-6998	J-5389	16	152.5	0.01	0.14	0.1	0.8	0.15	0.9
WMAIN-7129	J-5540	J-6998	16	152.5	0	0.23	0.1	1.1	0.26	1.2
WMAIN-7130(1)	J-5507	J-9312	16	152.5	0	0.24	0.1	1.1	0.27	1.2
WMAIN-7130(2)	J-9312	J-5540	16	152.5	0	0.23	0.1	1.1	0.26	1.2
WMAIN-7133(1)(1)	J-5362	J-5701	16	152.5	0	0.53	0	1.7	0.01	0.2
WMAIN-7133(1)(2)	J-5701	J-5703	16	152.5	0	0.53	0	1.7	0.01	0.2
WMAIN-7133(2)	J-5703	J-7529	16	152.5	0	0.52	0	1.7	0.01	0.2
WMAIN-7135(1)	J-5324	031-047	16	152.5	0	0.51	0	1.7	0	0.1
WMAIN-7135(2)	031-047	J-7529	16	152.5	0	0.51	0	1.7	0	0.1
WMAIN-7136	J-5324	J-5325	16	152.5	0	0.42	0	1.5	0	0
WMAIN-7137(1)	J-5325	031-056	16	152.5	0	0.16	0	0.9	0	0.1
WMAIN-7137(2)(1)	031-056	018-002	16	152.5	0	0.16	0	0.9	0	0.1
WMAIN-7137(2)(2)	018-002	J-5168	16	152.5	0	0.16	0	0.9	0	0.1
WMAIN-7138	J-5753	J-7026	8	152.5	0	0.39	0	0.9	0	0
WMAIN-7139(1)	J-7026	017-002	8	152.5	0.02	0.6	0.2	1.2	0.03	0.3
WMAIN-7139(2)(1)	017-002	017-003	8	152.5	0.03	0.68	0.2	1.3	0.06	0.3
WMAIN-7139(2)(2)	017-003	J-5815	8	152.5	0.04	0.7	0.3	1.3	0.07	0.4
WMAIN-7140(1)	J-8614	032-025	16	140	0.02	0.62	0.3	1.7	0.04	0.4
WMAIN-7140(2)	032-025	J-5247	16	140	0.02	0.62	0.3	1.7	0.04	0.4
WMAIN-7141(1)	J-7844	032-027	16	140	0	0.32	0	1.2	0.01	0.1
WMAIN-7141(2)(1)	032-027	032-026	16	140	0	0.32	0	1.2	0.01	0.1
WMAIN-7141(2)(2)	032-026	J-5248	16	140	0	0.32	0	1.2	0.01	0.1
WMAIN-7143(1)(1)	J-5451	H-497	16	152.5	0.04	0.27	0.4	1.2	0.32	1.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7143(1)(2)	H-497	J-9311	16	152.5	0.04	0.27	0.4	1.2	0.32	1.3
WMAIN-7143(2)	J-9311	J-5504	16	152.5	0.04	0.27	0.4	1.2	0.32	1.3
WMAIN-7144	J-6707	J-6708	8	152.5	0.66	2.88	1.2	2.8	2.17	2.4
WMAIN-7146	J-5331	J-5450	16	152.5	0.01	0.06	0.2	0.5	0.07	0.6
WMAIN-7147	J-5450	J-5451	16	152.5	0.03	0.24	0.3	1.1	0.27	1.2
WMAIN-7148	171-001	J-8771	12	152.5	0.65	1.34	1.6	2.4	1.83	2.8
WMAIN-7150(1)(1)	J-8771	015-001	12	152.5	0.64	1.29	1.6	2.3	1.77	2.7
WMAIN-7150(1)(2)	015-001	015-002	12	152.5	0.63	1.27	1.6	2.3	1.74	2.7
WMAIN-7150(2)	015-002	015-003	12	152.5	0.63	1.27	1.6	2.3	1.74	2.7
WMAIN-7151	J-5242	J-5243	12	152.5	0.04	0.17	0.4	0.8	0.12	0.6
WMAIN-7152(1)(1)	J-5243	012-032	12	152.5	0	0	0	0	0	0
WMAIN-7152(1)(2)(1)	012-032	013-003	12	152.5	0	0	0	0	0	0
WMAIN-7152(1)(2)(2)	013-003	013-043	12	152.5	0	0	0	0	0	0
WMAIN-7152(2)	013-043	J-8829	12	152.5	0	0	0	0	0	0
WMAIN-7154(1)(1)	J-8468	013-014	16	140	0.26	0.57	1.1	1.6	0.6	1.7
WMAIN-7154(1)(2)	013-014	013-013	16	140	0.26	0.58	1.1	1.6	0.61	1.7
WMAIN-7154(2)	013-013	014-017	16	140	0.26	0.58	1.1	1.6	0.61	1.7
WMAIN-7155(1)	J-8679	013-012	12	140	0.06	0.15	0.4	0.7	0.15	0.7
WMAIN-7155(2)	013-012	J-8468	12	140	0.07	0.16	0.4	0.7	0.16	0.7
WMAIN-7157(1)	J-8664	013-010	12	140	0.06	0.13	0.4	0.6	0.13	0.6
WMAIN-7157(2)(1)	013-010	013-011	12	140	0.06	0.13	0.4	0.6	0.13	0.6
WMAIN-7157(2)(2)	013-011	J-8679	12	140	0.06	0.13	0.4	0.6	0.13	0.6
WMAIN-7158(1)	J-8663	013-009	12	140	0.05	0.12	0.4	0.6	0.12	0.6
WMAIN-7158(2)	013-009	J-8664	12	140	0.05	0.13	0.4	0.6	0.12	0.6
WMAIN-7159(1)	J-8665	013-007	12	140	0.05	0.11	0.4	0.6	0.11	0.6
WMAIN-7159(2)(1)	013-007	013-008	12	140	0.05	0.11	0.4	0.6	0.11	0.6
WMAIN-7159(2)(2)	013-008	J-8663	12	140	0.05	0.11	0.4	0.6	0.11	0.6
WMAIN-7161(1)	J-8575	013-006	12	140	0.05	0.1	0.4	0.5	0.1	0.5
WMAIN-7161(2)	013-006	J-8665	12	140	0.05	0.11	0.4	0.6	0.11	0.6
WMAIN-7162(1)	J-8576	013-029	16	140	0.01	0.15	0.1	0.8	0.08	0.6
WMAIN-7162(2)	013-029	J-5427	16	140	0.01	0.16	0.1	0.8	0.08	0.6
WMAIN-7164(1)	J-5426	013-024	16	152.5	0	0.17	0	0.9	0.07	0.6
WMAIN-7164(2)(1)	013-024	013-037	16	152.5	0	0.17	0	0.9	0.08	0.6
WMAIN-7164(2)(2)	013-037	J-8813	16	152.5	0	0.17	0	0.9	0.08	0.6
WMAIN-7166(1)	J-8675	013-022	12	140	0.06	0.11	0.4	0.6	0.15	0.7
WMAIN-7166(2)(1)	013-022	013-021	12	140	0.06	0.11	0.4	0.6	0.15	0.7
WMAIN-7166(2)(2)	013-021	J-8640	12	140	0.06	0.11	0.4	0.6	0.15	0.7
WMAIN-7167(1)	J-8640	013-020	12	140	0.06	0.11	0.4	0.6	0.15	0.7
WMAIN-7167(2)	013-020	J-8309	12	140	0.06	0.12	0.4	0.6	0.15	0.7
WMAIN-7169(1)	J-5426	013-023	12	140	0.06	0.1	0.4	0.5	0.13	0.6
WMAIN-7169(2)	013-023	J-8675	12	140	0.06	0.1	0.4	0.5	0.13	0.6
WMAIN-7170(1)(1)	J-8469	013-017	16	140	0.02	0.03	0.2	0.4	0.04	0.4
WMAIN-7170(1)(2)	013-017	013-018	16	140	0.02	0.03	0.2	0.3	0.04	0.4
WMAIN-7170(2)	013-018	J-8309	16	140	0.02	0.03	0.2	0.3	0.04	0.4
WMAIN-7173(1)	J-8468	013-016	16	140	0.02	0.03	0.3	0.4	0.04	0.4
WMAIN-7173(2)(1)	013-016	013-015	16	140	0.02	0.03	0.3	0.4	0.04	0.4
WMAIN-7173(2)(2)	013-015	J-8469	16	140	0.02	0.03	0.3	0.4	0.04	0.4
WMAIN-7174(1)	J-8535	013-005	16	140	0.23	0.79	1	2	0.62	1.7
WMAIN-7174(2)	013-005	J-8575	16	140	0.23	0.79	1	2	0.62	1.7
WMAIN-7177(1)	J-5242	013-004	16	140	0.23	0.79	1	2	0.62	1.7
WMAIN-7177(2)	013-004	J-8535	16	140	0.23	0.79	1	2	0.62	1.7
WMAIN-7178	J-6675	J-6676	16	140	0.15	0.73	0.8	1.9	0.48	1.5
WMAIN-7179(1)	J-7570	012-022	16	140	0.15	0.72	0.8	1.9	0.48	1.5
WMAIN-7179(2)	012-022	J-6675	16	140	0.15	0.73	0.8	1.9	0.48	1.5
WMAIN-7181	J-7628	J-7629	4	140	0.01	0.02	0.1	0.1	0.02	0.1
WMAIN-7183	J-6760	J-8548	6	140	0	0	0	0	0	0
WMAIN-7185(1)	J-7690	011-007	6	140	0.07	0.26	0.3	0.6	0.18	0.5
WMAIN-7185(2)	011-007	J-8527	6	140	0.06	0.23	0.3	0.5	0.16	0.4
WMAIN-7186	J-6102	J-8368	6	140	0	0.17	0.1	0.5	0.12	0.4
WMAIN-7188	J-6709	J-6101	6	140	0.02	0.23	0.2	0.5	0.15	0.4
WMAIN-7189(1)	J-8651	022-033	6	140	0.01	0.07	0.1	0.3	0.04	0.2
WMAIN-7189(2)	022-033	J-6709	6	140	0.01	0.1	0.1	0.3	0.06	0.3
WMAIN-7192(1)	J-5612	022-046	6	140	0	0.02	0	0.1	0	0.1
WMAIN-7192(2)(1)	022-046	022-035	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-7192(2)(2)	022-035	J-8651	6	140	0	0.04	0	0.2	0.02	0.1
WMAIN-7195(1)	J-7460	022-043	6	140	0	0.02	0	0.1	0	0
WMAIN-7195(2)(1)	022-043	022-036	6	140	0	0.03	0	0.2	0.02	0.2
WMAIN-7195(2)(2)	022-036	J-6709	6	140	0	0.03	0	0.2	0.02	0.2
WMAIN-7196	J-8715	J-8527	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7200(1)	J-5611	011-006	6	140	0	0.03	0	0.2	0.04	0.2
WMAIN-7200(2)	011-006	J-8715	6	140	0	0.02	0	0.2	0.03	0.2
WMAIN-7201(1)	J-7154	011-005	6	140	0.1	0.28	0.3	0.6	0.25	0.6
WMAIN-7201(2)	011-005	J-7189	6	140	0.1	0.29	0.3	0.6	0.26	0.6
WMAIN-7204	J-7189	J-5611	16	140	0.03	0.22	0.3	1	0.1	0.7
WMAIN-7205	J-7996	J-7997	16	140	0.02	0.17	0.3	0.9	0.07	0.5
WMAIN-7206	J-7517	J-7996	16	140	0.08	0.33	0.6	1.2	0.18	0.9
WMAIN-7208(1)	022-038	022-040	16	140	0.07	0.32	0.5	1.2	0.17	0.9
WMAIN-7208(2)	022-040	J-7517	16	140	0.07	0.32	0.5	1.2	0.17	0.9
WMAIN-7210	J-5213	022-038	16	140	0.07	0.32	0.5	1.2	0.17	0.9
WMAIN-7211(1)(1)	J-6611	038-002	16	140	0	0.15	0	0.8	0.02	0.2
WMAIN-7211(1)(2)	038-002	038-003	16	140	0	0.14	0	0.8	0.02	0.2
WMAIN-7211(2)	038-003	J-5633	16	140	0	0.14	0	0.8	0.02	0.2
WMAIN-7213(1)(1)	J-5475	026-006	16	140	0	0.1	0	0.6	0.02	0.3
WMAIN-7213(1)(2)	026-006	026-005	16	140	0	0.1	0	0.6	0.02	0.3
WMAIN-7213(2)	026-005	J-7744	16	140	0	0.1	0	0.6	0.02	0.3
WMAIN-7214	J-6598	J-5476	16	140	0	0.2	0.1	0.9	0.02	0.2
WMAIN-7216(1)	J-5456	026-012	16	140	0	0.2	0.1	0.9	0.02	0.2
WMAIN-7216(2)	026-012	J-6974	16	140	0	0.2	0.1	0.9	0.02	0.2
WMAIN-7217	J-5682	J-5457	16	152.5	0.04	0.19	0.4	1	0.01	0.2
WMAIN-7218(1)	J-6072	023-026	16	152.5	0.01	0.13	0.2	0.8	0	0
WMAIN-7218(2)	023-026	J-6073	16	152.5	0.01	0.13	0.2	0.8	0	0
WMAIN-7220	J-6358	J-6359	16	140	0.02	0.13	0.2	0.7	0	0.1
WMAIN-7221	J-6690	J-6358	16	140	0.02	0.13	0.2	0.8	0	0.1
WMAIN-7223	J-5214	J-7696	16	140	0.04	0.14	0.4	0.8	0.02	0.2
WMAIN-7224	J-5213	J-5214	8	152.5	2.29	7.33	2.4	4.6	1.75	2.1
WMAIN-7226(1)	J-5107	J-5205	12	152.5	0.12	0.7	0.6	1.7	0.69	1.6
WMAIN-7226(2)	J-5205	J-6964	12	152.5	0.12	0.71	0.6	1.7	0.69	1.7
WMAIN-7229	J-5107	009-033	12	152.5	0.02	0.18	0.3	0.8	0.19	0.8
WMAIN-7230	009-033	J-5712	12	152.5	0.02	0.17	0.3	0.8	0.18	0.8
WMAIN-7233(1)	J-7862	170-100	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-7233(2)	170-100	J-7090	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-7236(1)(1)(1)	J-7706	170-104	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7236(1)(1)(2)	170-104	170-103	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7236(1)(2)	170-103	170-102	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7236(2)(1)	170-102	170-101	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7236(2)(2)	170-101	J-8404	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7237	J-6708	J-7141	12	152.5	0	0.19	0.1	0.8	0.21	0.9
WMAIN-7238(1)	J-6504	011-027	8	152.5	0.08	0.35	0.4	0.9	0.22	0.7
WMAIN-7238(2)	011-027	J-6505	8	152.5	0.08	0.35	0.4	0.9	0.22	0.7
WMAIN-7239	024-008	J-6780	8	152.5	0	0.21	0	0.7	0.07	0.4
WMAIN-7241(1)	J-5675	J-6163	12	140	0.02	0.15	0.2	0.7	0.15	0.7
WMAIN-7241(2)	J-6163	J-8301	12	140	0.02	0.15	0.2	0.7	0.15	0.7

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7243	J-6735	J-6736	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7245	J-7108	J-7671	8	140	0.01	0.7	0.1	1.2	1.06	1.5
WMAIN-7246	J-5559	J-5560	8	140	0	0.07	0	0.3	0.12	0.5
WMAIN-7248	J-5560	J-7427	8	140	0	0.06	0	0.3	0.09	0.4
WMAIN-7250	J-7427	J-7428	8	140	0.01	0.3	0.1	0.8	0.35	0.8
WMAIN-7254(1)	J-7428	042-015	6	140	0.02	0.32	0.1	0.6	0.28	0.6
WMAIN-7254(2)	042-015	J-8815	6	140	0.03	0.38	0.2	0.7	0.34	0.7
WMAIN-7256	J-7552	J-7956	6	140	0	0.04	0	0.2	0.08	0.3
WMAIN-7257(1)	J-6981	042-023	8	140	0	0.11	0	0.4	0.19	0.6
WMAIN-7257(2)	042-023	J-6735	8	140	0	0.1	0	0.4	0.18	0.6
WMAIN-7259(1)	J-6735	042-020	8	140	0.01	0.39	0.1	0.9	0.46	0.9
WMAIN-7259(2)	042-020	J-7321	8	140	0.01	0.39	0.1	0.9	0.46	0.9
WMAIN-7261	J-7321	J-8212	8	140	0.03	0.23	0.2	0.6	0.13	0.5
WMAIN-7263(1)	J-8366	042-019	8	140	0.07	1	0.3	1.4	0.92	1.4
WMAIN-7263(2)	042-019	J-7321	8	140	0.07	1.03	0.3	1.5	0.95	1.4
WMAIN-7265(1)	J-6928	042-044	8	140	0.02	0.76	0.2	1.2	1.03	1.5
WMAIN-7265(2)	042-044	J-7657	8	140	0.02	0.75	0.2	1.2	1.02	1.4
WMAIN-7267(1)	J-7657	042-043	8	140	0.01	0.53	0.1	1	0.77	1.2
WMAIN-7267(2)	042-043	J-5839	8	140	0.01	0.52	0.1	1	0.76	1.2
WMAIN-7269(1)	J-7671	042-030	8	140	0.01	0.84	0.1	1.3	1.21	1.6
WMAIN-7269(2)	042-030	J-7672	8	140	0.01	0.83	0.1	1.3	1.2	1.6
WMAIN-7271(1)	J-6134	042-029	8	140	0	0.51	0	1	0.85	1.3
WMAIN-7271(2)	042-029	J-7108	8	140	0	0.5	0	1	0.85	1.3
WMAIN-7273	J-6476	J-5845	8	152.5	0.09	0.97	0.4	1.5	0.91	1.5
WMAIN-7275(1)	J-6353	053-026	8	152.5	0.74	2.92	1.3	2.8	1.89	2.2
WMAIN-7275(2)(1)	053-026	053-044	8	152.5	0.73	2.9	1.3	2.8	1.88	2.2
WMAIN-7275(2)(2)	053-044	J-5777	8	152.5	0.73	2.89	1.3	2.8	1.87	2.2
WMAIN-7276	J-6596	J-6353	8	152.5	2.7	10.82	2.7	5.6	5.61	4
WMAIN-7278	J-7312	J-8311	12	152.5	0.03	0.09	0.3	0.5	0.08	0.5
WMAIN-7279	J-6466	J-5306	6	140	0	0	0	0	0	0
WMAIN-7282(1)	J-7316	031-012	6	140	0.02	0.45	0.2	0.8	0.07	0.3
WMAIN-7282(2)(1)	031-012	031-011	6	140	0.03	0.52	0.2	0.8	0.1	0.3
WMAIN-7282(2)(2)	031-011	J-6265	6	140	0.03	0.52	0.2	0.8	0.1	0.3
WMAIN-7286(1)	J-5305	031-015	6	140	0	0.58	0	0.9	0.04	0.2
WMAIN-7286(2)	031-015	J-6265	6	140	0	0.66	0	1	0.07	0.3
WMAIN-7289	J-6266	J-6209	12	152.5	0.02	0.41	0.2	1.2	0.08	0.5
WMAIN-7292(1)	J-7213	031-007	6	140	0.04	0.33	0.2	0.7	0.07	0.3
WMAIN-7292(2)	031-007	J-6287	6	140	0.05	0.38	0.2	0.7	0.1	0.3
WMAIN-7294(1)(1)	J-7345	031-005	8	140	0.06	0.37	0.3	0.8	0.1	0.4
WMAIN-7294(1)(2)(1)	031-005	031-004	8	140	0.04	0.32	0.3	0.8	0.07	0.3
WMAIN-7294(1)(2)(2)	031-004	031-003	8	140	0.04	0.32	0.3	0.8	0.07	0.3
WMAIN-7294(2)	031-003	J-5351	8	140	0.04	0.3	0.3	0.7	0.06	0.3
WMAIN-7296	J-5351	J-5352	8	140	0.04	0.29	0.2	0.7	0.06	0.3
WMAIN-7297(1)	J-6286	031-009	6	140	0.07	0.59	0.3	0.9	0.14	0.4
WMAIN-7297(2)	031-009	J-6088	6	140	0.06	0.56	0.3	0.9	0.12	0.4
WMAIN-7299	J-7765	J-7766	8	140	0	0.18	0	0.6	0	0
WMAIN-7301	J-6012	J-6731	6	140	0.03	0.37	0.2	0.7	0.05	0.2
WMAIN-7303(1)	J-8271	035-031	6	140	0	0.06	0.1	0.3	0.02	0.1
WMAIN-7303(2)	035-031	J-6850	6	140	0	0.04	0	0.2	0.01	0.1
WMAIN-7306(1)	J-7602	035-016	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7306(2)	035-016	J-8369	6	152.5	0	0.01	0	0.1	0	0
WMAIN-7308	J-5316	J-7443	8	140	0.03	0.15	0.2	0.5	0.13	0.5
WMAIN-7310(1)	J-6644	035-025	6	140	0	0.23	0	0.5	0.08	0.3
WMAIN-7310(2)	035-025	J-5864	6	140	0	0.25	0	0.6	0.1	0.3
WMAIN-7312	J-5363	J-5364	8	140	0	0	0	0	0	0
WMAIN-7315(1)	J-8270	035-030	6	140	0	0.05	0	0.2	0	0.1
WMAIN-7315(2)	035-030	J-7766	6	140	0	0.03	0	0.2	0	0
WMAIN-7317(1)	J-8453	035-022	8	140	0	0.07	0	0.3	0.02	0.2
WMAIN-7317(2)	035-022	J-8370	8	140	0	0.07	0	0.3	0.03	0.2
WMAIN-7320(1)	J-7895	035-018	6	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7320(2)(1)	035-018	035-017	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7320(2)(2)	035-017	J-8369	6	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7322(1)	J-6056	036-025	6	140	0.17	0.32	0.5	0.6	0.15	0.4
WMAIN-7322(2)	036-025	J-7008	6	140	0.16	0.31	0.4	0.6	0.14	0.4
WMAIN-7323(1)	J-7058	036-027	6	140	0.03	0.34	0.2	0.7	0.07	0.3
WMAIN-7323(2)	036-027	J-8493	6	140	0.04	0.38	0.2	0.7	0.09	0.3
WMAIN-7325	J-8003	J-7350	6	140	0	0.07	0.1	0.3	0.01	0.1
WMAIN-7326	J-5423	J-6370	4	140	0.02	0.07	0.1	0.2	0.07	0.2
WMAIN-7327	J-6370	J-6371	4	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7329(1)	J-5435	028-012	6	140	0.03	0.35	0.2	0.7	0.04	0.2
WMAIN-7329(2)	028-012	J-7763	6	140	0.03	0.35	0.2	0.7	0.04	0.2
WMAIN-7330	J-6706	J-5172	4	140	0	0.42	0	0.6	0.01	0.1
WMAIN-7332(1)	J-6290	037-045	8	152.5	0	0	0	0	0	0
WMAIN-7332(2)	037-045	J-8666	8	152.5	0	0	0	0	0	0
WMAIN-7335(1)(1)	J-8188	037-037	6	140	0	0.18	0	0.5	0.03	0.2
WMAIN-7335(1)(2)	037-037	037-038	6	140	0	0.21	0	0.5	0.01	0.1
WMAIN-7335(2)	037-038	J-7705	6	140	0	0.21	0	0.5	0.01	0.1
WMAIN-7339(1)	J-5225	044-024	8	140	0.04	0.13	0.2	0.5	0.13	0.5
WMAIN-7339(2)	044-024	J-7114	8	140	0.04	0.13	0.2	0.5	0.13	0.5
WMAIN-7341	J-6611	J-6411	8	140	0	0.14	0	0.5	0.18	0.6
WMAIN-7343(1)	J-6838	043-040	6	140	0.05	0.32	0.2	0.6	0.06	0.3
WMAIN-7343(2)	043-040	J-7000	6	140	0.04	0.31	0.2	0.6	0.06	0.3
WMAIN-7345(1)	J-5848	043-039	8	140	0.14	1.1	0.5	1.5	0.2	0.6
WMAIN-7345(2)	043-039	J-6837	8	140	0.14	1.09	0.5	1.5	0.2	0.6
WMAIN-7347(1)	J-8490	043-037	8	140	0.01	0.15	0.1	0.5	0.02	0.2
WMAIN-7347(2)	043-037	J-7912	8	140	0.01	0.13	0.1	0.5	0.01	0.1
WMAIN-7350(1)	J-8819	043-043	8	140	0	0	0	0.1	0.01	0.1
WMAIN-7350(2)	043-043	J-7969	8	140	0	0.01	0	0.1	0.02	0.2
WMAIN-7352(1)	J-6890	043-030	8	140	0	0.54	0	1	1.11	1.5
WMAIN-7352(2)	043-030	J-7825	8	140	0	0.53	0	1	1.09	1.5
WMAIN-7354(1)(1)	J-6536	043-023	6	140	0	2.57	0	2	4.82	2.8
WMAIN-7354(1)(2)	043-023	043-022	6	140	0	2.56	0	2	4.81	2.8
WMAIN-7354(2)	043-022	J-6537	6	140	0	2.56	0	2	4.81	2.8
WMAIN-7356(1)	J-8358	043-024	6	140	0	0.32	0	0.7	0.9	1.1
WMAIN-7356(2)	043-024	J-8630	6	140	0	0.2	0	0.5	0.65	0.9
WMAIN-7359(1)	J-6773	043-027	6	140	0.01	0.42	0.1	0.7	0.08	0.3
WMAIN-7359(2)	043-027	J-8604	6	140	0.01	0.46	0.1	0.8	0.11	0.4
WMAIN-7361	J-6772	J-6773	8	140	0	0.2	0	0.6	0.58	1.1
WMAIN-7363(1)	J-7164	043-035	8	140	0.18	1.45	0.6	1.8	0.62	1.1
WMAIN-7363(2)	043-035	J-7165	8	140	0.18	1.44	0.6	1.7	0.61	1.1
WMAIN-7364(1)	J-5506	043-029	8	140	0	0.81	0	1.3	2.09	2.1
WMAIN-7364(2)	043-029	J-5313	8	140	0	0.81	0	1.3	2.1	2.1
WMAIN-7367(1)	J-7021	043-010	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7367(2)	043-010	J-7022	6	140	0	0.01	0	0.1	0.01	0.1
WMAIN-7369	J-6633	J-6634	8	140	0	0.4	0	0.9	1.17	1.6
WMAIN-7370	J-6536	J-8384	12	140	0	0.72	0.1	1.5	2.05	2.7
WMAIN-7372	J-5219	J-5447	12	152.5	0.01	0.59	0.2	1.5	0.09	0.5
WMAIN-7375(1)	J-8685	044-007	8	140	0	0.07	0	0.4	0.28	0.7
WMAIN-7375(2)	044-007	J-8292	8	140	0	0.05	0	0.3	0.23	0.6
WMAIN-7378(1)(1)	J-7266	053-002	6	140	0.01	0.06	0.1	0.3	0.14	0.4
WMAIN-7378(1)(2)	053-002	053-004	6	140	0	0.04	0	0.2	0.09	0.3
WMAIN-7378(2)	053-004	J-7497	6	140	0	0.04	0	0.2	0.09	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7380(1)	J-7255	053-016	6	140	0	0.04	0	0.2	0.06	0.3
WMAIN-7380(2)	053-016	J-7376	6	140	0	0.06	0	0.3	0.04	0.2
WMAIN-7383	J-6133	053-013	6	140	0	0.66	0	1	1.58	1.5
WMAIN-7384	J-5748	J-5781	8	140	0.03	0.36	0.2	0.8	0.8	1.3
WMAIN-7385(1)	J-5781	053-001	8	140	0.03	0.36	0.2	0.8	0.79	1.3
WMAIN-7385(2)	053-001	J-7266	8	140	0.02	0.35	0.2	0.8	0.78	1.3
WMAIN-7387(1)(1)	J-6471	053-009	8	140	0.05	0.21	0.3	0.6	0.37	0.8
WMAIN-7387(1)(2)	053-009	053-010	8	140	0.04	0.18	0.2	0.6	0.33	0.8
WMAIN-7387(2)	053-010	J-7219	8	140	0.04	0.18	0.2	0.6	0.33	0.8
WMAIN-7389	J-7562	J-7376	6	140	0	0.02	0	0.2	0.04	0.2
WMAIN-7391(1)	J-7341	053-021	6	140	0.01	0.04	0.1	0.2	0.01	0.1
WMAIN-7391(2)(1)	053-021	J-9004	6	140	0.01	0.03	0.1	0.2	0	0.1
WMAIN-7391(2)(2)	J-9004	J-8628	6	140	0	0	0	0	0	0
WMAIN-7392(1)(1)	J-8627	J-9003	6	140	0	0	0	0.1	0	0.1
WMAIN-7392(1)(2)	J-9003	053-020	6	140	0	0	0	0.1	0	0.1
WMAIN-7392(2)	053-020	J-7340	6	140	0	0	0	0.1	0	0.1
WMAIN-7395(1)	J-6369	053-022	8	140	0.33	1.42	0.8	1.7	0.43	0.9
WMAIN-7395(2)	053-022	J-6084	8	140	0.34	1.47	0.8	1.8	0.45	0.9
WMAIN-7397(1)	J-6085	053-042	6	140	0.08	0.37	0.3	0.7	0.11	0.4
WMAIN-7397(2)	053-042	J-8656	6	140	0.09	0.41	0.3	0.7	0.13	0.4
WMAIN-7399(1)	J-7108	042-045	6	140	0.01	0.21	0.1	0.5	0.12	0.4
WMAIN-7399(2)	042-045	J-6928	6	140	0.01	0.25	0.1	0.6	0.15	0.4
WMAIN-7402(1)	J-7671	042-046	6	140	0	0.11	0.1	0.4	0.07	0.3
WMAIN-7402(2)	042-046	J-7657	6	140	0.01	0.14	0.1	0.4	0.1	0.3
WMAIN-7405(1)	J-7672	042-031	6	140	0	0.12	0	0.4	0.1	0.3
WMAIN-7405(2)	042-031	J-5840	6	140	0	0.14	0.1	0.4	0.13	0.4
WMAIN-7408(1)(1)	J-8463	055-036	8	152.5	0.06	0.31	0.3	0.8	0.13	0.5
WMAIN-7408(1)(2)	055-036	055-037	8	152.5	0.05	0.29	0.3	0.8	0.12	0.5
WMAIN-7408(2)	055-037	J-6476	8	152.5	0.05	0.29	0.3	0.8	0.12	0.5
WMAIN-7411	J-6076	J-6928	8	140	0.02	0.72	0.2	1.2	1.02	1.4
WMAIN-7413	J-5496	J-5560	6	140	0	0.01	0	0.1	0.02	0.1
WMAIN-7416(1)	J-7558	042-017	6	140	0	0.02	0	0.1	0.04	0.2
WMAIN-7416(2)	042-017	J-5496	6	140	0	0.01	0	0.1	0.03	0.2
WMAIN-7418(1)	J-7427	042-016	8	152.5	0.01	0.09	0.1	0.4	0.07	0.4
WMAIN-7418(2)	042-016	J-7558	8	152.5	0.01	0.09	0.1	0.4	0.07	0.4
WMAIN-7420(1)	J-6542	042-013	8	140	0.13	1.56	0.5	1.8	1.5	1.8
WMAIN-7420(2)	042-013	J-6543	8	140	0.13	1.56	0.5	1.8	1.5	1.8
WMAIN-7423(1)	J-8366	042-018	6	140	0.03	0.57	0.2	0.9	0.72	1
WMAIN-7423(2)	042-018	J-7428	6	140	0.02	0.5	0.1	0.8	0.63	0.9
WMAIN-7424	J-7551	J-7552	6	140	0	0	0	0.1	0.01	0.1
WMAIN-7426(1)	J-6981	042-026	6	140	0	0.07	0	0.3	0.12	0.4
WMAIN-7426(2)	042-026	J-7956	6	140	0	0.05	0	0.2	0.09	0.3
WMAIN-7430(1)	J-6980	042-027	8	140	0	0.23	0	0.7	0.38	0.9
WMAIN-7430(2)	042-027	J-6981	8	140	0	0.23	0	0.6	0.38	0.8
WMAIN-7432(1)	J-5372	042-022	8	140	0.03	0.2	0.2	0.6	0.08	0.4
WMAIN-7432(2)	042-022	J-6735	8	140	0.03	0.19	0.2	0.6	0.07	0.3
WMAIN-7435(1)(1)	J-5476	026-007	8	152.5	0.01	0.42	0.1	1	0.43	1
WMAIN-7435(1)(2)	026-007	026-008	8	152.5	0	0.13	0	0.5	0.14	0.5
WMAIN-7435(2)(1)	026-008	026-009	8	152.5	0	0.13	0	0.5	0.14	0.5
WMAIN-7435(2)(2)(1)	026-009	026-020	8	152.5	0	0.13	0	0.5	0.14	0.5
WMAIN-7435(2)(2)(2)(1)	026-020	026-021	8	152.5	0	0.13	0	0.5	0.14	0.5
WMAIN-7435(2)(2)(2)(2)	026-021	J-8758	8	152.5	0	0.13	0	0.5	0.14	0.5
WMAIN-7438(1)	J-8007	023-006	8	152.5	0.02	0.08	0.2	0.4	0.06	0.4
WMAIN-7438(2)	023-006	J-6953	8	152.5	0.02	0.08	0.2	0.4	0.07	0.4
WMAIN-7441(1)(1)	J-8301	023-039	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7441(1)(2)	023-039	023-040	8	152.5	0	0	0	0	0	0
WMAIN-7441(2)	023-040	J-8772	8	152.5	0	0	0	0	0	0
WMAIN-7443(1)	J-7698	023-019	6	140	0	0.12	0	0.4	0.07	0.3
WMAIN-7443(2)	023-019	J-7697	6	140	0	0.13	0	0.4	0.09	0.3
WMAIN-7446(1)	J-7489	023-020	6	140	0	0.12	0	0.4	0.06	0.3
WMAIN-7446(2)	023-020	J-7696	6	140	0	0.14	0	0.4	0.08	0.3
WMAIN-7448	J-5106	J-5107	8	152.5	0	0	0	0	0	0
WMAIN-7449	J-5446	J-5447	12	152.5	0	0	0	0	0	0
WMAIN-7450(1)	J-8575	013-031	16	140	0.01	0.15	0.1	0.8	0.08	0.6
WMAIN-7450(2)(1)	013-031	013-030	16	140	0.01	0.15	0.1	0.8	0.08	0.6
WMAIN-7450(2)(2)	013-030	J-8576	16	140	0.01	0.15	0.1	0.8	0.08	0.6
WMAIN-7451	J-5389	J-5390	8	140	0.6	1.87	1.1	2	1.12	1.5
WMAIN-7454(1)(1)	J-6102	022-034	6	140	0	0.05	0	0.2	0.04	0.2
WMAIN-7454(1)(2)	022-034	022-044	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-7454(2)	022-044	J-7690	6	140	0	0.03	0	0.2	0.01	0.1
WMAIN-7457(1)	J-8309	013-019	8	140	0	0	0	0.1	0	0.1
WMAIN-7457(2)	013-019	J-8310	8	140	0	0	0	0	0	0
WMAIN-7458	J-5168	J-5169	6	152.5	0	0	0	0	0	0
WMAIN-7459(1)(1)	J-6208	168-006	12	152.5	0.1	0.17	0.6	0.8	0.19	0.8
WMAIN-7459(1)(2)	168-006	J-7979	12	152.5	0.1	0.17	0.6	0.8	0.19	0.8
WMAIN-7459(2)(1)	J-7979	168-007	12	152.5	0.08	0.19	0.5	0.8	0.21	0.9
WMAIN-7459(2)(2)	168-007	J-8762	12	152.5	0.08	0.19	0.5	0.8	0.22	0.9
WMAIN-7460	167-040	J-6972	12	152.5	0.01	0.42	0.2	1.3	0.06	0.4
WMAIN-7461	J-5565	J-5564	12	152.5	0	0.26	0	1	0.25	1
WMAIN-7462	J-5563	J-5564	12	152.5	0.01	0.12	0.1	0.7	0.12	0.6
WMAIN-7463	J-8059	J-6208	8	152.5	0.01	0.07	0.1	0.4	0.01	0.1
WMAIN-7464(1)	168-051	168-050	8	152.5	0	0.01	0	0.2	0	0
WMAIN-7464(2)	168-050	J-7712	8	152.5	0	0.01	0	0.2	0	0
WMAIN-7465(1)	J-7712	168-055	8	152.5	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-7465(2)	168-055	J-7630	8	152.5	0.01	0.01	0.1	0.1	0.01	0.1
WMAIN-7466(1)	J-7630	168-054	8	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7466(2)	168-054	J-7631	8	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7467(1)	J-7631	168-053	8	152.5	0	0.01	0	0.1	0	0
WMAIN-7467(2)	168-053	J-7713	8	152.5	0	0	0	0.1	0	0
WMAIN-7468(1)	J-7713	168-052	8	152.5	0.02	0.07	0.2	0.4	0.02	0.2
WMAIN-7468(2)	168-052	J-8059	8	152.5	0.01	0.07	0.1	0.4	0.01	0.1
WMAIN-7469	J-7712	J-7713	8	152.5	0.02	0.05	0.2	0.3	0.02	0.2
WMAIN-7470	J-6277	J-7712	8	152.5	0.08	0.18	0.4	0.6	0.07	0.4
WMAIN-7471	J-6276	J-6277	8	152.5	0.25	0.52	0.7	1.1	0.52	1.1
WMAIN-7472(1)	J-8768	J-5706	12	152.5	0.64	0.71	1.6	1.7	0.68	1.6
WMAIN-7472(2)(1)(1)	J-5706	168-071	12	152.5	0.78	0.86	1.8	1.9	0.85	1.8
WMAIN-7472(2)(1)(2)	168-071	168-049	12	152.5	0.78	0.85	1.8	1.8	0.84	1.8
WMAIN-7472(2)(2)	168-049	J-6277	12	152.5	0.78	0.85	1.8	1.8	0.84	1.8
WMAIN-7473	J-6277	168-048	12	152.5	0.3	0.39	1.1	1.2	0.37	1.2
WMAIN-7474	168-048	J-6193	12	152.5	0.29	0.38	1	1.2	0.36	1.2
WMAIN-7476(1)	J-8296	180-015	8	152.5	0.03	0.08	0.2	0.4	0.08	0.4
WMAIN-7476(2)	180-015	J-8561	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-7477(1)	J-8615	180-021	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7477(2)	180-021	J-6303	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7478(1)	J-8735	180-018	8	152.5	0	0.04	0	0.3	0.01	0.1
WMAIN-7478(2)	180-018	J-7149	8	152.5	0	0.03	0	0.3	0.01	0.1
WMAIN-7479(1)(1)	J-8134	125-155	8	152.5	0.06	0.17	0.3	0.6	0.16	0.6
WMAIN-7479(1)(2)	125-155	125-125	8	152.5	0.07	0.18	0.4	0.6	0.17	0.6
WMAIN-7479(2)	125-125	J-8137	8	152.5	0.07	0.18	0.4	0.6	0.17	0.6
WMAIN-7480(1)(1)(1)	J-8134	125-126	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7480(1)(1)(2)	125-126	125-127	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-7480(1)(2)	125-127	125-128	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7480(2)	125-128	J-7935	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-7481(1)	J-8695	125-121	8	152.5	0.1	0.35	0.5	0.9	0.34	0.9
WMAIN-7481(2)	125-121	J-7476	8	152.5	0.11	0.37	0.5	0.9	0.37	0.9
WMAIN-7482(1)	J-7087	033-019	8	152.5	0.04	1.71	0.3	2.1	0.35	0.9
WMAIN-7482(2)	033-019	J-7088	8	152.5	0.05	1.73	0.3	2.1	0.36	0.9
WMAIN-7483(1)	J-7078	033-020	8	152.5	0.01	0.11	0.1	0.5	0.02	0.2
WMAIN-7483(2)	033-020	J-7079	8	152.5	0.01	0.11	0.1	0.5	0.02	0.2
WMAIN-7484	J-7609	J-7087	8	152.5	0	0	0	0	0	0
WMAIN-7485	J-7087	J-7078	8	152.5	0.04	1.64	0.3	2	0.32	0.8
WMAIN-7486	J-7078	J-7063	8	152.5	0.07	2.37	0.4	2.5	0.45	1
WMAIN-7487(1)	J-7063	033-021	8	152.5	0	0.19	0	0.6	0.04	0.3
WMAIN-7487(2)	033-021	J-8450	8	152.5	0	0.19	0	0.6	0.04	0.3
WMAIN-7488	J-7063	033-022	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-7490(1)	J-8420	171-087	8	152.5	0	0	0	0	0	0
WMAIN-7490(2)	171-087	J-6844	8	152.5	0	0	0	0	0	0
WMAIN-7491	J-6844	J-6986	8	152.5	0	0	0	0	0	0
WMAIN-7492(1)	J-6844	171-086	8	152.5	0	0	0	0	0	0
WMAIN-7492(2)	171-086	J-8318	8	152.5	0	0	0	0	0	0
WMAIN-7493	J-6003	J-6844	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7494(1)	125-156	125-120	8	152.5	0	0	0	0	0	0
WMAIN-7494(2)	125-120	J-7476	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7495(1)	J-8049	125-118	8	152.5	0.05	0.14	0.3	0.5	0.14	0.5
WMAIN-7495(2)(1)	125-118	125-119	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-7495(2)(2)	125-119	J-7476	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-7496(1)	J-7475	125-123	12	152.5	0.06	0.15	0.4	0.7	0.15	0.7
WMAIN-7496(2)(1)	125-123	125-122	12	152.5	0.06	0.16	0.4	0.7	0.16	0.7
WMAIN-7496(2)(2)	125-122	J-8049	12	152.5	0.06	0.16	0.4	0.7	0.16	0.7
WMAIN-7498	J-8133	J-7475	12	152.5	0.03	0.07	0.3	0.5	0.07	0.5
WMAIN-7499(1)	J-8280	126-060	8	152.5	0	0	0	0	0	0
WMAIN-7499(2)	126-060	J-8261	8	152.5	0	0	0	0	0	0
WMAIN-7500(1)	J-8261	126-059	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7500(2)	126-059	J-8086	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7501(1)	J-8432	126-061	8	152.5	0	0	0	0	0	0
WMAIN-7501(2)	126-061	J-8261	8	152.5	0	0	0	0	0	0
WMAIN-7502(1)	J-6684	180-020	8	152.5	0	0.05	0.1	0.3	0.03	0.2
WMAIN-7502(2)	180-020	J-8103	8	152.5	0.01	0.05	0.1	0.3	0.03	0.2
WMAIN-7503(1)	J-8735	180-019	8	152.5	0	0.04	0	0.3	0.02	0.2
WMAIN-7503(2)	180-019	J-6684	8	152.5	0	0.05	0.1	0.3	0.02	0.2
WMAIN-7504	J-7149	J-6303	8	152.5	0.01	0.12	0.1	0.5	0.06	0.3
WMAIN-7505	J-8103	J-8615	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-7506(1)(1)	J-7896	170-023	8	152.5	0	0.09	0	0.4	0	0.1
WMAIN-7506(1)(2)(1)	170-023	180-016	8	152.5	0	0.1	0	0.5	0	0
WMAIN-7506(1)(2)(2)	180-016	180-008	8	152.5	0	0.1	0	0.5	0	0
WMAIN-7506(2)	180-008	J-8297	8	152.5	0	0.1	0	0.5	0	0
WMAIN-7507(1)	J-7283	180-012	8	152.5	0.02	0.06	0.2	0.3	0.06	0.3
WMAIN-7507(2)	180-012	J-8561	8	152.5	0.02	0.07	0.2	0.4	0.06	0.4
WMAIN-7509(1)	J-6195	167-073	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-7509(2)	167-073	J-8048	8	152.5	0	0.05	0	0.3	0.05	0.3
WMAIN-7510(1)	J-5264	167-063	8	152.5	0	0.03	0	0.2	0	0.1
WMAIN-7510(2)	167-063	J-8048	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7511(1)	J-8486	167-074	8	152.5	0	0	0	0	0	0
WMAIN-7511(2)	167-074	J-7367	8	152.5	0	0	0	0	0	0
WMAIN-7512	J-8048	J-7367	8	152.5	0	0.1	0	0.5	0.08	0.4
WMAIN-7513	J-7367	J-7368	8	152.5	0	0.13	0	0.5	0.11	0.5
WMAIN-7514	J-7475	J-7476	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-7515	J-8049	J-7955	12	152.5	0.1	0.28	0.6	1	0.28	1
WMAIN-7516	J-8133	J-8134	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7518	J-8248	J-6263	12	152.5	0	0.02	0	0.3	0.02	0.2
WMAIN-7519	J-6263	J-6264	12	152.5	0	0	0	0	0	0
WMAIN-7520	J-6684	J-6685	8	152.5	0	0	0	0	0	0
WMAIN-7521	180-017	J-7149	8	152.5	0	0	0	0	0	0
WMAIN-7522(1)	J-7149	180-006	8	152.5	0	0.24	0.1	0.7	0.07	0.4
WMAIN-7522(2)	180-006	J-7991	8	152.5	0	0.24	0.1	0.7	0.07	0.4
WMAIN-7523	J-6303	J-6304	8	152.5	0.05	0.36	0.3	0.9	0.24	0.7
WMAIN-7524(1)	J-8103	180-022	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-7524(2)	180-022	J-6303	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7525	J-6525	J-6263	8	152.5	0	0	0	0	0	0
WMAIN-7526(1)(1)	J-6189	180-013	8	152.5	0	0.13	0.1	0.5	0.09	0.4
WMAIN-7526(1)(2)	180-013	180-014	8	152.5	0	0.15	0.1	0.6	0.12	0.5
WMAIN-7526(2)	180-014	J-6263	8	152.5	0	0.15	0.1	0.6	0.12	0.5
WMAIN-7528	J-5959	J-5960	8	152.5	0	0	0	0	0	0
WMAIN-7529	J-5961	J-5962	8	152.5	0.13	0.52	0.5	1.1	0.52	1.1
WMAIN-7530	J-5771	J-5772	8	152.5	0	0	0	0	0	0
WMAIN-7531	J-5773	J-5771	8	152.5	0	0	0	0	0	0
WMAIN-7532	J-6490	168-037	8	152.5	0	0.4	0	0.9	0.31	0.8
WMAIN-7533	J-5445	J-5767	8	152.5	0	0.4	0	0.9	0.31	0.8
WMAIN-7534	169-042	J-5444	8	152.5	0	0.4	0	0.9	0.31	0.8
WMAIN-7535	J-5444	J-5445	8	152.5	0	0.4	0	0.9	0.31	0.8
WMAIN-7536(1)	168-096	169-018	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7536(2)	169-018	J-6490	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7537	J-5699	J-5700	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7538	J-5700	168-095	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7539(1)	168-095	169-017	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7539(2)	169-017	J-5635	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7540	J-5635	J-5409	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7541	J-5409	J-5410	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7542	J-5410	168-096	12	152.5	0	0.19	0	0.8	0.18	0.8
WMAIN-7543	J-7980	J-5901	8	152.5	0	0.06	0.1	0.3	0	0
WMAIN-7544	J-5902	J-6223	8	152.5	0.02	0.06	0.2	0.4	0.03	0.2
WMAIN-7545	J-6459	J-6460	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7546	J-7600	J-6223	8	152.5	0.02	0.04	0.2	0.3	0.02	0.2
WMAIN-7547	168-051	J-5901	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-7548(1)	J-5902	168-061	8	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7548(2)	168-061	J-6459	8	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7549(1)(1)	J-7980	168-058	8	152.5	0	0.01	0	0.2	0	0.1
WMAIN-7549(1)(2)	168-058	168-059	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-7549(2)	168-059	J-7940	8	152.5	0	0.02	0	0.2	0	0
WMAIN-7550(1)	J-6459	168-062	8	152.5	0.01	0.03	0.1	0.2	0.02	0.2
WMAIN-7550(2)	168-062	J-7600	8	152.5	0.01	0.03	0.2	0.3	0.02	0.2
WMAIN-7551	J-7940	J-6459	8	152.5	0	0.02	0	0.2	0	0
WMAIN-7552(1)	J-6223	168-064	8	152.5	0.07	0.19	0.4	0.6	0.11	0.5
WMAIN-7552(2)	168-064	J-6224	8	152.5	0.08	0.19	0.4	0.6	0.11	0.5
WMAIN-7553	J-5901	J-5902	8	152.5	0	0.03	0	0.3	0.01	0.1
WMAIN-7554	J-7979	J-7980	8	152.5	0	0.11	0	0.5	0	0.1
WMAIN-7555(1)	J-6485	180-063	8	152.5	0	0.1	0	0.4	0.08	0.4
WMAIN-7555(2)	180-063	J-6446	8	152.5	0	0.1	0	0.4	0.08	0.4
WMAIN-7556(1)	J-6446	180-047	8	152.5	0	0.26	0	0.8	0.24	0.7
WMAIN-7556(2)	180-047	J-7835	8	152.5	0	0.27	0	0.8	0.26	0.7
WMAIN-7557	J-7191	J-8032	8	152.5	0	0	0	0.1	0	0
WMAIN-7558	J-7190	J-7191	8	152.5	0	0.14	0	0.5	0.09	0.4
WMAIN-7559	J-6080	J-6081	8	152.5	0	0	0	0	0	0
WMAIN-7560(1)	J-8755	180-027	8	152.5	0	0.07	0	0.4	0.05	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7560(2)	180-027	J-8032	8	152.5	0	0.06	0	0.3	0.04	0.3
WMAIN-7561(1)	J-8032	180-028	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-7561(2)	180-028	J-8033	8	152.5	0	0.03	0	0.3	0.03	0.2
WMAIN-7562(1)	J-8033	180-038	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7562(2)	180-038	J-8038	8	152.5	0	0.03	0	0.2	0.01	0.2
WMAIN-7563(1)	J-8038	180-037	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7563(2)	180-037	J-7190	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7564	J-6445	J-6446	8	152.5	0	0.24	0	0.7	0.05	0.3
WMAIN-7565(1)	J-8201	180-026	8	152.5	0	0.09	0	0.4	0.08	0.4
WMAIN-7565(2)	180-026	J-8755	8	152.5	0	0.08	0.1	0.4	0.07	0.4
WMAIN-7566(1)	J-7191	180-036	8	152.5	0	0.12	0	0.5	0.09	0.4
WMAIN-7566(2)	180-036	J-6498	8	152.5	0	0.12	0	0.5	0.1	0.4
WMAIN-7567	J-7297	J-6498	8	152.5	0	0	0	0	0	0
WMAIN-7568	J-6498	J-6081	8	152.5	0	0.13	0.1	0.5	0.11	0.5
WMAIN-7569(1)	J-6081	180-035	8	152.5	0	0.14	0.1	0.5	0.12	0.5
WMAIN-7569(2)	180-035	J-8201	8	152.5	0	0.14	0.1	0.5	0.12	0.5
WMAIN-7570	J-5949	J-5950	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7571(1)	J-5945	J-9272	8	152.5	0	0	0	0	0	0
WMAIN-7571(2)	J-9272	J-5946	8	152.5	0	0	0	0	0	0
WMAIN-7572(1)	J-8056	125-135	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-7572(2)	125-135	J-8057	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-7573	J-6169	J-8056	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7574(1)	125-137	125-136	8	152.5	0	0	0	0	0	0
WMAIN-7574(2)	125-136	J-8056	8	152.5	0	0	0	0	0	0
WMAIN-7575(1)	J-6169	125-129	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7575(2)	125-129	125-137	8	152.5	0	0	0.1	0.1	0	0.1
WMAIN-7576(1)	J-6168	125-130	8	152.5	0.03	0.07	0.2	0.4	0.07	0.4
WMAIN-7576(2)	125-130	J-6169	8	152.5	0.03	0.07	0.2	0.4	0.06	0.4
WMAIN-7577(1)	J-7802	125-131	8	152.5	0.02	0.07	0.2	0.4	0.06	0.4
WMAIN-7577(2)	125-131	J-6168	8	152.5	0.02	0.07	0.2	0.4	0.07	0.4
WMAIN-7578	J-8145	J-7802	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7579(1)	J-8574	125-132	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7579(2)	125-132	J-7802	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7580(1)	J-8145	125-133	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7580(2)	125-133	J-8574	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7581(1)	J-7959	125-134	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7581(2)	125-134	J-8145	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7583(1)	J-8057	125-139	12	152.5	0	0.05	0.1	0.4	0.06	0.4
WMAIN-7583(2)	125-139	J-8738	12	152.5	0	0.06	0.1	0.4	0.06	0.4
WMAIN-7584(1)	J-7959	125-141	12	152.5	0.01	0.07	0.1	0.5	0.07	0.5
WMAIN-7584(2)	125-141	J-8057	12	152.5	0.01	0.07	0.1	0.5	0.07	0.5
WMAIN-7585(1)	J-7745	125-143	12	152.5	0.01	0.09	0.2	0.6	0.09	0.6
WMAIN-7585(2)	125-143	J-7959	12	152.5	0.01	0.09	0.2	0.6	0.1	0.6
WMAIN-7586(1)	125-142	125-140	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-7586(2)	125-140	J-8738	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-7587(1)	J-7745	125-144	8	152.5	0	0	0	0.1	0	0
WMAIN-7587(2)	125-144	125-142	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7588	168-094	J-6343	12	152.5	0.19	0.27	0.8	1	0.28	1
WMAIN-7589	J-5284	168-094	12	152.5	0.17	0.24	0.8	0.9	0.25	1
WMAIN-7590(1)	J-6343	168-090	12	152.5	0.14	0.22	0.7	0.9	0.23	0.9
WMAIN-7590(2)	168-090	J-6344	12	152.5	0.14	0.22	0.7	0.9	0.23	0.9
WMAIN-7591	J-6215	J-6216	8	152.5	0	0	0	0	0	0
WMAIN-7592(1)	J-6215	168-093	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-7592(2)	168-093	J-7774	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-7593	J-6217	J-6218	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7594(1)	J-7774	168-078	8	152.5	0.02	0.02	0.2	0.2	0.02	0.2
WMAIN-7594(2)	168-078	J-6218	8	152.5	0.02	0.03	0.2	0.2	0.02	0.2
WMAIN-7595(1)	J-7971	168-091	8	152.5	0.1	0.12	0.4	0.5	0.12	0.5
WMAIN-7595(2)	168-091	J-6343	8	152.5	0.1	0.12	0.4	0.5	0.12	0.5
WMAIN-7596(1)	J-7971	168-092	8	152.5	0.02	0.02	0.2	0.2	0.02	0.2
WMAIN-7596(2)	168-092	J-6215	8	152.5	0.02	0.03	0.2	0.2	0.03	0.2
WMAIN-7597(1)	J-8436	168-085	8	152.5	0.04	0.06	0.3	0.4	0.06	0.3
WMAIN-7597(2)	168-085	J-7971	8	152.5	0.04	0.06	0.3	0.3	0.06	0.3
WMAIN-7598	J-8436	J-7774	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7599(1)	J-6971	168-072	8	152.5	0.07	0.13	0.4	0.5	0.13	0.5
WMAIN-7599(2)	168-072	J-8436	8	152.5	0.06	0.11	0.4	0.5	0.11	0.5
WMAIN-7600(1)	J-6218	168-076	8	152.5	0.05	0.11	0.3	0.5	0.1	0.5
WMAIN-7600(2)	168-076	J-6253	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-7601	J-6253	J-6254	8	152.5	0.05	0.11	0.3	0.5	0.11	0.5
WMAIN-7602(1)	J-6254	168-074	8	152.5	0	0	0	0	0	0
WMAIN-7602(2)	168-074	J-7557	8	152.5	0	0	0	0	0	0
WMAIN-7603	J-6254	J-6971	8	152.5	0.06	0.13	0.3	0.5	0.13	0.5
WMAIN-7604(1)	J-6971	168-073	8	152.5	0.25	0.51	0.7	1.1	0.5	1.1
WMAIN-7604(2)	168-073	J-6276	8	152.5	0.25	0.52	0.7	1.1	0.51	1.1
WMAIN-7606(1)	168-077	168-075	12	152.5	0.07	0.21	0.5	0.9	0.2	0.9
WMAIN-7606(2)	168-075	J-6192	12	152.5	0.07	0.21	0.5	0.9	0.21	0.9
WMAIN-7607	J-5286	168-077	12	152.5	0.07	0.2	0.5	0.9	0.2	0.8
WMAIN-7608(1)	J-6835	125-152	8	152.5	0.08	0.3	0.4	0.8	0.29	0.8
WMAIN-7608(2)	125-152	J-8701	8	152.5	0.07	0.27	0.4	0.8	0.27	0.8
WMAIN-7609(1)	J-6834	125-153	8	152.5	0.09	0.33	0.4	0.9	0.33	0.9
WMAIN-7609(2)	125-153	J-6835	8	152.5	0.08	0.33	0.4	0.9	0.33	0.9
WMAIN-7610(1)	J-8701	125-151	8	152.5	0	0	0	0	0	0
WMAIN-7610(2)	125-151	125-148	8	152.5	0.08	0.31	0.4	0.8	0.31	0.8
WMAIN-7611	J-6158	J-6159	8	152.5	0	0	0	0	0	0
WMAIN-7612	J-5404	J-7745	12	152.5	0.01	0.08	0.1	0.5	0.08	0.5
WMAIN-7613(1)	J-7474	125-149	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7613(2)(1)	125-149	125-147	12	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7613(2)(2)	125-147	J-5405	12	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7614(1)	J-8133	125-124	12	152.5	0.03	0.08	0.3	0.5	0.08	0.5
WMAIN-7614(2)	125-124	J-7474	12	152.5	0.03	0.08	0.3	0.5	0.08	0.5
WMAIN-7615	J-7474	J-6834	8	152.5	0.2	0.81	0.7	1.4	0.82	1.4
WMAIN-7617	J-6293	J-6294	8	152.5	0.05	0.22	0.3	0.7	0.25	0.7
WMAIN-7618(1)	J-7291	169-105	8	152.5	0.03	0.12	0.2	0.5	0.13	0.5
WMAIN-7618(2)	169-105	J-6293	8	152.5	0.03	0.12	0.2	0.5	0.13	0.5
WMAIN-7619	J-7291	J-7910	8	152.5	0.03	0.11	0.2	0.5	0.12	0.5
WMAIN-7620(1)	J-5639	169-106	8	152.5	0.02	0.1	0.2	0.4	0.11	0.5
WMAIN-7620(2)	169-106	J-7910	8	152.5	0.02	0.1	0.2	0.4	0.11	0.5
WMAIN-7621	J-5638	J-5639	8	152.5	0.02	0.09	0.2	0.4	0.09	0.4
WMAIN-7622(1)	J-7132	169-107	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-7622(2)	169-107	J-5639	8	152.5	0	0	0	0	0	0
WMAIN-7623(1)	J-7131	169-108	8	152.5	0	0	0	0	0	0
WMAIN-7623(2)	169-108	J-7132	8	152.5	0	0	0	0	0	0
WMAIN-7624	J-7834	J-7132	8	152.5	0.02	0.07	0.2	0.4	0.06	0.3
WMAIN-7625(1)	J-7841	169-109	8	152.5	0	0.02	0.1	0.2	0.01	0.1
WMAIN-7625(2)	169-109	J-7834	8	152.5	0	0.01	0.1	0.1	0	0
WMAIN-7626(1)	J-6293	169-104	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7626(2)	169-104	J-6770	8	152.5	0	0.01	0	0.1	0.02	0.2
WMAIN-7627	J-6770	J-6771	8	152.5	0.02	0.21	0.2	0.7	0.25	0.7
WMAIN-7628(1)	J-6771	169-103	8	152.5	0.01	0.06	0.2	0.4	0.07	0.4
WMAIN-7628(2)	169-103	J-7834	8	152.5	0.01	0.06	0.2	0.3	0.07	0.4
WMAIN-7629(1)	J-5697	169-101	8	152.5	0.02	0.15	0.2	0.6	0.17	0.6
WMAIN-7629(2)	169-101	J-6770	8	152.5	0.01	0.14	0.2	0.5	0.16	0.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7630	J-5852	J-6771	8	152.5	0	0.05	0	0.3	0.06	0.3
WMAIN-7631	J-5851	J-5852	8	152.5	0	0	0	0	0	0
WMAIN-7632	J-5852	J-7841	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-7633(1)	J-7845	168-082	12	152.5	0.02	0.06	0.3	0.5	0.01	0.2
WMAIN-7633(2)	168-082	J-6878	12	152.5	0.02	0.06	0.2	0.4	0.01	0.2
WMAIN-7634(1)	169-110	169-102	12	152.5	0.06	0.22	0.4	0.9	0.23	0.9
WMAIN-7634(2)	169-102	J-6878	12	152.5	0.06	0.22	0.5	0.9	0.23	0.9
WMAIN-7635	J-6878	J-5852	8	152.5	0	0.01	0	0.1	0.02	0.2
WMAIN-7636(1)(1)	J-6878	169-100	12	152.5	0	0.11	0	0.6	0.12	0.6
WMAIN-7636(1)(2)	169-100	168-066	12	152.5	0	0.11	0	0.6	0.12	0.6
WMAIN-7636(2)	168-066	J-8710	12	152.5	0	0.11	0	0.6	0.12	0.6
WMAIN-7637(1)	J-8710	168-065	12	152.5	0	0.11	0	0.6	0.12	0.6
WMAIN-7637(2)	168-065	J-6044	12	152.5	0	0.11	0	0.6	0.12	0.7
WMAIN-7638(1)	J-6045	168-060	12	152.5	0	0.15	0	0.7	0.16	0.8
WMAIN-7638(2)	168-060	J-6048	12	152.5	0	0.15	0	0.7	0.16	0.8
WMAIN-7639	J-6048	J-6049	12	152.5	0	0.15	0	0.7	0.16	0.8
WMAIN-7640	J-5736	J-6130	12	152.5	0.14	0.31	0.7	1.1	0.36	1.2
WMAIN-7641	J-5735	J-5736	16	152.5	0	0	0	0	0	0
WMAIN-7642	J-5909	J-5736	12	152.5	0.14	0.31	0.7	1.1	0.36	1.2
WMAIN-7643	J-6766	J-6767	8	152.5	0	0	0	0	0	0
WMAIN-7644(1)	J-8529	081-007	8	152.5	0	0	0	0	0	0
WMAIN-7644(2)	081-007	J-8197	8	152.5	0	0	0	0	0	0
WMAIN-7645	J-7431	J-7262	8	152.5	0.14	0.35	0.5	0.9	0.39	0.9
WMAIN-7646(1)	J-7540	081-008	8	152.5	0	0	0	0	0	0
WMAIN-7646(2)	081-008	J-7431	8	152.5	0	0	0	0	0	0
WMAIN-7647	J-7767	J-7431	8	152.5	0.13	0.32	0.5	0.8	0.36	0.9
WMAIN-7648	J-7767	J-7060	8	152.5	0.04	0.18	0.3	0.6	0.14	0.5
WMAIN-7649(1)	J-6292	081-016	8	152.5	0.23	0.59	0.7	1.2	0.71	1.3
WMAIN-7649(2)(1)	081-016	081-015	8	152.5	0.24	0.62	0.7	1.2	0.74	1.3
WMAIN-7649(2)(2)	081-015	J-7767	8	152.5	0.24	0.62	0.7	1.2	0.74	1.3
WMAIN-7650(1)	J-6767	081-017	8	152.5	0.29	0.84	0.8	1.4	0.96	1.5
WMAIN-7650(2)	081-017	J-6292	8	152.5	0.29	0.84	0.8	1.4	0.97	1.5
WMAIN-7651	J-8088	J-6767	8	152.5	0.28	0.82	0.8	1.4	0.94	1.5
WMAIN-7652	J-6291	J-6292	8	152.5	0	0	0	0	0	0
WMAIN-7653(1)	J-6292	081-006	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-7653(2)	081-006	J-8198	8	152.5	0	0.06	0	0.3	0.05	0.3
WMAIN-7654	J-7263	J-6795	8	152.5	0.17	0.47	0.6	1	0.51	1.1
WMAIN-7655	J-7195	J-5909	8	152.5	0.26	0.58	0.8	1.2	0.65	1.2
WMAIN-7656(1)(1)	J-5909	081-004	8	152.5	0.28	0.61	0.8	1.2	0.72	1.3
WMAIN-7656(1)(2)	081-004	081-009	8	152.5	0.24	0.55	0.7	1.1	0.63	1.2
WMAIN-7656(2)	081-009	J-7262	8	152.5	0.24	0.55	0.7	1.1	0.63	1.2
WMAIN-7657	J-7262	J-7263	8	152.5	0.01	0.12	0.1	0.5	0.04	0.3
WMAIN-7658(1)(1)	J-7263	081-003	8	152.5	0.26	0.64	0.8	1.2	0.75	1.3
WMAIN-7658(1)(2)	081-003	081-002	8	152.5	0.25	0.62	0.7	1.2	0.73	1.3
WMAIN-7658(2)	081-002	J-8197	8	152.5	0.25	0.62	0.7	1.2	0.73	1.3
WMAIN-7659	J-8197	J-8198	8	152.5	0.23	0.57	0.7	1.2	0.68	1.3
WMAIN-7660(1)	J-8198	081-001	8	152.5	0.14	0.48	0.5	1.1	0.37	0.9
WMAIN-7660(2)	081-001	J-8661	8	152.5	0.14	0.48	0.5	1	0.36	0.9
WMAIN-7661(1)	J-8035	180-024	8	152.5	0.01	0.12	0.2	0.5	0.12	0.5
WMAIN-7661(2)(1)	180-024	180-023	8	152.5	0.01	0.1	0.1	0.5	0.1	0.5
WMAIN-7661(2)(2)	180-023	J-8239	8	152.5	0.01	0.1	0.1	0.5	0.1	0.5
WMAIN-7662(1)	J-8034	180-025	8	152.5	0.02	0.13	0.2	0.5	0.14	0.5
WMAIN-7662(2)	180-025	J-8035	8	152.5	0.02	0.13	0.2	0.5	0.13	0.5
WMAIN-7663	J-7162	J-7163	8	152.5	0	0	0	0	0	0
WMAIN-7664(1)	J-7163	180-043	8	152.5	0.03	0.2	0.2	0.7	0.21	0.7
WMAIN-7664(2)	180-043	J-6715	8	152.5	0.03	0.2	0.2	0.6	0.2	0.7
WMAIN-7665	J-6714	J-6715	8	152.5	0	0	0	0	0	0
WMAIN-7666(1)	J-8102	180-034	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-7666(2)	180-034	J-8034	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-7667(1)	J-8035	180-032	8	152.5	0	0	0	0	0	0
WMAIN-7667(2)	180-032	J-8451	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7668(1)	J-8451	180-033	8	152.5	0.04	0.31	0.3	0.8	0.31	0.8
WMAIN-7668(2)	180-033	J-8102	8	152.5	0.04	0.32	0.3	0.8	0.32	0.8
WMAIN-7669(1)	J-7119	180-031	8	152.5	0.03	0.25	0.2	0.7	0.25	0.7
WMAIN-7669(2)	180-031	J-8451	8	152.5	0.03	0.26	0.2	0.8	0.26	0.8
WMAIN-7670(1)	J-6126	180-030	8	152.5	0.01	0.08	0.1	0.4	0.09	0.4
WMAIN-7670(2)	180-030	J-7119	8	152.5	0.01	0.08	0.1	0.4	0.08	0.4
WMAIN-7671	J-6126	J-6127	8	152.5	0	0	0	0	0	0
WMAIN-7672	J-8239	J-6126	8	152.5	0.01	0.1	0.1	0.4	0.1	0.4
WMAIN-7673	J-5326	J-5327	6	152.5	0	0	0	0	0	0
WMAIN-7674	J-6715	J-6901	8	152.5	0.03	0.19	0.2	0.6	0.2	0.6
WMAIN-7675	J-6901	J-7119	8	152.5	0.05	0.53	0.3	1.1	0.54	1.1
WMAIN-7676(1)	J-8041	180-010	12	152.5	0	0.79	0.1	1.8	0.44	1.3
WMAIN-7676(2)	180-010	J-8248	12	152.5	0	0.78	0.1	1.8	0.44	1.3
WMAIN-7677	J-8041	J-6445	8	152.5	0	0.23	0	0.7	0.04	0.3
WMAIN-7678(1)	J-8041	180-046	12	152.5	0	0.56	0	1.5	0.38	1.2
WMAIN-7678(2)	180-046	J-8042	12	152.5	0	0.56	0	1.5	0.38	1.2
WMAIN-7679	J-8042	J-7190	8	152.5	0	0.24	0	0.7	0.14	0.5
WMAIN-7680(1)	J-8042	180-045	12	152.5	0	0.36	0	1.2	0.26	1
WMAIN-7680(2)	180-045	J-7836	12	152.5	0	0.36	0.1	1.2	0.26	1
WMAIN-7681	J-7836	J-8201	8	152.5	0	0.12	0.1	0.5	0.09	0.4
WMAIN-7682(1)	J-7835	180-048	8	152.5	0	0.28	0	0.8	0.26	0.8
WMAIN-7682(2)	180-048	J-7836	8	152.5	0	0.28	0	0.8	0.27	0.8
WMAIN-7683	J-7583	J-8102	8	152.5	0.11	0.87	0.5	1.4	0.88	1.5
WMAIN-7684(1)	J-7573	180-050	8	152.5	0.03	0.44	0.2	1	0.42	1
WMAIN-7684(2)	180-050	J-7574	8	152.5	0.03	0.45	0.2	1	0.42	1
WMAIN-7685(1)	J-7574	180-051	8	152.5	0.04	0.24	0.3	0.7	0.25	0.7
WMAIN-7685(2)	180-051	J-7163	8	152.5	0.03	0.22	0.3	0.7	0.23	0.7
WMAIN-7686(1)	J-7137	180-060	8	152.5	0.13	0.56	0.5	1.1	0.58	1.2
WMAIN-7686(2)(1)	180-060	180-059	8	152.5	0.13	0.55	0.5	1.1	0.57	1.1
WMAIN-7686(2)(2)	180-059	J-8216	8	152.5	0.12	0.55	0.5	1.1	0.57	1.1
WMAIN-7687(1)	J-7137	180-061	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7687(2)	180-061	J-7840	8	152.5	0	0	0	0.1	0.01	0.1
WMAIN-7688(1)	J-7136	J-5326	8	152.5	0.1	0.51	0.5	1.1	0.51	1.1
WMAIN-7688(2)	J-5326	J-7137	8	152.5	0.1	0.5	0.5	1.1	0.51	1.1
WMAIN-7689	J-7136	J-6458	8	152.5	0	0.07	0	0.4	0.03	0.2
WMAIN-7690(1)	J-7303	180-049	8	152.5	0.06	0.77	0.3	1.4	0.75	1.3
WMAIN-7690(2)	180-049	J-7136	8	152.5	0.06	0.76	0.3	1.3	0.75	1.3
WMAIN-7691	J-7836	J-7303	12	152.5	0.01	0.44	0.1	1.3	0.34	1.1
WMAIN-7692	J-7302	J-7303	12	152.5	0.01	0.87	0.2	1.9	0.76	1.7
WMAIN-7693(1)	J-8201	180-039	8	152.5	0.03	0.92	0.2	1.5	0.78	1.4
WMAIN-7693(2)	180-039	J-7302	8	152.5	0.03	0.93	0.2	1.5	0.79	1.4
WMAIN-7694(1)	J-7583	180-044	12	152.5	0.26	2.25	1	3.1	2.26	3.1
WMAIN-7694(2)(1)	180-044	J-9218	12	152.5	0.26	2.25	1	3.1	2.26	3.1
WMAIN-7694(2)(2)	J-9218	J-7302	12	152.5	0.03	1.53	0.3	2.5	1.32	2.3
WMAIN-7695	J-7574	J-7583	8	152.5	0.12	1.24	0.5	1.8	1.23	1.7
WMAIN-7696	180-040	J-7583	12	152.5	0.09	0.72	0.5	1.7	0.73	1.7
WMAIN-7697(1)	J-6901	180-041	12	152.5	0.08	0.7	0.5	1.7	0.71	1.7
WMAIN-7697(2)	180-041	180-040	12	152.5	0.08	0.71	0.5	1.7	0.72	1.7
WMAIN-7698	J-8372	J-6901	12	152.5	0.17	1.41	0.8	2.4	1.44	2.4
WMAIN-7699(1)	180-052	180-042	12	152.5	0	0.09	0	0.6	0.05	0.4
WMAIN-7699(2)	180-042	J-8372	12	152.5	0	0.09	0	0.6	0.05	0.4

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7700	180-029	J-8372	12	152.5	0.03	0.25	0.3	0.9	0.15	0.7
WMAIN-7701	J-8662	180-029	12	152.5	0.03	0.25	0.3	0.9	0.15	0.7
WMAIN-7702	J-5404	J-5405	8	152.5	0.09	0.7	0.4	1.3	0.72	1.3
WMAIN-7703	J-5404	J-7935	8	152.5	0.01	0.01	0.1	0.2	0.01	0.1
WMAIN-7704(1)	J-7485	125-145	8	152.5	0.09	0.38	0.4	0.9	0.38	0.9
WMAIN-7704(2)	125-145	J-5405	8	152.5	0.09	0.39	0.4	0.9	0.39	0.9
WMAIN-7705(1)	125-148	125-146	8	152.5	0.08	0.34	0.4	0.9	0.35	0.9
WMAIN-7705(2)	125-146	J-7485	8	152.5	0.09	0.37	0.4	0.9	0.37	0.9
WMAIN-7706	J-6158	125-148	8	152.5	0.03	0.1	0.2	0.4	0.1	0.4
WMAIN-7707(1)	J-6834	125-150	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-7707(2)	125-150	J-6158	8	152.5	0.03	0.11	0.2	0.5	0.11	0.5
WMAIN-7708(1)	J-8695	125-154	8	152.5	0.04	0.11	0.3	0.5	0.11	0.5
WMAIN-7708(2)	125-154	J-6834	8	152.5	0	0	0	0	0	0
WMAIN-7709(1)	J-6559	041-047	8	152.5	0	0	0	0	0	0
WMAIN-7709(2)	041-047	J-6560	8	152.5	0	0	0	0	0	0
WMAIN-7710	J-8579	J-7234	8	152.5	0.01	0.03	0.1	0.2	0.04	0.3
WMAIN-7711(1)	J-7399	041-039	8	152.5	0	0.11	0.1	0.5	0.06	0.3
WMAIN-7711(2)	041-039	J-7233	8	152.5	0	0.11	0.1	0.5	0.06	0.3
WMAIN-7712	J-7233	J-7234	8	152.5	0	0.11	0.1	0.5	0.06	0.3
WMAIN-7713(1)	J-7234	041-040	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-7713(2)	041-040	J-7643	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-7714	J-7643	J-8185	8	152.5	0	0.03	0	0.2	0.01	0.1
WMAIN-7715(1)(1)	J-8185	041-045	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-7715(1)(2)	041-045	041-046	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7715(2)	041-046	J-7240	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7716	J-7240	J-6560	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-7717(1)	J-8185	041-042	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7717(2)(1)	041-042	041-044	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7717(2)(2)	041-044	J-6793	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7718(1)(1)	J-7643	041-041	8	152.5	0	0.01	0	0.1	0	0.1
WMAIN-7718(1)(2)	041-041	041-043	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-7718(2)	041-043	J-7644	8	152.5	0	0.02	0	0.2	0.01	0.2
WMAIN-7719(1)	J-7644	041-051	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7719(2)	041-051	J-6793	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7720	J-6560	J-7617	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7721(1)	J-7617	041-048	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7721(2)	041-048	J-6372	8	152.5	0	0.04	0	0.3	0.03	0.2
WMAIN-7722	J-6793	J-6372	8	152.5	0	0.1	0	0.5	0.07	0.4
WMAIN-7723	J-6372	J-6373	8	152.5	0	0.25	0.1	0.7	0.17	0.6
WMAIN-7724(1)	J-8729	041-049	12	152.5	0.01	0.04	0.2	0.3	0.04	0.3
WMAIN-7724(2)	041-049	J-6373	12	152.5	0.01	0.05	0.2	0.4	0.05	0.4
WMAIN-7725	J-5377	J-5245	12	152.5	0.79	1.64	1.8	2.6	1.89	2.8
WMAIN-7726	J-5245	J-5249	12	152.5	0.79	1.64	1.8	2.6	1.89	2.8
WMAIN-7727	J-5249	169-082	12	152.5	0.78	1.61	1.8	2.6	1.85	2.8
WMAIN-7728	J-5277	169-081	12	152.5	0.69	1.37	1.6	2.4	1.6	2.6
WMAIN-7729	J-5275	J-5277	12	152.5	0.69	1.37	1.6	2.4	1.6	2.6
WMAIN-7730	J-5141	J-5146	12	152.5	0.14	0.28	0.7	1	0.33	1.1
WMAIN-7731	J-5245	J-5246	12	152.5	0	0	0	0	0	0
WMAIN-7732	J-5249	J-5250	12	152.5	0	0	0	0	0	0
WMAIN-7733	J-5245	J-5989	12	152.5	0	0	0	0	0	0
WMAIN-7734	J-5249	J-5988	12	152.5	0	0	0	0	0	0
WMAIN-7735	J-5276	J-5277	12	152.5	0	0	0	0	0	0
WMAIN-7736	J-5274	J-5275	12	152.5	0	0	0	0	0	0
WMAIN-7737	J-5277	J-5906	12	152.5	0	0	0	0	0	0
WMAIN-7738	J-5275	J-5907	12	152.5	0	0	0	0	0	0
WMAIN-7739	J-5415	J-5416	12	152.5	0.03	0.06	0.3	0.4	0.07	0.5
WMAIN-7740	J-5135	J-5136	12	152.5	0	0	0	0	0	0
WMAIN-7741	J-5135	J-5143	12	152.5	0.05	0.2	0.4	0.9	0.2	0.9
WMAIN-7742	J-5141	J-5142	12	152.5	0	0	0	0	0	0
WMAIN-7743	J-5146	J-5147	12	152.5	0	0	0	0	0	0
WMAIN-7745	J-6457	J-6458	8	152.5	0	0	0	0	0	0
WMAIN-7746(1)	J-6458	180-062	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-7746(2)	180-062	J-6484	8	152.5	0	0.06	0	0.3	0.02	0.2
WMAIN-7747	J-6913	J-6484	8	152.5	0	0	0	0	0	0
WMAIN-7748	J-6484	J-6485	8	152.5	0	0.05	0	0.3	0.01	0.1
WMAIN-7749	J-6485	J-6683	8	152.5	0.04	0.13	0.3	0.5	0.13	0.5
WMAIN-7750(1)	J-6683	180-064	8	152.5	0.04	0.12	0.3	0.5	0.12	0.5
WMAIN-7750(2)	180-064	J-6345	8	152.5	0.03	0.11	0.3	0.5	0.11	0.5
WMAIN-7751(1)	J-8716	180-067	8	152.5	0	0	0	0	0	0
WMAIN-7751(2)	180-067	J-7840	8	152.5	0	0	0	0	0	0
WMAIN-7752	J-7840	J-7951	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7753	J-8379	J-7951	8	152.5	0	0	0	0	0	0
WMAIN-7754(1)	J-7951	180-066	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7754(2)	180-066	J-7541	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7755	J-7541	180-078	8	152.5	0	0	0	0	0	0
WMAIN-7756(1)	J-6345	180-065	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7756(2)	180-065	J-7541	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7757	J-6345	J-6346	8	152.5	0	0	0	0	0	0
WMAIN-7758(1)	J-6345	180-079	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7758(2)	180-079	J-6119	8	152.5	0.01	0.02	0.1	0.2	0.02	0.2
WMAIN-7759(1)	180-077	180-076	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7759(2)	180-076	J-8716	8	152.5	0	0	0	0	0	0.1
WMAIN-7760	J-6119	180-077	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7761	J-6119	J-6120	8	152.5	0	0	0	0	0	0
WMAIN-7762	014-016	014-015	16	152.5	0.24	0.55	1.1	1.7	0.57	1.8
WMAIN-7763	014-015	J-7140	16	152.5	0.24	0.55	1.1	1.7	0.57	1.8
WMAIN-7764(1)(1)	J-8067	168-118	8	152.5	0.03	0.08	0.2	0.4	0.07	0.4
WMAIN-7764(1)(2)	168-118	168-111	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-7764(2)	168-111	J-6950	8	152.5	0.03	0.09	0.2	0.4	0.09	0.4
WMAIN-7765(1)	J-6330	168-109	8	152.5	0.16	0.31	0.6	0.8	0.24	0.7
WMAIN-7765(2)	168-109	J-6949	8	152.5	0.16	0.31	0.6	0.8	0.23	0.7
WMAIN-7766	J-7442	J-6335	8	152.5	0	0	0	0	0	0
WMAIN-7767	J-6330	J-6335	8	152.5	0.23	0.45	0.7	1	0.44	1
WMAIN-7768	J-6329	J-6330	8	152.5	0	0.05	0	0.3	0.04	0.3
WMAIN-7769(1)	J-7467	168-112	8	152.5	0.01	0.08	0.1	0.4	0.07	0.4
WMAIN-7769(2)	168-112	J-6949	8	152.5	0.01	0.08	0.2	0.4	0.08	0.4
WMAIN-7770	J-7466	J-7467	8	152.5	0.12	0.2	0.5	0.7	0.2	0.7
WMAIN-7771	J-8018	J-7467	8	152.5	0.03	0.1	0.2	0.5	0.05	0.3
WMAIN-7772	J-7716	J-8018	8	152.5	0.24	0.42	0.7	1	0.36	0.9
WMAIN-7773(1)	J-8018	168-113	8	152.5	0.08	0.13	0.4	0.5	0.13	0.5
WMAIN-7773(2)(1)	168-113	168-115	8	152.5	0.08	0.12	0.4	0.5	0.12	0.5
WMAIN-7773(2)(2)	168-115	J-7759	8	152.5	0.08	0.12	0.4	0.5	0.12	0.5
WMAIN-7774	J-7759	J-6912	8	152.5	0.07	0.11	0.4	0.5	0.12	0.5
WMAIN-7775	J-6912	J-7466	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-7776(1)	J-8067	168-116	8	152.5	0.01	0.07	0.1	0.4	0.02	0.2
WMAIN-7776(2)	168-116	J-7466	8	152.5	0.01	0.07	0.1	0.4	0.02	0.2
WMAIN-7777(1)	J-6416	168-119	8	152.5	0.08	0.15	0.4	0.6	0.13	0.5
WMAIN-7777(2)	168-119	J-8067	8	152.5	0.08	0.16	0.4	0.6	0.13	0.5
WMAIN-7778	J-6415	J-6416	8	152.5	0	0	0	0	0	0
WMAIN-7779	J-7642	J-6416	8	152.5	0.01	0.06	0.1	0.3	0.02	0.2
WMAIN-7780(1)	J-6912	168-117	8	152.5	0.01	0.07	0.1	0.4	0.03	0.2
WMAIN-7780(2)(1)	168-117	168-120	8	152.5	0.01	0.06	0.1	0.4	0.02	0.2

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7780(2)(2)	168-120	J-7642	8	152.5	0.01	0.06	0.1	0.4	0.02	0.2
WMAIN-7781	J-7806	J-6912	8	152.5	0.04	0.22	0.3	0.7	0.21	0.7
WMAIN-7782(1)	J-6949	168-110	8	152.5	0.02	0.2	0.2	0.7	0.05	0.3
WMAIN-7782(2)	168-110	J-6950	8	152.5	0.02	0.2	0.2	0.7	0.05	0.3
WMAIN-7783	J-5751	J-5139	18	152.5	0	0.01	0	0.2	0	0
WMAIN-7785(1)	J-8734	J-8933	18	152.5	0	0.01	0	0.3	0	0.1
WMAIN-7786	J-8386	J-8734	18	152.5	0	0.01	0	0.2	0	0
WMAIN-7787	J-5139	J-8386	18	152.5	0	0.01	0	0.2	0	0
WMAIN-7788	J-5139	J-5140	18	152.5	0	0	0	0	0	0
WMAIN-7789	J-5751	J-6847	12	152.5	0.03	0.17	0.3	0.8	0.04	0.4
WMAIN-7790(1)	J-8676	180-055	12	152.5	0	0.09	0	0.6	0.05	0.4
WMAIN-7790(2)	180-055	180-052	12	152.5	0	0.09	0	0.6	0.05	0.4
WMAIN-7791(1)	J-8803	180-072	12	152.5	0	0.1	0	0.6	0	0.1
WMAIN-7791(2)	180-072	J-8676	12	152.5	0	0.1	0	0.6	0	0.1
WMAIN-7792(1)	J-8676	180-057	8	152.5	0.1	0.99	0.4	1.6	0.99	1.6
WMAIN-7792(2)	180-057	J-7115	8	152.5	0.1	1.01	0.5	1.6	1	1.6
WMAIN-7793	J-7115	J-7116	8	152.5	0.01	0.1	0.1	0.5	0.1	0.5
WMAIN-7794(1)	J-7116	180-056	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-7794(2)	180-056	J-7503	8	152.5	0.01	0.11	0.1	0.5	0.11	0.5
WMAIN-7795	J-7503	J-7504	8	152.5	0.01	0.12	0.1	0.5	0.12	0.5
WMAIN-7796(1)	J-7504	180-053	8	152.5	0.02	0.14	0.2	0.5	0.14	0.5
WMAIN-7796(2)(1)	180-053	180-054	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-7796(2)(2)	180-054	J-6825	8	152.5	0.02	0.16	0.2	0.6	0.16	0.6
WMAIN-7797	J-6825	J-6826	8	152.5	0	0	0	0	0	0
WMAIN-7798	J-6825	J-7573	8	152.5	0.02	0.17	0.2	0.6	0.17	0.6
WMAIN-7799	J-8216	J-7573	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-7800(1)	J-8216	180-068	8	152.5	0.02	0.11	0.2	0.5	0.11	0.5
WMAIN-7800(2)	180-068	J-6449	8	152.5	0.01	0.1	0.2	0.5	0.1	0.5
WMAIN-7801	J-8053	J-8216	8	152.5	0.06	0.43	0.3	1	0.43	1
WMAIN-7802	J-8052	J-8053	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7803(1)	J-7115	180-058	8	152.5	0.02	0.18	0.2	0.6	0.18	0.6
WMAIN-7803(2)	180-058	J-8053	8	152.5	0.02	0.19	0.2	0.6	0.19	0.6
WMAIN-7804	J-7974	J-7115	8	152.5	0.01	0.13	0.1	0.5	0.13	0.5
WMAIN-7805(1)	J-7974	180-070	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7805(2)(1)	180-070	180-069	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7805(2)(2)	180-069	J-8052	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7806	J-5947	J-7974	8	152.5	0	0.04	0.1	0.3	0.04	0.3
WMAIN-7807	J-5947	J-5948	8	152.5	0	0	0	0	0	0
WMAIN-7808(1)	J-7916	180-071	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-7808(2)	180-071	J-5947	8	152.5	0	0.05	0.1	0.3	0.05	0.3
WMAIN-7809(1)	180-074	180-073	8	152.5	0.01	0.07	0.1	0.4	0.07	0.4
WMAIN-7809(2)	180-073	J-7916	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7810(1)	J-6449	180-075	8	152.5	0.01	0.09	0.2	0.4	0.09	0.4
WMAIN-7810(2)	180-075	180-074	8	152.5	0.01	0.09	0.1	0.4	0.09	0.4
WMAIN-7811	J-6449	J-6450	8	152.5	0	0	0	0	0	0
WMAIN-7812(1)	J-7059	081-014	8	152.5	0	0	0	0	0	0
WMAIN-7812(2)	081-014	J-7060	8	152.5	0	0	0	0	0	0
WMAIN-7813	J-7060	J-7946	8	152.5	0.12	0.29	0.5	0.8	0.34	0.9
WMAIN-7814	J-8136	J-7946	8	152.5	0	0	0	0	0	0
WMAIN-7815(1)	J-7946	081-013	8	152.5	0.18	0.42	0.6	1	0.48	1
WMAIN-7815(2)	081-013	J-7947	8	152.5	0.19	0.42	0.6	1	0.49	1.1
WMAIN-7816(1)	J-7195	081-010	8	152.5	0.08	0.19	0.4	0.6	0.21	0.7
WMAIN-7816(2)	081-010	J-7947	8	152.5	0.08	0.17	0.4	0.6	0.2	0.6
WMAIN-7817	J-7947	J-8342	8	152.5	0.03	0.08	0.2	0.4	0.09	0.4
WMAIN-7818(1)	J-8342	081-012	8	152.5	0.04	0.09	0.3	0.4	0.1	0.5
WMAIN-7818(2)	081-012	J-8516	8	152.5	0.04	0.09	0.3	0.4	0.11	0.5
WMAIN-7819(1)	J-8516	081-011	8	152.5	0.05	0.1	0.3	0.5	0.12	0.5
WMAIN-7819(2)	081-011	J-8333	8	152.5	0.05	0.11	0.3	0.5	0.12	0.5
WMAIN-7820(1)	J-8333	081-005	8	152.5	0.05	0.11	0.3	0.5	0.13	0.5
WMAIN-7820(2)	081-005	J-7195	8	152.5	0.05	0.12	0.3	0.5	0.13	0.5
WMAIN-7821(1)	J-6044	168-063	12	152.5	0	0.11	0	0.6	0.12	0.7
WMAIN-7821(2)	168-063	J-6045	12	152.5	0	0.11	0	0.6	0.12	0.7
WMAIN-7822	J-6052	J-5697	8	152.5	0	0.02	0	0.2	0	0.1
WMAIN-7823(1)	J-6052	169-099	8	152.5	0	0	0	0	0	0
WMAIN-7823(2)	169-099	J-8267	8	152.5	0	0	0	0	0	0
WMAIN-7824	J-8127	J-6052	8	152.5	0	0.02	0	0.2	0.01	0.1
WMAIN-7825(1)	J-8127	169-098	8	152.5	0	0	0	0	0	0
WMAIN-7825(2)	169-098	J-8128	8	152.5	0	0	0	0	0	0
WMAIN-7826	J-6693	J-8127	8	152.5	0	0.02	0	0.2	0.02	0.2
WMAIN-7827	J-6693	J-6694	8	152.5	0	0	0	0	0	0
WMAIN-7828(1)	J-6045	169-097	8	152.5	0	0.03	0	0.2	0.03	0.2
WMAIN-7828(2)	169-097	J-6693	8	152.5	0	0.03	0	0.2	0.02	0.2
WMAIN-7829	J-5697	J-5698	8	152.5	0.04	0.11	0.3	0.5	0.13	0.5
WMAIN-7830(1)	J-6249	125-002	12	152.5	0.19	1.6	0.8	2.6	1.67	2.7
WMAIN-7830(2)	125-002	J-7533	12	152.5	0.2	1.6	0.8	2.6	1.67	2.7
WMAIN-7831	J-6245	J-6246	12	152.5	0	0.03	0.1	0.3	0.04	0.3
WMAIN-7832	J-6249	J-6246	12	152.5	0	0.03	0.1	0.3	0.04	0.3
WMAIN-7833A	J-8898	J-5381	30	152.5	0.26	1.16	1.7	3.9	1.33	4.2
WMAIN-7833B	J-5126	J-8898	30	152.5	0.26	1.16	1.7	3.9	1.33	4.2
WMAIN-7834(1)	J-8549	009-037	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7834(2)	009-037	009-036	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7835	J-5928	J-5929	10	152.5	0	0	0	0	0	0
WMAIN-7836	J-5913	J-5914	10	152.5	0	0	0	0	0	0
WMAIN-7837	156-040	J-6843	8	152.5	0	0	0	0	0	0
WMAIN-7838	J-6843	J-6845	10	152.5	0.04	0.22	0.3	0.8	0.21	0.8
WMAIN-7839	J-6842	J-6843	10	152.5	0.04	0.22	0.3	0.8	0.21	0.8
WMAIN-7840(1)(1)(1)	J-5817	156-034	10	152.5	0.01	0.05	0.1	0.4	0.05	0.3
WMAIN-7840(1)(1)(2)	156-034	156-035	10	152.5	0.01	0.05	0.1	0.4	0.05	0.3
WMAIN-7840(1)(2)	156-035	156-036	10	152.5	0.01	0.05	0.1	0.4	0.05	0.3
WMAIN-7840(2)(1)	156-036	156-037	10	152.5	0.01	0.05	0.1	0.4	0.05	0.3
WMAIN-7840(2)(2)	156-037	J-6842	10	152.5	0.01	0.05	0.1	0.4	0.05	0.3
WMAIN-7841(1)	J-5817	156-039	10	152.5	0.01	0.05	0.1	0.4	0.04	0.3
WMAIN-7841(2)(1)	156-039	156-038	10	152.5	0.01	0.07	0.2	0.4	0.07	0.4
WMAIN-7841(2)(2)	156-038	J-6842	10	152.5	0.01	0.07	0.2	0.4	0.07	0.4
WMAIN-7842	J-5816	J-5817	10	152.5	0.02	0.18	0.2	0.7	0.16	0.7
WMAIN-7843	J-5413	J-8237	12	152.5	0.03	0.35	0.3	1.1	0.35	1.1
WMAIN-7844	J-8237	J-8238	12	152.5	0.03	0.35	0.3	1.1	0.35	1.1
WMAIN-7845	J-8238	J-7900	12	152.5	0.03	0.32	0.3	1.1	0.33	1.1
WMAIN-7846	J-7900	J-5229	12	152.5	0.02	0.31	0.3	1.1	0.31	1.1
WMAIN-7847	J-5228	J-5229	12	152.5	0	0	0	0	0	0
WMAIN-7848	J-5229	J-8148	12	152.5	0.02	0.31	0.3	1.1	0.31	1.1
WMAIN-7849	J-8148	J-8161	12	152.5	0.02	0.26	0.2	1	0.27	1
WMAIN-7850	J-8161	J-8703	12	152.5	0.02	0.26	0.2	1	0.27	1
WMAIN-7851	J-8703	J-8704	12	152.5	0.02	0.25	0.2	1	0.26	1
WMAIN-7852	J-8704	J-8276	12	152.5	0.01	0.25	0.2	0.9	0.25	1
WMAIN-7853	J-8276	J-8277	12	152.5	0.01	0.24	0.2	0.9	0.24	0.9
WMAIN-7854	J-8277	J-8409	12	152.5	0.01	0.24	0.2	0.9	0.24	0.9
WMAIN-7855(1)	J-8409	114-047	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9
WMAIN-7855(2)(1)	114-047	114-046	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9
WMAIN-7855(2)(2)	114-046	J-7899	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9
WMAIN-7856(1)	J-7899	114-045	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9
WMAIN-7856(2)	114-045	J-7201	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7857	J-7201	J-7202	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9
WMAIN-7858(1)(1)	J-7202	114-044	12	152.5	0.01	0.21	0.2	0.9	0.21	0.9
WMAIN-7858(1)(2)	114-044	114-043	12	152.5	0.01	0.19	0.1	0.8	0.2	0.8
WMAIN-7858(2)	114-043	J-8705	12	152.5	0	0.15	0.1	0.7	0.15	0.7
WMAIN-7859(1)	J-8705	114-042	12	152.5	0	0.15	0.1	0.7	0.15	0.7
WMAIN-7859(2)	114-042	114-041	12	152.5	0	0.12	0.1	0.6	0.12	0.6
WMAIN-7860(1)	114-041	114-040	12	152.5	0	0.1	0	0.6	0.11	0.6
WMAIN-7860(2)	114-040	J-5853	12	152.5	0	0.1	0	0.6	0.11	0.6
WMAIN-7861	J-5853	J-5854	12	152.5	0	0.1	0	0.6	0.11	0.6
WMAIN-7862(1)	J-5854	114-036	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7862(2)	114-036	J-8619	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7863	J-5854	114-035	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7864(1)	J-8619	114-037	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7864(2)	114-037	J-8606	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7865(1)(1)	J-8606	114-038	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7865(1)(2)	114-038	114-039	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7865(2)	114-039	J-8016	12	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-7866	114-035	J-8254	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7867(1)(1)	J-8254	114-034	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7867(1)(2)	114-034	114-033	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7867(2)	114-033	J-8581	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7868(1)	J-8581	114-032	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7868(2)	114-032	J-8709	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7869(1)	J-8709	114-031	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7869(2)(1)	114-031	114-030	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7869(2)(2)	114-030	J-5788	12	152.5	0.01	0.13	0.2	0.7	0.13	0.7
WMAIN-7870(1)(1)	J-5788	114-001	12	152.5	0	0.08	0.1	0.5	0.08	0.5
WMAIN-7870(1)(2)	114-001	114-002	12	152.5	0	0.06	0.1	0.5	0.06	0.5
WMAIN-7870(2)	114-002	114-003	12	152.5	0	0.05	0	0.4	0.05	0.4
WMAIN-7871	J-5788	J-5789	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7872	J-6154	J-6637	12	152.5	0	0.05	0.1	0.4	0.05	0.4
WMAIN-7873(1)	J-6154	127-001	12	152.5	0.18	0.65	0.8	1.6	0.68	1.6
WMAIN-7873(2)	127-001	J-6155	12	152.5	0.18	0.65	0.8	1.6	0.68	1.6
WMAIN-7874(1)	J-6154	137-001	12	152.5	0	1.09	0	2.1	0.96	2
WMAIN-7874(2)	137-001	J-6862	12	152.5	0	1.09	0	2.1	0.96	2
WMAIN-7875	J-8642	J-6154	12	152.5	0	0.4	0.1	1.2	0	0.1
WMAIN-7876	J-8031	J-8642	12	130	0	0.55	0.1	1.2	0	0.1
WMAIN-7877	J-8030	J-8031	12	152.5	0	0.41	0.1	1.2	0	0.1
WMAIN-7878	J-6124	J-8030	12	152.5	0	0.22	0	0.9	0.06	0.4
WMAIN-7879(1)	J-6124	126-062	12	152.5	0.02	1.97	0.2	2.9	1.97	2.9
WMAIN-7879(2)	126-062	J-6888	12	152.5	0.02	1.97	0.2	2.9	1.97	2.9
WMAIN-7880	J-5777	J-6124	12	152.5	0.3	1.42	1.1	2.4	1.47	2.5
WMAIN-7881(1)	J-8743	053-066	8	152.5	0.1	0.39	0.5	0.9	0.52	1.1
WMAIN-7881(2)(1)(1)	053-066	J-8965	8	152.5	0.1	0.37	0.4	0.9	0.5	1.1
WMAIN-7881(2)(1)(2)	J-8965	053-039	8	152.5	0.22	0.49	0.7	1.1	0.59	1.2
WMAIN-7881(2)(2)	053-039	J-8030	8	152.5	0.22	0.49	0.7	1.1	0.59	1.2
WMAIN-7882(1)	J-5219	053-041	12	152.5	0	0.18	0	0.8	0	0
WMAIN-7882(2)	053-041	J-5924	12	152.5	0	0.18	0	0.8	0	0
WMAIN-7883	J-6651	J-6652	8	152.5	0.48	6.38	1	4.2	6.95	4.4
WMAIN-7884(1)	J-6652	171-091	8	152.5	0	0.16	0	0.6	0.15	0.6
WMAIN-7884(2)	171-091	J-8022	8	152.5	0	0.14	0	0.5	0.13	0.5
WMAIN-7885(1)	J-6167	171-089	8	152.5	0.74	2.34	1.3	2.5	2.68	2.7
WMAIN-7885(2)	171-089	J-6652	8	152.5	0.75	2.35	1.3	2.5	2.69	2.7
WMAIN-7886	H-386	J-6167	8	152.5	0.63	1.38	1.2	1.9	1.63	2
WMAIN-7887(1)	J-6179	171-095	8	152.5	0	0.14	0.1	0.5	0.14	0.5
WMAIN-7887(2)	171-095	J-6167	8	152.5	0	0.16	0	0.6	0.17	0.6
WMAIN-7888(1)	J-6652	171-090	8	152.5	0	0.59	0	1.2	0.61	1.2
WMAIN-7888(2)	171-090	J-7634	8	152.5	0	0.58	0	1.2	0.6	1.2
WMAIN-7889(1)	J-7634	171-094	8	152.5	0.02	0.05	0.2	0.3	0.04	0.3
WMAIN-7889(2)	171-094	J-7856	8	152.5	0.03	0.06	0.2	0.3	0.05	0.3
WMAIN-7890	J-7634	J-7568	8	152.5	0.03	0.75	0.3	1.3	0.83	1.4
WMAIN-7891(1)	J-7568	171-098	8	152.5	0.08	0.17	0.4	0.6	0.19	0.6
WMAIN-7891(2)	171-098	J-7983	8	152.5	0.09	0.17	0.4	0.6	0.21	0.7
WMAIN-7892(1)	J-7568	171-099	8	152.5	0.31	1.39	0.8	1.9	1.6	2
WMAIN-7892(2)	171-099	J-6374	8	152.5	0.31	1.38	0.8	1.9	1.58	2
WMAIN-7893(1)	J-6375	171-103	8	152.5	0	0	0	0	0	0
WMAIN-7893(2)	171-103	J-7606	8	152.5	0	0	0	0	0	0
WMAIN-7894	J-6374	J-6375	8	152.5	0.01	0.77	0.1	1.4	0.81	1.4
WMAIN-7895(1)	J-6179	171-104	8	152.5	0.07	0.39	0.4	0.9	0.17	0.6
WMAIN-7895(2)	171-104	J-6374	8	152.5	0.07	0.39	0.4	0.9	0.17	0.6
WMAIN-7896	H-385	J-6179	8	152.5	0.23	0.44	0.7	1	0.54	1.1
WMAIN-7897(1)	J-6375	171-112	8	152.5	0.01	0.71	0.2	1.3	0.74	1.3
WMAIN-7897(2)	171-112	J-7045	8	152.5	0.02	0.69	0.2	1.3	0.72	1.3
WMAIN-7898(1)	J-7045	171-113	8	152.5	0.47	1.78	1	2.1	1.99	2.3
WMAIN-7898(2)	171-113	J-7208	8	152.5	0.47	1.8	1	2.1	2.02	2.3
WMAIN-7899	J-7044	J-7045	8	152.5	0.78	2.32	1.4	2.5	2.62	2.6
WMAIN-7900(1)	J-7045	171-119	8	152.5	0	0.38	0.1	0.9	0.38	0.9
WMAIN-7900(2)	171-119	J-7632	8	152.5	0	0.37	0.1	0.9	0.37	0.9
WMAIN-7901(1)	J-7967	171-120	8	152.5	0	0	0	0	0	0
WMAIN-7901(2)	171-120	J-7044	8	152.5	0	0	0	0	0	0
WMAIN-7902(1)	J-7539	171-111	8	152.5	0.76	2.24	1.3	2.4	2.54	2.6
WMAIN-7902(2)	171-111	J-7044	8	152.5	0.76	2.25	1.3	2.4	2.55	2.6
WMAIN-7903(1)	J-7539	J-7872	8	152.5	0.72	2.12	1.3	2.3	2.41	2.5
WMAIN-7903(2)	J-7872	J-8024	8	152.5	0	0.18	0	0.6	0.15	0.6
WMAIN-7904	J-7871	J-7872	8	152.5	0.62	1.36	1.2	1.8	1.46	1.9
WMAIN-7905(1)	J-8024	171-135	8	152.5	0.2	0.75	0.7	1.3	0.84	1.4
WMAIN-7905(2)	171-135	J-6174	8	152.5	0.19	0.71	0.6	1.3	0.8	1.4
WMAIN-7906(1)	J-7640	171-123	8	152.5	0.16	0.65	0.6	1.2	0.38	0.9
WMAIN-7906(2)	171-123	J-8024	8	152.5	0.16	0.65	0.6	1.2	0.37	0.9
WMAIN-7907(1)	J-7640	171-124	8	152.5	0.52	1.15	1.1	1.7	1.33	1.8
WMAIN-7907(2)	171-124	J-7633	8	152.5	0.52	1.16	1.1	1.7	1.35	1.8
WMAIN-7908(1)	J-7639	171-128	8	152.5	0.01	0.34	0.1	0.9	0.34	0.9
WMAIN-7908(2)	171-128	J-7640	8	152.5	0.01	0.35	0.1	0.9	0.34	0.9
WMAIN-7909(1)(1)	J-7639	171-130	8	152.5	0.11	0.47	0.5	1	0.29	0.8
WMAIN-7909(1)(2)	171-130	171-129	8	152.5	0.14	0.5	0.5	1.1	0.33	0.9
WMAIN-7909(2)	171-129	J-7342	8	152.5	0.14	0.5	0.5	1.1	0.34	0.9
WMAIN-7910	J-6131	J-7639	8	152.5	0.35	0.92	0.9	1.5	1.06	1.6
WMAIN-7912	J-6131	J-6174	12	152.5	0.21	0.66	0.9	1.6	0.52	1.4
WMAIN-7913(1)	J-6130	171-134	12	152.5	0.06	0.4	0.4	1.2	0.15	0.7
WMAIN-7913(2)	171-134	J-6131	12	152.5	0.06	0.4	0.4	1.2	0.15	0.7
WMAIN-7914	J-6130	J-6098	12	152.5	0.36	1.16	1.2	2.2	0.88	1.9
WMAIN-7915	J-5790	J-8186	8	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7916(1)	J-6865	156-007	10	152.5	0.04	0.21	0.3	0.8	0.2	0.7
WMAIN-7916(2)(1)	156-007	156-006	10	152.5	0.03	0.2	0.3	0.7	0.18	0.7
WMAIN-7916(2)(2)	156-006	J-6845	10	152.5	0.03	0.2	0.3	0.7	0.18	0.7
WMAIN-7917(1)(1)	J-6865	156-009	8	152.5	0	0	0	0	0	0
WMAIN-7917(1)(2)	156-009	156-008	8	152.5	0	0	0	0	0	0
WMAIN-7917(2)	156-008	J-8520	8	152.5	0	0	0	0	0	0
WMAIN-7918	J-6864	J-6865	10	152.5	0.04	0.22	0.3	0.8	0.21	0.8
WMAIN-7919(1)	J-5982	156-016	8	152.5	0	0	0	0	0	0
WMAIN-7919(2)	156-016	156-017	8	152.5	0	0	0	0	0	0
WMAIN-7920(1)(1)	J-6970	156-014	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7920(1)(2)(1)	156-014	156-013	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-7920(1)(2)(2)	156-013	156-010	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-7920(2)	156-010	J-7013	8	152.5	0.04	0.15	0.3	0.6	0.15	0.6
WMAIN-7921	J-5982	J-6970	8	152.5	0.04	0.16	0.3	0.6	0.16	0.6
WMAIN-7922(1)	J-6183	156-019	8	152.5	0	0	0	0	0	0
WMAIN-7922(2)	156-019	156-018	8	152.5	0	0	0	0	0	0
WMAIN-7923(1)	J-5981	J-9257	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-7923(2)	J-9257	J-5982	8	152.5	0.05	0.17	0.3	0.6	0.17	0.6
WMAIN-7924	J-5981	J-6183	8	152.5	0.24	0.89	0.7	1.5	0.89	1.5
WMAIN-7925(1)	J-7013	156-012	8	152.5	0.07	0.29	0.4	0.8	0.29	0.8
WMAIN-7925(2)(1)	156-012	156-015	8	152.5	0.09	0.34	0.4	0.9	0.34	0.9
WMAIN-7925(2)(2)	156-015	J-5981	8	152.5	0.09	0.34	0.4	0.9	0.34	0.9
WMAIN-7926	J-6864	J-7013	10	152.5	0.06	0.24	0.4	0.8	0.24	0.8
WMAIN-7927(1)(1)	114-003	114-004	12	152.5	0	0.04	0	0.4	0.04	0.4
WMAIN-7927(1)(2)	114-004	114-005	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7927(2)	114-005	114-006	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7928	J-5356	J-5516	12	152.5	0	0	0	0	0	0
WMAIN-7929	114-008	J-5356	12	152.5	0	0	0	0	0	0
WMAIN-7930	J-5514	114-008	12	152.5	0	0	0	0	0	0
WMAIN-7931(1)(1)(1)	114-006	114-007	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7931(1)(1)(2)	114-007	J-5516	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7931(1)(2)	J-5516	J-5514	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7931(2)	J-5514	J-5137	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7932	J-5648	J-5649	8	152.5	0	0	0	0	0	0
WMAIN-7933	J-5650	J-5651	12	152.5	0	0	0	0	0	0
WMAIN-7934	J-5137	J-5138	12	152.5	0	0	0	0	0	0
WMAIN-7935(1)	J-8763	114-010	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7935(2)(1)	114-010	114-009	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7935(2)(2)	114-009	J-5137	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7936(1)	J-5255	114-012	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7936(2)(1)	114-012	114-011	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7936(2)(2)	114-011	J-8763	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7937	J-5255	J-5256	12	152.5	0	0.01	0	0.2	0.02	0.2
WMAIN-7938(1)	J-5649	114-013	12	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7938(2)	114-013	J-5255	12	152.5	0	0	0	0.1	0	0.1
WMAIN-7939(1)(1)	114-016	114-015	12	152.5	0.01	0.06	0.2	0.4	0.06	0.4
WMAIN-7939(1)(2)	114-015	114-014	12	152.5	0	0.02	0.1	0.3	0.02	0.3
WMAIN-7939(2)	114-014	J-5649	12	152.5	0	0.01	0	0.2	0.01	0.2
WMAIN-7940(1)	114-019	114-018	12	152.5	0.03	0.15	0.3	0.7	0.15	0.7
WMAIN-7940(2)(1)	114-018	114-017	12	152.5	0.02	0.12	0.3	0.6	0.12	0.6
WMAIN-7940(2)(2)	114-017	114-016	12	152.5	0.02	0.11	0.3	0.6	0.11	0.6
WMAIN-7941	J-5651	114-019	12	152.5	0.03	0.17	0.3	0.8	0.17	0.8
WMAIN-7942(1)	J-5148	114-021	12	152.5	0.03	0.17	0.3	0.8	0.17	0.8
WMAIN-7942(2)(1)	114-021	114-020	12	152.5	0.03	0.17	0.3	0.8	0.17	0.8
WMAIN-7942(2)(2)	114-020	J-5651	12	152.5	0.03	0.17	0.3	0.8	0.17	0.8
WMAIN-7943	114-022	J-5148	12	152.5	0	0.03	0	0.3	0.02	0.3
WMAIN-7944(1)(1)	114-025	114-024	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7944(1)(2)	114-024	114-023	12	152.5	0	0.03	0	0.3	0.03	0.3
WMAIN-7944(2)	114-023	114-022	12	152.5	0	0.03	0	0.3	0.02	0.3
WMAIN-7945(1)	114-028	114-027	12	152.5	0	0.11	0	0.6	0.11	0.6
WMAIN-7945(2)	114-027	J-8016	12	152.5	0	0.11	0	0.6	0.11	0.6
WMAIN-7946(1)(1)	124-002	124-001	12	152.5	0.01	0.26	0.1	1	0.26	1
WMAIN-7946(1)(2)	124-001	114-029	12	152.5	0.01	0.26	0.1	1	0.26	1
WMAIN-7946(2)	114-029	114-028	12	152.5	0	0.22	0.1	0.9	0.22	0.9
WMAIN-7947(1)	124-005	124-004	12	152.5	0.02	0.33	0.2	1.1	0.33	1.1
WMAIN-7947(2)(1)	124-004	124-003	12	152.5	0.01	0.29	0.2	1	0.3	1
WMAIN-7947(2)(2)	124-003	124-002	12	152.5	0.01	0.27	0.2	1	0.27	1
WMAIN-7948(1)(1)	124-008	124-007	12	152.5	0.02	0.38	0.3	1.2	0.38	1.2
WMAIN-7948(1)(2)	124-007	124-006	12	152.5	0.02	0.35	0.2	1.1	0.36	1.2
WMAIN-7948(2)	124-006	124-005	12	152.5	0.02	0.35	0.2	1.1	0.35	1.2
WMAIN-7949(1)	J-5739	124-009	12	152.5	0.02	0.4	0.3	1.2	0.4	1.2
WMAIN-7949(2)	124-009	124-008	12	152.5	0.02	0.4	0.3	1.2	0.4	1.2
WMAIN-7950	J-5148	J-5149	12	152.5	0.08	0.11	0.5	0.6	0.08	0.5
WMAIN-7951	J-8016	114-025	12	152.5	0	0.06	0	0.4	0.06	0.4
WMAIN-7952	J-5481	J-5669	6	130	0.14	0.42	0.4	0.7	0.34	0.6
WMAIN-7960	J-6009	J-6010	12	152.5	0	0	0	0	0	0
WMAIN-7961	J-5730	J-5731	8	152.5	0	0	0	0	0	0
WMAIN-7962	J-5616	J-5617	8	152.5	0.01	0.03	0.1	0.2	0.03	0.2
WMAIN-7963	J-5614	J-5615	8	152.5	0	0	0	0	0	0
WMAIN-7964(1)	J-6600	167-088	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-7964(2)	167-088	J-7867	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7965	J-6465	J-6141	12	130	0	0.01	0	0.1	0.01	0.1
WMAIN-7966	167-080	J-6465	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7967(1)	J-5262	J-9041	12	152.5	0.01	0.04	0.2	0.4	0.04	0.4
WMAIN-7967(2)	J-9041	167-080	12	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7968	J-8082	J-7599	8	152.5	0	0	0	0	0	0
WMAIN-7969(1)	J-7797	167-093	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7969(2)	167-093	J-6730	8	152.5	0	0	0	0	0	0
WMAIN-7970	J-7797	J-6092	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7971	J-6036	J-6037	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7972(1)	J-6730	167-098	8	130	0	0	0	0.1	0	0.1
WMAIN-7972(2)	167-098	J-6036	8	130	0	0	0	0.1	0	0.1
WMAIN-7973	J-8005	J-6262	8	152.5	0	0	0	0	0	0
WMAIN-7974(1)	J-7747	167-092	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7974(2)	167-092	J-7797	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7975	J-5984	J-6730	8	130	0	0	0	0.1	0	0.1
WMAIN-7976	J-5983	J-5984	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7977(1)	J-7599	167-099	8	152.5	0	0	0	0	0	0
WMAIN-7977(2)	167-099	J-5983	8	152.5	0	0	0	0	0	0
WMAIN-7978	J-6261	J-6262	8	152.5	0	0	0	0	0	0
WMAIN-7979(1)	J-6262	167-100	8	152.5	0	0	0	0	0	0
WMAIN-7979(2)	167-100	J-8082	8	152.5	0	0	0	0	0	0
WMAIN-7980	J-7746	J-7747	8	152.5	0	0.02	0.1	0.2	0.02	0.2
WMAIN-7981(1)	J-7746	167-096	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7981(2)	167-096	J-7599	8	152.5	0	0	0	0	0	0
WMAIN-7982(1)	J-7747	167-097	8	152.5	0	0.01	0.1	0.1	0.01	0.1
WMAIN-7982(2)	167-097	J-5983	8	152.5	0	0.01	0	0.1	0.01	0.1
WMAIN-7983	J-7867	J-7747	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-7984(1)	J-8005	167-095	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7984(2)	167-095	J-7746	8	152.5	0	0	0	0.1	0	0.1
WMAIN-7985(1)	J-6093	167-094	8	152.5	0	0	0	0	0	0
WMAIN-7985(2)	167-094	J-6037	8	152.5	0	0	0	0	0	0
WMAIN-7986	J-6092	J-6093	8	130	0	0	0	0	0	0
WMAIN-7987	J-6455	J-6456	8	152.5	0	0	0	0	0	0
WMAIN-7988	J-6142	J-5640	12	152.5	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7989	J-6141	J-6142	12	130	0	0.01	0.1	0.2	0.01	0.2
WMAIN-7990(1)	J-5640	167-090	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7990(2)	167-090	J-6092	8	152.5	0.01	0.06	0.1	0.3	0.06	0.3
WMAIN-7991(1)	J-6005	167-079	12	152.5	0.04	0.17	0.3	0.8	0.17	0.8
WMAIN-7991(2)	167-079	J-6006	12	152.5	0.04	0.17	0.3	0.8	0.17	0.8
WMAIN-7992	167-082	J-6005	12	152.5	0.04	0.17	0.3	0.8	0.17	0.8
WMAIN-7993	J-5661	167-082	12	152.5	0.04	0.17	0.3	0.8	0.17	0.8

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-7994(1)	J-7867	167-087	8	152.5	0.03	0.16	0.3	0.6	0.16	0.6
WMAIN-7994(2)	167-087	J-5660	8	152.5	0.04	0.16	0.3	0.6	0.16	0.6
WMAIN-7995(1)(1)	J-5661	167-084	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-7995(1)(2)(1)	167-084	167-085	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-7995(1)(2)(2)	167-085	J-6009	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-7995(2)	J-6009	J-7328	12	152.5	0.02	0.08	0.2	0.5	0.08	0.5
WMAIN-7996	J-5660	J-5661	8	152.5	0.03	0.15	0.3	0.6	0.15	0.6
WMAIN-7997	J-6481	J-5660	8	152.5	0	0	0	0	0	0
WMAIN-7998	J-6480	J-6481	8	152.5	0	0	0	0	0	0
WMAIN-7999(1)	J-8259	167-091	8	152.5	0.01	0.06	0.2	0.4	0.06	0.4
WMAIN-7999(2)	167-091	J-6481	8	152.5	0.01	0.07	0.2	0.4	0.07	0.4
WMAIN-8000	J-7867	J-8259	8	152.5	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-8001(1)	J-6165	167-089	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-8001(2)	167-089	J-6600	8	152.5	0.01	0.04	0.1	0.3	0.04	0.3
WMAIN-8002	J-6092	J-6165	8	130	0.01	0.05	0.1	0.3	0.05	0.3
WMAIN-8003(1)	J-5614	167-081	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-8003(2)	167-081	J-7328	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-8004	J-5616	J-5614	8	152.5	0.04	0.17	0.3	0.6	0.17	0.6
WMAIN-8005	J-6006	J-5616	8	152.5	0.07	0.32	0.4	0.8	0.32	0.8
WMAIN-8006(1)	J-6456	167-078	8	152.5	0.03	0.13	0.2	0.5	0.13	0.5
WMAIN-8006(2)	167-078	J-6006	8	152.5	0.03	0.14	0.2	0.5	0.14	0.5
WMAIN-8007(1)	J-6481	167-083	8	152.5	0.02	0.1	0.2	0.4	0.1	0.4
WMAIN-8007(2)	167-083	J-6456	8	152.5	0.03	0.12	0.2	0.5	0.12	0.5
WMAIN-8008	J-6006	J-6830	12	152.5	0.11	0.52	0.6	1.4	0.52	1.4
WMAIN-8009(1)	J-5730	167-086	12	152.5	0.03	0.17	0.3	0.8	0.17	0.8
WMAIN-8009(2)	167-086	J-6141	12	152.5	0.03	0.17	0.3	0.8	0.17	0.8
WMAIN-8010	J-7328	J-5730	12	152.5	0.04	0.17	0.3	0.8	0.17	0.8
WMAIN-8011	J-5640	J-5641	12	152.5	0	0	0	0	0	0
WMAIN-8012(1)	J-7257	171-139	12	152.5	0.18	0.44	0.8	1.3	0.5	1.4
WMAIN-8012(2)	171-139	J-6298	12	152.5	0.19	0.44	0.8	1.3	0.51	1.4
WMAIN-8013(1)(1)	J-6298	171-138	12	152.5	0.25	0.66	0.9	1.6	0.61	1.5
WMAIN-8013(1)(2)	171-138	171-137	12	152.5	0.25	0.66	0.9	1.6	0.61	1.5
WMAIN-8013(2)	171-137	J-6795	12	152.5	0.25	0.66	0.9	1.6	0.61	1.5
WMAIN-8014(1)	J-6298	TEMP437	8	152.5	0	0.22	0.1	0.7	0.04	0.3
WMAIN-8014(2)	TEMP437	J-8977	8	152.5	0	0.21	0.1	0.7	0.03	0.3
WMAIN-8015	J-7257	171-140	8	152.5	0	0	0	0	0	0
WMAIN-8016(1)(1)	J-6795	J-6175	12	152.5	0.4	0.89	1.2	1.9	1.02	2
WMAIN-8016(1)(2)	J-6175	171-136	12	152.5	0.4	0.89	1.2	1.9	1.02	2
WMAIN-8016(2)	171-136	J-6174	12	152.5	0.4	0.89	1.2	1.9	1.02	2
WMAIN-8017(1)	J-8391	171-141	12	152.5	0.18	0.43	0.8	1.3	0.48	1.4
WMAIN-8017(2)	171-141	J-7257	12	152.5	0.18	0.43	0.8	1.3	0.48	1.4
WMAIN-8018	J-6098	J-6099	8	152.5	0	0	0	0	0	0
WMAIN-8019	J-6680	J-6681	8	152.5	2.98	6.92	2.8	4.4	8.04	4.8
WMAIN-8020	J-7208	J-7209	8	152.5	0	0	0	0	0	0
WMAIN-8021(1)	J-8748	171-100	16	152.5	0.35	4.25	1.4	5.3	4.72	5.6
WMAIN-8021(2)(1)	171-100	171-115	16	152.5	0.31	4.02	1.3	5.1	4.48	5.4
WMAIN-8021(2)(2)	171-115	J-6681	16	152.5	0.31	3.99	1.3	5.1	4.45	5.4
WMAIN-8022(1)	J-5515	171-093	16	152.5	0.35	4.26	1.4	5.3	4.72	5.6
WMAIN-8022(2)	171-093	J-8748	16	152.5	0.35	4.25	1.4	5.3	4.72	5.6
WMAIN-8023(1)	J-8783	171-117	16	152.5	0.04	2.49	0.4	3.9	2.74	4.2
WMAIN-8023(2)	171-117	J-6681	16	152.5	0.05	2.53	0.5	4	2.79	4.2
WMAIN-8024(1)	J-6753	171-131	16	152.5	0.04	2.4	0.4	3.9	2.65	4.1
WMAIN-8024(2)(1)	171-131	171-126	16	152.5	0.04	2.4	0.4	3.9	2.65	4.1
WMAIN-8024(2)(2)	171-126	J-8783	16	152.5	0.04	2.4	0.4	3.9	2.65	4.1
WMAIN-8025	J-6753	J-7725	16	152.5	0.04	1.42	0.4	2.9	1.48	3
WMAIN-8026	J-6463	J-6464	8	152.5	0	0	0	0	0	0
WMAIN-8027(1)	J-6463	171-132	12	152.5	0.4	2.16	1.2	3.1	0.96	2
WMAIN-8027(2)	171-132	J-6753	12	152.5	0.4	2.16	1.2	3.1	0.96	2
WMAIN-8028(1)	J-6098	171-133	12	152.5	0.37	1.17	1.2	2.2	0.88	1.9
WMAIN-8028(2)	171-133	J-6463	12	152.5	0.37	1.17	1.2	2.2	0.89	1.9
WMAIN-8031	J-7342	J-6463	8	152.5	0	1.47	0	1.9	0.01	0.2
WMAIN-8032(1)	J-7637	171-127	8	152.5	0	0.32	0	0.8	0.25	0.7
WMAIN-8032(2)	171-127	J-7342	8	152.5	0	0.32	0	0.8	0.24	0.7
WMAIN-8033(1)	J-7633	171-125	8	152.5	0	0.3	0	0.8	0.27	0.8
WMAIN-8033(2)	171-125	J-7637	8	152.5	0	0.31	0	0.8	0.26	0.7
WMAIN-8035	J-7632	J-7633	8	152.5	0.06	2.47	0.3	2.5	2.67	2.7
WMAIN-8037(1)	J-7632	171-118	8	152.5	0.33	1.14	0.9	1.7	1.28	1.8
WMAIN-8037(2)	171-118	J-8697	8	152.5	0.34	1.18	0.9	1.7	1.31	1.8
WMAIN-8038(1)	J-7208	171-114	8	152.5	0.58	1.3	1.2	1.8	1.51	2
WMAIN-8038(2)	171-114	J-6680	8	152.5	0.58	1.31	1.2	1.8	1.52	2
WMAIN-8040(1)	J-6680	171-116	8	152.5	0.35	1.21	0.9	1.7	1.36	1.8
WMAIN-8040(2)	171-116	J-8697	8	152.5	0.34	1.18	0.9	1.7	1.32	1.8
WMAIN-8041(1)	J-7857	171-101	8	152.5	0.2	0.43	0.6	1	0.43	1
WMAIN-8041(2)	171-101	J-6680	8	152.5	0.2	0.43	0.6	1	0.43	1
WMAIN-8042(1)	J-7983	171-102	8	152.5	0	0.08	0	0.4	0.07	0.4
WMAIN-8042(2)	171-102	J-7208	8	152.5	0	0.07	0	0.4	0.07	0.4
WMAIN-8043(1)	J-7983	171-097	8	152.5	0.05	0.46	0.3	1	0.51	1.1
WMAIN-8043(2)	171-097	J-7857	8	152.5	0.05	0.47	0.3	1	0.52	1.1
WMAIN-8045(1)	J-7856	171-096	8	152.5	0	0.2	0	0.7	0.01	0.1
WMAIN-8045(2)	171-096	J-7857	8	152.5	0	0.2	0	0.7	0.01	0.1
WMAIN-8047(1)	J-8022	171-092	8	152.5	0	0.12	0	0.5	0.12	0.5
WMAIN-8047(2)	171-092	J-7856	8	152.5	0	0.12	0	0.5	0.11	0.5
WMAIN-8049(1)	J-8700	046-023	8	152.5	0.04	0.18	0.3	0.6	0.05	0.3
WMAIN-8049(2)	046-023	J-8232	8	152.5	0.05	0.2	0.3	0.6	0.05	0.3
WMAIN-8050	J-5774	J-5775	12	152.5	0	0	0	0	0	0
WMAIN-8051	J-5775	J-7733	12	152.5	0.04	0.17	0.4	0.8	0.05	0.4
WMAIN-8052	J-7968	J-8821	8	152.5	0	0.02	0	0.2	0	0
WMAIN-8053(1)	J-8810	046-005	8	152.5	0.06	0.21	0.3	0.7	0.08	0.4
WMAIN-8053(2)(1)	046-005	046-004	8	152.5	0.05	0.19	0.3	0.6	0.06	0.4
WMAIN-8053(2)(2)	046-004	J-7281	8	152.5	0.05	0.18	0.3	0.6	0.06	0.3
WMAIN-8054	J-7537	J-8069	8	152.5	0.1	0.33	0.5	0.9	0.13	0.5
WMAIN-8055	J-7732	J-7469	8	152.5	0	0.01	0.1	0.1	0	0.1
WMAIN-8056	J-8821	J-8461	8	152.5	0.03	0.09	0.2	0.4	0.03	0.2
WMAIN-8057	J-8499	J-7968	8	152.5	0	0	0	0	0	0
WMAIN-8058(1)	J-8826	045-040	12	152.5	0	0.18	0.1	0.8	0	0.1
WMAIN-8058(2)(1)	045-040	045-039	12	152.5	0	0.18	0.1	0.8	0	0.1
WMAIN-8058(2)(2)	045-039	J-8506	12	152.5	0	0.18	0.1	0.8	0	0.1
WMAIN-8059	J-8461	J-8462	8	152.5	0.03	0.1	0.2	0.4	0.03	0.2
WMAIN-8060(1)	J-8775	046-027	12	152.5	0	0.16	0	0.8	0.01	0.2
WMAIN-8060(2)	046-027	J-8776	12	152.5	0	0.16	0	0.7	0.01	0.2
WMAIN-8061(1)(1)	J-8826	046-025	12	152.5	0	0.17	0	0.8	0.01	0.1
WMAIN-8061(1)(2)	046-025	046-026	12	152.5	0	0.16	0	0.8	0.01	0.2
WMAIN-8061(2)	046-026	J-8775	12	152.5	0	0.16	0	0.8	0.01	0.2
WMAIN-8062(1)	J-8838	045-037	12	152.5	0.01	0.64	0.2	1.6	0.11	0.6
WMAIN-8062(2)	045-037	J-8506	12	152.5	0.01	0.65	0.2	1.6	0.11	0.6
WMAIN-8063(1)	J-7733	046-021	8	152.5	0.02	0.1	0.2	0.5	0.02	0.2
WMAIN-8063(2)	046-021	J-7241	8	152.5	0.03	0.12	0.2	0.5	0.03	0.2
WMAIN-8064(1)	J-7430	045-046	12	152.5	0.06	0.25	0.4	1	0.06	0.5
WMAIN-8064(2)	045-046	J-7733	12	152.5	0.06	0.26	0.4	1	0.07	0.5
WMAIN-8065(1)(1)	J-6723	045-043	8	152.5	0.05	0.23	0.3	0.7	0.04	0.3
WMAIN-8065(1)(2)	045-043	045-044	8	152.5	0.05	0.24	0.3	0.7	0.05	0.3
WMAIN-8065(2)	045-044	J-7430	8	152.5	0.06	0.26	0.3	0.8	0.06	0.3

					2045 MDD				2045 PHD	
Label	Start Node	Stop Node	Diameter (in)	C Factor	Headloss Gradient (Min.) (ft/1000ft)	Headloss Gradient (Max.) (ft/1000ft)	Velocity (Min.) (ft/s)	Velocity (Max.) (ft/s)	Headloss Gradient (ft/1000ft)	Velocity (ft/s)
WMAIN-8066(1)	J-8582	045-036	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-8066(2)	045-036	J-6723	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-8067	J-7314	J-8582	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-8068(1)	J-6724	045-038	8	152.5	0	0.01	0.1	0.2	0	0
WMAIN-8068(2)	045-038	J-7314	8	152.5	0	0.02	0.1	0.2	0	0.1
WMAIN-8069	J-6724	J-6869	8	152.5	0.03	0.18	0.2	0.6	0.02	0.2
WMAIN-8070	J-6723	J-6724	8	152.5	0.02	0.12	0.2	0.5	0.02	0.2
WMAIN-8071	J-7429	J-7430	12	152.5	0.03	0.11	0.3	0.6	0.03	0.3
WMAIN-8072	J-7772	J-7429	8	152.5	0.04	0.22	0.3	0.7	0.03	0.2
WMAIN-8073(1)	J-7968	045-041	8	152.5	0	0.02	0	0.2	0	0
WMAIN-8073(2)	045-041	J-7772	8	152.5	0	0.02	0	0.2	0	0
WMAIN-8074	J-8645	J-8039	8	152.5	0.03	0.12	0.2	0.5	0.03	0.3
WMAIN-8075	J-7772	J-8645	8	152.5	0.03	0.12	0.2	0.5	0.03	0.3
WMAIN-8076(1)	J-7281	046-014	8	152.5	0.04	0.15	0.3	0.6	0.05	0.3
WMAIN-8076(2)	046-014	J-7543	8	152.5	0.04	0.14	0.3	0.5	0.04	0.3
WMAIN-8077(1)	J-7565	046-006	8	152.5	0.08	0.25	0.4	0.7	0.1	0.5
WMAIN-8077(2)	046-006	J-8810	8	152.5	0.07	0.22	0.4	0.7	0.09	0.4
WMAIN-8078	J-8462	J-8533	8	152.5	0.03	0.12	0.3	0.5	0.04	0.3
WMAIN-8079	J-8040	J-8462	8	152.5	0	0	0	0	0	0
WMAIN-8080	J-8039	J-8040	8	152.5	0.01	0.06	0.1	0.3	0.01	0.1
WMAIN-8081(1)	J-7543	046-015	12	152.5	0.04	0.18	0.4	0.8	0.05	0.4
WMAIN-8081(2)	046-015	J-5775	12	152.5	0.04	0.17	0.4	0.8	0.05	0.4
WMAIN-8082(1)	J-7242	046-016	12	152.5	0.02	0.09	0.3	0.6	0.03	0.3
WMAIN-8082(2)	046-016	J-7543	12	152.5	0.02	0.09	0.3	0.6	0.03	0.3
WMAIN-8083	J-7581	J-7242	8	152.5	0.01	0.05	0.1	0.3	0.01	0.1
WMAIN-8084	J-7468	J-7469	8	152.5	0.06	0.2	0.3	0.7	0.07	0.4
WMAIN-8085	J-7538	J-7468	8	152.5	0.06	0.18	0.3	0.6	0.08	0.4
WMAIN-8086	J-7537	J-7538	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-8087(1)	J-7280	046-010	12	152.5	0.05	0.16	0.4	0.8	0.06	0.4
WMAIN-8087(2)	046-010	J-7537	12	152.5	0.05	0.17	0.4	0.8	0.06	0.5
WMAIN-8088(1)	J-7242	046-011	12	152.5	0.04	0.16	0.4	0.7	0.05	0.4
WMAIN-8088(2)	046-011	J-7280	12	152.5	0.05	0.16	0.4	0.8	0.06	0.4
WMAIN-8089	J-7241	J-7242	8	152.5	0.06	0.22	0.3	0.7	0.08	0.4
WMAIN-8090(1)	J-8232	046-020	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-8090(2)	046-020	J-7241	8	152.5	0.01	0.02	0.1	0.2	0.01	0.1
WMAIN-8091(1)	J-8039	046-024	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-8091(2)	046-024	J-8232	8	152.5	0.01	0.02	0.1	0.2	0.01	0.2
WMAIN-8092(1)	J-8232	046-019	8	152.5	0.06	0.21	0.3	0.7	0.07	0.4

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
009-001	52.4	49.9	1,251.9	1,751.9	WMAIN-1188(1)	8	Passed
009-002	53.2	50.4	1,257.0	1,757.0	WMAIN-2278(2)	7.3	Passed
009-003	53.2	52	1,250.5	1,750.5	HS-255	5.2	Passed
009-004	52.7	51.5	1,250.4	1,750.4	HS-255	5.2	Passed
009-005	53	50.3	1,250.0	1,750.0	WMAIN-2280(2)(2)	8.3	Passed
009-006	52.1	36.4	3,504.2	4,004.2	WMAIN-2616(1)	14.8	Passed
009-007	51.1	45.1	3,500.8	3,388.5	WMAIN-2522(1)	15	Velocity Failed
009-008	51.8	50.5	1,251.3	1,751.3	HS-255	5.2	Passed
009-009	52.2	48.6	1,253.5	1,753.5	WMAIN-2280(1)	6.3	Passed
009-010	52.2	48.9	1,253.6	1,753.6	WMAIN-4368(1)(1)	7.2	Passed
009-011	52.4	49	1,250.0	1,750.0	WMAIN-4368(2)	6.9	Passed
009-012	51.7	47.4	1,251.5	1,751.5	WMAIN-3575(1)	6.5	Passed
009-013	51.2	46.7	1,251.0	1,751.0	WMAIN-1191	5.8	Passed
009-014	53.3	50.7	1,252.0	1,752.0	WMAIN-1205(1)	9.4	Passed
009-015	53.2	47.1	1,251.2	1,751.2	WMAIN-1207(1)	11.2	Passed
009-016	52.9	49.4	1,251.0	1,751.0	WMAIN-4385(2)	8.1	Passed
009-017	51.2	47.8	1,250.9	1,750.9	WMAIN-5100(1)	6.1	Passed
009-018	51.1	45.4	1,250.8	1,750.8	WMAIN-4378(1)	11.2	Passed
009-019	53.3	52.2	1,252.9	1,752.9	HS-255	5.2	Passed
009-020	53.3	52.1	1,252.6	1,752.6	HS-255	5.2	Passed
009-021	53.3	52	1,250.5	1,750.5	HS-255	5.2	Passed
009-022	53.3	42.9	5,009.6	5,509.6	WMAIN-4392(2)(2)	8.2	Passed
009-023	53.3	48.1	3,500.0	4,000.0	WMAIN-4389(1)	7.2	Passed
009-024	53.2	47.7	3,500.0	4,000.0	WMAIN-4389(2)(2)	6.2	Passed
009-025	51	49.7	1,251.9	1,751.9	HS-255	5.2	Passed
009-026	52.1	50.8	1,251.3	1,751.3	HS-255	5.2	Passed
009-027	51.7	46	1,252.3	1,752.3	WMAIN-1195(1)	7.1	Passed
009-028	50.9	44.4	1,251.4	1,751.4	WMAIN-1195(1)	6.4	Passed
009-029	53.1	46.4	1,253.6	1,753.6	WMAIN-1205(1)	6	Passed
009-030	53.2	49.7	1,251.5	1,751.5	WMAIN-2523(2)	7.4	Passed
009-031	53.2	49.1	1,258.0	1,758.0	WMAIN-2526(2)	6.6	Passed
009-032	53.3	52.2	1,251.1	1,751.1	HS-255	5.2	Passed
009-033	53.2	46.8	3,505.9	4,005.9	WMAIN-7230	5.8	Passed
009-034	52.4	45.1	1,251.3	1,751.3	WMAIN-1759(2)(2)	11.3	Passed
009-035	52.8	29	3,518.1	2,341.7	WMAIN-1759(2)(2)	15	Velocity Failed
009-036	53	39.1	3,506.7	2,348.7	WMAIN-7834(1)	15	Velocity Failed
009-037	53.2	48.1	5,001.3	2,343.4	WMAIN-7834(1)	15	Velocity Failed
009-039	53	47.6	3,500.0	3,296.9	WMAIN-1071	15	Velocity Failed
010-001	51.1	49.8	1,252.3	1,752.3	WMAIN-5897	5.2	Passed
010-002	50.9	49.7	1,251.3	1,751.3	WMAIN-5897	5.2	Passed
010-003	49.1	46.6	1,252.7	1,574.3	WMAIN-5480(1)	15	Passed
010-004	50.6	46.8	1,250.9	1,750.9	WMAIN-1232(1)	9.2	Passed
010-005	49	42.8	1,253.7	1,753.7	WMAIN-1232(1)	8.6	Passed
010-006	47.6	38.5	1,250.0	1,750.0	WMAIN-5480(1)	10.7	Passed
010-007	50.1	43.5	1,252.3	1,752.3	WMAIN-1232(1)	8.8	Passed
010-008	49.3	42.6	1,251.5	1,751.5	WMAIN-1232(1)	8.5	Passed
010-009	51.2	49.6	2,500.3	3,000.3	WMAIN-7224	10.3	Passed
010-010	48.7	47.6	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
010-011	48.8	44.6	3,501.8	4,001.8	WMAIN-2577(1)(1)	6	Passed
010-012	50.7	49.4	1,250.3	1,750.3	HS-255	5.2	Passed
010-013	51.8	49.7	1,251.4	1,751.4	WMAIN-5144(1)	11.2	Passed
010-014	51.9	46.3	3,500.1	4,000.1	WMAIN-3652	6	Passed
010-015	53.1	48.9	1,252.1	1,752.1	WMAIN-5139(1)	11.2	Passed
010-016	52.6	51.4	1,250.1	1,750.1	HS-255	5.2	Passed
010-017	51.3	48.8	1,251.1	1,751.1	WMAIN-5094(2)	5.9	Passed
010-018	53.3	49.5	1,253.6	1,753.6	WMAIN-5120(1)	7	Passed
010-019	53	49	1,251.2	1,751.2	WMAIN-3571(2)	6.4	Passed
010-020	53.2	49.9	1,253.1	1,753.1	WMAIN-5142(1)	5.8	Passed
010-021	52.9	49.1	1,251.6	1,751.6	WMAIN-3573(1)	6.7	Passed
010-022	52.5	48.7	1,251.1	1,751.1	WMAIN-5134	6.9	Passed
010-023	50.9	49	1,250.4	1,750.4	WMAIN-5058(2)	11.2	Passed
010-027	51.3	48.8	1,251.3	1,751.3	WMAIN-5055(1)	11.2	Passed
010-028	51	49.8	1,252.6	1,752.6	WMAIN-5061(1)	5.5	Passed
010-029	51.9	47.8	1,255.9	1,755.9	WMAIN-5052(2)	6.3	Passed
010-030	51	48.2	1,250.9	1,750.9	WMAIN-5051(1)	8	Passed
010-031	51.4	49.5	1,252.0	1,752.0	WMAIN-5085(1)(1)	8.9	Passed
010-032	51.2	47.5	1,250.0	1,750.0	WMAIN-5085(1)(1)	6.5	Passed
010-033	50.8	43.3	1,252.0	1,752.0	WMAIN-5074(1)	11.2	Passed
010-034	51.1	45.4	1,251.9	1,751.9	WMAIN-5082(1)	11.2	Passed
010-035	51.8	46.1	1,252.2	1,752.2	WMAIN-5114	11.2	Passed
010-036	51.3	49.6	1,250.7	1,750.7	WMAIN-5100(1)	9	Passed
010-037	51.3	48.5	1,251.5	1,751.5	WMAIN-5105(2)	6	Passed
010-038	52.5	51	1,250.9	1,750.9	HS-255	5.2	Passed
010-039	53	51.8	1,251.2	1,751.2	HS-255	5.2	Passed
010-040	51.1	47.3	1,251.7	1,751.7	WMAIN-5087(1)	6	Passed
010-041	50.4	48.6	1,251.4	1,751.4	WMAIN-4820(1)	11.2	Passed
010-042	50.9	47.4	1,250.3	1,750.3	WMAIN-4869(1)	11.2	Passed
010-043	53.3	49.1	1,253.9	1,753.9	WMAIN-5091(2)	5.9	Passed
010-044	53.3	49.9	1,252.2	1,752.2	WMAIN-4890(1)	7.4	Passed
010-045	53.3	51.6	1,250.9	1,750.9	WMAIN-4890(1)	9.5	Passed
010-046	48.2	45.2	3,501.9	4,001.9	WMAIN-7224	9.2	Passed
011-001	50.3	27.2	1,251.3	939.3	WMAIN-6152	15	Velocity Failed
011-002	49.3	20	1,251.6	1,000.0	WMAIN-6154(2)	14	Residual Pressure Failed
011-004	49	40.2	1,252.7	1,752.7	WMAIN-5033(1)	10.9	Passed
011-005	49.3	46.1	1,250.8	1,676.5	WMAIN-7201(2)	15	Passed
011-006	49	35.3	1,252.0	1,752.0	WMAIN-7200(1)	11.4	Passed
011-007	49	40.9	1,251.9	1,751.9	WMAIN-7185(2)	11.4	Passed
011-008	49.1	48.2	1,250.1	1,750.1	WMAIN-5897	5.3	Passed
011-009	49.1	46.5	1,253.5	1,753.5	WMAIN-5460(1)(1)	8.2	Passed
011-010	48.5	45.3	1,250.0	1,750.0	WMAIN-5460(2)	6.8	Passed
011-011	48.2	40.1	1,251.7	1,751.7	WMAIN-3556	11.8	Passed
011-012	48.6	45.7	3,500.0	4,000.0	WMAIN-7224	9.4	Passed
011-013	48.9	47.2	1,253.8	1,753.8	WMAIN-0348(1)(1)	8.8	Passed
011-014	49.2	46	1,250.0	1,750.0	WMAIN-0348(1)(1)	6.5	Passed
011-015	49.1	45.5	1,250.0	1,750.0	WMAIN-5034(2)(2)	9.1	Passed
011-016	48.8	23.2	3,502.0	3,911.8	WMAIN-5034(2)(2)	15	Passed
011-017	49	42.4	1,259.5	1,759.5	WMAIN-5042(2)(1)	5.7	Passed
011-018	49.5	43.8	1,250.0	1,750.0	WMAIN-5042(2)(2)(2)	7.3	Passed
011-019	49.2	44.6	1,254.4	1,754.4	WMAIN-5048(1)(1)(1)	7.5	Passed
011-020	49	44.7	1,252.8	1,752.8	WMAIN-5037(2)	6.1	Passed
011-021	49	45.5	1,251.6	1,751.6	WMAIN-5029(2)	7.3	Passed
011-022	48.8	44.4	1,251.3	1,751.3	WMAIN-5028(2)	7.2	Passed
011-023	49.8	44.5	1,250.0	1,750.0	WMAIN-5048(1)(1)(1)	6.1	Passed
011-024	49.8	45.2	1,250.0	1,750.0	WMAIN-5048(2)	7.6	Passed
011-025	49.6	44.9	1,253.6	1,753.6	WMAIN-4871(2)	6	Passed
011-026	49.4	45.7	1,252.5	1,752.5	WMAIN-4876(2)	6.6	Passed
011-027	47.9	45	1,250.2	1,750.2	WMAIN-7238(2)	5.9	Passed
011-028	47.6	35.4	3,501.2	4,001.2	WMAIN-2603(1)	13.3	Passed
011-029	48.9	39.5	1,252.5	1,752.5	WMAIN-4888(1)	11.2	Passed
011-030	49.1	44.3	1,250.3	1,750.3	WMAIN-4883(1)	6.2	Passed
011-031	49.1	44.6	1,252.2	1,752.2	WMAIN-4885A(1)	7	Passed
011-032	48.9	43.6	1,252.0	1,752.0	WMAIN-4879(2)	11.2	Passed
011-033	48.6	47.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
011-034	48.6	44	1,252.6	1,752.6	WMAIN-4816(2)	6.5	Passed
011-035	48.3	44.9	1,250.0	1,750.0	WMAIN-4814(2)(2)	7.2	Passed
011-036	48	44	1,251.2	1,751.2	WMAIN-4814(2)(2)	5.6	Passed
011-037	48.1	43.4	1,250.7	1,750.7	WMAIN-4807(1)	6.7	Passed
011-038	48.6	43.6	1,251.2	1,751.2	WMAIN-5028(2)	5.9	Passed
011-039	48.8	47.7	1,250.0	1,750.0	HS-255	5.2	Passed
011-040	48.7	44.4	3,500.0	4,000.0	WMAIN-1906	5.7	Passed
011-041	49.3	48.2	1,250.5	1,750.5	HS-255	5.2	Passed
012-004	49.2	45.9	3,502.0	4,002.0	WMAIN-7224	6.1	Passed
012-005	49.1	45	1,253.9	1,753.9	WMAIN-5472(1)	5.7	Passed
012-006	49	44.7	1,253.2	1,753.2	WMAIN-5468(1)(1)	6.3	Passed
012-007	49.1	44.9	1,252.8	1,752.8	WMAIN-5474(2)	5.8	Passed
012-008	48.6	45.2	1,250.0	1,750.0	WMAIN-5468(2)	8.3	Passed
012-009	48.4	45.2	1,251.3	1,751.3	WMAIN-5466(1)	6.2	Passed
012-010	48.8	45.6	1,250.7	1,750.7	WMAIN-2601(2)	7.2	Passed
012-011	47	43.4	1,253.1	1,753.1	WMAIN-4866(2)	5.6	Passed
012-012	49	43.7	1,251.6	1,751.6	WMAIN-4829(1)	11.2	Passed
012-013	49.1	44.9	1,250.8	1,750.8	WMAIN-2608(1)	6	Passed
012-014	49.1	44	1,255.9	1,755.9	WMAIN-2609(1)(1)	6.7	Passed
012-015	49.1	44	1,250.0	1,750.0	WMAIN-2609(2)	6.7	Passed
012-016	49.1	45.9	1,252.0	1,752.0	WMAIN-4827(2)	7.2	Passed
012-017	49.1	48.2	1,251.4	1,751.4	WMAIN-5897	5.3	Passed
012-022	48.9	48	1,253.1	1,753.1	WMAIN-5897	5.3	Passed
012-023	49.5	45.1	1,253.3	1,753.3	WMAIN-4873(1)	6.1	Passed
012-024	49.5	45.2	1,254.4	1,754.4	WMAIN-4859(1)(1)	7	Passed
012-025	49.5	44.8	1,250.0	1,750.0	WMAIN-4859(2)	6.3	Passed
012-026	49.2	45.4	1,250.4	1,750.4	WMAIN-4863(2)	6.4	Passed
012-027	45.3	40.8	1,257.4	1,757.4	WMAIN-4847	6.2	Passed
012-028	48.9	44.4	1,259.7	1,759.7	WMAIN-4836	7	Passed
012-029	49.2	26.4	3,500.0	4,000.0	WMAIN-4836	13.4	Passed
012-030	49.1	26.9	3,500.2	4,000.2	WMAIN-4838(1)(2)	14.3	Passed
012-031	49.1	35.3	3,501.3	3,506.4	WMAIN-4838(1)(2)	15	Passed
012-032	48.8	45	3,501.9	4,001.9	WMAIN-7152(1)(1)	11.4	Passed
012-033	45.3	40.4	1,253.6	1,683.7	WMAIN-4855(1)	15	Passed
012-034	46.9	43.4	1,250.0	1,750.0	WMAIN-4832(2)(2)	8	Passed
012-035	49.1	44.3	1,250.0	1,750.0	WMAIN-4832(2)(2)	6.4	Passed
012-036	49.1	44.4	1,254.4	1,754.4	WMAIN-4832(1)(1)	6.6	Passed
012-037	49	44.4	1,252.4	1,752.4	WMAIN-3534(1)	6.2	Passed
012-038	49.1	38.4	1,254.4	1,754.4	WMAIN-4835(1)	10.8	Passed
012-039	49.1	41.6	1,252.2	1,752.2	WMAIN-4825(1)	11.2	Passed
012-056	49.2	26.4	3,500.0	4,000.0	WMAIN-4838(1)(2)	13.6	Passed
012-057	49	39.2	3,500.0	3,241.2	WMAIN-4838(2)	15	Velocity Failed
012-060	47.6	40.2	1,251.5	1,320.3	WMAIN-4724(1)	15	Passed
012-061	47.8	40	1,251.6	1,751.6	WMAIN-4718(1)	11.5	Passed
012-062	47.2	37	1,250.0	1,750.0	WMAIN-4855(1)	10.7	Passed
012-063	46.3	41.3	1,251.4	1,751.4	WMAIN-2590(1)	11.3	Passed
012-064	45.5	40.2	1,253.2	1,753.2	WMAIN-2592(1)	11.2	Passed
012-065	47.6	42.2	1,251.9	1,751.9	WMAIN-2274(1)	11.2	Passed
013-001	48.8	46.1	3,500.8	4,000.8	WMAIN-5897	5.6	Passed
013-002	48.8	46	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
013-003	48.9	43.5	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
013-004	48.7	43.9	5,000.0	5,500.0	WMAIN-5897	6	Passed
013-005	48.6	45.9	3,500.4	4,000.4	WMAIN-5897	5.6	Passed
013-006	48.5	44.2	3,502.6	4,002.6	WMAIN-7161(1)	8.6	Passed
013-007	48.4	42.8	3,501.8	4,001.8	WMAIN-7161(1)	7.4	Passed
013-008	48.4	37.1	5,000.1	5,500.1	WMAIN-7161(1)	9	Passed
013-009	48.3	36.6	5,003.7	5,503.7	WMAIN-7161(1)	7.9	Passed
013-010	48.3	36.9	5,002.3	5,502.3	WMAIN-7155(2)	8.9	Passed
013-011	48.2	37.9	5,000.5	5,500.5	WMAIN-7155(2)	10	Passed
013-012	48.1	43.4	3,505.0	4,005.0	WMAIN-7155(2)	8.4	Passed
013-013	48	43	5,000.2	5,500.2	WMAIN-5897	5.9	Passed
013-014	48.1	43.1	5,002.0	5,502.0	WMAIN-5897	5.9	Passed
013-015	48.2	42.8	5,000.0	5,500.0	WMAIN-7173(1)	7	Passed
013-016	48.2	43.2	5,001.1	5,501.1	WMAIN-7173(1)	7.4	Passed
013-017	48.3	42.5	5,001.6	5,501.6	WMAIN-7173(1)	6.8	Passed
013-018	48.7	42.1	5,000.5	5,500.5	WMAIN-7173(1)	6.5	Passed
013-019	48.9	39.6	3,502.1	2,345.4	WMAIN-7457(1)	15	Velocity Failed
013-020	48.9	44.1	3,500.8	4,000.8	WMAIN-7167(2)	6.9	Passed
013-021	49.1	40.2	5,000.0	5,500.0	WMAIN-7167(2)	7.9	Passed
013-022	49.2	40.7	5,001.7	5,501.7	WMAIN-7169(1)	9.3	Passed
013-023	49.3	42.5	5,000.1	5,500.1	WMAIN-7169(1)	11.2	Passed
013-024	49.4	44.6	5,008.1	5,508.1	WMAIN-5897	5.9	Passed
013-025	49.3	46.5	3,500.0	2,784.4	WMAIN-6019(2)(2)	15	Velocity Failed
013-026	49.2	37.4	3,504.5	3,797.5	WMAIN-6019(2)(2)	15	Passed
013-027	49.2	43.1	3,500.0	1,321.9	WMAIN-1345(1)	15	Velocity Failed
013-028	49.1	34.5	3,515.0	4,015.0	WMAIN-6019(2)(2)	12.8	Passed
013-029	49.1	46.3	3,501.1	4,001.1	WMAIN-5897	5.5	Passed
013-030	48.9	44.2	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
013-031	48.7	44.2	5,001.0	5,501.0	WMAIN-5897	5.9	Passed
013-032	48.6	43.6	5,002.9	5,502.9	WMAIN-5897	5.9	Passed
013-033	48.5	43.2	5,001.5	5,501.5	WMAIN-5897	5.9	Passed
013-034	48.5	43	5,002.1	5,502.1	WMAIN-5897	5.9	Passed
013-035	48.5	43	5,001.9	5,501.9	WMAIN-5897	5.9	Passed
013-036	48.3	45.3	3,501.0	4,001.0	WMAIN-5897	5.5	Passed
013-037	49.3	46.4	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
013-043	48.9	41.8	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
014-001	48.1	37.6	3,500.5	1,479.1	WMAIN-2471(2)	15	Velocity Failed
014-002	47.4	33.1	3,500.7	3,968.0	WMAIN-6414(1)(1)	15	Passed
014-003	47.4	36.5	3,501.4	3,631.5	WMAIN-6414(2)	15	Passed
014-004	47.6	27.8	3,500.0	2,488.7	WMAIN-2816(1)(2)	15	Velocity Failed
014-005	47.5	43.5	1,264.7	1,546.9	WMAIN-2812(2)	15	Passed
014-006	47.4	43.4	3,503.9	4,003.9	WMAIN-6418(2)(2)	5.7	Passed
014-007	47.3	44.1	3,506.1	4,006.1	WMAIN-6418(1)	8.1	Passed
014-008	47.6	40.9	3,513.6	4,013.6	WMAIN-7144	11.5	Passed
014-009	47.6	34	5,000.0	5,471.2	WMAIN-7144	15	Passed
014-010	47.6	32.7	5,000.0	5,500.0	WMAIN-7144	14.2	Passed
014-011	47.4	35	5,000.0	4,620.4	WMAIN-3247(1)	15	Velocity Failed
014-012	47.1	31.4	5,000.0	5,419.5	WMAIN-3247(2)	15	Passed
014-013	47.4	41.5	5,000.4	5,500.4	WMAIN-0267	8.1	Passed
014-014	47	42.6	5,000.0	5,500.0	WMAIN-7144	6.6	Passed
014-015	47.2	44.5	3,500.6	4,000.6	WMAIN-5897	5.5	Passed
014-016	47.4	45.5	2,528.5	3,028.5	WMAIN-5897	5.4	Passed
014-017	47.8	42.8	5,009.7	5,509.7	WMAIN-5897	5.9	Passed
014-018	47.7	36.6	1,250.0	1,750.0	WMAIN-2469(2)	11.1	Passed
014-019	48.7	46	3,500.4	4,000.4	WMAIN-5897	5.5	Passed
015-001	46.2	27.8	5,005.8	5,505.8	WMAIN-7144	14.9	Passed
015-002	46	30.2	5,000.1	5,330.7	WMAIN-7144	15	Passed
015-003	45.8	32.5	5,005.2	5,164.4	WMAIN-7144	15	Passed
015-010	46.4	39.1	3,506.7	4,006.7	WMAIN-7144	11.8	Passed
015-011	47.1	38.8	5,000.1	4,794.5	WMAIN-7144	15	Velocity Failed
015-018	47.2	27.7	5,000.0	5,176.2	WMAIN-5555(2)	15	Passed
015-019	47.3	22.4	5,004.1	5,180.3	WMAIN-5554(2)	15	Passed
015-020	47.2	20	5,015.8	4,900.2	WMAIN-5554(2)	14.2	Residual Pressure and Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
015-021	46.8	20	5,000.0	4,489.8	WMAIN-5554(2)	13.1	Residual Pressure Failed
015-022	46.5	33	3,500.0	1,288.6	WMAIN-6201(2)	15	Velocity Failed
015-023	47.1	27	5,000.5	3,258.0	WMAIN-1779(2)(2)	15	Velocity Failed
015-024	46.5	20	5,007.1	3,371.8	WMAIN-1779(2)(2)	11.3	Residual Pressure Failed
015-025	46.6	20	3,500.0	3,386.8	WMAIN-1784(1)	11.9	Residual Pressure Failed
015-026	46.9	20	5,000.3	3,564.8	WMAIN-1784(1)	14.5	Residual Pressure and Velocity Failed
015-027	47	29.1	5,000.0	3,140.6	WMAIN-1784(1)	15	Velocity Failed
017-001	45.5	42.3	3,500.4	4,000.4	WMAIN-3655	10.2	Passed
017-002	45.4	33.1	3,508.4	3,798.6	WMAIN-6199	15	Passed
017-003	45.2	41	3,502.4	2,574.1	WMAIN-6199	15	Velocity Failed
017-004	45.1	37.6	2,501.5	2,941.0	WMAIN-6199	15	Passed
017-005	44.8	29.1	3,500.0	4,000.0	WMAIN-6199	14.3	Passed
017-018	43.3	38.6	3,500.0	3,003.7	WMAIN-3298	15	Velocity Failed
017-020	44.6	40.9	3,500.0	4,000.0	WMAIN-1755(2)(2)	9.9	Passed
017-021	44.8	39.4	3,508.0	4,008.0	WMAIN-1755(2)(2)	8.8	Passed
017-022	45	38.3	3,502.0	4,002.0	WMAIN-1755(2)(2)	8.1	Passed
017-023	45.1	37.5	3,516.7	4,016.7	WMAIN-1755(2)(2)	7.6	Passed
017-024	45.3	37	3,514.2	4,014.2	WMAIN-1755(2)(2)	7.2	Passed
018-001	46.2	43.3	3,500.6	4,000.6	WMAIN-5897	5.5	Passed
018-002	46.5	43.6	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-003	46.5	43.1	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-004	46.7	43	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-005	46.8	42.8	3,502.3	4,002.3	WMAIN-5897	5.5	Passed
018-006	47	41.7	3,500.0	4,000.0	WMAIN-6250	11.6	Passed
018-007	47.1	42.3	3,501.1	4,001.1	WMAIN-3499(2)	6.7	Passed
018-008	47.2	42	3,500.0	4,000.0	WMAIN-3499(2)	5.7	Passed
018-009	47.2	42.1	3,500.0	4,000.0	WMAIN-6249(1)	6.4	Passed
018-010	46.6	31.7	5,000.0	5,184.3	WMAIN-6250	15	Passed
018-011	46.3	26.2	5,002.3	5,186.6	WMAIN-6250	15	Passed
018-012	46.1	21	5,001.3	5,185.6	WMAIN-6250	15	Passed
018-015	46.7	43.8	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
018-036	46.2	28.1	3,500.0	4,000.0	WMAIN-6258(1)	13.5	Passed
018-037	46	29.7	3,500.5	3,936.4	WMAIN-3825(1)	15	Passed
018-038	46.3	42	3,503.2	2,869.2	WMAIN-3825(1)	15	Velocity Failed
018-039	46.4	35.3	3,501.8	3,497.5	WMAIN-6258(1)	15	Velocity Failed
018-040	46.1	28.1	3,500.0	4,000.0	WMAIN-3825(1)	13.9	Passed
018-041	46.8	33.5	3,506.4	3,807.3	WMAIN-3494(2)	15	Passed
018-043	46.9	31.1	3,506.1	4,006.1	WMAIN-5940	14.4	Passed
018-052	46.4	42.8	5,000.0	2,350.1	WMAIN-1752	15	Velocity Failed
019-001	47.8	38.7	3,500.2	3,252.7	WMAIN-0901(2)	15	Velocity Failed
019-002	47.7	24.2	1,250.2	585.1	WMAIN-2786	15	Velocity Failed
019-004	48.1	34.6	3,500.0	2,587.5	WMAIN-2175(2)	15	Velocity Failed
019-005	47.8	45.6	1,251.3	1,602.1	WMAIN-2776(1)	15	Passed
019-006	48	46.1	2,500.0	3,000.0	WMAIN-5897	5.4	Passed
019-007	47.6	22.7	1,252.4	1,112.4	WMAIN-2808(1)	15	Velocity Failed
019-008	47.2	33.2	1,250.0	1,750.0	WMAIN-2796(2)(2)	11	Passed
019-009	47.2	33.2	1,254.0	1,754.0	WMAIN-2796(2)(2)	11	Passed
019-010	47.9	37.3	1,251.8	1,751.8	WMAIN-2811(1)	11.2	Passed
019-011	47.6	34	1,250.0	1,750.0	WMAIN-2793(1)(1)	11.3	Passed
019-012	47.6	34	1,255.4	1,755.4	WMAIN-2793(1)(1)	11.3	Passed
019-013	47.6	23.1	3,501.7	586.7	WMAIN-2786	15	Velocity Failed
019-014	47.6	46.2	1,250.4	1,750.4	WMAIN-4644(1)	8.2	Passed
019-015	47.5	45.4	1,252.7	1,752.7	WMAIN-4652(2)	9.1	Passed
019-016	47.5	44.6	1,251.7	1,751.7	WMAIN-4668(1)	7.4	Passed
019-017	47.4	44.5	1,250.0	1,750.0	WMAIN-4668(2)(2)	7.3	Passed
019-018	47.3	44.6	1,250.8	1,750.8	WMAIN-4664(2)	6.9	Passed
019-019	47.3	45.1	1,251.1	1,751.1	WMAIN-4662	7.5	Passed
019-020	47.4	44	1,252.6	1,752.6	WMAIN-4663(2)	6.1	Passed
019-021	47.5	44.7	1,251.0	1,751.0	WMAIN-4649(1)	6.2	Passed
019-022	47.5	44.1	1,250.4	1,750.4	WMAIN-4650(2)	6.4	Passed
019-023	47.3	43.2	3,500.0	3,208.8	WMAIN-3507(2)	15	Velocity Failed
019-024	46.9	43.9	3,500.0	4,000.0	WMAIN-6265(1)	8.8	Passed
019-025	47.2	42.8	3,504.2	4,004.2	WMAIN-3493	6.4	Passed
019-026	47.2	42.5	3,505.6	4,005.6	WMAIN-3509(1)	6	Passed
019-027	47.3	44.7	1,259.7	1,759.7	WMAIN-5897	5.3	Passed
019-028	47.2	27.3	5,000.0	5,500.0	WMAIN-4644(1)	14.7	Passed
019-029	47.3	44.5	1,251.1	1,751.1	WMAIN-4480(2)	7	Passed
019-030	47.4	44	1,251.9	1,751.9	WMAIN-4478(2)	7.2	Passed
019-031	47.5	43.8	1,250.8	1,750.8	WMAIN-4670(1)	6.7	Passed
019-032	47	44.2	3,501.3	4,001.3	WMAIN-5897	5.5	Passed
019-033	47.1	43.3	3,500.4	4,000.4	WMAIN-6265(2)	6.7	Passed
019-037	47.3	34.3	3,503.5	4,003.5	WMAIN-4486(1)	14.3	Passed
019-038	47.2	34.7	3,500.9	3,998.9	WMAIN-6259(2)(2)	15	Passed
019-039	47.2	43.4	3,500.0	2,964.7	WMAIN-6259(2)(2)	15	Velocity Failed
019-040	47.7	44.8	1,250.7	1,750.7	WMAIN-0895(1)	8	Passed
019-041	47.1	42.5	3,500.0	4,000.0	WMAIN-3509(2)(2)	6.4	Passed
019-042	47	41.1	3,500.0	4,000.0	WMAIN-3511(1)	8.3	Passed
019-043	46.8	34.6	5,000.0	5,500.0	WMAIN-3247(2)	11.7	Passed
019-044	46.8	32.9	5,000.0	5,500.0	WMAIN-3247(2)	13	Passed
019-045	46.9	31.8	5,000.0	5,500.0	WMAIN-3247(2)	14.1	Passed
019-046	47.3	41.9	1,250.4	1,750.4	WMAIN-0891(1)	9.1	Passed
019-047	48.3	39.8	1,250.3	1,750.3	WMAIN-1742(2)	11.2	Passed
020-001	49	38.2	3,501.9	2,424.9	WMAIN-2891	15	Velocity Failed
020-002	49.2	31.6	3,500.0	3,642.4	WMAIN-2454(1)(1)	15	Passed
020-003	49	44.7	3,500.0	4,000.0	WMAIN-6316(1)(1)	6.4	Passed
020-004	48.9	36.5	3,500.2	2,254.4	WMAIN-2164(1)	15	Velocity Failed
020-005	49.1	42.2	3,500.0	4,000.0	WMAIN-6320(2)	14.4	Passed
020-006	49.2	42.2	2,500.0	2,920.3	WMAIN-2886(1)	15	Passed
020-007	49.2	46.1	3,500.0	3,109.1	WMAIN-2452(2)	15	Velocity Failed
020-008	49	46.8	2,500.0	3,000.0	WMAIN-0448(2)	5.6	Passed
020-009	49	45.3	2,500.0	1,732.5	WMAIN-2168(2)	15	Velocity Failed
020-010	48.9	47.4	2,500.0	3,000.0	WMAIN-0434(2)	7	Passed
020-011	48.8	43.8	3,500.0	2,350.4	WMAIN-7101(2)	15	Velocity Failed
020-012	48.7	31.8	3,500.7	1,750.8	WMAIN-7096	15	Velocity Failed
020-013	48.5	20	3,517.8	1,141.4	WMAIN-0601(2)	14.7	Residual Pressure and Velocity Failed
020-014	48.3	37.3	1,250.0	1,750.0	WMAIN-2462(1)(2)	13.8	Passed
020-015	48.3	24.1	2,500.2	2,425.1	WMAIN-2170(2)	15	Velocity Failed
020-016	48	28.7	3,500.0	3,814.4	WMAIN-0431	15	Passed
020-017	48	26.2	3,501.2	2,286.6	WMAIN-0431	15	Velocity Failed
020-018	48.9	46.5	3,504.2	4,004.2	WMAIN-5897	5.5	Passed
020-019	48.9	44.4	5,001.0	5,501.0	WMAIN-5897	5.9	Passed
020-020	49	44.4	5,000.9	5,501.0	WMAIN-5897	5.9	Passed
020-021	49.2	46.7	3,500.0	2,976.5	WMAIN-7092(1)	15	Velocity Failed
020-022	49.3	41.4	5,004.0	5,504.0	WMAIN-0455	12.1	Passed
020-023	49.2	44.9	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
020-024	49.2	44.5	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
020-025	49.2	46.3	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
020-026	49.2	44.3	5,005.7	5,505.7	WMAIN-5897	5.9	Passed
020-027	49.1	46.6	2,500.0	3,000.0	WMAIN-6316(2)	5.8	Passed
020-028	48	20.2	3,509.0	4,009.0	WMAIN-7110(1)	14.4	Passed
020-030	49.1	48.2	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
021-001	50.2	41.1	3,500.2	1,321.9	WMAIN-1960	15	Velocity Failed
021-002	50	43.6	3,500.0	2,056.1	WMAIN-1980(1)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
021-003	50.8	36.9	2,502.0	3,002.0	WMAIN-0988(1)	10.4	Passed
021-005	49.3	37.7	3,500.0	3,334.4	WMAIN-2206(2)	15	Velocity Failed
021-006	51.2	41.6	2,500.8	1,180.1	WMAIN-1957	15	Velocity Failed
021-007	51	47.2	1,251.6	1,603.5	WMAIN-2962(2)	15	Passed
021-008	50.8	38.9	3,500.6	2,305.9	WMAIN-2215(1)	15	Velocity Failed
021-009	49.9	41.8	3,500.3	2,044.6	WMAIN-7088(1)	15	Velocity Failed
021-010	49.1	46.2	3,500.3	1,872.5	WMAIN-2104	15	Velocity Failed
021-011	51	42	3,500.4	3,903.5	WMAIN-6372	15	Passed
021-012	51.2	48.9	2,500.2	1,403.5	WMAIN-3748	15	Velocity Failed
021-013	51.2	46.2	2,500.4	3,000.4	WMAIN-6372	10.2	Passed
021-014	51.2	43.4	2,500.4	1,993.7	WMAIN-1951(2)	15	Velocity Failed
021-015	51.2	37.1	2,501.1	2,444.9	WMAIN-2439(2)	15	Velocity Failed
021-016	49.8	39.9	3,500.1	888.2	WMAIN-2446(1)	15	Velocity Failed
021-017	49.4	47.6	3,500.6	1,541.5	WMAIN-7094(2)	15	Velocity Failed
021-018	50.1	34.4	1,253.4	1,753.4	WMAIN-2754	11	Passed
021-019	50.6	38.9	1,255.3	1,755.3	WMAIN-2124(1)	12.6	Passed
021-020	49.9	25.5	2,500.1	2,414.3	WMAIN-2124(2)(2)	15	Velocity Failed
021-021	50.7	30.3	2,500.0	2,317.8	WMAIN-2742(2)	15	Velocity Failed
021-023	50.3	36.1	3,501.3	4,001.3	WMAIN-2743(2)	13.2	Passed
021-024	49.9	30.3	2,505.1	2,281.5	WMAIN-2747(1)	15	Velocity Failed
021-025	49.6	42	5,000.1	5,500.1	WMAIN-0641(1)	8.8	Passed
021-026	49.9	20.4	2,507.0	1,040.4	WMAIN-2749(1)(2)	15	Residual Pressure and Velocity Failed
021-027	50.2	34.6	2,501.6	2,414.4	WMAIN-6388(1)	15	Velocity Failed
021-028	49.9	35.4	1,251.4	1,012.5	WMAIN-6390(2)	15	Velocity Failed
021-029	49.7	38.8	2,504.6	1,927.1	WMAIN-2742(1)(1)	15	Velocity Failed
021-030	49.1	40.4	2,504.8	1,767.0	WMAIN-2756(1)	15	Velocity Failed
021-031	49	41.6	1,251.2	1,751.2	WMAIN-6402(1)	7	Passed
021-032	49	42.9	1,252.3	1,752.3	WMAIN-6402(1)	14.3	Passed
021-033	49.4	43.9	1,253.3	1,753.3	WMAIN-6399(1)	14.6	Passed
021-034	49.7	21.8	1,250.5	1,041.3	WMAIN-6009(2)	15	Velocity Failed
021-035	49.1	40.9	1,250.9	1,750.9	WMAIN-3533(2)	10.9	Passed
021-036	49.5	45	3,505.8	4,005.8	WMAIN-0286(2)	6.2	Passed
021-037	49.1	33.2	3,501.9	3,484.9	WMAIN-2182	15	Velocity Failed
021-038	49.1	37.3	3,500.7	2,563.5	WMAIN-2947(2)	15	Velocity Failed
021-039	49.1	44	3,500.1	2,396.4	WMAIN-2104	15	Velocity Failed
021-040	49.2	31.7	3,500.2	4,000.2	WMAIN-2981	13.3	Passed
021-042	49	45.4	1,252.4	1,752.4	WMAIN-4690(2)(2)	6.5	Passed
021-043	49.1	37	2,503.7	2,108.8	WMAIN-2435(1)	15	Velocity Failed
021-044	49.1	48.2	1,250.7	1,750.7	WMAIN-5897	5.3	Passed
021-045	49	47.5	1,250.0	1,750.0	WMAIN-4690(2)(2)	9.3	Passed
021-046	48.9	45.4	1,250.9	1,728.8	WMAIN-7084(1)	15	Passed
021-047	49.2	42.6	1,251.1	804.3	WMAIN-3530(2)	15	Velocity Failed
021-048	49	46.1	1,251.0	1,520.9	WMAIN-7082(1)	15	Passed
021-049	49.1	48.1	1,251.3	1,751.3	WMAIN-5897	5.3	Passed
022-001	51.9	49.7	3,500.8	2,701.1	WMAIN-6438(1)	15	Velocity Failed
022-002	51.8	47.5	2,503.2	3,003.2	WMAIN-3732(1)	8.7	Passed
022-003	51.6	48.5	3,500.0	1,723.0	WMAIN-2774(2)	15	Velocity Failed
022-004	50.9	43.8	3,500.0	2,514.1	WMAIN-5950(2)	15	Velocity Failed
022-005	50.5	39.4	2,500.8	2,341.1	WMAIN-1006(1)	15	Velocity Failed
022-006	51.6	34.8	2,503.8	2,637.7	WMAIN-3213	15	Passed
022-007	51.4	49.3	1,251.4	1,751.4	WMAIN-5897	5.2	Passed
022-008	51.4	49.4	3,500.8	1,424.5	WMAIN-2770(1)	15	Velocity Failed
022-009	51.3	43.6	2,500.2	3,000.2	WMAIN-3538(2)	9.5	Passed
022-010	51.4	38.6	1,250.0	1,750.0	WMAIN-7040(2)(2)	11.2	Passed
022-011	51.3	42.1	1,256.0	1,756.0	WMAIN-7040(1)	13.8	Passed
022-012	51.3	46.8	2,500.0	3,000.0	WMAIN-6408(1)	10.9	Passed
022-013	51.2	20	1,251.2	1,038.3	WMAIN-2429	13.5	Residual Pressure Failed
022-014	51.2	40.1	2,501.6	2,363.7	WMAIN-2968(1)	15	Velocity Failed
022-015	51.3	42.4	1,250.0	1,327.1	WMAIN-3544	15	Passed
022-016	51.3	42.3	1,252.1	1,752.1	WMAIN-5619(1)	14.5	Passed
022-017	51.4	45	1,251.1	1,751.1	WMAIN-3547(2)	11.6	Passed
022-018	51	49.5	1,250.7	1,750.7	WMAIN-5897	5.2	Passed
022-019	51.2	22.7	1,250.9	1,020.7	WMAIN-2428(2)	15	Velocity Failed
022-020	51.2	31.6	1,252.3	910.4	WMAIN-2429	15	Velocity Failed
022-021	50.7	42.1	1,250.0	1,750.0	WMAIN-7058(1)(2)(2)	12.5	Passed
022-022	50.6	43.9	1,251.9	1,751.9	WMAIN-7048(1)	13.5	Passed
022-023	50.5	48.9	1,251.5	1,751.5	WMAIN-5897	5.2	Passed
022-024	50.2	23.1	1,251.3	1,003.5	WMAIN-7077(2)	15	Velocity Failed
022-025	50.2	36.4	2,503.5	2,239.6	WMAIN-7080(1)	15	Velocity Failed
022-026	50.7	45.4	2,500.2	3,000.2	WMAIN-2430	6.2	Passed
022-027	50.6	41.5	3,500.0	1,308.7	WMAIN-2443	15	Velocity Failed
022-028	49.5	40.4	1,253.3	1,753.3	WMAIN-2758(2)	11.7	Passed
022-029	50.7	41.2	2,503.9	2,383.2	WMAIN-7058(1)(1)	15	Velocity Failed
022-030	50.2	46.6	1,251.4	1,751.4	WMAIN-7062(1)	14.4	Passed
022-031	49.9	41.1	1,252.0	1,752.0	WMAIN-3548(2)(2)	10.3	Passed
022-032	50.2	45.6	1,250.0	1,733.7	WMAIN-3548(2)(2)	15	Passed
022-033	49.7	35.1	1,253.3	1,753.3	WMAIN-7189(2)	12.3	Passed
022-034	49.5	42	1,256.4	1,756.4	WMAIN-7454(1)(1)	14.7	Passed
022-035	49.4	33.5	1,250.0	1,750.0	WMAIN-7192(1)	11.4	Passed
022-036	49.5	36.6	1,250.0	1,750.0	WMAIN-7195(2)(2)	11.9	Passed
022-037	49.2	37.6	2,502.1	2,211.9	WMAIN-2759(1)	15	Velocity Failed
022-038	51.2	50.5	1,251.3	1,751.3	WMAIN-5897	5.2	Passed
022-040	51.2	48.4	3,501.6	4,001.6	WMAIN-7224	9.6	Passed
022-041	50.1	49	1,252.1	1,752.1	WMAIN-7064(2)	5.8	Passed
022-042	49.6	45.5	1,251.9	1,751.9	WMAIN-7056(2)	11.2	Passed
022-043	49.3	36.9	1,256.5	1,756.5	WMAIN-7195(1)	12.4	Passed
022-044	49.2	35.8	1,250.0	1,750.0	WMAIN-7454(2)	10.8	Passed
022-045	49.2	40	1,252.6	1,752.6	WMAIN-6404(1)	12.1	Passed
022-046	49.2	45.8	1,254.8	1,560.9	WMAIN-7192(1)	15	Passed
022-047	50.6	48.5	1,250.9	1,750.9	WMAIN-5015(2)	11.2	Passed
022-048	50.2	47.6	1,253.5	1,572.2	WMAIN-3550(1)	15	Passed
022-049	51.2	37.2	3,500.4	4,000.4	WMAIN-1735(2)	14	Passed
023-001	52.1	46.2	3,500.3	3,069.3	WMAIN-7023(1)(1)	15	Velocity Failed
023-002	51.5	47.3	1,251.8	1,751.8	WMAIN-7023(1)(1)	5.7	Passed
023-004	51.7	48.9	3,502.3	4,002.3	WMAIN-7224	8.3	Passed
023-005	51.3	49.6	2,500.2	3,000.2	WMAIN-7224	7.2	Passed
023-006	51.2	40.6	2,501.9	3,001.9	WMAIN-7014	10.5	Passed
023-007	51.2	42.5	2,500.7	3,000.7	WMAIN-7014	12.6	Passed
023-008	51.1	45.5	1,252.6	1,752.6	WMAIN-7021(1)(1)	7.8	Passed
023-009	50.9	43.5	1,250.0	1,750.0	WMAIN-5541(2)	8.1	Passed
023-010	51	43.7	1,251.0	1,751.0	WMAIN-5541(2)	12.3	Passed
023-011	50.7	47.7	3,500.7	4,000.7	WMAIN-7224	9.9	Passed
023-012	50.6	48.8	1,250.4	1,569.8	WMAIN-6454(1)	15	Passed
023-013	50.8	44.1	1,251.1	1,751.1	WMAIN-6454(1)	11	Passed
023-014	51.3	47.8	1,250.9	1,750.9	WMAIN-0361(1)	14.2	Passed
023-015	51.1	48.4	1,251.2	1,751.2	WMAIN-5487	6.4	Passed
023-016	51.1	47.2	1,251.4	1,751.4	WMAIN-3651(1)	13.6	Passed
023-017	51.2	45.5	1,251.2	1,751.2	WMAIN-7033(2)	10.1	Passed
023-018	50.8	47.6	2,500.3	1,910.9	WMAIN-7030(2)	15	Velocity Failed
023-019	51.1	44	1,252.8	1,752.8	WMAIN-7443(2)	11.1	Passed
023-020	51.2	44.1	1,252.8	1,752.8	WMAIN-7446(2)	11.1	Passed
023-021	51.4	48.9	1,253.1	1,753.1	WMAIN-1236(1)	9.5	Passed
023-022	51.4	49.3	1,250.0	1,750.0	WMAIN-1239(2)	7.5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
023-023	51.5	47.6	1,251.2	1,751.2	WMAIN-1246(1)	8	Passed
023-024	51.4	46.5	1,253.4	1,753.4	WMAIN-1246(1)	6.4	Passed
023-025	51.1	46.2	1,250.4	1,750.4	WMAIN-1236(1)	6.5	Passed
023-026	51.4	49.7	2,502.5	3,002.5	WMAIN-7224	7	Passed
023-027	51.3	47.8	1,253.8	1,753.8	WMAIN-1230	6	Passed
023-028	51.2	45	1,251.7	1,320.7	WMAIN-5478(1)	15	Passed
023-029	51.1	44.5	1,252.1	1,752.1	WMAIN-2510(1)	11.2	Passed
023-030	51	49.5	1,250.0	1,750.0	HS-255	5.2	Passed
023-031	51.3	46.4	1,251.7	1,751.7	WMAIN-2509(1)	11.2	Passed
023-032	51.4	49.3	1,252.5	1,752.5	WMAIN-1239(1)(1)	7.5	Passed
023-033	51.5	46.5	1,251.7	1,751.7	WMAIN-2698(1)	11.2	Passed
023-034	51.6	48.6	1,251.7	1,320.7	WMAIN-2700(1)	15	Passed
023-035	51.6	30.7	1,253.7	1,753.7	WMAIN-6517(2)(2)	11.3	Passed
023-036	51.7	36.6	1,250.0	1,750.0	WMAIN-6517(2)(2)	11.3	Passed
023-037	52	35.9	3,503.1	2,336.2	WMAIN-6517(2)(2)	15	Velocity Failed
023-038	52.3	47.3	3,500.5	2,333.6	WMAIN-6517(2)(2)	15	Velocity Failed
023-039	52.2	47.4	3,503.0	2,345.1	WMAIN-7441(1)(1)	15	Velocity Failed
023-040	51.9	38.1	2,500.1	2,342.3	WMAIN-7441(1)(1)	15	Velocity Failed
023-041	51.6	37.2	1,251.9	1,751.9	WMAIN-7441(1)(1)	11.2	Passed
023-042	51.3	30.7	1,250.0	1,750.0	WMAIN-7441(1)(1)	11.2	Passed
023-043	52.1	41.2	3,500.5	2,333.6	WMAIN-6517(2)(2)	15	Velocity Failed
023-045	52.4	45.6	3,506.1	4,006.1	WMAIN-4754(1)(1)	11.4	Passed
023-046	52.2	43.9	3,502.7	4,002.7	WMAIN-4754(1)(1)	10	Passed
023-047	52	48.8	1,251.4	1,751.4	WMAIN-4733(2)	11.2	Passed
023-048	51.8	48.5	1,251.0	1,751.0	WMAIN-4735(2)	11.2	Passed
023-049	51.7	48.4	1,251.5	1,751.5	WMAIN-4738(1)	11.2	Passed
023-050	51.9	47.6	1,252.3	1,752.3	WMAIN-4745	6.2	Passed
023-051	51.7	48	1,250.0	1,750.0	WMAIN-4728(2)(2)	7.5	Passed
023-052	51.9	48.1	1,250.8	1,750.8	WMAIN-4729(2)	11.2	Passed
023-053	52.4	45.6	3,500.3	4,000.3	WMAIN-5999(2)	6.6	Passed
023-055	51.9	44.2	3,504.1	2,347.8	WMAIN-3256	15	Velocity Failed
023-056	52	37.4	3,502.2	2,346.0	WMAIN-3256	15	Velocity Failed
023-058	52.2	46.6	3,503.3	4,003.3	WMAIN-7224	7.5	Passed
023-059	52.4	41.6	5,000.0	5,500.0	WMAIN-7224	9.2	Passed
024-001	51	49.9	1,250.4	1,750.4	HS-255	5.2	Passed
024-002	51.8	50.6	1,250.0	1,750.0	HS-255	5.2	Passed
024-003	52.4	51.1	1,301.3	1,801.3	HS-255	5.2	Passed
024-004	52.3	50.8	1,250.0	1,750.0	WMAIN-2636(2)	10.1	Passed
024-005	49	37	2,502.1	3,002.1	WMAIN-2636(1)(2)	13.7	Passed
024-006	51	44.4	1,250.0	1,750.0	WMAIN-2636(1)(2)	6.8	Passed
024-007	51.4	44.2	1,250.7	1,750.7	WMAIN-2636(1)(2)	5.9	Passed
024-008	51.6	29.1	3,509.7	3,671.3	WMAIN-4739(1)	15	Passed
024-009	51.5	44	1,251.1	1,751.1	WMAIN-2641(1)	7.3	Passed
024-017	51.6	39.6	3,500.7	3,173.5	WMAIN-4739(1)	15	Velocity Failed
024-020	52.1	43.5	1,250.8	1,750.8	WMAIN-2515(1)	8.4	Passed
024-021	52.3	41.5	1,253.6	1,753.6	WMAIN-2515(1)	7.2	Passed
024-022	51.9	41.9	1,255.7	1,755.7	WMAIN-2515(1)	6.6	Passed
024-023	52.2	43.7	1,250.6	1,750.6	WMAIN-2517(1)	7.3	Passed
024-024	52.2	42.3	1,264.5	1,764.5	WMAIN-2517(1)	6.4	Passed
024-025	51.8	41.8	1,253.5	1,753.5	WMAIN-2517(1)	6.4	Passed
024-026	51.6	42.3	1,250.9	1,750.9	WMAIN-2569(1)	11.2	Passed
024-027	52.6	50.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
024-028	52.7	44.5	3,502.9	4,002.9	WMAIN-0308	5.9	Passed
024-029	52.7	45.1	3,505.6	4,005.6	WMAIN-0308	6.8	Passed
025-001	52.7	33.6	5,000.0	5,305.1	WMAIN-4906(2)	15	Passed
025-002	52.6	35.3	5,001.9	5,501.9	WMAIN-3563(2)	14.8	Passed
025-003	52.5	42.4	5,000.2	4,673.6	WMAIN-3563(2)	15	Velocity Failed
025-004	52.6	44.8	3,510.1	4,010.1	WMAIN-7224	6.3	Passed
025-005	52.8	45	3,501.2	4,001.2	WMAIN-4903(2)(2)	6.3	Passed
025-006	53	35.7	5,003.7	4,169.9	WMAIN-4901	15	Velocity Failed
025-007	52.8	35.6	3,501.2	4,001.2	WMAIN-4894(1)	13.4	Passed
025-008	52.9	38.6	5,000.5	3,494.3	WMAIN-4905(1)(2)	15	Velocity Failed
025-009	52.9	42.1	5,000.0	3,226.7	WMAIN-4905(2)	15	Velocity Failed
025-010	52.9	44.9	3,506.9	4,006.9	WMAIN-6004	5.9	Passed
025-011	52.9	45.8	3,500.0	4,000.0	WMAIN-0351(2)	7	Passed
026-001	51.5	49.2	2,500.1	3,000.1	WMAIN-5226(2)	6.1	Passed
026-002	51.5	45.3	2,500.0	3,000.0	WMAIN-5227	11.9	Passed
026-003	51.7	44.8	2,500.0	3,000.0	WMAIN-1254	10.3	Passed
026-004	51.8	44.2	2,506.9	2,350.1	WMAIN-3437	15	Velocity Failed
026-005	51.9	50.3	2,500.0	3,000.0	WMAIN-5897	5.5	Passed
026-006	52	47.3	5,005.1	5,505.1	WMAIN-7224	8	Passed
026-007	52.3	44	5,045.8	3,158.1	WMAIN-7435(1)(1)	15	Velocity Failed
026-008	52.8	32.6	3,500.0	3,876.9	WMAIN-7435(1)(1)	15	Passed
026-009	52.9	39.2	2,500.0	3,000.0	WMAIN-7435(1)(1)	10	Passed
026-012	52	49.5	3,500.0	4,000.0	WMAIN-7224	7.2	Passed
026-013	52.2	46.9	3,502.5	4,002.5	WMAIN-7224	7.6	Passed
026-014	52.1	46.9	3,500.0	4,000.0	WMAIN-7224	7.7	Passed
026-015	52	47.8	3,506.2	4,006.2	WMAIN-6442(1)(1)	7.9	Passed
026-016	52.1	49.6	3,500.0	4,000.0	WMAIN-7224	6.8	Passed
026-017	51.6	50	2,501.7	3,001.7	WMAIN-5897	5.6	Passed
026-020	52.9	39.7	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	10.7	Passed
026-021	52.9	42.3	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	12.6	Passed
026-022	52.9	42.1	2,525.0	3,025.0	WMAIN-4898(1)	12.5	Passed
026-023	52.8	43.4	2,504.1	3,004.1	WMAIN-6001(1)(2)	9.7	Passed
026-024	52.7	38.2	3,500.0	3,948.9	WMAIN-6001(2)	15	Passed
026-025	52.4	42.6	3,500.0	3,846.6	WMAIN-3269(2)	15	Passed
026-026	52.3	46.4	3,500.0	4,000.0	WMAIN-7224	7.5	Passed
026-028	52.3	41.7	5,000.0	5,500.0	WMAIN-7224	9.3	Passed
026-029	52.6	39.5	3,500.8	2,640.2	WMAIN-3272(2)	15	Velocity Failed
026-030	52.4	46.3	3,500.3	4,000.3	WMAIN-7224	6.9	Passed
026-031	52.4	41.3	5,000.0	5,500.0	WMAIN-5999(1)	10.2	Passed
026-038	51.4	49.5	2,501.8	3,001.8	WMAIN-5224(2)	5.8	Passed
027-001	51.3	49.8	2,503.4	3,003.4	WMAIN-5897	5.6	Passed
027-002	51.1	44.5	2,500.0	3,000.0	WMAIN-1256(2)(2)	14.4	Passed
027-003	50.9	40.8	2,503.6	3,003.6	WMAIN-1256(1)(2)	12.1	Passed
027-004	50.8	39	2,500.0	3,000.0	WMAIN-1256(1)(2)	10	Passed
027-005	50.6	39.6	2,500.9	3,000.9	WMAIN-1255(1)(1)	11.2	Passed
027-006	51.1	38.3	1,254.8	1,754.8	WMAIN-5239(1)	10.3	Passed
027-007	51	43.7	1,250.7	1,750.7	WMAIN-5235(1)	10.9	Passed
027-008	50.5	36.6	3,501.5	4,001.5	WMAIN-5232(2)	13.3	Passed
027-009	51.1	38.8	3,500.3	4,000.3	WMAIN-6484(1)	12.8	Passed
027-010	50.7	40.1	3,500.4	3,752.6	WMAIN-6479(1)	15	Passed
027-011	51.6	49.9	2,500.0	3,000.0	WMAIN-5897	5.6	Passed
027-012	51.7	49	3,510.1	4,010.1	WMAIN-7224	6	Passed
027-017	51.5	45.7	2,503.3	3,003.3	WMAIN-2235	10.5	Passed
027-018	51.4	44.4	2,509.3	3,009.3	WMAIN-6472(1)(1)	10.6	Passed
027-019	51.5	46.4	2,500.0	3,000.0	WMAIN-6472(2)	13.4	Passed
027-021	51.9	47.1	5,000.2	5,500.2	WMAIN-7224	8	Passed
027-022A	51.5	48.5	3,503.9	4,003.9	WMAIN-2998	6.6	Passed
027-022B	51.2	48.1	3,500.5	4,000.5	WMAIN-2998	7.5	Passed
027-024	49.4	29.3	3,500.8	4,000.8	WMAIN-4642	14.6	Passed
027-025	50.9	45	2,502.3	1,969.6	WMAIN-7005(1)	15	Velocity Failed
027-026	51	44.3	5,001.6	5,501.6	WMAIN-2998	14.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
027-027	49.4	43.5	2,500.0	3,000.0	WMAIN-2998	9.2	Passed
027-028	49.4	29.2	3,503.2	583.8	WMAIN-6998(2)	15	Velocity Failed
027-029	50.9	47.6	2,500.0	1,746.5	WMAIN-1971(2)(2)	15	Velocity Failed
027-030	50.4	39.7	2,500.8	2,417.2	WMAIN-2130	15	Velocity Failed
027-031	51.2	48	3,500.0	4,000.0	WMAIN-2998	7.7	Passed
027-032	51.1	33.5	3,505.9	2,171.7	WMAIN-7074(1)	15	Velocity Failed
027-033	50.7	46	3,502.0	1,824.6	WMAIN-2725(1)	15	Velocity Failed
027-034	50.1	39.7	1,251.2	1,751.2	WMAIN-5252	11.5	Passed
027-035	51.1	47	2,504.9	3,004.9	WMAIN-2998	10.3	Passed
027-036	49.6	46.2	3,500.8	2,700.4	WMAIN-2998	15	Velocity Failed
027-037	50.7	45.2	3,504.2	2,123.8	WMAIN-7008(2)	15	Velocity Failed
027-040	51	46.7	3,500.0	1,921.7	WMAIN-6482(2)	15	Velocity Failed
027-041	50.9	38	3,501.0	2,546.4	WMAIN-7010(2)	15	Velocity Failed
027-042	50.4	32.4	3,500.3	2,349.9	WMAIN-5255(2)(2)	15	Velocity Failed
027-043	51.2	40.4	3,518.2	4,018.2	WMAIN-6474	13	Passed
027-044	50	39.1	3,500.8	4,000.8	WMAIN-4632(1)	14.5	Passed
027-045	50.2	46.7	1,251.4	1,751.4	WMAIN-4624(1)	6.7	Passed
027-046	49.3	47.7	1,251.0	1,751.0	WMAIN-4633(2)	7.2	Passed
027-047	50.2	47	1,251.8	1,751.8	WMAIN-4637(2)	6.4	Passed
027-048	51.1	46.7	1,253.7	1,753.7	WMAIN-4400(1)	8.2	Passed
027-049	50.6	46.7	1,252.6	1,752.6	WMAIN-4402(1)	6.9	Passed
027-050	52.1	49.5	3,500.0	4,000.0	WMAIN-7224	7	Passed
027-051	50.2	34.3	2,502.4	2,344.1	WMAIN-2423	15	Velocity Failed
027-052	50.3	44.7	1,250.5	1,750.5	WMAIN-2423	11.2	Passed
027-053	51.5	46.6	3,501.2	1,672.5	WMAIN-7074(2)(2)	15	Velocity Failed
027-054	51.1	49	3,500.0	2,350.1	WMAIN-3265	15	Velocity Failed
027-055	51.2	48.7	3,502.4	4,002.4	WMAIN-5897	5.9	Passed
028-001	49.1	43	2,501.4	3,001.4	WMAIN-6989(2)	13.6	Passed
028-002	49.1	45.7	2,500.9	1,447.9	WMAIN-5645(1)	15	Velocity Failed
028-003	49	34.9	2,501.2	1,668.3	WMAIN-5645(1)	15	Velocity Failed
028-004	49	26.7	2,501.1	1,803.6	WMAIN-5645(1)	15	Velocity Failed
028-005	49	21.7	2,500.3	1,760.6	WMAIN-7330	15	Velocity Failed
028-006	49	20	2,505.8	1,712.1	WMAIN-7330	15	Residual Pressure and Velocity Failed
028-007	49	40.5	1,252.2	1,590.3	WMAIN-3729	15	Passed
028-008	49	46.9	1,251.1	1,751.1	WMAIN-6967(2)	8.2	Passed
028-009	48.9	46.4	1,250.4	1,750.4	WMAIN-6360(2)	6.3	Passed
028-010	49	37.5	1,251.2	1,751.2	WMAIN-2676(2)	12.8	Passed
028-011	49	43.7	1,255.6	1,755.6	WMAIN-6355	6.1	Passed
028-012	49	34.4	5,000.5	2,586.2	WMAIN-7329(1)	15	Velocity Failed
028-013	48.8	40.8	2,500.4	3,000.4	WMAIN-6987	11.9	Passed
028-014	49	39.5	2,501.3	2,114.6	WMAIN-3032(2)	15	Velocity Failed
028-015	49	38.4	2,500.6	2,198.9	WMAIN-3451(2)	15	Velocity Failed
028-016	48.7	43.3	2,500.8	1,779.7	WMAIN-6460(1)	15	Velocity Failed
028-017	48.8	31.8	3,500.0	2,403.7	WMAIN-3723(1)	15	Velocity Failed
028-018	49	43.8	3,501.0	1,827.6	WMAIN-3461(2)	15	Velocity Failed
028-019	48.9	43.5	1,260.9	1,760.9	WMAIN-2419	6.4	Passed
028-020	48.9	20	2,508.3	856.2	WMAIN-6340(1)	11.7	Residual Pressure Failed
028-021	48.7	20	3,510.6	2,248.7	WMAIN-0294(1)(1)	13.2	Residual Pressure Failed
028-022	49	28.8	3,500.7	2,335.7	WMAIN-6336	15	Velocity Failed
028-023	49	36.3	2,500.1	1,321.9	WMAIN-2934	15	Velocity Failed
028-024	49	25.8	3,505.6	4,005.6	WMAIN-1984	13.4	Passed
028-025	49	38.3	3,500.2	4,000.2	WMAIN-2097(2)	13.6	Passed
028-026	49	43.2	2,500.7	3,000.7	WMAIN-2922(1)	13.6	Passed
028-027	48.9	33.4	2,500.7	2,547.0	WMAIN-2245(2)	15	Passed
028-028	48.9	39.7	3,500.4	2,123.5	WMAIN-2243(1)	15	Velocity Failed
028-029	49	32.9	3,500.8	3,190.8	WMAIN-2909	15	Velocity Failed
028-030	49.3	45.6	2,500.0	2,851.8	WMAIN-2998	15	Passed
028-031	49	38.7	3,500.3	1,889.8	WMAIN-3257	15	Velocity Failed
028-032	49	42.4	3,500.6	4,000.6	WMAIN-2998	13	Passed
028-033	49	43.9	3,502.6	3,157.4	WMAIN-2248(1)	15	Velocity Failed
028-034	49	36.2	3,500.0	2,593.8	WMAIN-2152(1)	15	Velocity Failed
028-035	49	38.4	3,500.0	2,285.9	WMAIN-2355	15	Velocity Failed
028-036	50.2	40.8	1,251.2	1,751.2	WMAIN-6324(1)(1)	13.5	Passed
028-037	49.6	27	2,500.0	2,127.5	WMAIN-3257	15	Velocity Failed
028-039	49	41.8	3,500.4	2,010.5	WMAIN-2155(2)	15	Velocity Failed
028-040	49	36.7	3,500.2	2,397.6	WMAIN-1962(2)	15	Velocity Failed
028-041	49.1	34.9	3,500.7	3,925.8	WMAIN-2104	15	Passed
028-042	49	42.9	3,500.1	1,928.9	WMAIN-1962(2)	15	Velocity Failed
028-043	49.1	42.3	3,500.6	1,918.4	WMAIN-2157	15	Velocity Failed
028-044	49	45.8	2,501.0	1,569.2	WMAIN-3257	15	Velocity Failed
028-045	48.6	31.1	3,500.2	1,987.6	WMAIN-0294(2)	15	Velocity Failed
028-046	48.9	32.3	3,502.5	3,290.2	WMAIN-2909	15	Velocity Failed
028-047	49.1	47.8	1,250.3	1,750.3	WMAIN-5897	5.3	Passed
029-001	48.9	42.8	2,500.7	1,945.0	WMAIN-0280(2)	15	Velocity Failed
029-002	48.9	44.9	3,501.7	3,244.1	WMAIN-2399	15	Velocity Failed
029-003	48.9	45.6	1,254.1	718.4	WMAIN-2992	15	Velocity Failed
029-004	48.5	44.9	1,253.2	1,686.1	WMAIN-0562(1)	15	Passed
029-005	47.4	45.9	1,250.9	1,750.9	WMAIN-2399	5.7	Passed
029-006	48.5	33.9	3,500.1	2,325.8	WMAIN-0372	15	Velocity Failed
029-007	48.4	36.2	3,500.7	2,411.0	WMAIN-2989(1)(1)	15	Velocity Failed
029-008	48.4	45.2	2,500.1	3,000.1	WMAIN-2399	9.6	Passed
029-009	48.4	38	3,501.0	2,298.2	WMAIN-2988(2)	15	Velocity Failed
029-010	48.8	28.5	2,508.4	2,504.2	WMAIN-2982(1)	15	Velocity Failed
029-011	48.3	28.7	3,504.9	2,448.4	WMAIN-3424(1)	15	Velocity Failed
029-012	48.8	41.2	1,250.6	1,750.6	WMAIN-3422(2)	12.8	Passed
029-013	47.9	38.8	1,251.0	1,751.0	WMAIN-3421(1)	11.5	Passed
029-014	48.3	20	1,254.9	1,042.2	WMAIN-6428(1)	13.7	Residual Pressure Failed
029-015	48.9	36.9	1,253.0	1,753.0	WMAIN-6430(2)	11.5	Passed
029-016	49	39.7	3,501.4	2,295.2	WMAIN-2240(1)	15	Velocity Failed
029-017A	49	40.6	5,001.2	179.3	WMAIN-1989(2)	15	Velocity Failed
029-017B	48.9	46.1	2,500.0	3,000.0	WMAIN-2399	6.6	Passed
029-019	49	42.5	3,500.4	4,000.4	WMAIN-6285(2)	7.7	Passed
029-020	48.8	44	1,250.4	1,750.4	WMAIN-2840(2)	12.3	Passed
029-021	48	37.2	3,500.5	2,083.4	WMAIN-3481(1)	15	Velocity Failed
029-022	49	36	5,001.6	5,501.6	WMAIN-6281(2)	12.3	Passed
029-023	49	34.1	3,503.9	2,054.3	WMAIN-2402(1)	15	Velocity Failed
029-024	48.8	36.9	3,500.0	2,387.1	WMAIN-2901(2)	15	Velocity Failed
029-025	48.8	44	3,500.0	1,821.3	WMAIN-2896(2)	15	Velocity Failed
029-026	48.8	44.2	3,500.0	4,000.0	WMAIN-2399	7.2	Passed
029-027	48.9	43.1	3,500.0	1,924.5	WMAIN-1990(2)	15	Velocity Failed
029-028	49	39.7	3,501.4	4,001.4	WMAIN-6281(2)	7.9	Passed
029-029	48.9	38.1	3,505.9	2,577.7	WMAIN-6277	15	Velocity Failed
029-030	48.1	34.2	1,250.0	1,750.0	WMAIN-6953(2)	10.3	Passed
029-031	48.9	42.5	3,500.0	1,894.3	WMAIN-2101	15	Velocity Failed
029-032	48.8	44.3	3,500.0	4,000.0	WMAIN-2399	6.4	Passed
029-033	48.7	37.4	3,500.0	2,184.7	WMAIN-2164(2)(2)	15	Velocity Failed
029-034	48.6	34.1	3,500.0	1,561.6	WMAIN-7089(1)	15	Velocity Failed
029-035	48.5	38.1	3,502.1	1,880.5	WMAIN-6311(1)	15	Velocity Failed
029-036	48	22.7	3,500.2	2,493.8	WMAIN-0431	15	Velocity Failed
029-037	47.9	24.9	2,501.2	2,246.5	WMAIN-2858(2)	15	Velocity Failed
029-038	48.3	28.9	2,500.0	2,248.6	WMAIN-2398(1)	15	Velocity Failed
029-039	48.3	29.5	2,505.3	2,228.7	WMAIN-2398(1)	15	Velocity Failed
029-041	49	44.1	3,501.8	4,001.8	WMAIN-2399	7.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
029-042	49	43.3	3,500.0	4,000.0	WMAIN-2399	8.4	Passed
030-001	47.1	35.5	1,253.8	1,753.8	WMAIN-6946(1)	10.7	Passed
030-002	47.1	43.2	1,251.1	1,751.1	WMAIN-6926(1)	6.5	Passed
030-003	46.9	44.1	1,250.9	1,750.9	WMAIN-3409(2)	5.8	Passed
030-004	47	38.3	1,250.2	1,750.2	WMAIN-7301	10.7	Passed
030-005	47.1	36.4	1,251.1	1,751.1	WMAIN-3414(2)	10.9	Passed
030-006	47	41.6	1,251.0	1,705.3	WMAIN-3417(2)	15	Passed
030-007	46.8	35.7	1,253.5	1,753.5	WMAIN-6935(2)	10.8	Passed
030-008	46.8	39.8	2,500.3	3,000.3	WMAIN-2375(2)	12	Passed
030-009	46.9	31.9	1,252.2	1,752.2	WMAIN-6502	10.2	Passed
030-010	46.9	35.6	1,251.2	1,751.2	WMAIN-3419(2)	11.4	Passed
030-011	47	42.8	1,252.0	1,752.0	WMAIN-6933(2)	5.9	Passed
030-012	47	36.9	1,251.2	1,751.2	WMAIN-2227(1)	12.1	Passed
030-013	47	38	1,250.5	1,750.5	WMAIN-2228(2)	12	Passed
030-014	47.8	29.9	1,251.3	1,751.3	WMAIN-2232(2)	12.4	Passed
030-015	47.3	43.4	1,252.2	1,752.2	WMAIN-2383(1)	6.6	Passed
030-016	47.1	37.2	1,251.1	1,751.1	WMAIN-5585(1)	11.8	Passed
030-017	46.9	42.5	1,250.2	1,750.2	WMAIN-3429(2)	13	Passed
030-018	46.9	41.9	1,250.0	1,750.0	WMAIN-5614(2)	9.9	Passed
030-019	47.1	42.4	1,252.6	1,742.2	WMAIN-5617(2)	15	Passed
030-020	47.4	43	3,501.6	1,708.1	WMAIN-6924(1)(1)	15	Velocity Failed
030-021	47.1	40.3	1,250.6	1,750.6	WMAIN-5595(1)(1)	10.2	Passed
030-022	47	44.8	1,250.5	1,750.5	WMAIN-6915(1)	7.5	Passed
030-023	47	43	1,252.1	1,668.1	WMAIN-6489(1)(1)	15	Passed
030-024	46.8	44.1	1,250.6	1,750.6	WMAIN-6912(1)	5.9	Passed
030-025	46.7	43.9	1,251.9	1,751.9	WMAIN-6939(1)(1)	7.8	Passed
030-026	47.7	34.2	2,501.4	1,999.2	WMAIN-2138	15	Velocity Failed
030-027	47.6	37.1	1,252.5	1,752.5	WMAIN-2407	13.4	Passed
030-028	47.5	41.4	1,252.8	1,621.7	WMAIN-0650	15	Passed
030-029	47.5	36.1	3,500.0	2,113.2	WMAIN-6924(2)	15	Velocity Failed
030-030	47.2	33.2	3,500.0	2,226.3	WMAIN-6489(2)	15	Velocity Failed
030-031	47.1	32.8	1,252.4	1,752.4	WMAIN-5609	11.3	Passed
030-032	46.9	34.2	3,500.1	4,000.1	WMAIN-3471(1)	13.2	Passed
030-033	47.7	30.1	2,502.1	2,570.5	WMAIN-2826(2)	15	Passed
030-034	47.6	37.4	1,250.4	1,750.4	WMAIN-6921(1)	10.4	Passed
030-035	47.6	43.5	3,500.4	1,665.9	WMAIN-6919(2)	15	Velocity Failed
030-036	47.5	20	1,252.5	1,052.3	WMAIN-2834(2)	14.2	Residual Pressure and Velocity Failed
030-037	47	41.9	2,504.3	2,166.3	WMAIN-1329	15	Velocity Failed
030-038	46.8	41.9	3,507.1	3,112.6	WMAIN-3470(2)	15	Velocity Failed
030-039	47.5	36.9	3,500.0	3,862.1	WMAIN-7113(2)(1)	15	Passed
030-042	47	42.6	1,250.0	1,750.0	WMAIN-5595(2)	14.4	Passed
030-043	47.3	36.6	1,250.3	1,750.3	WMAIN-2144	13.1	Passed
030-044	47.3	43.4	3,500.5	4,000.5	WMAIN-5604(2)(2)	13	Passed
030-045	47.3	43.2	2,502.4	3,002.4	WMAIN-5604(1)	6.6	Passed
030-046	47.3	44.3	1,252.5	1,752.5	WMAIN-6890(2)	7	Passed
030-047	47.4	39.6	3,502.7	3,396.1	WMAIN-6419	15	Velocity Failed
031-001	47	44.1	1,250.4	1,750.4	WMAIN-2386(2)	5.8	Passed
031-002	46.8	40.7	1,250.8	1,750.8	WMAIN-3474(2)	10.1	Passed
031-003	46.5	33.7	2,502.8	3,002.8	WMAIN-7296	12.3	Passed
031-004	46.5	40.7	1,250.0	1,750.0	WMAIN-7294(1)(1)	5.8	Passed
031-005	46.8	42	1,257.5	1,757.5	WMAIN-7294(1)(1)	7.4	Passed
031-006	47.1	43.7	1,251.0	1,751.0	WMAIN-3475(2)	5.8	Passed
031-007	46.7	34.5	1,253.3	1,753.3	WMAIN-7292(1)	10.2	Passed
031-008	47.1	41.4	1,250.1	1,750.1	WMAIN-6888(1)	13.3	Passed
031-009	47.1	39.1	1,252.0	1,752.0	WMAIN-7297(1)	10.2	Passed
031-010	46.7	43.8	1,252.6	1,752.6	WMAIN-6877(1)	6.4	Passed
031-011	46.5	35.7	1,250.0	1,750.0	WMAIN-7282(2)(2)	11.5	Passed
031-012	46.9	39.6	1,253.8	1,753.8	WMAIN-7282(1)	14.3	Passed
031-013	46.6	37	5,003.4	3,547.9	WMAIN-6883(1)(1)	15	Velocity Failed
031-014	46.1	27.8	5,001.5	4,017.4	WMAIN-6867(2)	15	Velocity Failed
031-015	45.3	31.4	2,504.0	2,537.1	WMAIN-7286(2)	15	Passed
031-016	45.4	34.1	2,502.7	3,002.7	WMAIN-3775	12	Passed
031-017	46	20	2,504.9	2,506.6	WMAIN-5560(1)	14.5	Passed
031-018	45.4	25.7	3,504.1	4,004.1	WMAIN-6873(2)	13.7	Passed
031-022	46.6	43.6	3,502.4	4,002.4	WMAIN-5897	5.5	Passed
031-023	45.9	32.7	3,500.0	3,584.0	WMAIN-2672(1)	15	Passed
031-024	46.1	42.9	3,504.8	2,753.2	WMAIN-2672(1)	15	Velocity Failed
031-026	44.8	40.2	3,500.0	4,000.0	WMAIN-6871	6.4	Passed
031-027	42.6	37.5	3,500.0	4,000.0	WMAIN-3657	6.3	Passed
031-028	45.3	40.9	3,500.0	4,000.0	WMAIN-3657	7.4	Passed
031-029	45.5	42.7	3,500.0	4,000.0	WMAIN-3657	9.3	Passed
031-031	44.4	39.3	3,504.0	4,004.0	WMAIN-3309(1)(1)(1)	6.3	Passed
031-033	46	43.3	2,500.0	3,000.0	WMAIN-5897	5.4	Passed
031-034	46.1	43.5	2,500.0	3,000.0	WMAIN-5897	5.4	Passed
031-035	46.1	43.8	2,509.4	3,009.4	WMAIN-6872(1)(1)	5.7	Passed
031-036	45.6	44.4	1,250.9	1,750.9	WMAIN-5897	5.3	Passed
031-040	45.1	24.6	5,004.0	1,321.3	WMAIN-3283(2)	15	Velocity Failed
031-041	45.4	41.3	3,500.0	4,000.0	WMAIN-3657	7.9	Passed
031-042	44.2	30.6	3,509.4	3,205.1	WMAIN-5964(2)	15	Velocity Failed
031-043	46.9	43.2	1,250.0	1,750.0	WMAIN-6939(2)(2)	6.1	Passed
031-044	46.6	29	3,500.6	3,824.6	WMAIN-5429(1)	15	Passed
031-045	46.8	39.3	3,500.9	3,301.3	WMAIN-6883(2)	15	Velocity Failed
031-046	46.9	43.8	1,252.9	1,752.9	WMAIN-3472	5.5	Passed
031-047	46	44.1	2,500.0	3,000.0	WMAIN-5897	5.4	Passed
031-049	46.4	32.9	5,001.3	3,537.4	WMAIN-5434(2)	15	Velocity Failed
031-050	45.4	42.7	3,500.8	4,000.8	WMAIN-5897	5.5	Passed
031-051	46.3	25.1	3,506.1	4,006.1	WMAIN-5434(2)	13.2	Passed
031-056	46.4	43.5	3,508.3	4,008.3	WMAIN-5897	5.5	Passed
032-001	45	21.4	2,500.0	3,000.0	WMAIN-4910	12.1	Passed
032-002	44.9	23.7	2,504.5	2,347.9	WMAIN-5454(1)	15	Velocity Failed
032-003	45	32.3	2,504.7	2,680.0	WMAIN-5456(1)	15	Passed
032-004	44.9	20	2,500.5	2,863.4	WMAIN-5456(1)	13.8	Passed
032-008	45	43.1	2,500.0	3,000.0	WMAIN-5897	5.4	Passed
032-013	45	24.3	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-015	44.9	21.7	2,502.0	3,002.0	WMAIN-4910	11.6	Passed
032-016	44.4	27	2,500.2	2,023.9	WMAIN-5436	15	Velocity Failed
032-018	44.4	20	2,500.4	2,238.1	WMAIN-5441	14.4	Residual Pressure and Velocity Failed
032-020	45	28.1	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-022	45	31.9	1,260.3	1,760.3	WMAIN-2370(1)(1)	11.3	Passed
032-024	45	42.1	1,250.7	1,750.7	WMAIN-4709(2)	6.5	Passed
032-025	45.3	41	5,000.4	5,500.4	WMAIN-5897	5.8	Passed
032-026	45.1	43.4	2,501.3	3,001.3	WMAIN-5897	5.4	Passed
032-027	45	42.2	3,503.0	4,003.0	WMAIN-5897	5.5	Passed
032-028	44.6	41.7	3,500.5	4,000.5	WMAIN-5897	5.5	Passed
032-029	45	43.1	1,251.5	1,751.5	WMAIN-4713(1)	9	Passed
032-030	45	42.1	1,251.4	1,751.4	WMAIN-4715(2)	6.4	Passed
032-031	45	43.1	1,251.5	1,751.5	WMAIN-4710(1)	9	Passed
032-032	45	42	1,251.4	1,751.4	WMAIN-4712(2)	6.5	Passed
032-033	45	40.8	2,501.5	2,927.0	WMAIN-4707(1)	15	Passed
032-034	45	43.7	1,250.6	1,750.6	WMAIN-5897	5.2	Passed
032-035	45	43.8	1,261.0	1,761.0	WMAIN-5897	5.2	Passed
032-036	45	43.7	1,253.0	1,753.0	WMAIN-5897	5.2	Passed
032-037	43.8	42.7	1,250.4	1,750.4	WMAIN-5897	5.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
032-038	45.3	41.2	1,253.2	1,753.2	WMAIN-4008(1)	6	Passed
032-039	45	40.6	1,251.1	1,751.1	WMAIN-4005(1)	11.2	Passed
032-040	45.1	42.8	1,251.1	1,751.1	WMAIN-4025(1)	8.5	Passed
032-041	45	43.4	1,250.5	1,750.5	WMAIN-4016(2)	7.9	Passed
032-042	45.3	43.2	1,250.7	1,750.7	WMAIN-4034(1)	11.2	Passed
032-043	45	33.6	3,500.0	4,000.0	WMAIN-4030(1)	13.4	Passed
032-044	45	43.6	1,251.8	1,751.8	WMAIN-4030(1)	9.4	Passed
032-045	45.3	43.8	1,251.6	1,751.6	WMAIN-4019(1)	8.4	Passed
032-046	43.8	40.3	3,506.9	4,006.9	WMAIN-5897	5.5	Passed
032-047	45.1	42.3	1,250.4	1,750.4	WMAIN-8119(1)	7.1	Passed
032-048	45.1	40.5	1,252.5	1,752.5	WMAIN-8119(1)	6.3	Passed
032-049	45	41.2	1,258.3	1,758.3	WMAIN-8120	7.6	Passed
032-050	45	41.4	1,250.0	1,750.0	WMAIN-8118(2)(2)	7.6	Passed
032-051	45.1	40.6	1,253.5	1,753.5	WMAIN-8119(1)	6.3	Passed
033-001	45.1	42.8	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
033-002	45.4	44.5	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
033-005	46	43.7	1,252.7	1,752.7	WMAIN-4042(1)(1)	8	Passed
033-006	47	43.8	1,250.0	1,750.0	WMAIN-4042(1)(1)	5.9	Passed
033-007	47.2	45	1,250.0	1,750.0	WMAIN-4038(1)	5.9	Passed
033-008	46.9	43.5	1,250.6	1,750.6	WMAIN-2368(1)	6.6	Passed
033-009	45.8	43.7	1,250.1	1,750.1	WMAIN-3993(1)	5.9	Passed
033-010	46.6	45.4	1,250.2	1,750.2	WMAIN-5897	5.2	Passed
033-011	46.3	45.4	1,252.2	1,752.2	WMAIN-5897	5.2	Passed
033-012	47.2	45.9	1,250.7	1,750.7	WMAIN-4038(1)	8.6	Passed
033-013	44.9	41.4	1,251.6	1,751.6	WMAIN-3949(2)	5.6	Passed
033-014	44.9	42.8	1,251.6	1,751.6	WMAIN-3949(2)	8.9	Passed
033-015	44.6	42.9	1,273.0	1,773.0	WMAIN-5897	5.2	Passed
033-016	44.7	43	1,251.2	1,751.2	WMAIN-3948(1)	9.2	Passed
033-017	44.4	40.7	1,269.7	1,769.7	WMAIN-3948(1)	6.1	Passed
033-018	43.7	40.9	1,257.0	1,757.0	WMAIN-4035(2)	7.7	Passed
033-019	46.3	42.8	1,251.1	1,751.1	WMAIN-8195	5.7	Passed
033-020	46.1	43.3	1,251.1	1,751.1	WMAIN-7483(1)	7	Passed
033-021	45.4	42.9	1,250.4	1,750.4	WMAIN-7487(1)	8.2	Passed
033-022	45.5	42.9	1,252.1	1,752.1	WMAIN-7488	5.7	Passed
034-003	47.2	46.4	1,252.1	1,752.1	WMAIN-5897	5.2	Passed
034-004	47.3	42.8	5,000.0	5,500.0	WMAIN-5897	5.9	Passed
034-005	47	44.8	1,255.0	1,755.0	WMAIN-5422(1)	8.2	Passed
034-006	46.8	43.6	1,250.8	1,750.8	WMAIN-5416(1)	7	Passed
034-007	46.9	35	1,251.2	1,320.7	WMAIN-5414(1)	15	Passed
034-008	46.6	42.9	1,250.6	1,750.6	WMAIN-5408	6.1	Passed
034-009	46.7	34.8	1,251.2	1,320.7	WMAIN-5410(1)	15	Passed
034-010	47.2	44.7	3,500.9	4,000.9	WMAIN-2361(1)	8.5	Passed
034-011	47.1	45.7	1,250.5	1,750.5	WMAIN-4988(2)	9.1	Passed
034-012	47.1	43.7	1,250.0	1,750.0	WMAIN-4988(2)	5.9	Passed
034-013	46.9	39.6	1,250.9	1,750.9	WMAIN-4993(1)	11.3	Passed
034-014	46.9	45.6	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
034-015	47.2	41.3	1,251.4	1,751.4	WMAIN-5011(1)	11.2	Passed
034-016	47	44.2	1,250.0	1,750.0	WMAIN-3308(2)	8.4	Passed
034-017	46.6	42.3	1,251.7	1,751.7	WMAIN-3308(1)(2)	5.8	Passed
034-018	46.5	42.9	1,252.3	1,752.3	WMAIN-4994(1)	7.5	Passed
034-019	47.1	44.6	1,252.2	1,752.2	WMAIN-5013(2)	8.5	Passed
034-020	47.2	44.7	1,250.5	1,750.5	WMAIN-5005(1)	5.8	Passed
034-021	47.3	46.4	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
034-022	47.3	46.4	1,250.6	1,750.6	WMAIN-5897	5.2	Passed
034-023	46.9	41.1	3,504.9	4,004.9	WMAIN-2359(1)	6.2	Passed
034-024	46.6	40.7	3,500.4	4,000.4	WMAIN-6863	6	Passed
034-025	46.4	43	2,504.9	3,004.9	WMAIN-5897	5.4	Passed
034-026	46.2	44.9	1,251.0	1,751.0	WMAIN-5897	5.3	Passed
034-027	46.2	43.5	1,250.1	1,750.1	WMAIN-2256(2)	11.2	Passed
034-028	46.1	44	1,250.4	1,750.4	WMAIN-4066(1)	7	Passed
034-029	45.7	43.5	1,251.1	1,751.1	WMAIN-2534(2)	6.4	Passed
034-030	45.5	43.3	1,250.8	1,750.8	WMAIN-4046(2)	6.6	Passed
034-031	45.3	43.3	1,252.2	1,752.2	WMAIN-2530(2)	7.7	Passed
034-032	45.1	42.8	1,254.1	1,754.1	WMAIN-2259(2)	8.1	Passed
034-033	43.4	42.3	1,253.3	1,753.3	WMAIN-5897	5.3	Passed
034-034	45.7	43.3	1,250.7	1,750.7	WMAIN-4308(2)	6.3	Passed
034-035	46	42.7	1,250.0	1,750.0	WMAIN-3979(2)	7	Passed
034-036	45.8	42.2	1,252.7	1,752.7	WMAIN-4058	6.5	Passed
034-037	46	43.8	1,250.4	1,750.4	WMAIN-3964(1)	6.1	Passed
034-038	46.5	42.3	1,251.0	1,751.0	WMAIN-4997(2)	6.6	Passed
034-039	46.6	42.2	1,251.1	1,751.1	WMAIN-3972	6.1	Passed
034-040	47.3	46.3	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
034-041	47.2	44.7	1,251.8	1,751.8	WMAIN-5004(1)	7.6	Passed
034-042	46.1	43.8	1,254.7	1,754.7	WMAIN-1088(1)	5.7	Passed
034-043	45.6	42.7	1,251.8	1,751.8	WMAIN-1084(1)	6.3	Passed
034-044	46.2	42.6	1,250.0	1,750.0	WMAIN-3985(2)	6	Passed
034-045	46.4	43.5	1,255.7	1,755.7	WMAIN-3985(1)(1)	7.6	Passed
034-046	43.3	41.1	3,500.0	4,000.0	WMAIN-5897	5.5	Passed
034-054	47.1	46.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
035-001	48.1	46.5	1,255.5	1,755.5	WMAIN-5353(1)(1)	9.3	Passed
035-002	47.6	43.7	1,250.0	1,750.0	WMAIN-5353(1)(1)	6.3	Passed
035-003	47.3	42.4	1,256.2	1,756.2	WMAIN-5340(1)	7	Passed
035-004	47.1	41.6	1,250.0	1,750.0	WMAIN-5340(2)(2)	6	Passed
035-005	46.9	42.2	1,254.8	1,754.8	WMAIN-5342(1)	6	Passed
035-006	47.1	38.7	1,253.5	1,753.5	WMAIN-5348(1)(1)	13.5	Passed
035-007	47.3	36.6	1,250.0	1,750.0	WMAIN-5348(2)	10.9	Passed
035-008	47.5	41.8	1,251.1	1,751.1	WMAIN-5351(2)	11.3	Passed
035-009	47.6	43.4	1,250.0	1,750.0	WMAIN-5335(1)	10.2	Passed
035-010	47.9	41.6	1,253.1	1,753.1	WMAIN-5337(1)	13.2	Passed
035-011	47.9	38.2	1,254.0	1,754.0	WMAIN-5358(1)	11.1	Passed
035-012	47.7	38.9	1,251.9	1,751.9	WMAIN-5355B	11.5	Passed
035-013	47.4	37	1,251.4	1,751.4	WMAIN-5332	11.7	Passed
035-014	47.2	33.1	1,250.4	1,321.5	WMAIN-5325(2)(2)	15	Passed
035-015	47.1	40.2	1,250.0	1,321.1	WMAIN-5325(2)(2)	15	Passed
035-016	46.9	33.4	1,254.1	1,754.1	WMAIN-7306(2)	10.7	Passed
035-017	46.7	35.2	1,250.0	1,750.0	WMAIN-7320(2)(2)	12.3	Passed
035-018	46.9	39.9	1,253.4	1,664.9	WMAIN-7320(1)	15	Passed
035-019	47.4	38.5	3,505.5	3,577.0	WMAIN-6853(1)(1)	15	Passed
035-020	47	43.3	1,251.3	1,751.3	WMAIN-1009(2)(1)	5.9	Passed
035-021	46.7	43.1	1,252.5	1,752.5	WMAIN-3406(1)	7.2	Passed
035-022	46.6	42.8	1,251.6	1,751.6	WMAIN-7317(2)	6.1	Passed
035-023	46.8	42.7	1,250.0	1,750.0	WMAIN-5342(2)(2)	7.1	Passed
035-024	46.5	42.7	1,252.3	1,752.3	WMAIN-6857(1)	5.6	Passed
035-025	47	39.8	1,251.5	1,751.5	WMAIN-7310(1)	13.2	Passed
035-026	47.1	44.7	1,250.6	1,750.6	WMAIN-6850(2)	6.2	Passed
035-027	47.1	35.7	1,251.2	1,751.2	WMAIN-3411(2)	12.8	Passed
035-028	46.9	21.7	2,500.0	2,441.9	WMAIN-6843(1)	15	Velocity Failed
035-029	46.7	42	1,253.3	1,647.5	WMAIN-6843(1)	15	Passed
035-030	46.5	35.3	1,253.9	1,753.9	WMAIN-7315(2)	10.6	Passed
035-031	46.7	37.4	1,253.7	1,753.7	WMAIN-7303(2)	11.8	Passed
035-032	46.5	37.1	2,502.0	3,002.0	WMAIN-6861(1)	10.9	Passed
035-033	48.1	47.3	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
035-034	47.1	46.3	1,250.0	1,750.0	WMAIN-5897	5.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
035-035	47.3	46	1,250.2	1,750.2	WMAIN-0957(1)	8.4	Passed
035-036	47.1	30.4	3,501.1	3,921.0	WMAIN-0949(1)	15	Passed
035-037	47.2	43.6	1,252.2	1,752.2	WMAIN-1918(1)	7.4	Passed
035-038	46.9	42	1,252.8	1,752.8	WMAIN-1916(1)	6.3	Passed
035-039	46.9	42.3	1,251.6	1,751.6	WMAIN-1922	7	Passed
035-040	46.9	43.7	1,252.3	1,752.3	WMAIN-1936(2)	7.3	Passed
035-041	47.1	44.9	1,250.3	1,750.3	WMAIN-1925(2)	7	Passed
035-042	47.2	43.9	1,251.3	1,751.3	WMAIN-1926(2)(2)	6.5	Passed
035-043	47.2	44.7	1,250.4	1,750.4	WMAIN-0948(2)	6.6	Passed
035-044	47.4	44.9	3,500.0	4,000.0	WMAIN-5897	5.6	Passed
035-045	46.9	45.7	1,250.4	1,750.4	WMAIN-5897	5.2	Passed
035-046	46.9	41.3	3,500.0	4,000.0	WMAIN-2359(1)	6.4	Passed
036-001	49	46.9	2,501.2	3,001.2	WMAIN-5897	5.5	Passed
036-002	48.3	47.5	1,251.1	1,751.1	WMAIN-5897	5.3	Passed
036-003	48.2	46.9	1,250.9	1,750.9	WMAIN-5897	5.3	Passed
036-004	48	44.3	1,253.3	1,678.4	WMAIN-5355A(1)	15	Passed
036-005	48.1	36.2	1,250.8	1,750.8	WMAIN-3400	11.2	Passed
036-006	48.3	41.5	1,250.7	1,679.0	WMAIN-5383(1)	15	Passed
036-007	48.4	41.5	1,250.7	1,750.7	WMAIN-5402(1)	11.2	Passed
036-008	48.5	38.7	1,250.7	1,750.7	WMAIN-5391(2)	11.5	Passed
036-009	48.3	37.1	1,251.0	1,321.1	WMAIN-5381(1)	15	Passed
036-010	49.4	31.2	3,513.6	2,022.0	WMAIN-5569(1)(1)	15	Velocity Failed
036-013	48.9	34.1	3,501.3	4,001.3	WMAIN-6815(2)	14.5	Passed
036-016	48.9	37.2	2,500.1	3,000.1	WMAIN-5988(2)	13.6	Passed
036-017	48.8	39.6	2,500.3	3,000.3	WMAIN-6813(2)	11.2	Passed
036-018	48.6	42.3	2,503.0	1,730.8	WMAIN-5993(1)	15	Velocity Failed
036-019	48.5	44.2	1,251.6	1,751.6	WMAIN-5396(2)	8.8	Passed
036-020	48.6	40.3	1,251.0	1,751.0	WMAIN-6831(1)	11.6	Passed
036-021	48.7	40.9	2,502.3	1,945.3	WMAIN-3398(2)	15	Velocity Failed
036-022	48.4	33.7	1,251.4	1,751.4	WMAIN-3396	12.1	Passed
036-023	48.3	31.5	1,254.4	1,754.4	WMAIN-5398(1)(1)	11.2	Passed
036-024	48.1	22.4	1,250.3	1,750.3	WMAIN-5398(1)(1)	11.2	Passed
036-025	48.3	37	1,250.7	1,750.7	WMAIN-7322(1)	13.8	Passed
036-026	48.5	35.5	1,250.0	1,750.0	WMAIN-6826(1)	10.2	Passed
036-027	48.6	32.6	2,502.4	2,351.7	WMAIN-7323(2)	15	Velocity Failed
036-028	48.8	29.7	2,500.6	2,577.0	WMAIN-7325	15	Passed
036-029	49	41	5,000.3	1,859.2	WMAIN-3394	15	Velocity Failed
036-030	48.7	33.7	3,504.5	2,183.7	WMAIN-3393(1)	15	Velocity Failed
036-031	48.6	32.5	3,500.6	2,331.1	WMAIN-6801	15	Velocity Failed
036-032	48.9	29.7	3,500.0	2,589.5	WMAIN-1031(2)(2)(2)	15	Velocity Failed
036-033	48.8	30.1	2,503.0	2,584.0	WMAIN-2687(1)	15	Passed
036-034	48.6	34.1	3,501.8	4,001.8	WMAIN-1033(1)	13.8	Passed
036-035	48.9	45.3	2,502.1	2,878.9	WMAIN-2399	15	Passed
036-036	48.6	44.1	2,505.1	1,761.1	WMAIN-6457(1)	15	Velocity Failed
036-037	48.4	36.8	2,508.3	3,008.3	WMAIN-2253(2)	9.7	Passed
036-038	48.1	36.2	2,501.1	3,001.1	WMAIN-6852(1)	10.5	Passed
036-039	48.2	35.3	1,251.1	1,320.7	WMAIN-6512(1)	15	Passed
036-040	47.8	44.5	1,253.4	1,753.4	WMAIN-6852(1)	7.8	Passed
036-041	47.5	39.6	3,500.0	3,467.9	WMAIN-3403(1)	15	Velocity Failed
036-042	47.5	42.6	1,251.6	1,751.6	WMAIN-0567(2)(1)	11.2	Passed
036-043	47.3	45.8	1,252.1	1,752.1	WMAIN-5897	5.3	Passed
036-044	48.8	44.9	2,509.9	3,009.9	WMAIN-2399	13.2	Passed
036-045	48.7	33.8	2,500.0	2,420.7	WMAIN-6457(1)	15	Velocity Failed
036-047	48.6	30.8	3,503.5	2,247.4	WMAIN-0603(2)	15	Velocity Failed
036-048	48.6	38.7	1,251.2	1,321.1	WMAIN-5375(1)	15	Passed
036-049	48.7	45.9	1,250.9	1,321.1	WMAIN-2674(1)	15	Passed
036-050	48.6	39.8	2,502.0	3,002.0	WMAIN-2250(2)	9.6	Passed
036-051	49	42.4	3,501.4	1,837.8	WMAIN-1031(1)	15	Velocity Failed
036-053	48.7	41	1,254.7	1,754.7	WMAIN-0621	11.2	Passed
036-055	48.5	42.8	1,250.8	1,718.6	WMAIN-2357	15	Passed
036-056	48.4	37.1	1,252.5	1,752.5	WMAIN-2357	12.2	Passed
036-057	48.6	31.4	3,500.9	2,247.4	WMAIN-6824(1)	15	Velocity Failed
036-058	48.6	27.7	3,501.7	2,430.6	WMAIN-5977(1)(1)	15	Velocity Failed
036-059	46.9	45	1,250.9	1,321.1	WMAIN-2694(1)	15	Passed
037-001	51	50	1,250.4	1,750.4	WMAIN-5897	5.3	Passed
037-002	50.4	49	1,251.5	1,751.5	WMAIN-5897	5.3	Passed
037-003	50.1	47	1,251.2	1,751.2	WMAIN-6197	7.6	Passed
037-004	49.5	46.6	3,500.2	3,549.3	WMAIN-3777	15	Passed
037-005	49.3	44.2	3,509.5	4,009.5	WMAIN-3777	12.5	Passed
037-006	48.8	41.4	3,501.0	4,001.0	WMAIN-3777	10.9	Passed
037-008	48.6	44.7	3,500.1	1,864.5	WMAIN-6793(2)	15	Velocity Failed
037-009	48.7	43.8	1,252.9	1,752.9	WMAIN-6793(2)	8.1	Passed
037-010	48.9	36.8	3,501.0	3,570.5	WMAIN-6586(2)	15	Passed
037-011	49.2	44.7	1,251.3	1,751.3	WMAIN-6588(1)	5.9	Passed
037-012	49.2	34.5	1,255.8	1,755.8	WMAIN-6585(2)	11.5	Passed
037-013	49.5	32.8	3,501.4	4,001.4	WMAIN-3382(2)	13.2	Passed
037-014	49.7	44.6	1,257.4	1,757.4	WMAIN-6744	6.5	Passed
037-015	49.8	46.7	1,251.4	1,751.4	WMAIN-3381(1)	6.4	Passed
037-016	50	38	1,253.0	1,753.0	WMAIN-5643(1)	11.5	Passed
037-017	50.3	40.8	1,250.0	1,750.0	WMAIN-5643(2)(2)	13.3	Passed
037-018	50.7	43.6	1,251.4	1,751.4	WMAIN-6782(2)	10.1	Passed
037-019	50.5	39	1,253.2	1,753.2	WMAIN-6784	10	Passed
037-020	50	41.7	1,250.4	1,750.4	WMAIN-5639(2)	13.1	Passed
037-021	50.1	47.2	1,250.4	1,750.4	WMAIN-6768(2)	6.6	Passed
037-022	50	39.3	1,253.5	1,753.5	WMAIN-5635(1)	10	Passed
037-023	49.8	42.5	1,252.6	1,752.6	WMAIN-6742(1)	12.2	Passed
037-024	49.6	45.9	1,254.4	1,754.4	WMAIN-6766	5.5	Passed
037-025	49.5	35.7	1,252.6	1,752.6	WMAIN-6582(1)	12.4	Passed
037-026	49.2	36.6	1,252.6	1,752.6	WMAIN-6753(1)	13.1	Passed
037-027	49.1	45.9	1,250.4	1,750.4	WMAIN-6763(1)	5.9	Passed
037-028	49.4	40.5	1,255.1	1,755.1	WMAIN-6750	9.3	Passed
037-029	49.8	35.9	1,253.0	1,753.0	WMAIN-6575(2)	11.4	Passed
037-030	49	43.9	1,256.0	1,593.2	WMAIN-6523(1)	15	Passed
037-031	49.2	31.8	1,250.0	1,750.0	WMAIN-6523(1)	10.7	Passed
037-032	49	33.2	1,250.0	1,750.0	WMAIN-6519	12.1	Passed
037-033	49.1	39	1,252.6	1,752.6	WMAIN-3387(1)	10.3	Passed
037-034	49	42	1,250.0	1,750.0	WMAIN-5629(2)(2)	11.6	Passed
037-035	49	44.3	1,252.6	1,752.6	WMAIN-5629(1)	14.5	Passed
037-036	49	45.2	1,252.8	1,752.8	WMAIN-6757	6.2	Passed
037-037	48.9	44	1,254.1	1,685.1	WMAIN-7335(1)(1)	15	Passed
037-038	48.9	38.2	1,250.0	1,750.0	WMAIN-7335(2)	11	Passed
037-039	48.9	42.1	1,250.9	1,750.9	WMAIN-3443(1)	12.5	Passed
037-040	48.9	38.8	1,253.4	1,753.4	WMAIN-6463(1)	11	Passed
037-041	49	34.2	3,501.9	4,001.9	WMAIN-6789(1)	13.9	Passed
037-042	48.9	39.3	1,251.6	1,751.6	WMAIN-1080(1)	10.1	Passed
037-043	48.8	35.5	1,254.6	1,754.6	WMAIN-6836(1)	10.4	Passed
037-044	48.7	44.7	3,500.9	1,685.2	WMAIN-6799(1)	15	Velocity Failed
037-045	49	35.1	1,252.4	1,752.4	WMAIN-7332(1)	11.2	Passed
037-046	48.9	36.5	1,251.4	1,751.4	WMAIN-2690(1)	11.2	Passed
037-047	48.9	37.8	1,253.5	1,753.5	WMAIN-2680	10	Passed
037-048	49.8	36.1	3,500.9	4,000.9	WMAIN-2264(2)	14.3	Passed
037-050	49	40.1	1,251.9	1,751.9	WMAIN-1093	10.6	Passed
038-001	50.5	48.9	2,505.3	3,005.3	WMAIN-5897	5.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
038-002	50.9	50.3	1,252.3	1,752.3	WMAIN-5897	5.4	Passed
038-003	51.1	48.8	3,504.1	4,004.1	WMAIN-5897	6.2	Passed
038-004	51.1	48.9	3,500.5	4,000.5	WMAIN-5897	6.2	Passed
038-005	50.8	50.1	1,250.4	1,750.4	WMAIN-5897	5.4	Passed
038-006	50.8	50.1	1,250.0	1,750.0	WMAIN-5897	5.4	Passed
038-007	51	50.2	1,252.9	1,752.9	WMAIN-5897	5.3	Passed
038-008	50.8	46.1	1,251.4	1,321.1	WMAIN-6573(1)	15	Passed
038-009	50.6	39.6	1,251.7	1,751.7	WMAIN-5942(2)	12.8	Passed
038-010	50.4	47.3	1,251.0	1,751.0	WMAIN-6728(1)	6.6	Passed
038-011	50.3	40.1	1,252.3	1,752.3	WMAIN-6571(1)	13.3	Passed
038-012	49.9	39.3	1,252.3	1,752.3	WMAIN-6567(1)	13.3	Passed
038-013	49.9	46.3	1,250.4	1,750.4	WMAIN-6735(2)	5.9	Passed
038-014	49.7	39.1	1,251.8	1,751.8	WMAIN-5646(2)	13.4	Passed
038-015	50	45.3	1,254.6	1,754.6	WMAIN-6737(1)	6.3	Passed
038-016	50.2	45.7	1,251.2	1,751.2	WMAIN-6553(1)	6.5	Passed
038-017	50.2	38.3	1,252.3	1,752.3	WMAIN-6557(1)	11.9	Passed
038-018	50.5	47.2	1,251.1	1,751.1	WMAIN-6555(1)	7.4	Passed
038-019	50.4	38.6	1,252.0	1,752.0	WMAIN-6726(1)	12.1	Passed
038-020	50.5	47.2	1,253.9	1,753.9	WMAIN-6730(1)	5.6	Passed
038-021	50.6	48.5	1,251.2	1,751.2	WMAIN-6561(1)	5.9	Passed
038-022	50.8	47.3	1,254.5	1,754.5	WMAIN-6720(1)	5.6	Passed
038-023	51.1	42.1	1,252.6	1,752.6	WMAIN-6542(2)	10.9	Passed
038-024	51.1	49.6	1,250.2	1,750.2	WMAIN-6723(1)(2)	7.6	Passed
038-025	50.8	36.8	1,252.8	1,752.8	WMAIN-6545(1)	11.6	Passed
038-026	51.1	48.7	1,250.7	1,750.7	WMAIN-6723(1)(2)	5.8	Passed
038-027	50.8	36.7	1,253.1	1,753.1	WMAIN-2704(1)	11.5	Passed
038-028	51.1	48.7	1,250.6	1,750.6	WMAIN-6714(2)	7.4	Passed
038-029	50.9	48.8	1,250.9	1,750.9	WMAIN-3372(1)	6.2	Passed
038-030	50.6	39.9	1,252.4	1,752.4	WMAIN-6712(1)	10.1	Passed
038-031	50.8	42.7	1,250.8	1,750.8	WMAIN-5650(1)	10.6	Passed
038-032	50.7	47.2	1,250.0	1,750.0	WMAIN-6706(1)	5.9	Passed
038-033	51	45.3	1,258.0	1,758.0	WMAIN-6533(1)	7.5	Passed
038-034	51	44.2	1,252.0	1,752.0	WMAIN-6529	5.9	Passed
038-035	50.5	38.4	1,253.9	1,753.9	WMAIN-4417(1)	11.2	Passed
038-036	51	45.1	1,251.6	1,321.1	WMAIN-6527(1)	15	Passed
038-037	51	47.7	1,250.6	1,750.6	WMAIN-1028(2)	5.6	Passed
038-038	51	42	1,251.0	1,751.0	WMAIN-6530	11.2	Passed
038-039	50.7	44.1	1,253.7	1,753.7	WMAIN-6565(2)	10.7	Passed
038-040	49.7	44.3	1,252.9	1,752.9	WMAIN-5493(1)	6.8	Passed
038-041	49.6	45.3	1,250.9	1,750.9	WMAIN-5261(1)	7.6	Passed
038-042	49.4	44.6	1,251.3	1,751.3	WMAIN-5152	6.2	Passed
038-043	49.1	36.6	1,251.6	1,751.6	WMAIN-5495(1)	11.7	Passed
038-044	49.2	36.5	1,252.9	1,752.9	WMAIN-5258(1)	11.6	Passed
038-045	50.1	44.7	1,251.1	1,751.1	WMAIN-5166(2)	6.7	Passed
038-046	49.6	44.2	1,253.6	1,753.6	WMAIN-5152	6.6	Passed
038-047	49.4	45.2	1,251.7	1,751.7	WMAIN-5152	6.8	Passed
038-048	49.8	46.1	1,252.0	1,752.0	WMAIN-5173(1)	9	Passed
038-050	50.1	48.9	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
038-051	50	44.7	1,250.0	1,750.0	WMAIN-5152	7.2	Passed
038-052	50	43.6	1,251.4	1,751.4	WMAIN-5161(1)	11.2	Passed
038-053	49.5	48.1	1,252.0	1,752.0	WMAIN-5897	5.5	Passed
038-054	49.5	46.1	1,252.9	1,752.9	WMAIN-5150(1)(1)	7.2	Passed
038-055	50.3	49.1	1,251.5	1,751.5	WMAIN-5897	5.3	Passed
038-056	50.4	49.2	1,250.9	1,750.9	WMAIN-5897	5.3	Passed
038-057	50.6	49.5	1,251.2	1,751.2	WMAIN-5897	5.3	Passed
038-058	50.7	49.8	1,251.4	1,751.4	WMAIN-5897	5.3	Passed
038-059	50.9	48.4	3,501.9	4,001.9	WMAIN-5897	6	Passed
038-061	49.2	45.3	1,250.0	1,750.0	WMAIN-4411	5.9	Passed
038-062	50.5	47.4	1,253.5	1,753.5	WMAIN-4413	7.1	Passed
038-063	50.7	47.4	1,251.3	1,751.3	WMAIN-4423(1)	11.2	Passed
039-001	51.4	46.3	1,250.0	1,750.0	WMAIN-5509(2)	5.9	Passed
039-002	51.4	47.2	1,253.7	1,753.7	WMAIN-5501(1)(1)	7.5	Passed
039-003	51.8	47.7	1,251.6	1,751.6	WMAIN-5499(2)	5.7	Passed
039-004	51.8	49.9	1,251.1	1,751.1	WMAIN-5506(1)	8.6	Passed
039-005	52.2	50.7	1,250.8	1,750.8	WMAIN-5897	5.3	Passed
039-006	51.7	47.3	1,251.2	1,751.2	WMAIN-5509(2)	7.4	Passed
039-007	52.4	50.9	1,250.2	1,750.2	WMAIN-5897	5.3	Passed
039-008	52	49.2	1,250.7	1,750.7	WMAIN-5515(1)	7	Passed
039-009	51.7	48.3	1,251.3	1,751.3	WMAIN-5513(1)	6	Passed
039-010	51.4	46.7	1,250.9	1,750.9	WMAIN-5523(1)	6.8	Passed
039-011	51.3	41.5	1,252.0	1,752.0	WMAIN-5521(1)	11.2	Passed
039-012	50.9	47.3	1,251.8	1,740.5	WMAIN-5712(2)	15	Passed
039-013	50.9	43.8	1,250.4	1,750.4	WMAIN-5708(2)	14.5	Passed
039-014	50.9	44.3	1,252.3	1,752.3	WMAIN-5712(2)	7.4	Passed
039-015	50.9	39.5	1,251.2	1,751.2	WMAIN-5711(1)	11.2	Passed
039-016	50.9	44	1,250.5	1,750.5	WMAIN-5698(2)	10.9	Passed
039-017	51	44.2	1,253.5	1,753.5	WMAIN-5712(2)	6.7	Passed
039-018	50.7	44.9	1,251.4	1,751.4	WMAIN-5712(2)	6.5	Passed
039-019	50.9	42.4	1,251.4	1,751.4	WMAIN-5726(1)	11.2	Passed
039-020	50.8	45.2	1,253.3	1,753.3	WMAIN-5724(2)	6.7	Passed
039-021	51	47.4	1,252.5	1,752.5	WMAIN-5733	6.3	Passed
039-022	51.2	47.1	1,252.2	1,752.2	WMAIN-5733	6	Passed
039-023	51	45.3	1,253.3	1,753.3	WMAIN-5701(2)	6.5	Passed
039-024	50.9	41.2	1,250.8	1,750.8	WMAIN-5696(2)	11.6	Passed
039-025	51	43.3	1,250.0	1,750.0	WMAIN-5695(1)(1)	7.7	Passed
039-026	51.5	46.5	1,257.6	1,757.6	WMAIN-5695(1)(1)	9	Passed
039-027	51.1	37.4	3,500.4	3,512.6	WMAIN-5749(1)	15	Passed
039-028	51.5	45.9	1,250.2	1,750.2	WMAIN-5759(1)	11.2	Passed
039-029	51.1	47.4	1,252.1	1,752.1	WMAIN-5743(1)	8.4	Passed
039-030	51	48	1,251.2	1,751.2	WMAIN-5737(1)	7.8	Passed
039-031	51.6	43.9	1,251.9	1,751.9	WMAIN-5755(1)	11.2	Passed
039-032	51.2	47.3	1,250.5	1,321.1	WMAIN-5735(1)	15	Passed
039-033	52	50.1	1,250.3	1,750.3	WMAIN-5757(1)	9	Passed
039-034	52.7	49.3	1,250.0	1,750.0	WMAIN-5679(2)	7.2	Passed
039-035	52.3	49.1	1,252.1	1,752.1	WMAIN-5679(1)(1)	7.5	Passed
039-036	52.3	48.1	1,251.6	1,751.6	WMAIN-5674(2)	7.4	Passed
039-037	52.6	47.7	1,250.9	1,750.9	WMAIN-5528(2)	6	Passed
039-038	52.9	48.9	1,250.6	1,750.6	WMAIN-5528(2)	7.7	Passed
039-039	52.9	49.5	1,251.9	1,751.9	WMAIN-5687(2)	6.5	Passed
039-040	53.2	51.3	1,250.6	1,750.6	WMAIN-5689(2)	8.3	Passed
039-041	52.8	51.1	1,251.8	1,751.8	WMAIN-5897	5.3	Passed
039-042	52	48.4	1,250.5	1,750.5	WMAIN-5678(2)	6.1	Passed
039-043	51.8	47.5	1,250.9	1,321.1	WMAIN-4964(1)	15	Passed
039-044	51.6	47.4	1,250.9	1,321.1	WMAIN-4953(1)	15	Passed
039-045	51.3	46.9	1,250.9	1,750.9	WMAIN-3435(2)	5.8	Passed
039-046	51.3	46.6	1,252.4	1,752.4	WMAIN-5527(2)	6.9	Passed
039-047	51.6	43.2	1,251.0	1,751.0	WMAIN-4962(1)	11.2	Passed
039-048	51.7	47.7	1,250.6	1,750.6	WMAIN-5524(2)	5.9	Passed
039-053	52.3	48.7	1,252.8	1,752.8	WMAIN-1116(2)	6.9	Passed
039-054	52	48.3	1,250.5	1,750.5	WMAIN-5691(2)	6.7	Passed
039-055	51.4	47.5	1,250.4	1,750.4	WMAIN-1102(2)	7.2	Passed
039-056	52.2	48.2	1,250.6	1,750.6	WMAIN-1115(1)	7.1	Passed
039-057	51.8	45.5	1,251.7	1,751.7	WMAIN-1098(1)	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
039-058	52	45	1,251.3	1,751.3	WMAIN-5686	5.9	Passed
039-059	52.2	45.6	1,251.3	1,751.3	WMAIN-1119(1)	6.8	Passed
040-001	54.1	52.7	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
040-002	54.7	53.3	1,253.3	1,753.3	WMAIN-5897	5.3	Passed
040-003	53.5	52.1	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
040-004	53.5	51.7	1,252.1	1,752.1	WMAIN-4522(2)	5.6	Passed
040-005	52.4	31.2	3,500.0	3,863.2	WMAIN-1113(2)	15	Passed
040-006	52.2	47.6	1,264.0	1,764.0	WMAIN-1113(1)(1)	7.8	Passed
040-009	53.5	46.7	3,500.8	4,000.8	WMAIN-4491(1)	6.2	Passed
040-010	53.7	52	1,250.6	1,750.6	WMAIN-4511(2)	7.8	Passed
040-011	53.5	50	1,250.7	1,750.7	WMAIN-4531(1)	11.2	Passed
040-012	53.5	49.4	1,250.8	1,750.8	WMAIN-4528(1)	11.3	Passed
040-013	53.6	49.8	1,251.0	1,751.0	WMAIN-4499(1)	11.2	Passed
040-014	54	51.4	1,250.0	1,750.0	WMAIN-4517(1)	7.5	Passed
040-015	54.3	52.6	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
040-016	54.3	51.9	1,250.5	1,750.5	WMAIN-4524(2)	9.2	Passed
040-017	53.9	50	1,250.3	1,750.3	WMAIN-4540(1)	8.7	Passed
040-018	54.1	48.7	1,251.8	1,751.8	WMAIN-0844(1)	6.9	Passed
040-019	54.1	47.5	1,253.3	1,753.3	WMAIN-4540(1)	6.8	Passed
040-020	54.1	47.3	1,251.1	1,751.1	WMAIN-4493(1)	7.8	Passed
040-021	54.8	47.5	1,255.5	1,755.5	WMAIN-4534(1)	6.9	Passed
040-022	54.2	51.9	1,250.3	1,750.3	WMAIN-0852(1)	8.1	Passed
040-023	53.8	51.6	1,250.8	1,750.8	WMAIN-4440(2)	7.3	Passed
040-024	53.4	51.1	1,251.1	1,751.1	WMAIN-4446(1)	6.3	Passed
040-025	53.6	50	1,252.5	1,752.5	WMAIN-4433(1)	5.7	Passed
040-026	53.4	50.4	1,251.0	1,751.0	WMAIN-4449(1)	7.2	Passed
040-027	52.9	49.1	1,252.6	1,752.6	WMAIN-1108(1)	7.3	Passed
040-028	52.9	48.5	1,250.9	1,750.9	WMAIN-4449(1)	6	Passed
040-029	51.9	47.3	1,254.3	1,754.3	WMAIN-2507(2)	7.7	Passed
040-031	53.1	48	1,250.9	1,750.9	WMAIN-4449(1)	6.5	Passed
040-034	53.1	51.3	1,251.7	1,751.7	WMAIN-4456(1)	6.6	Passed
040-035	53.2	51.4	1,251.9	1,751.9	WMAIN-5897	5.4	Passed
040-036	53.2	48.7	1,250.8	1,750.8	WMAIN-1992(2)	7.5	Passed
040-037	53.6	46.1	3,500.0	4,000.0	WMAIN-5897	6.1	Passed
041-001	52.4	44.6	3,506.1	4,006.1	WMAIN-3778	9.4	Passed
041-002	52.5	50.1	1,250.0	1,750.0	WMAIN-5897	5.9	Passed
041-003	52.7	43.8	3,500.0	4,000.0	WMAIN-3778	9.3	Passed
041-004	52.9	50.4	1,250.0	1,750.0	WMAIN-3605(2)	7.9	Passed
041-005	53	50.5	1,250.0	1,750.0	WMAIN-5897	5.9	Passed
041-006	53	50	1,250.6	1,750.6	WMAIN-1133(1)	8.7	Passed
041-007	53	46.9	1,252.0	1,752.0	WMAIN-3641(1)	6.6	Passed
041-008	52.9	47.3	1,250.9	1,750.9	WMAIN-3640(1)	7.3	Passed
041-009	52.9	47.1	1,252.3	1,752.3	WMAIN-1136	7.1	Passed
041-010	53.1	46.8	1,250.0	1,750.0	WMAIN-1133(1)	6.4	Passed
041-011	53	50.6	1,252.5	1,752.5	WMAIN-5897	5.9	Passed
041-012	52	48.5	1,251.1	1,751.1	WMAIN-5776(2)	6.5	Passed
041-013	52	45.7	1,250.7	1,750.7	WMAIN-3633(2)	11.2	Passed
041-014	52.3	47.6	1,252.8	1,752.8	WMAIN-3618(2)	6.4	Passed
041-015	52.6	47.9	1,251.6	1,751.6	WMAIN-3619(2)	6.6	Passed
041-016	52.8	47.9	1,251.0	1,751.0	WMAIN-3608(1)	7.7	Passed
041-017	52.3	46	1,250.0	1,750.0	WMAIN-3614	6	Passed
041-018	52.1	47.2	1,252.6	1,752.6	WMAIN-3611(1)(1)	8.8	Passed
041-019	52.4	47.2	1,251.3	1,751.3	WMAIN-3627(2)	7.1	Passed
041-020	51.9	48.2	1,252.6	1,752.6	WMAIN-2049(1)(1)(1)	6.8	Passed
041-021	53	43.5	3,502.2	2,349.6	WMAIN-3346(1)	15	Velocity Failed
041-022	52.9	24.3	3,505.9	4,005.9	WMAIN-4796	13.4	Passed
041-023	52.9	46.6	1,256.2	1,756.2	WMAIN-4798	6.9	Passed
041-024	52.8	48.6	1,251.0	1,751.0	WMAIN-1946(2)	7	Passed
041-025	52.6	46.8	1,255.6	1,755.6	WMAIN-2216(1)(1)	6	Passed
041-026	52.6	48.4	1,250.0	1,750.0	WMAIN-2216(2)	8.4	Passed
041-027	52.7	47.8	1,253.4	1,753.4	WMAIN-2217(1)	6.2	Passed
041-028	52.8	48.7	1,251.0	1,751.0	WMAIN-1947(2)	7	Passed
041-029	52.9	48.9	1,250.6	1,750.6	WMAIN-3010(1)	7.3	Passed
041-030	52.8	46.9	1,252.8	1,752.8	WMAIN-3017(2)	7.5	Passed
041-031	52.7	45.9	1,251.9	1,751.9	WMAIN-3010(1)	6.4	Passed
041-032	52.8	46.1	1,250.0	1,750.0	WMAIN-3026(2)	11.2	Passed
041-033	53	47.6	1,251.3	1,751.3	WMAIN-3010(1)	6.3	Passed
041-034	52.5	51	1,251.1	1,751.1	WMAIN-5897	5.5	Passed
041-035	52.8	51.2	1,250.1	1,750.1	WMAIN-5897	5.4	Passed
041-036	52.9	51.3	1,250.9	1,750.9	WMAIN-5897	5.4	Passed
041-037	53.1	51.5	1,250.5	1,750.5	WMAIN-5897	5.4	Passed
041-038	53.2	45.6	3,501.3	4,001.3	WMAIN-4456(2)	6.7	Passed
041-039	52.7	50.1	1,250.5	1,750.5	WMAIN-7711(1)	6.9	Passed
041-040	52.8	50	1,250.5	1,750.5	WMAIN-7713(1)	7.7	Passed
041-041	53	47.6	1,257.3	1,757.4	WMAIN-7718(1)(1)	7.5	Passed
041-042	53.1	48.3	1,255.9	1,755.9	WMAIN-7717(1)	7.5	Passed
041-043	53.2	46.8	1,250.0	1,750.0	WMAIN-7723	5.9	Passed
041-044	53.3	47.8	1,250.0	1,750.0	WMAIN-7723	6.2	Passed
041-045	53.3	46.8	1,254.4	1,754.4	WMAIN-7715(1)(1)	7.1	Passed
041-046	53.4	46.2	1,251.2	1,751.2	WMAIN-7723	6.4	Passed
041-047	53.5	45	1,250.1	1,750.1	WMAIN-7709(2)	11.2	Passed
041-048	53.7	48.2	1,252.5	1,752.5	WMAIN-7721(2)	8	Passed
041-049	53.8	50.5	1,258.9	1,758.9	WMAIN-5897	5.4	Passed
041-050	53.7	43.2	3,500.5	4,000.5	WMAIN-0868(2)(2)	8.7	Passed
041-051	53.5	48.6	1,250.5	1,750.5	WMAIN-7719(2)	8	Passed
042-001	51.9	50.6	1,250.7	1,750.7	WMAIN-5897	5.5	Passed
042-002	52	41.7	1,251.0	1,751.0	WMAIN-5769(1)(1)	13.2	Passed
042-003	52	41.5	1,251.6	1,751.6	WMAIN-5773(1)(1)	13	Passed
042-004	51.8	47.9	1,253.0	1,753.0	WMAIN-5767	6.2	Passed
042-005	51.9	49	1,251.2	1,751.2	WMAIN-5779(1)	6.1	Passed
042-006	51.9	48.7	1,251.2	1,751.2	WMAIN-2004(1)(1)	6	Passed
042-007	51.5	43	1,252.6	1,752.6	WMAIN-5788(2)	11	Passed
042-008	51.6	48.3	1,250.7	1,750.7	WMAIN-5897	5.7	Passed
042-009	51.4	48.3	1,250.9	1,750.9	WMAIN-6701(2)	7.4	Passed
042-010	51.3	33.8	1,251.9	1,320.7	WMAIN-2504(1)	15	Passed
042-011	51.5	47.6	1,251.2	1,751.2	WMAIN-6697	5.9	Passed
042-012	51.3	32.9	1,252.3	1,320.7	WMAIN-6063(1)	15	Passed
042-013	51.8	49.6	1,250.3	1,750.3	WMAIN-7420(1)	8.1	Passed
042-014	51	33.1	1,251.6	1,751.6	WMAIN-6061(1)	10.6	Passed
042-015	51.2	37.1	1,254.2	1,754.2	WMAIN-7254(1)	13.1	Passed
042-016	51.1	47.8	1,250.8	1,750.8	WMAIN-7418(1)	6.7	Passed
042-017	51.2	41.6	1,251.7	1,751.7	WMAIN-7416(1)	10	Passed
042-018	51	44	1,253.9	1,753.9	WMAIN-7423(2)	11.1	Passed
042-019	50.9	47.7	1,252.4	1,752.4	WMAIN-7263(1)	6	Passed
042-020	51.2	48.9	1,250.7	1,750.7	WMAIN-7259(2)	5.9	Passed
042-021	51	49.8	1,250.3	1,750.3	WMAIN-5897	5.5	Passed
042-022	51.1	48.4	1,252.6	1,752.6	WMAIN-7432(1)	6.6	Passed
042-023	51.1	48.8	1,252.1	1,752.1	WMAIN-7257(2)	7.7	Passed
042-024	51	34.9	1,251.6	1,751.6	WMAIN-7243	13.6	Passed
042-025	51	35.3	1,252.6	1,752.6	WMAIN-7243	13.4	Passed
042-026	51	36.2	1,252.7	1,752.7	WMAIN-7426(1)	10.2	Passed
042-027	51	48.9	1,250.6	1,750.6	WMAIN-7430(1)	7.2	Passed
042-028	51.1	46.9	3,503.4	4,003.4	WMAIN-5897	6.5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
042-029	50.8	48.8	1,250.8	1,750.8	WMAIN-7271(1)	7.9	Passed
042-030	51.6	48.5	1,251.0	1,751.0	WMAIN-7269(1)	6.5	Passed
042-031	51.5	42.9	1,252.7	1,752.7	WMAIN-7405(1)	11.4	Passed
042-032	51.8	48.8	1,250.7	1,750.7	WMAIN-2080(2)	6.7	Passed
042-033	51.4	48.4	1,251.8	1,751.8	WMAIN-2074(2)	6.5	Passed
042-034	51.6	41.7	1,251.2	1,751.2	WMAIN-2062(1)	13.2	Passed
042-035	51.2	47.4	1,250.8	1,750.8	WMAIN-2067(1)	6.4	Passed
042-036	51.7	41	1,251.4	1,751.4	WMAIN-2502(1)	12.5	Passed
042-037	51	47.8	1,250.8	1,750.8	WMAIN-2076(1)	7.1	Passed
042-038	51.8	47.7	1,252.9	1,752.9	WMAIN-4942(2)	6.4	Passed
042-039	51.8	47.7	1,251.2	1,751.2	WMAIN-2270(1)	6.3	Passed
042-040	52.1	48.3	1,250.6	1,750.6	WMAIN-2272(2)	6.9	Passed
042-041	51.2	47.8	1,250.5	1,750.5	WMAIN-5897	5.9	Passed
042-042	51	38.9	1,252.1	1,319.0	WMAIN-2072(1)	15	Passed
042-043	51.2	48.2	1,251.0	1,751.0	WMAIN-7267(2)	6.3	Passed
042-044	51.2	48.8	1,250.9	1,750.9	WMAIN-7265(1)	7.8	Passed
042-045	51.4	43.1	1,252.9	1,752.9	WMAIN-7399(2)	10.8	Passed
042-046	51.4	42.7	1,252.9	1,752.9	WMAIN-7402(2)	10.5	Passed
042-047	52.1	49.4	1,250.3	1,750.3	WMAIN-2055(1)	6	Passed
042-048	52	48.7	1,250.0	1,750.0	WMAIN-2049(2)	7.7	Passed
042-049	51.2	46.9	1,251.8	1,751.8	WMAIN-5897	6	Passed
042-050	50.8	47.3	1,250.0	1,750.0	WMAIN-2043(2)	7.4	Passed
042-051	51.3	47.3	1,253.0	1,753.0	WMAIN-2043(1)(1)	6.1	Passed
042-052	51.9	48.2	1,250.7	1,750.7	WMAIN-2049(1)(1)(1)	6.8	Passed
042-053	51.8	48.7	1,250.0	1,750.0	WMAIN-2004(2)	6.3	Passed
042-054	51.3	46.8	1,254.2	1,754.2	WMAIN-2047(1)(1)	6.8	Passed
042-055	51	46	1,250.0	1,750.0	WMAIN-2035(2)	5.9	Passed
042-056	50.9	47.2	1,252.4	1,752.4	WMAIN-2035(2)	7.9	Passed
042-057	50.9	47.1	1,252.1	1,752.1	WMAIN-2034(2)	5.8	Passed
042-058	50.9	47.2	1,255.4	1,755.4	WMAIN-2022(2)	6.4	Passed
042-059	50.9	47.9	1,250.7	1,750.7	WMAIN-2017(2)	5.8	Passed
042-060	51	47.4	1,251.1	1,751.1	WMAIN-5897	5.8	Passed
042-061	51	48.3	1,251.5	1,751.5	WMAIN-2011(2)	7.7	Passed
043-001	51	47.9	3,502.2	4,002.2	WMAIN-6696(2)(2)	7.9	Passed
043-002	51	49	1,250.5	1,750.5	WMAIN-6056(1)	6.4	Passed
043-003	51	47.5	1,250.6	1,750.6	WMAIN-2031(1)	6.3	Passed
043-004	51.1	48	1,250.9	1,750.9	WMAIN-3354(2)	7.1	Passed
043-005	51	49.6	1,252.6	1,752.6	WMAIN-5897	5.8	Passed
043-006	51	47.9	1,250.9	1,750.9	WMAIN-7369	8	Passed
043-007	51	47.3	1,250.8	1,320.7	WMAIN-6078(1)	15	Passed
043-008	51	47	1,250.5	1,750.5	WMAIN-6074	6.9	Passed
043-009	51.2	47.5	1,251.9	1,751.9	WMAIN-6069(1)	7.9	Passed
043-010	51.1	47.3	1,250.5	1,316.9	WMAIN-7367(1)	15	Passed
043-011	51	45.7	1,250.8	1,750.8	WMAIN-6068	6.2	Passed
043-012	50.9	38.9	1,251.7	1,751.7	WMAIN-2485(2)	10.7	Passed
043-013	51	48.2	1,250.6	1,750.6	WMAIN-6681(2)	6	Passed
043-014	51	40	1,252.8	1,752.8	WMAIN-6655(2)	10.2	Passed
043-015	51	34.6	1,252.4	1,752.4	WMAIN-6657(1)	11.5	Passed
043-016	51	31	1,250.8	1,750.8	WMAIN-6659	10.9	Passed
043-017	51	30.9	1,252.9	1,752.9	WMAIN-6664(1)	11	Passed
043-018	51	35.2	1,262.0	1,762.0	WMAIN-6664(1)	13.3	Passed
043-022	51	43.8	2,500.0	2,548.5	WMAIN-7354(1)(1)	15	Passed
043-023	51	48.6	1,250.2	1,750.2	WMAIN-7354(1)(1)	14.3	Passed
043-024	51.1	41.5	1,260.5	1,760.5	WMAIN-7356(1)	14.9	Passed
043-025	51	49.5	1,250.7	1,750.7	WMAIN-6675(1)(1)	9.2	Passed
043-026	51.1	47.1	1,255.9	1,755.9	WMAIN-6677(2)	6.3	Passed
043-027	51.1	45.5	1,252.6	1,752.6	WMAIN-7359(2)	14.5	Passed
043-028	51.1	40.3	2,500.6	3,000.6	WMAIN-6669	11	Passed
043-029	51	49.3	1,250.7	1,750.7	WMAIN-7364(1)	7.6	Passed
043-030	51	48.7	1,251.5	1,751.5	WMAIN-7352(1)	7.2	Passed
043-031	50.8	41.9	2,510.0	3,010.0	WMAIN-6691(1)	10.3	Passed
043-032	50.9	47.6	1,253.2	1,753.2	WMAIN-6053(1)	6.6	Passed
043-033	50.8	46.9	1,256.0	1,756.0	WMAIN-6048(2)	6.8	Passed
043-034	50.8	46.9	1,252.0	1,752.0	WMAIN-6046(1)	6.9	Passed
043-035	50.8	49.1	1,250.9	1,750.9	WMAIN-7363(1)	7	Passed
043-036	50.8	47.9	1,252.9	1,752.9	WMAIN-6688(2)	5.9	Passed
043-037	51.1	47.5	1,252.9	1,752.9	WMAIN-7347(2)	7.7	Passed
043-038	50.8	46.6	1,251.6	1,751.6	WMAIN-6036(1)	6.7	Passed
043-039	50.9	49.3	1,250.7	1,750.7	WMAIN-7345(1)	8.3	Passed
043-040	51	47.7	1,250.5	1,613.1	WMAIN-7343(1)	15	Passed
043-041	51.1	47.7	1,250.1	1,750.1	WMAIN-3722(1)	8	Passed
043-042	51	45.9	1,250.5	1,750.5	WMAIN-6649(1)	6.6	Passed
043-043	51	42.3	1,254.1	1,754.1	WMAIN-7350(2)	8	Passed
043-044	51	40.1	1,250.0	1,750.0	WMAIN-3359	7.5	Passed
043-045	51	39	1,250.0	1,750.0	WMAIN-3359	8.7	Passed
043-046	51	38.5	1,255.2	1,755.2	WMAIN-3359	10	Passed
043-047	51	39.6	1,250.0	1,750.0	WMAIN-6038(2)	14.3	Passed
043-048	51	35.5	1,253.0	1,753.0	WMAIN-6042	11.4	Passed
043-049	51.1	38.5	1,252.7	1,752.7	WMAIN-6636(1)	10.5	Passed
043-050	51.1	49	3,500.0	4,000.0	WMAIN-5897	6.2	Passed
043-052	51	47.4	3,503.8	4,003.8	WMAIN-5897	6.5	Passed
044-004	50.9	45.5	3,500.2	4,000.2	WMAIN-5897	6.4	Passed
044-006	50.9	38.6	2,502.4	3,002.4	WMAIN-6089(2)	12.1	Passed
044-007	50.9	29.9	3,507.5	3,937.7	WMAIN-7375(2)	15	Passed
044-009	50.8	47.4	2,502.9	3,002.9	WMAIN-5897	5.8	Passed
044-010	50	45	3,500.0	4,000.0	WMAIN-3329(2)(2)	7	Passed
044-011	49.5	44	3,502.3	4,002.3	WMAIN-5897	6.1	Passed
044-012	49.3	41.5	3,502.3	3,241.9	WMAIN-3321(1)	15	Velocity Failed
044-013	49.4	32.7	3,500.0	4,000.0	WMAIN-3321(1)	14.4	Passed
044-014	49.3	44.3	3,508.7	1,291.5	WMAIN-6208	15	Velocity Failed
044-015	48.8	36.5	3,500.0	4,000.0	WMAIN-6194(2)	14.5	Passed
044-016	48.9	32.9	3,500.0	4,000.0	WMAIN-3320(1)(1)(1)	12.8	Passed
044-017	50.2	41.2	3,502.0	2,918.1	WMAIN-6197	15	Velocity Failed
044-018	50	37.8	1,251.4	1,751.4	WMAIN-3363(2)	12.3	Passed
044-019	50.8	41.4	1,251.5	1,751.5	WMAIN-6195(2)	14.7	Passed
044-020	49	34.7	3,506.0	587.5	WMAIN-5574	15	Velocity Failed
044-021	50.9	37	1,250.9	1,750.9	WMAIN-4971(1)	13	Passed
044-022	49.8	35.1	1,251.6	1,751.6	WMAIN-6197	10.2	Passed
044-023	50.7	40.7	1,254.3	1,754.3	WMAIN-6625(1)	11.7	Passed
044-024	50.7	48.7	1,250.4	1,750.4	WMAIN-6197	13.1	Passed
044-025	50.9	48.1	1,250.0	1,750.0	WMAIN-6197	10.9	Passed
044-026	51.1	44.9	1,250.7	1,750.7	WMAIN-6604(1)	11.1	Passed
044-027	51	30.3	1,251.7	1,751.7	WMAIN-5657(2)	13.4	Passed
044-028	51.1	30.9	1,253.7	1,753.7	WMAIN-5653(2)	13.5	Passed
044-029	51.1	34.6	1,251.1	1,751.1	WMAIN-6197	11.2	Passed
044-030	51	31	1,253.5	1,753.5	WMAIN-6599(2)	12.2	Passed
044-031	51	30.2	1,251.5	1,751.5	WMAIN-6630(2)	11.6	Passed
044-032	51	38.9	1,254.0	1,754.0	WMAIN-4978(1)	13.8	Passed
044-033	51	33.8	1,250.0	1,750.0	WMAIN-6197	10.9	Passed
044-034	51	33.2	1,252.5	1,752.5	WMAIN-6595(1)	13.4	Passed
044-035	51.1	33.8	1,252.6	1,752.6	WMAIN-5671(1)	13.8	Passed
044-036	51	46.8	1,251.0	1,751.0	WMAIN-6197	11.8	Passed
044-037	50.6	43.7	1,250.3	1,750.3	WMAIN-6197	11.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
044-041	49.6	44.9	3,502.9	4,002.9	WMAIN-3670	14.5	Passed
044-044	50.4	31.6	1,251.6	1,320.3	WMAIN-4976(1)	15	Passed
044-045	50.3	45	1,250.0	1,748.5	WMAIN-4967(2)(2)	15	Passed
044-046	50.5	43.7	1,255.0	1,755.0	WMAIN-4967(1)	13.6	Passed
044-047	49.9	40.5	1,259.4	1,759.4	WMAIN-4969(1)	10.5	Passed
044-048	50.4	45.2	1,250.0	1,750.0	WMAIN-6197	9.8	Passed
044-049	50	44	3,500.5	4,000.5	WMAIN-3670	10.1	Passed
044-050	51	45.6	3,504.6	4,004.6	WMAIN-7370	6.5	Passed
044-051	49	33.2	3,500.0	4,000.0	WMAIN-3320(2)(2)	13.7	Passed
044-052	49.8	44	3,500.6	4,000.6	WMAIN-3670	12.2	Passed
045-001	49.2	24.4	3,500.7	2,209.5	WMAIN-5569(2)(2)	15	Velocity Failed
045-002	48.9	40.8	3,500.2	1,732.3	WMAIN-3318(1)	15	Velocity Failed
045-003	49.2	27.1	3,500.0	2,154.3	WMAIN-3318(1)	15	Velocity Failed
045-004	48.8	47.2	1,250.5	1,750.5	WMAIN-5217(1)	8.3	Passed
045-005	48.9	45.4	1,251.0	1,751.0	WMAIN-5204(1)	14.8	Passed
045-006	49	45.8	1,251.0	1,751.0	WMAIN-5203	5.8	Passed
045-007	49.1	46.2	1,253.1	1,753.1	WMAIN-5267(1)	7.6	Passed
045-008	49.1	45.6	1,250.0	1,750.0	WMAIN-5267(2)(2)	6.1	Passed
045-009	49.1	45.9	1,252.6	1,752.6	WMAIN-3317(2)	6	Passed
045-010	49.1	46.4	1,262.8	1,762.8	WMAIN-5297(1)	7.2	Passed
045-011	49.2	45.5	1,250.4	1,750.4	WMAIN-5299(2)	7.8	Passed
045-012	49.3	44.3	1,253.1	1,753.1	WMAIN-5299(2)	5.9	Passed
045-013	49.2	45.6	1,250.0	1,750.0	WMAIN-5290(2)(2)	8	Passed
045-014	49.1	46.3	1,250.4	1,750.4	WMAIN-5281(1)	7.3	Passed
045-015	49	38.1	1,253.6	1,753.6	WMAIN-5269(2)	10.1	Passed
045-016	48.8	42.1	1,251.1	1,751.1	WMAIN-5206(1)	10.2	Passed
045-017	49	37.8	1,252.6	1,752.6	WMAIN-5210(1)	10.9	Passed
045-018	48.9	39.8	1,252.7	1,752.7	WMAIN-5185(1)	11.7	Passed
045-019	48.7	43.5	1,251.7	1,751.7	WMAIN-5175(2)	6.4	Passed
045-020	48.9	45.4	1,250.0	1,750.0	WMAIN-5277(2)	6.7	Passed
045-021	49.1	40.8	1,252.2	1,752.2	WMAIN-5316	13.9	Passed
045-022	49.2	39.5	1,250.0	1,750.0	WMAIN-5319(2)(2)	14.6	Passed
045-023	49.1	34.7	1,251.0	1,751.0	WMAIN-5319(2)(2)	11.3	Passed
045-024	48.9	32.2	2,502.2	2,033.6	WMAIN-5321(1)	15	Velocity Failed
045-025	48.6	47	1,250.2	1,750.2	WMAIN-5195(1)	8.8	Passed
045-026	48.9	42.7	3,500.0	1,666.4	WMAIN-5569(2)(2)	15	Velocity Failed
045-027	48.9	32.8	3,500.0	3,379.4	WMAIN-3390	15	Velocity Failed
045-028	48.9	28.1	3,506.1	4,006.1	WMAIN-3390	14.9	Passed
045-032	49.3	46	3,501.0	4,001.0	WMAIN-3777	6.7	Passed
045-033	49.1	32.1	1,253.4	1,753.4	WMAIN-4986	11.3	Passed
045-036	48.7	43.4	1,250.8	1,750.8	WMAIN-8069	7.5	Passed
045-037	48.5	44.8	2,502.9	3,002.9	WMAIN-5897	5.5	Passed
045-038	48.5	44	1,251.1	1,751.1	WMAIN-8068(1)	7.7	Passed
045-039	48.3	44.9	2,500.0	3,000.0	WMAIN-8058(2)(2)	5.9	Passed
045-040	47.5	43.5	2,500.0	3,000.0	WMAIN-5897	5.5	Passed
045-041	47.8	43.2	1,250.1	1,750.1	WMAIN-8073(2)	8.3	Passed
045-042	48.5	47.1	1,252.1	1,752.1	WMAIN-5897	5.2	Passed
045-043	48.7	45.2	1,252.9	1,752.9	WMAIN-8069	6.8	Passed
045-044	48.9	45.5	1,253.0	1,753.0	WMAIN-8065(2)	7.1	Passed
045-045	48.6	47.1	1,252.4	1,752.4	WMAIN-5897	5.2	Passed
045-046	48.7	47.1	1,252.2	1,752.2	WMAIN-5897	5.2	Passed
046-001	48.5	38.6	1,252.7	1,752.7	WMAIN-5188(1)	12.3	Passed
046-002	48.2	37.9	1,250.0	1,750.0	WMAIN-5188(2)(2)	11.8	Passed
046-003	48.5	40	1,251.6	1,751.6	WMAIN-5183	7.6	Passed
046-004	48.1	45.1	1,251.7	1,751.7	WMAIN-8053(2)(2)	8.5	Passed
046-005	47.4	24.8	3,503.6	4,003.6	WMAIN-8053(2)(2)	14.5	Passed
046-006	46.9	41.9	1,254.6	1,754.6	WMAIN-8096(1)	6.6	Passed
046-007	47.4	46.3	1,256.8	1,756.8	WMAIN-5897	5.2	Passed
046-008	47.4	44.9	1,250.5	1,750.5	WMAIN-8096(1)	9.2	Passed
046-009	47.3	45.8	1,251.7	1,751.7	WMAIN-5897	5.2	Passed
046-010	47.5	45.9	1,253.7	1,753.7	WMAIN-5897	5.2	Passed
046-011	48	46.3	1,252.9	1,752.9	WMAIN-5897	5.2	Passed
046-012	47.6	37.7	3,504.1	3,714.8	WMAIN-8101(1)	15	Passed
046-013	47.8	34.5	3,502.1	4,002.1	WMAIN-8102(1)	14.7	Passed
046-014	48.3	45.2	1,253.5	1,753.5	WMAIN-8076(2)	6.7	Passed
046-015	48.6	46.9	1,251.2	1,751.2	WMAIN-5897	5.2	Passed
046-016	47.9	46.3	1,250.8	1,750.8	WMAIN-5897	5.2	Passed
046-017	47.5	36.5	3,500.7	4,000.7	WMAIN-8103(2)	13.1	Passed
046-018	47.5	35.8	3,501.1	3,873.8	WMAIN-8104(1)	15	Passed
046-019	47.3	44.8	1,251.1	1,751.1	WMAIN-8092(2)	6.3	Passed
046-020	47.3	44.9	1,251.1	1,751.1	WMAIN-8090(2)	5.7	Passed
046-021	47.9	45.1	1,253.8	1,753.8	WMAIN-8063(1)	5.9	Passed
046-022	47.8	44.1	1,252.7	1,752.7	WMAIN-8093(1)	6.2	Passed
046-023	47.1	43.9	1,252.3	1,752.3	WMAIN-8049(2)	7.4	Passed
046-024	46.9	44.2	1,250.8	1,750.8	WMAIN-8091(2)	6.4	Passed
046-025	46.6	39.1	3,508.0	4,008.0	WMAIN-8058(2)(2)	6.2	Passed
046-026	46.6	44.8	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
046-027	46.7	45	1,253.5	1,753.5	WMAIN-5897	5.3	Passed
047-001	47.1	45.7	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
047-002	47	45.2	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
047-003	47.3	39.9	1,250.8	1,750.8	WMAIN-1351(1)	11.2	Passed
047-004	47.3	43.6	1,250.3	1,750.3	WMAIN-1352	6.2	Passed
047-005	47.3	43.5	1,251.6	1,751.6	WMAIN-1380(2)	5.8	Passed
047-006	46.8	44.4	1,250.3	1,750.3	WMAIN-5897	5.2	Passed
047-007	47.3	45.7	1,251.2	1,751.2	WMAIN-1157(1)	8.5	Passed
047-008	47.4	36.7	3,500.0	4,000.0	WMAIN-1157(2)(2)	13.4	Passed
047-009	47.4	43.6	1,250.7	1,750.7	WMAIN-3940(2)	7.2	Passed
047-010	47.5	42.1	1,251.4	1,751.4	WMAIN-3935(1)	8	Passed
047-011	47.5	40.6	1,251.4	1,751.4	WMAIN-3933	7.5	Passed
047-012	47.6	41.5	1,252.8	1,752.8	WMAIN-3938(1)	7.6	Passed
047-013	47.5	41.2	1,256.2	1,756.2	WMAIN-3936(1)(1)	8.1	Passed
047-014	47.6	41.4	1,250.6	1,750.6	WMAIN-3933	6.3	Passed
047-015	47.4	42.7	1,255.0	1,755.0	WMAIN-1160(2)	8	Passed
047-016	47.2	42	1,252.5	1,752.5	WMAIN-1167	6	Passed
047-017	47.5	40.9	1,250.0	1,750.0	WMAIN-3933	8	Passed
047-018	47.3	40.3	5,003.0	5,503.0	WMAIN-1750(1)	12.1	Passed
048-001	47.1	46.1	1,252.9	1,752.9	WMAIN-5897	5.2	Passed
048-002	46.7	45.1	1,250.5	1,750.5	WMAIN-1369(1)	8.5	Passed
048-003	46.9	43.3	1,250.0	1,750.0	WMAIN-1367	6.5	Passed
048-004	46.5	43.1	1,251.3	1,751.3	WMAIN-1371(2)	7.1	Passed
048-005	46.8	43.4	1,252.9	1,752.9	WMAIN-1364	6.9	Passed
048-006	46.2	41.9	1,255.2	1,755.2	WMAIN-1390(2)	6	Passed
048-007	46.3	42.8	1,253.7	1,753.7	WMAIN-1378(2)	6.8	Passed
052-005	48.6	44.4	2,500.0	3,000.0	WMAIN-5897	5.7	Passed
052-006	49.2	44.7	1,250.0	1,607.1	WMAIN-5571	15	Passed
053-001	50.9	45.1	2,500.9	2,958.3	WMAIN-7384	15	Passed
053-002	50.5	37.2	1,254.6	1,754.6	WMAIN-7378(1)(1)	13	Passed
053-003	50.6	46.2	1,250.5	1,750.5	WMAIN-7384	6.9	Passed
053-004	50.2	36.8	1,250.0	1,750.0	WMAIN-7378(2)	12.8	Passed
053-005	49.8	34.8	1,252.1	1,752.1	WMAIN-6106(1)	12.6	Passed
053-006	50.2	45.4	1,251.2	1,751.2	WMAIN-6183(1)	6	Passed
053-007	49.5	34.6	1,252.1	1,752.1	WMAIN-6109(1)	12.6	Passed
053-008	49.9	45.7	1,250.8	1,750.8	WMAIN-6181(2)	6.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
053-009	49.6	45.6	1,255.0	1,755.0	WMAIN-7387(1)(1)	5.8	Passed
053-010	48.8	43.9	2,500.0	2,943.8	WMAIN-7387(2)	15	Passed
053-011	48.9	45.4	2,505.9	3,005.9	WMAIN-5897	5.8	Passed
053-012	49.5	43.7	3,500.2	4,000.2	WMAIN-6184(2)	6.4	Passed
053-013	50.6	42.1	1,258.5	1,758.5	WMAIN-7383	8.3	Passed
053-014	50.3	36.9	1,254.0	1,754.0	WMAIN-1003(2)	10.8	Passed
053-015	50.2	41.6	1,251.2	1,751.2	WMAIN-1982(1)	10.1	Passed
053-016	50.4	34.9	1,254.0	1,754.0	WMAIN-7380(1)	10.3	Passed
053-017	50.6	35.1	1,266.5	1,766.5	WMAIN-6170(2)(2)	13	Passed
053-018	50.4	33.7	1,273.8	1,773.8	WMAIN-6170(1)	12.2	Passed
053-019	50.2	43.6	1,250.8	1,750.8	WMAIN-6134	7.9	Passed
053-020	50.2	35.5	1,250.0	1,750.0	WMAIN-7392(2)	12.9	Passed
053-021	50.1	35.5	1,251.9	1,751.9	WMAIN-7391(1)	13	Passed
053-022	50.1	45.9	1,252.8	1,752.8	WMAIN-7395(2)	6.3	Passed
053-023	50.1	45.9	1,251.6	1,751.6	WMAIN-6166	6.3	Passed
053-024	50.3	46.6	1,250.0	1,750.0	WMAIN-6179(2)	8	Passed
053-025	50.1	40.1	1,250.8	1,320.7	WMAIN-6128(1)	15	Passed
053-026	49.9	33.1	3,500.9	4,000.9	WMAIN-7275(2)(2)	13	Passed
053-027	50	32.7	1,250.9	1,750.9	WMAIN-6174	11.9	Passed
053-028	49.9	33.1	1,251.1	1,751.1	WMAIN-6121	12.1	Passed
053-029	50	39.2	1,250.4	1,750.4	WMAIN-6121	14.7	Passed
053-030	49.9	40.6	1,252.7	1,752.7	WMAIN-6116(2)	10.8	Passed
053-031	50	47	1,250.7	1,750.7	WMAIN-6112(1)(1)	7.3	Passed
053-032	50	46.6	1,250.0	1,750.0	WMAIN-3683	6.5	Passed
053-033	48.9	46.9	1,250.0	1,750.0	WMAIN-6100	8.7	Passed
053-034	49.6	46.6	1,252.8	1,752.8	WMAIN-6099(1)	6.7	Passed
053-035	49.6	45.8	1,258.4	1,758.4	WMAIN-6102(2)	6.2	Passed
053-036	49.4	46.6	1,250.0	1,581.3	WMAIN-6093	15	Passed
053-037	49.3	39	1,250.0	1,750.0	WMAIN-6093	10.2	Passed
053-038	49	44.1	1,253.6	1,712.7	WMAIN-6092(1)(1)	15	Passed
053-039	49.1	46.1	1,250.0	1,750.0	WMAIN-7881(2)(1)(2)	6.5	Passed
053-040	49	45.7	1,252.3	1,752.3	WMAIN-0624(1)(1)	7.2	Passed
053-041	49.1	44.3	3,500.5	4,000.5	WMAIN-3675(1)	6.2	Passed
053-042	50.3	33.3	1,252.3	1,752.3	WMAIN-7397(1)	11.7	Passed
053-043	50.4	33.6	1,252.5	1,752.5	WMAIN-6175	11.9	Passed
053-044	49.4	44	3,500.5	3,103.0	WMAIN-7275(2)(2)	15	Velocity Failed
053-045	49.5	44.1	3,501.0	4,001.0	WMAIN-6632(2)(2)	6.3	Passed
053-046	49.8	44.7	3,500.9	4,000.9	WMAIN-6184(2)	7.6	Passed
053-047	49.5	43.7	3,510.5	4,010.5	WMAIN-6184(2)	6.4	Passed
053-048	49.1	45.6	2,501.0	3,001.0	WMAIN-5897	5.8	Passed
053-051	48.7	39.7	3,500.0	3,366.9	WMAIN-0624(2)(2)	15	Velocity Failed
053-052	48.7	31.7	3,500.0	4,000.0	WMAIN-0624(1)(1)	12.8	Passed
053-053	49.1	31.7	3,501.6	4,001.6	WMAIN-0626(2)	14.3	Passed
053-054	49	45	1,251.5	1,751.5	WMAIN-7881(2)(1)(1)	5.9	Passed
053-056	49.4	43.5	3,501.0	4,001.0	WMAIN-5897	6.3	Passed
053-057	48.9	47.4	1,250.0	1,750.0	WMAIN-5897	5.4	Passed
053-058	48.6	46.6	1,250.4	1,750.4	WMAIN-5897	5.4	Passed
053-059	48.7	46.5	1,254.0	1,754.0	WMAIN-5897	5.4	Passed
053-060	48.7	42.1	3,500.2	3,420.7	WMAIN-4365(2)	15	Velocity Failed
053-061	48.7	46.1	1,250.2	1,750.2	WMAIN-4364(2)	7.7	Passed
053-062	48.7	45.6	1,250.0	1,750.0	WMAIN-4361(2)	8.6	Passed
053-063	48.7	45	1,250.2	1,750.2	WMAIN-4361(1)(2)	7.7	Passed
053-064	48.6	45	1,254.7	1,754.7	WMAIN-4342(1)	8.1	Passed
053-065	48.5	46.3	1,250.1	1,750.1	WMAIN-4352(2)	8.4	Passed
053-066	49	45.2	1,252.9	1,752.9	WMAIN-7881(2)(1)(1)	6.4	Passed
054-001	50.9	44.6	3,500.0	4,000.0	WMAIN-3778	12.6	Passed
054-005	53.4	51.7	1,250.5	1,750.5	WMAIN-1322(1)	12.8	Passed
054-006	52.8	48.8	1,251.9	1,751.9	WMAIN-1322(1)	8.9	Passed
054-007	52.6	48.2	1,250.0	1,750.0	WMAIN-1322(1)	8.2	Passed
054-008	52.7	48.7	1,254.1	1,754.1	WMAIN-1322(1)	8.3	Passed
054-009	52.5	48.8	1,250.8	1,750.8	WMAIN-5899(2)	9.8	Passed
054-010	52.4	46.2	1,251.0	1,751.0	WMAIN-5899(2)	9.1	Passed
054-011	52.4	41.7	3,500.3	1,314.2	WMAIN-6165(1)	15	Velocity Failed
054-013	52.2	35.7	1,251.2	1,751.2	WMAIN-5908	10.4	Passed
054-014	52.3	37.7	1,252.5	1,752.5	WMAIN-5908	12.4	Passed
054-015	52.4	49.3	1,250.3	1,750.3	WMAIN-1322(1)	7.1	Passed
054-016	52.8	48.9	1,268.0	1,768.0	WMAIN-5938(1)(1)	6.6	Passed
054-017	52.4	45.7	3,500.3	3,359.8	WMAIN-5892(1)	15	Velocity Failed
054-018	52.2	48.4	1,251.2	1,751.2	WMAIN-5897	7.5	Passed
054-019	52	44.5	1,251.9	1,751.9	WMAIN-5869(1)	11.2	Passed
054-020	51.6	48.4	1,253.0	1,753.0	WMAIN-5866(1)	6.8	Passed
054-021	52	47.7	1,253.5	1,753.5	WMAIN-5897	7.1	Passed
054-022	52.2	48	1,250.7	1,750.7	WMAIN-5876(2)	7.4	Passed
054-023	52.2	47.1	1,251.1	1,751.1	WMAIN-5886(1)	11.2	Passed
054-024	52.3	47.8	1,250.7	1,750.7	WMAIN-5897	7.5	Passed
054-025	51.2	45.1	3,500.0	4,000.0	WMAIN-3778	10.7	Passed
054-030	51.2	47.5	2,503.8	3,003.8	WMAIN-3778	9.2	Passed
055-001	51.1	47.3	1,250.4	1,750.4	WMAIN-3778	6.7	Passed
055-002	50.8	48.2	1,250.3	1,750.3	WMAIN-3778	6.6	Passed
055-003	50.8	48.1	1,251.3	1,751.3	WMAIN-5844(2)	7.3	Passed
055-004	51.2	48.6	1,251.2	1,751.2	WMAIN-5857(1)	7.1	Passed
055-005	51.2	47.8	1,250.2	1,750.2	WMAIN-5831(1)	11.7	Passed
055-006	50.8	47.9	1,252.4	1,752.4	WMAIN-5835(1)(1)	7.6	Passed
055-007	50.9	47.9	1,250.0	1,750.0	WMAIN-5835(2)	7.4	Passed
055-008	52.6	49.3	1,250.0	1,750.0	WMAIN-5811(2)	8.3	Passed
055-009	51.7	47.3	1,251.4	1,751.4	WMAIN-3778	6.7	Passed
055-010	51.2	48	1,250.7	1,750.7	WMAIN-3778	6.7	Passed
055-011	51.2	46.8	1,251.7	1,751.7	WMAIN-3778	6.7	Passed
055-012	50.9	46.8	1,254.6	1,754.6	WMAIN-5823(1)	6.8	Passed
055-013	51.4	47.2	1,250.0	1,750.0	WMAIN-3778	6.7	Passed
055-014	52.5	49.7	1,250.3	1,750.3	WMAIN-3778	6.7	Passed
055-015	52.3	49.3	1,250.4	1,750.4	WMAIN-5790(1)	7	Passed
055-016	52.5	50.6	1,250.4	1,750.4	WMAIN-3778	6.3	Passed
055-017	51.8	50.1	1,250.0	1,750.0	WMAIN-3778	6.7	Passed
055-018	51.4	49.6	1,251.1	1,751.1	WMAIN-3778	7	Passed
055-019	51	49.4	1,250.0	1,750.0	WMAIN-3778	7.4	Passed
055-020	51.9	48.9	1,251.1	1,751.1	WMAIN-5798(1)	6.3	Passed
055-021	51.1	43	3,503.0	1,321.1	WMAIN-5807(1)	15	Velocity Failed
055-022	50.9	45.1	3,500.2	4,000.2	WMAIN-3778	13.3	Passed
055-023	52.9	49.9	1,250.4	1,750.4	WMAIN-3778	6.6	Passed
055-024	52.6	48.7	1,251.1	1,751.1	WMAIN-3778	6.5	Passed
055-025	52.6	48.8	1,251.5	586.3	WMAIN-4947(1)	15	Velocity Failed
055-026	52.3	50.2	1,262.9	1,762.9	WMAIN-5897	6	Passed
055-027	52.4	45.9	3,500.0	4,000.0	WMAIN-3778	9.9	Passed
055-028	52.2	48	1,254.3	1,754.3	WMAIN-4945(1)(1)	11.2	Passed
055-029	52.3	40.6	1,250.0	1,750.0	WMAIN-4945(1)(1)	11.2	Passed
055-031	50.7	43.4	3,504.0	4,004.0	WMAIN-3778	10.4	Passed
055-032	50.6	43.6	3,501.0	4,001.0	WMAIN-3778	10.4	Passed
055-033	51.2	45	3,500.0	4,000.0	WMAIN-3778	10.4	Passed
055-034	50.7	48.2	1,251.6	1,751.6	WMAIN-4335(1)	8	Passed
055-035	50.6	47.8	1,251.6	1,751.6	WMAIN-4326(1)	8	Passed
055-036	51.2	46.2	3,503.1	2,950.9	WMAIN-7408(1)(1)	15	Velocity Failed
055-037	50.8	42.2	3,500.0	3,418.0	WMAIN-7408(2)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
055-039	52.8	50.3	1,250.6	1,750.6	WMAIN-2488(1)	8.2	Passed
055-040	52.7	48.4	1,253.4	1,753.4	WMAIN-3778	6.2	Passed
055-041	52.5	48.1	1,254.8	1,754.8	WMAIN-3778	6.3	Passed
055-042	51.8	48.8	1,252.2	1,752.2	WMAIN-4323(2)	7.2	Passed
055-043	52.8	48.4	1,254.6	1,754.6	WMAIN-3778	6.2	Passed
055-044	52.8	47.8	1,255.0	1,755.0	WMAIN-3778	6.2	Passed
055-045	50.7	46.5	1,250.7	1,750.7	WMAIN-4289(1)	11.2	Passed
055-046	51.2	48.3	1,250.7	1,750.7	WMAIN-4284(2)	6.5	Passed
055-047	51.4	48.5	1,251.6	1,751.6	WMAIN-4280(1)	7	Passed
055-048	52.2	49.2	1,252.4	1,752.4	WMAIN-4278(1)	6.9	Passed
055-049	52.6	49.5	1,250.0	1,750.0	WMAIN-4674(2)(2)	8.1	Passed
055-050	52.7	48.5	1,250.0	1,750.0	WMAIN-3778	6.3	Passed
055-051	52	48.2	1,253.7	1,753.7	WMAIN-3778	6.4	Passed
055-052	52.1	49.2	1,250.6	1,750.6	WMAIN-4282(2)	6.7	Passed
055-053	50.8	41.9	1,253.2	1,753.2	WMAIN-4291(1)	11.2	Passed
055-054	52.7	50.2	1,256.1	1,756.1	WMAIN-4674(1)	8.8	Passed
056-001	52.7	50.3	1,253.7	1,753.7	WMAIN-4919(1)	9.5	Passed
056-002	52.6	50.6	1,251.2	1,751.2	WMAIN-3778	6	Passed
056-003	52.5	50.7	1,251.3	1,751.3	WMAIN-3778	6	Passed
056-004	52.4	47.8	2,500.0	2,740.4	WMAIN-4917(2)(2)	15	Passed
056-005	52.6	43.4	3,509.5	4,009.5	WMAIN-3778	9.9	Passed
056-006	52.7	50.7	1,251.2	1,751.2	WMAIN-3778	6.1	Passed
056-007	52.4	45.7	3,502.1	3,105.0	WMAIN-4555(2)	15	Velocity Failed
056-008	52.8	50.4	1,251.3	1,751.3	WMAIN-2495(1)	8.6	Passed
056-009	52.8	48.2	2,502.6	3,002.6	WMAIN-3778	8.4	Passed
056-010	52.4	46.7	2,519.2	3,019.2	WMAIN-3778	8.3	Passed
056-011	52.4	46.4	2,513.4	3,013.4	WMAIN-3778	8.3	Passed
056-012	52.6	47	1,251.0	1,751.0	WMAIN-0384(1)	11.2	Passed
056-013	52.6	47.7	1,251.3	1,751.3	WMAIN-0375	6.8	Passed
056-014	52.8	49.8	1,251.5	1,751.5	WMAIN-2662(2)	6.5	Passed
056-015	52.9	50.2	1,250.1	1,750.1	WMAIN-2575(2)(1)	7.2	Passed
056-016	52.6	49.2	1,251.6	1,751.6	WMAIN-0381(2)	7.3	Passed
056-017	52.6	49.3	1,250.3	1,750.3	WMAIN-3778	6.1	Passed
056-018	54	39.5	5,005.2	5,505.2	WMAIN-3778	12.3	Passed
056-019	54.1	49.3	1,255.4	1,755.4	WMAIN-4584	7	Passed
056-020	53.1	47.9	1,254.9	1,754.9	WMAIN-4592(2)(2)	6.1	Passed
056-021	52.8	49.3	1,250.0	1,750.0	WMAIN-4592(2)(2)	8.6	Passed
056-022	53.6	39.5	5,008.2	5,508.2	WMAIN-3778	12.2	Passed
056-023	53.5	50.2	1,250.9	1,750.9	WMAIN-4583(1)	6.9	Passed
056-024	53.1	48.8	1,254.0	1,754.0	WMAIN-3778	6	Passed
056-025	52.8	49.5	1,250.0	1,750.0	WMAIN-4581(2)(2)	8.2	Passed
056-026	52.8	49.9	1,256.3	1,756.3	WMAIN-4572(1)	8.5	Passed
056-027	52.7	48.3	1,250.0	1,750.0	WMAIN-3778	6.1	Passed
056-028	53.1	48.3	1,250.0	1,750.0	WMAIN-4544(2)	6.1	Passed
056-029	53.5	49.6	1,254.0	1,754.0	WMAIN-4544(1)(1)	7.9	Passed
056-030	52.6	48.9	1,251.2	1,751.2	WMAIN-4566(2)	6.5	Passed
056-031	52.6	44.5	1,251.8	1,751.8	WMAIN-4563(1)	11.2	Passed
056-032	52.6	48.8	1,250.8	1,750.8	WMAIN-4549(1)	6.3	Passed
056-033	52.7	48.2	1,253.6	1,753.6	WMAIN-3778	6.1	Passed
056-034	52.8	49.6	1,252.6	1,752.6	WMAIN-4609(2)	8.1	Passed
056-035	52.7	50.3	1,253.4	1,753.4	WMAIN-4605(2)	8.7	Passed
056-036	52.7	50.5	1,250.7	1,750.7	WMAIN-3778	6	Passed
056-037	52.6	47.9	1,252.8	1,752.8	WMAIN-3778	6	Passed
056-038	52.5	50	1,251.1	1,751.1	WMAIN-4622(1)	9.6	Passed
056-039	52.6	47.6	1,256.2	1,756.2	WMAIN-4917(2)(2)	6.1	Passed
056-040	52.7	48.8	1,251.3	1,751.3	WMAIN-4607(1)	7.7	Passed
056-041	53.1	38.6	5,002.6	5,502.6	WMAIN-3778	12.3	Passed
056-042	52.6	49.2	1,251.5	1,751.5	WMAIN-4561(1)	7.1	Passed
056-043	53.2	50.2	1,250.5	1,750.5	WMAIN-4469(1)	7.9	Passed
056-044	53.1	38.3	5,000.4	5,500.4	WMAIN-3778	12.1	Passed
056-045	53.1	50.8	1,250.6	1,750.6	WMAIN-3778	6	Passed
056-046	53	50.7	1,252.4	1,752.4	WMAIN-3778	6	Passed
056-047	53.1	49.8	1,250.3	1,750.3	WMAIN-4466(1)	7.6	Passed
056-048	52.9	46.4	1,252.0	1,752.0	WMAIN-4459(1)	7	Passed
056-049	53	46.4	1,254.6	1,754.6	WMAIN-4461	6.7	Passed
056-050	53.2	48.6	1,252.7	1,752.7	WMAIN-4463(1)	6.7	Passed
056-051	53	48.1	1,251.9	1,751.9	WMAIN-4613(1)	6.9	Passed
056-052	53	47.7	1,251.0	1,751.0	WMAIN-3778	6	Passed
056-053	53.2	47.6	1,251.4	1,751.4	WMAIN-1154(1)	11.2	Passed
081-001	47.8	45	1,251.6	1,751.6	WMAIN-7660(2)	5.9	Passed
081-002	47.4	43.9	1,250.0	1,750.0	WMAIN-7659	5.6	Passed
081-003	47.4	44.8	1,252.1	1,752.1	WMAIN-7658(1)(1)	8.2	Passed
081-004	47.3	45.2	1,259.3	1,759.3	WMAIN-7656(1)(1)	8.7	Passed
081-005	47.1	42.9	1,250.9	1,750.9	WMAIN-7820(2)	9.3	Passed
081-006	47.6	43.9	1,253.0	1,753.0	WMAIN-7653(1)	5.8	Passed
081-007	47.6	39.8	1,251.1	1,751.1	WMAIN-7644(2)	11.2	Passed
081-008	47.5	43.3	1,250.7	1,750.7	WMAIN-7646(2)	11.2	Passed
081-009	47.4	44.5	1,250.0	1,750.0	WMAIN-7656(2)	6.6	Passed
081-010	47.1	41.7	1,253.1	1,753.1	WMAIN-7655	7.7	Passed
081-011	46.3	39.6	1,251.4	1,751.4	WMAIN-7655	7.9	Passed
081-012	46.8	40.3	1,251.6	1,751.6	WMAIN-7655	7.5	Passed
081-013	47.1	41.9	1,250.8	1,750.8	WMAIN-7655	6.2	Passed
081-014	47.2	41.6	1,250.5	1,750.5	WMAIN-7812(2)	11.2	Passed
081-015	47.4	44.1	1,250.0	1,750.0	WMAIN-7649(2)(2)	7	Passed
081-016	47.3	44.1	1,252.6	1,752.6	WMAIN-7649(1)	6.8	Passed
081-017	47.2	44.1	1,250.5	1,750.5	WMAIN-7651	6.1	Passed
114-001	53.6	28.4	3,510.6	4,010.6	WMAIN-3778	9.6	Passed
114-002	53.8	28.2	3,514.1	4,014.1	WMAIN-3778	9.6	Passed
114-003	53.7	27.8	3,508.0	4,008.0	WMAIN-3778	9.6	Passed
114-004	53.6	20	5,055.2	4,712.6	WMAIN-3778	10.6	Residual Pressure Failed
114-005	53.3	27.1	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-006	53.2	27.1	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-007	53.2	20	5,000.0	4,630.7	WMAIN-3778	10.6	Residual Pressure Failed
114-008	53.2	27.3	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-009	52.9	27.6	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-010	52.7	27.8	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-011	52.5	28.2	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-012	52.4	20	5,000.0	4,863.2	WMAIN-3778	10.9	Residual Pressure Failed
114-013	52.3	20	5,017.9	4,933.9	WMAIN-3778	11	Residual Pressure Failed
114-014	52.2	29.1	3,518.4	4,018.4	WMAIN-3778	9.6	Passed
114-015	52.1	29.1	3,539.2	4,039.2	WMAIN-3778	9.6	Passed
114-016	52.1	29.4	3,543.0	4,043.0	WMAIN-3778	9.6	Passed
114-017	52.2	30	3,501.9	4,001.9	WMAIN-3778	9.6	Passed
114-018	52.4	30.8	3,524.2	4,024.2	WMAIN-3778	9.6	Passed
114-019	52.4	31.6	3,510.3	4,010.3	WMAIN-3778	9.6	Passed
114-020	52.1	32.4	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-021	52.1	33.4	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-022	52.1	33.6	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-023	52.1	33.4	3,508.9	4,008.9	WMAIN-3778	9.6	Passed
114-024	52.2	33.7	3,529.6	4,029.6	WMAIN-3778	9.6	Passed
114-025	52.1	46.8	1,252.1	1,752.1	WMAIN-5897	6	Passed
114-027	52.4	47.2	1,250.1	1,750.1	WMAIN-5897	6	Passed
114-028	52.4	47.1	1,312.0	1,812.0	WMAIN-5897	6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
114-029	52.2	33.4	3,521.4	4,021.4	WMAIN-3778	9.6	Passed
114-030	53.3	28.7	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-031	53	20	5,000.0	4,878.0	WMAIN-3778	11	Residual Pressure Failed
114-032	52.8	29.8	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-033	52.4	30.4	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-034	52.1	31.3	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-035	52.1	32.8	3,500.0	4,000.0	WMAIN-3778	9.6	Passed
114-036	52.1	46.7	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-037	52.1	46.8	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-038	52.1	46.9	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-039	52.1	47	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-040	52.4	46.9	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-041	52.7	47.1	1,260.4	1,760.4	WMAIN-5897	6	Passed
114-042	53	47.2	1,267.1	1,767.1	WMAIN-5897	6	Passed
114-043	53.2	20	5,025.3	5,272.5	WMAIN-3778	11.6	Passed
114-044	53.3	20	5,009.1	5,207.6	WMAIN-3778	11.6	Passed
114-045	53.5	47.5	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-046	53.6	47.7	1,250.0	1,750.0	WMAIN-5897	6	Passed
114-047	53.9	20	5,000.0	5,165.6	WMAIN-3778	11.5	Passed
124-001	52.5	47.1	1,250.2	1,750.2	WMAIN-5897	6	Passed
124-002	52.5	47.2	1,252.2	1,752.2	WMAIN-5897	6	Passed
124-003	52.5	40.6	2,512.0	3,012.0	WMAIN-3778	8	Passed
124-004	52.5	21	5,015.5	5,515.5	WMAIN-3778	12.1	Passed
124-005	52.6	41	2,509.1	3,009.1	WMAIN-3778	8	Passed
124-006	52.7	47.7	1,250.6	1,750.6	WMAIN-5897	6	Passed
124-007	52.8	48	1,260.8	1,760.8	WMAIN-5897	6	Passed
124-008	52.9	48.3	1,256.9	1,756.9	WMAIN-5897	6	Passed
124-009	53	27.2	5,000.0	5,500.0	WMAIN-3778	12.1	Passed
125-001	52.7	43.7	3,500.8	4,000.8	WMAIN-3778	9.8	Passed
125-002	52.5	42.5	3,501.0	4,001.0	WMAIN-3778	9.8	Passed
125-003	52.4	45.5	2,504.6	3,004.6	WMAIN-3778	8.1	Passed
125-004	52.8	34.5	5,000.0	5,500.0	WMAIN-3778	12.2	Passed
125-005	53.4	50.1	1,250.0	1,750.0	WMAIN-5897	6	Passed
125-006	53.2	30.3	5,005.3	5,505.3	WMAIN-3778	12.1	Passed
125-007	53.4	34.8	5,000.7	5,500.7	WMAIN-3778	12.1	Passed
125-008	53.2	48.2	1,253.3	1,753.3	WMAIN-0759(1)	8.8	Passed
125-009	52.9	46.7	1,250.4	1,750.4	WMAIN-1605	6.5	Passed
125-010	52.7	47.1	1,250.4	1,750.4	WMAIN-0771(1)	6.2	Passed
125-011	53	47.6	1,252.4	1,752.4	WMAIN-0780(1)	7.8	Passed
125-012	52.8	47.5	1,250.8	1,750.8	WMAIN-0765	6.5	Passed
125-013	52.6	46.5	1,250.4	1,750.4	WMAIN-0765	6.6	Passed
125-014	53	49.5	1,250.4	1,750.4	WMAIN-5897	6	Passed
125-015	52.8	49.4	1,250.9	1,750.9	WMAIN-5897	6	Passed
125-016	52.8	49.6	1,250.2	1,750.2	WMAIN-5897	6	Passed
125-017	52.7	49.8	1,252.3	1,752.3	WMAIN-5897	6	Passed
125-018	52.6	49.9	1,250.6	1,750.6	WMAIN-5897	6	Passed
125-019	52.5	49.5	1,250.8	1,750.8	WMAIN-5897	6	Passed
125-020	52.4	47.9	1,251.5	1,751.5	WMAIN-5897	6	Passed
125-021	52.2	48.5	1,250.8	1,750.8	WMAIN-5897	6	Passed
125-022	52.4	49	1,250.0	1,750.0	WMAIN-0794(2)(2)	8	Passed
125-023	52.3	49.5	1,250.6	1,750.6	WMAIN-1734(1)	7.9	Passed
125-024	51.8	49.4	1,250.6	1,750.6	WMAIN-3778	6.1	Passed
125-025	51.5	47.2	1,250.9	1,750.9	WMAIN-3778	6.1	Passed
125-026	51.4	43.5	2,500.0	3,000.0	WMAIN-1636(1)	10	Passed
125-027	51.7	49.2	1,253.6	1,753.6	WMAIN-3778	6	Passed
125-028	51.9	48.6	1,250.6	1,750.6	WMAIN-5897	6	Passed
125-029	51.7	47.4	1,254.5	1,754.5	WMAIN-5897	6	Passed
125-030	51.6	48.9	1,254.4	1,754.4	WMAIN-5897	6	Passed
125-031	51.2	36.5	3,503.0	4,003.0	WMAIN-1649(1)	13.9	Passed
125-032	51.3	46	1,250.8	1,750.8	WMAIN-1650(2)	11.2	Passed
125-033	51.4	47.4	1,250.6	1,750.6	WMAIN-1654(2)	7.5	Passed
125-034	52.4	47	2,500.5	3,000.5	WMAIN-3778	8.1	Passed
125-035	51.3	45.9	2,500.0	3,000.0	WMAIN-3778	8.1	Passed
125-036	51.7	47.3	1,251.0	1,751.0	WMAIN-1701(1)	8.5	Passed
125-037	52	45.7	1,271.1	1,771.1	WMAIN-5897	6	Passed
125-038	52.4	39	2,500.8	3,000.8	WMAIN-1692(2)	12.6	Passed
125-039	51.9	43.6	1,253.0	1,753.0	WMAIN-5897	6	Passed
125-040	51.4	43.9	1,250.1	1,750.1	WMAIN-1678(2)	7	Passed
125-041	51.4	46.6	1,252.2	1,752.2	WMAIN-1678(2)	8.8	Passed
125-042	51.2	48.3	1,252.6	1,752.6	WMAIN-5897	6	Passed
125-043	51.2	47.2	1,250.0	1,750.0	WMAIN-5897	6	Passed
125-044	51.3	41.7	1,251.0	1,751.0	WMAIN-1596(2)	11.2	Passed
125-045	51.3	48.3	1,251.2	1,751.2	WMAIN-1660(1)	8.7	Passed
125-046	51.3	48.7	1,250.6	1,750.6	WMAIN-5897	6	Passed
125-047	51.3	48.8	1,250.5	1,750.5	WMAIN-5897	6	Passed
125-048	51.2	48.8	1,250.2	1,750.2	WMAIN-5897	6.1	Passed
125-049	51.2	48.8	1,250.0	1,750.0	WMAIN-3778	6.1	Passed
125-050	51.1	43.4	3,500.1	4,000.1	WMAIN-3778	10	Passed
125-051	51.2	44	3,507.6	4,007.6	WMAIN-3778	10.2	Passed
125-055	52	47.1	1,252.5	1,752.5	WMAIN-5897	6	Passed
125-057	52.2	46.7	1,251.9	1,751.9	WMAIN-0302(2)	9.3	Passed
125-058	52.4	47	1,250.0	1,750.0	WMAIN-0303(2)	9.2	Passed
125-059	52.5	48.4	1,251.2	1,751.2	WMAIN-0791(1)	7.7	Passed
125-060	52.5	49.8	1,255.6	1,755.6	WMAIN-3778	6	Passed
125-061	52.6	49.4	1,250.6	1,750.6	WMAIN-0787(2)	7.5	Passed
125-062	52.5	48.8	1,253.0	1,753.0	WMAIN-0794(1)	7.4	Passed
125-063	52.6	49.9	1,252.8	1,752.8	WMAIN-5897	6	Passed
125-064	52.6	46	1,251.5	1,751.5	WMAIN-0796(2)	11.2	Passed
125-065	52.7	42.3	1,252.0	1,752.0	WMAIN-0798(2)	11.2	Passed
125-066	52.5	46	1,268.8	1,768.8	WMAIN-0804	6.4	Passed
125-067	52.7	42.4	1,252.0	1,752.0	WMAIN-0800(2)	11.2	Passed
125-068	52.5	37.3	2,500.3	3,000.3	WMAIN-1682	11.4	Passed
125-069	52.7	48.8	1,250.0	1,750.0	WMAIN-0833(2)	9.6	Passed
125-070	52.4	46.1	1,252.1	1,752.1	WMAIN-0833(1)(2)	6.5	Passed
125-071	52.3	45.8	1,251.0	1,751.0	WMAIN-0840	8	Passed
125-072	52.7	46.5	1,250.4	1,750.4	WMAIN-0840	8.5	Passed
125-073	52.7	48.6	1,251.3	1,751.3	WMAIN-0519(1)	8	Passed
125-074	52.5	47.9	1,250.6	1,750.6	WMAIN-0504(2)	7.5	Passed
125-075	52.3	46.5	1,251.1	1,751.1	WMAIN-0517(1)	7.2	Passed
125-076	52.4	46.9	1,250.8	1,750.8	WMAIN-0511(2)	7.7	Passed
125-077	52.5	49.2	1,250.8	1,750.8	WMAIN-0503(1)	8.3	Passed
125-078	52.5	47.5	1,250.0	1,750.0	WMAIN-0823(2)	8.5	Passed
125-079	52.2	45	1,252.3	1,752.3	WMAIN-0823(1)(2)	7.1	Passed
125-080	51.1	48.8	1,250.0	1,750.0	WMAIN-3778	6.1	Passed
125-083	52	20	3,501.9	3,911.5	WMAIN-0303(1)(2)	14.3	Passed
125-084	51.4	42.4	1,251.3	1,751.3	WMAIN-0393(2)	11.2	Passed
125-085	51.4	33.4	1,250.4	1,750.4	WMAIN-0393(2)	11.2	Passed
125-086	51.3	49	1,251.4	1,751.4	WMAIN-3778	6.1	Passed
125-087	50.7	40.6	3,504.3	2,350.1	WMAIN-0397	15	Velocity Failed
125-088	50.6	43.7	3,500.0	4,000.0	WMAIN-3778	10.1	Passed
125-089	50.5	48.4	1,250.9	1,750.9	WMAIN-3778	6.3	Passed
125-090	52.6	50.5	1,250.2	1,750.2	WMAIN-3778	6.2	Passed
125-091	51.9	49.8	1,250.3	1,750.3	WMAIN-3778	6.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
125-092	53.1	40.7	1,252.3	1,752.3	WMAIN-0523	11.2	Passed
125-093	52.6	46.8	1,251.2	1,751.2	WMAIN-5897	6	Passed
125-094	52.5	46	1,251.1	1,751.1	WMAIN-0533	7.4	Passed
125-095	52.8	47.4	1,250.5	1,750.5	WMAIN-0532(1)	8.9	Passed
125-096	51.3	48.2	1,250.1	1,750.1	WMAIN-5897	6	Passed
125-097	50.4	47.2	1,254.0	1,754.0	WMAIN-5897	6	Passed
125-098	50.2	43.3	2,518.1	3,018.1	WMAIN-3778	8	Passed
125-099	50.2	39.7	3,501.3	4,001.3	WMAIN-3778	9.6	Passed
125-100	50.6	47.1	1,251.6	1,751.6	WMAIN-0218(2)	8.6	Passed
125-101	50.6	46.1	1,251.2	1,751.2	WMAIN-0210(2)	6.9	Passed
125-102	50.9	46.1	1,250.0	1,750.0	WMAIN-0200(2)(2)	6.5	Passed
125-103	51.1	46.1	1,253.5	1,753.5	WMAIN-0233	6.3	Passed
125-104	51.2	43.9	1,252.8	1,752.8	WMAIN-0169(2)	7.2	Passed
125-105	51.5	43.5	1,251.9	1,751.9	WMAIN-0182	6.2	Passed
125-106	51.4	45	1,252.3	1,752.3	WMAIN-0171(2)	8.3	Passed
125-107	51.1	45.6	1,251.0	1,751.0	WMAIN-0182	6	Passed
125-108	51.2	45.7	1,250.0	1,750.0	WMAIN-0185	6.7	Passed
125-109	50.9	45.1	1,251.1	1,751.1	WMAIN-0191(2)	7.4	Passed
125-110	50.9	43.2	1,250.9	1,750.9	WMAIN-5897	6	Passed
125-111	50.5	45.1	1,250.8	1,750.8	WMAIN-0208(2)	7.1	Passed
125-112	50.3	41.1	1,250.0	1,750.0	WMAIN-0146	11.2	Passed
125-113	50.2	41.1	1,253.5	1,753.5	WMAIN-0152	7	Passed
125-114	50.4	40.7	1,253.5	1,753.5	WMAIN-0152	6.2	Passed
125-115	50.9	41.4	1,250.8	1,750.8	WMAIN-0160(1)	6.6	Passed
125-116 125-116	50.7	43.6	1,252.0	1,752.0	WMAIN-0160(1)	8.5	Passed
125-117	50.5	44.2	1,253.3	1,753.3	WMAIN-5897	6	Passed
125-118	50.3	36	2,505.9	3,005.9	WMAIN-7495(1)	11.2	Passed
125-119	50.3	44.3	1,250.5	1,750.5	WMAIN-7495(2)(2)	6.3	Passed
125-120	50.4	43.8	1,253.3	1,753.3	WMAIN-7494(2)	11.2	Passed
125-121	50.7	44.1	1,253.4	1,753.4	WMAIN-7481(2)	6.8	Passed
125-122	50.5	46.7	1,250.1	1,750.1	WMAIN-5897	6	Passed
125-123	50.5	46.7	1,254.0	1,754.0	WMAIN-5897	6	Passed
125-124	51.1	47.2	1,252.0	1,752.0	WMAIN-5897	6	Passed
125-125	50.7	44.9	1,250.0	1,750.0	WMAIN-0221	7	Passed
125-126	51	46.1	1,251.8	1,751.8	WMAIN-7480(1)(1)(1)	8.2	Passed
125-127	51.2	45.1	1,250.0	1,750.0	WMAIN-7480(1)(1)(1)	6.5	Passed
125-128	51.3	45.4	1,250.0	1,750.0	WMAIN-7703	6.9	Passed
125-129	51.7	44.8	1,255.4	1,755.4	WMAIN-7575(1)	7.2	Passed
125-130	51.5	46.9	1,250.5	1,750.5	WMAIN-7576(1)	6.8	Passed
125-131	51.3	46.1	1,250.4	1,750.4	WMAIN-5897	6	Passed
125-132	51.2	44.3	1,252.0	1,752.0	WMAIN-7579(2)	6.8	Passed
125-133	51.4	44.5	1,252.5	1,752.5	WMAIN-7580(1)	6.8	Passed
125-134	51.5	46.6	1,251.3	1,751.3	WMAIN-7581(1)	6.9	Passed
125-135	51.6	47	1,250.9	1,750.9	WMAIN-7572(2)	6.5	Passed
125-136	51.8	45.1	1,253.4	1,753.4	WMAIN-7574(2)	7.4	Passed
125-137	51.9	44.5	1,254.5	1,754.5	WMAIN-5897	6	Passed
125-138	52.2	49	1,253.7	1,753.7	WMAIN-5897	6	Passed
125-139	51.9	48.5	1,253.1	1,753.1	WMAIN-5897	6	Passed
125-140	52.1	46	1,254.5	1,754.5	WMAIN-7586(2)	7.3	Passed
125-141	51.8	48.3	1,251.3	1,751.3	WMAIN-5897	6	Passed
125-142	52	45.2	1,264.2	1,764.2	WMAIN-5897	6	Passed
125-143	51.6	48.1	1,251.3	1,751.3	WMAIN-5897	6	Passed
125-144	51.7	45.7	1,275.6	1,775.6	WMAIN-7587(1)	7.4	Passed
125-145	51.5	46.4	1,250.6	1,750.6	WMAIN-7704(2)	8.8	Passed
125-146	51.4	45.1	1,253.2	1,753.2	WMAIN-7702	6.9	Passed
125-147	51.4	47.3	1,250.2	1,750.2	WMAIN-7702	6.9	Passed
125-148	51.4	45	1,300.6	1,800.6	WMAIN-7702	6.6	Passed
125-149	51.4	47.4	1,254.7	1,754.7	WMAIN-7702	6.1	Passed
125-150	51.5	45	1,251.0	1,751.0	WMAIN-7707(1)	6.9	Passed
125-151	51.6	43.1	1,331.2	1,831.2	WMAIN-7610(2)	6.8	Passed
125-152	51.9	43.7	1,253.3	1,753.3	WMAIN-7609(1)	7.1	Passed
125-153	51.7	45.4	1,250.8	1,750.8	WMAIN-7609(1)	9.3	Passed
125-154	51.3	44.5	1,303.4	1,803.4	WMAIN-7708(2)	6.5	Passed
125-155	50.7	44.6	1,251.9	1,751.9	WMAIN-5897	6	Passed
125-156	50.2	38.7	1,253.7	1,753.7	WMAIN-7494(2)	11.2	Passed
126-001	52.6	40	3,500.0	3,854.8	WMAIN-5938(2)(2)	15	Passed
126-005	53.1	49.3	1,269.6	1,769.6	WMAIN-5938(1)(1)	7.9	Passed
126-006	51.3	48.8	1,251.0	1,751.0	WMAIN-5897	6	Passed
126-007	51.7	48.8	1,250.5	1,750.5	WMAIN-5897	6	Passed
126-008	52.1	48.4	1,250.3	1,750.3	WMAIN-1563(1)	9	Passed
126-009	52.3	49	1,252.9	1,752.9	WMAIN-5897	6	Passed
126-010	50.2	46.9	1,250.0	1,750.0	WMAIN-5897	6	Passed
126-011	51.3	45.9	1,252.7	1,752.7	WMAIN-1580(2)	6.1	Passed
126-012	51.6	47	1,250.5	1,750.5	WMAIN-1578(1)	7.9	Passed
126-013	50.2	47	1,252.0	1,752.0	WMAIN-5897	6	Passed
126-014	49.7	46	1,250.0	1,750.0	WMAIN-1560(2)(2)	7.7	Passed
126-015	49.4	45.4	1,250.7	1,750.7	WMAIN-1560(1)	6.1	Passed
126-016	49.1	42.9	1,250.0	1,750.0	WMAIN-1555(2)(2)	6.6	Passed
126-017	49.4	43.2	1,251.9	1,751.9	WMAIN-1553	6.7	Passed
126-018	49.9	46.2	1,250.1	1,750.1	WMAIN-1533(1)	7.9	Passed
126-019	50.2	46.6	1,252.0	1,752.0	WMAIN-1548(2)	9.2	Passed
126-020	50.5	44.3	1,251.1	1,751.1	WMAIN-1539(1)	11.2	Passed
126-021	50.7	46.6	1,250.0	1,750.0	WMAIN-1570(2)	7.1	Passed
126-022	51.3	46.9	1,250.7	1,750.7	WMAIN-5897	6	Passed
126-023	51.3	45.8	1,251.5	1,751.5	WMAIN-5897	6	Passed
126-024	51.2	45.8	1,250.3	1,750.3	WMAIN-0755(1)	8	Passed
126-025	51.5	44.6	1,253.8	1,753.8	WMAIN-1620(1)	6.2	Passed
126-026	51.2	45.7	1,253.6	1,753.6	WMAIN-1581(1)	6.6	Passed
126-027	51.3	45.1	1,251.8	1,751.8	WMAIN-0757(2)	7.2	Passed
126-028	51.1	47.8	1,250.3	1,750.3	WMAIN-1620(1)	7.8	Passed
126-029	49.8	46.1	1,252.7	1,752.7	WMAIN-1572(1)	8.8	Passed
126-030	52.1	46.2	1,250.5	1,750.5	WMAIN-0751(1)	11.2	Passed
126-031	51.8	44.8	1,251.0	1,751.0	WMAIN-0746(2)	7.3	Passed
126-032	51.9	44.3	1,252.9	1,752.9	WMAIN-1563(1)	6.4	Passed
126-033	52.2	45.2	1,252.8	1,752.8	WMAIN-0744(1)	6.4	Passed
126-034	51.9	43.7	1,250.8	1,750.8	WMAIN-0732	6.6	Passed
126-035	50.8	42.3	1,272.9	1,772.9	WMAIN-0731(1)	6.4	Passed
126-036	50	44.2	1,250.7	1,750.7	WMAIN-0731(1)	9.1	Passed
126-037	52.3	46.4	1,250.0	1,750.0	WMAIN-0744(2)(2)	8.2	Passed
126-038	51.2	44	3,500.0	4,000.0	WMAIN-3778	10.2	Passed
126-041	52	41.6	3,501.7	3,761.1	WMAIN-2665(2)	15	Passed
126-042	49.6	45.1	1,250.3	1,750.3	WMAIN-0492(2)	7.8	Passed
126-043	48.1	39.3	1,251.9	1,751.9	WMAIN-0488	11.2	Passed
126-044	48.5	43.6	1,251.0	1,751.0	WMAIN-0499(2)	6.7	Passed
126-045	48.9	42.1	1,252.0	1,752.0	WMAIN-0486	6.1	Passed
126-046	49	40.3	1,251.5	1,751.5	WMAIN-0479	11.2	Passed
126-047	48.9	42.6	1,251.4	1,751.4	WMAIN-0481(1)	7.1	Passed
126-048	50.9	44.1	1,252.1	1,752.1	WMAIN-0261	7.3	Passed
126-049	50.8	45.2	1,251.9	1,751.9	WMAIN-0298	7.6	Passed
126-050	50.6	44.1	1,254.1	1,754.1	WMAIN-5897	6	Passed
126-051	50.7	44.6	1,253.9	1,753.9	WMAIN-0297(1)	6.9	Passed
126-052	50.4	20	3,503.2	3,859.4	WMAIN-0261	12.6	Passed
126-053	50.3	43.2	1,252.3	1,752.3	WMAIN-0257(1)	6.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
126-054	50.3	45.4	1,250.8	1,750.8	WMAIN-0263(1)	6.4	Passed
126-055	50.7	43.5	1,250.0	1,750.0	WMAIN-0250(2)	6.8	Passed
126-056	50.4	42.7	1,255.1	1,755.1	WMAIN-5897	6	Passed
126-057	50.3	43.5	1,250.0	1,750.0	WMAIN-0252(1)(1)	7.2	Passed
126-058	50.2	44.8	1,251.9	1,751.9	WMAIN-0252(1)(1)	8.3	Passed
126-059	52.1	44.2	1,250.4	1,750.4	WMAIN-7500(2)	11.2	Passed
126-060	52.2	38.7	1,251.0	1,751.0	WMAIN-7500(2)	11.2	Passed
126-061	51.8	37.4	1,250.2	1,750.2	WMAIN-7500(2)	11.2	Passed
126-062	49.2	42.9	3,500.0	4,000.0	WMAIN-7879(1)	9.4	Passed
127-001	48.2	38.9	3,500.0	4,000.0	WMAIN-7873(1)	11.2	Passed
134-001	54.6	30.4	3,519.0	4,019.0	WMAIN-0867(2)	11.7	Passed
134-002	54.7	20	5,001.1	4,615.0	WMAIN-0867(2)	13.4	Residual Pressure Failed
134-003	55	25.4	3,503.7	4,003.7	WMAIN-0867(2)	11.7	Passed
134-004	55.5	20	5,018.4	4,209.9	WMAIN-0867(2)	12.2	Residual Pressure Failed
134-027	54.3	35.7	3,508.7	4,008.7	WMAIN-0867(2)	11.7	Passed
134-030	53.6	44.2	3,500.9	4,000.9	WMAIN-0868(2)(2)	9	Passed
134-031	53.8	43.7	3,500.0	4,000.0	WMAIN-0867(1)	11.7	Passed
137-001	48.4	39.2	3,500.0	4,000.0	WMAIN-7874(1)	7.1	Passed
139-001	44.9	44.3	1,254.4	1,754.4	WMAIN-5897	5.1	Passed
139-002	45.1	45	1,250.5	1,750.5	WMAIN-0278B	5.5	Passed
145-001	52.9	39	3,521.8	4,021.8	WMAIN-3712(2)	12.6	Passed
145-003	52.9	28.5	5,020.5	4,872.8	WMAIN-3712(2)	15	Velocity Failed
145-004	52.9	20	5,024.6	4,861.2	WMAIN-3712(2)	15	Residual Pressure and Velocity Failed
145-005	52.8	21.5	3,509.0	4,009.0	WMAIN-3712(2)	12.6	Passed
145-006	52.6	20	5,012.3	3,686.8	WMAIN-3712(2)	11.7	Residual Pressure Failed
145-007	51.8	20	5,065.7	3,501.2	WMAIN-3712(2)	11	Residual Pressure Failed
145-012	52.8	44.5	3,500.0	4,000.0	WMAIN-3712(1)	12.6	Passed
145-013	53.3	45.5	3,508.6	4,008.6	WMAIN-0349	6.5	Passed
145-014	53.9	49	2,509.0	3,009.0	WMAIN-1906	5.6	Passed
145-015	55	50.4	2,501.2	3,001.2	WMAIN-1906	5.6	Passed
145-016	55.2	53.6	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
145-017	53.5	45.9	3,500.3	4,000.3	WMAIN-0858(2)	6.3	Passed
145-018	54	40.3	3,506.0	4,006.0	WMAIN-0867(2)	11.7	Passed
145-019	54.2	37.3	3,502.9	4,002.9	WMAIN-0867(2)	11.7	Passed
145-020	53.6	46	3,507.1	4,007.1	WMAIN-5897	6.1	Passed
149-001	46.1	44.8	1,254.7	1,754.7	WMAIN-5897	5.2	Passed
149-002	46.1	44.6	1,337.0	1,837.0	WMAIN-5897	5.2	Passed
150-001	44.4	38.8	3,506.8	4,006.8	WMAIN-0467(1)(1)	7.2	Passed
150-002	44.7	43	1,251.7	1,751.7	WMAIN-5897	5.2	Passed
150-003	45.1	43.4	1,251.5	1,751.5	WMAIN-5897	5.2	Passed
150-004	45.2	43.5	1,250.0	1,750.0	WMAIN-5897	5.2	Passed
150-005	45.1	43.5	1,252.8	1,752.8	WMAIN-5897	5.2	Passed
150-006	45.7	43.8	1,250.1	1,750.1	WMAIN-5897	5.2	Passed
150-007	45.9	44.1	1,253.3	1,753.3	WMAIN-5897	5.2	Passed
150-008	45.5	43.8	1,253.3	1,753.3	WMAIN-5897	5.2	Passed
150-009	44.2	43.1	1,252.5	1,752.5	WMAIN-0471(2)	6.2	Passed
156-001	52.5	29.9	3,500.0	4,000.0	WMAIN-1071	14.1	Passed
156-002	55	46.4	3,500.0	4,000.0	WMAIN-1071	12.6	Passed
156-003	55.1	46.2	3,500.0	4,000.0	WMAIN-1071	12.9	Passed
156-004	55.1	46.5	3,500.0	4,000.0	WMAIN-1071	13.4	Passed
156-005	55.1	45	3,500.0	4,000.0	WMAIN-1071	13.3	Passed
156-006	55.1	44.8	3,500.0	4,000.0	WMAIN-1071	13.4	Passed
156-007	55.1	44.7	3,504.0	4,004.0	WMAIN-1071	13.7	Passed
156-008	54.5	41.7	3,500.8	2,349.8	WMAIN-7917(1)(1)	15	Velocity Failed
156-009	54.7	46.3	3,500.3	2,349.3	WMAIN-7917(1)(1)	15	Velocity Failed
156-010	52.9	36	3,500.0	3,751.9	WMAIN-7920(2)	15	Passed
156-011	55.1	46.4	3,500.0	4,000.0	WMAIN-1071	14.6	Passed
156-012	53.1	37.8	3,507.2	4,007.2	WMAIN-1071	14.7	Passed
156-013	52.8	32	3,500.0	4,000.0	WMAIN-1071	14.7	Passed
156-014	52.8	34.2	3,500.6	3,888.9	WMAIN-7923(2)	15	Passed
156-015	53.3	45.1	3,500.0	3,212.4	WMAIN-7925(2)(2)	15	Velocity Failed
156-016	52.9	44.1	3,500.6	2,350.1	WMAIN-7919(1)	15	Velocity Failed
156-017	53.1	38.7	3,500.0	2,349.5	WMAIN-7919(1)	15	Velocity Failed
156-018	53.7	37.5	3,500.0	2,349.5	WMAIN-7922(1)	15	Velocity Failed
156-019	54.4	46.2	3,500.6	2,350.1	WMAIN-7922(1)	15	Velocity Failed
156-020	55.1	46.3	3,500.0	3,944.6	WMAIN-1071	15	Passed
156-021	55.1	46.4	3,500.0	4,000.0	WMAIN-1071	13.7	Passed
156-022	52.7	48.3	1,259.0	1,759.0	WMAIN-1071	6.7	Passed
156-023	54.7	51	1,263.8	1,763.8	WMAIN-1071	6.7	Passed
156-024	55.1	41.2	3,500.0	4,000.0	WMAIN-1071	14.1	Passed
156-025	55.1	43.7	3,500.0	4,000.0	WMAIN-1071	14.1	Passed
156-026	55.1	45.9	3,500.0	4,000.0	WMAIN-1071	14.1	Passed
156-029	55.1	46.5	3,500.0	4,000.0	WMAIN-1071	14.3	Passed
156-030	55.1	46.4	3,511.2	4,011.2	WMAIN-1071	14.8	Passed
156-031	55.1	47	3,508.6	3,975.4	WMAIN-1071	15	Passed
156-032	55	48.4	3,501.2	3,711.0	WMAIN-1071	15	Passed
156-033	53.3	48.1	3,502.8	3,447.7	WMAIN-1071	15	Velocity Failed
156-034	55.1	44.8	3,500.0	4,000.0	WMAIN-7840(1)(1)(1)	12.9	Passed
156-035	55.2	42.5	3,500.0	4,000.0	WMAIN-1071	12.6	Passed
156-036	55.1	42.1	3,500.0	4,000.0	WMAIN-1071	12.7	Passed
156-037	55.1	43.1	3,500.0	4,000.0	WMAIN-1071	12.8	Passed
156-038	55.2	43.5	3,500.0	4,000.0	WMAIN-1071	12.8	Passed
156-039	55.1	42.5	3,516.8	4,016.8	WMAIN-1071	12.7	Passed
156-040	55	44.8	3,500.0	2,350.1	WMAIN-7837	15	Velocity Failed
156-041	50.6	39	5,005.1	5,505.1	WMAIN-0690(2)	10.7	Passed
156-042	51.6	47	2,502.3	3,002.3	WMAIN-1906	5.6	Passed
156-043	53.1	48.1	2,503.5	3,003.5	WMAIN-1906	5.6	Passed
156-044	52.7	44.7	3,501.7	4,001.7	WMAIN-0308	6.4	Passed
156-046	55	47.1	3,500.0	4,000.0	WMAIN-1071	12	Passed
161-001	43.5	38.4	3,500.0	3,672.0	WMAIN-3226	15	Passed
167-001	54.5	49.2	1,250.0	1,750.0	WMAIN-2347(2)	11.2	Passed
167-002	54.6	48.2	3,500.2	4,000.2	WMAIN-1071	7.5	Passed
167-003	54.1	47.5	3,501.8	4,001.8	WMAIN-3742(2)(2)	8.3	Passed
167-004	54.7	46.6	3,504.2	4,004.2	WMAIN-1071	7.9	Passed
167-005	54.9	53.2	1,250.5	1,750.5	WMAIN-1906	6	Passed
167-006	56.5	54.9	1,251.4	1,751.4	WMAIN-1906	6	Passed
167-007	57.1	55	1,250.6	1,750.6	WMAIN-4236(2)	8.1	Passed
167-008	57	55.2	1,250.7	1,750.7	WMAIN-1906	5.9	Passed
167-009	55.7	47.8	1,251.8	1,751.8	WMAIN-4266(2)	11.2	Passed
167-010	55.7	54	1,251.2	1,751.2	WMAIN-1906	5.8	Passed
167-011	55.3	53.4	1,251.7	1,751.7	WMAIN-1906	5.8	Passed
167-012	54.7	52.3	1,251.2	1,751.2	WMAIN-3834(2)	8.2	Passed
167-013	54.9	51.2	1,252.0	1,752.0	WMAIN-3843(1)	9	Passed
167-014	56.8	53.5	1,251.2	1,751.2	WMAIN-4245(2)	11.2	Passed
167-015	57.1	50.8	1,252.4	1,752.4	WMAIN-4252	6.8	Passed
167-016	57.1	50.7	1,250.0	1,750.0	WMAIN-4241(1)	6.5	Passed
167-017	56.9	52.4	1,252.7	1,752.7	WMAIN-4241(1)	8.5	Passed
167-018	56.6	51.3	1,250.7	1,750.7	WMAIN-4263(1)	11.2	Passed
167-019	54.8	51.1	1,254.7	1,754.7	WMAIN-3851(1)	6.4	Passed
167-020	54.5	51.9	1,250.0	1,750.0	WMAIN-3829(2)(2)	8.5	Passed
167-021	54.3	50.6	1,253.5	1,753.5	WMAIN-3829(1)	6	Passed
167-022	54.6	51.6	1,251.5	1,751.5	WMAIN-3847(1)	7.8	Passed
167-023	55.2	51.4	1,250.6	1,750.6	WMAIN-3837(2)	6.4	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
167-024	55	51.4	1,253.6	1,753.6	WMAIN-1906	5.8	Passed
167-025	54.2	44.4	3,512.4	4,012.4	WMAIN-1071	9.9	Passed
167-026	54.7	45.8	3,501.2	4,001.2	WMAIN-1071	9.5	Passed
167-027	54.9	53.3	1,262.6	1,762.6	WMAIN-1906	5.7	Passed
167-028	54.9	53.4	1,250.5	1,750.5	WMAIN-1906	5.7	Passed
167-029	55.1	52.6	1,251.0	1,751.0	WMAIN-6221(2)	7.8	Passed
167-030	55.7	53.7	1,252.7	1,752.7	WMAIN-1906	5.8	Passed
167-031	55.5	53.8	1,250.0	1,750.0	WMAIN-1906	5.8	Passed
167-032	55.1	53.2	1,251.7	1,751.7	WMAIN-1906	5.8	Passed
167-033	55	51.3	1,250.8	1,750.8	WMAIN-6217	6	Passed
167-034	54.8	36.4	3,500.6	3,605.7	WMAIN-3581(2)	15	Passed
167-035	54.8	49.3	1,254.7	1,754.7	WMAIN-1906	5.8	Passed
167-036	54.9	50.7	1,251.2	1,751.2	WMAIN-6227(1)	7.8	Passed
167-037	55	35.9	3,501.8	4,001.8	WMAIN-3580	13.8	Passed
167-038	56.4	52.6	1,251.2	1,751.2	WMAIN-6146(2)	8.8	Passed
167-039	55.1	49.7	1,250.0	1,750.0	WMAIN-3843(1)	6.9	Passed
167-040	56.5	54.6	1,255.4	1,755.4	WMAIN-1906	6.3	Passed
167-041	55.6	53.5	1,250.9	1,750.9	WMAIN-1906	6.6	Passed
167-042	55.2	53.3	1,250.4	1,750.4	WMAIN-1906	6.9	Passed
167-043	56	53.9	1,250.0	1,750.0	WMAIN-1906	6.5	Passed
167-044	56.2	54	1,250.0	1,750.0	WMAIN-1906	6	Passed
167-045	56	53.7	1,250.0	1,750.0	WMAIN-1906	5.8	Passed
167-046	56.4	53	1,251.2	1,751.2	WMAIN-1896(2)	6.9	Passed
167-047	56.6	53.8	1,251.2	1,751.2	WMAIN-1879(1)	7.7	Passed
167-048	56.2	53.1	1,251.0	1,751.0	WMAIN-1892(1)	7	Passed
167-049	56.3	51.9	1,251.0	1,751.0	WMAIN-1835(1)	7	Passed
167-050	56.5	54	1,250.2	1,750.2	WMAIN-1829(2)	7	Passed
167-051	56.6	54	1,251.2	1,751.2	WMAIN-1871(2)	6.4	Passed
167-052	56.9	54.5	1,251.5	1,751.5	WMAIN-1856(1)	7.2	Passed
167-053	56.8	52.2	1,252.4	1,752.4	WMAIN-1853	6	Passed
167-054	56.4	52.2	1,252.1	1,752.1	WMAIN-0683(2)	6.9	Passed
167-055	56.1	52.6	1,251.8	1,751.8	WMAIN-1810(1)	5.8	Passed
167-056	56.4	54.3	1,251.0	1,751.0	WMAIN-1884(2)	8.2	Passed
167-057	56.2	54.1	1,250.9	1,750.9	WMAIN-0681(2)	8.7	Passed
167-058	56.3	53.6	1,253.1	1,753.1	WMAIN-1826(1)	7.8	Passed
167-059	56.3	51.4	1,254.4	1,754.4	WMAIN-1820	5.9	Passed
167-060	56.8	53.5	1,250.6	1,750.6	WMAIN-1816(2)	8.3	Passed
167-061	56	51.9	1,251.6	1,751.6	WMAIN-1815(1)	11.2	Passed
167-063	56	53.9	1,252.4	1,752.4	WMAIN-7510(1)	9	Passed
167-064	55.1	52.1	1,252.1	1,752.1	WMAIN-1336(1)	7.5	Passed
167-065	55.1	52	1,251.2	1,751.2	WMAIN-1344(1)	7.1	Passed
167-066	56.3	51.8	1,250.6	1,750.6	WMAIN-1862	6	Passed
167-067	55.3	44.9	3,502.7	4,002.7	WMAIN-1071	10.7	Passed
167-068	55.1	53.4	1,250.0	1,750.0	WMAIN-1071	5.4	Passed
167-069	54.8	53.1	1,250.7	1,750.7	WMAIN-1071	5.6	Passed
167-070	54.9	53.1	1,252.7	1,752.7	WMAIN-1906	5.5	Passed
167-071	54.8	45.2	3,505.8	4,005.8	WMAIN-1071	10.4	Passed
167-072	54.5	44.6	3,500.0	4,000.0	WMAIN-1071	10.1	Passed
167-073	56.2	52.9	1,252.1	1,752.1	WMAIN-7509(2)	8.1	Passed
167-074	56.5	49.3	1,252.0	1,752.0	WMAIN-7511(2)	11.2	Passed
167-075	56.5	54.7	1,251.5	1,751.5	WMAIN-1071	5.2	Passed
167-076	55.3	53.2	1,250.0	1,750.0	WMAIN-1906	6.7	Passed
167-077	55.5	53.5	1,250.9	1,750.9	WMAIN-1906	6.7	Passed
167-078	55.1	49.9	1,252.8	1,752.8	WMAIN-8006(2)	6.8	Passed
167-079	55.5	53.2	1,250.0	1,750.0	WMAIN-1906	6.7	Passed
167-080	55.1	52.8	1,250.0	1,750.0	WMAIN-1906	6.5	Passed
167-081	54	50.3	1,250.0	1,750.0	WMAIN-8003(2)	7.1	Passed
167-082	55.3	52.8	1,252.7	1,752.7	WMAIN-1906	6.7	Passed
167-083	55.1	49.9	1,254.9	1,754.9	WMAIN-1906	6.7	Passed
167-084	55.4	52.9	1,250.5	1,750.5	WMAIN-1906	6.6	Passed
167-085	55.5	53	1,250.0	1,750.0	WMAIN-1906	6.6	Passed
167-086	55.6	53.1	1,250.7	1,750.7	WMAIN-1906	6.6	Passed
167-087	55.3	52.1	1,250.6	1,750.6	WMAIN-7994(2)	7.3	Passed
167-088	55.5	50.5	1,253.4	1,753.4	WMAIN-7964(2)	6.6	Passed
167-089	55.7	50.8	1,250.5	1,750.5	WMAIN-8002	7.1	Passed
167-090	55.7	52.1	1,250.3	1,750.3	WMAIN-1906	6.6	Passed
167-091	55.1	50.4	1,251.1	1,751.1	WMAIN-1906	6.6	Passed
167-092	55.4	51	1,250.7	1,750.7	WMAIN-7974(1)	7.2	Passed
167-093	55.5	50	1,253.6	1,753.6	WMAIN-7969(1)	6.8	Passed
167-094	55.7	50	1,253.3	1,753.3	WMAIN-7986	7.1	Passed
167-095	55.1	47.6	1,251.1	1,751.1	WMAIN-7984(2)	7.5	Passed
167-096	55.2	48.4	1,253.2	1,753.2	WMAIN-1906	6.6	Passed
167-097	55.4	49.6	1,253.3	1,753.3	WMAIN-1906	6.6	Passed
167-098	55.5	50.1	1,250.3	1,750.3	WMAIN-7972(1)	7.4	Passed
167-099	55.3	49.3	1,250.5	1,750.5	WMAIN-1906	6.6	Passed
167-100	55.1	47.1	1,251.3	1,751.3	WMAIN-7968	6.6	Passed
168-001	53.1	48.6	2,520.3	3,020.3	WMAIN-1906	6	Passed
168-002	53.1	51.6	1,250.7	1,750.7	WMAIN-1906	5.8	Passed
168-003	53	51.7	1,251.1	1,751.1	WMAIN-1906	5.8	Passed
168-004	52.9	51.7	1,251.7	1,751.7	WMAIN-1906	5.8	Passed
168-005	53.3	52	1,250.0	1,750.0	WMAIN-1906	5.7	Passed
168-006	53.4	52.1	1,250.0	1,750.0	WMAIN-1906	5.7	Passed
168-007	52.7	51.3	1,251.8	1,751.8	WMAIN-1906	5.7	Passed
168-008	51.4	45.1	3,503.9	4,003.9	WMAIN-4221(1)(2)	6.8	Passed
168-009	51.1	46	3,500.0	4,000.0	WMAIN-4221(2)	8.5	Passed
168-010	54.4	53.2	1,250.0	1,750.0	WMAIN-1906	5.8	Passed
168-011	54.1	52.9	1,250.0	1,750.0	WMAIN-1906	5.8	Passed
168-012	53.8	52.5	1,256.2	1,756.2	WMAIN-1906	5.8	Passed
168-013	53.5	52.3	1,250.0	1,750.0	WMAIN-1906	5.7	Passed
168-014	53.7	52.1	1,250.2	1,750.2	WMAIN-2313(1)	6.9	Passed
168-015	53.5	51.3	1,250.4	1,750.4	WMAIN-2315(1)	6.3	Passed
168-016	53.3	50.2	1,252.1	1,752.1	WMAIN-2565(2)	6.2	Passed
168-017	53.3	51.3	1,253.3	1,753.3	WMAIN-2554(1)	8.4	Passed
168-018	53.2	51.3	1,250.0	1,750.0	WMAIN-2554(2)(2)	8.5	Passed
168-019	53.2	49.9	1,253.3	1,753.3	WMAIN-1906	5.7	Passed
168-020	53.5	48.8	1,250.0	1,750.0	WMAIN-2563(2)	7.6	Passed
168-021	53.8	47.8	1,254.5	1,754.5	P-85	5.9	Passed
168-022	53.7	48.4	1,254.3	1,754.3	WMAIN-2559(2)	7.1	Passed
168-023	53.5	51.3	1,250.7	1,750.7	WMAIN-2303(2)	7.3	Passed
168-024	53.1	49.1	1,253.4	1,753.4	WMAIN-2295	6.1	Passed
168-025	53.3	51.2	1,251.2	1,751.2	WMAIN-2288(2)	6.5	Passed
168-026	53.4	51.1	1,250.0	1,750.0	WMAIN-2296(2)(2)	7	Passed
168-027	53.7	51	1,250.8	1,750.8	WMAIN-2317(1)	6.5	Passed
168-028	53.8	51.5	1,252.6	1,752.6	WMAIN-2322(2)	7.6	Passed
168-029	53.3	50.9	1,251.5	1,751.5	WMAIN-2566(2)	6.6	Passed
168-030	53.5	50.2	1,251.9	1,751.9	WMAIN-2338(2)	7.7	Passed
168-031	53.9	48.5	1,252.1	1,752.1	WMAIN-2546(2)	6.3	Passed
168-032	54.2	49.6	1,251.5	1,751.5	WMAIN-2333(1)	7.5	Passed
168-033	54.3	52.3	1,250.5	1,750.5	WMAIN-2342(1)	8	Passed
168-034	53.8	50	1,251.1	1,751.1	WMAIN-2340(1)	6.6	Passed
168-035	54	52.3	1,250.5	1,750.5	WMAIN-2327(1)	6.7	Passed
168-036	53.8	51	1,253.0	1,753.0	WMAIN-2542(1)	5.9	Passed
168-037	51.6	49.6	1,250.0	1,750.0	WMAIN-7532	7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
168-038	53.2	52.1	1,250.4	1,750.4	HS-255	5.2	Passed
168-039	53.3	49.5	1,251.3	1,751.3	WMAIN-0020(1)	9.2	Passed
168-040	53.5	47.1	1,252.2	1,752.2	WMAIN-0033	6.9	Passed
168-041	53.4	46.8	1,251.2	1,751.2	WMAIN-0033	6.7	Passed
168-042	53.3	47.5	1,251.6	1,751.6	WMAIN-0013	7.5	Passed
168-043	53.1	49.3	1,251.0	1,751.0	WMAIN-0028	6.3	Passed
168-044	53	48.1	1,253.5	1,753.5	WMAIN-0033	6.6	Passed
168-045	53.2	48.5	1,250.0	1,750.0	WMAIN-0033	6.9	Passed
168-046	52.8	51.5	1,253.5	1,753.5	WMAIN-1906	5.8	Passed
168-047	52.9	51.5	1,250.2	1,750.2	WMAIN-1906	5.8	Passed
168-048	52.8	51.4	1,255.2	1,755.2	WMAIN-1906	5.8	Passed
168-049	53.4	52	1,250.0	1,750.0	WMAIN-1906	5.7	Passed
168-050	53.4	50.8	1,250.6	1,750.6	WMAIN-7464(2)	7.3	Passed
168-051	53.4	50.5	1,251.7	1,751.7	WMAIN-7547	6.6	Passed
168-052	53.2	50	1,252.0	1,752.0	WMAIN-7468(1)	6.4	Passed
168-053	52.9	47.8	1,253.8	1,753.8	WMAIN-7467(2)	7.4	Passed
168-054	52.8	46.8	1,250.7	1,750.7	WMAIN-1906	5.7	Passed
168-055	52.9	48	1,253.5	1,753.5	WMAIN-7465(1)	7.6	Passed
168-056	52.9	51.6	1,250.0	1,750.0	WMAIN-1906	5.8	Passed
168-057	53	51.7	1,251.1	1,751.1	WMAIN-1906	5.7	Passed
168-058	53.2	50.4	1,253.2	1,753.2	WMAIN-7549(1)(1)	8.8	Passed
168-059	52.5	48.1	1,251.9	1,751.9	WMAIN-7549(1)(1)	5.8	Passed
168-060	51.4	45.7	3,500.0	4,000.0	WMAIN-7639	7.6	Passed
168-061	52.9	49.1	1,253.0	1,753.0	WMAIN-7548(1)	5.9	Passed
168-062	52.9	49.1	1,251.2	1,751.2	WMAIN-7550(1)	6.2	Passed
168-063	52.2	50.6	1,250.0	1,750.0	HS-255	5.2	Passed
168-064	53.4	50.6	1,250.3	1,750.3	WMAIN-7552(1)	5.8	Passed
168-065	52.4	50.7	1,250.4	1,750.4	HS-255	5.2	Passed
168-066	52.3	50.5	1,250.5	1,750.5	HS-255	5.2	Passed
168-067	52.6	42.4	1,253.1	1,753.1	WMAIN-8165(2)(2)	11.2	Passed
168-068	53.3	49	1,252.4	1,752.4	WMAIN-8165(2)(2)	11.2	Passed
168-069	53.4	50.3	1,251.8	1,751.8	WMAIN-8175(1)	11.2	Passed
168-070	53.4	44.2	1,250.1	1,750.1	WMAIN-8175(1)	11.2	Passed
168-071	53.4	52	1,251.6	1,751.6	WMAIN-1906	5.7	Passed
168-072	52.9	48.3	1,254.0	1,754.0	WMAIN-7471	6.2	Passed
168-073	53	49.9	1,251.0	1,751.0	WMAIN-7471	7.3	Passed
168-074	52.8	46.8	1,251.0	1,751.0	WMAIN-7602(1)	11.2	Passed
168-075	52.9	51.3	1,251.7	1,751.7	WMAIN-1906	5.8	Passed
168-076	52.7	46.8	1,251.3	1,751.3	WMAIN-7603	6.6	Passed
168-077	52.8	48	2,501.8	3,001.8	WMAIN-1906	5.9	Passed
168-078	52.6	46.9	1,252.9	1,752.9	WMAIN-7594(1)	6.9	Passed
168-079	53.1	50.2	1,252.7	1,752.7	WMAIN-8171(2)	5.9	Passed
168-080	52.9	49.6	1,251.5	1,751.5	WMAIN-8172	6.6	Passed
168-081	52.4	44.5	1,252.9	1,752.9	WMAIN-8174(2)	11.2	Passed
168-082	52.1	50.6	1,253.5	1,753.5	WMAIN-1906	5.7	Passed
168-083	52.5	51.1	1,251.1	1,751.1	WMAIN-1906	5.7	Passed
168-084	52.8	51.3	1,253.0	1,753.0	WMAIN-1906	5.7	Passed
168-085	52.3	48.4	1,251.4	1,751.4	WMAIN-7597(1)	6.4	Passed
168-086	52.2	44.2	1,250.0	1,750.0	WMAIN-8168(1)	11.2	Passed
168-087	52	49.9	1,252.8	1,752.8	WMAIN-8168(1)	11.2	Passed
168-088	51.7	50.1	1,251.8	1,751.8	WMAIN-1906	5.7	Passed
168-089	51.4	49.8	1,303.0	1,803.0	WMAIN-1906	5.7	Passed
168-090	51.4	49.7	1,250.3	1,750.3	WMAIN-1906	5.7	Passed
168-091	51.6	48.9	1,250.7	1,750.7	WMAIN-7595(2)	7.7	Passed
168-092	51.8	47.2	1,251.9	1,751.9	WMAIN-7596(1)	6.6	Passed
168-093	52	47.3	1,251.0	1,751.0	WMAIN-7592(2)	6.5	Passed
168-094	51.4	49.5	1,264.8	1,764.8	WMAIN-1906	5.8	Passed
168-095	51.2	49.8	1,250.0	1,750.0	HS-255	5.2	Passed
168-096	51.6	46	3,500.8	4,000.8	WMAIN-7536(2)	6.9	Passed
168-097	53.1	50.7	1,251.1	1,751.1	WMAIN-8154(1)	7.5	Passed
168-098	53.3	50.7	1,253.8	1,753.8	WMAIN-8151(1)	5.9	Passed
168-099	53	50.2	1,253.9	1,753.9	WMAIN-8155(2)	6.6	Passed
168-100	53.2	51.2	1,251.1	1,751.1	WMAIN-8148(1)	6.1	Passed
168-101	53.3	50.6	1,253.2	1,753.2	WMAIN-1906	5.8	Passed
168-102	53.5	51.5	1,251.4	1,751.4	WMAIN-8144(1)	6.3	Passed
168-103	53.5	51.1	1,250.4	1,750.4	WMAIN-7767	5.9	Passed
168-104	53.4	52	1,250.6	1,750.6	WMAIN-1906	5.8	Passed
168-105	53.2	51.9	1,252.4	1,752.4	WMAIN-1906	5.8	Passed
168-106	53	51	1,252.1	1,752.1	WMAIN-8156(1)	8.1	Passed
168-107	53.2	51.1	1,252.2	1,752.2	WMAIN-8149(1)	7	Passed
168-108	53.3	51.3	1,251.1	1,751.1	WMAIN-8152(1)	7	Passed
168-109	53.5	50.8	1,251.6	1,751.6	WMAIN-7765(1)	6.2	Passed
168-110	53.6	51.2	1,250.2	1,750.2	WMAIN-7782(2)	5.8	Passed
168-111	53.5	50.4	1,250.0	1,750.0	WMAIN-7764(2)	7	Passed
168-112	53.5	51.1	1,251.1	1,751.1	WMAIN-7769(2)	5.8	Passed
168-113	53.2	50.9	1,252.8	1,752.8	WMAIN-7773(1)	8.1	Passed
168-114	53.1	50.6	1,251.5	1,751.5	WMAIN-8153(1)	6.9	Passed
168-115	53	49.9	1,250.0	1,750.0	WMAIN-7774	6.2	Passed
168-116	53.1	50.9	1,251.0	1,751.0	WMAIN-7776(2)	7.3	Passed
168-117	53.1	51	1,253.6	1,753.6	WMAIN-7780(1)	8.8	Passed
168-118	53.2	50.1	1,253.9	1,753.9	WMAIN-7764(1)(1)	7.1	Passed
168-119	53.2	50.8	1,250.8	1,750.8	WMAIN-7777(1)	6.4	Passed
168-120	53.2	49.8	1,250.0	1,750.0	WMAIN-7779	6.1	Passed
169-001	51.2	49.7	1,250.4	1,750.4	WMAIN-0058(1)	9.4	Passed
169-002	52.4	50.7	1,260.8	1,760.8	HS-255	5.2	Passed
169-003	52	50.3	1,255.0	1,755.0	HS-255	5.2	Passed
169-004	51.3	49.8	1,250.5	1,750.5	HS-255	5.2	Passed
169-005	51	49.2	1,251.2	1,751.2	HS-255	5.2	Passed
169-006	50	48.1	1,263.1	1,763.1	HS-255	5.2	Passed
169-007	50	47.9	1,256.4	1,756.4	HS-255	5.3	Passed
169-008	50	47.9	1,254.2	1,754.2	HS-255	5.3	Passed
169-009	50	48	1,259.5	1,759.5	HS-255	5.3	Passed
169-010	51.8	50.4	1,250.3	1,750.3	HS-255	5.2	Passed
169-011	51.5	46.3	3,500.2	4,000.2	WMAIN-0699(2)(2)	8	Passed
169-012A	53.1	49	1,250.0	1,750.0	WMAIN-3113(2)	6.8	Passed
169-012B	52.6	49.9	1,250.0	1,750.0	WMAIN-3125(2)	7.8	Passed
169-014	53.2	34.7	3,517.2	4,017.2	WMAIN-3113(1)(1)	14.8	Passed
169-015	52	50.1	1,250.2	1,750.2	WMAIN-3128(1)	7.4	Passed
169-016	51	49.6	1,251.4	1,751.4	HS-255	5.2	Passed
169-017	51.7	50.2	1,250.0	1,750.0	HS-255	5.2	Passed
169-018	51.8	50.5	1,250.9	1,750.9	HS-255	5.2	Passed
169-019	52.6	49.6	1,251.8	1,751.8	WMAIN-3097(1)	8.8	Passed
169-020	52.6	46.7	1,251.7	1,751.7	WMAIN-3094(2)	11.2	Passed
169-021	52.3	45.5	1,250.0	1,750.0	WMAIN-3093(2)(2)	7.5	Passed
169-022	51.2	43.6	1,255.0	1,755.0	WMAIN-3119(1)	6.5	Passed
169-023	51.3	43.4	1,251.8	1,751.8	WMAIN-3086(2)	11.2	Passed
169-024	51.9	47.1	1,251.0	1,751.0	WMAIN-3119(1)	7	Passed
169-025	52.4	48.7	1,255.1	1,755.1	WMAIN-3104	5.9	Passed
169-026	52.6	49.8	1,252.9	1,752.9	WMAIN-3111(2)	6.9	Passed
169-027	51.6	50.1	1,250.8	1,750.8	HS-255	5.2	Passed
169-028	51.4	49.9	1,250.0	1,750.0	HS-255	5.2	Passed
169-029	51.2	46.8	1,250.0	1,750.0	WMAIN-3055(2)(2)	8.2	Passed
169-030	50.5	43.6	1,252.1	1,752.1	WMAIN-3044	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
169-031	49.4	41.8	1,251.2	1,751.2	WMAIN-3046	6.9	Passed
169-032	49.8	42.5	1,251.7	1,751.7	WMAIN-3046	6.7	Passed
169-033	51.4	46.6	1,253.1	1,753.1	WMAIN-3055(1)	7.3	Passed
169-034	51.5	47.9	1,253.5	1,753.5	WMAIN-3060(2)	7.7	Passed
169-035	51.5	50.2	1,250.2	1,750.2	HS-255	5.2	Passed
169-036	51.5	49.5	1,250.8	1,750.8	WMAIN-3108(1)	6.9	Passed
169-037	51.5	48.7	1,251.5	1,751.5	WMAIN-3063(1)	6.1	Passed
169-038	51.8	49.4	1,250.2	1,750.2	WMAIN-3048(1)	11.2	Passed
169-042	51.3	49.2	1,250.0	1,750.0	WMAIN-7535	6.4	Passed
169-043	51	38	5,012.5	5,512.5	WMAIN-7535	10.4	Passed
169-044	51.1	40.4	3,500.0	4,000.0	WMAIN-0907(2)	13.4	Passed
169-045	51.1	39.8	3,500.7	3,663.7	WMAIN-0911(1)	15	Passed
169-046	51	37.2	3,500.4	3,936.9	WMAIN-0913(1)	15	Passed
169-047	51.1	37.9	3,501.3	4,001.3	WMAIN-0921(2)	14	Passed
169-048	51.2	39.7	3,501.6	3,408.0	WMAIN-0918(1)	15	Velocity Failed
169-049	51.8	32.1	3,502.3	4,002.3	WMAIN-0918(1)	13.3	Passed
169-050	52	36.8	3,500.0	3,706.0	WMAIN-0915(2)	15	Passed
169-051	51.5	37.9	3,500.0	3,942.1	WMAIN-0934	15	Passed
169-052	51.2	37.6	3,500.0	4,000.0	WMAIN-0923(2)	14	Passed
169-053	51	41.1	3,500.0	4,000.0	WMAIN-1316(2)	13.2	Passed
169-054	51.1	43.1	3,501.3	3,242.4	WMAIN-1312(1)	15	Velocity Failed
169-055	51.2	36.5	3,500.0	4,000.0	WMAIN-1312(1)	13.3	Passed
169-056	51.2	42.1	3,500.0	3,371.4	WMAIN-1312(2)(2)(2)	15	Velocity Failed
169-057	51.2	39.4	3,500.0	3,510.1	WMAIN-1261(2)	15	Passed
169-058	51.2	33.8	3,500.0	4,000.0	WMAIN-1261(2)	13	Passed
169-059	51.5	35.2	3,506.3	4,006.3	WMAIN-0906(1)	14.3	Passed
169-060	51.9	36	3,500.0	3,720.6	WMAIN-0941(1)	15	Passed
169-061	52	32.1	3,502.4	4,002.4	WMAIN-0937	13.1	Passed
169-062	52	39	3,500.0	3,488.5	WMAIN-0937	15	Velocity Failed
169-063	51.3	32.9	3,500.0	3,717.9	WMAIN-1272(2)(2)	15	Passed
169-064	51.7	42.9	3,500.0	3,096.3	WMAIN-1272(2)(2)	15	Velocity Failed
169-065	51.3	37.1	3,500.0	4,000.0	WMAIN-1267(1)	13.1	Passed
169-067	51.5	40.1	3,500.0	3,251.8	WMAIN-1278(2)	15	Velocity Failed
169-068	51.5	33.1	3,500.5	3,708.5	WMAIN-1279	15	Passed
169-069	51	26.8	3,500.2	4,000.2	WMAIN-1273	13.3	Passed
169-070	51.4	43.5	3,501.6	4,001.6	WMAIN-1280	8.5	Passed
169-071	51.3	43.1	2,500.0	2,345.8	WMAIN-1288(1)	15	Velocity Failed
169-072	51.3	39.8	3,500.0	4,000.0	WMAIN-1284(1)	13	Passed
169-073	51.3	40.6	2,500.0	3,000.0	WMAIN-1286	11.3	Passed
169-075	51.2	32.4	3,501.9	4,001.9	WMAIN-1297	13.8	Passed
169-076	51.1	34.9	3,502.7	3,848.9	WMAIN-1297	15	Passed
169-077	51.1	35.9	3,500.5	3,760.6	WMAIN-1297	15	Passed
169-078	51	38	3,500.0	4,000.0	WMAIN-1309(2)	13.6	Passed
169-079	51	35.7	3,500.0	4,000.0	WMAIN-1305(1)	14	Passed
169-080	51	39.8	3,500.0	3,597.6	WMAIN-1303(1)	15	Passed
169-081	51.3	44.7	3,500.0	4,000.0	WMAIN-0695	6	Passed
169-082	50.5	43.6	3,525.9	4,025.9	WMAIN-7725	6.8	Passed
169-083	50.6	45.1	3,500.0	4,000.0	WMAIN-0708(1)	6.5	Passed
169-084	50	46.7	1,250.2	1,750.2	WMAIN-0724(2)	11.3	Passed
169-085	50.1	39.8	1,251.0	1,751.0	WMAIN-0724(2)	11.3	Passed
169-088	52.1	49.4	1,251.1	1,751.1	WMAIN-0085(1)	9.6	Passed
169-089	51.6	48.9	1,250.3	1,750.3	WMAIN-0058(1)	5.7	Passed
169-090	52.2	48.1	1,252.9	1,752.9	WMAIN-0078(1)	6.1	Passed
169-091	52	48.8	1,251.8	1,751.8	WMAIN-0075(2)	7.8	Passed
169-092	52	48.9	1,250.2	1,750.2	WMAIN-0090(2)	5.8	Passed
169-093	52.2	48.2	1,254.0	1,754.0	WMAIN-0092(2)	5.8	Passed
169-094	51.9	45.2	1,250.3	1,750.3	WMAIN-0063	11.3	Passed
169-095	52.1	46.9	1,250.0	1,750.0	WMAIN-0065	5.8	Passed
169-096	52.1	47.6	1,253.5	1,753.5	WMAIN-0085(1)	7.3	Passed
169-097	52	48.3	1,251.3	1,751.3	WMAIN-7828(1)	7	Passed
169-098	52.3	46.9	1,251.4	1,751.4	WMAIN-7825(1)	11.2	Passed
169-099	52.1	47.6	1,251.6	1,751.6	WMAIN-7823(1)	11.2	Passed
169-100	51.9	50.3	1,250.5	1,750.5	HS-255	5.2	Passed
169-101	51.9	48.7	1,251.2	1,751.2	WMAIN-7629(1)	5.6	Passed
169-102	51.6	49.9	1,251.3	1,751.3	HS-255	5.2	Passed
169-103	51.6	48.5	1,250.8	1,750.8	WMAIN-7628(1)	8	Passed
169-104	51.7	48.1	1,251.8	1,751.8	WMAIN-7626(2)	6.6	Passed
169-105	51.6	47.2	1,250.2	1,750.2	WMAIN-7618(2)	8.6	Passed
169-106	51.4	24.6	3,500.4	3,977.6	WMAIN-7618(2)	15	Passed
169-107	51.2	34.2	2,514.1	3,014.1	WMAIN-7618(2)	9.9	Passed
169-108	51.3	40.9	2,500.5	2,347.7	WMAIN-7623(2)	15	Velocity Failed
169-109	51.4	41	2,505.3	3,005.3	WMAIN-7635	10.7	Passed
169-110	51.2	46.7	2,501.8	3,001.8	WMAIN-1906	5.8	Passed
169-111	51.2	44.7	3,500.1	4,000.1	WMAIN-0699(2)(2)	6.2	Passed
169-112	51.3	45	3,500.3	4,000.3	WMAIN-0699(1)(1)	6.7	Passed
169-114	51.4	43.8	3,500.0	3,062.3	WMAIN-0927(2)(2)	15	Velocity Failed
169-115	51.4	34.8	3,500.0	4,000.0	WMAIN-0927(2)(2)	14.9	Passed
169-116	51.4	36.5	3,500.0	3,833.8	WMAIN-0933	15	Passed
170-001	48.9	47	1,250.9	1,750.9	WMAIN-4073(1)	7.8	Passed
170-002	49.6	47.3	1,251.1	1,751.1	WMAIN-4100(2)	7.6	Passed
170-003	49.7	47.1	1,252.0	1,752.0	WMAIN-4102(2)	7.9	Passed
170-004	49.6	47.4	1,251.0	1,751.0	WMAIN-4125(1)	7.3	Passed
170-005	49.5	47.1	1,250.6	1,750.6	WMAIN-4110(1)	6.4	Passed
170-006	49.5	47	1,251.4	1,751.4	WMAIN-4130(1)	6.8	Passed
170-007	49.6	46.1	1,252.0	1,752.0	WMAIN-4154(1)	5.7	Passed
170-008	49.6	47.7	1,251.6	1,751.6	WMAIN-4154(1)	9	Passed
170-009	49.8	48.3	1,251.0	1,751.0	HS-255	5.3	Passed
170-010	49.7	46.4	1,253.7	1,753.7	WMAIN-4156(1)	5.8	Passed
170-011	50	48.1	1,255.1	1,755.1	WMAIN-4096(1)(1)	9.3	Passed
170-012	50.3	46.6	1,250.0	1,750.0	WMAIN-4096(1)(1)	6.1	Passed
170-013	50.7	48	1,250.0	1,750.0	WMAIN-4096(2)(2)	7.8	Passed
170-014	50.9	48.7	1,250.5	1,750.5	WMAIN-4082(1)	6.2	Passed
170-015	50.7	47.7	1,252.1	1,752.1	WMAIN-4086(1)	5.9	Passed
170-016	49.9	48	1,250.8	1,750.8	WMAIN-4068(1)	8.1	Passed
170-017	50.6	48.8	1,250.9	1,750.9	WMAIN-4079(1)	7.8	Passed
170-018	50.2	48.4	1,251.8	1,751.8	HS-255	5.3	Passed
170-019	49.9	48.2	1,250.0	1,750.0	HS-255	5.3	Passed
170-020	49.4	47.3	1,253.7	1,753.7	WMAIN-4149(1)(1)	8.6	Passed
170-021	49.4	46.1	1,250.0	1,750.0	WMAIN-4149(1)(1)	5.7	Passed
170-022	49.2	46.9	1,251.1	1,751.1	WMAIN-4123(1)	6.3	Passed
170-023	48.9	47	1,255.4	1,755.4	WMAIN-7506(1)(1)	9	Passed
170-024	48.8	47.3	1,252.4	1,752.4	HS-255	5.3	Passed
170-025	49	46.2	1,254.7	1,754.7	WMAIN-4141(1)	7.7	Passed
170-026	49.3	45.8	1,250.0	1,750.0	WMAIN-4141(1)	6	Passed
170-027	49	47.5	1,251.3	1,751.3	HS-255	5.3	Passed
170-028	49.1	47.7	1,251.0	1,751.0	HS-255	5.3	Passed
170-029	48.5	46.9	1,250.0	1,750.0	WMAIN-3760	5.3	Passed
170-030	48.4	46.8	1,250.0	1,750.0	HS-255	5.3	Passed
170-031	47.9	45.2	1,251.1	1,751.1	WMAIN-3898(1)	7.8	Passed
170-032	47.7	42.5	1,250.8	1,750.8	WMAIN-3904	6.9	Passed
170-033	47.4	44.5	1,251.8	1,751.8	WMAIN-3912(2)	5.7	Passed
170-034	47.2	44.1	1,254.5	1,754.5	WMAIN-3906(1)	9	Passed
170-035	47.2	44.6	1,250.9	1,750.9	WMAIN-1081(2)	7.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-036	46.8	43.6	1,250.9	1,750.9	WMAIN-3885(1)	9.3	Passed
170-037	47	44.7	1,250.7	1,750.7	WMAIN-3867(1)	8.1	Passed
170-038	48	44.3	1,252.4	1,752.4	WMAIN-3868(1)	9.1	Passed
170-039	48.4	42.8	1,250.0	1,750.0	WMAIN-3867(1)	6.4	Passed
170-040	48.5	43.2	1,250.5	1,750.5	WMAIN-3862(1)	7.7	Passed
170-041	48.4	44.9	1,252.5	1,752.5	WMAIN-3865(2)(2)	5.7	Passed
170-042	51.1	49.4	1,252.2	1,752.2	HS-255	5.3	Passed
170-043	51.1	48.8	1,253.1	1,753.1	WMAIN-4183(1)	9.1	Passed
170-044	51.1	49.4	1,250.9	1,750.9	HS-255	5.3	Passed
170-045	49.8	46.4	1,251.0	1,694.2	WMAIN-4206(2)	15	Passed
170-046	48.9	46.7	1,250.9	1,750.9	WMAIN-4158(1)	9.3	Passed
170-047	49.5	46.1	1,253.3	1,753.3	WMAIN-4197(2)	6.5	Passed
170-048	50.7	47.4	1,252.9	1,752.9	WMAIN-4199(2)	6.8	Passed
170-049	50.5	46.3	1,251.5	586.3	WMAIN-4164(1)	15	Velocity Failed
170-050	50.8	46.7	1,250.0	1,750.0	WMAIN-4183(1)	6	Passed
170-051	49.8	46.3	1,251.1	1,751.1	WMAIN-4178	6.8	Passed
170-052	48.7	43.8	1,253.0	1,753.0	WMAIN-4204(2)	7.7	Passed
170-053	48.5	46	1,252.8	1,752.8	WMAIN-4209(1)	8.7	Passed
170-054	49	43.3	1,253.8	1,753.8	WMAIN-0655(2)	7	Passed
170-055	49	42.6	1,251.5	1,751.5	WMAIN-0655(2)	5.7	Passed
170-056	48.9	42.1	1,250.9	1,750.9	WMAIN-3909(1)	11.2	Passed
170-057	47.8	42.9	1,251.1	1,751.1	WMAIN-3885(1)	7.8	Passed
170-058	48.4	46.5	1,250.0	1,750.0	WMAIN-3865(2)(2)	9.1	Passed
170-059	48.5	47.2	1,250.0	1,750.0	WMAIN-3760	5.4	Passed
170-060	48.5	41.1	1,253.6	1,753.6	WMAIN-3875	7	Passed
170-061	48.7	47.5	1,251.0	1,751.0	WMAIN-3760	5.4	Passed
170-062	50.1	46.2	1,250.0	1,750.0	WMAIN-1026(2)(2)	6.1	Passed
170-063	50.6	47.7	1,254.7	1,754.7	WMAIN-1026(1)	7.8	Passed
170-064	49.8	46.2	1,252.6	1,752.6	WMAIN-1012(1)	6.1	Passed
170-065	48.9	43.4	3,517.4	4,017.4	WMAIN-1021(1)(1)	6.5	Passed
170-066	48.9	44.3	1,254.0	1,754.0	WMAIN-4158(1)	5.9	Passed
170-067	49.1	45.8	1,250.7	1,750.7	WMAIN-2282(2)	8	Passed
170-068	49.1	47.4	1,250.0	1,750.0	HS-255	5.3	Passed
170-069	49.1	47.5	1,250.4	1,750.4	HS-255	5.3	Passed
170-070	50.9	48.6	1,250.2	1,750.2	WMAIN-4769(1)	7.5	Passed
170-071	50.9	47.1	1,250.5	1,750.5	WMAIN-4762	6.7	Passed
170-072	50.9	48.1	1,250.8	1,750.8	WMAIN-4757(1)	7.8	Passed
170-073	51	47.4	1,250.6	1,750.6	WMAIN-4771(1)	6	Passed
170-074	51	48.1	1,251.1	1,751.1	WMAIN-6162(2)	5.7	Passed
170-075	50.4	47.5	1,250.6	1,750.6	WMAIN-4790(2)	5.6	Passed
170-076	50.5	45.5	1,250.5	1,750.5	WMAIN-4786(2)	11.2	Passed
170-077	50.7	46.6	1,251.4	1,751.4	WMAIN-4759	6.5	Passed
170-078	50.5	43.7	1,250.2	1,750.2	WMAIN-4759	7	Passed
170-079	50.8	44.8	1,252.7	1,752.7	WMAIN-4780	7.4	Passed
170-080	50.5	48.8	1,250.2	1,750.2	HS-255	5.3	Passed
170-081	49.4	47.9	1,250.6	1,750.6	HS-255	5.3	Passed
170-082	48.8	46.4	1,250.5	1,750.5	WMAIN-3176(2)	6	Passed
170-083	48.5	44.5	1,251.5	1,751.5	WMAIN-3192(2)	7	Passed
170-084	48.8	42.7	1,251.0	1,751.0	WMAIN-3194(1)	11.2	Passed
170-085	48.2	43.1	1,251.2	1,751.2	WMAIN-3197(1)	7.4	Passed
170-086	48.1	45.1	1,250.0	1,750.0	WMAIN-3142(2)(2)	8.1	Passed
170-087	48.8	45.1	1,254.3	1,754.3	WMAIN-3142(1)	6.4	Passed
170-088	49.2	47.1	1,250.3	1,750.3	WMAIN-3139(2)	6.6	Passed
170-089	49.7	46.8	1,250.0	1,750.0	WMAIN-3148(2)(2)	8.4	Passed
170-090	50.5	47.1	1,251.1	1,751.1	WMAIN-3148(1)	6	Passed
170-091	50.6	46.9	1,250.0	1,750.0	WMAIN-3151(2)	6.9	Passed
170-092	50.6	45.7	1,251.2	1,751.2	WMAIN-3163(1)	7.7	Passed
170-093	50.7	44.7	1,251.1	1,751.1	WMAIN-3154	6.8	Passed
170-094	50.2	44.6	1,252.4	1,752.4	WMAIN-3154	7.1	Passed
170-095	50.1	46.9	1,251.7	1,751.7	WMAIN-3151(1)(1)	8.3	Passed
170-096	49.9	44.7	1,251.7	1,751.7	WMAIN-3168(2)	6.3	Passed
170-097	49.3	43.2	1,251.2	1,751.2	WMAIN-3173(1)	11.2	Passed
170-098	49.9	48.2	1,250.0	1,750.0	HS-255	5.3	Passed
170-099	50.1	48.3	1,250.2	1,750.2	HS-255	5.3	Passed
170-100	47.5	44.6	1,252.7	1,752.7	WMAIN-7233(1)	7.9	Passed
170-101	48.1	44.8	1,250.0	1,750.0	WMAIN-7236(2)(2)	8.4	Passed
170-102	48.3	43.7	1,250.0	1,750.0	WMAIN-7236(2)(2)	6.6	Passed
170-103	48.4	43.5	1,250.0	1,750.0	WMAIN-7236(1)(1)(1)	6	Passed
170-104	48.6	45	1,256.9	1,756.9	WMAIN-7236(1)(1)(1)	8	Passed
170-105	48.4	43	1,251.9	1,751.9	WMAIN-3585	5.6	Passed
170-106	48.3	43.5	1,251.6	1,751.6	WMAIN-2585(1)(2)	7	Passed
170-107	48.4	45.1	1,250.0	1,750.0	WMAIN-2585(2)	8.7	Passed
170-108	48.4	44.6	1,253.4	1,753.4	WMAIN-3595(2)	6.4	Passed
170-109	48.6	45.6	1,252.5	1,752.5	WMAIN-3590(1)	9.5	Passed
170-110	48.7	43.2	1,250.0	1,750.0	WMAIN-3590(1)	7.3	Passed
170-111	48.8	42.4	1,251.9	1,751.9	WMAIN-3590(1)	5.7	Passed
170-112	48.4	42.6	1,250.7	1,750.7	WMAIN-6241(1)	11.2	Passed
170-113	48.3	44.3	1,250.5	1,750.5	WMAIN-0992(2)	8.5	Passed
170-124	48.7	46.1	2,524.3	3,024.3	WMAIN-6247(1)	6.5	Passed
170-125	48.8	44.7	2,515.2	3,015.2	WMAIN-3760	5.9	Passed
170-126	48.7	41.7	3,500.0	4,000.0	WMAIN-3584(1)(1)	6.6	Passed
170-127	49.3	46.4	1,251.2	1,751.2	WMAIN-6276(1)	7.9	Passed
170-128	49.2	44.6	1,251.3	1,320.4	WMAIN-6214(1)	15	Passed
170-129	49	45.5	1,251.3	1,751.3	WMAIN-1054(1)	7.2	Passed
170-130	49.1	46.3	1,250.0	1,750.0	WMAIN-6273(2)	8.3	Passed
170-131	49.3	45.3	1,254.9	1,754.9	WMAIN-6273(1)(2)	5.7	Passed
170-132	49.5	46.9	1,250.1	1,750.1	WMAIN-4074(2)	6.5	Passed
170-133	49.5	47.1	1,252.1	1,752.1	WMAIN-6269(1)	7.5	Passed
170-134	49.4	45.8	1,251.2	1,751.2	WMAIN-3803(1)	9	Passed
170-135	49	43	1,251.1	1,751.1	WMAIN-3806	6.1	Passed
170-136	49.1	45.5	1,252.2	1,752.2	WMAIN-3797(2)	9.1	Passed
170-137	48.7	47.2	1,250.0	1,750.0	HS-255	5.3	Passed
170-138	48.7	47.2	1,252.2	1,752.2	HS-255	5.4	Passed
170-139	48.6	47.2	1,250.7	1,750.7	HS-255	5.4	Passed
170-140	49	44.5	1,254.9	1,754.9	WMAIN-3812(1)	7	Passed
170-141	49.1	44	1,251.4	1,751.4	WMAIN-3808(1)(2)	5.8	Passed
170-142	49.4	45	1,250.9	1,750.9	WMAIN-3808(1)(2)	7.1	Passed
170-143	49.3	46.4	1,250.0	1,750.0	WMAIN-3808(2)	8.5	Passed
170-144	48.1	46.7	1,251.8	1,751.8	HS-255	5.4	Passed
170-145	48.6	47.4	1,253.2	1,753.2	HS-255	5.4	Passed
170-146	48.9	47.5	1,250.8	1,750.8	HS-255	5.4	Passed
170-147	49	47.3	1,251.3	1,751.3	WMAIN-3790(1)	8.6	Passed
170-148	48.9	47.5	1,252.1	1,752.1	HS-255	5.3	Passed
170-149	48.7	47.1	1,251.9	1,751.9	WMAIN-6235(1)	8.7	Passed
170-150	50.2	48.3	1,252.3	1,752.3	HS-255	5.3	Passed
170-151	50.5	48.5	1,251.9	1,751.9	HS-255	5.3	Passed
170-152	48.7	46.7	1,250.1	1,750.1	WMAIN-3591(2)	7.2	Passed
170-153	48.5	47.3	1,252.7	1,752.7	WMAIN-3760	5.4	Passed
170-154	49.2	43.3	1,250.9	1,750.9	WMAIN-3803(1)	6.4	Passed
170-155	50.1	48.4	1,250.4	1,750.4	HS-255	5.3	Passed
170-156	49	46.6	1,250.2	1,750.2	WMAIN-3137(2)	6.6	Passed
170-157	50.5	44	3,500.7	4,000.7	WMAIN-3139(2)	6.4	Passed
170-158	48.9	44.4	2,506.3	3,006.3	WMAIN-3139(2)	5.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-159	48.3	47	1,250.3	1,750.3	WMAIN-3760	5.4	Passed
171-001	46.3	39.3	2,500.0	3,000.0	WMAIN-7144	7.2	Passed
171-002	46.4	24.9	5,001.0	5,501.0	WMAIN-7144	13.5	Passed
171-016	46.9	33.8	3,518.7	4,018.7	WMAIN-7144	8	Passed
171-017	47.4	25.1	5,003.3	5,503.3	WMAIN-7144	10.1	Passed
171-018	47.6	26.6	5,002.5	5,502.5	WMAIN-3759(2)	10	Passed
171-019	47.7	27.7	5,005.1	5,505.1	WMAIN-3759(2)	10.4	Passed
171-020	47.9	29.1	5,002.3	5,502.3	WMAIN-3759(2)	10.8	Passed
171-021	48.1	31.3	5,006.5	5,281.8	WMAIN-0429B(1)	15	Passed
171-023	48.1	20	5,003.7	5,172.8	WMAIN-0429B(1)	14.7	Passed
171-024	48.1	24.9	5,002.1	5,277.5	WMAIN-0429B(1)	15	Passed
171-026	49.2	38.7	5,006.6	5,506.6	WMAIN-3759(2)	12.9	Passed
171-027	50	45.4	5,005.9	5,390.7	WMAIN-3759(2)	15	Passed
171-028	49	48.2	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
171-029	48.2	45.5	3,500.2	4,000.2	WMAIN-3760	8.5	Passed
171-030	47.9	44.7	3,500.5	4,000.5	WMAIN-3760	7.7	Passed
171-031	47.7	46.3	1,250.0	1,750.0	WMAIN-3760	5.9	Passed
171-032	47.6	46.2	1,250.0	1,750.0	WMAIN-3760	5.8	Passed
171-033	47.6	46.3	1,257.7	1,757.7	WMAIN-3760	5.7	Passed
171-034	47.7	45.4	2,500.0	3,000.0	WMAIN-3760	6.4	Passed
171-035	47.9	45.6	2,511.2	3,011.2	WMAIN-3760	6.3	Passed
171-036	48.3	47	1,250.0	1,750.0	WMAIN-3760	5.5	Passed
171-037	47.9	45.6	1,250.2	1,750.2	WMAIN-1499(2)	7	Passed
171-038	48.2	43.5	1,251.9	1,751.9	WMAIN-1474(2)	9.2	Passed
171-039	48.6	42	1,253.1	1,753.1	WMAIN-1472	7.2	Passed
171-040	48.5	42.1	1,250.0	1,750.0	WMAIN-1472	6.9	Passed
171-041	48.3	43.2	1,253.6	1,753.6	WMAIN-1482(2)	7.1	Passed
171-042	48.4	42.3	1,250.9	1,750.9	WMAIN-1414(2)	11.2	Passed
171-043	48.4	42.8	1,251.8	1,751.8	WMAIN-1411(1)	11.2	Passed
171-044	48.1	45.2	1,250.0	1,750.0	WMAIN-1391A(1)	6	Passed
171-045	48.1	44.8	1,252.1	1,752.1	WMAIN-1501(1)	6.9	Passed
171-046	47.8	42.9	1,252.9	1,752.9	WMAIN-1466(1)	6	Passed
171-047	47.8	40.4	1,252.0	1,752.0	WMAIN-1490(1)	11.2	Passed
171-048	47.8	38.6	1,251.7	1,751.7	WMAIN-1487(2)	11.2	Passed
171-049	47.5	38.5	1,257.1	1,757.1	WMAIN-1485(2)	6.6	Passed
171-050	47.4	39.4	1,253.5	1,753.5	WMAIN-1483(1)	8	Passed
171-051	47.4	37.9	1,252.5	1,752.5	WMAIN-1449	6.6	Passed
171-052	47.5	40.4	1,251.0	1,751.0	WMAIN-1447(2)	9.1	Passed
171-053	47.4	40.2	1,254.8	1,754.8	WMAIN-1444(1)(1)	7.7	Passed
171-054	47.4	39.4	1,250.0	1,750.0	WMAIN-1458(2)	6.2	Passed
171-055	47.5	41.2	1,250.9	1,750.9	WMAIN-1458(2)	6.2	Passed
171-056	47.6	42.8	1,251.6	1,751.6	WMAIN-1458(2)	6.7	Passed
171-057	48.1	44.8	1,250.9	1,750.9	WMAIN-1458(2)	8.6	Passed
171-058	48	44.7	1,252.7	1,752.7	WMAIN-1434(1)(1)	7.9	Passed
171-059	47.9	45.9	1,250.3	1,750.3	WMAIN-1524(1)	9	Passed
171-060	50.1	49.1	2,500.0	3,000.0	WMAIN-3761	10.4	Passed
171-061	49.1	47.9	1,250.0	1,750.0	WMAIN-3760	6.1	Passed
171-062	48.6	47.4	1,250.4	1,750.4	WMAIN-3760	5.7	Passed
171-063	48.5	46.6	1,250.4	1,750.4	WMAIN-1497(1)	8.1	Passed
171-064	48.3	44.2	1,250.7	1,750.7	WMAIN-1422(2)	7.4	Passed
171-065	48.3	43.3	1,251.9	1,751.9	WMAIN-1524(1)	6	Passed
171-066	48.3	44.3	1,250.0	1,750.0	WMAIN-1434(2)	6.5	Passed
171-067	48.4	37.9	2,503.3	2,348.8	WMAIN-1437(1)	15	Velocity Failed
171-068	48	42.9	1,256.3	1,756.3	WMAIN-1524(1)	7.2	Passed
171-069	48.1	44.6	1,250.1	1,750.1	WMAIN-1515(1)	7.5	Passed
171-070	48.1	43	1,251.0	1,751.0	WMAIN-1418(2)	11.2	Passed
171-071	48.1	44.4	1,251.7	1,751.7	WMAIN-1509	6.5	Passed
171-072	48.2	44.4	1,251.9	1,751.9	WMAIN-1405(1)	7.6	Passed
171-073	48.4	42.9	1,253.9	1,753.9	WMAIN-1408	7.2	Passed
171-074	48.6	42.8	1,251.5	1,751.5	WMAIN-1403	6.7	Passed
171-075	48.4	45.4	1,250.2	1,750.2	WMAIN-1396(1)	7.8	Passed
171-076	48.5	47.2	1,250.0	1,750.0	WMAIN-3760	5.5	Passed
171-077	48.5	45	3,500.0	4,000.0	WMAIN-3760	6.7	Passed
171-078	48.3	46.8	1,250.0	1,750.0	WMAIN-3760	5.4	Passed
171-079	46.8	33.7	3,507.4	4,007.4	WMAIN-7144	8.3	Passed
171-086	47.9	41.5	1,251.1	1,751.1	WMAIN-7493	11.2	Passed
171-087	47.9	38.4	1,250.9	1,750.9	WMAIN-7493	11.2	Passed
171-088	48.1	31.6	5,001.3	5,501.3	WMAIN-3759(2)	11.4	Passed
171-089	48.5	46.4	1,250.9	1,750.9	WMAIN-7885(2)	6	Passed
171-090	48.6	46.4	1,251.3	1,751.3	WMAIN-7888(1)	6.5	Passed
171-091	48.6	45.2	1,254.5	1,754.5	WMAIN-7884(1)	7.1	Passed
171-092	49.6	46	1,251.3	1,751.3	WMAIN-8047(2)	6.7	Passed
171-093	50.7	50.1	1,251.2	1,751.2	WMAIN-8022(1)	5.4	Passed
171-094	48.9	45.5	1,255.3	1,755.3	WMAIN-7889(2)	5.7	Passed
171-095	48.5	45	1,255.4	1,755.4	WMAIN-7887(2)	5.9	Passed
171-096	49.8	47.2	1,251.2	1,751.2	WMAIN-8045(2)	6.4	Passed
171-097	49.4	47	1,250.8	1,750.8	WMAIN-8043(1)	6.4	Passed
171-098	48.8	45.9	1,252.9	1,752.9	WMAIN-7891(1)	5.6	Passed
171-099	48.5	46.3	1,251.1	1,751.1	WMAIN-7892(1)	6.2	Passed
171-100	50.2	49.5	1,314.1	1,814.1	HS-255	5.3	Passed
171-101	49.4	46.8	1,250.5	1,750.5	WMAIN-8019	6.3	Passed
171-102	49.3	46.5	1,252.0	1,752.0	WMAIN-8019	5.9	Passed
171-103	48.7	42.5	1,251.3	1,751.3	WMAIN-7893(1)	11.2	Passed
171-104	48.5	46	1,250.3	1,750.3	WMAIN-7895(2)	5.6	Passed
171-105	48.4	45.6	1,250.1	1,750.1	WMAIN-8136(2)	6.4	Passed
171-106	48.6	44.7	1,251.4	1,751.4	WMAIN-8133(2)	5.7	Passed
171-107	48.9	40.3	1,251.5	1,751.5	WMAIN-8134	11.2	Passed
171-108	48.7	46	1,251.5	1,751.5	WMAIN-8132(1)	7.3	Passed
171-109	48.3	45.7	1,257.7	1,757.7	WMAIN-8140(1)	6.7	Passed
171-110	48.1	45.8	1,250.0	1,750.0	WMAIN-8140(2)(2)	7.4	Passed
171-111	48.2	45.9	1,250.6	1,750.6	WMAIN-7903(1)	6.4	Passed
171-112	48.4	46.3	1,251.8	1,751.8	WMAIN-7897(2)	7	Passed
171-113	48.7	46.4	1,251.4	1,751.4	WMAIN-7898(2)	6.1	Passed
171-114	48.9	46.8	1,250.4	1,750.4	WMAIN-8019	6.1	Passed
171-115	49.4	48.5	1,258.5	1,758.5	HS-255	5.4	Passed
171-116	48.6	45.8	1,252.7	1,752.7	WMAIN-8040(1)	7.9	Passed
171-117	48.6	47.6	1,266.2	1,766.2	HS-255	5.4	Passed
171-118	47.9	44.4	1,252.8	1,752.8	WMAIN-8037(1)	6.2	Passed
171-119	48.2	45.9	1,251.6	1,751.6	WMAIN-7900(2)	6.2	Passed
171-120	48.2	41.7	1,250.9	1,750.9	WMAIN-7901(2)	11.2	Passed
171-121	48	44.9	1,252.0	1,752.0	WMAIN-8130(2)	6.2	Passed
171-122	48.1	45.6	1,250.0	1,750.0	WMAIN-8139(2)	6.7	Passed
171-123	48	45.8	1,251.0	1,751.0	WMAIN-7906(2)	6	Passed
171-124	48	45.7	1,251.2	1,751.2	WMAIN-7907(2)	6.3	Passed
171-125	47.7	44.4	1,252.9	1,752.9	WMAIN-8033(1)	6.2	Passed
171-126	47.8	46.7	1,250.0	1,750.0	HS-255	5.4	Passed
171-127	47.4	44.5	1,251.1	1,751.1	WMAIN-8032(2)	7.2	Passed
171-128	48	45.7	1,250.9	1,750.9	WMAIN-7908(2)	6	Passed
171-129	47.6	44.6	1,250.4	1,750.4	WMAIN-7909(2)	7.1	Passed
171-130	47.9	44.6	1,256.3	1,756.3	WMAIN-7909(1)(1)	6.3	Passed
171-131	46.9	45.8	1,250.0	1,750.0	HS-255	5.4	Passed
171-132	47.3	46.1	1,250.3	1,750.3	HS-255	5.4	Passed
171-133	47.7	46.4	1,251.7	1,751.7	HS-255	5.4	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
171-134	47.5	46.2	1,250.1	1,750.1	HS-255	5.4	Passed
171-135	47.7	45.1	1,253.3	1,753.3	WMAIN-7905(2)	6.3	Passed
171-136	47.5	46.1	1,250.0	1,750.0	HS-255	5.4	Passed
171-137	47.4	46.1	1,250.0	1,750.0	HS-255	5.4	Passed
171-138	47.5	46.1	1,251.6	1,751.6	HS-255	5.4	Passed
171-139	47.9	46.4	1,252.1	1,752.1	HS-255	5.4	Passed
171-140	48	42.9	1,251.0	1,751.0	WMAIN-8015	11.2	Passed
171-141	48.4	47.2	1,251.0	1,751.0	HS-255	5.4	Passed
180-001	47.5	46	1,252.3	1,752.3	HS-255	5.4	Passed
180-002	47.1	45.6	1,250.6	1,750.6	HS-255	5.4	Passed
180-003	48.4	46.7	1,251.7	1,751.7	HS-255	5.4	Passed
180-004	48.3	42.9	1,250.0	1,750.0	WMAIN-0104(1)	11.2	Passed
180-005	49	47.1	1,251.3	1,751.3	HS-255	5.4	Passed
180-006	48.6	45.6	1,250.8	1,750.8	WMAIN-7522(2)	7.6	Passed
180-007	48.9	46.6	1,250.3	1,750.3	WMAIN-0111(1)	5.8	Passed
180-008	49.3	47	1,250.0	1,750.0	WMAIN-7506(2)	8.6	Passed
180-009	49.8	48.2	1,251.5	1,751.5	HS-255	5.4	Passed
180-010	51.2	49.5	1,251.6	1,751.6	HS-255	5.4	Passed
180-011	50.3	46.9	1,250.0	1,750.0	WMAIN-0096	11.2	Passed
180-012	49.2	47	1,251.7	1,751.7	WMAIN-7507(1)	8.9	Passed
180-013	49.5	45.4	1,255.5	1,755.5	WMAIN-7526(1)(1)	5.7	Passed
180-014	50.2	47.7	1,250.0	1,750.0	WMAIN-7526(2)	8.7	Passed
180-015	49.3	45.4	1,253.9	1,753.9	WMAIN-7476(1)	6.4	Passed
180-016	49	45.4	1,250.0	1,750.0	WMAIN-7506(1)(2)(2)	5.8	Passed
180-017	48.3	41.3	1,251.7	1,751.7	WMAIN-7521	11.2	Passed
180-018	48.8	42.9	1,252.2	1,752.2	WMAIN-7478(2)	7.4	Passed
180-019	48.4	41.6	1,252.2	1,752.2	WMAIN-7502(2)	5.9	Passed
180-020	47.7	42.4	1,251.2	1,751.2	WMAIN-7502(2)	7.9	Passed
180-021	47.5	41.1	1,252.8	1,752.8	WMAIN-0107	6.5	Passed
180-022	47.1	43.1	1,251.7	1,751.7	WMAIN-7524(2)	8.6	Passed
180-023	50.5	44.2	1,250.0	1,750.0	WMAIN-7670(2)	6.2	Passed
180-024	50	44.1	1,253.8	1,753.8	WMAIN-7661(1)	6.8	Passed
180-025	49.4	44	1,251.4	1,751.4	WMAIN-7683	6.4	Passed
180-026	50.5	45	1,252.7	1,752.7	WMAIN-7565(1)	6.8	Passed
180-027	50.8	45.1	1,254.6	1,754.6	WMAIN-7560(2)	6.3	Passed
180-028	51	46.4	1,251.1	1,751.1	WMAIN-7561(1)	7.9	Passed
180-029	51	49.1	1,250.0	1,750.0	HS-255	5.3	Passed
180-030	51.6	46.8	1,250.5	1,750.5	WMAIN-7670(2)	8.1	Passed
180-031	51.8	47.3	1,252.1	1,752.1	WMAIN-7669(1)	6.2	Passed
180-032	51.2	46.1	1,251.8	1,751.8	WMAIN-7683	6.1	Passed
180-033	51.8	47.5	1,251.1	1,751.1	WMAIN-7683	6.3	Passed
180-034	51.7	47.2	1,252.5	1,752.5	WMAIN-7666(1)	8.2	Passed
180-035	51.8	47.7	1,250.8	1,750.8	WMAIN-7569(2)	6.8	Passed
180-036	51.8	47.7	1,251.6	1,751.6	WMAIN-7566(1)	6.7	Passed
180-037	51.7	47.8	1,250.9	1,750.9	WMAIN-7563(2)	8.9	Passed
180-038	51.4	45.8	1,253.0	1,753.0	WMAIN-7563(2)	6.2	Passed
180-039	51.7	49.1	1,251.1	1,751.1	WMAIN-7693(1)	5.9	Passed
180-040	51.7	49.7	1,252.3	1,752.3	HS-255	5.3	Passed
180-041	51.7	49.9	1,252.7	1,752.7	HS-255	5.3	Passed
180-042	51	49.1	1,250.4	1,750.4	HS-255	5.3	Passed
180-043	51.3	47.4	1,250.9	1,750.9	WMAIN-7674	7	Passed
180-044	51.7	49.9	1,250.2	1,750.2	HS-255	5.3	Passed
180-045	51.6	49.7	1,251.7	1,751.7	HS-255	5.3	Passed
180-046	51.4	49.7	1,251.1	1,751.1	HS-255	5.3	Passed
180-047	51.3	48.3	1,252.3	1,752.3	WMAIN-7556(1)	7.5	Passed
180-048	51.4	48.2	1,250.3	1,750.3	WMAIN-7682(2)	7.2	Passed
180-049	51.5	49.4	1,250.9	1,750.9	WMAIN-7690(1)	9.2	Passed
180-050	51.2	48	1,250.5	1,750.5	WMAIN-7684(2)	5.9	Passed
180-051	51	46.6	1,253.2	1,753.2	WMAIN-7685(1)	6	Passed
180-052	49.3	47.1	1,250.9	1,750.9	HS-255	5.3	Passed
180-053	49.1	42.7	1,253.6	1,753.6	WMAIN-7798	5.7	Passed
180-054	50.5	44.8	1,250.0	1,750.0	WMAIN-7798	7.1	Passed
180-055	49.8	47.4	1,250.5	1,750.5	HS-255	5.3	Passed
180-056	50	44.6	1,250.8	1,750.8	WMAIN-7793	7.3	Passed
180-057	50.6	47.2	1,251.3	1,751.3	WMAIN-7792(2)	5.6	Passed
180-058	51.4	47.3	1,252.0	1,752.0	WMAIN-7803(2)	6.3	Passed
180-059	51.3	48.1	1,250.3	1,750.3	WMAIN-7686(2)(2)	6.4	Passed
180-060	51.3	47.9	1,250.8	1,750.8	WMAIN-7686(1)	6.5	Passed
180-061	51.2	46.9	1,250.9	1,750.9	WMAIN-7687(1)	8	Passed
180-062	51.3	47	1,251.5	1,751.5	WMAIN-7689	6	Passed
180-063	51.2	47.8	1,250.9	1,750.9	WMAIN-7555(2)	5.8	Passed
180-064	50.8	45.6	1,252.5	1,752.5	WMAIN-7749	6.7	Passed
180-065	50.7	44.7	1,251.1	1,751.1	WMAIN-7756(1)	6.8	Passed
180-066	50.9	44.6	1,251.3	1,751.3	WMAIN-7687(1)	6.8	Passed
180-067	51.3	44	1,253.1	1,753.1	WMAIN-7751(2)	8.2	Passed
180-068	51.5	44.8	1,253.1	1,753.1	WMAIN-7800(1)	7.5	Passed
180-069	51.5	46.4	1,250.0	1,750.0	WMAIN-7802	6.1	Passed
180-070	51.4	46.8	1,252.6	1,752.6	WMAIN-7805(1)	7.4	Passed
180-071	51.4	44.7	1,251.1	1,751.1	WMAIN-7806	7.5	Passed
180-072	51.3	48.6	1,250.0	1,750.0	HS-255	5.4	Passed
180-073	51.5	43.8	1,253.8	1,753.8	WMAIN-7806	6.6	Passed
180-074	51.5	43.5	1,255.4	1,755.4	WMAIN-7800(1)	6	Passed
180-075	51.5	44.1	1,252.1	1,752.1	WMAIN-7800(1)	6.9	Passed
180-076	51.2	41.8	1,252.6	1,752.6	WMAIN-7687(1)	6.8	Passed
180-077	50.8	41.2	1,256.6	1,756.6	WMAIN-7687(1)	6.7	Passed
180-078	50.7	40.3	1,252.7	1,752.7	WMAIN-7755	11.2	Passed
180-079	50.5	42.9	1,252.5	1,752.5	WMAIN-7758(1)	7.8	Passed
H-205	53.5	49.2	1,255.7	1,755.7	HS-23	6	Passed
H-206	51.1	46.1	1,250.0	1,750.0	HS-73	7.6	Passed
H-207	56.4	53	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-208	56	50.7	1,250.0	1,750.0	HS-128	6.4	Passed
H-209	56.5	52.6	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-210	43.8	20	1,263.1	1,749.3	HS-244	11.2	Passed
H-211	49.7	45.7	1,253.8	1,753.8	HS-73	8.4	Passed
H-212	53.7	47.7	1,250.0	1,750.0	HS-28	6.3	Passed
H-213	53.7	45.9	1,250.0	1,750.0	HS-20	11.2	Passed
H-214	55.4	52.6	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-215	56.3	53	1,386.4	1,886.4	WMAIN-1906	6.2	Passed
H-216	56.1	41.9	3,535.8	4,035.8	WMAIN-1071	10.7	Passed
H-217	53.1	20	3,524.2	3,889.1	HS-298	11	Passed
H-218	48.4	27.9	5,137.4	5,637.4	HS-203(1)	8.3	Passed
H-219	51.7	48.2	1,250.0	1,750.0	HS-255	5.3	Passed
H-220	55.9	48.1	1,255.0	1,755.0	HS-99	7.2	Passed
H-221	51.6	45	1,250.0	1,750.0	HS-80	6.2	Passed
H-222	51.1	43.1	3,624.9	4,124.9	WMAIN-7634(2)	6.5	Passed
H-224	56.1	52.8	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-225	48.5	46.1	1,256.8	1,756.8	WMAIN-3760	5.5	Passed
H-226	50.7	42.5	1,250.0	1,750.0	HS-71	8.6	Passed
H-227	55.2	52.3	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-228	50.9	44.9	1,250.0	1,750.0	HS-49	7.7	Passed
H-229	56	53	1,250.0	1,750.0	WMAIN-1906	6.4	Passed
H-230	50.6	31.1	5,186.8	5,686.8	WMAIN-3778	11.6	Passed
H-231	49.6	45.3	1,250.0	1,750.0	HS-60	6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
H-232	43	27	3,510.6	4,010.6	HS-237	7.2	Passed
H-233	51	47.6	1,250.0	1,750.0	HS-89	8.7	Passed
H-234	44.6	37.7	1,257.0	1,757.0	HS-244	11.3	Passed
H-235	45.3	29.7	3,545.5	4,045.5	HS-258	7	Passed
H-236	51.8	48.5	1,250.0	1,750.0	HS-255	5.3	Passed
H-237	51	48.9	1,250.0	1,750.0	HS-255	5.3	Passed
H-238	56	52.1	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-239	51.3	46.8	1,250.0	1,750.0	HS-65	7.8	Passed
H-240	55.5	49.4	1,250.0	1,750.0	HS-90	6.9	Passed
H-241	47.1	32.7	5,208.5	5,708.5	HS-255	6.7	Passed
H-242	44.8	29.3	5,008.8	5,508.8	WMAIN-1755(2)(2)	7.1	Passed
H-243	55.3	44.4	1,250.0	1,750.0	HS-106	11.2	Passed
H-244	55.5	50.3	1,250.0	1,750.0	HS-102	6.6	Passed
H-245	44.8	41.6	1,281.2	1,781.2	HS-255	5.4	Passed
H-246	51.6	47	1,260.8	1,760.8	HS-54	6.4	Passed
H-247	50.1	46.7	1,354.6	1,854.6	WMAIN-5897	6	Passed
H-248	49.1	41.5	3,521.4	4,021.4	HS-255	7	Passed
H-249	47.8	46.1	1,292.1	1,792.1	HS-255	5.5	Passed
H-250	56.3	52.1	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-251	55.7	52	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-252	54.2	43.5	1,250.0	1,750.0	HS-3	11.6	Passed
H-253	54.4	25	2,737.2	3,237.2	WMAIN-3712(2)	9.7	Passed
H-254	43.2	21.2	5,034.2	5,534.2	HS-234	9.4	Passed
H-255	50.4	38.4	1,250.0	1,750.0	HS-78	11.2	Passed
H-256	51.3	47.7	1,250.0	1,750.0	HS-255	5.3	Passed
H-257	48.5	46.3	1,250.0	1,750.0	WMAIN-3760	5.5	Passed
H-258	56.5	51.5	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-259	55.9	53.6	1,250.0	1,750.0	WMAIN-1906	6.4	Passed
H-260	55.8	53.3	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-261	45.7	38.5	3,514.9	4,014.9	HS-255	6.3	Passed
H-262	42.9	20	3,502.0	4,002.0	HS-238	11.4	Passed
H-263	45.2	30.1	3,532.0	4,032.0	HS-297	7.9	Passed
H-264	42.4	22.9	1,270.5	1,770.5	HS-279	6.5	Passed
H-265	44.3	20	5,026.9	5,524.4	HS-296	8.1	Passed
H-266	46.4	41.1	1,364.2	1,864.2	HS-255	5.6	Passed
H-267	51.9	43.4	1,313.1	1,813.1	WMAIN-1906	5.8	Passed
H-268	54.9	49	1,279.4	1,779.4	WMAIN-1906	6.2	Passed
H-269	50.9	21.2	1,260.7	1,293.5	WMAIN-6208	15	Passed
H-270	45.5	21.7	5,046.6	5,546.6	P-185	8.2	Passed
H-271	45.4	35.9	3,513.8	4,013.8	HS-258	7.5	Passed
H-272	45.3	37.6	2,601.7	3,101.7	HS-183	5.6	Passed
H-273	52.3	20	3,521.4	3,418.1	WMAIN-3778	8.5	Residual Pressure Failed
H-274	53.5	50.4	1,361.4	1,861.4	WMAIN-1906	5.8	Passed
H-275	48.8	28.7	5,014.0	5,514.0	WMAIN-3778	10.7	Passed
H-276	43.4	27.5	3,511.4	4,011.4	HS-308	7.3	Passed
H-277	55.4	50	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-278	42.6	22.7	5,010.4	5,510.4	HS-182(1)	6.9	Passed
H-279	56.9	54.7	1,250.0	1,750.0	WMAIN-1906	5.8	Passed
H-280	43.5	32.1	3,736.6	4,236.6	HS-228	7.2	Passed
H-281	55.2	52	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-282	43	20	5,003.4	5,413.7	HS-234	9	Passed
H-283	45.4	42.6	1,272.7	1,772.7	P-185	5.7	Passed
H-284	47.1	20.1	1,280.2	1,780.2	HS-213	11.5	Passed
H-285	50.6	43.9	1,250.0	1,750.0	HS-54	7	Passed
H-286	46.6	45.2	1,271.0	1,771.0	WMAIN-5897	5.2	Passed
H-287	54.7	46.6	1,250.0	1,750.0	HS-3	11.6	Passed
H-288	56	52.8	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-289	48.6	46.5	1,250.0	1,750.0	HS-31	5.6	Passed
H-290	55.3	51.3	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-291	51	43.6	1,250.0	1,750.0	HS-73	7.9	Passed
H-292	48.8	41.6	1,250.0	1,750.0	HS-33	11.2	Passed
H-293	48.5	46.2	1,250.0	1,750.0	WMAIN-3760	5.5	Passed
H-294	48.9	43.6	1,255.8	1,755.8	HS-46	7.4	Passed
H-295	55.1	50.3	1,250.0	1,750.0	HS-3	11.6	Passed
H-296	46.2	33.9	3,632.1	4,132.1	WMAIN-7872	7.8	Passed
H-297	53.7	48.4	1,250.0	1,750.0	HS-28	7.8	Passed
H-298	48.9	42.6	1,250.0	1,750.0	HS-73	8.2	Passed
H-299	50.7	44.6	1,262.3	1,762.3	HS-73	8	Passed
H-300	54.8	48.1	1,264.5	1,764.5	HS-3	11.6	Passed
H-301	55.3	47.2	1,278.9	1,778.9	HS-116	6.9	Passed
H-302	55.3	50.7	1,254.0	1,754.0	WMAIN-1906	6.3	Passed
H-303	51.2	43.6	1,753.1	2,253.1	HS-66	9.7	Passed
H-304	46.3	33.7	1,268.9	1,768.9	WMAIN-5897	5.3	Passed
H-305	56	50.7	1,250.0	1,750.0	HS-94	6.8	Passed
H-306	55.5	52.5	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-307	56.2	52.9	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-308	53.6	49.4	1,255.5	1,755.5	HS-27	6.7	Passed
H-309	53.7	41.1	2,512.3	2,350.1	HS-18	15	Velocity Failed
H-310	56.1	51.9	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-311	47.6	46.3	1,289.1	1,789.1	HS-255	5.2	Passed
H-312	51.9	48.2	1,250.0	1,750.0	HS-255	5.3	Passed
H-313	53.3	50.4	1,250.0	1,750.0	HS-26	6.3	Passed
H-314	55.2	44.3	1,250.0	1,750.0	HS-107	11.2	Passed
H-315	55.6	52	1,267.2	1,767.2	WMAIN-1906	6.3	Passed
H-316	55.1	50.6	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-317	56.1	52.4	1,254.5	1,754.5	WMAIN-1906	6.2	Passed
H-318	48.3	37.8	1,250.0	1,750.0	HS-88	11.2	Passed
H-319	55.4	51.8	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-320	45.1	23.2	5,150.2	5,650.2	HS-186	6.5	Passed
H-321	50.6	47.2	1,253.7	1,753.7	HS-255	5.3	Passed
H-322	51.4	48.9	1,252.1	1,752.1	HS-255	5.3	Passed
H-323	55.5	45.9	1,250.0	1,750.0	HS-96	11.2	Passed
H-324	50.7	42	1,250.0	1,750.0	HS-71	8.2	Passed
H-325	56	53.2	1,250.0	1,750.0	WMAIN-1906	6.4	Passed
H-326	55.8	52.4	1,253.5	1,753.5	WMAIN-1906	6.4	Passed
H-327	55.6	46.9	1,250.0	1,750.0	HS-97	11.2	Passed
H-328	55.6	49.3	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-329	55	52	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-330	53.3	50.4	1,250.0	1,750.0	HS-21	6.3	Passed
H-331	54.4	50.9	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-332	53.3	49.7	1,250.0	1,750.0	HS-22	8.1	Passed
H-333	55.9	50.3	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-334	50.2	44.3	1,250.0	1,750.0	HS-71	8.9	Passed
H-335	45.7	26.5	1,253.4	1,753.4	HS-213	11.5	Passed
H-336	45.2	32	3,510.6	4,010.6	P-185	5.9	Passed
H-337	45.2	21.3	5,019.2	5,519.2	HS-248	11.5	Passed
H-338	49.0	36.3	3,587	4,087	WMAIN-3778	8.6	Passed
H-339	45.2	42.9	1,256.5	1,756.5	WMAIN-5897	5.2	Passed
H-340	55.9	53.1	1,250.0	1,750.0	WMAIN-1906	6.4	Passed
H-341	51.4	47.2	1,257.0	1,757.0	HS-54	7.3	Passed
H-342	55.6	50	1,250.0	1,750.0	HS-132	6.4	Passed
H-343	55.3	51.9	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-344	51.6	49.8	1,331.9	1,831.9	WMAIN-1906	5.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
H-345	46.6	37.4	1,270.8	1,770.8	HS-213	11.5	Passed
H-346	53.4	20	3,521.0	3,495.7	WMAIN-3778	8.7	Residual Pressure Failed
H-347	54.7	20	5,046.8	3,952.0	HS-192	11.2	Residual Pressure Failed
H-348	52.3	20	3,550.5	2,501.2	HS-283	7.1	Residual Pressure Failed
H-349	51.8	45.1	1,250.0	1,750.0	HS-83	6	Passed
H-350	54.6	51.3	1,292.5	1,792.5	WMAIN-1906	6.2	Passed
H-351	54.6	43.8	1,300.8	1,800.8	HS-3	11.6	Passed
H-352	48.7	45.5	1,250.3	1,750.3	HS-32	6.2	Passed
H-353	56.2	52.7	1,252.6	1,752.6	WMAIN-1906	6.2	Passed
H-354	43.8	24.1	1,366.0	1,866.0	HS-280(1)	7.3	Passed
H-355	45.7	38.9	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
H-356	44.3	20.7	5,000.0	5,500.0	HS-234	8.9	Passed
H-357	54.4	45.7	1,250.0	1,750.0	HS-3	11.6	Passed
H-358	55.9	52.8	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-359	49.1	41.6	3,695.2	4,195.2	WMAIN-3760	6.1	Passed
H-360	51.9	20	3,552.3	3,564.9	WMAIN-3778	8.7	Passed
H-361	47.7	27.4	5,036.2	5,536.2	WMAIN-3778	9.6	Passed
H-362	55.7	51.6	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-363	45.6	27.8	5,088.9	5,588.9	HS-258	8.3	Passed
H-364	56	52.8	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-365	50.8	41.6	1,250.0	1,750.0	HS-52	11.2	Passed
H-366	54.6	47.1	1,258.2	1,758.2	HS-3	11.6	Passed
H-367	55.6	42.6	1,250.0	1,750.0	HS-100	11.2	Passed
H-368	44.3	20.8	5,005.8	5,505.8	HS-234	9	Passed
H-369	56.5	52.8	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-370	55.6	52.9	1,250.0	1,750.0	WMAIN-1906	6.3	Passed
H-371	46.5	45	1,308.9	1,808.9	WMAIN-5897	5.2	Passed
H-372	51.5	42.7	3,500.2	4,000.2	HS-57	8.7	Passed
H-373	48.2	34.0	3,543	4,043	WMAIN-3778	8.5	Passed
H-374	54.3	50.7	1,250.0	1,750.0	WMAIN-1906	6.2	Passed
H-375	52	20	3,563.7	2,731.5	HS-284	7.7	Residual Pressure Failed
H-376	50	42.8	1,250.0	1,750.0	HS-54	7	Passed
H-377	49	42.8	1,254.4	1,754.4	HS-86	6.2	Passed
H-378	52.5	20	3,532.0	3,403.7	WMAIN-3778	8.5	Residual Pressure Failed
H-379	47.9	20	5,028.5	5,157.4	WMAIN-3778	10.1	Passed
H-380	45.5	26	3,536.1	4,036.1	HS-282	6.7	Passed
H-381	43.9	26	1,252.3	1,752.3	HS-244	11.3	Passed
H-382	52.3	20	1,263.5	1,354.4	WMAIN-1906	6	Passed
H-383	45.1	37.2	1,370.7	1,870.7	WMAIN-5897	5.3	Passed
H-384	47.6	45.8	1,282.2	1,782.2	HS-255	5.4	Passed
H-385	48.5	45.5	1,250.3	1,750.3	WMAIN-7896	7.2	Passed
H-386	48.5	46.1	1,250.4	1,750.4	WMAIN-7886	6.3	Passed
H-387	47.3	41.1	3,565.6	4,065.6	HS-255	6.4	Passed
H-388	48.3	25.6	3,541.8	4,041.8	WMAIN-7873(2)	9	Passed
H-389	57.2	50.1	1,676.7	2,176.7	HS-169	6.3	Passed
H-390	56.7	41.5	3,696.1	4,196.1	WMAIN-1071	10.4	Passed
H-391	57.1	44.3	3,530.5	4,030.5	WMAIN-1071	10.7	Passed
H-392	56.7	54.3	1,350.9	1,850.9	WMAIN-1906	5.8	Passed
H-393	56.6	54.2	1,263.2	1,763.2	WMAIN-1906	5.6	Passed
H-394	54.9	37.9	3,538.5	4,038.5	WMAIN-1071	11	Passed
H-395	53.9	51.2	1,538.3	2,038.3	WMAIN-1906	5.8	Passed
H-396	52.4	49.6	1,303.7	1,803.7	WMAIN-1906	5.8	Passed
H-397	50.9	20	3,620.0	3,785.3	WMAIN-7741	11	Passed
H-398	51.1	46.1	1,313.0	1,813.0	WMAIN-7741	5.5	Passed
H-399	51.6	45.4	1,281.0	1,781.0	HS-85	5.9	Passed
H-400	48.8	46.3	1,404.4	1,904.4	HS-255	5.4	Passed
H-401	47.5	42.8	3,538.9	4,038.9	WMAIN-3760	6	Passed
H-402	47.1	44.8	1,334.7	1,834.7	HS-255	5.6	Passed
H-403	46	37	3,544.9	4,044.9	HS-266	7.7	Passed
H-404	46.4	43.5	1,262.9	1,762.9	HS-255	5.6	Passed
H-405	46.8	27.7	5,036.3	5,536.3	HS-263	10.1	Passed
H-406	45.7	33.7	3,522.0	4,022.0	HS-261	6.5	Passed
H-407	46.6	37.7	3,536.0	4,036.0	HS-255	6.4	Passed
H-408	45.8	33.5	3,519.5	4,019.5	HS-258	6.9	Passed
H-411	46.6	36.3	3,516.8	4,016.8	HS-255	6.7	Passed
H-412	44.8	21	5,032.2	5,532.2	P-185	9.2	Passed
H-413	44.5	20.1	5,013.2	5,513.2	HS-294	8.8	Passed
H-414	43	30.9	5,033.8	5,533.8	WMAIN-3229	10.8	Passed
H-415	45.2	36.2	3,521.9	4,021.9	HS-181	5.9	Passed
H-416	45.3	29.4	5,013.5	5,513.5	WMAIN-1755(2)(2)	8.4	Passed
H-417	43.4	32.1	5,030.9	5,530.9	HS-234	12.5	Passed
H-418	45	20	5,007.6	5,460.9	HS-234	9.1	Passed
H-419	46.9	42.7	1,291.0	1,791.0	HS-210	5.8	Passed
H-420	46.7	45.1	1,254.1	1,754.1	WMAIN-5897	5.2	Passed
H-421	46.4	44.7	1,255.4	1,755.4	WMAIN-5897	5.2	Passed
H-422	48	35.8	3,501.8	4,001.8	WMAIN-3778	7.3	Passed
H-423	48.9	39.4	3,613.1	4,113.1	WMAIN-7879(2)	8.3	Passed
H-424	48.4	24.2	5,036.7	5,536.7	WMAIN-3778	10.2	Passed
H-425	48.9	35.4	3,502	4,002	WMAIN-3778	8.6	Passed
H-426	48.4	32.4	3,617	4,117	WMAIN-3778	8.6	Passed
H-427	50.1	34.2	3,647	4,147	WMAIN-3778	8.9	Passed
H-428	50.9	47.5	1,330.2	1,830.2	WMAIN-5897	6	Passed
H-429	52	20	5,133.1	5,542.9	WMAIN-3778	11.6	Passed
H-430	52	20	5,130.8	5,322.3	WMAIN-3778	11.4	Passed
H-431	53.4	20.5	3,530.0	4,030.0	WMAIN-3778	9.5	Passed
H-432	50.7	32.5	1,269.7	1,302.5	WMAIN-6208	15	Passed
H-433	54.5	45.5	1,250.0	1,750.0	HS-3	11.6	Passed
H-434	54.7	47.2	1,250.0	1,750.0	HS-3	11.6	Passed
H-435	54.2	47.2	3,503.2	4,003.2	WMAIN-1071	7.4	Passed
H-436	53.6	47.8	1,250.0	1,750.0	HS-24	6.9	Passed
H-437	47.6	30.1	2,598.6	3,098.6	WMAIN-7873(2)	6.2	Passed
H-438	45.9	26.9	2,591.5	3,091.5	WMAIN-7873(2)	5.7	Passed
H-439	51.3	44.6	2,574.5	3,074.5	WMAIN-7791(2)	6	Passed
H-440	58.4	54.7	1,304.0	1,804.0	HS-255	5.4	Passed
J-3	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-10	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
TEMP391	53.3	52.1	1,251.8	1,751.8	WMAIN-1906	5.7	Passed
TEMP392	52.3	45.6	3,504.0	4,004.0	WMAIN-8181(1)	6.4	Passed
TEMP393	52.9	51.3	1,250.0	1,750.0	HS-255	5.2	Passed
TEMP394	53	46.9	3,500.8	4,000.8	WMAIN-1072	7.2	Passed
TEMP395	53.4	47.6	3,500.0	3,866.5	P-84(2)	15	Passed
TEMP396	51.7	45.5	3,500.0	4,000.0	WMAIN-8182(2)	6.6	Passed
TEMP397	51.4	45	3,500.0	4,000.0	WMAIN-1302(2)	5.9	Passed
TEMP398	51.2	49.7	1,270.1	1,770.1	HS-255	5.2	Passed
TEMP399	53.6	48	3,500.7	4,000.7	P-112(1)	7.9	Passed
TEMP400	51.4	42.1	2,500.0	3,000.0	WMAIN-8247	14.7	Passed
TEMP401	51.4	39.9	2,518.5	3,018.5	WMAIN-8247	13.5	Passed
TEMP402	51.3	27.8	3,522.6	3,926.7	WMAIN-8247	15	Passed
TEMP403	51.3	47	1,250.0	1,750.0	WMAIN-8240(2)	8.1	Passed
TEMP404	51.4	48.3	1,250.0	1,750.0	WMAIN-8240(1)	9.2	Passed
TEMP405	51.4	48.1	1,250.0	1,750.0	WMAIN-8250(1)	7.3	Passed
TEMP406	51.4	47.7	1,250.0	1,750.0	WMAIN-8242	6	Passed
TEMP407	51.5	36.2	3,500.0	4,000.0	WMAIN-8250(2)	14.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
TEMP408	49	45.5	1,250.0	1,750.0	WMAIN-8214(1)	7.3	Passed
TEMP409	49.3	41.3	1,250.0	1,750.0	WMAIN-8208(1)(1)	11.2	Passed
TEMP410	49.2	45.4	1,264.0	1,764.0	WMAIN-8213(2)	6.5	Passed
TEMP411	49.3	45.4	1,250.0	1,750.0	WMAIN-8217(2)	6.1	Passed
TEMP412	49.1	45.5	1,250.0	1,750.0	WMAIN-8216(1)	7	Passed
TEMP413	49.2	45	1,250.0	1,750.0	WMAIN-8221(1)(1)(2)	6.7	Passed
TEMP414	49.2	46	1,250.0	1,750.0	WMAIN-8220(2)	8.1	Passed
TEMP415	49.3	44.8	1,250.0	1,750.0	WMAIN-8220(2)	5.7	Passed
TEMP416	49.2	46.1	1,250.0	1,750.0	WMAIN-8212(2)	6.9	Passed
TEMP417	49.2	46.6	1,250.0	1,750.0	WMAIN-8219(2)	5.7	Passed
TEMP418	48.9	45.5	1,250.0	1,750.0	WMAIN-8206(1)	7.9	Passed
TEMP419	49.1	45	1,250.0	1,750.0	WMAIN-8206(2)	6.8	Passed
TEMP420	49.2	44.8	1,250.0	1,750.0	WMAIN-8210(2)	5.9	Passed
TEMP421	48.8	46.8	1,250.0	1,750.0	WMAIN-5897	5.3	Passed
TEMP422	49.3	45.3	1,250.0	1,750.0	WMAIN-8210(2)	7	Passed
TEMP423	48.9	47.2	1,251.4	1,751.4	WMAIN-5897	5.3	Passed
TEMP424	45.2	43.3	1,252.7	1,752.7	WMAIN-5897	5.2	Passed
TEMP425	45.7	43.2	1,251.2	1,751.2	WMAIN-8193(1)	6.2	Passed
TEMP426	46	43.5	1,251.9	1,751.9	WMAIN-8196(1)	6.1	Passed
TEMP427	55.3	38.3	3,500.0	4,000.0	WMAIN-1071	11.1	Passed
TEMP428	55.1	38.3	3,508.8	4,008.8	WMAIN-1071	11.1	Passed
TEMP429	55.1	45.6	2,525.6	3,025.6	WMAIN-1071	8.7	Passed
TEMP430	55	46.1	2,500.0	3,000.0	WMAIN-1071	8.7	Passed
TEMP431	54.9	46.9	2,500.0	3,000.0	WMAIN-1071	8.8	Passed
TEMP432	54.9	43.2	3,500.0	4,000.0	WMAIN-1071	11.5	Passed
TEMP433	55	48.5	2,500.0	3,000.0	WMAIN-1071	9	Passed
TEMP434	55	49.7	2,500.0	3,000.0	WMAIN-1071	9.1	Passed
TEMP435	49.3	45.9	1,250.0	1,750.0	WMAIN-8211(1)	6.1	Passed
TEMP436	49.1	43.9	3,500.0	4,000.0	WMAIN-8201(1)	8.8	Passed
TEMP437	47.7	44.6	1,253.8	1,753.8	WMAIN-8014(1)	6.4	Passed
TEMP438	48.2	45.9	1,251.8	1,751.8	WMAIN-8313(2)	7	Passed
TEMP439	48.4	45.5	1,252.9	1,752.9	WMAIN-8318(1)	6.1	Passed
TEMP440	48.5	46.1	1,252.0	1,752.0	WMAIN-8317(2)	6.5	Passed
TEMP441	47.9	44.3	1,252.9	1,752.9	WMAIN-8315(2)	7	Passed
TEMP442	47.6	39.8	1,252.6	1,752.6	WMAIN-8316	11.2	Passed
TEMP443	47.8	44	1,251.4	1,751.4	WMAIN-8129(1)	6.8	Passed
TEMP444	49.1	45.4	1,250.0	1,750.0	WMAIN-8221(1)(1)(1)	7.4	Passed
TEMP445	53.1	51.3	1,250.3	1,750.3	WMAIN-8309(1)	6.1	Passed
TEMP446	53.1	50.7	1,251.6	1,751.6	WMAIN-8310(1)	6.9	Passed
TEMP447	53.3	49.9	1,252.7	1,752.7	WMAIN-8308	6.5	Passed
TEMP448	53.3	50.4	1,253.2	1,753.2	WMAIN-1906	5.7	Passed
TEMP449	53.3	50.1	1,253.3	1,753.3	WMAIN-8304(2)	6.9	Passed
TEMP450	53.3	51.2	1,250.8	1,750.8	WMAIN-8301(1)	7.2	Passed
TEMP451	53.4	50.8	1,251.5	1,751.5	WMAIN-8302(1)	6.1	Passed
TEMP452	53.4	51.2	1,251.4	1,751.4	WMAIN-8300(1)	6.4	Passed
TEMP453	53.2	50.2	1,251.5	1,751.5	WMAIN-1906	5.7	Passed
TEMP454	53.2	50	1,252.1	1,752.1	WMAIN-8299(2)	6.4	Passed
TEMP455	53	49.9	1,252.0	1,752.0	WMAIN-8296(1)	6.8	Passed
TEMP456	52.6	49.8	1,250.3	1,750.3	WMAIN-8294(2)	6.1	Passed
TEMP457	52.9	50.7	1,251.4	1,751.4	WMAIN-8293(2)	6.6	Passed
TEMP458	53.2	51.4	1,250.9	1,750.9	WMAIN-8292(2)	7.9	Passed
TEMP459	53.1	50.5	1,253.8	1,753.8	WMAIN-1906	5.7	Passed
TEMP460	53	50.3	1,253.1	1,753.1	WMAIN-8291(1)	6.1	Passed
TEMP461	52.6	49.9	1,251.4	1,751.4	WMAIN-8288(2)	5.9	Passed
TEMP462	53.1	51.1	1,250.8	1,750.8	WMAIN-8289(1)	6.6	Passed
TEMP463	52.9	50.8	1,250.9	1,750.9	WMAIN-8283(2)	8.4	Passed
TEMP464	52.5	50.3	1,250.8	1,750.8	WMAIN-8286(1)	6.7	Passed
TEMP465	52.8	49.7	1,251.9	1,751.9	WMAIN-8282(1)(1)	7.5	Passed
TEMP466	52.1	49.7	1,250.9	1,750.9	WMAIN-8284(1)	8.2	Passed
TEMP467	52.3	49	1,252.0	1,752.0	WMAIN-8282(2)	7.1	Passed
TEMP468	52.9	47.8	1,251.8	1,751.8	WMAIN-8281	7.6	Passed
TEMP469	52.7	45	1,251.3	1,751.3	WMAIN-8279(2)	11.2	Passed
TEMP470	52.9	46.8	1,252.3	1,752.3	WMAIN-8281	6.5	Passed
TEMP471	52.5	48	1,252.6	1,752.6	WMAIN-8278(1)	8.3	Passed
TEMP472	52.8	46.9	1,252.5	1,752.5	WMAIN-8278(1)	6.9	Passed
TEMP473	52.9	46.6	1,252.2	1,752.2	WMAIN-8278(1)	5.9	Passed
TEMP474	49.1	33.9	3,500.5	4,000.5	WMAIN-8322	13	Passed
TEMP475	49.1	36.6	3,500.0	3,810.2	WMAIN-8323(2)	15	Passed
TEMP476	47.8	44.1	1,251.5	1,751.5	WMAIN-0101	6.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
009-001	51.3	48.1	1,253.0	1,753.0	WMAIN-1188(1)	8.1	Passed
009-002	52.1	48.7	1,260.0	1,760.0	WMAIN-2278(2)	7.4	Passed
009-003	52.2	50.3	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
009-004	51.8	50	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
009-005	52	48.6	1,250.0	1,750.0	WMAIN-2280(2)(2)	8.4	Passed
009-006	51.1	34.4	3,506.0	4,006.0	WMAIN-2616(1)	14.8	Passed
009-007	50.1	42.9	3,501.0	3,400.0	WMAIN-2522(1)	15	Velocity Failed
009-008	50.8	48.8	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
009-009	51.2	46.9	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
009-010	51.1	47.1	1,255.0	1,755.0	WMAIN-4368(1)(1)	7.2	Passed
009-011	51.3	47.2	1,250.0	1,750.0	WMAIN-4368(2)	6.9	Passed
009-012	50.6	45.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
009-013	50	44.8	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
009-014	52.1	48.8	1,253.0	1,753.0	WMAIN-1205(1)	9.3	Passed
009-015	52	45.3	1,252.0	1,752.0	WMAIN-1207(1)	11.2	Passed
009-016	51.7	47.5	1,251.0	1,751.0	WMAIN-4385(2)	8.1	Passed
009-017	50	45.8	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
009-018	49.9	43.5	1,251.0	1,751.0	WMAIN-4378(1)	11.2	Passed
009-019	52	50.2	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
009-020	52	50.1	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
009-021	52.1	50	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
009-022	52.1	37.6	5,014.0	5,514.0	WMAIN-5897	9.3	Passed
009-023	52.1	45.6	3,500.0	4,000.0	WMAIN-4389(1)	7.8	Passed
009-024	52	44.9	3,500.0	4,000.0	WMAIN-5897	7.3	Passed
009-025	49.9	47.8	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
009-026	51.1	49	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
009-027	50.6	44.1	1,253.0	1,753.0	WMAIN-1195(1)	7.2	Passed
009-028	49.8	42.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
009-029	52	44.6	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
009-030	52	47.7	1,252.0	1,752.0	WMAIN-2523(2)	7.5	Passed
009-031	51.9	47	1,261.0	1,761.0	WMAIN-5897	6.8	Passed
009-032	52	50.1	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
009-033	52	44.3	3,508.0	4,008.0	WMAIN-5897	7.3	Passed
009-034	51.3	43.2	1,252.0	1,752.0	WMAIN-1759(2)(2)	11.4	Passed
009-035	51.7	27	3,525.0	2,338.0	WMAIN-1759(2)(2)	15	Velocity Failed
009-036	51.9	36.8	3,509.0	2,348.0	WMAIN-7834(1)	15	Velocity Failed
009-037	52	45.7	5,002.0	2,341.0	WMAIN-7834(1)	15	Velocity Failed
009-039	51.8	46.5	3,500.0	2,635.0	WMAIN-1071	15	Velocity Failed
010-001	49.9	48.1	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
010-002	49.7	47.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-003	47.8	44.9	1,254.0	1,572.0	WMAIN-5480(1)	15	Passed
010-004	49.3	45.1	1,251.0	1,751.0	WMAIN-1232(1)	9.3	Passed
010-005	47.8	41	1,255.0	1,755.0	WMAIN-1232(1)	8.7	Passed
010-006	46.4	36.7	1,250.0	1,750.0	WMAIN-5480(1)	10.7	Passed
010-007	48.9	41.7	1,253.0	1,753.0	WMAIN-1232(1)	8.9	Passed
010-008	48.1	40.7	1,252.0	1,752.0	WMAIN-1232(1)	8.6	Passed
010-009	50	47.3	2,500.0	3,000.0	WMAIN-7224	10.3	Passed
010-010	47.4	45.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
010-011	47.5	41	3,502.0	4,002.0	WMAIN-5897	8	Passed
010-012	49.4	47.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
010-013	50.5	47.7	1,252.0	1,752.0	WMAIN-5144(1)	11.2	Passed
010-014	50.7	42.8	3,500.0	4,000.0	WMAIN-5897	8	Passed
010-015	51.8	47	1,253.0	1,753.0	WMAIN-5139(1)	11.2	Passed
010-016	51.3	49.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
010-017	50	46.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-018	52	47.6	1,255.0	1,755.0	WMAIN-5120(1)	7	Passed
010-019	51.7	47	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-020	51.9	48	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
010-021	51.7	47.1	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-022	51.2	46.7	1,252.0	1,752.0	WMAIN-5134	6.9	Passed
010-023	49.7	47.3	1,251.0	1,751.0	WMAIN-5058(2)	11.2	Passed
010-027	50.1	47	1,252.0	1,752.0	WMAIN-5055(1)	11.2	Passed
010-028	49.8	48.1	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
010-029	50.7	46.1	1,258.0	1,758.0	WMAIN-5897	6.8	Passed
010-030	49.8	46.4	1,251.0	1,751.0	WMAIN-5051(1)	8	Passed
010-031	50.2	47.7	1,253.0	1,753.0	WMAIN-5085(1)(1)	9	Passed
010-032	49.9	45.6	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
010-033	49.6	41.4	1,253.0	1,753.0	WMAIN-5074(1)	11.2	Passed
010-034	49.8	43.5	1,253.0	1,753.0	WMAIN-5082(1)	11.2	Passed
010-035	50.5	44.2	1,253.0	1,753.0	WMAIN-5114	11.2	Passed
010-036	50.1	47.7	1,251.0	1,751.0	WMAIN-5100(1)	9	Passed
010-037	50.1	46.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-038	51.3	49.1	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
010-039	51.8	49.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-040	49.8	45.4	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
010-041	49.2	46.8	1,252.0	1,752.0	WMAIN-4820(1)	11.2	Passed
010-042	49.6	45.5	1,250.0	1,750.0	WMAIN-4869(1)	11.2	Passed
010-043	52	47.1	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
010-044	52	47.9	1,253.0	1,753.0	WMAIN-4890(1)	7.4	Passed
010-045	52	49.6	1,251.0	1,751.0	WMAIN-4890(1)	9.5	Passed
010-046	46.9	41.9	3,503.0	4,003.0	WMAIN-7224	8.8	Passed
011-001	49	25.9	1,252.0	934.0	WMAIN-6152	15	Velocity Failed
011-002	48.1	20	1,252.0	969.0	WMAIN-6154(2)	13.7	Residual Pressure Failed
011-004	47.7	38.5	1,254.0	1,754.0	WMAIN-5033(1)	10.9	Passed
011-005	48	44.5	1,251.0	1,671.0	WMAIN-7201(2)	15	Passed
011-006	47.7	33.7	1,253.0	1,753.0	WMAIN-7200(1)	11.4	Passed
011-007	47.8	39.3	1,253.0	1,753.0	WMAIN-7185(2)	11.4	Passed
011-008	47.9	46.6	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-009	47.8	44.8	1,255.0	1,755.0	WMAIN-5460(1)(1)	8.2	Passed
011-010	47.3	43.6	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-011	46.9	38.4	1,252.0	1,752.0	WMAIN-3556	11.8	Passed
011-012	47.4	42.4	3,500.0	4,000.0	WMAIN-7224	9	Passed
011-013	47.7	45.5	1,255.0	1,755.0	WMAIN-0348(1)(1)	8.8	Passed
011-014	47.9	44.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-015	47.9	43.7	1,250.0	1,750.0	WMAIN-5034(2)(2)	9.1	Passed
011-016	47.6	20	3,503.0	3,892.0	WMAIN-5034(2)(2)	15	Passed
011-017	47.7	40.6	1,263.0	1,763.0	WMAIN-5897	6.8	Passed
011-018	48.2	42.1	1,250.0	1,750.0	WMAIN-5042(2)(2)(2)	7.3	Passed
011-019	47.9	42.8	1,256.0	1,756.0	WMAIN-5048(1)(1)(1)	7.5	Passed
011-020	47.7	42.9	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
011-021	47.8	43.8	1,252.0	1,752.0	WMAIN-5029(2)	7.3	Passed
011-022	47.5	42.7	1,252.0	1,752.0	WMAIN-5028(2)	7.2	Passed
011-023	48.5	42.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-024	48.5	43.5	1,250.0	1,750.0	WMAIN-5048(2)	7.6	Passed
011-025	48.3	43.2	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
011-026	48.2	44	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
011-027	46.6	43.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-028	46.4	32.2	3,502.0	4,002.0	WMAIN-2603(1)	13.4	Passed
011-029	47.7	37.8	1,254.0	1,754.0	WMAIN-4888(1)	11.2	Passed
011-030	47.8	42.5	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-031	47.8	42.8	1,253.0	1,753.0	WMAIN-4885A(1)	7	Passed
011-032	47.7	41.9	1,253.0	1,753.0	WMAIN-4879(2)	11.2	Passed
011-033	47.3	45.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
011-034	47.3	42.3	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
011-035	47.1	43.2	1,250.0	1,750.0	WMAIN-4814(2)(2)	7.2	Passed
011-036	46.7	42.3	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
011-037	46.8	41.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
011-038	47.3	41.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
011-039	47.5	45.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
011-040	47.4	40.9	3,500.0	4,000.0	WMAIN-5897	8	Passed
011-041	48	46.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
012-004	47.9	42.7	3,503.0	4,003.0	WMAIN-5897	8	Passed
012-005	47.9	43.3	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
012-006	47.8	43	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
012-007	47.9	43.2	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
012-008	47.3	43.5	1,250.0	1,750.0	WMAIN-5468(2)	8.3	Passed
012-009	47.2	43.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
012-010	47.5	43.9	1,251.0	1,751.0	WMAIN-2601(2)	7.2	Passed
012-011	45.8	41.8	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
012-012	47.8	42	1,252.0	1,752.0	WMAIN-4829(1)	11.2	Passed
012-013	47.9	43.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
012-014	47.9	42.3	1,258.0	1,758.0	WMAIN-5897	6.8	Passed
012-015	47.9	42.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
012-016	47.9	44.3	1,253.0	1,753.0	WMAIN-4827(2)	7.2	Passed
012-017	47.9	46.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
012-022	47.8	46.5	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
012-023	48.2	43.4	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
012-024	48.3	43.5	1,256.0	1,756.0	WMAIN-4859(1)(1)	6.9	Passed
012-025	48.3	43.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
012-026	47.9	43.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
012-027	44.1	39.1	1,260.0	1,760.0	WMAIN-5897	6.8	Passed
012-028	47.7	42.8	1,264.0	1,764.0	WMAIN-4836	6.9	Passed
012-029	48	24.2	3,500.0	4,000.0	WMAIN-4836	13.4	Passed
012-030	48	24.8	3,500.0	4,000.0	WMAIN-4838(1)(2)	14.4	Passed
012-031	48	33.5	3,502.0	3,487.0	WMAIN-4838(1)(2)	15	Velocity Failed
012-032	47.8	43.2	3,503.0	4,003.0	WMAIN-7152(1)(1)	11.4	Passed
012-033	44	38.7	1,255.0	1,682.0	WMAIN-4855(1)	15	Passed
012-034	45.6	41.7	1,250.0	1,750.0	WMAIN-4832(2)(2)	8	Passed
012-035	47.9	42.7	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
012-036	47.9	42.8	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
012-037	47.8	42.8	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
012-038	47.9	36.7	1,256.0	1,756.0	WMAIN-4835(1)	10.8	Passed
012-039	47.9	39.9	1,253.0	1,753.0	WMAIN-4825(1)	11.2	Passed
012-056	48	24.3	3,500.0	4,000.0	WMAIN-4838(1)(2)	13.7	Passed
012-057	47.9	37.5	3,500.0	3,222.0	WMAIN-4838(2)	15	Velocity Failed
012-060	46.3	38.7	1,252.0	1,320.0	WMAIN-4724(1)	15	Passed
012-061	46.5	38.3	1,252.0	1,752.0	WMAIN-4718(1)	11.5	Passed
012-062	46	35.3	1,250.0	1,750.0	WMAIN-4855(1)	10.7	Passed
012-063	45.1	39.6	1,252.0	1,752.0	WMAIN-2590(1)	11.3	Passed
012-064	44.3	38.5	1,255.0	1,755.0	WMAIN-2592(1)	11.2	Passed
012-065	46.3	40.5	1,253.0	1,753.0	WMAIN-2274(1)	11.2	Passed
013-001	47.8	44.2	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
013-002	47.7	44.2	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
013-003	47.8	41.6	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
013-004	47.7	39.3	5,000.0	5,500.0	WMAIN-5897	9.2	Passed
013-005	47.6	44.1	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
013-006	47.5	42.5	3,504.0	4,004.0	WMAIN-7161(1)	8.6	Passed
013-007	47.5	41	3,503.0	4,003.0	WMAIN-7161(1)	7.4	Passed
013-008	47.4	33.3	5,000.0	5,500.0	WMAIN-7161(1)	9	Passed
013-009	47.3	32.8	5,005.0	5,505.0	WMAIN-5897	8.9	Passed
013-010	47.3	33.1	5,003.0	5,503.0	WMAIN-7155(2)	8.9	Passed
013-011	47.2	34.1	5,001.0	5,501.0	WMAIN-7155(2)	10.1	Passed
013-012	47.2	41.7	3,507.0	4,007.0	WMAIN-7155(2)	8.4	Passed
013-013	47	39.3	5,000.0	5,500.0	WMAIN-5897	8.8	Passed
013-014	47.1	39.4	5,003.0	5,503.0	WMAIN-5897	8.9	Passed
013-015	47.3	39	5,000.0	5,500.0	WMAIN-5897	8.9	Passed
013-016	47.2	39.5	5,002.0	5,502.0	WMAIN-5897	8.9	Passed
013-017	47.4	38.7	5,002.0	5,502.0	WMAIN-5897	8.9	Passed
013-018	47.7	38.3	5,001.0	5,501.0	WMAIN-5897	8.9	Passed
013-019	47.9	38.2	3,503.0	2,343.0	WMAIN-7457(1)	15	Velocity Failed
013-020	48	42.4	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
013-021	48.1	36.4	5,000.0	5,500.0	WMAIN-5897	8.9	Passed
013-022	48.2	36.9	5,002.0	5,502.0	WMAIN-7169(1)	9.3	Passed
013-023	48.4	38.7	5,000.0	5,500.0	WMAIN-7169(1)	11.2	Passed
013-024	48.4	40.8	5,011.0	5,511.0	WMAIN-5897	8.9	Passed
013-025	48.3	45	3,500.0	2,766.0	WMAIN-6019(2)(2)	15	Velocity Failed
013-026	48.2	35.7	3,506.0	3,783.0	WMAIN-6019(2)(2)	15	Passed
013-027	48.2	41.9	3,500.0	1,322.0	WMAIN-1345(1)	15	Velocity Failed
013-028	48.1	32.6	3,521.0	4,021.0	WMAIN-6019(2)(2)	12.9	Passed
013-029	48.1	44.6	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
013-030	47.9	40.3	5,000.0	5,500.0	WMAIN-5897	8.9	Passed
013-031	47.7	39.6	5,001.0	5,501.0	WMAIN-5897	9.2	Passed
013-032	47.6	39.8	5,004.0	5,504.0	WMAIN-5897	8.9	Passed
013-033	47.6	39.4	5,002.0	5,502.0	WMAIN-5897	8.9	Passed
013-034	47.5	39.2	5,003.0	5,503.0	WMAIN-5897	8.9	Passed
013-035	47.5	39.3	5,003.0	5,503.0	WMAIN-5897	8.9	Passed
013-036	47.4	43.6	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
013-037	48.4	44.8	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
013-043	47.9	40	3,500.0	4,000.0	WMAIN-7152(1)(1)	11.4	Passed
014-001	47.2	36.4	3,501.0	1,476.0	WMAIN-2471(2)	15	Velocity Failed
014-002	46.5	31.5	3,501.0	3,967.0	WMAIN-6414(1)(1)	15	Passed
014-003	46.5	34.9	3,502.0	3,633.0	WMAIN-6414(2)	15	Passed
014-004	46.7	26.4	3,500.0	2,488.0	WMAIN-2816(1)(2)	15	Velocity Failed
014-005	46.6	42.3	1,271.0	1,543.0	WMAIN-2812(2)	15	Passed
014-006	46.4	41.8	3,505.0	4,005.0	WMAIN-5897	7.2	Passed
014-007	46.3	42.4	3,509.0	4,009.0	WMAIN-6418(1)	8	Passed
014-008	46.6	39.3	3,519.0	4,019.0	WMAIN-7144	11.4	Passed
014-009	46.6	32.1	5,000.0	5,500.0	WMAIN-7144	14.9	Passed
014-010	46.6	30.9	5,000.0	5,500.0	WMAIN-7144	14	Passed
014-011	46.4	32.8	5,000.0	4,689.0	WMAIN-3247(1)	15	Velocity Failed
014-012	46	29.9	5,000.0	5,323.0	WMAIN-3247(2)	15	Passed
014-013	46.3	39.3	5,001.0	5,501.0	WMAIN-0267	7.8	Passed
014-014	46	40.8	5,000.0	5,500.0	WMAIN-5897	7.4	Passed
014-015	46.2	42.8	3,501.0	4,001.0	WMAIN-5897	7.1	Passed
014-016	46.4	44	2,540.0	3,040.0	WMAIN-5897	7	Passed
014-017	46.8	39.1	5,014.0	5,514.0	WMAIN-5897	8.8	Passed
014-018	46.8	35.3	1,250.0	1,750.0	WMAIN-2469(2)	11.1	Passed
014-019	47.8	44.4	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
015-001	45.3	25.7	5,008.0	5,503.0	WMAIN-7144	15	Passed
015-002	45	28.4	5,000.0	5,315.0	WMAIN-7144	15	Passed
015-003	44.9	30.8	5,007.0	5,169.0	WMAIN-7144	15	Passed
015-010	45.4	37.6	3,509.0	4,009.0	WMAIN-7144	11.8	Passed
015-011	46.1	37.1	5,000.0	4,826.0	WMAIN-7144	15	Velocity Failed
015-018	46.2	25.9	5,000.0	5,131.0	WMAIN-5555(2)	15	Passed
015-019	46.2	20.6	5,006.0	5,136.0	WMAIN-5554(2)	15	Passed
015-020	46.1	20	5,022.0	4,688.0	WMAIN-5554(2)	13.7	Residual Pressure Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
015-021	45.7	20	5,000.0	4,292.0	WMAIN-5554(2)	12.6	Residual Pressure Failed
015-022	45.4	31.7	3,500.0	1,275.0	WMAIN-6201(2)	15	Velocity Failed
015-023	46	25.3	5,001.0	3,250.0	WMAIN-1779(2)(2)	15	Velocity Failed
015-024	45.4	20	5,010.0	3,240.0	WMAIN-1779(2)(2)	10.9	Residual Pressure Failed
015-025	45.5	20	3,500.0	3,252.0	WMAIN-1784(1)	11.4	Residual Pressure Failed
015-026	45.8	20	5,000.0	3,422.0	WMAIN-1784(1)	13.9	Residual Pressure Failed
015-027	45.9	27.4	5,000.0	3,136.0	WMAIN-1784(1)	15	Velocity Failed
017-001	44.4	40.5	3,501.0	4,001.0	WMAIN-3655	10.3	Passed
017-002	44.2	31.4	3,512.0	3,779.0	WMAIN-6199	15	Passed
017-003	44.1	39.5	3,503.0	2,565.0	WMAIN-6199	15	Velocity Failed
017-004	44	36	2,502.0	2,936.0	WMAIN-6199	15	Passed
017-005	43.6	27.2	3,500.0	4,000.0	WMAIN-6199	14.3	Passed
017-018	42.2	36.9	3,500.0	3,013.0	WMAIN-3298	15	Velocity Failed
017-020	43.4	38.9	3,500.0	4,000.0	WMAIN-1755(2)(2)	10.3	Passed
017-021	43.6	37.2	3,511.0	4,011.0	WMAIN-1755(2)(2)	9.2	Passed
017-022	43.8	36	3,503.0	4,003.0	WMAIN-1755(2)(2)	8.5	Passed
017-023	43.9	35.2	3,523.0	4,023.0	WMAIN-1755(2)(2)	8	Passed
017-024	44.1	34.5	3,520.0	4,020.0	WMAIN-1755(2)(2)	7.5	Passed
018-001	45.1	41.4	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
018-002	45.4	41.8	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
018-003	45.4	41.2	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
018-004	45.6	41.2	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
018-005	45.8	41	3,503.0	4,003.0	WMAIN-5897	7.2	Passed
018-006	45.9	39.9	3,500.0	4,000.0	WMAIN-6250	11.8	Passed
018-007	46.1	40.5	3,502.0	4,002.0	WMAIN-5897	7.2	Passed
018-008	46.1	40.2	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
018-009	46.1	40.3	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
018-010	45.5	29.8	5,000.0	5,142.0	WMAIN-6250	15	Passed
018-011	45.2	24.3	5,003.0	5,145.0	WMAIN-6250	15	Passed
018-012	45	20	5,002.0	5,058.0	WMAIN-6250	14.8	Passed
018-015	45.6	42	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
018-036	45.1	26.3	3,500.0	4,000.0	WMAIN-6258(1)	13.5	Passed
018-037	44.9	27.9	3,501.0	3,933.0	WMAIN-3825(1)	15	Passed
018-038	45.2	40.4	3,504.0	2,868.0	WMAIN-3825(1)	15	Velocity Failed
018-039	45.3	33.6	3,503.0	3,497.0	WMAIN-6258(1)	15	Velocity Failed
018-040	45	26.3	3,500.0	4,000.0	WMAIN-3825(1)	13.9	Passed
018-041	45.7	31.7	3,509.0	3,808.0	WMAIN-3494(2)	15	Passed
018-043	45.9	29.2	3,509.0	4,009.0	WMAIN-5940	14.4	Passed
018-052	45.3	41.4	5,000.0	2,350.0	WMAIN-1752	15	Velocity Failed
019-001	46.8	37.1	3,500.0	3,255.0	WMAIN-0901(2)	15	Velocity Failed
019-002	46.7	23.2	1,250.0	584.0	WMAIN-2786	15	Velocity Failed
019-004	47.1	33.3	3,500.0	2,585.0	WMAIN-2175(2)	15	Velocity Failed
019-005	46.8	44.4	1,252.0	1,605.0	WMAIN-2776(1)	15	Passed
019-006	47.1	44.7	2,500.0	3,000.0	WMAIN-5897	7	Passed
019-007	46.7	21.6	1,253.0	1,112.0	WMAIN-2808(1)	15	Velocity Failed
019-008	46.2	31.9	1,250.0	1,750.0	WMAIN-2796(2)(2)	11.1	Passed
019-009	46.2	31.9	1,256.0	1,756.0	WMAIN-2796(2)(2)	11.1	Passed
019-010	46.9	36.1	1,253.0	1,753.0	WMAIN-2811(1)	11.2	Passed
019-011	46.6	32.7	1,250.0	1,750.0	WMAIN-2793(1)(1)	11.3	Passed
019-012	46.6	32.7	1,258.0	1,758.0	WMAIN-2793(1)(1)	11.3	Passed
019-013	46.6	22	3,502.0	586.0	WMAIN-2786	15	Velocity Failed
019-014	46.5	45	1,251.0	1,751.0	WMAIN-4644(1)	8.4	Passed
019-015	46.5	44.1	1,254.0	1,754.0	WMAIN-4652(2)	9.1	Passed
019-016	46.4	43.3	1,252.0	1,752.0	WMAIN-4668(1)	7.4	Passed
019-017	46.3	43.2	1,250.0	1,750.0	WMAIN-4668(2)(2)	7.2	Passed
019-018	46.2	43.3	1,251.0	1,751.0	WMAIN-4664(2)	7	Passed
019-019	46.2	43.8	1,252.0	1,752.0	WMAIN-4662	7.5	Passed
019-020	46.3	42.7	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
019-021	46.4	43.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
019-022	46.5	42.8	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
019-023	46.2	41.6	3,500.0	3,210.0	WMAIN-3507(2)	15	Velocity Failed
019-024	45.8	42.1	3,500.0	4,000.0	WMAIN-6265(1)	8.8	Passed
019-025	46.1	41	3,506.0	4,006.0	WMAIN-5897	7.2	Passed
019-026	46.1	40.7	3,508.0	4,008.0	WMAIN-5897	7.2	Passed
019-027	46.2	43.4	1,264.0	1,764.0	WMAIN-5897	6.8	Passed
019-028	46.1	25.3	5,000.0	5,500.0	WMAIN-4644(1)	14.8	Passed
019-029	46.2	43.3	1,252.0	1,752.0	WMAIN-4480(2)	7	Passed
019-030	46.3	42.7	1,253.0	1,753.0	WMAIN-4478(2)	7.2	Passed
019-031	46.4	42.5	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
019-032	45.9	42.4	3,502.0	4,002.0	WMAIN-5897	7.2	Passed
019-033	46	41.5	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
019-037	46.2	32.5	3,505.0	4,005.0	WMAIN-4486(1)	14.4	Passed
019-038	46.1	32.9	3,501.0	3,998.0	WMAIN-6259(2)(2)	15	Passed
019-039	46.1	41.8	3,500.0	2,969.0	WMAIN-6259(2)(2)	15	Velocity Failed
019-040	46.8	43.5	1,251.0	1,751.0	WMAIN-0895(1)	8.1	Passed
019-041	46	40.8	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
019-042	45.9	39.3	3,500.0	4,000.0	WMAIN-3511(1)	8.3	Passed
019-043	45.8	32.5	5,000.0	5,500.0	WMAIN-3247(2)	12	Passed
019-044	45.7	30.9	5,000.0	5,500.0	WMAIN-3247(2)	13.3	Passed
019-045	45.8	29.7	5,000.0	5,500.0	WMAIN-3247(2)	14.4	Passed
019-046	46.4	40.5	1,251.0	1,751.0	WMAIN-0891(1)	9.2	Passed
019-047	47.4	38.6	1,250.0	1,750.0	WMAIN-1742(2)	11.2	Passed
020-001	47.9	36.8	3,503.0	2,421.0	WMAIN-2891	15	Velocity Failed
020-002	48.1	30	3,500.0	3,639.0	WMAIN-2454(1)(1)	15	Passed
020-003	48	43	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
020-004	47.8	35.1	3,500.0	2,253.0	WMAIN-2164(1)	15	Velocity Failed
020-005	48.1	40.6	3,500.0	4,000.0	WMAIN-6320(2)	14.4	Passed
020-006	48.1	40.7	2,500.0	2,916.0	WMAIN-2886(1)	15	Passed
020-007	48.1	44.6	3,500.0	3,084.0	WMAIN-2452(2)	15	Velocity Failed
020-008	48	45.3	2,500.0	3,000.0	WMAIN-5897	7	Passed
020-009	48	44.1	2,500.0	1,730.0	WMAIN-2168(2)	15	Velocity Failed
020-010	48.1	46.2	2,500.0	3,000.0	WMAIN-0434(2)	8.1	Passed
020-011	48	42.7	3,500.0	2,327.0	WMAIN-7101(2)	15	Velocity Failed
020-012	47.8	30.6	3,501.0	1,747.0	WMAIN-7096	15	Velocity Failed
020-013	47.4	20	3,525.0	1,113.0	WMAIN-0601(2)	14.4	Residual Pressure and Velocity Failed
020-014	47.2	35.9	1,250.0	1,750.0	WMAIN-2462(1)(2)	13.8	Passed
020-015	47.2	22.5	2,500.0	2,424.0	WMAIN-2170(2)	15	Velocity Failed
020-016	47	26.9	3,500.0	3,819.0	WMAIN-0431	15	Passed
020-017	46.9	24.9	3,502.0	2,268.0	WMAIN-0431	15	Velocity Failed
020-018	48.1	45.1	3,506.0	4,006.0	WMAIN-5897	7.2	Passed
020-019	48.1	42.9	5,001.0	5,501.0	WMAIN-5897	7.5	Passed
020-020	48.1	42.7	5,001.0	5,501.0	WMAIN-5897	7.5	Passed
020-021	48.2	45.1	3,500.0	2,999.0	WMAIN-7092(1)	15	Velocity Failed
020-022	48.3	37	5,006.0	5,506.0	WMAIN-0455	12.3	Passed
020-023	48.4	41.3	5,000.0	5,500.0	WMAIN-5897	8.9	Passed
020-024	48.3	40.9	5,000.0	5,500.0	WMAIN-5897	8.9	Passed
020-025	48.2	44.7	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
020-026	48.3	40.6	5,008.0	5,508.0	WMAIN-5897	8.9	Passed
020-027	48.1	45.1	2,500.0	3,000.0	WMAIN-5897	7	Passed
020-028	47	20	3,513.0	3,891.0	WMAIN-7110(1)	14	Passed
020-030	48	46.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
021-001	49	39.6	3,500.0	1,322.0	WMAIN-1960	15	Velocity Failed
021-002	48.8	41.9	3,500.0	2,061.0	WMAIN-1980(1)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
021-003	49.6	34.7	2,503.0	3,003.0	WMAIN-0988(1)	10.4	Passed
021-005	48	35	3,500.0	3,326.0	WMAIN-2206(2)	15	Velocity Failed
021-006	50	40.1	2,501.0	1,176.0	WMAIN-1957	15	Velocity Failed
021-007	49.8	45.6	1,252.0	1,600.0	WMAIN-2962(2)	15	Passed
021-008	49.5	37.2	3,501.0	2,307.0	WMAIN-2215(1)	15	Velocity Failed
021-009	48.7	42.4	3,500.0	2,043.0	WMAIN-7088(1)	14.9	Velocity Failed
021-010	48.1	44.9	3,500.0	1,872.0	WMAIN-2104	15	Velocity Failed
021-011	49.8	39	3,501.0	3,861.0	WMAIN-6372	15	Passed
021-012	50	47.4	2,500.0	1,403.0	WMAIN-3748	15	Velocity Failed
021-013	50	44.3	2,501.0	3,001.0	WMAIN-6372	10.1	Passed
021-014	50	41.8	2,501.0	1,995.0	WMAIN-1951(2)	15	Velocity Failed
021-015	50	35.4	2,502.0	2,446.0	WMAIN-2439(2)	15	Velocity Failed
021-016	48.7	38.7	3,500.0	886.0	WMAIN-2446(1)	15	Velocity Failed
021-017	48.3	46.3	3,501.0	1,550.0	WMAIN-7094(2)	15	Velocity Failed
021-018	48.8	32.7	1,255.0	1,755.0	WMAIN-2754	11	Passed
021-019	49.4	37.3	1,257.0	1,757.0	WMAIN-2124(1)	12.6	Passed
021-020	48.7	23.8	2,500.0	2,413.0	WMAIN-2124(2)(2)	15	Velocity Failed
021-021	49.5	28.5	2,500.0	2,317.0	WMAIN-2742(2)	15	Velocity Failed
021-023	49.1	33.2	3,502.0	4,002.0	WMAIN-2743(2)	13.1	Passed
021-024	48.8	28.8	2,507.0	2,278.0	WMAIN-2747(1)	15	Velocity Failed
021-025	48.5	37.4	5,000.0	5,500.0	WMAIN-5897	9.3	Passed
021-026	48.8	20	2,510.0	1,024.0	WMAIN-2749(1)(2)	14.8	Residual Pressure and Velocity Failed
021-027	49	32.9	2,502.0	2,413.0	WMAIN-6388(1)	15	Velocity Failed
021-028	48.7	33.9	1,252.0	1,013.0	WMAIN-6390(2)	15	Velocity Failed
021-029	48.4	37.2	2,506.0	1,928.0	WMAIN-2742(1)(1)	15	Velocity Failed
021-030	47.9	38.8	2,507.0	1,767.0	WMAIN-2756(1)	15	Velocity Failed
021-031	47.8	40	1,252.0	1,752.0	WMAIN-6402(1)	7	Passed
021-032	47.8	41.4	1,253.0	1,753.0	WMAIN-6402(1)	14.3	Passed
021-033	48.2	42.4	1,255.0	1,755.0	WMAIN-6399(1)	14.7	Passed
021-034	48.5	20.4	1,251.0	1,041.0	WMAIN-6009(2)	15	Velocity Failed
021-035	47.9	39.3	1,251.0	1,751.0	WMAIN-3533(2)	10.9	Passed
021-036	48.4	43.2	3,508.0	4,008.0	WMAIN-5897	7.2	Passed
021-037	48.1	31.6	3,503.0	3,479.0	WMAIN-2182	15	Velocity Failed
021-038	48.1	38.1	3,501.0	2,570.0	WMAIN-2947(2)	15	Velocity Failed
021-039	48	42.5	3,500.0	2,396.0	WMAIN-2104	15	Velocity Failed
021-040	48.1	30	3,500.0	4,000.0	WMAIN-2981	13.3	Passed
021-042	47.8	43.9	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
021-043	47.9	35.4	2,505.0	2,108.0	WMAIN-2435(1)	15	Velocity Failed
021-044	47.9	46.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
021-045	47.8	46	1,250.0	1,750.0	WMAIN-4690(2)(2)	9.3	Passed
021-046	47.8	43.9	1,251.0	1,727.0	WMAIN-7084(1)	15	Passed
021-047	48.1	41.4	1,252.0	802.0	WMAIN-3530(2)	15	Velocity Failed
021-048	47.9	44.7	1,251.0	1,518.0	WMAIN-7082(1)	15	Passed
021-049	48	46.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
022-001	50.6	47.7	3,501.0	2,706.0	WMAIN-6438(1)	15	Velocity Failed
022-002	50.5	44.5	2,504.0	3,004.0	WMAIN-3732(1)	8.7	Passed
022-003	50.3	46.8	3,500.0	1,724.0	WMAIN-2774(2)	15	Velocity Failed
022-004	49.6	41.9	3,500.0	2,517.0	WMAIN-5950(2)	15	Velocity Failed
022-005	49.2	37.6	2,501.0	2,342.0	WMAIN-1006(1)	15	Velocity Failed
022-006	50.3	32.8	2,505.0	2,639.0	WMAIN-3213	15	Passed
022-007	50.2	47.6	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
022-008	50.1	47.8	3,501.0	1,423.0	WMAIN-2770(1)	15	Velocity Failed
022-009	50	40.7	2,500.0	3,000.0	WMAIN-3538(2)	9.5	Passed
022-010	50.1	36.9	1,250.0	1,750.0	WMAIN-7040(2)(2)	11.2	Passed
022-011	50	40.5	1,258.0	1,758.0	WMAIN-7040(1)	13.8	Passed
022-012	50	44.8	2,500.0	3,000.0	WMAIN-6408(1)	10.9	Passed
022-013	49.9	20	1,252.0	1,012.0	WMAIN-2429	13.1	Residual Pressure Failed
022-014	50	38.3	2,502.0	2,366.0	WMAIN-2968(1)	15	Velocity Failed
022-015	50	40.8	1,250.0	1,325.0	WMAIN-3544	15	Passed
022-016	50	40.7	1,253.0	1,753.0	WMAIN-5619(1)	14.5	Passed
022-017	50.1	43.4	1,252.0	1,752.0	WMAIN-3547(2)	11.5	Passed
022-018	49.8	47.8	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
022-019	49.9	21.3	1,251.0	1,020.0	WMAIN-2428(2)	15	Velocity Failed
022-020	49.9	30.2	1,253.0	910.0	WMAIN-2429	15	Velocity Failed
022-021	49.5	40.5	1,250.0	1,750.0	WMAIN-7058(1)(2)(2)	12.5	Passed
022-022	49.4	42.2	1,253.0	1,753.0	WMAIN-7048(1)	13.5	Passed
022-023	49.2	47.2	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
022-024	48.9	21.8	1,252.0	1,001.0	WMAIN-7077(2)	15	Velocity Failed
022-025	48.9	34.6	2,505.0	2,239.0	WMAIN-7080(1)	15	Velocity Failed
022-026	49.4	43.4	2,500.0	3,000.0	WMAIN-5897	7.1	Passed
022-027	49.4	40	3,500.0	1,303.0	WMAIN-2443	15	Velocity Failed
022-028	48.2	38.7	1,255.0	1,755.0	WMAIN-2758(2)	11.8	Passed
022-029	49.4	39.3	2,505.0	2,387.0	WMAIN-7058(1)(1)	15	Velocity Failed
022-030	49	45	1,252.0	1,752.0	WMAIN-7062(1)	14.4	Passed
022-031	48.7	39.4	1,253.0	1,753.0	WMAIN-3548(2)(2)	10.3	Passed
022-032	48.9	44	1,250.0	1,731.0	WMAIN-3548(2)(2)	15	Passed
022-033	48.5	33.4	1,255.0	1,755.0	WMAIN-7189(2)	12.3	Passed
022-034	48.3	40.3	1,259.0	1,759.0	WMAIN-7454(1)(1)	14.7	Passed
022-035	48.2	31.8	1,250.0	1,750.0	WMAIN-7192(1)	11.5	Passed
022-036	48.3	34.9	1,250.0	1,750.0	WMAIN-7195(2)(2)	11.9	Passed
022-037	48	35.8	2,503.0	2,211.0	WMAIN-2759(1)	15	Velocity Failed
022-038	50	48.8	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
022-040	49.9	45.1	3,502.0	4,002.0	WMAIN-7224	9.4	Passed
022-041	48.8	47.4	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
022-042	48.4	43.8	1,253.0	1,753.0	WMAIN-7056(2)	11.2	Passed
022-043	48	35.3	1,259.0	1,759.0	WMAIN-7195(1)	12.4	Passed
022-044	48	34.2	1,250.0	1,750.0	WMAIN-7454(2)	10.8	Passed
022-045	47.9	38.4	1,254.0	1,754.0	WMAIN-6404(1)	12.1	Passed
022-046	48	44.2	1,257.0	1,560.0	WMAIN-7192(1)	15	Passed
022-047	49.3	46.8	1,251.0	1,751.0	WMAIN-5015(2)	11.2	Passed
022-048	49	46.1	1,255.0	1,571.0	WMAIN-3550(1)	15	Passed
022-049	49.9	34	3,501.0	4,001.0	WMAIN-1735(2)	14	Passed
023-001	50.8	43.1	3,500.0	3,071.0	WMAIN-7023(1)(1)	15	Velocity Failed
023-002	50.3	45.5	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
023-004	50.4	45	3,503.0	4,003.0	WMAIN-7224	8.8	Passed
023-005	50	46.6	2,500.0	3,000.0	WMAIN-5897	7.8	Passed
023-006	50	37.5	2,503.0	3,003.0	WMAIN-7014	10.5	Passed
023-007	50	39.4	2,501.0	3,001.0	WMAIN-7014	12.7	Passed
023-008	49.8	43.7	1,254.0	1,754.0	WMAIN-7021(1)(1)	7.8	Passed
023-009	49.7	41.7	1,250.0	1,750.0	WMAIN-5541(2)	8.1	Passed
023-010	49.8	42	1,251.0	1,751.0	WMAIN-5541(2)	12.3	Passed
023-011	49.4	43.8	3,501.0	4,001.0	WMAIN-7224	10.4	Passed
023-012	49.4	47.2	1,250.0	1,569.0	WMAIN-6454(1)	15	Passed
023-013	49.5	42.4	1,251.0	1,751.0	WMAIN-6454(1)	11	Passed
023-014	50	46	1,251.0	1,751.0	WMAIN-0361(1)	14.2	Passed
023-015	49.9	46.7	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
023-016	49.8	45.5	1,252.0	1,752.0	WMAIN-3651(1)	13.6	Passed
023-017	50	43.8	1,252.0	1,752.0	WMAIN-7033(2)	10.1	Passed
023-018	49.6	45.8	2,500.0	1,910.0	WMAIN-7030(2)	15	Velocity Failed
023-019	49.8	42.2	1,254.0	1,754.0	WMAIN-7443(2)	11.1	Passed
023-020	49.9	42.4	1,254.0	1,754.0	WMAIN-7446(2)	11.1	Passed
023-021	50.1	47.1	1,254.0	1,754.0	WMAIN-1236(1)	9.5	Passed
023-022	50.2	47.5	1,250.0	1,750.0	WMAIN-1239(2)	7.5	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
023-023	50.3	45.9	1,252.0	1,752.0	WMAIN-1246(1)	8	Passed
023-024	50.2	44.7	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
023-025	49.9	44.4	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
023-026	50.1	46.7	2,503.0	3,003.0	WMAIN-5897	7.8	Passed
023-027	50.1	46	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
023-028	50	43.5	1,252.0	1,320.0	WMAIN-5478(1)	15	Passed
023-029	49.9	42.8	1,253.0	1,753.0	WMAIN-2510(1)	11.2	Passed
023-030	49.8	47.8	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
023-031	50.1	44.7	1,252.0	1,752.0	WMAIN-2509(1)	11.2	Passed
023-032	50.2	47.5	1,253.0	1,753.0	WMAIN-1239(1)(1)	7.5	Passed
023-033	50.3	44.8	1,252.0	1,752.0	WMAIN-2698(1)	11.2	Passed
023-034	50.4	47	1,252.0	1,320.0	WMAIN-2700(1)	15	Passed
023-035	50.3	28.8	1,255.0	1,755.0	WMAIN-6517(2)(2)	11.3	Passed
023-036	50.5	34.7	1,250.0	1,750.0	WMAIN-6517(2)(2)	11.3	Passed
023-037	50.7	33.9	3,504.0	2,331.0	WMAIN-6517(2)(2)	15	Velocity Failed
023-038	51	45.2	3,501.0	2,327.0	WMAIN-6517(2)(2)	15	Velocity Failed
023-039	50.9	45.4	3,504.0	2,343.0	WMAIN-7441(1)(1)	15	Velocity Failed
023-040	50.6	36.1	2,500.0	2,339.0	WMAIN-7441(1)(1)	15	Velocity Failed
023-041	50.3	35.4	1,253.0	1,753.0	WMAIN-7441(1)(1)	11.2	Passed
023-042	50	28.9	1,250.0	1,750.0	WMAIN-7441(1)(1)	11.2	Passed
023-043	50.8	39.2	3,501.0	2,327.0	WMAIN-6517(2)(2)	15	Velocity Failed
023-045	51.1	42.1	3,509.0	4,009.0	WMAIN-4754(1)(1)	11.3	Passed
023-046	51	40.5	3,504.0	4,004.0	WMAIN-4754(1)(1)	9.9	Passed
023-047	50.7	47	1,252.0	1,752.0	WMAIN-4733(2)	11.2	Passed
023-048	50.6	46.7	1,251.0	1,751.0	WMAIN-4735(2)	11.2	Passed
023-049	50.5	46.7	1,252.0	1,752.0	WMAIN-4738(1)	11.2	Passed
023-050	50.7	45.8	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
023-051	50.5	46.2	1,250.0	1,750.0	WMAIN-4728(2)(2)	7.5	Passed
023-052	50.7	46.4	1,251.0	1,751.0	WMAIN-4729(2)	11.2	Passed
023-053	51.2	41.5	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
023-055	50.7	42.2	3,506.0	2,347.0	WMAIN-3256	15	Velocity Failed
023-056	50.8	35.4	3,503.0	2,344.0	WMAIN-3256	15	Velocity Failed
023-058	51	42.6	3,505.0	4,005.0	WMAIN-5897	8.5	Passed
023-059	51.1	36	5,000.0	5,500.0	WMAIN-5897	9.5	Passed
024-001	49.9	48.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
024-002	50.7	48.9	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
024-003	51.4	49.4	1,322.0	1,822.0	WMAIN-5897	6.8	Passed
024-004	51.4	49.2	1,250.0	1,750.0	WMAIN-2636(2)	10.5	Passed
024-005	48	34.8	2,503.0	3,003.0	WMAIN-2636(1)(2)	13.9	Passed
024-006	49.9	42.6	1,250.0	1,750.0	WMAIN-2636(1)(2)	7	Passed
024-007	50.2	42.3	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
024-008	50.4	26.8	3,514.0	3,659.0	WMAIN-4739(1)	15	Passed
024-009	50.3	42.1	1,252.0	1,752.0	WMAIN-2641(1)	7.3	Passed
024-017	50.4	37.3	3,501.0	3,163.0	WMAIN-4739(1)	15	Velocity Failed
024-020	50.9	41.6	1,251.0	1,751.0	WMAIN-2515(1)	8.5	Passed
024-021	51.2	39.6	1,255.0	1,755.0	WMAIN-2515(1)	7.2	Passed
024-022	50.7	40	1,258.0	1,758.0	WMAIN-5897	6.9	Passed
024-023	51.1	41.8	1,251.0	1,751.0	WMAIN-2517(1)	7.4	Passed
024-024	51	40.4	1,270.0	1,770.0	WMAIN-5897	6.9	Passed
024-025	50.7	39.8	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
024-026	50.5	40.4	1,251.0	1,751.0	WMAIN-2569(1)	11.2	Passed
024-027	51.4	48.6	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
024-028	51.5	40.8	3,504.0	4,004.0	WMAIN-5897	8.2	Passed
024-029	51.4	41.3	3,508.0	4,008.0	WMAIN-5897	8.2	Passed
025-001	51.5	28.7	5,000.0	5,300.0	WMAIN-4906(2)	15	Passed
025-002	51.3	30.2	5,003.0	5,503.0	WMAIN-3563(2)	14.8	Passed
025-003	51.2	37.9	5,000.0	4,656.0	WMAIN-3563(2)	15	Velocity Failed
025-004	51.3	40.6	3,514.0	4,014.0	WMAIN-5897	8.5	Passed
025-005	51.5	40.8	3,502.0	4,002.0	WMAIN-5897	8.5	Passed
025-006	51.8	31.4	5,005.0	4,172.0	WMAIN-4901	15	Velocity Failed
025-007	51.5	31.4	3,502.0	4,002.0	WMAIN-4894(1)	13.4	Passed
025-008	51.6	35.1	5,001.0	3,491.0	WMAIN-4905(1)(2)	15	Velocity Failed
025-009	51.6	38.7	5,000.0	3,224.0	WMAIN-4905(2)	15	Velocity Failed
025-010	51.6	40.6	3,510.0	4,010.0	WMAIN-5897	8.5	Passed
025-011	51.6	41.9	3,500.0	4,000.0	WMAIN-5897	8.2	Passed
026-001	50.3	45.9	2,500.0	3,000.0	WMAIN-5897	8.1	Passed
026-002	50.2	42.1	2,500.0	3,000.0	WMAIN-5227	11.9	Passed
026-003	50.5	41.5	2,500.0	3,000.0	WMAIN-1254	10.3	Passed
026-004	50.6	41.5	2,510.0	2,350.0	WMAIN-3437	15	Velocity Failed
026-005	50.7	47.4	2,500.0	3,000.0	WMAIN-5897	7.9	Passed
026-006	50.8	42.5	5,007.0	5,507.0	WMAIN-5897	9.5	Passed
026-007	51	41	5,064.0	3,148.0	WMAIN-7435(1)(1)	15	Velocity Failed
026-008	51.5	29	3,500.0	3,840.0	WMAIN-7435(1)(1)	15	Passed
026-009	51.6	36.1	2,500.0	3,000.0	WMAIN-7435(1)(1)	10.1	Passed
026-012	50.7	45.6	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
026-013	50.9	42.9	3,504.0	4,004.0	WMAIN-5897	8.5	Passed
026-014	50.9	43	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
026-015	50.8	43.9	3,509.0	4,009.0	WMAIN-5897	8.5	Passed
026-016	50.8	45.7	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
026-017	50.4	46.8	2,502.0	3,002.0	WMAIN-5897	8	Passed
026-020	51.7	36.5	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	10.7	Passed
026-021	51.7	40	2,500.0	3,000.0	WMAIN-7435(2)(2)(2)(2)	12.6	Passed
026-022	51.7	39.8	2,535.0	3,035.0	WMAIN-4898(1)	12.6	Passed
026-023	51.5	41.1	2,506.0	3,006.0	WMAIN-6001(1)(2)	9.7	Passed
026-024	51.4	34.2	3,500.0	3,943.0	WMAIN-6001(2)	15	Passed
026-025	51.2	38.6	3,500.0	3,840.0	WMAIN-3269(2)	15	Passed
026-026	51	42.4	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
026-028	51.1	36.8	5,000.0	5,500.0	WMAIN-7224	9.4	Passed
026-029	51.3	37.2	3,501.0	2,639.0	WMAIN-3272(2)	15	Velocity Failed
026-030	51.1	42.2	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
026-031	51.1	35.8	5,000.0	5,500.0	WMAIN-5999(1)	10.3	Passed
026-038	50.2	46.2	2,503.0	3,003.0	WMAIN-5897	8.1	Passed
027-001	50	46.5	2,505.0	3,005.0	WMAIN-5897	8.1	Passed
027-002	49.9	41.3	2,500.0	3,000.0	WMAIN-1256(2)(2)	14.4	Passed
027-003	49.6	37.5	2,505.0	3,005.0	WMAIN-1256(1)(2)	12.1	Passed
027-004	49.5	35.8	2,500.0	3,000.0	WMAIN-1256(1)(2)	10	Passed
027-005	49.3	36.7	2,501.0	3,001.0	WMAIN-1255(1)(1)	11.2	Passed
027-006	49.8	36.6	1,257.0	1,757.0	WMAIN-5239(1)	10.3	Passed
027-007	49.7	42	1,251.0	1,751.0	WMAIN-5235(1)	10.9	Passed
027-008	49.2	32.5	3,502.0	4,002.0	WMAIN-5232(2)	13.3	Passed
027-009	49.8	34.8	3,500.0	4,000.0	WMAIN-6484(1)	12.8	Passed
027-010	49.5	36.3	3,501.0	3,751.0	WMAIN-6479(1)	15	Passed
027-011	50.3	46.7	2,500.0	3,000.0	WMAIN-5897	8.1	Passed
027-012	50.5	45	3,514.0	4,014.0	WMAIN-5897	8.6	Passed
027-017	50.2	42.8	2,505.0	3,005.0	WMAIN-2235	10.5	Passed
027-018	50.1	41.5	2,513.0	3,013.0	WMAIN-6472(1)(1)	10.6	Passed
027-019	50.2	43.5	2,500.0	3,000.0	WMAIN-6472(2)	13.4	Passed
027-021	50.6	42.3	5,000.0	5,500.0	WMAIN-5897	9.5	Passed
027-022A	50.2	44.6	3,506.0	4,006.0	WMAIN-5897	8.5	Passed
027-022B	49.9	44.2	3,501.0	4,001.0	WMAIN-5897	8.5	Passed
027-024	47.9	26.2	3,501.0	4,001.0	WMAIN-4642	14.9	Passed
027-025	49.5	43.5	2,503.0	1,968.0	WMAIN-7005(1)	15	Velocity Failed
027-026	49.8	39.6	5,002.0	5,502.0	WMAIN-2998	14.6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
027-027	48.1	40.7	2,500.0	3,000.0	WMAIN-2998	9.5	Passed
027-028	48.2	27.9	3,504.0	582.0	WMAIN-6998(2)	15	Velocity Failed
027-029	49.6	46	2,500.0	1,744.0	WMAIN-1971(2)(2)	15	Velocity Failed
027-030	49.1	37.9	2,501.0	2,416.0	WMAIN-2130	15	Velocity Failed
027-031	49.9	44.1	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
027-032	49.9	31.8	3,508.0	2,171.0	WMAIN-7074(1)	15	Velocity Failed
027-033	49.4	44.4	3,503.0	1,827.0	WMAIN-2725(1)	15	Velocity Failed
027-034	48.9	38	1,252.0	1,752.0	WMAIN-5252	11.5	Passed
027-035	49.8	44.2	2,507.0	3,007.0	WMAIN-2998	10.6	Passed
027-036	48.3	44.4	3,501.0	2,713.0	WMAIN-2998	15	Velocity Failed
027-037	49.5	43.5	3,506.0	2,127.0	WMAIN-7008(2)	15	Velocity Failed
027-040	49.7	45	3,500.0	1,924.0	WMAIN-6482(2)	15	Velocity Failed
027-041	49.5	36.2	3,501.0	2,556.0	WMAIN-7010(2)	15	Velocity Failed
027-042	49.1	30.6	3,500.0	2,346.0	WMAIN-5255(2)(2)	15	Velocity Failed
027-043	49.9	36.4	3,526.0	4,026.0	WMAIN-6474	13.1	Passed
027-044	48.3	37.1	3,501.0	4,001.0	WMAIN-4632(1)	13	Passed
027-045	48.3	45.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
027-046	47.8	46.4	1,251.0	1,751.0	WMAIN-4633(2)	7.1	Passed
027-047	47.9	46.3	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
027-048	48	47.3	1,255.0	1,755.0	WMAIN-4400(1)	9.4	Passed
027-049	48.1	46.4	1,254.0	1,754.0	WMAIN-4402(1)	7.5	Passed
027-050	50.8	45.6	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
027-051	48.8	31.9	2,503.0	2,342.0	WMAIN-2423	15	Velocity Failed
027-052	48.9	43.3	1,251.0	1,751.0	WMAIN-2423	11.2	Passed
027-053	50.3	45	3,502.0	1,673.0	WMAIN-7074(2)(2)	15	Velocity Failed
027-054	49.8	46.4	3,500.0	2,350.0	WMAIN-3265	15	Velocity Failed
027-055	49.9	44.6	3,503.0	4,003.0	WMAIN-5897	8.7	Passed
028-001	47.7	40.8	2,502.0	3,002.0	WMAIN-6989(2)	13.7	Passed
028-002	47.7	44.2	2,501.0	1,438.0	WMAIN-5645(1)	15	Velocity Failed
028-003	47.7	33.4	2,502.0	1,657.0	WMAIN-5645(1)	15	Velocity Failed
028-004	47.7	25.3	2,502.0	1,791.0	WMAIN-5645(1)	15	Velocity Failed
028-005	47.7	20.3	2,500.0	1,752.0	WMAIN-7330	15	Residual Pressure and Velocity Failed
028-006	47.7	20	2,508.0	1,659.0	WMAIN-7330	14.6	Residual Pressure and Velocity Failed
028-007	47.7	39	1,253.0	1,590.0	WMAIN-3729	15	Passed
028-008	47.7	45.4	1,252.0	1,752.0	WMAIN-6967(2)	8.2	Passed
028-009	47.6	44.8	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
028-010	47.7	35.9	1,252.0	1,752.0	WMAIN-2676(2)	12.8	Passed
028-011	47.7	42.2	1,258.0	1,758.0	WMAIN-5897	6.9	Passed
028-012	47.7	32.7	5,001.0	2,587.0	WMAIN-7329(1)	15	Velocity Failed
028-013	47.5	38.2	2,501.0	3,001.0	WMAIN-6987	11.9	Passed
028-014	47.7	38.1	2,502.0	2,115.0	WMAIN-3032(2)	15	Velocity Failed
028-015	47.7	37	2,501.0	2,198.0	WMAIN-3451(2)	15	Velocity Failed
028-016	47.4	43.5	2,501.0	1,781.0	WMAIN-6460(1)	14.9	Velocity Failed
028-017	47.5	30.1	3,500.0	2,410.0	WMAIN-3723(1)	15	Velocity Failed
028-018	47.8	42.5	3,501.0	1,819.0	WMAIN-3461(2)	15	Velocity Failed
028-019	47.7	42.1	1,265.0	1,765.0	WMAIN-5897	6.9	Passed
028-020	47.7	20	2,512.0	836.0	WMAIN-6340(1)	11.4	Residual Pressure Failed
028-021	47.5	20	3,515.0	2,184.0	WMAIN-0294(1)(1)	12.8	Residual Pressure Failed
028-022	47.8	27.4	3,501.0	2,335.0	WMAIN-6336	15	Velocity Failed
028-023	47.7	34.8	2,500.0	1,322.0	WMAIN-2934	15	Velocity Failed
028-024	47.7	22	3,508.0	4,008.0	WMAIN-1984	13.4	Passed
028-025	47.7	34.6	3,500.0	4,000.0	WMAIN-2097(2)	13.5	Passed
028-026	47.7	41.4	2,501.0	3,001.0	WMAIN-2922(1)	13.7	Passed
028-027	47.7	31.7	2,501.0	2,549.0	WMAIN-2245(2)	15	Passed
028-028	47.7	38.2	3,501.0	2,121.0	WMAIN-2243(1)	15	Velocity Failed
028-029	47.8	31.2	3,501.0	3,197.0	WMAIN-2909	15	Velocity Failed
028-030	48.1	42.9	2,500.0	2,866.0	WMAIN-2998	15	Passed
028-031	47.7	37.2	3,500.0	1,884.0	WMAIN-3257	15	Velocity Failed
028-032	47.7	38.7	3,501.0	4,001.0	WMAIN-2998	12.9	Passed
028-033	47.7	41.1	3,504.0	3,174.0	WMAIN-2248(1)	15	Velocity Failed
028-034	47.8	34.5	3,500.0	2,601.0	WMAIN-2152(1)	15	Velocity Failed
028-035	47.8	36.9	3,500.0	2,281.0	WMAIN-2355	15	Velocity Failed
028-036	48.9	39.2	1,252.0	1,752.0	WMAIN-6324(1)(1)	13.5	Passed
028-037	48.3	25.4	2,500.0	2,120.0	WMAIN-3257	15	Velocity Failed
028-039	47.8	40.2	3,501.0	2,017.0	WMAIN-2155(2)	15	Velocity Failed
028-040	47.9	35.2	3,500.0	2,390.0	WMAIN-1962(2)	15	Velocity Failed
028-041	47.9	32.3	3,501.0	3,920.0	WMAIN-2104	15	Passed
028-042	47.9	41.5	3,500.0	1,921.0	WMAIN-1962(2)	15	Velocity Failed
028-043	47.9	43	3,501.0	1,922.0	WMAIN-2157	15	Velocity Failed
028-044	47.8	44.2	2,501.0	1,564.0	WMAIN-3257	15	Velocity Failed
028-045	47.4	29.6	3,500.0	1,985.0	WMAIN-0294(2)	15	Velocity Failed
028-046	47.7	30.7	3,503.0	3,281.0	WMAIN-2909	15	Velocity Failed
028-047	47.7	46.3	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
029-001	47.8	41.4	2,501.0	1,943.0	WMAIN-0280(2)	15	Velocity Failed
029-002	47.9	43.3	3,502.0	3,238.0	WMAIN-2399	15	Velocity Failed
029-003	47.8	44.4	1,256.0	718.0	WMAIN-2992	15	Velocity Failed
029-004	47.5	43.6	1,254.0	1,684.0	WMAIN-0562(1)	15	Passed
029-005	46.3	44.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
029-006	47.4	32.4	3,500.0	2,325.0	WMAIN-0372	15	Velocity Failed
029-007	47.3	36.9	3,501.0	2,413.0	WMAIN-2989(1)(1)	14.9	Velocity Failed
029-008	47.3	43.7	2,500.0	3,000.0	WMAIN-2399	9.7	Passed
029-009	47.3	36.5	3,501.0	2,304.0	WMAIN-2988(2)	15	Velocity Failed
029-010	47.7	27	2,512.0	2,503.0	WMAIN-2982(1)	15	Velocity Failed
029-011	47.2	27.2	3,507.0	2,449.0	WMAIN-3424(1)	15	Velocity Failed
029-012	47.7	39.9	1,251.0	1,751.0	WMAIN-3422(2)	12.8	Passed
029-013	46.9	37.5	1,251.0	1,751.0	WMAIN-3421(1)	11.5	Passed
029-014	47.2	20	1,257.0	1,018.0	WMAIN-6428(1)	13.4	Residual Pressure Failed
029-015	47.8	35.5	1,254.0	1,754.0	WMAIN-6430(2)	11.5	Passed
029-016	47.9	38.3	3,502.0	2,292.0	WMAIN-2240(1)	15	Velocity Failed
029-017A	47.9	39.4	5,002.0	179.0	WMAIN-1989(2)	15	Velocity Failed
029-017B	47.8	44.5	2,500.0	3,000.0	WMAIN-5897	7.1	Passed
029-019	47.9	40.7	3,501.0	4,001.0	WMAIN-6285(2)	7.7	Passed
029-020	47.7	42.7	1,251.0	1,751.0	WMAIN-2840(2)	12.3	Passed
029-021	46.9	35.7	3,501.0	2,083.0	WMAIN-3481(1)	15	Velocity Failed
029-022	47.9	31.4	5,002.0	5,502.0	WMAIN-6281(2)	12.3	Passed
029-023	47.9	32.7	3,506.0	2,054.0	WMAIN-2402(1)	15	Velocity Failed
029-024	47.7	35.5	3,500.0	2,384.0	WMAIN-2901(2)	15	Velocity Failed
029-025	47.7	42.7	3,500.0	1,822.0	WMAIN-2896(2)	15	Velocity Failed
029-026	47.7	42.5	3,500.0	4,000.0	WMAIN-2399	7.4	Passed
029-027	47.8	43.9	3,500.0	1,926.0	WMAIN-1990(2)	15	Velocity Failed
029-028	47.9	38	3,502.0	4,002.0	WMAIN-6281(2)	7.9	Passed
029-029	47.8	36.6	3,508.0	2,578.0	WMAIN-6277	15	Velocity Failed
029-030	47	32.8	1,250.0	1,750.0	WMAIN-6953(2)	10.3	Passed
029-031	47.8	41.1	3,500.0	1,893.0	WMAIN-2101	15	Velocity Failed
029-032	47.7	42.6	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
029-033	47.7	36	3,500.0	2,187.0	WMAIN-2164(2)(2)	15	Velocity Failed
029-034	47.5	32.8	3,500.0	1,557.0	WMAIN-7089(1)	15	Velocity Failed
029-035	47.4	36.6	3,503.0	1,881.0	WMAIN-6311(1)	15	Velocity Failed
029-036	46.9	21.5	3,500.0	2,471.0	WMAIN-0431	15	Velocity Failed
029-037	46.8	23.3	2,502.0	2,246.0	WMAIN-2858(2)	15	Velocity Failed
029-038	47.2	27.4	2,500.0	2,247.0	WMAIN-2398(1)	15	Velocity Failed
029-039	47.2	28.1	2,507.0	2,229.0	WMAIN-2398(1)	15	Velocity Failed
029-041	47.9	42.4	3,503.0	4,003.0	WMAIN-2399	8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
029-042	47.9	41.6	3,500.0	4,000.0	WMAIN-2399	8.5	Passed
030-001	46	34.1	1,255.0	1,755.0	WMAIN-6946(1)	10.8	Passed
030-002	46	41.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
030-003	45.9	42.8	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
030-004	45.9	36.9	1,250.0	1,750.0	WMAIN-7301	10.7	Passed
030-005	46	35	1,251.0	1,751.0	WMAIN-3414(2)	10.9	Passed
030-006	45.9	40.3	1,251.0	1,703.0	WMAIN-3417(2)	15	Passed
030-007	45.7	34.4	1,255.0	1,755.0	WMAIN-6935(2)	10.8	Passed
030-008	45.7	38.2	2,500.0	3,000.0	WMAIN-2375(2)	12	Passed
030-009	45.8	30.5	1,253.0	1,753.0	WMAIN-6502	10.2	Passed
030-010	45.8	34.2	1,252.0	1,752.0	WMAIN-3419(2)	11.5	Passed
030-011	45.9	41.4	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
030-012	45.9	35.5	1,252.0	1,752.0	WMAIN-2227(1)	12.1	Passed
030-013	45.9	36.6	1,251.0	1,751.0	WMAIN-2228(2)	12.1	Passed
030-014	46.7	28.5	1,252.0	1,752.0	WMAIN-2232(2)	12.4	Passed
030-015	46.2	42	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
030-016	46	35.9	1,252.0	1,752.0	WMAIN-5585(1)	11.8	Passed
030-017	45.8	41.2	1,250.0	1,750.0	WMAIN-3429(2)	13.1	Passed
030-018	45.7	40.6	1,250.0	1,750.0	WMAIN-5614(2)	9.9	Passed
030-019	45.9	41	1,254.0	1,743.0	WMAIN-5617(2)	15	Passed
030-020	46.3	41.7	3,502.0	1,710.0	WMAIN-6924(1)(1)	15	Velocity Failed
030-021	46	39	1,251.0	1,751.0	WMAIN-5595(1)(1)	10.2	Passed
030-022	45.9	43.5	1,251.0	1,751.0	WMAIN-6915(1)	7.5	Passed
030-023	45.9	41.7	1,253.0	1,669.0	WMAIN-6489(1)(1)	15	Passed
030-024	45.7	42.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
030-025	45.6	42.5	1,253.0	1,753.0	WMAIN-6939(1)(1)	7.8	Passed
030-026	46.6	32.8	2,502.0	1,998.0	WMAIN-2138	15	Velocity Failed
030-027	46.5	35.8	1,253.0	1,753.0	WMAIN-2407	13.4	Passed
030-028	46.4	40.1	1,254.0	1,618.0	WMAIN-0650	15	Passed
030-029	46.4	37	3,500.0	2,113.0	WMAIN-6924(2)	15	Velocity Failed
030-030	46.1	31.8	3,500.0	2,226.0	WMAIN-6489(2)	15	Velocity Failed
030-031	46	31.4	1,253.0	1,753.0	WMAIN-5609	11.4	Passed
030-032	45.8	32.3	3,500.0	4,000.0	WMAIN-3471(1)	13.2	Passed
030-033	46.6	28.7	2,503.0	2,567.0	WMAIN-2826(2)	15	Passed
030-034	46.5	36.1	1,251.0	1,751.0	WMAIN-6921(1)	10.4	Passed
030-035	46.6	42.2	3,501.0	1,663.0	WMAIN-6919(2)	15	Velocity Failed
030-036	46.4	20	1,254.0	1,028.0	WMAIN-2834(2)	13.8	Residual Pressure Failed
030-037	45.9	40.5	2,506.0	2,166.0	WMAIN-1329	15	Velocity Failed
030-038	45.8	40.3	3,510.0	3,101.0	WMAIN-3470(2)	15	Velocity Failed
030-039	46.5	35.2	3,500.0	3,860.0	WMAIN-7113(2)(1)	15	Passed
030-042	45.9	41.3	1,250.0	1,750.0	WMAIN-5595(2)	14.4	Passed
030-043	46.2	35.3	1,250.0	1,750.0	WMAIN-2144	13.1	Passed
030-044	46.2	41.6	3,501.0	4,001.0	WMAIN-5604(2)(2)	13	Passed
030-045	46.2	41.6	2,503.0	3,003.0	WMAIN-5897	7	Passed
030-046	46.2	43	1,253.0	1,753.0	WMAIN-6890(2)	7	Passed
030-047	46.3	38	3,504.0	3,393.0	WMAIN-6419	15	Velocity Failed
031-001	45.9	42.8	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
031-002	45.7	39.3	1,251.0	1,751.0	WMAIN-3474(2)	10.1	Passed
031-003	45.4	32	2,504.0	3,004.0	WMAIN-7296	12.3	Passed
031-004	45.4	39.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
031-005	45.7	40.7	1,261.0	1,761.0	WMAIN-7294(1)(1)	7.4	Passed
031-006	46	42.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
031-007	45.6	33.2	1,255.0	1,755.0	WMAIN-7292(1)	10.2	Passed
031-008	45.9	40	1,250.0	1,750.0	WMAIN-6888(1)	13.3	Passed
031-009	46	37.8	1,253.0	1,753.0	WMAIN-7297(1)	10.2	Passed
031-010	45.6	42.5	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
031-011	45.4	34.4	1,250.0	1,750.0	WMAIN-7282(2)(2)	11.5	Passed
031-012	45.8	38.3	1,255.0	1,755.0	WMAIN-7282(1)	14.3	Passed
031-013	45.5	35.2	5,005.0	3,552.0	WMAIN-6883(1)(1)	15	Velocity Failed
031-014	45	25.9	5,002.0	4,017.0	WMAIN-6867(2)	15	Velocity Failed
031-015	44.2	29.9	2,506.0	2,534.0	WMAIN-7286(2)	15	Passed
031-016	44.3	32.4	2,504.0	3,004.0	WMAIN-3775	12	Passed
031-017	44.9	20	2,507.0	2,425.0	WMAIN-5560(1)	14	Residual Pressure and Velocity Failed
031-018	44.3	23.8	3,506.0	4,006.0	WMAIN-6873(2)	13.7	Passed
031-022	45.5	41.9	3,503.0	4,003.0	WMAIN-5897	7.2	Passed
031-023	44.8	31	3,500.0	3,572.0	WMAIN-2672(1)	15	Passed
031-024	45	41.4	3,507.0	2,748.0	WMAIN-2672(1)	15	Velocity Failed
031-026	43.7	38.4	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
031-027	41.5	35.7	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
031-028	44.2	39	3,500.0	4,000.0	WMAIN-3657	7.3	Passed
031-029	44.4	40.8	3,500.0	4,000.0	WMAIN-3657	9.3	Passed
031-031	43.2	37.4	3,506.0	4,006.0	WMAIN-5897	7.2	Passed
031-033	44.9	41.7	2,500.0	3,000.0	WMAIN-5897	7	Passed
031-034	45	41.9	2,500.0	3,000.0	WMAIN-5897	7	Passed
031-035	45	42.2	2,513.0	3,013.0	WMAIN-5897	7	Passed
031-036	44.5	43.1	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
031-040	44	23.4	5,006.0	1,321.0	WMAIN-3283(2)	15	Velocity Failed
031-041	44.3	39.5	3,500.0	4,000.0	WMAIN-3657	7.9	Passed
031-042	43.1	29	3,513.0	3,189.0	WMAIN-5964(2)	15	Velocity Failed
031-043	45.8	41.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
031-044	45.5	27.2	3,501.0	3,818.0	WMAIN-5429(1)	15	Passed
031-045	45.6	37.6	3,501.0	3,300.0	WMAIN-6883(2)	15	Velocity Failed
031-046	45.8	42.5	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
031-047	44.8	42.5	2,500.0	3,000.0	WMAIN-5897	7	Passed
031-049	45.3	31.1	5,002.0	3,535.0	WMAIN-5434(2)	15	Velocity Failed
031-050	44.3	40.9	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
031-051	45.2	23.2	3,509.0	4,009.0	WMAIN-5434(2)	13.2	Passed
031-056	45.3	41.7	3,512.0	4,012.0	WMAIN-5897	7.2	Passed
032-001	43.9	20	2,500.0	2,968.0	WMAIN-4910	12.1	Passed
032-002	43.8	22.1	2,506.0	2,347.0	WMAIN-5454(1)	15	Velocity Failed
032-003	43.9	30.6	2,507.0	2,676.0	WMAIN-5456(1)	15	Passed
032-004	43.8	20	2,501.0	2,749.0	WMAIN-5456(1)	13.3	Passed
032-008	43.9	41.5	2,500.0	3,000.0	WMAIN-5897	7	Passed
032-013	43.9	22.8	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-015	43.8	20	2,503.0	2,988.0	WMAIN-4910	11.6	Passed
032-016	43.3	25.4	2,500.0	2,025.0	WMAIN-5436	15	Velocity Failed
032-018	43.2	20	2,501.0	2,156.0	WMAIN-5441	13.9	Residual Pressure Failed
032-020	43.9	26.7	1,250.0	1,750.0	WMAIN-2370(1)(1)	11.3	Passed
032-022	43.9	30.5	1,264.0	1,764.0	WMAIN-2370(1)(1)	11.3	Passed
032-024	43.9	40.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
032-025	44.2	38.8	5,001.0	5,501.0	WMAIN-5897	7.4	Passed
032-026	44	41.7	2,502.0	3,002.0	WMAIN-5897	7	Passed
032-027	43.8	40.3	3,504.0	4,004.0	WMAIN-5897	7.2	Passed
032-028	43.4	39.8	3,501.0	4,001.0	WMAIN-5897	7.1	Passed
032-029	43.8	41.7	1,252.0	1,752.0	WMAIN-4713(1)	9	Passed
032-030	43.8	40.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
032-031	43.9	41.7	1,252.0	1,752.0	WMAIN-4710(1)	9	Passed
032-032	43.8	40.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
032-033	43.9	39.1	2,502.0	2,924.0	WMAIN-4707(1)	15	Passed
032-034	43.9	42.3	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
032-035	43.9	42.5	1,266.0	1,766.0	WMAIN-5897	6.8	Passed
032-036	43.9	42.4	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
032-037	42.7	41.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
032-038	44.2	39.9	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
032-039	43.9	39.3	1,252.0	1,752.0	WMAIN-4005(1)	11.2	Passed
032-040	44	41.4	1,252.0	1,752.0	WMAIN-4025(1)	8.5	Passed
032-041	43.9	42.1	1,251.0	1,751.0	WMAIN-4016(2)	7.9	Passed
032-042	44.2	41.9	1,251.0	1,751.0	WMAIN-4034(1)	11.2	Passed
032-043	43.9	31.7	3,500.0	4,000.0	WMAIN-4030(1)	13.4	Passed
032-044	43.9	42.3	1,253.0	1,753.0	WMAIN-4030(1)	9.4	Passed
032-045	44.2	42.5	1,252.0	1,752.0	WMAIN-4019(1)	8.4	Passed
032-046	42.6	38.3	3,510.0	4,010.0	WMAIN-5897	7.1	Passed
032-047	44	41	1,251.0	1,751.0	WMAIN-8119(1)	7.2	Passed
032-048	44	39.1	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
032-049	43.9	39.8	1,262.0	1,762.0	WMAIN-8120	7.6	Passed
032-050	43.9	40	1,250.0	1,750.0	WMAIN-8118(2)(2)	7.6	Passed
032-051	44	39.3	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
033-001	44.1	41	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
033-002	44.3	43.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
033-005	45	42.4	1,254.0	1,754.0	WMAIN-4042(1)(1)	8	Passed
033-006	45.9	42.6	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
033-007	46.1	43.7	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
033-008	45.8	42.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
033-009	44.7	42.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
033-010	45.6	44.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
033-011	45.3	44.2	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
033-012	46.2	44.6	1,251.0	1,751.0	WMAIN-4038(1)	8.7	Passed
033-013	43.8	40.1	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
033-014	43.8	41.5	1,252.0	1,752.0	WMAIN-3949(2)	8.9	Passed
033-015	43.5	41.7	1,282.0	1,782.0	WMAIN-5897	6.8	Passed
033-016	43.6	41.7	1,252.0	1,752.0	WMAIN-3948(1)	9.2	Passed
033-017	43.3	39.4	1,278.0	1,778.0	WMAIN-5897	6.8	Passed
033-018	42.6	39.6	1,260.0	1,760.0	WMAIN-4035(2)	7.8	Passed
033-019	45.3	41.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
033-020	45	42.1	1,252.0	1,752.0	WMAIN-7483(1)	7	Passed
033-021	44.4	41.6	1,251.0	1,751.0	WMAIN-7487(1)	8.2	Passed
033-022	44.4	41.7	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
034-003	46.2	45.1	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
034-004	46.3	39.4	5,000.0	5,500.0	WMAIN-5897	8.6	Passed
034-005	46	43.5	1,257.0	1,757.0	WMAIN-5422(1)	8.2	Passed
034-006	45.8	42.3	1,251.0	1,751.0	WMAIN-5416(1)	7	Passed
034-007	45.8	33.8	1,252.0	1,320.0	WMAIN-5414(1)	15	Passed
034-008	45.5	41.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-009	45.6	33.6	1,252.0	1,320.0	WMAIN-5410(1)	15	Passed
034-010	46.3	43	3,501.0	4,001.0	WMAIN-2361(1)	8.5	Passed
034-011	46.1	44.5	1,251.0	1,751.0	WMAIN-4988(2)	9.2	Passed
034-012	46.1	42.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
034-013	45.9	38.3	1,251.0	1,751.0	WMAIN-4993(1)	11.3	Passed
034-014	45.9	44.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
034-015	46.1	40	1,252.0	1,752.0	WMAIN-5011(1)	11.2	Passed
034-016	45.9	42.9	1,250.0	1,750.0	WMAIN-3308(2)	8.5	Passed
034-017	45.6	41	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
034-018	45.5	41.6	1,253.0	1,753.0	WMAIN-4994(1)	7.5	Passed
034-019	46	43.2	1,253.0	1,753.0	WMAIN-5013(2)	8.5	Passed
034-020	46.2	43.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-021	46.3	45.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
034-022	46.3	45.1	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-023	45.9	39.4	3,507.0	4,007.0	WMAIN-5897	7.2	Passed
034-024	45.5	38.9	3,501.0	4,001.0	WMAIN-5897	7.2	Passed
034-025	45.3	41.4	2,507.0	3,007.0	WMAIN-5897	7	Passed
034-026	45.1	43.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-027	45.1	42.2	1,250.0	1,750.0	WMAIN-2256(2)	11.3	Passed
034-028	45	42.7	1,251.0	1,751.0	WMAIN-4066(1)	7	Passed
034-029	44.6	42.2	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
034-030	44.4	42	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-031	44.2	42	1,253.0	1,753.0	WMAIN-2530(2)	7.7	Passed
034-032	44	41.5	1,256.0	1,756.0	WMAIN-2259(2)	8.1	Passed
034-033	42.3	41	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
034-034	44.6	42	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-035	44.9	41.4	1,250.0	1,750.0	WMAIN-3979(2)	7	Passed
034-036	44.7	40.9	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
034-037	44.9	42.5	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-038	45.5	41	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
034-039	45.6	40.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
034-040	46.2	45.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
034-041	46.2	43.4	1,253.0	1,753.0	WMAIN-5004(1)	7.6	Passed
034-042	45	42.5	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
034-043	44.6	41.5	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
034-044	45.2	41.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
034-045	45.3	42.2	1,258.0	1,758.0	WMAIN-3985(1)(1)	7.6	Passed
034-046	42.2	39.3	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
034-054	46.1	45	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
035-001	47.1	45.3	1,258.0	1,758.0	WMAIN-5353(1)(1)	9.4	Passed
035-002	46.6	42.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
035-003	46.3	41.1	1,259.0	1,759.0	WMAIN-5340(1)	7.1	Passed
035-004	46.1	40.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
035-005	45.9	40.9	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
035-006	46	37.3	1,255.0	1,755.0	WMAIN-5348(1)(1)	13.5	Passed
035-007	46.3	35.3	1,250.0	1,750.0	WMAIN-5348(2)	10.9	Passed
035-008	46.4	40.5	1,252.0	1,752.0	WMAIN-5351(2)	11.3	Passed
035-009	46.5	42.1	1,250.0	1,750.0	WMAIN-5335(1)	10.2	Passed
035-010	46.9	40.4	1,254.0	1,754.0	WMAIN-5337(1)	13.2	Passed
035-011	46.8	36.9	1,256.0	1,756.0	WMAIN-5358(1)	11.1	Passed
035-012	46.7	37.6	1,253.0	1,753.0	WMAIN-5355B	11.5	Passed
035-013	46.3	35.7	1,252.0	1,752.0	WMAIN-5332	11.8	Passed
035-014	46.1	31.9	1,251.0	1,321.0	WMAIN-5325(2)(2)	15	Passed
035-015	46	38.9	1,250.0	1,321.0	WMAIN-5325(2)(2)	15	Passed
035-016	45.8	32	1,256.0	1,756.0	WMAIN-7306(2)	10.7	Passed
035-017	45.7	33.9	1,250.0	1,750.0	WMAIN-7320(2)(2)	12.3	Passed
035-018	45.8	38.5	1,255.0	1,665.0	WMAIN-7320(1)	15	Passed
035-019	46.3	36.8	3,508.0	3,577.0	WMAIN-6853(1)(1)	15	Passed
035-020	45.9	42	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
035-021	45.6	41.7	1,253.0	1,753.0	WMAIN-3406(1)	7.1	Passed
035-022	45.5	41.5	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
035-023	45.7	41.3	1,250.0	1,750.0	WMAIN-5342(2)(2)	7.1	Passed
035-024	45.4	41.4	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
035-025	45.9	38.5	1,252.0	1,752.0	WMAIN-7310(1)	13.2	Passed
035-026	46	43.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
035-027	46.1	34.4	1,252.0	1,752.0	WMAIN-3411(2)	12.8	Passed
035-028	45.8	20.3	2,500.0	2,439.0	WMAIN-6843(1)	15	Residual Pressure and Velocity Failed
035-029	45.6	40.6	1,255.0	1,649.0	WMAIN-6843(1)	15	Passed
035-030	45.4	34	1,256.0	1,756.0	WMAIN-7315(2)	10.6	Passed
035-031	45.6	36	1,255.0	1,755.0	WMAIN-7303(2)	11.8	Passed
035-032	45.4	35.5	2,503.0	3,003.0	WMAIN-6861(1)	10.9	Passed
035-033	47.2	46.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
035-034	46.2	45.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
035-035	46.4	44.8	1,250.0	1,750.0	WMAIN-0957(1)	8.5	Passed
035-036	46.1	28.6	3,502.0	3,919.0	WMAIN-0949(1)	15	Passed
035-037	46.3	42.3	1,253.0	1,753.0	WMAIN-1918(1)	7.4	Passed
035-038	46	40.7	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
035-039	46	41	1,252.0	1,752.0	WMAIN-1922	7	Passed
035-040	46	42.4	1,253.0	1,753.0	WMAIN-1936(2)	7.3	Passed
035-041	46.2	43.6	1,250.0	1,750.0	WMAIN-1925(2)	7	Passed
035-042	46.3	42.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
035-043	46.3	43.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
035-044	46.4	43.2	3,500.0	4,000.0	WMAIN-5897	7.3	Passed
035-045	45.9	44.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
035-046	45.9	39.5	3,500.0	4,000.0	WMAIN-5897	7.2	Passed
036-001	47.9	44.2	2,502.0	3,002.0	WMAIN-5897	8	Passed
036-002	47.4	46.3	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
036-003	47.1	45.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
036-004	46.9	43	1,255.0	1,677.0	WMAIN-5355A(1)	15	Passed
036-005	47.1	34.9	1,251.0	1,751.0	WMAIN-3400	11.2	Passed
036-006	47.2	40.3	1,251.0	1,679.0	WMAIN-5383(1)	15	Passed
036-007	47.4	40.3	1,251.0	1,751.0	WMAIN-5402(1)	11.2	Passed
036-008	47.4	37.5	1,251.0	1,751.0	WMAIN-5391(2)	11.5	Passed
036-009	47.2	35.9	1,251.0	1,321.0	WMAIN-5381(1)	15	Passed
036-010	48.3	29.8	3,519.0	2,023.0	WMAIN-5569(1)(1)	15	Velocity Failed
036-013	47.8	30.6	3,502.0	4,002.0	WMAIN-6815(2)	14.5	Passed
036-016	47.7	34.4	2,500.0	3,000.0	WMAIN-5988(2)	13.6	Passed
036-017	47.7	38	2,500.0	3,000.0	WMAIN-6813(2)	11.2	Passed
036-018	47.5	40.9	2,504.0	1,729.0	WMAIN-5993(1)	15	Velocity Failed
036-019	47.4	42.9	1,252.0	1,752.0	WMAIN-5396(2)	8.8	Passed
036-020	47.5	38.9	1,251.0	1,751.0	WMAIN-6831(1)	11.6	Passed
036-021	47.7	39.6	2,503.0	1,941.0	WMAIN-3398(2)	15	Velocity Failed
036-022	47.3	32.3	1,252.0	1,752.0	WMAIN-3396	12.2	Passed
036-023	47.2	30.1	1,256.0	1,756.0	WMAIN-5398(1)(1)	11.2	Passed
036-024	47	21	1,250.0	1,750.0	WMAIN-5398(1)(1)	11.2	Passed
036-025	47.2	35.7	1,251.0	1,751.0	WMAIN-7322(1)	13.9	Passed
036-026	47.4	34.1	1,250.0	1,750.0	WMAIN-6826(1)	10.2	Passed
036-027	47.5	31.1	2,503.0	2,352.0	WMAIN-7323(2)	15	Velocity Failed
036-028	47.7	28.2	2,501.0	2,571.0	WMAIN-7325	15	Passed
036-029	47.9	39.7	5,000.0	1,857.0	WMAIN-3394	15	Velocity Failed
036-030	47.5	32.2	3,506.0	2,186.0	WMAIN-3393(1)	15	Velocity Failed
036-031	47.5	31	3,501.0	2,330.0	WMAIN-6801	15	Velocity Failed
036-032	47.7	28.3	3,500.0	2,588.0	WMAIN-1031(2)(2)(2)	15	Velocity Failed
036-033	47.6	28.6	2,504.0	2,584.0	WMAIN-2687(1)	15	Passed
036-034	47.5	30.7	3,503.0	4,003.0	WMAIN-1033(1)	13.8	Passed
036-035	47.8	43.8	2,503.0	2,881.0	WMAIN-2399	15	Passed
036-036	47.5	44.7	2,507.0	1,764.0	WMAIN-6457(1)	14.8	Velocity Failed
036-037	47.3	35.2	2,512.0	3,012.0	WMAIN-2253(2)	9.7	Passed
036-038	47.1	34.6	2,502.0	3,002.0	WMAIN-6852(1)	10.6	Passed
036-039	47.1	34.1	1,252.0	1,320.0	WMAIN-6512(1)	15	Passed
036-040	46.8	43.1	1,255.0	1,755.0	WMAIN-6852(1)	7.9	Passed
036-041	46.5	38	3,500.0	3,468.0	WMAIN-3403(1)	15	Velocity Failed
036-042	46.5	41.2	1,252.0	1,752.0	WMAIN-0567(2)(1)	11.2	Passed
036-043	46.2	44.5	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
036-044	47.7	43.3	2,514.0	3,014.0	WMAIN-2399	13.2	Passed
036-045	47.6	32.3	2,500.0	2,418.0	WMAIN-6457(1)	15	Velocity Failed
036-047	47.4	29.4	3,505.0	2,247.0	WMAIN-0603(2)	15	Velocity Failed
036-048	47.6	37.5	1,252.0	1,321.0	WMAIN-5375(1)	15	Passed
036-049	47.7	44.7	1,251.0	1,321.0	WMAIN-2674(1)	15	Passed
036-050	47.5	38.2	2,503.0	3,003.0	WMAIN-2250(2)	9.6	Passed
036-051	47.8	41.1	3,502.0	1,840.0	WMAIN-1031(1)	15	Velocity Failed
036-053	47.6	39.7	1,257.0	1,757.0	WMAIN-0621	11.2	Passed
036-055	47.4	41.4	1,251.0	1,716.0	WMAIN-2357	15	Passed
036-056	47.3	35.6	1,254.0	1,754.0	WMAIN-2357	12.3	Passed
036-057	47.4	30	3,501.0	2,244.0	WMAIN-6824(1)	15	Velocity Failed
036-058	47.5	26.3	3,502.0	2,429.0	WMAIN-5977(1)(1)	15	Velocity Failed
036-059	45.8	43.8	1,251.0	1,321.0	WMAIN-2694(1)	15	Passed
037-001	49.8	47.7	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
037-002	49.2	46.9	1,252.0	1,752.0	WMAIN-5897	7.5	Passed
037-003	48.9	44.8	1,252.0	1,752.0	WMAIN-6197	8.1	Passed
037-004	48.4	43.6	3,500.0	3,475.0	WMAIN-3777	15	Velocity Failed
037-005	48.1	40.6	3,513.0	4,013.0	WMAIN-3777	12.9	Passed
037-006	47.7	37.9	3,501.0	4,001.0	WMAIN-3777	11.4	Passed
037-008	47.5	43.4	3,500.0	1,854.0	WMAIN-6793(2)	15	Velocity Failed
037-009	47.6	42.4	1,254.0	1,754.0	WMAIN-6793(2)	8.2	Passed
037-010	47.7	33.5	3,501.0	3,560.0	WMAIN-6586(2)	15	Passed
037-011	48	43.3	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
037-012	48	33	1,258.0	1,758.0	WMAIN-6585(2)	11.5	Passed
037-013	48.3	29	3,502.0	4,002.0	WMAIN-3382(2)	13.2	Passed
037-014	48.5	42.4	1,260.0	1,760.0	WMAIN-5897	7.4	Passed
037-015	48.6	44.5	1,252.0	1,752.0	WMAIN-5897	7.4	Passed
037-016	48.9	35.8	1,254.0	1,754.0	WMAIN-5643(1)	11.5	Passed
037-017	49.1	38.5	1,250.0	1,750.0	WMAIN-5643(2)(2)	13.3	Passed
037-018	49.5	41.3	1,252.0	1,752.0	WMAIN-6782(2)	10.1	Passed
037-019	49.3	36.7	1,254.0	1,754.0	WMAIN-6784	10.1	Passed
037-020	48.8	39.4	1,251.0	1,751.0	WMAIN-5639(2)	13.1	Passed
037-021	48.9	45	1,251.0	1,751.0	WMAIN-5897	7.4	Passed
037-022	48.8	37.1	1,255.0	1,755.0	WMAIN-5635(1)	10	Passed
037-023	48.6	40.3	1,254.0	1,754.0	WMAIN-6742(1)	12.2	Passed
037-024	48.3	43.6	1,256.0	1,756.0	WMAIN-5897	7.4	Passed
037-025	48.3	33.4	1,254.0	1,754.0	WMAIN-6582(1)	12.4	Passed
037-026	48	34.2	1,254.0	1,754.0	WMAIN-6753(1)	13.1	Passed
037-027	47.9	43.7	1,251.0	1,751.0	WMAIN-5897	7.4	Passed
037-028	48.2	38.2	1,257.0	1,757.0	WMAIN-6750	9.4	Passed
037-029	48.6	33.6	1,254.0	1,754.0	WMAIN-6575(2)	11.4	Passed
037-030	47.7	42.5	1,258.0	1,592.0	WMAIN-6523(1)	15	Passed
037-031	48	30.3	1,250.0	1,750.0	WMAIN-6523(1)	10.8	Passed
037-032	47.7	31.7	1,250.0	1,750.0	WMAIN-6519	12.1	Passed
037-033	47.9	37.6	1,254.0	1,754.0	WMAIN-3387(1)	10.3	Passed
037-034	47.7	40.6	1,250.0	1,750.0	WMAIN-5629(2)(2)	11.6	Passed
037-035	47.7	42.8	1,254.0	1,754.0	WMAIN-5629(1)	14.6	Passed
037-036	47.7	43.7	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
037-037	47.7	42.6	1,256.0	1,683.0	WMAIN-7335(1)(1)	15	Passed
037-038	47.7	36.7	1,250.0	1,750.0	WMAIN-7335(2)	11	Passed
037-039	47.6	40.6	1,251.0	1,751.0	WMAIN-3443(1)	12.5	Passed
037-040	47.7	37.3	1,255.0	1,755.0	WMAIN-6463(1)	11	Passed
037-041	47.7	30.4	3,503.0	4,003.0	WMAIN-6789(1)	13.9	Passed
037-042	47.6	37.9	1,252.0	1,752.0	WMAIN-1080(1)	10.1	Passed
037-043	47.6	34.1	1,256.0	1,756.0	WMAIN-6836(1)	10.4	Passed
037-044	47.6	43.3	3,501.0	1,684.0	WMAIN-6799(1)	15	Velocity Failed
037-045	47.7	33.6	1,253.0	1,753.0	WMAIN-7332(1)	11.2	Passed
037-046	47.6	35	1,252.0	1,752.0	WMAIN-2690(1)	11.2	Passed
037-047	47.7	36.4	1,255.0	1,755.0	WMAIN-2680	10.1	Passed
037-048	48.6	32.4	3,501.0	4,001.0	WMAIN-2264(2)	14.2	Passed
037-050	47.7	38.6	1,253.0	1,753.0	WMAIN-1093	10.6	Passed
038-001	49.2	45.6	2,507.0	3,007.0	WMAIN-5897	8.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
038-002	49.7	47.9	1,253.0	1,753.0	WMAIN-5897	7.5	Passed
038-003	49.9	45.4	3,506.0	4,006.0	WMAIN-5897	8.6	Passed
038-004	49.9	45.6	3,501.0	4,001.0	WMAIN-5897	8.6	Passed
038-005	49.7	47.8	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
038-006	49.6	47.8	1,250.0	1,750.0	WMAIN-5897	7.5	Passed
038-007	49.8	47.9	1,254.0	1,754.0	WMAIN-5897	7.5	Passed
038-008	49.6	44	1,252.0	1,321.0	WMAIN-6573(1)	15	Passed
038-009	49.4	37.2	1,252.0	1,752.0	WMAIN-5942(2)	12.8	Passed
038-010	49.2	45	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
038-011	49.1	37.7	1,253.0	1,753.0	WMAIN-6571(1)	13.3	Passed
038-012	48.7	37	1,253.0	1,753.0	WMAIN-6567(1)	13.3	Passed
038-013	48.7	44	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
038-014	48.4	36.8	1,253.0	1,753.0	WMAIN-5646(2)	13.4	Passed
038-015	48.7	43	1,256.0	1,756.0	WMAIN-5897	7.5	Passed
038-016	49	43.4	1,252.0	1,752.0	WMAIN-5897	7.5	Passed
038-017	49	36	1,253.0	1,753.0	WMAIN-6557(1)	11.9	Passed
038-018	49.3	44.9	1,252.0	1,752.0	WMAIN-5897	7.5	Passed
038-019	49.2	36.3	1,253.0	1,753.0	WMAIN-6726(1)	12.1	Passed
038-020	49.4	44.9	1,255.0	1,755.0	WMAIN-5897	7.5	Passed
038-021	49.4	46.2	1,252.0	1,752.0	WMAIN-5897	7.5	Passed
038-022	49.6	45	1,256.0	1,756.0	WMAIN-5897	7.5	Passed
038-023	49.9	39.7	1,254.0	1,754.0	WMAIN-6542(2)	10.9	Passed
038-024	49.9	47.3	1,250.0	1,750.0	WMAIN-6723(1)(2)	7.7	Passed
038-025	49.6	34.4	1,254.0	1,754.0	WMAIN-6545(1)	11.6	Passed
038-026	49.9	46.4	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
038-027	49.6	34.4	1,254.0	1,754.0	WMAIN-2704(1)	11.5	Passed
038-028	49.8	46.4	1,251.0	1,751.0	WMAIN-6714(2)	7.5	Passed
038-029	49.7	46.5	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
038-030	49.4	37.6	1,253.0	1,753.0	WMAIN-6712(1)	10.1	Passed
038-031	49.5	40.4	1,251.0	1,751.0	WMAIN-5650(1)	10.6	Passed
038-032	49.4	44.9	1,250.0	1,750.0	WMAIN-5897	7.5	Passed
038-033	49.8	43	1,261.0	1,761.0	WMAIN-6533(1)	7.5	Passed
038-034	49.8	41.9	1,253.0	1,753.0	WMAIN-5897	7.5	Passed
038-035	49.2	36	1,256.0	1,756.0	WMAIN-4417(1)	11.2	Passed
038-036	49.8	42.9	1,252.0	1,321.0	WMAIN-6527(1)	15	Passed
038-037	49.8	45.4	1,251.0	1,751.0	WMAIN-5897	7.5	Passed
038-038	49.7	39.7	1,251.0	1,751.0	WMAIN-6530	11.2	Passed
038-039	49.5	41.8	1,255.0	1,755.0	WMAIN-6565(2)	10.7	Passed
038-040	48.4	42.1	1,254.0	1,754.0	WMAIN-5897	7.4	Passed
038-041	48.3	43.1	1,251.0	1,751.0	WMAIN-5261(1)	7.6	Passed
038-042	48.1	42.4	1,252.0	1,752.0	WMAIN-5897	7.4	Passed
038-043	47.8	34.3	1,252.0	1,752.0	WMAIN-5495(1)	11.8	Passed
038-044	47.9	34.2	1,254.0	1,754.0	WMAIN-5258(1)	11.6	Passed
038-045	48.8	42.4	1,252.0	1,752.0	WMAIN-5897	7.4	Passed
038-046	48.3	41.9	1,255.0	1,755.0	WMAIN-5897	7.4	Passed
038-047	48.1	42.9	1,252.0	1,752.0	WMAIN-5897	7.4	Passed
038-048	48.4	43.9	1,253.0	1,753.0	WMAIN-5173(1)	9	Passed
038-050	48.8	46.7	1,250.0	1,750.0	WMAIN-5897	7.4	Passed
038-051	48.7	42.5	1,250.0	1,750.0	WMAIN-5897	7.4	Passed
038-052	48.7	41.4	1,252.0	1,752.0	WMAIN-5161(1)	11.2	Passed
038-053	48.1	46.8	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
038-054	48.1	44.7	1,254.0	1,754.0	WMAIN-5150(1)(1)	7.2	Passed
038-055	49	46.9	1,252.0	1,752.0	WMAIN-5897	7.4	Passed
038-056	49.1	46.9	1,251.0	1,751.0	WMAIN-5897	7.4	Passed
038-057	49.3	47.3	1,252.0	1,752.0	WMAIN-5897	7.5	Passed
038-058	49.5	47.5	1,252.0	1,752.0	WMAIN-5897	7.5	Passed
038-059	49.6	44.4	3,503.0	4,003.0	WMAIN-5897	8.8	Passed
038-061	47.8	43.8	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
038-062	49.2	45.2	1,255.0	1,755.0	WMAIN-5897	7.4	Passed
038-063	49.4	45.2	1,252.0	1,752.0	WMAIN-4423(1)	11.2	Passed
039-001	50.2	44.4	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
039-002	50.2	45.4	1,255.0	1,755.0	WMAIN-5501(1)(1)	7.5	Passed
039-003	50.5	45.9	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
039-004	50.5	48.2	1,252.0	1,752.0	WMAIN-5506(1)	8.7	Passed
039-005	50.9	48.9	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-006	50.4	45.5	1,252.0	1,752.0	WMAIN-5509(2)	7.4	Passed
039-007	51.2	49.2	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
039-008	50.8	47.3	1,251.0	1,751.0	WMAIN-5515(1)	7	Passed
039-009	50.4	46.4	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
039-010	50.2	44.9	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-011	50	39.7	1,253.0	1,753.0	WMAIN-5521(1)	11.2	Passed
039-012	49.6	45	1,253.0	1,708.0	WMAIN-5712(2)	15	Passed
039-013	49.5	41.1	1,250.0	1,750.0	WMAIN-5708(2)	14.6	Passed
039-014	49.6	41.6	1,253.0	1,753.0	WMAIN-5712(2)	7.7	Passed
039-015	49.6	36.8	1,252.0	1,752.0	WMAIN-5711(1)	11.2	Passed
039-016	49.6	41.1	1,251.0	1,751.0	WMAIN-5698(2)	11	Passed
039-017	49.7	41.4	1,255.0	1,755.0	WMAIN-5897	7.6	Passed
039-018	49.3	42.1	1,252.0	1,752.0	WMAIN-5897	7.6	Passed
039-019	49.5	39.6	1,252.0	1,752.0	WMAIN-5726(1)	11.2	Passed
039-020	49.5	42.4	1,255.0	1,755.0	WMAIN-5897	7.6	Passed
039-021	49.7	44.5	1,253.0	1,753.0	WMAIN-5897	7.6	Passed
039-022	49.8	44.2	1,253.0	1,753.0	WMAIN-5897	7.6	Passed
039-023	49.6	42.5	1,255.0	1,755.0	WMAIN-5897	7.6	Passed
039-024	49.6	38.4	1,251.0	1,751.0	WMAIN-5696(2)	11.6	Passed
039-025	49.6	40.4	1,250.0	1,750.0	WMAIN-5695(1)(1)	7.7	Passed
039-026	50.1	43.7	1,261.0	1,761.0	WMAIN-5695(1)(1)	9	Passed
039-027	49.7	33.1	3,501.0	3,512.0	WMAIN-5749(1)	15	Passed
039-028	50.1	43	1,250.0	1,750.0	WMAIN-5759(1)	11.2	Passed
039-029	49.7	44.5	1,253.0	1,753.0	WMAIN-5743(1)	8.5	Passed
039-030	49.7	45.1	1,252.0	1,752.0	WMAIN-5737(1)	7.8	Passed
039-031	50.2	41	1,253.0	1,753.0	WMAIN-5755(1)	11.2	Passed
039-032	49.9	45.4	1,251.0	1,321.0	WMAIN-5735(1)	15	Passed
039-033	50.6	48.1	1,250.0	1,750.0	WMAIN-5757(1)	8.8	Passed
039-034	51.4	47.4	1,250.0	1,750.0	WMAIN-5679(2)	7.2	Passed
039-035	51	47.2	1,253.0	1,753.0	WMAIN-5679(1)(1)	7.6	Passed
039-036	51.1	46.2	1,252.0	1,752.0	WMAIN-5674(2)	7.4	Passed
039-037	51.4	45.8	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-038	51.6	47	1,251.0	1,751.0	WMAIN-5528(2)	7.7	Passed
039-039	51.6	47.7	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
039-040	51.9	49.5	1,251.0	1,751.0	WMAIN-5689(2)	8.3	Passed
039-041	51.5	49.3	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
039-042	50.7	46.5	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-043	50.5	45.8	1,251.0	1,321.0	WMAIN-4964(1)	15	Passed
039-044	50.3	45.6	1,251.0	1,321.0	WMAIN-4953(1)	15	Passed
039-045	50.1	45	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-046	50	44.7	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
039-047	50.3	41.4	1,251.0	1,751.0	WMAIN-4962(1)	11.2	Passed
039-048	50.5	45.8	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-053	51	46.8	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
039-054	50.8	46.4	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
039-055	50.2	45.6	1,251.0	1,751.0	WMAIN-1102(2)	7.3	Passed
039-056	50.9	46.3	1,251.0	1,751.0	WMAIN-1115(1)	7.1	Passed
039-057	50.6	43.6	1,252.0	1,752.0	WMAIN-1098(1)	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
039-058	50.7	43	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
039-059	51	43.6	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
040-001	52.9	50.8	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
040-002	53.4	51.4	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
040-003	52.3	50.1	1,250.0	1,750.0	WMAIN-5897	7	Passed
040-004	52.4	49.7	1,253.0	1,753.0	WMAIN-5897	7	Passed
040-005	51.2	26.7	3,500.0	3,857.0	WMAIN-1113(2)	15	Passed
040-006	51	45.7	1,270.0	1,770.0	WMAIN-1113(1)(1)	7.8	Passed
040-009	52.3	42.2	3,501.0	4,001.0	WMAIN-5897	8.8	Passed
040-010	52.5	50.1	1,251.0	1,751.0	WMAIN-4511(2)	7.9	Passed
040-011	52.4	48.1	1,251.0	1,751.0	WMAIN-4531(1)	11.2	Passed
040-012	52.4	47.5	1,251.0	1,751.0	WMAIN-4528(1)	11.3	Passed
040-013	52.6	47.9	1,251.0	1,751.0	WMAIN-4499(1)	11.2	Passed
040-014	53	49.5	1,250.0	1,750.0	WMAIN-4517(1)	7.5	Passed
040-015	53.6	50.7	1,250.0	1,750.0	WMAIN-5897	7	Passed
040-016	53.6	50	1,251.0	1,751.0	WMAIN-4524(2)	9.3	Passed
040-017	53	48.1	1,250.0	1,750.0	WMAIN-4540(1)	8.7	Passed
040-018	53.3	46.7	1,253.0	1,753.0	WMAIN-5897	7	Passed
040-019	53.2	45.5	1,255.0	1,755.0	WMAIN-5897	7	Passed
040-020	53.2	45.4	1,252.0	1,752.0	WMAIN-4493(1)	7.8	Passed
040-021	53.9	45.5	1,258.0	1,758.0	WMAIN-5897	7	Passed
040-022	53.4	50	1,250.0	1,750.0	WMAIN-0852(1)	8.2	Passed
040-023	52.8	49.7	1,251.0	1,751.0	WMAIN-4440(2)	7.3	Passed
040-024	52.2	49.2	1,252.0	1,752.0	WMAIN-5897	7	Passed
040-025	52.5	48.1	1,254.0	1,754.0	WMAIN-5897	7	Passed
040-026	52.2	48.4	1,251.0	1,751.0	WMAIN-4449(1)	7.2	Passed
040-027	51.6	47.1	1,254.0	1,754.0	WMAIN-1108(1)	7.3	Passed
040-028	51.7	46.6	1,251.0	1,751.0	WMAIN-5897	7	Passed
040-029	50.7	45.3	1,256.0	1,756.0	WMAIN-2507(2)	7.7	Passed
040-031	51.9	46	1,251.0	1,751.0	WMAIN-5897	7	Passed
040-034	51.8	49.3	1,252.0	1,752.0	WMAIN-5897	7	Passed
040-035	51.9	49.4	1,253.0	1,753.0	WMAIN-5897	7	Passed
040-036	52	46.8	1,251.0	1,751.0	WMAIN-1992(2)	7.6	Passed
040-037	52.3	41.3	3,500.0	4,000.0	WMAIN-5897	9	Passed
041-001	50.3	38.3	3,509.0	4,009.0	WMAIN-3778	12.3	Passed
041-002	50.3	47.1	1,250.0	1,750.0	WMAIN-3778	9.8	Passed
041-003	50.5	37.6	3,500.0	4,000.0	WMAIN-3778	12.2	Passed
041-004	50.8	47.5	1,250.0	1,750.0	WMAIN-3778	9.8	Passed
041-005	50.8	47.5	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
041-006	50.9	47	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
041-007	50.8	43.9	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
041-008	50.7	44.2	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
041-009	50.7	44.1	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
041-010	50.9	43.8	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
041-011	50.8	47.5	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
041-012	50.1	45.9	1,252.0	1,752.0	WMAIN-3778	9.2	Passed
041-013	50.1	43	1,251.0	1,751.0	WMAIN-3633(2)	11.2	Passed
041-014	50.4	44.9	1,254.0	1,754.0	WMAIN-3778	9.3	Passed
041-015	50.6	45.1	1,252.0	1,752.0	WMAIN-3778	9.4	Passed
041-016	50.8	45.1	1,251.0	1,751.0	WMAIN-3778	9.4	Passed
041-017	50.3	43.3	1,250.0	1,750.0	WMAIN-3778	9.3	Passed
041-018	50.2	44.4	1,254.0	1,754.0	WMAIN-3778	9.3	Passed
041-019	50.4	44.4	1,252.0	1,752.0	WMAIN-3778	9.3	Passed
041-020	50	45.9	1,254.0	1,754.0	WMAIN-3778	9.3	Passed
041-021	50.8	40.2	3,503.0	2,349.0	WMAIN-3346(1)	15	Velocity Failed
041-022	50.7	20	3,508.0	3,852.0	WMAIN-4796	12.9	Passed
041-023	50.7	43.5	1,259.0	1,759.0	WMAIN-3778	9.9	Passed
041-024	50.6	45.5	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
041-025	50.4	43.8	1,258.0	1,758.0	WMAIN-3778	9.9	Passed
041-026	50.4	45.4	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
041-027	50.5	44.8	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
041-028	50.6	45.7	1,251.0	1,751.0	WMAIN-3778	9.8	Passed
041-029	50.8	45.9	1,251.0	1,751.0	WMAIN-3778	9.8	Passed
041-030	50.7	43.9	1,254.0	1,754.0	WMAIN-3778	9.8	Passed
041-031	50.6	42.9	1,253.0	1,753.0	WMAIN-3778	9.8	Passed
041-032	50.6	43.1	1,250.0	1,750.0	WMAIN-3026(2)	11.2	Passed
041-033	50.9	44.6	1,252.0	1,752.0	WMAIN-3778	9.8	Passed
041-034	51.2	48.9	1,252.0	1,752.0	WMAIN-5897	7.1	Passed
041-035	51.4	49.2	1,250.0	1,750.0	WMAIN-5897	7.1	Passed
041-036	51.6	49.3	1,251.0	1,751.0	WMAIN-5897	7.1	Passed
041-037	51.7	49.5	1,251.0	1,751.0	WMAIN-5897	7	Passed
041-038	51.9	40.9	3,502.0	4,002.0	WMAIN-5897	9	Passed
041-039	51.3	48.1	1,251.0	1,751.0	WMAIN-5897	7.1	Passed
041-040	51.5	47.9	1,251.0	1,751.0	WMAIN-7713(1)	7.7	Passed
041-041	51.6	45.5	1,260.0	1,760.0	WMAIN-7718(1)(1)	7.6	Passed
041-042	51.7	46.2	1,258.0	1,758.0	WMAIN-7717(1)	7.5	Passed
041-043	51.9	44.7	1,250.0	1,750.0	WMAIN-5897	7	Passed
041-044	51.9	45.7	1,250.0	1,750.0	WMAIN-5897	7	Passed
041-045	52	44.7	1,256.0	1,756.0	WMAIN-7715(1)(1)	7.1	Passed
041-046	52.1	44.1	1,252.0	1,752.0	WMAIN-5897	7	Passed
041-047	52.1	42.9	1,250.0	1,750.0	WMAIN-7709(2)	11.2	Passed
041-048	52.3	46.1	1,253.0	1,753.0	WMAIN-7721(2)	8	Passed
041-049	52.4	48.4	1,263.0	1,763.0	WMAIN-5897	7	Passed
041-050	52.4	38.4	3,501.0	4,001.0	WMAIN-5897	9	Passed
041-051	52.2	46.5	1,251.0	1,751.0	WMAIN-7719(2)	8	Passed
042-001	50.5	47.5	1,251.0	1,751.0	WMAIN-5897	7.7	Passed
042-002	50.5	38.6	1,251.0	1,751.0	WMAIN-5769(1)(1)	13.2	Passed
042-003	50.5	39.3	1,252.0	1,752.0	WMAIN-5773(1)(1)	13	Passed
042-004	50.2	45.7	1,254.0	1,754.0	WMAIN-3778	8.3	Passed
042-005	50.2	46.6	1,252.0	1,752.0	WMAIN-3778	8.8	Passed
042-006	50.2	46.3	1,252.0	1,752.0	WMAIN-3778	8.7	Passed
042-007	49.8	40.6	1,254.0	1,754.0	WMAIN-5788(2)	11	Passed
042-008	49.9	46	1,251.0	1,751.0	WMAIN-3778	8.4	Passed
042-009	49.8	45	1,251.0	1,751.0	WMAIN-5897	7.9	Passed
042-010	49.7	31.7	1,253.0	1,320.0	WMAIN-2504(1)	15	Passed
042-011	50	44.5	1,252.0	1,752.0	WMAIN-5897	7.9	Passed
042-012	49.8	30.8	1,253.0	1,320.0	WMAIN-6063(1)	15	Passed
042-013	50.3	46.5	1,250.0	1,750.0	WMAIN-7420(1)	8.5	Passed
042-014	49.5	30	1,252.0	1,752.0	WMAIN-6061(1)	10.6	Passed
042-015	49.6	33.9	1,256.0	1,756.0	WMAIN-7254(1)	13.1	Passed
042-016	49.6	44.6	1,251.0	1,751.0	WMAIN-5897	7.9	Passed
042-017	49.6	38.3	1,252.0	1,752.0	WMAIN-7416(1)	10	Passed
042-018	49.4	40.8	1,255.0	1,755.0	WMAIN-7423(2)	11	Passed
042-019	49.5	44.7	1,253.0	1,753.0	WMAIN-5897	7.8	Passed
042-020	49.8	46	1,251.0	1,751.0	WMAIN-5897	7.7	Passed
042-021	49.6	46.9	1,250.0	1,750.0	WMAIN-5897	7.7	Passed
042-022	49.7	45.6	1,254.0	1,754.0	WMAIN-5897	7.7	Passed
042-023	49.7	45.9	1,253.0	1,753.0	WMAIN-5897	7.7	Passed
042-024	49.6	32	1,252.0	1,752.0	WMAIN-7243	13.6	Passed
042-025	49.6	32.4	1,254.0	1,754.0	WMAIN-7243	13.5	Passed
042-026	49.6	33.4	1,254.0	1,754.0	WMAIN-7426(1)	10.2	Passed
042-027	49.7	46.1	1,251.0	1,751.0	WMAIN-5897	7.7	Passed
042-028	49.7	42.3	3,505.0	4,005.0	WMAIN-5897	9.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
042-029	49.4	47.1	1,251.0	1,751.0	WMAIN-7271(1)	8.3	Passed
042-030	50.1	46.6	1,251.0	1,751.0	WMAIN-3778	7.6	Passed
042-031	49.9	40.9	1,254.0	1,754.0	WMAIN-7405(1)	11.5	Passed
042-032	50.1	46.8	1,251.0	1,751.0	WMAIN-3778	8.9	Passed
042-033	49.7	46.3	1,253.0	1,753.0	WMAIN-3778	9	Passed
042-034	49.8	39.5	1,252.0	1,752.0	WMAIN-2062(1)	13.2	Passed
042-035	49.4	45.2	1,251.0	1,751.0	WMAIN-3778	9.3	Passed
042-036	49.9	38.7	1,252.0	1,752.0	WMAIN-2502(1)	12.5	Passed
042-037	49.1	45.4	1,251.0	1,751.0	WMAIN-3778	9.4	Passed
042-038	49.9	45.2	1,254.0	1,754.0	WMAIN-3778	9.8	Passed
042-039	49.8	45.3	1,252.0	1,752.0	WMAIN-3778	9.6	Passed
042-040	50.2	45.9	1,251.0	1,751.0	WMAIN-3778	9.6	Passed
042-041	49.5	45.7	1,251.0	1,751.0	WMAIN-3778	8.6	Passed
042-042	49.4	36.7	1,253.0	1,318.0	WMAIN-2072(1)	15	Passed
042-043	49.6	46.3	1,251.0	1,751.0	WMAIN-3778	7.8	Passed
042-044	49.8	45.8	1,251.0	1,751.0	WMAIN-7265(1)	8.1	Passed
042-045	49.9	41.3	1,254.0	1,754.0	WMAIN-7399(2)	10.8	Passed
042-046	49.9	40.8	1,254.0	1,754.0	WMAIN-7402(2)	10.5	Passed
042-047	50.1	46.9	1,250.0	1,750.0	WMAIN-3778	9.7	Passed
042-048	50.1	46.3	1,250.0	1,750.0	WMAIN-3778	9.5	Passed
042-049	49.3	44.6	1,252.0	1,752.0	WMAIN-3778	9.4	Passed
042-050	49	44.9	1,250.0	1,750.0	WMAIN-3778	9.4	Passed
042-051	49.5	45	1,254.0	1,754.0	WMAIN-3778	9.3	Passed
042-052	50	45.9	1,251.0	1,751.0	WMAIN-3778	9.3	Passed
042-053	50.1	46.3	1,250.0	1,750.0	WMAIN-3778	8.8	Passed
042-054	49.6	44.5	1,256.0	1,756.0	WMAIN-3778	8.6	Passed
042-055	49.3	43.8	1,250.0	1,750.0	WMAIN-3778	8.3	Passed
042-056	49.3	43.9	1,253.0	1,753.0	WMAIN-2035(2)	8.1	Passed
042-057	49.3	43.8	1,253.0	1,753.0	WMAIN-5897	7.9	Passed
042-058	49.4	44.2	1,258.0	1,758.0	WMAIN-5897	7.9	Passed
042-059	49.4	44.9	1,251.0	1,751.0	WMAIN-5897	7.9	Passed
042-060	49.5	44.5	1,252.0	1,752.0	WMAIN-5897	7.9	Passed
042-061	49.6	45.4	1,252.0	1,752.0	WMAIN-5897	7.9	Passed
043-001	49.7	43.4	3,503.0	4,003.0	WMAIN-5897	9.2	Passed
043-002	49.7	46.5	1,251.0	1,751.0	WMAIN-5897	7.8	Passed
043-003	49.6	44.9	1,251.0	1,751.0	WMAIN-5897	7.8	Passed
043-004	49.8	45.3	1,251.0	1,751.0	WMAIN-5897	7.9	Passed
043-005	49.7	46.7	1,254.0	1,754.0	WMAIN-5897	7.9	Passed
043-006	49.9	45	1,251.0	1,751.0	WMAIN-7369	8	Passed
043-007	49.8	45.8	1,251.0	1,320.0	WMAIN-6078(1)	15	Passed
043-008	49.8	44.3	1,251.0	1,751.0	WMAIN-5897	7.8	Passed
043-009	49.9	44.9	1,253.0	1,753.0	WMAIN-5897	7.8	Passed
043-010	49.9	45.8	1,251.0	1,315.0	WMAIN-7367(1)	15	Passed
043-011	49.9	43.1	1,251.0	1,751.0	WMAIN-5897	7.8	Passed
043-012	49.9	36.5	1,252.0	1,752.0	WMAIN-2485(2)	10.8	Passed
043-013	50	45.7	1,251.0	1,751.0	WMAIN-5897	7.7	Passed
043-014	50.2	37.4	1,254.0	1,754.0	WMAIN-6655(2)	10.2	Passed
043-015	50.3	32	1,253.0	1,753.0	WMAIN-6657(1)	11.5	Passed
043-016	50.3	28.3	1,251.0	1,751.0	WMAIN-6659	10.9	Passed
043-017	50.3	28.2	1,254.0	1,754.0	WMAIN-6664(1)	11.1	Passed
043-018	50.4	32	1,267.0	1,767.0	WMAIN-6664(1)	13.4	Passed
043-022	50.6	40.6	2,500.0	2,517.0	WMAIN-7354(1)(1)	15	Passed
043-023	50.7	45.8	1,250.0	1,750.0	WMAIN-7354(1)(1)	14.5	Passed
043-024	50.5	38.4	1,265.0	1,764.0	WMAIN-7356(1)	15	Passed
043-025	50.4	46.4	1,251.0	1,751.0	WMAIN-6675(1)(1)	9	Passed
043-026	50.3	44.5	1,258.0	1,758.0	WMAIN-5897	7.7	Passed
043-027	50.2	42.9	1,254.0	1,754.0	WMAIN-7359(2)	14.6	Passed
043-028	50.2	36.7	2,501.0	3,001.0	WMAIN-6669	11	Passed
043-029	50.2	46.6	1,251.0	1,751.0	WMAIN-5897	7.7	Passed
043-030	49.8	46.1	1,252.0	1,752.0	WMAIN-5897	7.7	Passed
043-031	49.6	38.3	2,514.0	3,014.0	WMAIN-6691(1)	10.4	Passed
043-032	49.7	44.9	1,254.0	1,754.0	WMAIN-5897	7.7	Passed
043-033	49.6	44.3	1,258.0	1,758.0	WMAIN-5897	7.7	Passed
043-034	49.7	44.4	1,253.0	1,753.0	WMAIN-5897	7.6	Passed
043-035	49.6	46.7	1,251.0	1,751.0	WMAIN-5897	7.6	Passed
043-036	49.7	45.4	1,254.0	1,754.0	WMAIN-5897	7.6	Passed
043-037	49.9	45	1,254.0	1,754.0	WMAIN-7347(2)	7.6	Passed
043-038	49.7	44.1	1,252.0	1,752.0	WMAIN-5897	7.6	Passed
043-039	49.7	46.9	1,251.0	1,751.0	WMAIN-7345(1)	8.8	Passed
043-040	49.9	45.4	1,251.0	1,605.0	WMAIN-7343(1)	15	Passed
043-041	49.9	45.2	1,250.0	1,750.0	WMAIN-3722(1)	8.1	Passed
043-042	49.9	43.4	1,251.0	1,751.0	WMAIN-5897	7.6	Passed
043-043	49.9	39.8	1,256.0	1,756.0	WMAIN-7350(2)	8.1	Passed
043-044	49.9	37.5	1,250.0	1,750.0	WMAIN-5897	7.6	Passed
043-045	49.9	36.5	1,250.0	1,750.0	WMAIN-3359	8.7	Passed
043-046	49.9	36	1,257.0	1,757.0	WMAIN-3359	10	Passed
043-047	49.9	37.1	1,250.0	1,750.0	WMAIN-6038(2)	14.3	Passed
043-048	49.9	33	1,254.0	1,754.0	WMAIN-6042	11.4	Passed
043-049	49.9	36	1,254.0	1,754.0	WMAIN-6636(1)	10.5	Passed
043-050	50	45.7	3,500.0	4,000.0	WMAIN-5897	8.5	Passed
043-052	49.7	42.9	3,505.0	4,005.0	WMAIN-5897	9.3	Passed
044-004	50.2	41.3	3,500.0	4,000.0	WMAIN-5897	9	Passed
044-006	50.1	34.9	2,503.0	3,003.0	WMAIN-6089(2)	12.2	Passed
044-007	50.1	25.7	3,511.0	3,932.0	WMAIN-7375(2)	15	Passed
044-009	50	43.8	2,504.0	3,004.0	WMAIN-5897	8.3	Passed
044-010	49.1	40.6	3,500.0	4,000.0	WMAIN-5897	8.9	Passed
044-011	48.5	39.8	3,503.0	4,003.0	WMAIN-5897	8.8	Passed
044-012	48.3	39.6	3,503.0	3,241.0	WMAIN-3321(1)	15	Velocity Failed
044-013	48.4	28.7	3,500.0	4,000.0	WMAIN-3321(1)	14.4	Passed
044-014	48.3	43.1	3,512.0	1,279.0	WMAIN-6208	15	Velocity Failed
044-015	47.8	32.5	3,500.0	4,000.0	WMAIN-6194(2)	14.7	Passed
044-016	47.8	29.2	3,500.0	4,000.0	WMAIN-3320(1)(2)	12.8	Passed
044-017	49	38.9	3,503.0	2,808.0	WMAIN-6197	15	Velocity Failed
044-018	48.8	35.5	1,252.0	1,752.0	WMAIN-3363(2)	12.3	Passed
044-019	49.6	39.1	1,252.0	1,752.0	WMAIN-6195(2)	14.8	Passed
044-020	47.8	33.5	3,508.0	588.0	WMAIN-5574	15	Velocity Failed
044-021	49.7	34.6	1,251.0	1,751.0	WMAIN-4971(1)	13	Passed
044-022	48.6	32.7	1,252.0	1,752.0	WMAIN-6197	10.7	Passed
044-023	49.6	38.4	1,256.0	1,756.0	WMAIN-6625(1)	11.7	Passed
044-024	49.5	46.4	1,251.0	1,751.0	WMAIN-6197	13.6	Passed
044-025	49.7	45.9	1,250.0	1,750.0	WMAIN-6197	11.2	Passed
044-026	49.9	42.6	1,251.0	1,751.0	WMAIN-6604(1)	11.2	Passed
044-027	49.9	27.9	1,252.0	1,752.0	WMAIN-5657(2)	13.4	Passed
044-028	49.9	28.5	1,255.0	1,755.0	WMAIN-5653(2)	13.5	Passed
044-029	49.9	32.1	1,252.0	1,752.0	WMAIN-6197	11.7	Passed
044-030	49.8	28.5	1,255.0	1,755.0	WMAIN-6599(2)	12.2	Passed
044-031	49.8	27.7	1,252.0	1,752.0	WMAIN-6197	11.8	Passed
044-032	49.8	36.4	1,256.0	1,756.0	WMAIN-4978(1)	13.8	Passed
044-033	49.8	31.4	1,250.0	1,750.0	WMAIN-6197	11.4	Passed
044-034	49.8	30.8	1,254.0	1,754.0	WMAIN-6595(1)	13.4	Passed
044-035	49.9	31.4	1,254.0	1,754.0	WMAIN-5671(1)	13.9	Passed
044-036	49.8	44.5	1,251.0	1,751.0	WMAIN-6197	12.3	Passed
044-037	49.4	41.4	1,250.0	1,750.0	WMAIN-6197	12.3	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
044-041	48.5	41.3	3,504.0	4,004.0	WMAIN-3670	14.9	Passed
044-044	49.2	30.2	1,252.0	1,320.0	WMAIN-4976(1)	15	Passed
044-045	49.4	43.5	1,250.0	1,748.0	WMAIN-4967(2)(2)	15	Passed
044-046	49.5	42.2	1,257.0	1,757.0	WMAIN-4967(1)	13.6	Passed
044-047	49	39	1,263.0	1,763.0	WMAIN-4969(1)	10.5	Passed
044-048	49.2	42.9	1,250.0	1,750.0	WMAIN-6197	10.3	Passed
044-049	48.9	40.3	3,501.0	4,001.0	WMAIN-3670	10.4	Passed
044-050	50.4	41.5	3,506.0	4,006.0	WMAIN-5897	9.1	Passed
044-051	48	29.5	3,500.0	4,000.0	WMAIN-3320(2)(2)	13.8	Passed
044-052	48.7	40.4	3,501.0	4,001.0	WMAIN-3670	12.5	Passed
045-001	48.1	23	3,501.0	2,207.0	WMAIN-5569(2)(2)	15	Velocity Failed
045-002	47.8	39.4	3,500.0	1,733.0	WMAIN-3318(1)	15	Velocity Failed
045-003	48.2	25.8	3,500.0	2,152.0	WMAIN-3318(1)	15	Velocity Failed
045-004	47.7	46	1,251.0	1,751.0	WMAIN-5217(1)	8.3	Passed
045-005	47.8	44.2	1,251.0	1,751.0	WMAIN-5204(1)	14.8	Passed
045-006	48	44.6	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
045-007	48	44.9	1,254.0	1,754.0	WMAIN-5267(1)	7.7	Passed
045-008	48.1	44.3	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
045-009	48	44.6	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
045-010	48.1	45.1	1,268.0	1,768.0	WMAIN-5297(1)	7.2	Passed
045-011	48.2	44.2	1,251.0	1,751.0	WMAIN-5299(2)	7.9	Passed
045-012	48.3	43	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
045-013	48.1	44.3	1,250.0	1,750.0	WMAIN-5290(2)(2)	8	Passed
045-014	48.1	45	1,251.0	1,751.0	WMAIN-5281(1)	7.3	Passed
045-015	48	36.8	1,255.0	1,755.0	WMAIN-5269(2)	10.1	Passed
045-016	47.8	40.8	1,252.0	1,752.0	WMAIN-5206(1)	10.2	Passed
045-017	47.9	36.6	1,254.0	1,754.0	WMAIN-5210(1)	10.9	Passed
045-018	47.8	38.6	1,254.0	1,754.0	WMAIN-5185(1)	11.7	Passed
045-019	47.6	42.2	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
045-020	47.9	44.1	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
045-021	48.1	39.5	1,253.0	1,753.0	WMAIN-5316	13.9	Passed
045-022	48.1	38.1	1,250.0	1,750.0	WMAIN-5319(2)(2)	14.6	Passed
045-023	48.1	33.3	1,251.0	1,751.0	WMAIN-5319(2)(2)	11.3	Passed
045-024	47.9	30.8	2,503.0	2,033.0	WMAIN-5321(1)	15	Velocity Failed
045-025	47.6	45.8	1,250.0	1,750.0	WMAIN-5195(1)	8.9	Passed
045-026	47.8	41.4	3,500.0	1,664.0	WMAIN-5569(2)(2)	15	Velocity Failed
045-027	47.8	29.4	3,500.0	3,408.0	WMAIN-3390	15	Velocity Failed
045-028	47.8	24.5	3,509.0	4,009.0	WMAIN-3390	14.8	Passed
045-032	48.2	42.5	3,501.0	4,001.0	WMAIN-5897	8.5	Passed
045-033	48.1	30.6	1,255.0	1,755.0	WMAIN-4986	11.3	Passed
045-036	47.8	42	1,251.0	1,751.0	WMAIN-8069	7.6	Passed
045-037	47.6	42.9	2,504.0	3,004.0	WMAIN-5897	7.1	Passed
045-038	47.6	42.6	1,252.0	1,752.0	WMAIN-8068(1)	7.7	Passed
045-039	47.4	43	2,500.0	3,000.0	WMAIN-5897	7.1	Passed
045-040	46.6	41.5	2,500.0	3,000.0	WMAIN-5897	7.1	Passed
045-041	46.9	41.8	1,250.0	1,750.0	WMAIN-8073(2)	8.3	Passed
045-042	47.6	45.7	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
045-043	47.8	43.8	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
045-044	48	44.1	1,254.0	1,754.0	WMAIN-8065(2)	7.1	Passed
045-045	47.7	45.7	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
045-046	47.8	45.7	1,253.0	1,753.0	WMAIN-5897	6.9	Passed
046-001	47.5	37.4	1,254.0	1,754.0	WMAIN-5188(1)	12.3	Passed
046-002	47.2	36.6	1,250.0	1,750.0	WMAIN-5188(2)(2)	11.8	Passed
046-003	47.4	38.8	1,252.0	1,752.0	WMAIN-5183	7.6	Passed
046-004	47.1	43.7	1,252.0	1,752.0	WMAIN-8053(2)(2)	8.5	Passed
046-005	46.4	22.9	3,505.0	4,005.0	WMAIN-8053(2)(2)	14.5	Passed
046-006	46	40.5	1,257.0	1,757.0	WMAIN-5897	6.9	Passed
046-007	46.5	44.9	1,260.0	1,760.0	WMAIN-5897	6.9	Passed
046-008	46.4	43.6	1,251.0	1,751.0	WMAIN-8096(1)	9.2	Passed
046-009	46.4	44.5	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
046-010	46.6	44.6	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
046-011	47	44.9	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
046-012	46.7	35.8	3,506.0	3,714.0	WMAIN-8101(1)	15	Passed
046-013	46.8	32.4	3,503.0	4,003.0	WMAIN-8102(1)	14.7	Passed
046-014	47.4	43.9	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
046-015	47.7	45.5	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
046-016	47	44.9	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
046-017	46.6	34.5	3,501.0	4,001.0	WMAIN-8103(2)	13.1	Passed
046-018	46.5	33.9	3,502.0	3,873.0	WMAIN-8104(1)	15	Passed
046-019	46.4	43.4	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
046-020	46.4	43.5	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
046-021	47	43.7	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
046-022	46.9	42.7	1,254.0	1,754.0	WMAIN-5897	6.9	Passed
046-023	46.2	42.5	1,253.0	1,753.0	WMAIN-8049(2)	7.4	Passed
046-024	45.9	42.8	1,251.0	1,751.0	WMAIN-5897	6.9	Passed
046-025	45.7	35	3,511.0	4,011.0	WMAIN-5897	8.5	Passed
046-026	45.7	43.3	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
046-027	45.8	43.4	1,255.0	1,755.0	WMAIN-5897	6.9	Passed
047-001	46.1	44.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
047-002	46	43.9	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
047-003	46.3	38.5	1,251.0	1,751.0	WMAIN-1351(1)	11.3	Passed
047-004	46.3	42.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
047-005	46.2	42.1	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
047-006	45.7	43.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
047-007	46.3	44.4	1,252.0	1,752.0	WMAIN-1157(1)	8.6	Passed
047-008	46.4	34.8	3,500.0	4,000.0	WMAIN-1157(2)(2)	13.3	Passed
047-009	46.3	42.2	1,251.0	1,751.0	WMAIN-3940(2)	7.2	Passed
047-010	46.5	40.7	1,252.0	1,752.0	WMAIN-3933	8.1	Passed
047-011	46.5	39.2	1,252.0	1,752.0	WMAIN-3933	7.6	Passed
047-012	46.6	40	1,254.0	1,754.0	WMAIN-3933	7.7	Passed
047-013	46.5	39.8	1,259.0	1,759.0	WMAIN-3936(1)(1)	8.1	Passed
047-014	46.6	40	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
047-015	46.4	41.3	1,257.0	1,757.0	WMAIN-1160(2)	8	Passed
047-016	46.2	40.6	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
047-017	46.4	39.4	1,250.0	1,750.0	WMAIN-3933	8.1	Passed
047-018	46.3	36.7	5,004.0	5,504.0	WMAIN-1750(1)	12.6	Passed
048-001	46	44.8	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
048-002	45.7	43.9	1,251.0	1,751.0	WMAIN-1369(1)	8.7	Passed
048-003	45.8	42	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
048-004	45.5	41.8	1,252.0	1,752.0	WMAIN-1371(2)	7.2	Passed
048-005	45.8	42.1	1,254.0	1,754.0	WMAIN-1364	6.9	Passed
048-006	45.2	40.5	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
048-007	45.3	41.5	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
052-005	47.6	41.2	2,500.0	3,000.0	WMAIN-5897	8.1	Passed
052-006	48.2	43.3	1,250.0	1,608.0	WMAIN-5571	15	Passed
053-001	50.1	41.5	2,501.0	2,942.0	WMAIN-7384	15	Passed
053-002	49.6	34.4	1,256.0	1,756.0	WMAIN-7378(1)(1)	13	Passed
053-003	49.7	43.3	1,251.0	1,751.0	WMAIN-5897	7.7	Passed
053-004	49.3	33.9	1,250.0	1,750.0	WMAIN-7378(2)	12.8	Passed
053-005	48.9	33.3	1,253.0	1,753.0	WMAIN-6106(1)	12.6	Passed
053-006	49.2	43.9	1,252.0	1,752.0	WMAIN-3778	7	Passed
053-007	48.6	33.1	1,253.0	1,753.0	WMAIN-6109(1)	12.6	Passed
053-008	49	44.2	1,251.0	1,751.0	WMAIN-3778	7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
053-009	48.6	43.9	1,257.0	1,757.0	WMAIN-3778	7.1	Passed
053-010	47.7	39.9	2,500.0	2,960.0	WMAIN-7387(2)	15	Passed
053-011	47.8	41.5	2,508.0	3,008.0	WMAIN-5897	8.3	Passed
053-012	48.5	39.3	3,500.0	4,000.0	WMAIN-5897	8.9	Passed
053-013	49.7	40.5	1,262.0	1,762.0	WMAIN-7383	8.5	Passed
053-014	49.3	35.2	1,256.0	1,756.0	WMAIN-1003(2)	10.8	Passed
053-015	49.2	39.9	1,252.0	1,752.0	WMAIN-1982(1)	10.1	Passed
053-016	49.4	33.2	1,256.0	1,756.0	WMAIN-7380(1)	10.3	Passed
053-017	49.6	33.4	1,273.0	1,773.0	WMAIN-6170(2)(2)	13.1	Passed
053-018	49.4	31.8	1,284.0	1,784.0	WMAIN-6170(1)	12.3	Passed
053-019	49.2	41.9	1,251.0	1,751.0	WMAIN-6134	7.9	Passed
053-020	49.2	33.7	1,250.0	1,750.0	WMAIN-7392(2)	12.9	Passed
053-021	49.1	33.8	1,253.0	1,753.0	WMAIN-7391(1)	13	Passed
053-022	49	44.1	1,254.0	1,754.0	WMAIN-3778	7.2	Passed
053-023	49.1	44.2	1,252.0	1,752.0	WMAIN-3778	7.2	Passed
053-024	49.2	44.9	1,250.0	1,750.0	WMAIN-6179(2)	8.1	Passed
053-025	49.1	38.6	1,251.0	1,320.0	WMAIN-6128(1)	15	Passed
053-026	48.8	28.1	3,501.0	4,001.0	WMAIN-7275(1)	12.9	Passed
053-027	49	30.9	1,251.0	1,751.0	WMAIN-6174	11.9	Passed
053-028	48.9	31.3	1,252.0	1,752.0	WMAIN-6121	12.1	Passed
053-029	49	37.4	1,251.0	1,751.0	WMAIN-6121	14.7	Passed
053-030	48.9	38.7	1,254.0	1,754.0	WMAIN-6116(2)	10.8	Passed
053-031	49	45.3	1,251.0	1,751.0	WMAIN-6112(1)(1)	7.2	Passed
053-032	49	45	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
053-033	47.8	45	1,250.0	1,750.0	WMAIN-6100	8.7	Passed
053-034	48.5	44.7	1,254.0	1,754.0	WMAIN-3778	7.2	Passed
053-035	48.5	43.9	1,262.0	1,762.0	WMAIN-3778	7.2	Passed
053-036	48.3	44.7	1,250.0	1,589.0	WMAIN-6093	15	Passed
053-037	48.2	37.1	1,250.0	1,750.0	WMAIN-6093	10.2	Passed
053-038	47.9	42.2	1,255.0	1,708.0	WMAIN-6092(1)(1)	15	Passed
053-039	47.8	44	1,250.0	1,750.0	WMAIN-3778	7.4	Passed
053-040	47.9	43.8	1,253.0	1,753.0	WMAIN-3778	7.2	Passed
053-041	48.1	40.2	3,501.0	4,001.0	WMAIN-5897	8.7	Passed
053-042	49.3	31.5	1,253.0	1,753.0	WMAIN-7397(1)	11.7	Passed
053-043	49.4	31.8	1,253.0	1,753.0	WMAIN-6175	11.9	Passed
053-044	48.2	39.2	3,501.0	3,205.0	WMAIN-7275(2)(2)	15	Velocity Failed
053-045	48.5	39.9	3,501.0	4,001.0	WMAIN-5897	8.8	Passed
053-046	48.9	40.3	3,501.0	4,001.0	WMAIN-5897	8.9	Passed
053-047	48.5	39.3	3,515.0	4,015.0	WMAIN-5897	8.9	Passed
053-048	48.1	41.7	2,501.0	3,001.0	WMAIN-5897	8.3	Passed
053-051	47.6	35.6	3,500.0	3,336.0	WMAIN-0624(2)(2)	15	Velocity Failed
053-052	47.6	27	3,500.0	4,000.0	WMAIN-0624(2)(2)	12.8	Passed
053-053	47.9	26.9	3,502.0	4,002.0	WMAIN-0626(2)	14.4	Passed
053-054	47.9	43	1,252.0	1,752.0	WMAIN-3778	7.3	Passed
053-056	48.2	38.2	3,501.0	4,001.0	WMAIN-5897	9.3	Passed
053-057	47.8	45.8	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
053-058	47.6	44.9	1,250.0	1,750.0	WMAIN-3778	7.1	Passed
053-059	47.7	44.8	1,256.0	1,756.0	WMAIN-3778	7.1	Passed
053-060	47.6	38	3,500.0	3,404.0	WMAIN-4365(2)	15	Velocity Failed
053-061	47.6	44.4	1,250.0	1,750.0	WMAIN-4364(2)	7.7	Passed
053-062	47.6	43.8	1,250.0	1,750.0	WMAIN-4361(2)	8.6	Passed
053-063	47.7	43.2	1,250.0	1,750.0	WMAIN-4361(1)(2)	7.7	Passed
053-064	47.5	43.3	1,257.0	1,757.0	WMAIN-4342(1)	8.1	Passed
053-065	47.5	44.5	1,250.0	1,750.0	WMAIN-4352(2)	8.4	Passed
053-066	47.8	43.1	1,254.0	1,754.0	WMAIN-3778	7.3	Passed
054-001	49.1	39.9	3,500.0	3,719.0	WMAIN-3778	15	Passed
054-005	53.2	49.5	1,251.0	1,751.0	WMAIN-1322(1)	13.8	Passed
054-006	52.3	47	1,253.0	1,753.0	WMAIN-1322(1)	10.3	Passed
054-007	52	46.3	1,250.0	1,750.0	WMAIN-1322(1)	9.8	Passed
054-008	52.2	46.7	1,256.0	1,756.0	WMAIN-1322(1)	9.9	Passed
054-009	51.8	46.6	1,251.0	1,751.0	WMAIN-5899(2)	9.6	Passed
054-010	51.7	44	1,251.0	1,751.0	WMAIN-5897	9.1	Passed
054-011	51.7	40	3,500.0	1,311.0	WMAIN-6165(1)	15	Velocity Failed
054-013	51.6	33.7	1,252.0	1,752.0	WMAIN-5908	10.6	Passed
054-014	51.6	35.7	1,253.0	1,753.0	WMAIN-5908	12.5	Passed
054-015	51.9	47.4	1,250.0	1,750.0	WMAIN-1322(1)	8.9	Passed
054-016	52.4	47.1	1,275.0	1,775.0	WMAIN-1322(1)	7.8	Passed
054-017	51.3	41.1	3,500.0	3,324.0	WMAIN-5892(1)	15	Velocity Failed
054-018	51.1	45.6	1,252.0	1,752.0	WMAIN-5897	9.9	Passed
054-019	50.9	41.7	1,253.0	1,753.0	WMAIN-5869(1)	11.2	Passed
054-020	50.1	45.3	1,254.0	1,754.0	WMAIN-3778	9.3	Passed
054-021	50.9	45	1,255.0	1,755.0	WMAIN-5897	9.4	Passed
054-022	51.1	45.3	1,251.0	1,751.0	WMAIN-5897	9.6	Passed
054-023	51.2	44.3	1,252.0	1,752.0	WMAIN-5886(1)	11.2	Passed
054-024	51.2	45	1,251.0	1,751.0	WMAIN-5897	10	Passed
054-025	49.1	38.6	3,500.0	4,000.0	WMAIN-3778	13.8	Passed
054-030	49.2	42.5	2,505.0	3,005.0	WMAIN-3778	12.1	Passed
055-001	49	44.5	1,251.0	1,751.0	WMAIN-3778	10.6	Passed
055-002	48.7	45.3	1,250.0	1,750.0	WMAIN-3778	10.6	Passed
055-003	48.7	45.2	1,252.0	1,752.0	WMAIN-3778	10.6	Passed
055-004	49.2	45.8	1,252.0	1,752.0	WMAIN-3778	10.7	Passed
055-005	49.3	45.1	1,250.0	1,750.0	WMAIN-5831(1)	12	Passed
055-006	48.8	45.1	1,253.0	1,753.0	WMAIN-3778	10.6	Passed
055-007	48.9	45.1	1,250.0	1,750.0	WMAIN-3778	10.6	Passed
055-008	50.5	46.5	1,250.0	1,750.0	WMAIN-3778	10.6	Passed
055-009	49.7	44.5	1,252.0	1,752.0	WMAIN-3778	10.6	Passed
055-010	49.2	45.2	1,251.0	1,751.0	WMAIN-3778	10.7	Passed
055-011	49.2	44	1,252.0	1,752.0	WMAIN-3778	10.7	Passed
055-012	48.9	44	1,257.0	1,757.0	WMAIN-3778	10.7	Passed
055-013	49.4	44.4	1,250.0	1,750.0	WMAIN-3778	10.7	Passed
055-014	50.6	47	1,250.0	1,750.0	WMAIN-3778	10.7	Passed
055-015	50.4	46.9	1,251.0	1,751.0	WMAIN-3778	10.7	Passed
055-016	50.7	48.2	1,251.0	1,751.0	WMAIN-3778	10.4	Passed
055-017	50	47.7	1,250.0	1,750.0	WMAIN-3778	10.9	Passed
055-018	49.6	47.3	1,252.0	1,752.0	WMAIN-3778	11.3	Passed
055-019	49.3	47.2	1,250.0	1,750.0	WMAIN-3778	11.8	Passed
055-020	50.1	46.6	1,252.0	1,752.0	WMAIN-3778	9.8	Passed
055-021	49.4	40.7	3,504.0	1,321.0	WMAIN-5807(1)	15	Velocity Failed
055-022	49.2	41.1	3,500.0	3,510.0	WMAIN-3778	15	Passed
055-023	50.8	47.1	1,251.0	1,751.0	WMAIN-3778	10.5	Passed
055-024	50.5	45.8	1,252.0	1,752.0	WMAIN-3778	10.4	Passed
055-025	50.7	46.6	1,252.0	586.0	WMAIN-4947(1)	15	Velocity Failed
055-026	50.3	47.6	1,268.0	1,768.0	WMAIN-3778	10.1	Passed
055-027	50.3	39.7	3,500.0	4,000.0	WMAIN-3778	12.8	Passed
055-028	50.2	45.5	1,256.0	1,756.0	WMAIN-4945(1)(1)	11.2	Passed
055-029	50.3	38.1	1,250.0	1,750.0	WMAIN-4945(1)(1)	11.2	Passed
055-031	48.5	36.8	3,506.0	4,006.0	WMAIN-3778	13.5	Passed
055-032	48.4	36.9	3,501.0	4,001.0	WMAIN-3778	13.5	Passed
055-033	49.1	38.3	3,500.0	4,000.0	WMAIN-3778	13.5	Passed
055-034	48.6	45.3	1,252.0	1,752.0	WMAIN-3778	10.5	Passed
055-035	48.5	44.8	1,252.0	1,752.0	WMAIN-3778	10.5	Passed
055-036	49.1	41.1	3,504.0	2,952.0	WMAIN-7408(1)(1)	15	Velocity Failed
055-037	48.7	36.7	3,500.0	3,419.0	WMAIN-7408(2)	15	Velocity Failed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
055-039	50.5	47.1	1,251.0	1,751.0	WMAIN-3778	10.2	Passed
055-040	50.4	45.1	1,255.0	1,755.0	WMAIN-3778	10.2	Passed
055-041	50.2	44.9	1,257.0	1,757.0	WMAIN-3778	10.2	Passed
055-042	49.5	45.6	1,253.0	1,753.0	WMAIN-3778	10.2	Passed
055-043	50.5	45.2	1,257.0	1,757.0	WMAIN-3778	10.2	Passed
055-044	50.5	44.6	1,257.0	1,757.0	WMAIN-3778	10.2	Passed
055-045	48.6	43.6	1,251.0	1,751.0	WMAIN-4289(1)	11.2	Passed
055-046	49.1	45.3	1,251.0	1,751.0	WMAIN-3778	10.4	Passed
055-047	49.3	45.6	1,252.0	1,752.0	WMAIN-3778	10.4	Passed
055-048	50.1	46.3	1,253.0	1,753.0	WMAIN-3778	10.4	Passed
055-049	50.5	46.6	1,250.0	1,750.0	WMAIN-3778	10.4	Passed
055-050	50.5	45.5	1,250.0	1,750.0	WMAIN-3778	10.3	Passed
055-051	49.9	45.3	1,255.0	1,755.0	WMAIN-3778	10.4	Passed
055-052	49.9	46.1	1,251.0	1,751.0	WMAIN-3778	10.3	Passed
055-053	48.6	38.9	1,254.0	1,754.0	WMAIN-4291(1)	11.2	Passed
055-054	50.5	47.1	1,259.0	1,759.0	WMAIN-3778	10.1	Passed
056-001	50.5	47.3	1,255.0	1,755.0	WMAIN-3778	10.1	Passed
056-002	50.4	47.6	1,252.0	1,752.0	WMAIN-3778	10	Passed
056-003	50.3	47.7	1,252.0	1,752.0	WMAIN-3778	10	Passed
056-004	50.3	42.9	2,500.0	2,725.0	WMAIN-4917(2)(2)	15	Passed
056-005	50.1	36.3	3,513.0	4,013.0	WMAIN-3778	12.8	Passed
056-006	50.5	47.6	1,252.0	1,752.0	WMAIN-3778	10.1	Passed
056-007	50	39.8	3,503.0	3,135.0	WMAIN-4555(2)	15	Velocity Failed
056-008	50.5	47.2	1,252.0	1,752.0	WMAIN-3778	10.1	Passed
056-009	50.4	42.9	2,504.0	3,004.0	WMAIN-3778	11.3	Passed
056-010	50	41.2	2,527.0	3,027.0	WMAIN-3778	11.2	Passed
056-011	50	40.8	2,519.0	3,019.0	WMAIN-3778	11.2	Passed
056-012	50.3	43.8	1,251.0	1,751.0	WMAIN-0384(1)	11.2	Passed
056-013	50.3	44.5	1,252.0	1,752.0	WMAIN-3778	10.1	Passed
056-014	50.5	46.6	1,252.0	1,752.0	WMAIN-3778	10.1	Passed
056-015	50.7	47.1	1,250.0	1,750.0	WMAIN-3778	10.1	Passed
056-016	50.3	46.1	1,252.0	1,752.0	WMAIN-3778	10.1	Passed
056-017	50.3	46.1	1,250.0	1,750.0	WMAIN-3778	10.1	Passed
056-018	51.6	32.3	5,007.0	5,166.0	WMAIN-3778	15	Passed
056-019	51.8	46	1,258.0	1,758.0	WMAIN-3778	10	Passed
056-020	50.8	44.6	1,257.0	1,757.0	WMAIN-3778	10	Passed
056-021	50.5	46	1,250.0	1,750.0	WMAIN-3778	10	Passed
056-022	51.3	32.3	5,012.0	5,194.0	WMAIN-3778	15	Passed
056-023	51.1	46.9	1,251.0	1,751.0	WMAIN-3778	10	Passed
056-024	50.8	45.5	1,256.0	1,756.0	WMAIN-3778	10	Passed
056-025	50.5	46.2	1,250.0	1,750.0	WMAIN-3778	10	Passed
056-026	50.6	46.7	1,259.0	1,759.0	WMAIN-3778	10	Passed
056-027	50.5	45.2	1,250.0	1,750.0	WMAIN-3778	10.1	Passed
056-028	50.7	44.9	1,250.0	1,750.0	WMAIN-3778	10	Passed
056-029	51.1	46.1	1,256.0	1,756.0	WMAIN-3778	10	Passed
056-030	50.1	45.5	1,252.0	1,752.0	WMAIN-3778	10	Passed
056-031	50.2	41.1	1,253.0	1,753.0	WMAIN-4563(1)	11.2	Passed
056-032	50.3	45.6	1,251.0	1,751.0	WMAIN-3778	10.1	Passed
056-033	50.5	45.1	1,255.0	1,755.0	WMAIN-3778	10	Passed
056-034	50.5	46.4	1,254.0	1,754.0	WMAIN-3778	10	Passed
056-035	50.5	47.2	1,255.0	1,755.0	WMAIN-3778	10	Passed
056-036	50.5	47.5	1,251.0	1,751.0	WMAIN-3778	10	Passed
056-037	50.5	44.8	1,254.0	1,754.0	WMAIN-3778	10	Passed
056-038	50.4	47	1,252.0	1,752.0	WMAIN-3778	10	Passed
056-039	50.4	44.6	1,259.0	1,759.0	WMAIN-3778	10	Passed
056-040	50.5	45.7	1,252.0	1,752.0	WMAIN-3778	10	Passed
056-041	50.6	31.4	5,004.0	5,144.0	WMAIN-3778	15	Passed
056-042	50.3	46	1,252.0	1,752.0	WMAIN-3778	10	Passed
056-043	51	46.9	1,251.0	1,751.0	WMAIN-3778	10	Passed
056-044	50.9	31	5,000.0	5,254.0	WMAIN-3778	15	Passed
056-045	50.9	47.6	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
056-046	50.7	47.5	1,253.0	1,753.0	WMAIN-3778	10	Passed
056-047	50.8	46.6	1,250.0	1,750.0	WMAIN-3778	10	Passed
056-048	50.6	43.2	1,253.0	1,753.0	WMAIN-3778	10	Passed
056-049	50.8	43.2	1,257.0	1,757.0	WMAIN-3778	10	Passed
056-050	50.9	45.4	1,254.0	1,754.0	WMAIN-3778	10	Passed
056-051	50.8	44.9	1,253.0	1,753.0	WMAIN-3778	10	Passed
056-052	50.8	44.5	1,251.0	1,751.0	WMAIN-3778	10	Passed
056-053	50.9	44.4	1,252.0	1,752.0	WMAIN-1154(1)	11.2	Passed
081-001	46.2	42.9	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
081-002	45.9	41.8	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
081-003	45.8	42.8	1,253.0	1,753.0	WMAIN-7658(1)(1)	8.3	Passed
081-004	45.8	43.2	1,263.0	1,763.0	WMAIN-7656(1)(1)	8.8	Passed
081-005	45.6	40.9	1,251.0	1,751.0	WMAIN-7820(2)	9.3	Passed
081-006	46	41.9	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
081-007	46	37.8	1,252.0	1,752.0	WMAIN-7644(2)	11.2	Passed
081-008	46	41.2	1,251.0	1,751.0	WMAIN-7646(2)	11.2	Passed
081-009	45.9	42.5	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
081-010	45.5	39.7	1,254.0	1,754.0	WMAIN-7655	7.9	Passed
081-011	44.8	37.6	1,252.0	1,752.0	WMAIN-7655	8	Passed
081-012	45.2	38.2	1,252.0	1,752.0	WMAIN-7655	7.7	Passed
081-013	45.6	39.8	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
081-014	45.7	39.5	1,251.0	1,751.0	WMAIN-7812(2)	11.2	Passed
081-015	45.8	42.1	1,250.0	1,750.0	WMAIN-7649(2)(2)	7	Passed
081-016	45.7	42	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
081-017	45.5	42	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
114-001	50.1	21.6	3,515.0	4,015.0	WMAIN-3778	14	Passed
114-002	50.3	21.4	3,520.0	4,020.0	WMAIN-3778	14	Passed
114-003	50.3	20.9	3,511.0	4,011.0	WMAIN-3778	14	Passed
114-004	50.1	20	5,078.0	4,129.0	WMAIN-3778	14.1	Residual Pressure and Velocity Failed
114-005	49.9	20.2	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-006	49.8	20.2	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-007	49.7	20	5,000.0	4,019.0	WMAIN-3778	14	Residual Pressure and Velocity Failed
114-008	49.7	20.4	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-009	49.5	20.7	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-010	49.2	20.9	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-011	49	21.3	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-012	48.9	20	5,000.0	4,182.0	WMAIN-3778	14.3	Residual Pressure and Velocity Failed
114-013	48.8	20	5,025.0	4,247.0	WMAIN-3778	14.4	Residual Pressure and Velocity Failed
114-014	48.7	22.1	3,526.0	4,026.0	WMAIN-3778	14	Passed
114-015	48.6	22.1	3,555.0	4,055.0	WMAIN-3778	14	Passed
114-016	48.6	22.5	3,561.0	4,061.0	WMAIN-3778	14	Passed
114-017	48.7	23.1	3,503.0	4,003.0	WMAIN-3778	14	Passed
114-018	48.9	24	3,534.0	4,034.0	WMAIN-3778	14	Passed
114-019	48.9	24.9	3,515.0	4,015.0	WMAIN-3778	14	Passed
114-020	48.7	25.7	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-021	48.7	26.7	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-022	48.7	26.9	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-023	48.7	26.8	3,513.0	4,013.0	WMAIN-3778	14	Passed
114-024	48.8	27.1	3,542.0	4,042.0	WMAIN-3778	14	Passed
114-025	48.7	41.8	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
114-027	49	42.2	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-028	49	42.1	1,337.0	1,837.0	WMAIN-3778	9.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
114-029	48.8	24.9	3,530.0	4,030.0	WMAIN-3778	12.6	Passed
114-030	49.8	21.9	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-031	49.6	21.5	5,000.0	4,090.0	WMAIN-3778	14.2	Velocity Failed
114-032	49.3	23.1	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-033	49	23.8	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-034	48.7	24.8	3,500.0	4,000.0	WMAIN-3778	14	Passed
114-035	48.7	24.1	3,500.0	4,000.0	WMAIN-3778	12.6	Passed
114-036	48.7	41.7	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-037	48.7	41.8	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-038	48.7	41.9	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-039	48.7	42	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-040	49	41.9	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-041	49.3	42.1	1,265.0	1,765.0	WMAIN-3778	9.9	Passed
114-042	49.6	42.3	1,274.0	1,774.0	WMAIN-3778	9.9	Passed
114-043	49.8	20	5,036.0	4,370.0	WMAIN-3778	13.2	Residual Pressure Failed
114-044	49.9	20	5,013.0	4,323.0	WMAIN-3778	13.2	Residual Pressure Failed
114-045	50.1	42.7	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-046	50.3	42.8	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
114-047	50.5	20	5,000.0	4,318.0	WMAIN-3778	13.2	Residual Pressure Failed
124-001	49.1	42.3	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
124-002	49.2	42.4	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
124-003	49.2	35	2,517.0	3,017.0	WMAIN-3778	12.2	Passed
124-004	49.2	20	5,022.0	4,538.0	WMAIN-3778	13.6	Residual Pressure Failed
124-005	49.3	35.5	2,513.0	3,013.0	WMAIN-3778	12.2	Passed
124-006	49.4	43	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
124-007	49.5	43.3	1,265.0	1,765.0	WMAIN-3778	9.9	Passed
124-008	49.7	43.7	1,260.0	1,760.0	WMAIN-3778	9.9	Passed
124-009	49.9	20	5,000.0	5,077.0	WMAIN-3778	14.7	Passed
125-001	50.2	36.4	3,501.0	4,001.0	WMAIN-3778	12.7	Passed
125-002	49.9	35	3,501.0	4,001.0	WMAIN-3778	12.7	Passed
125-003	49.6	40.9	2,506.0	3,006.0	WMAIN-3778	12.3	Passed
125-004	49.9	26.2	5,000.0	5,191.0	WMAIN-3778	15	Passed
125-005	50.4	45.8	1,250.0	1,750.0	WMAIN-3778	10	Passed
125-006	50.1	21.5	5,007.0	5,241.0	WMAIN-3778	15	Passed
125-007	50.3	25.8	5,001.0	5,225.0	WMAIN-3778	15	Passed
125-008	50.1	43.8	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-009	49.8	42.3	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-010	49.6	42.7	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-011	49.9	43.1	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-012	49.7	43.1	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-013	49.5	42	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-014	49.9	45.1	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-015	49.7	45.1	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-016	49.7	45.4	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-017	49.8	45.6	1,253.0	1,753.0	WMAIN-3778	10	Passed
125-018	49.7	45.7	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-019	49.6	45.4	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-020	49.5	43.8	1,252.0	1,752.0	WMAIN-3778	10	Passed
125-021	49.4	44.5	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-022	49.6	45	1,250.0	1,750.0	WMAIN-3778	10	Passed
125-023	49.5	45.5	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-024	49	45.6	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-025	48.7	43.4	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-026	48.6	37.3	2,500.0	3,000.0	WMAIN-3778	11	Passed
125-027	48.9	45.3	1,255.0	1,755.0	WMAIN-3778	10	Passed
125-028	49.1	44.6	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-029	48.9	43.4	1,256.0	1,756.0	WMAIN-3778	10	Passed
125-030	48.7	45	1,256.0	1,756.0	WMAIN-3778	10	Passed
125-031	48.5	28.9	3,504.0	4,004.0	WMAIN-1649(1)	14	Passed
125-032	48.5	42.1	1,251.0	1,751.0	WMAIN-1650(2)	11.2	Passed
125-033	48.5	43.5	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-034	49.5	40.6	2,501.0	3,001.0	WMAIN-3778	10.9	Passed
125-035	48.5	39.5	2,500.0	3,000.0	WMAIN-3778	10.9	Passed
125-036	48.8	43.3	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-037	49.1	41.6	1,280.0	1,780.0	WMAIN-3778	10	Passed
125-038	49.4	34.3	2,501.0	3,001.0	WMAIN-1692(2)	12.7	Passed
125-039	49	39.5	1,254.0	1,754.0	WMAIN-3778	10	Passed
125-040	48.5	39.9	1,250.0	1,750.0	WMAIN-3778	10	Passed
125-041	48.5	42.6	1,253.0	1,753.0	WMAIN-3778	10	Passed
125-042	48.3	44.3	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
125-043	48.3	43.2	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-044	48.4	37.7	1,251.0	1,751.0	WMAIN-1596(2)	11.2	Passed
125-045	48.5	44.3	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-046	48.5	44.7	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-047	48.5	44.9	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-048	48.5	44.9	1,250.0	1,750.0	WMAIN-3778	10	Passed
125-049	48.6	45.1	1,250.0	1,750.0	WMAIN-3778	10.1	Passed
125-050	48.7	36.3	3,500.0	4,000.0	WMAIN-3778	13	Passed
125-051	48.9	37.1	3,511.0	4,011.0	WMAIN-3778	13.2	Passed
125-055	49.1	43.1	1,254.0	1,754.0	WMAIN-3778	10	Passed
125-057	49.4	42.8	1,253.0	1,753.0	WMAIN-3778	10	Passed
125-058	49.6	43	1,250.0	1,750.0	WMAIN-3778	10	Passed
125-059	49.6	44.4	1,252.0	1,752.0	WMAIN-3778	10	Passed
125-060	49.6	45.8	1,258.0	1,758.0	WMAIN-3778	10	Passed
125-061	49.7	45.4	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-062	49.6	44.8	1,254.0	1,754.0	WMAIN-3778	10	Passed
125-063	49.7	45.8	1,254.0	1,754.0	WMAIN-3778	10	Passed
125-064	49.6	41.8	1,252.0	1,752.0	WMAIN-0796(2)	11.2	Passed
125-065	49.7	38	1,253.0	1,753.0	WMAIN-0798(2)	11.2	Passed
125-066	49.5	41.7	1,276.0	1,776.0	WMAIN-3778	10	Passed
125-067	49.7	38.2	1,253.0	1,753.0	WMAIN-0800(2)	11.2	Passed
125-068	49.4	32.4	2,500.0	3,000.0	WMAIN-3778	12.3	Passed
125-069	49.7	44.4	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-070	49.3	41.5	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-071	49.2	41.4	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-072	49.6	42.1	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-073	49.7	44.4	1,252.0	1,752.0	WMAIN-3778	10	Passed
125-074	49.5	43.7	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-075	49.3	42.3	1,252.0	1,752.0	WMAIN-3778	10	Passed
125-076	49.4	42.7	1,251.0	1,751.0	WMAIN-3778	10	Passed
125-077	49.5	45	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-078	49.6	43.4	1,250.0	1,750.0	WMAIN-3778	10	Passed
125-079	49.3	40.9	1,253.0	1,753.0	WMAIN-3778	10	Passed
125-080	48.6	45.1	1,250.0	1,750.0	WMAIN-3778	10.1	Passed
125-083	49.2	20	3,503.0	3,418.0	WMAIN-0303(1)(2)	12.5	Residual Pressure Failed
125-084	48.6	38.4	1,252.0	1,752.0	WMAIN-0393(2)	11.2	Passed
125-085	48.6	29.4	1,251.0	1,751.0	WMAIN-0393(2)	11.2	Passed
125-086	48.7	45.3	1,252.0	1,752.0	WMAIN-3778	10.1	Passed
125-087	48.1	36.8	3,506.0	2,350.0	WMAIN-0397	15	Velocity Failed
125-088	48.1	36.7	3,500.0	4,000.0	WMAIN-3778	13.1	Passed
125-089	48.2	45.1	1,251.0	1,751.0	WMAIN-3778	10.2	Passed
125-090	50.2	47.2	1,250.0	1,750.0	WMAIN-3778	10.2	Passed
125-091	49.5	46.5	1,250.0	1,750.0	WMAIN-3778	10.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
125-092	50	36.3	1,253.0	1,753.0	WMAIN-0523	11.2	Passed
125-093	49.5	42.4	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-094	49.4	41.6	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-095	49.7	43	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-096	48.4	44.1	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-097	47.5	43.1	1,256.0	1,756.0	WMAIN-3778	9.9	Passed
125-098	47.3	38.4	2,526.0	3,026.0	WMAIN-3778	12.2	Passed
125-099	47.3	32.2	3,502.0	4,002.0	WMAIN-3778	12.5	Passed
125-100	47.6	42.8	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-101	47.6	41.9	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-102	47.9	41.9	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-103	48.2	42	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-104	48.2	39.6	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
125-105	48.5	39.3	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-106	48.4	40.8	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-107	48.1	41.4	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-108	48.2	41.5	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-109	47.9	40.9	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-110	47.9	39	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-111	47.5	40.9	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-112	47.3	36.8	1,250.0	1,750.0	WMAIN-0146	11.2	Passed
125-113	47.2	36.8	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-114	47.4	36.4	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-115	47.9	37.1	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-116 125-116	47.7	39.3	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-117	47.5	40	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-118	47.3	30.9	2,508.0	3,008.0	WMAIN-3778	12.2	Passed
125-119	47.3	40	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-120	47.4	39.4	1,255.0	1,755.0	WMAIN-7494(2)	11.2	Passed
125-121	47.7	39.6	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-122	47.4	42.4	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-123	47.5	42.4	1,256.0	1,756.0	WMAIN-3778	9.9	Passed
125-124	48	42.8	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-125	47.7	40.6	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-126	48	41.8	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-127	48.2	40.8	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-128	48.3	41.1	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-129	48.7	40.5	1,258.0	1,758.0	WMAIN-3778	9.9	Passed
125-130	48.4	42.6	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-131	48.3	41.8	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-132	48.2	40	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-133	48.4	40.2	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-134	48.5	42.3	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-135	48.6	42.7	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-136	48.8	40.8	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-137	48.9	40.2	1,256.0	1,756.0	WMAIN-3778	9.9	Passed
125-138	49.2	44.7	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-139	48.9	44.2	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
125-140	49.1	41.7	1,256.0	1,756.0	WMAIN-3778	9.9	Passed
125-141	48.7	44	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-142	49	40.8	1,270.0	1,770.0	WMAIN-3778	9.9	Passed
125-143	48.6	43.7	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
125-144	48.7	41.4	1,286.0	1,786.0	WMAIN-3778	9.9	Passed
125-145	48.4	42	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-146	48.4	40.6	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-147	48.3	43	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
125-148	48.3	40.4	1,321.0	1,821.0	WMAIN-3778	9.9	Passed
125-149	48.3	43	1,257.0	1,757.0	WMAIN-3778	9.9	Passed
125-150	48.4	40.5	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-151	48.5	38.4	1,364.0	1,864.0	WMAIN-3778	9.9	Passed
125-152	48.8	39	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
125-153	48.6	40.8	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
125-154	48.2	39.9	1,325.0	1,825.0	WMAIN-3778	9.9	Passed
125-155	47.7	40.3	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
125-156	47.1	34.3	1,255.0	1,755.0	WMAIN-7494(2)	11.2	Passed
126-001	52.1	35.2	3,500.0	3,852.0	WMAIN-5938(2)(2)	15	Passed
126-005	52.7	47.5	1,278.0	1,778.0	WMAIN-5938(1)(1)	8.5	Passed
126-006	48.4	44.8	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-007	48.9	44.8	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-008	49.3	44.3	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-009	49.5	45	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
126-010	47.3	42.9	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-011	48.5	41.9	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
126-012	48.7	42.9	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-013	47.3	42.9	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
126-014	46.9	42	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-015	46.6	41.3	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-016	46.2	38.8	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-017	46.5	39.1	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
126-018	47.1	42.2	1,250.0	1,750.0	WMAIN-3778	9.8	Passed
126-019	47.3	42.6	1,253.0	1,753.0	WMAIN-3778	9.8	Passed
126-020	47.6	40.3	1,252.0	1,752.0	WMAIN-1539(1)	11.2	Passed
126-021	47.9	42.5	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-022	48.4	42.9	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-023	48.4	41.8	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
126-024	48.4	41.8	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-025	48.6	40.6	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
126-026	48.4	41.7	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
126-027	48.5	41.1	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
126-028	48.4	43.9	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-029	46.9	42	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
126-030	49.3	42.2	1,251.0	1,751.0	WMAIN-0751(1)	11.2	Passed
126-031	49	40.7	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-032	49.1	40.2	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
126-033	49.4	41.1	1,254.0	1,754.0	WMAIN-3778	9.9	Passed
126-034	49.1	39.6	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-035	47.9	38.2	1,282.0	1,782.0	WMAIN-3778	9.9	Passed
126-036	47.2	40.1	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-037	49.5	42.3	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-038	48.9	37.2	3,500.0	4,000.0	WMAIN-3778	13.2	Passed
126-041	50.6	38	3,502.0	3,488.0	WMAIN-2665(2)	15	Velocity Failed
126-042	46.8	41	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-043	45.3	35.2	1,253.0	1,753.0	WMAIN-0488	11.2	Passed
126-044	45.7	39.5	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-045	46	38	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
126-046	46.2	36.3	1,252.0	1,752.0	WMAIN-0479	11.2	Passed
126-047	46.1	38.6	1,252.0	1,752.0	WMAIN-3778	9.9	Passed
126-048	48.1	40.1	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
126-049	48	41.2	1,253.0	1,753.0	WMAIN-3778	9.9	Passed
126-050	47.8	40.1	1,256.0	1,756.0	WMAIN-3778	9.9	Passed
126-051	47.8	40.6	1,255.0	1,755.0	WMAIN-3778	9.9	Passed
126-052	47.6	20	3,505.0	3,340.0	WMAIN-3778	11.3	Residual Pressure Failed
126-053	47.5	39.1	1,253.0	1,753.0	WMAIN-3778	9.9	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
126-054	47.5	41.4	1,251.0	1,751.0	WMAIN-3778	9.9	Passed
126-055	47.8	39.5	1,250.0	1,750.0	WMAIN-3778	9.9	Passed
126-056	47.5	38.6	1,257.0	1,757.0	WMAIN-3778	9.8	Passed
126-057	47.5	39.4	1,250.0	1,750.0	WMAIN-3778	9.8	Passed
126-058	47.4	40.8	1,253.0	1,753.0	WMAIN-3778	9.8	Passed
126-059	49.3	40.1	1,251.0	1,751.0	WMAIN-7500(2)	11.2	Passed
126-060	49.4	34.6	1,251.0	1,751.0	WMAIN-7500(2)	11.2	Passed
126-061	49	33.3	1,250.0	1,750.0	WMAIN-7500(2)	11.2	Passed
126-062	47.8	37.4	3,500.0	4,000.0	WMAIN-7879(1)	10.3	Passed
127-001	47.1	34.9	3,500.0	4,000.0	WMAIN-7873(1)	11.8	Passed
134-001	53.2	25.3	3,527.0	4,027.0	WMAIN-0867(2)	11.8	Passed
134-002	53.4	20	5,002.0	4,213.0	WMAIN-0867(2)	12.4	Residual Pressure Failed
134-003	53.7	20.2	3,505.0	4,005.0	WMAIN-0867(2)	11.8	Passed
134-004	54.1	20	5,026.0	3,882.0	WMAIN-0867(2)	11.4	Residual Pressure Failed
134-027	52.9	30.7	3,512.0	4,012.0	WMAIN-0867(2)	11.8	Passed
134-030	52.3	39.4	3,501.0	4,001.0	WMAIN-0868(2)(2)	9.1	Passed
134-031	52.5	38.9	3,500.0	4,000.0	WMAIN-0867(1)	11.8	Passed
137-001	47.3	35.4	3,500.0	4,000.0	WMAIN-3778	8.3	Passed
139-001	44.8	44	1,256.0	1,756.0	WMAIN-5897	6.6	Passed
139-002	45.1	45	1,251.0	1,751.0	WMAIN-5897	6.7	Passed
145-001	51.5	34.6	3,531.0	4,031.0	WMAIN-3712(2)	13.1	Passed
145-003	51.5	24.2	5,029.0	4,703.0	WMAIN-3712(2)	15	Velocity Failed
145-004	51.4	20	5,035.0	4,345.0	WMAIN-3712(2)	14	Residual Pressure Failed
145-005	51.2	20	3,513.0	3,719.0	WMAIN-3712(2)	12.3	Passed
145-006	51	20	5,017.0	3,337.0	WMAIN-3712(2)	11.2	Residual Pressure Failed
145-007	50.3	20	5,093.0	3,256.0	WMAIN-3712(2)	10.7	Residual Pressure Failed
145-012	51.5	40.5	3,500.0	4,000.0	WMAIN-3712(1)	13.1	Passed
145-013	52	41	3,512.0	4,012.0	WMAIN-5897	8.6	Passed
145-014	52.6	46.4	2,513.0	3,013.0	WMAIN-5897	7.2	Passed
145-015	53.7	47.8	2,502.0	3,002.0	WMAIN-5897	7.2	Passed
145-016	53.9	51.6	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
145-017	52.2	41.2	3,500.0	4,000.0	WMAIN-5897	8.9	Passed
145-018	52.7	35.4	3,508.0	4,008.0	WMAIN-0867(2)	11.8	Passed
145-019	52.8	32.3	3,504.0	4,004.0	WMAIN-0867(2)	11.8	Passed
145-020	52.3	41.3	3,510.0	4,010.0	WMAIN-5897	8.9	Passed
149-001	45.2	43.7	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
149-002	45.5	43.5	1,373.0	1,873.0	WMAIN-5897	6.7	Passed
150-001	43.3	36.9	3,510.0	4,010.0	WMAIN-5897	7.1	Passed
150-002	43.6	41.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
150-003	44	42.1	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
150-004	44.1	42.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
150-005	44.1	42.2	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
150-006	44.9	42.7	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
150-007	45.3	43	1,255.0	1,755.0	WMAIN-5897	6.7	Passed
150-008	45	42.8	1,255.0	1,755.0	WMAIN-5897	6.7	Passed
150-009	43.9	42.6	1,253.0	1,753.0	WMAIN-0471(2)	6.9	Passed
156-001	51.1	30.2	3,500.0	3,537.0	WMAIN-1071	15	Passed
156-002	53.6	42.1	3,500.0	3,927.0	WMAIN-1071	15	Passed
156-003	53.6	42.5	3,500.0	3,829.0	WMAIN-1071	15	Passed
156-004	53.7	43.2	3,500.0	3,722.0	WMAIN-1071	15	Passed
156-005	53.7	41.8	3,500.0	3,747.0	WMAIN-1071	15	Passed
156-006	53.7	41.9	3,500.0	3,694.0	WMAIN-1071	15	Passed
156-007	53.7	42.3	3,506.0	3,616.0	WMAIN-1071	15	Passed
156-008	53.1	38.2	3,501.0	2,350.0	WMAIN-7917(1)(1)	15	Velocity Failed
156-009	53.3	42.8	3,500.0	2,349.0	WMAIN-7917(1)(1)	15	Velocity Failed
156-010	51.5	35.1	3,500.0	3,377.0	WMAIN-1071	15	Velocity Failed
156-011	53.7	44.7	3,500.0	3,406.0	WMAIN-1071	15	Velocity Failed
156-012	51.7	38.1	3,510.0	3,377.0	WMAIN-1071	15	Velocity Failed
156-013	51.4	33.8	3,500.0	3,364.0	WMAIN-1071	15	Velocity Failed
156-014	51.4	34.8	3,501.0	3,350.0	WMAIN-1071	15	Velocity Failed
156-015	51.9	41.5	3,500.0	3,191.0	WMAIN-7925(2)(2)	15	Velocity Failed
156-016	51.5	40.7	3,501.0	2,350.0	WMAIN-7919(1)	15	Velocity Failed
156-017	51.7	35.3	3,500.0	2,349.0	WMAIN-7919(1)	15	Velocity Failed
156-018	52.4	34.2	3,500.0	2,349.0	WMAIN-7922(1)	15	Velocity Failed
156-019	53	42.9	3,501.0	2,350.0	WMAIN-7922(1)	15	Velocity Failed
156-020	53.8	45.2	3,500.0	3,246.0	WMAIN-1071	15	Velocity Failed
156-021	53.7	43.7	3,500.0	3,613.0	WMAIN-1071	15	Passed
156-022	51.3	45.1	1,263.0	1,763.0	WMAIN-1071	9.3	Passed
156-023	53.3	47.8	1,269.0	1,769.0	WMAIN-1071	9.3	Passed
156-024	53.7	39.8	3,500.0	3,537.0	WMAIN-1071	15	Passed
156-025	53.7	41.9	3,500.0	3,537.0	WMAIN-1071	15	Passed
156-026	53.7	43.7	3,500.0	3,537.0	WMAIN-1071	15	Passed
156-029	53.7	44.5	3,500.0	3,480.0	WMAIN-1071	15	Velocity Failed
156-030	53.8	45	3,516.0	3,373.0	WMAIN-1071	15	Velocity Failed
156-031	53.8	45.7	3,512.0	3,275.0	WMAIN-1071	15	Velocity Failed
156-032	53.7	47	3,502.0	3,052.0	WMAIN-1071	15	Velocity Failed
156-033	52.1	46.6	3,504.0	2,798.0	WMAIN-1071	15	Velocity Failed
156-034	53.7	40.4	3,500.0	3,945.0	WMAIN-1071	15	Passed
156-035	53.7	38.4	3,500.0	3,920.0	WMAIN-1071	15	Passed
156-036	53.7	38.2	3,500.0	3,897.0	WMAIN-1071	15	Passed
156-037	53.7	39.3	3,500.0	3,867.0	WMAIN-1071	15	Passed
156-038	53.7	39.7	3,500.0	3,863.0	WMAIN-1071	15	Passed
156-039	53.7	38.6	3,524.0	3,920.0	WMAIN-1071	15	Passed
156-040	53.6	41.1	3,500.0	2,350.0	WMAIN-7837	15	Velocity Failed
156-041	49.4	33.9	5,007.0	5,507.0	WMAIN-0690(2)	11	Passed
156-042	50.4	44.6	2,503.0	3,003.0	WMAIN-5897	7.1	Passed
156-043	51.8	45.6	2,505.0	3,005.0	WMAIN-5897	7.1	Passed
156-044	51.5	41	3,502.0	4,002.0	WMAIN-5897	8.2	Passed
156-046	53.6	42.3	3,500.0	4,000.0	WMAIN-1071	14.7	Passed
161-001	42.3	36.5	3,500.0	3,672.0	WMAIN-3226	15	Passed
167-001	52.9	45.9	1,250.0	1,750.0	WMAIN-2347(2)	11.2	Passed
167-002	53	43.8	3,500.0	4,000.0	WMAIN-1071	10.8	Passed
167-003	52.6	42.9	3,502.0	4,002.0	WMAIN-1071	10.5	Passed
167-004	53.1	41.9	3,506.0	4,006.0	WMAIN-1071	11.1	Passed
167-005	53.4	49.8	1,251.0	1,751.0	WMAIN-1071	7.4	Passed
167-006	55	51.4	1,252.0	1,752.0	WMAIN-1071	7.5	Passed
167-007	55.6	51.5	1,251.0	1,751.0	WMAIN-4236(2)	8	Passed
167-008	55.5	51.8	1,251.0	1,751.0	WMAIN-1071	7.6	Passed
167-009	54.2	44.3	1,253.0	1,753.0	WMAIN-4266(2)	11.2	Passed
167-010	54.3	50.6	1,252.0	1,752.0	WMAIN-1071	7.6	Passed
167-011	53.8	49.9	1,252.0	1,752.0	WMAIN-1071	7.6	Passed
167-012	53.2	48.9	1,252.0	1,752.0	WMAIN-3834(2)	8.2	Passed
167-013	53.4	47.7	1,253.0	1,753.0	WMAIN-3843(1)	9	Passed
167-014	55.3	50.1	1,252.0	1,752.0	WMAIN-4245(2)	11.2	Passed
167-015	55.6	47.3	1,253.0	1,753.0	WMAIN-1071	7.6	Passed
167-016	55.6	47.2	1,250.0	1,750.0	WMAIN-1071	7.6	Passed
167-017	55.5	48.9	1,254.0	1,754.0	WMAIN-4241(1)	8.6	Passed
167-018	55.1	47.8	1,251.0	1,751.0	WMAIN-4263(1)	11.2	Passed
167-019	53.3	47.6	1,257.0	1,757.0	WMAIN-1071	7.7	Passed
167-020	53.1	48.5	1,250.0	1,750.0	WMAIN-3829(2)(2)	8.5	Passed
167-021	52.8	47.2	1,255.0	1,755.0	WMAIN-1071	7.6	Passed
167-022	53.1	48.2	1,252.0	1,752.0	WMAIN-3847(1)	7.7	Passed
167-023	53.7	48	1,251.0	1,751.0	WMAIN-1071	7.6	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
167-024	53.5	48	1,255.0	1,755.0	WMAIN-1071	7.6	Passed
167-025	52.7	39.6	3,518.0	4,018.0	WMAIN-1071	12.8	Passed
167-026	53.2	41	3,502.0	4,002.0	WMAIN-1071	12.5	Passed
167-027	53.4	49.9	1,268.0	1,768.0	WMAIN-1071	7.7	Passed
167-028	53.4	50.1	1,251.0	1,751.0	WMAIN-1071	7.6	Passed
167-029	53.6	49.2	1,251.0	1,751.0	WMAIN-6221(2)	7.8	Passed
167-030	54.2	50.3	1,254.0	1,754.0	WMAIN-1071	7.6	Passed
167-031	54	50.4	1,250.0	1,750.0	WMAIN-1071	7.6	Passed
167-032	53.6	49.8	1,252.0	1,752.0	WMAIN-1071	7.6	Passed
167-033	53.5	47.9	1,251.0	1,751.0	WMAIN-1071	7.6	Passed
167-034	53.3	31.7	3,501.0	3,602.0	WMAIN-3581(2)	15	Passed
167-035	53.4	45.8	1,257.0	1,757.0	WMAIN-1071	7.6	Passed
167-036	53.4	47.2	1,252.0	1,752.0	WMAIN-6227(1)	7.8	Passed
167-037	53.5	31.1	3,502.0	4,002.0	WMAIN-3580	13.8	Passed
167-038	54.9	49.1	1,252.0	1,752.0	WMAIN-6146(2)	8.9	Passed
167-039	53.6	46.2	1,250.0	1,750.0	WMAIN-1071	7.6	Passed
167-040	55.1	51	1,258.0	1,758.0	WMAIN-1071	7.6	Passed
167-041	54.1	49.9	1,251.0	1,751.0	WMAIN-1071	7.7	Passed
167-042	53.8	49.5	1,251.0	1,751.0	WMAIN-1071	7.8	Passed
167-043	54.6	50.1	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-044	54.7	50.2	1,250.0	1,750.0	WMAIN-1071	8	Passed
167-045	54.5	49.9	1,250.0	1,750.0	WMAIN-1071	8	Passed
167-046	55.3	49.3	1,252.0	1,752.0	WMAIN-1071	8	Passed
167-047	55.5	50.1	1,252.0	1,752.0	WMAIN-1071	8	Passed
167-048	55.2	49.5	1,251.0	1,751.0	WMAIN-1071	8	Passed
167-049	55.2	48.2	1,251.0	1,751.0	WMAIN-1071	8	Passed
167-050	55.3	50.3	1,250.0	1,750.0	WMAIN-1071	8	Passed
167-051	55.3	50.4	1,252.0	1,752.0	WMAIN-1071	8	Passed
167-052	55.5	50.8	1,252.0	1,752.0	WMAIN-1071	8	Passed
167-053	55.4	48.5	1,253.0	1,753.0	WMAIN-1071	8	Passed
167-054	55	48.5	1,253.0	1,753.0	WMAIN-1071	8	Passed
167-055	54.7	49	1,253.0	1,753.0	WMAIN-1071	8.1	Passed
167-056	55	50.6	1,251.0	1,751.0	WMAIN-1884(2)	8.3	Passed
167-057	54.8	50.5	1,251.0	1,751.0	WMAIN-0681(2)	8.8	Passed
167-058	55	49.9	1,254.0	1,754.0	WMAIN-1071	8.1	Passed
167-059	54.9	47.7	1,256.0	1,756.0	WMAIN-1071	8.1	Passed
167-060	55.5	49.8	1,251.0	1,751.0	WMAIN-1816(2)	8.3	Passed
167-061	54.6	48.2	1,252.0	1,752.0	WMAIN-1815(1)	11.2	Passed
167-063	54.6	50.3	1,253.0	1,753.0	WMAIN-7510(1)	9	Passed
167-064	53.6	48.5	1,253.0	1,753.0	WMAIN-1071	8	Passed
167-065	53.7	48.4	1,252.0	1,752.0	WMAIN-1071	8	Passed
167-066	54.9	48.2	1,251.0	1,751.0	WMAIN-1071	8.1	Passed
167-067	53.8	39.6	3,504.0	4,004.0	WMAIN-1071	13.5	Passed
167-068	53.7	49.8	1,250.0	1,750.0	WMAIN-1071	8.2	Passed
167-069	53.3	49.7	1,251.0	1,751.0	WMAIN-1071	8.4	Passed
167-070	53.5	49.7	1,254.0	1,754.0	WMAIN-1071	8.2	Passed
167-071	53.3	40.4	3,508.0	4,008.0	WMAIN-1071	13.3	Passed
167-072	53	39.8	3,500.0	4,000.0	WMAIN-1071	13.1	Passed
167-073	54.8	49.3	1,253.0	1,753.0	WMAIN-1071	8.1	Passed
167-074	55.1	45.6	1,253.0	1,753.0	WMAIN-7511(2)	11.2	Passed
167-075	55.1	51	1,252.0	1,752.0	WMAIN-1071	8.1	Passed
167-076	53.8	49.4	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-077	54	49.8	1,251.0	1,751.0	WMAIN-1071	7.8	Passed
167-078	53.7	46.1	1,254.0	1,754.0	WMAIN-1071	7.9	Passed
167-079	54	49.3	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-080	53.6	48.9	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-081	52.5	46.4	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-082	53.9	49	1,254.0	1,754.0	WMAIN-1071	7.9	Passed
167-083	53.7	46	1,257.0	1,757.0	WMAIN-1071	7.9	Passed
167-084	53.9	49	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-085	54	49.2	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-086	54.1	49.3	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-087	53.9	48.2	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-088	54.1	46.6	1,255.0	1,755.0	WMAIN-1071	7.9	Passed
167-089	54.2	46.9	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-090	54.2	48.2	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-091	53.6	46.6	1,252.0	1,752.0	WMAIN-1071	7.9	Passed
167-092	53.9	47	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-093	54.1	46.1	1,255.0	1,755.0	WMAIN-1071	7.9	Passed
167-094	54.2	46	1,255.0	1,755.0	WMAIN-1071	7.9	Passed
167-095	53.6	43.7	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-096	53.7	44.4	1,255.0	1,755.0	WMAIN-1071	7.9	Passed
167-097	53.9	45.7	1,255.0	1,755.0	WMAIN-1071	7.9	Passed
167-098	54	46.2	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
167-099	53.8	45.3	1,251.0	1,751.0	WMAIN-1071	7.9	Passed
167-100	53.6	43.2	1,252.0	1,752.0	WMAIN-1071	7.9	Passed
168-001	51.5	44.7	2,529.0	3,029.0	WMAIN-1071	8.5	Passed
168-002	51.6	48.5	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-003	51.5	48.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-004	51.3	48.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-005	51.7	49	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-006	51.8	49.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-007	51.1	48.3	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-008	49.8	41.1	3,506.0	4,006.0	WMAIN-1071	8.2	Passed
168-009	49.5	42	3,500.0	4,000.0	WMAIN-4221(2)	8.7	Passed
168-010	52.9	49.9	1,250.0	1,750.0	WMAIN-1071	7	Passed
168-011	52.6	49.6	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-012	52.3	49.4	1,259.0	1,759.0	WMAIN-5897	6.8	Passed
168-013	52.1	49.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-014	52.2	49	1,250.0	1,750.0	WMAIN-2313(1)	7	Passed
168-015	52	48.3	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-016	51.8	47.2	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-017	51.7	48.4	1,255.0	1,755.0	WMAIN-2554(1)	8.4	Passed
168-018	51.7	48.4	1,250.0	1,750.0	WMAIN-2554(2)(2)	8.5	Passed
168-019	51.7	47	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-020	51.9	46	1,250.0	1,750.0	WMAIN-2563(2)	7.6	Passed
168-021	52.3	45	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
168-022	52.2	45.6	1,256.0	1,756.0	WMAIN-2559(2)	7.1	Passed
168-023	52	48.5	1,251.0	1,751.0	WMAIN-2303(2)	7.4	Passed
168-024	51.6	46.2	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-025	51.7	48.2	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-026	51.9	48.2	1,250.0	1,750.0	WMAIN-2296(2)(2)	7.1	Passed
168-027	52.1	48	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-028	52.2	48.4	1,254.0	1,754.0	WMAIN-2322(2)	7.6	Passed
168-029	51.8	47.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-030	51.9	46.9	1,253.0	1,753.0	WMAIN-2338(2)	7.7	Passed
168-031	52.3	45.2	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-032	52.7	46.3	1,252.0	1,752.0	WMAIN-2333(1)	7.5	Passed
168-033	52.8	49	1,251.0	1,751.0	WMAIN-2342(1)	7.8	Passed
168-034	52.2	46.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-035	52.4	49.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-036	52.3	47.8	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
168-037	50.1	47.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
168-038	51.8	49.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-039	51.7	46.4	1,252.0	1,752.0	WMAIN-0020(1)	9.3	Passed
168-040	51.9	43.9	1,253.0	1,753.0	WMAIN-0033	7.1	Passed
168-041	51.8	43.5	1,252.0	1,752.0	WMAIN-0033	6.9	Passed
168-042	51.7	44.2	1,252.0	1,752.0	WMAIN-0013	7.6	Passed
168-043	51.5	46.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-044	51.4	44.9	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-045	51.6	45.3	1,250.0	1,750.0	WMAIN-0033	7.1	Passed
168-046	51.2	48.4	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-047	51.3	48.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-048	51.2	48.3	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
168-049	51.8	49	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-050	51.8	47.7	1,251.0	1,751.0	WMAIN-7464(2)	7.3	Passed
168-051	51.8	47.4	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-052	51.6	46.9	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-053	51.3	44.8	1,255.0	1,755.0	WMAIN-7467(2)	7.4	Passed
168-054	51.2	43.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-055	51.3	44.9	1,255.0	1,755.0	WMAIN-7465(1)	7.6	Passed
168-056	51.3	48.5	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-057	51.4	48.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-058	51.6	47.4	1,254.0	1,754.0	WMAIN-7549(1)(1)	8.8	Passed
168-059	50.9	45.1	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-060	49.8	41.7	3,500.0	4,000.0	WMAIN-1071	8.1	Passed
168-061	51.3	46.1	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
168-062	51.3	46	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-063	50.6	47.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-064	51.8	47.5	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-065	50.8	47.9	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-066	50.6	47.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-067	51	39.3	1,254.0	1,754.0	WMAIN-8165(2)(2)	11.2	Passed
168-068	51.6	45.9	1,253.0	1,753.0	WMAIN-8165(2)(2)	11.2	Passed
168-069	51.8	47.2	1,253.0	1,753.0	WMAIN-8175(1)	11.2	Passed
168-070	51.8	41.1	1,250.0	1,750.0	WMAIN-8175(1)	11.2	Passed
168-071	51.8	48.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-072	51.3	45.2	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
168-073	51.4	46.8	1,251.0	1,751.0	WMAIN-7471	7.5	Passed
168-074	51.1	43.6	1,251.0	1,751.0	WMAIN-7602(1)	11.2	Passed
168-075	51.3	48.1	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-076	51.1	43.6	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-077	51.2	44.1	2,502.0	3,002.0	WMAIN-1071	7.6	Passed
168-078	51	43.8	1,254.0	1,754.0	WMAIN-7594(1)	6.9	Passed
168-079	51.5	47.1	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
168-080	51.3	46.5	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-081	50.8	41.4	1,254.0	1,754.0	WMAIN-8174(2)	11.2	Passed
168-082	50.5	47.6	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-083	50.9	48	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-084	51.2	48.3	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
168-085	50.7	45.3	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-086	50.6	41.1	1,250.0	1,750.0	WMAIN-8168(1)	11.2	Passed
168-087	50.4	46.8	1,254.0	1,754.0	WMAIN-8168(1)	11.2	Passed
168-088	50	47	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-089	49.7	46.6	1,325.0	1,825.0	WMAIN-5897	6.8	Passed
168-090	49.8	46.5	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-091	50	45.7	1,251.0	1,751.0	WMAIN-7595(2)	7.7	Passed
168-092	50.2	44	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-093	50.4	44.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-094	49.7	46.3	1,271.0	1,771.0	WMAIN-5897	6.8	Passed
168-095	49.7	47.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-096	50.1	42.3	3,501.0	4,001.0	WMAIN-1071	7.5	Passed
168-097	51.5	47.7	1,252.0	1,752.0	WMAIN-8154(1)	7.6	Passed
168-098	51.8	47.7	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-099	51.4	47.2	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
168-100	51.6	48.2	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-101	51.7	47.6	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
168-102	51.9	48.5	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-103	52	48.1	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-104	51.8	49	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-105	51.7	48.9	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
168-106	51.4	47.9	1,253.0	1,753.0	WMAIN-8156(1)	8.1	Passed
168-107	51.6	48.1	1,253.0	1,753.0	WMAIN-8149(1)	7	Passed
168-108	51.7	48.3	1,252.0	1,752.0	WMAIN-8152(1)	7	Passed
168-109	51.9	47.8	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-110	52	48.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-111	52	47.4	1,250.0	1,750.0	WMAIN-7764(2)	7.1	Passed
168-112	51.9	48	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
168-113	51.7	47.8	1,254.0	1,754.0	WMAIN-7773(1)	8.2	Passed
168-114	51.5	47.5	1,252.0	1,752.0	WMAIN-8153(1)	6.9	Passed
168-115	51.5	46.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
168-116	51.6	47.9	1,251.0	1,751.0	WMAIN-7776(2)	7.3	Passed
168-117	51.5	47.9	1,255.0	1,755.0	WMAIN-7780(1)	8.8	Passed
168-118	51.6	47.1	1,255.0	1,755.0	WMAIN-7764(1)(1)	7.1	Passed
168-119	51.6	47.7	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
168-120	51.6	46.7	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-001	49.6	47	1,251.0	1,751.0	WMAIN-0058(1)	9.5	Passed
169-002	50.8	48.1	1,265.0	1,765.0	WMAIN-5897	6.8	Passed
169-003	50.3	47.7	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
169-004	49.7	47.3	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
169-005	49.3	46.7	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
169-006	48.4	45.7	1,269.0	1,769.0	WMAIN-5897	6.8	Passed
169-007	48.3	45.6	1,259.0	1,759.0	WMAIN-5897	6.8	Passed
169-008	48.3	45.7	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
169-009	48.4	45.8	1,263.0	1,763.0	WMAIN-5897	6.8	Passed
169-010	50.3	47.9	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-011	50	42.6	3,500.0	4,000.0	WMAIN-0699(2)(2)	8	Passed
169-012A	51.5	46.5	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-012B	51	47.3	1,250.0	1,750.0	WMAIN-3125(2)	7.8	Passed
169-014	51.6	31	3,524.0	4,024.0	WMAIN-3113(1)(1)	14.9	Passed
169-015	50.4	47.4	1,250.0	1,750.0	WMAIN-3128(1)	7.2	Passed
169-016	49.5	47	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
169-017	50.1	47.6	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-018	50.3	48	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
169-019	51.1	47	1,252.0	1,752.0	WMAIN-3097(1)	8.9	Passed
169-020	51	44.2	1,252.0	1,752.0	WMAIN-3094(2)	11.2	Passed
169-021	50.7	42.9	1,250.0	1,750.0	WMAIN-3093(2)(2)	7.5	Passed
169-022	49.7	41	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
169-023	49.7	40.8	1,252.0	1,752.0	WMAIN-3086(2)	11.2	Passed
169-024	50.3	44.6	1,251.0	1,751.0	WMAIN-3119(1)	7	Passed
169-025	50.9	46.1	1,257.0	1,757.0	WMAIN-5897	6.8	Passed
169-026	51	47.3	1,254.0	1,754.0	WMAIN-3111(2)	6.9	Passed
169-027	50	47.6	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
169-028	49.8	47.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-029	49.6	44.3	1,250.0	1,750.0	WMAIN-3055(2)(2)	8.2	Passed
169-030	48.9	41.1	1,253.0	1,753.0	WMAIN-3044	7.2	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
169-031	47.8	39.3	1,252.0	1,752.0	WMAIN-3046	6.9	Passed
169-032	48.2	40	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
169-033	49.8	44.1	1,254.0	1,754.0	WMAIN-3055(1)	7.3	Passed
169-034	49.9	45.4	1,255.0	1,755.0	WMAIN-3060(2)	7.8	Passed
169-035	49.9	47.7	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-036	49.9	47	1,251.0	1,751.0	WMAIN-3108(1)	7	Passed
169-037	49.9	46.2	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
169-038	50.1	47	1,250.0	1,750.0	WMAIN-3048(1)	11.2	Passed
169-042	49.8	46.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-043	49.6	33	5,018.0	5,518.0	WMAIN-7535	10.1	Passed
169-044	49.6	37	3,500.0	4,000.0	WMAIN-0907(2)	13.7	Passed
169-045	49.6	36.4	3,501.0	3,652.0	WMAIN-0911(1)	15	Passed
169-046	49.5	33.6	3,501.0	3,941.0	WMAIN-0913(1)	15	Passed
169-047	49.6	34.3	3,502.0	4,002.0	WMAIN-0921(2)	14.1	Passed
169-048	49.6	36.4	3,502.0	3,400.0	WMAIN-0918(1)	15	Velocity Failed
169-049	50.2	28.5	3,503.0	4,003.0	WMAIN-0918(1)	13.3	Passed
169-050	50.4	33.2	3,500.0	3,708.0	WMAIN-0915(2)	15	Passed
169-051	50	34.2	3,500.0	3,944.0	WMAIN-0934	15	Passed
169-052	49.7	34	3,500.0	4,000.0	WMAIN-0923(2)	14	Passed
169-053	49.5	37.5	3,500.0	4,000.0	WMAIN-1316(2)	13.2	Passed
169-054	49.5	39.8	3,502.0	3,240.0	WMAIN-1312(1)	15	Velocity Failed
169-055	49.6	32.8	3,500.0	4,000.0	WMAIN-1312(1)	13.3	Passed
169-056	49.6	38.7	3,500.0	3,373.0	WMAIN-1312(2)(2)(2)	15	Velocity Failed
169-057	49.6	35.9	3,500.0	3,509.0	WMAIN-1261(2)	15	Passed
169-058	49.7	30.2	3,500.0	4,000.0	WMAIN-1261(2)	13	Passed
169-059	50	31.5	3,509.0	4,009.0	WMAIN-0906(1)	14.3	Passed
169-060	50.3	32.5	3,500.0	3,722.0	WMAIN-0941(1)	15	Passed
169-061	50.5	28.5	3,503.0	4,003.0	WMAIN-0937	13.1	Passed
169-062	50.4	35.6	3,500.0	3,486.0	WMAIN-0937	15	Velocity Failed
169-063	49.7	29.3	3,500.0	3,718.0	WMAIN-1272(2)(2)	15	Passed
169-064	50.1	39.6	3,500.0	3,096.0	WMAIN-1272(2)(2)	15	Velocity Failed
169-065	49.8	33.5	3,500.0	4,000.0	WMAIN-1267(1)	13.1	Passed
169-067	49.9	36.7	3,500.0	3,253.0	WMAIN-1278(2)	15	Velocity Failed
169-068	49.9	29.5	3,501.0	3,709.0	WMAIN-1279	15	Passed
169-069	49.4	23.1	3,500.0	4,000.0	WMAIN-1273	13.3	Passed
169-070	49.8	39.8	3,502.0	4,002.0	WMAIN-1280	8.6	Passed
169-071	49.7	40.2	2,500.0	2,344.0	WMAIN-1288(1)	15	Velocity Failed
169-072	49.7	36.1	3,500.0	4,000.0	WMAIN-1284(1)	13	Passed
169-073	49.7	37.4	2,500.0	3,000.0	WMAIN-1286	11.3	Passed
169-075	49.6	28.8	3,503.0	4,003.0	WMAIN-1297	13.8	Passed
169-076	49.5	31.3	3,504.0	3,847.0	WMAIN-1297	15	Passed
169-077	49.5	32.3	3,501.0	3,758.0	WMAIN-1297	15	Passed
169-078	49.5	34.3	3,500.0	4,000.0	WMAIN-1309(2)	13.6	Passed
169-079	49.5	32.1	3,500.0	4,000.0	WMAIN-1305(1)	14	Passed
169-080	49.4	36.4	3,500.0	3,595.0	WMAIN-1303(1)	15	Passed
169-081	49.7	41.4	3,500.0	4,000.0	WMAIN-3760	7.3	Passed
169-082	48.9	40.4	3,537.0	4,037.0	WMAIN-3760	7.4	Passed
169-083	49	42.1	3,500.0	4,000.0	WMAIN-3760	7.6	Passed
169-084	48.3	44.5	1,250.0	1,750.0	WMAIN-0724(2)	11.3	Passed
169-085	48.4	37.5	1,251.0	1,751.0	WMAIN-0724(2)	11.3	Passed
169-088	50.5	46.7	1,251.0	1,751.0	WMAIN-0085(1)	9.7	Passed
169-089	50	46.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-090	50.6	45.3	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
169-091	50.4	46	1,252.0	1,752.0	WMAIN-0075(2)	7.7	Passed
169-092	50.4	46.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-093	50.6	45.5	1,256.0	1,756.0	WMAIN-5897	6.8	Passed
169-094	50.3	42.4	1,250.0	1,750.0	WMAIN-0063	11.3	Passed
169-095	50.5	44.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
169-096	50.5	44.8	1,255.0	1,755.0	WMAIN-0085(1)	7.3	Passed
169-097	50.4	45.5	1,252.0	1,752.0	WMAIN-7828(1)	7.1	Passed
169-098	50.7	44	1,252.0	1,752.0	WMAIN-7825(1)	11.2	Passed
169-099	50.5	44.8	1,252.0	1,752.0	WMAIN-7823(1)	11.2	Passed
169-100	50.3	47.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
169-101	50.2	45.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
169-102	50	47	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
169-103	50	45.6	1,251.0	1,751.0	WMAIN-7628(1)	8.1	Passed
169-104	50.1	45.2	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
169-105	49.9	44.4	1,250.0	1,750.0	WMAIN-7618(2)	8.7	Passed
169-106	49.8	20.5	3,501.0	3,950.0	WMAIN-7618(2)	15	Passed
169-107	49.6	30.3	2,520.0	3,020.0	WMAIN-7618(2)	10	Passed
169-108	49.7	37.4	2,501.0	2,347.0	WMAIN-7623(2)	15	Velocity Failed
169-109	49.7	37.2	2,507.0	3,007.0	WMAIN-7635	10.7	Passed
169-110	49.6	42.8	2,502.0	3,002.0	WMAIN-1071	7.3	Passed
169-111	49.6	41.1	3,500.0	4,000.0	WMAIN-5897	7.1	Passed
169-112	49.7	41.3	3,500.0	4,000.0	WMAIN-3760	7.1	Passed
169-114	49.8	40.5	3,500.0	3,063.0	WMAIN-0927(2)(2)	15	Velocity Failed
169-115	49.9	31.2	3,500.0	4,000.0	WMAIN-0927(2)(2)	14.9	Passed
169-116	49.9	33	3,500.0	3,831.0	WMAIN-0933	15	Passed
170-001	47.5	45.1	1,251.0	1,751.0	WMAIN-4073(1)	7.9	Passed
170-002	48.1	45.3	1,251.0	1,751.0	WMAIN-4100(2)	7.8	Passed
170-003	48.1	45.1	1,253.0	1,753.0	WMAIN-4102(2)	8	Passed
170-004	48	45.3	1,251.0	1,751.0	WMAIN-4125(1)	7.2	Passed
170-005	47.9	45.1	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-006	47.8	44.9	1,252.0	1,752.0	WMAIN-4130(1)	6.8	Passed
170-007	47.9	44	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-008	48	45.5	1,252.0	1,752.0	WMAIN-4154(1)	8.9	Passed
170-009	48.2	46.2	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-010	48.1	44.3	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
170-011	48.3	45.9	1,257.0	1,757.0	WMAIN-4096(1)(1)	9.3	Passed
170-012	48.6	44.5	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-013	49.1	45.8	1,250.0	1,750.0	WMAIN-4096(2)(2)	7.8	Passed
170-014	49.3	46.5	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-015	49.1	45.6	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-016	48.3	45.9	1,251.0	1,751.0	WMAIN-4068(1)	8.3	Passed
170-017	49	46.7	1,251.0	1,751.0	WMAIN-4079(1)	7.9	Passed
170-018	48.6	46.3	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-019	48.3	46.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-020	47.8	45.2	1,255.0	1,755.0	WMAIN-4149(1)(1)	8.6	Passed
170-021	47.7	44	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-022	47.6	44.8	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
170-023	47.3	44.9	1,258.0	1,758.0	WMAIN-7506(1)(1)	9.1	Passed
170-024	47.2	45.2	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-025	47.4	44.2	1,257.0	1,757.0	WMAIN-4141(1)	7.7	Passed
170-026	47.7	43.7	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-027	47.4	45.4	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
170-028	47.5	45.6	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-029	47	45.1	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
170-030	46.9	44.9	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
170-031	46.4	43.2	1,251.0	1,751.0	WMAIN-3898(1)	7.8	Passed
170-032	46.1	40.6	1,251.0	1,751.0	WMAIN-3904	6.9	Passed
170-033	45.9	42.6	1,252.0	1,752.0	WMAIN-3760	6.9	Passed
170-034	45.7	42.2	1,256.0	1,756.0	WMAIN-3906(1)	9	Passed
170-035	45.7	42.7	1,251.0	1,751.0	WMAIN-1081(2)	7.4	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-036	45.3	41.7	1,251.0	1,751.0	WMAIN-3885(1)	9.3	Passed
170-037	45.6	42.9	1,251.0	1,751.0	WMAIN-3867(1)	7.9	Passed
170-038	46.6	42.5	1,253.0	1,753.0	WMAIN-3868(1)	9.1	Passed
170-039	47	41	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
170-040	47.1	41.4	1,251.0	1,751.0	WMAIN-3862(1)	7.7	Passed
170-041	47	43.2	1,254.0	1,754.0	WMAIN-3760	6.9	Passed
170-042	49.4	47.3	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-043	49.4	46.7	1,254.0	1,754.0	WMAIN-4183(1)	9.1	Passed
170-044	49.5	47.2	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-045	48.1	44.3	1,251.0	1,692.0	WMAIN-4206(2)	15	Passed
170-046	47.2	44.6	1,251.0	1,751.0	WMAIN-4158(1)	9.3	Passed
170-047	47.9	43.9	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
170-048	49	45.2	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
170-049	48.8	44.3	1,252.0	586.0	WMAIN-4164(1)	15	Velocity Failed
170-050	49.1	44.5	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-051	48.1	44.1	1,252.0	1,752.0	WMAIN-4178	6.8	Passed
170-052	47	41.6	1,254.0	1,754.0	WMAIN-4204(2)	7.8	Passed
170-053	46.8	43.8	1,254.0	1,754.0	WMAIN-4209(1)	8.6	Passed
170-054	47.5	41.3	1,255.0	1,755.0	WMAIN-0655(2)	7	Passed
170-055	47.5	40.7	1,252.0	1,752.0	WMAIN-3760	6.9	Passed
170-056	47.4	40.2	1,251.0	1,751.0	WMAIN-3909(1)	11.2	Passed
170-057	46.3	41	1,252.0	1,752.0	WMAIN-3885(1)	7.9	Passed
170-058	47.1	44.8	1,250.0	1,750.0	WMAIN-3865(2)(2)	9.3	Passed
170-059	47.2	45.5	1,250.0	1,750.0	WMAIN-3760	7	Passed
170-060	47.1	39.4	1,255.0	1,755.0	WMAIN-3875	7	Passed
170-061	47.4	45.7	1,251.0	1,751.0	WMAIN-3760	6.9	Passed
170-062	48.4	44.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-063	49	45.5	1,257.0	1,757.0	WMAIN-1026(1)	7.8	Passed
170-064	48.1	44	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
170-065	47.2	40.3	3,524.0	4,024.0	WMAIN-3760	7.6	Passed
170-066	47.2	42.2	1,256.0	1,756.0	WMAIN-3760	6.8	Passed
170-067	47.5	43.6	1,251.0	1,751.0	WMAIN-2282(2)	8.1	Passed
170-068	47.4	45.2	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-069	47.5	45.4	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-070	49.2	46.5	1,250.0	1,750.0	WMAIN-4769(1)	7.5	Passed
170-071	49.2	44.9	1,251.0	1,751.0	WMAIN-4762	6.8	Passed
170-072	49.3	45.9	1,251.0	1,751.0	WMAIN-4757(1)	7.7	Passed
170-073	49.3	45.3	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-074	49.3	46	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-075	48.7	45.4	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-076	48.8	43.3	1,251.0	1,751.0	WMAIN-4786(2)	11.2	Passed
170-077	49.1	44.5	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
170-078	48.9	41.5	1,250.0	1,750.0	WMAIN-4759	7	Passed
170-079	49.2	42.7	1,254.0	1,754.0	WMAIN-4780	7.4	Passed
170-080	48.9	46.6	1,250.0	1,750.0	WMAIN-5897	6.7	Passed
170-081	47.8	45.8	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-082	47.3	44.4	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-083	46.9	42.5	1,252.0	1,752.0	WMAIN-3192(2)	7	Passed
170-084	47.2	40.7	1,251.0	1,751.0	WMAIN-3194(1)	11.2	Passed
170-085	46.6	41.1	1,252.0	1,752.0	WMAIN-3197(1)	7.4	Passed
170-086	46.5	43.2	1,250.0	1,750.0	WMAIN-3142(2)(2)	8.1	Passed
170-087	47.2	43.1	1,256.0	1,756.0	WMAIN-3760	6.8	Passed
170-088	47.7	45.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-089	48.1	44.8	1,250.0	1,750.0	WMAIN-3148(2)(2)	8.5	Passed
170-090	48.9	45.1	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
170-091	49	44.9	1,250.0	1,750.0	WMAIN-3151(2)	6.9	Passed
170-092	49	43.6	1,252.0	1,752.0	WMAIN-3163(1)	7.8	Passed
170-093	49.1	42.6	1,252.0	1,752.0	WMAIN-3154	6.8	Passed
170-094	48.6	42.5	1,253.0	1,753.0	WMAIN-3154	7	Passed
170-095	48.4	44.9	1,252.0	1,752.0	WMAIN-3151(1)(1)	8.3	Passed
170-096	48.3	42.7	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
170-097	47.7	41.2	1,252.0	1,752.0	WMAIN-3173(1)	11.2	Passed
170-098	48.3	46.1	1,250.0	1,750.0	WMAIN-3760	6.7	Passed
170-099	48.4	46.3	1,250.0	1,750.0	WMAIN-5897	6.7	Passed
170-100	46.1	42.8	1,254.0	1,754.0	WMAIN-7233(1)	7.8	Passed
170-101	46.7	43	1,250.0	1,750.0	WMAIN-7236(2)(2)	8.4	Passed
170-102	46.9	41.9	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
170-103	47	41.8	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
170-104	47.2	43.2	1,260.0	1,760.0	WMAIN-7236(1)(1)(1)	8	Passed
170-105	47	41.3	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
170-106	47	41.8	1,252.0	1,752.0	WMAIN-2585(1)(2)	7.1	Passed
170-107	47	43.4	1,250.0	1,750.0	WMAIN-2585(2)	8.8	Passed
170-108	47	42.9	1,255.0	1,755.0	WMAIN-3760	6.9	Passed
170-109	47.2	43.9	1,253.0	1,753.0	WMAIN-3590(1)	9.6	Passed
170-110	47.3	41.4	1,250.0	1,750.0	WMAIN-3590(1)	7.3	Passed
170-111	47.4	40.6	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
170-112	47	40.8	1,251.0	1,751.0	WMAIN-6241(1)	11.2	Passed
170-113	46.9	42.5	1,251.0	1,751.0	WMAIN-0992(2)	8.5	Passed
170-124	47.4	44.5	2,534.0	3,034.0	WMAIN-3760	7.6	Passed
170-125	47.4	42.7	2,521.0	3,021.0	WMAIN-3760	7.5	Passed
170-126	47.3	39.3	3,500.0	4,000.0	WMAIN-3760	7.7	Passed
170-127	47.8	44.5	1,252.0	1,752.0	WMAIN-6276(1)	7.9	Passed
170-128	47.7	42.8	1,252.0	1,320.0	WMAIN-6214(1)	15	Passed
170-129	47.5	43.6	1,252.0	1,752.0	WMAIN-1054(1)	7.2	Passed
170-130	47.6	44.4	1,250.0	1,750.0	WMAIN-6273(2)	8.3	Passed
170-131	47.8	43.3	1,257.0	1,757.0	WMAIN-3760	6.9	Passed
170-132	48	45	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
170-133	48	45.1	1,253.0	1,753.0	WMAIN-6269(1)	7.6	Passed
170-134	47.8	43.7	1,252.0	1,752.0	WMAIN-3803(1)	9	Passed
170-135	47.4	41	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
170-136	47.5	43.4	1,253.0	1,753.0	WMAIN-3797(2)	9.1	Passed
170-137	47.1	45.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-138	47.2	45.2	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-139	47	45.2	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-140	47.4	42.4	1,257.0	1,757.0	WMAIN-3812(1)	7	Passed
170-141	47.6	42	1,252.0	1,752.0	WMAIN-3760	6.9	Passed
170-142	47.8	43	1,251.0	1,751.0	WMAIN-3808(1)(2)	7.2	Passed
170-143	47.8	44.5	1,250.0	1,750.0	WMAIN-3808(2)	8.5	Passed
170-144	46.5	44.7	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
170-145	47.1	45.4	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
170-146	47.4	45.5	1,251.0	1,751.0	WMAIN-3760	6.9	Passed
170-147	47.5	45.4	1,252.0	1,752.0	WMAIN-3790(1)	8.7	Passed
170-148	47.4	45.7	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
170-149	47.3	45.2	1,253.0	1,753.0	WMAIN-6235(1)	9	Passed
170-150	48.5	46.2	1,253.0	1,753.0	WMAIN-5897	6.7	Passed
170-151	48.9	46.4	1,253.0	1,753.0	WMAIN-5897	6.7	Passed
170-152	47.3	44.9	1,250.0	1,750.0	WMAIN-3591(2)	7.2	Passed
170-153	47.3	45.7	1,254.0	1,754.0	WMAIN-3760	7	Passed
170-154	47.6	41.2	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
170-155	48.5	46.3	1,251.0	1,751.0	WMAIN-5897	6.7	Passed
170-156	47.4	44.6	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
170-157	48.9	41.1	3,501.0	4,001.0	WMAIN-3760	7.6	Passed
170-158	47.4	42.2	2,509.0	3,009.0	WMAIN-3760	7.4	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
170-159	47	45.3	1,250.0	1,750.0	WMAIN-3760	7	Passed
171-001	45.4	38.1	2,500.0	3,000.0	WMAIN-7144	7.2	Passed
171-002	45.6	22.5	5,001.0	5,501.0	WMAIN-7144	13.7	Passed
171-016	46.3	32.5	3,526.0	4,026.0	WMAIN-7144	8.1	Passed
171-017	46.8	22	5,005.0	5,505.0	WMAIN-7144	10.4	Passed
171-018	47.1	23.3	5,004.0	5,504.0	WMAIN-3759(2)	10	Passed
171-019	47.2	24.3	5,007.0	5,507.0	WMAIN-3759(2)	10.3	Passed
171-020	47.4	25.5	5,003.0	5,503.0	WMAIN-3759(2)	10.7	Passed
171-021	47.8	27.8	5,009.0	5,279.0	WMAIN-0429B(1)	15	Passed
171-023	47.8	20	5,005.0	4,855.0	WMAIN-0429B(1)	13.8	Residual Pressure Failed
171-024	47.8	21.3	5,003.0	5,273.0	WMAIN-0429B(1)	15	Passed
171-026	48.9	34.3	5,009.0	5,509.0	WMAIN-3759(2)	12.6	Passed
171-027	49.8	41.1	5,008.0	5,508.0	WMAIN-3759(2)	14.5	Passed
171-028	48.6	47.6	1,250.0	1,750.0	WMAIN-3760	8.3	Passed
171-029	47.6	42.8	3,500.0	4,000.0	WMAIN-3760	9.1	Passed
171-030	47.1	42.5	3,501.0	4,001.0	WMAIN-3760	8.6	Passed
171-031	46.8	45	1,250.0	1,750.0	WMAIN-3760	7.5	Passed
171-032	46.6	44.9	1,250.0	1,750.0	WMAIN-3760	7.4	Passed
171-033	46.6	44.9	1,261.0	1,761.0	WMAIN-3760	7.3	Passed
171-034	46.6	43.9	2,500.0	3,000.0	WMAIN-3760	7.9	Passed
171-035	46.7	44.1	2,516.0	3,016.0	WMAIN-3760	7.8	Passed
171-036	47	45.5	1,250.0	1,750.0	WMAIN-3760	7	Passed
171-037	46.7	44.1	1,250.0	1,750.0	WMAIN-3760	7.2	Passed
171-038	47	42	1,253.0	1,753.0	WMAIN-1474(2)	9.3	Passed
171-039	47.4	40.5	1,254.0	1,754.0	WMAIN-1472	7.2	Passed
171-040	47.3	40.5	1,250.0	1,750.0	WMAIN-3760	7.2	Passed
171-041	47.1	41.6	1,255.0	1,755.0	WMAIN-3760	7.2	Passed
171-042	47.2	40.8	1,251.0	1,751.0	WMAIN-1414(2)	11.2	Passed
171-043	47.2	41.3	1,253.0	1,753.0	WMAIN-1411(1)	11.2	Passed
171-044	46.9	43.7	1,250.0	1,750.0	WMAIN-3760	7.2	Passed
171-045	46.9	43.3	1,253.0	1,753.0	WMAIN-3760	7.2	Passed
171-046	46.7	41.4	1,254.0	1,754.0	WMAIN-3760	7.2	Passed
171-047	46.7	38.8	1,253.0	1,753.0	WMAIN-1490(1)	11.2	Passed
171-048	46.7	37.1	1,252.0	1,752.0	WMAIN-1487(2)	11.2	Passed
171-049	46.4	36.9	1,260.0	1,760.0	WMAIN-3760	7.3	Passed
171-050	46.3	37.8	1,255.0	1,755.0	WMAIN-1483(1)	8	Passed
171-051	46.2	36.3	1,254.0	1,754.0	WMAIN-3760	7.3	Passed
171-052	46.3	38.8	1,251.0	1,751.0	WMAIN-1447(2)	9.2	Passed
171-053	46.2	38.6	1,257.0	1,757.0	WMAIN-1444(1)(1)	7.7	Passed
171-054	46.3	37.9	1,250.0	1,750.0	WMAIN-3760	7.3	Passed
171-055	46.3	39.7	1,251.0	1,751.0	WMAIN-3760	7.3	Passed
171-056	46.5	41.3	1,252.0	1,752.0	WMAIN-3760	7.3	Passed
171-057	47	43.4	1,251.0	1,751.0	WMAIN-1458(2)	8.8	Passed
171-058	47	43.3	1,254.0	1,754.0	WMAIN-1434(1)(1)	8	Passed
171-059	47.1	44.8	1,250.0	1,750.0	WMAIN-1524(1)	9.9	Passed
171-060	49.8	46.9	2,500.0	3,000.0	WMAIN-3761	11.3	Passed
171-061	48.5	46.8	1,250.0	1,750.0	WMAIN-3760	7.8	Passed
171-062	47.7	46	1,251.0	1,751.0	WMAIN-3760	7.4	Passed
171-063	47.4	45.1	1,251.0	1,751.0	WMAIN-1497(1)	8	Passed
171-064	47.3	42.9	1,251.0	1,751.0	WMAIN-3760	7.4	Passed
171-065	47.3	42	1,253.0	1,753.0	WMAIN-3760	7.4	Passed
171-066	47.4	42.9	1,250.0	1,750.0	WMAIN-3760	7.4	Passed
171-067	47.5	36.6	2,505.0	2,348.0	WMAIN-1437(1)	15	Velocity Failed
171-068	47.1	41.6	1,259.0	1,759.0	WMAIN-1524(1)	7.9	Passed
171-069	47	43.2	1,250.0	1,750.0	WMAIN-1515(1)	7.6	Passed
171-070	47	41.6	1,251.0	1,751.0	WMAIN-1418(2)	11.2	Passed
171-071	46.9	42.9	1,252.0	1,752.0	WMAIN-3760	7.2	Passed
171-072	47	42.9	1,253.0	1,753.0	WMAIN-1405(1)	7.6	Passed
171-073	47.2	41.4	1,255.0	1,755.0	WMAIN-1408	7.2	Passed
171-074	47.4	41.3	1,252.0	1,752.0	WMAIN-3760	7.1	Passed
171-075	47.2	43.9	1,250.0	1,750.0	WMAIN-1396(1)	7.7	Passed
171-076	47.3	45.5	1,250.0	1,750.0	WMAIN-3760	7.1	Passed
171-077	47.2	42.4	3,500.0	4,000.0	WMAIN-3760	7.7	Passed
171-078	47	45.2	1,250.0	1,750.0	WMAIN-3760	7	Passed
171-079	46.1	32.4	3,510.0	4,010.0	WMAIN-7144	8.4	Passed
171-086	46.7	40	1,251.0	1,751.0	WMAIN-7493	11.3	Passed
171-087	46.7	36.8	1,251.0	1,751.0	WMAIN-7493	11.3	Passed
171-088	47.7	27.8	5,002.0	5,502.0	WMAIN-3759(2)	11.2	Passed
171-089	47.3	44.8	1,251.0	1,751.0	WMAIN-3760	7	Passed
171-090	47.5	44.9	1,252.0	1,752.0	WMAIN-3760	7	Passed
171-091	47.5	43.7	1,256.0	1,756.0	WMAIN-7884(1)	7.1	Passed
171-092	48.5	44.5	1,252.0	1,752.0	WMAIN-3760	7	Passed
171-093	50.2	49.5	1,252.0	1,752.0	WMAIN-8022(1)	6.9	Passed
171-094	47.8	43.9	1,258.0	1,758.0	WMAIN-3760	7	Passed
171-095	47.3	43.4	1,258.0	1,758.0	WMAIN-3760	7	Passed
171-096	48.6	45.7	1,252.0	1,752.0	WMAIN-3760	7	Passed
171-097	48.3	45.5	1,251.0	1,751.0	WMAIN-3760	6.9	Passed
171-098	47.6	44.4	1,254.0	1,754.0	WMAIN-3760	6.9	Passed
171-099	47.3	44.7	1,252.0	1,752.0	WMAIN-3760	7	Passed
171-100	49.6	48.5	1,340.0	1,840.0	WMAIN-5897	6.7	Passed
171-101	48.2	45.2	1,251.0	1,751.0	WMAIN-8019	7.4	Passed
171-102	48.1	44.9	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
171-103	47.4	40.9	1,252.0	1,752.0	WMAIN-7893(1)	11.2	Passed
171-104	47.3	44.4	1,250.0	1,750.0	WMAIN-3760	7	Passed
171-105	47.1	43.8	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
171-106	47.2	42.9	1,252.0	1,752.0	WMAIN-3760	6.9	Passed
171-107	47.5	38.5	1,252.0	1,752.0	WMAIN-8134	11.2	Passed
171-108	47.3	44.2	1,252.0	1,752.0	WMAIN-8132(1)	7.3	Passed
171-109	46.9	43.9	1,261.0	1,761.0	WMAIN-3760	6.9	Passed
171-110	46.7	43.9	1,250.0	1,750.0	WMAIN-8140(2)(2)	7.4	Passed
171-111	46.8	44.2	1,251.0	1,751.0	WMAIN-3760	6.9	Passed
171-112	47.2	44.7	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
171-113	47.5	44.8	1,252.0	1,752.0	WMAIN-3760	6.9	Passed
171-114	47.7	45.3	1,251.0	1,751.0	WMAIN-8019	7.1	Passed
171-115	48.5	47.2	1,262.0	1,762.0	WMAIN-5897	6.7	Passed
171-116	47.5	44.2	1,254.0	1,754.0	WMAIN-8040(1)	8.1	Passed
171-117	47.5	46	1,273.0	1,773.0	WMAIN-5897	6.7	Passed
171-118	46.7	42.8	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
171-119	46.9	44.2	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
171-120	46.8	40	1,251.0	1,751.0	WMAIN-7901(2)	11.2	Passed
171-121	46.5	43	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
171-122	46.6	43.7	1,250.0	1,750.0	WMAIN-3760	6.9	Passed
171-123	46.5	43.9	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
171-124	46.5	43.9	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
171-125	46.2	42.6	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
171-126	46.4	44.9	1,250.0	1,750.0	WMAIN-5897	6.7	Passed
171-127	45.9	42.7	1,252.0	1,752.0	WMAIN-8032(2)	7.2	Passed
171-128	46.5	43.9	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
171-129	46.2	42.8	1,251.0	1,751.0	WMAIN-7909(2)	7.1	Passed
171-130	46.4	42.8	1,259.0	1,759.0	WMAIN-3760	6.8	Passed
171-131	45.4	43.9	1,250.0	1,750.0	WMAIN-5897	6.7	Passed
171-132	45.8	44.2	1,250.0	1,750.0	WMAIN-3760	6.7	Passed
171-133	46.2	44.4	1,252.0	1,752.0	WMAIN-3760	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
171-134	46	44.3	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
171-135	46.3	43.2	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
171-136	45.9	44.2	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
171-137	45.9	44.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
171-138	45.9	44.1	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
171-139	46.3	44.4	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
171-140	46.4	40.8	1,251.0	1,751.0	WMAIN-8015	11.2	Passed
171-141	46.8	45.1	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-001	45.9	43.9	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-002	45.5	43.4	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-003	46.7	44.5	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-004	46.6	40.7	1,250.0	1,750.0	WMAIN-0104(1)	11.2	Passed
180-005	47.3	44.9	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-006	46.9	43.3	1,251.0	1,751.0	WMAIN-7522(2)	7.6	Passed
180-007	47.2	44.2	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-008	47.6	44.8	1,250.0	1,750.0	WMAIN-7506(2)	8.5	Passed
180-009	48.1	46	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-010	49.5	47.3	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-011	48.6	44.7	1,250.0	1,750.0	WMAIN-0096	11.2	Passed
180-012	47.6	44.8	1,252.0	1,752.0	WMAIN-7507(1)	9	Passed
180-013	47.8	43.1	1,258.0	1,758.0	WMAIN-3760	6.8	Passed
180-014	48.5	45.5	1,250.0	1,750.0	WMAIN-7526(2)	8.8	Passed
180-015	47.6	43.1	1,256.0	1,756.0	WMAIN-3760	6.8	Passed
180-016	47.3	43.2	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-017	46.7	39	1,252.0	1,752.0	WMAIN-7521	11.2	Passed
180-018	47.1	40.7	1,253.0	1,753.0	WMAIN-7478(2)	7.4	Passed
180-019	46.7	39.4	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-020	46	40.1	1,252.0	1,752.0	WMAIN-7502(2)	7.9	Passed
180-021	45.9	38.9	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
180-022	45.4	40.8	1,252.0	1,752.0	WMAIN-7524(2)	8.7	Passed
180-023	48.8	42	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-024	48.3	41.8	1,255.0	1,755.0	WMAIN-7661(1)	6.8	Passed
180-025	47.8	41.7	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-026	48.8	42.8	1,254.0	1,754.0	WMAIN-7565(1)	6.8	Passed
180-027	49.2	42.9	1,257.0	1,757.0	WMAIN-3760	6.8	Passed
180-028	49.4	44.2	1,252.0	1,752.0	WMAIN-7561(1)	7.9	Passed
180-029	49.3	46.8	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-030	49.9	44.5	1,251.0	1,751.0	WMAIN-7670(2)	8.1	Passed
180-031	50.1	45.1	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-032	49.5	43.8	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-033	50.1	45.3	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-034	50	45	1,253.0	1,753.0	WMAIN-7666(1)	8.2	Passed
180-035	50.1	45.4	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-036	50.1	45.5	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-037	50	45.6	1,251.0	1,751.0	WMAIN-7563(2)	9	Passed
180-038	49.7	43.5	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
180-039	50.1	46.9	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-040	50	47.4	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-041	50	47.6	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
180-042	49.3	46.8	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-043	49.6	45.1	1,251.0	1,751.0	WMAIN-7674	7	Passed
180-044	50	47.6	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-045	49.9	47.5	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-046	49.7	47.5	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-047	49.6	46.1	1,253.0	1,753.0	WMAIN-7556(1)	7.5	Passed
180-048	49.8	46	1,250.0	1,750.0	WMAIN-7682(2)	7.3	Passed
180-049	49.9	47.2	1,251.0	1,751.0	WMAIN-7690(1)	9.3	Passed
180-050	49.5	45.7	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-051	49.3	44.3	1,254.0	1,754.0	WMAIN-3760	6.8	Passed
180-052	47.6	44.7	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-053	47.4	40.4	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
180-054	48.8	42.5	1,250.0	1,750.0	WMAIN-7798	7.2	Passed
180-055	48	45	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-056	48.3	42.2	1,251.0	1,751.0	WMAIN-7793	7.3	Passed
180-057	48.8	44.8	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-058	49.7	44.9	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-059	49.6	45.8	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-060	49.6	45.6	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-061	49.5	44.6	1,251.0	1,751.0	WMAIN-7687(1)	8	Passed
180-062	49.6	44.7	1,252.0	1,752.0	WMAIN-3760	6.8	Passed
180-063	49.6	45.6	1,251.0	1,751.0	WMAIN-3760	6.8	Passed
180-064	49.2	43.3	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
180-065	49	42.3	1,252.0	1,752.0	WMAIN-7756(1)	6.8	Passed
180-066	49.2	42.3	1,252.0	1,752.0	WMAIN-7687(1)	6.8	Passed
180-067	49.6	41.7	1,254.0	1,754.0	WMAIN-7751(2)	8.2	Passed
180-068	49.8	42.5	1,254.0	1,754.0	WMAIN-7800(1)	7.6	Passed
180-069	49.7	44	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-070	49.7	44.5	1,254.0	1,754.0	WMAIN-7805(1)	7.4	Passed
180-071	49.6	42.4	1,252.0	1,752.0	WMAIN-7806	7.5	Passed
180-072	49.5	46.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
180-073	49.7	41.5	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
180-074	49.8	41.1	1,258.0	1,758.0	WMAIN-3760	6.8	Passed
180-075	49.8	41.7	1,253.0	1,753.0	WMAIN-7800(1)	6.9	Passed
180-076	49.5	39.5	1,254.0	1,754.0	WMAIN-7687(1)	6.9	Passed
180-077	49.1	38.8	1,259.0	1,759.0	WMAIN-3760	6.8	Passed
180-078	49	38	1,254.0	1,754.0	WMAIN-7755	11.2	Passed
180-079	48.8	40.5	1,254.0	1,754.0	WMAIN-7758(1)	7.9	Passed
H-205	51.9	45.8	1,258.0	1,758.0	WMAIN-5897	6.8	Passed
H-206	49.2	43.3	1,250.0	1,750.0	HS-73	8.2	Passed
H-207	54.8	48.7	1,250.0	1,750.0	WMAIN-1071	8	Passed
H-208	54.4	46.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-209	54.8	48.4	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-210	42.6	22.1	1,269.0	1,694.0	HS-244	10.9	Passed
H-211	47.9	43	1,255.0	1,755.0	HS-73	9.1	Passed
H-212	52.1	44.4	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
H-213	52.1	42.6	1,250.0	1,750.0	HS-20	11.2	Passed
H-214	53.8	48.5	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-215	54.6	48.7	1,442.0	1,942.0	WMAIN-1071	8	Passed
H-216	54.6	36.4	3,550.0	4,050.0	WMAIN-1071	13.6	Passed
H-217	51.5	20	3,534.0	3,584.0	HS-298	10.2	Passed
H-218	47.7	21.4	5,194.0	5,694.0	WMAIN-5897	9.4	Passed
H-219	49.9	45.8	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-220	54.3	44.1	1,257.0	1,757.0	WMAIN-1071	7.9	Passed
H-221	49.9	42.6	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-222	49.4	38.8	3,676.0	4,176.0	WMAIN-1071	8.4	Passed
H-224	54.5	48.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-225	47.2	44.4	1,260.0	1,760.0	WMAIN-3760	7	Passed
H-226	48.8	39.6	1,250.0	1,750.0	HS-71	9	Passed
H-227	53.6	48.2	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-228	49.1	42.4	1,250.0	1,750.0	HS-49	7.7	Passed
H-229	54.5	49.1	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-230	47.4	29.2	5,263.0	4,971.0	WMAIN-3778	15	Velocity Failed
H-231	47.8	42.8	1,250.0	1,750.0	WMAIN-3760	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
H-232	41.9	25	3,515.0	4,015.0	HS-237	7.2	Passed
H-233	49.3	45.4	1,250.0	1,750.0	HS-89	8.8	Passed
H-234	43.4	36.2	1,260.0	1,760.0	HS-244	11.4	Passed
H-235	43.2	25.7	3,564.0	4,064.0	WMAIN-3760	7.2	Passed
H-236	50	46.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-237	49.2	46.5	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-238	54.4	48.1	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-239	49.4	44	1,250.0	1,750.0	HS-65	8.5	Passed
H-240	53.9	45.4	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-241	45	27.3	5,294.0	5,794.0	WMAIN-5897	7.1	Passed
H-242	43.5	26	5,012.0	5,512.0	WMAIN-1755(2)(2)	7.5	Passed
H-243	53.7	40.4	1,250.0	1,750.0	HS-106	11.2	Passed
H-244	53.9	46.2	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-245	42.9	38.9	1,294.0	1,794.0	WMAIN-5897	6.7	Passed
H-246	49.8	44.5	1,265.0	1,765.0	WMAIN-3760	6.8	Passed
H-247	47.1	42.4	1,397.0	1,897.0	WMAIN-3778	9.9	Passed
H-248	46.4	37.4	3,530.0	4,030.0	WMAIN-3760	7.1	Passed
H-249	46	43.8	1,309.0	1,809.0	WMAIN-5897	6.7	Passed
H-250	54.7	47.9	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-251	54.1	48	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-252	52.9	41.4	1,250.0	1,750.0	HS-3	11.8	Passed
H-253	52.8	20.5	2,834.0	3,334.0	WMAIN-3712(2)	10.2	Passed
H-254	42	23.2	5,048.0	5,396.0	HS-234	9.2	Passed
H-255	48.4	35.5	1,250.0	1,750.0	HS-78	11.2	Passed
H-256	49.4	45.1	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-257	47.3	44.7	1,250.0	1,750.0	WMAIN-3760	7	Passed
H-258	54.8	47.3	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-259	54.4	49.7	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-260	54.3	49.3	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-261	43.6	34.7	3,521.0	4,021.0	WMAIN-3760	7.1	Passed
H-262	41.8	20	3,503.0	3,813.0	HS-238	10.8	Passed
H-263	43.7	26.5	3,545.0	4,045.0	HS-297	7.8	Passed
H-264	40.8	20	1,279.0	1,755.0	WMAIN-5897	6.7	Passed
H-265	42.9	20	5,038.0	4,998.0	HS-296	7.3	Residual Pressure Failed
H-266	44.3	38.1	1,411.0	1,911.0	WMAIN-5897	6.7	Passed
H-267	50.2	40	1,339.0	1,839.0	WMAIN-5897	6.8	Passed
H-268	53.3	44.8	1,291.0	1,791.0	WMAIN-1071	7.9	Passed
H-269	49.9	20.3	1,265.0	1,282.0	WMAIN-6208	15	Passed
H-270	44	20	5,066.0	5,213.0	P-185	7.8	Passed
H-271	43.2	32	3,519.0	4,019.0	HS-258	7.6	Passed
H-272	44	35	2,643.0	3,143.0	WMAIN-5897	6.9	Passed
H-273	48.8	20	3,530.0	2,992.0	WMAIN-3778	12	Residual Pressure Failed
H-274	51.8	47	1,407.0	1,907.0	WMAIN-5897	6.8	Passed
H-275	45.9	20	5,020.0	5,327.0	WMAIN-3778	13.9	Passed
H-276	42.3	25.5	3,516.0	4,016.0	HS-308	7.3	Passed
H-277	53.8	46	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-278	41.2	20	5,015.0	5,347.0	WMAIN-5897	7.2	Passed
H-279	55.4	50.8	1,250.0	1,750.0	WMAIN-1071	8.1	Passed
H-280	42.4	28	3,833.0	4,333.0	WMAIN-3778	8	Passed
H-281	53.6	47.9	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-282	41.9	20	5,005.0	5,117.0	HS-234	8.6	Passed
H-283	43.3	40	1,282.0	1,782.0	WMAIN-5897	6.7	Passed
H-284	46.2	20	1,293.0	1,721.0	HS-213	11.2	Passed
H-285	48.9	41.4	1,250.0	1,750.0	HS-54	7.1	Passed
H-286	45.7	43.5	1,280.0	1,780.0	WMAIN-5897	6.9	Passed
H-287	53.4	44.5	1,250.0	1,750.0	HS-3	11.8	Passed
H-288	54.4	48.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-289	47.3	44.9	1,250.0	1,750.0	WMAIN-3760	7	Passed
H-290	53.7	47.3	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-291	49	40.6	1,250.0	1,750.0	HS-73	8.6	Passed
H-292	47.5	40	1,250.0	1,750.0	HS-33	11.2	Passed
H-293	47.3	44.6	1,250.0	1,750.0	WMAIN-3760	7	Passed
H-294	47.1	41.3	1,258.0	1,758.0	HS-46	7.3	Passed
H-295	53.8	48.3	1,250.0	1,750.0	HS-3	11.8	Passed
H-296	45.1	29.9	3,686.0	4,186.0	WMAIN-3778	8.3	Passed
H-297	52.1	45.1	1,250.0	1,750.0	HS-28	7.8	Passed
H-298	47	39.9	1,250.0	1,750.0	HS-73	8.8	Passed
H-299	48.8	41.8	1,267.0	1,767.0	HS-73	8.6	Passed
H-300	53.5	46	1,270.0	1,770.0	HS-3	11.8	Passed
H-301	53.7	43.1	1,291.0	1,791.0	WMAIN-1071	7.9	Passed
H-302	53.7	46.6	1,256.0	1,756.0	WMAIN-1071	7.9	Passed
H-303	49.1	40.1	1,959.0	2,459.0	HS-66	10.6	Passed
H-304	44.9	30.3	1,277.0	1,777.0	WMAIN-3778	7.2	Passed
H-305	54.4	46.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-306	53.9	48.4	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-307	54.5	48.6	1,250.0	1,750.0	WMAIN-1071	8	Passed
H-308	52	46.1	1,258.0	1,758.0	WMAIN-5897	6.8	Passed
H-309	52.1	37.5	2,517.0	2,350.0	HS-18	15	Velocity Failed
H-310	54.5	47.8	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-311	47	44.1	1,305.0	1,805.0	WMAIN-3778	7	Passed
H-312	50.1	45.8	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-313	51.7	47.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
H-314	53.6	40.3	1,250.0	1,750.0	HS-107	11.2	Passed
H-315	54	48	1,274.0	1,774.0	WMAIN-1071	7.9	Passed
H-316	53.5	46.4	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-317	54.5	48.2	1,256.0	1,756.0	WMAIN-1071	7.9	Passed
H-318	46.5	35.5	1,250.0	1,750.0	HS-88	11.2	Passed
H-319	53.8	47.8	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-320	43.8	20	5,212.0	5,607.0	WMAIN-5897	7.2	Passed
H-321	48.8	44.7	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
H-322	49.6	46.5	1,253.0	1,753.0	WMAIN-3760	6.8	Passed
H-323	53.9	41.9	1,250.0	1,750.0	HS-96	11.2	Passed
H-324	48.8	39.1	1,250.0	1,750.0	HS-73	8.6	Passed
H-325	54.5	49.3	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-326	54.3	48.5	1,255.0	1,755.0	WMAIN-1071	7.9	Passed
H-327	54.1	42.8	1,250.0	1,750.0	HS-97	11.2	Passed
H-328	54.1	45.2	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-329	53.4	47.9	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-330	51.7	47.1	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
H-331	52.8	46.7	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-332	51.7	46.4	1,250.0	1,750.0	HS-22	8.1	Passed
H-333	54.3	46.3	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-334	48.3	41.4	1,250.0	1,750.0	HS-71	9.3	Passed
H-335	44.8	24.6	1,255.0	1,755.0	HS-213	11.7	Passed
H-336	43.7	28.4	3,515.0	4,015.0	WMAIN-5897	7	Passed
H-337	43.8	20	5,027.0	5,185.0	HS-248	10.8	Passed
H-338	46.1	29	3,623.0	4,123.0	WMAIN-3778	11.6	Passed
H-339	43.9	40.9	1,259.0	1,759.0	WMAIN-5897	6.8	Passed
H-340	54.4	49.1	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-341	49.6	44.8	1,260.0	1,760.0	HS-54	7.3	Passed
H-342	54	45.9	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-343	53.7	47.8	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-344	50	46.6	1,365.0	1,865.0	WMAIN-5897	6.8	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
H-345	45.7	35.5	1,279.0	1,779.0	HS-213	11.7	Passed
H-346	49.9	20	3,530.0	3,075.0	WMAIN-3778	12.2	Residual Pressure Failed
H-347	52.2	20.1	5,066.0	3,536.0	WMAIN-3778	11.9	Residual Pressure Failed
H-348	48.8	20	3,571.0	2,241.0	WMAIN-3778	10.6	Residual Pressure Failed
H-349	50	42.7	1,250.0	1,750.0	WMAIN-3760	6.8	Passed
H-350	53	47.2	1,310.0	1,810.0	WMAIN-1071	7.9	Passed
H-351	53.3	41.6	1,321.0	1,821.0	HS-3	11.8	Passed
H-352	47.4	43.9	1,250.0	1,750.0	WMAIN-3760	7	Passed
H-353	54.5	48.6	1,254.0	1,754.0	WMAIN-1071	7.9	Passed
H-354	42.1	20.4	1,413.0	1,913.0	HS-280(1)	7.6	Passed
H-355	44.4	35.7	1,250.0	1,750.0	WMAIN-3778	7.2	Passed
H-356	43.2	20	5,000.0	5,291.0	HS-234	8.7	Passed
H-357	53.1	43.6	1,250.0	1,750.0	HS-3	11.8	Passed
H-358	54.3	48.7	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-359	47.3	38.2	3,775.0	4,275.0	WMAIN-3760	7.4	Passed
H-360	48.4	20	3,574.0	3,137.0	WMAIN-3778	12.2	Residual Pressure Failed
H-361	45.1	20	5,051.0	5,261.0	WMAIN-3778	12.9	Passed
H-362	54.1	47.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-363	43.5	22.3	5,125.0	5,625.0	HS-258	8.5	Passed
H-364	54.3	48.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-365	49	39.1	1,250.0	1,750.0	HS-52	11.2	Passed
H-366	53.3	45	1,262.0	1,762.0	HS-3	11.8	Passed
H-367	54	38.6	1,250.0	1,750.0	HS-100	11.2	Passed
H-368	43.2	20	5,008.0	5,313.0	HS-234	8.8	Passed
H-369	54.8	48.7	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-370	54.1	48.9	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-371	45.7	42.8	1,333.0	1,833.0	WMAIN-3778	7	Passed
H-372	49.7	39.1	3,500.0	4,000.0	HS-57	9	Passed
H-373	45.4	26.8	3,561.0	4,061.0	WMAIN-3778	11.5	Passed
H-374	52.6	46.6	1,250.0	1,750.0	WMAIN-1071	7.9	Passed
H-375	48.5	20	3,590.0	2,438.0	WMAIN-3778	10.9	Residual Pressure Failed
H-376	48.2	40.4	1,250.0	1,750.0	HS-54	7	Passed
H-377	47.2	40.4	1,256.0	1,756.0	WMAIN-3760	6.8	Passed
H-378	49	20	3,545.0	2,987.0	WMAIN-3778	12	Residual Pressure Failed
H-379	45	20	5,040.0	4,267.0	WMAIN-3778	12.1	Residual Pressure Failed
H-380	43.4	21.8	3,551.0	4,051.0	WMAIN-3760	7.2	Passed
H-381	42.8	24.5	1,253.0	1,753.0	HS-244	11.4	Passed
H-382	50.4	20	1,269.0	1,247.0	WMAIN-1071	6.7	Residual Pressure Failed
H-383	43.7	33.8	1,420.0	1,920.0	WMAIN-3778	7.2	Passed
H-384	45.9	43.6	1,295.0	1,795.0	WMAIN-3760	6.8	Passed
H-385	47.3	43.9	1,250.0	1,750.0	WMAIN-7896	7.2	Passed
H-386	47.3	44.6	1,251.0	1,751.0	WMAIN-3760	7	Passed
H-387	45.3	37.4	3,592.0	4,092.0	WMAIN-3760	7.2	Passed
H-388	46.9	20.8	3,559.0	4,059.0	WMAIN-7873(2)	9.4	Passed
H-389	55.3	45.1	1,851.0	2,351.0	WMAIN-1071	8	Passed
H-390	55	35.4	3,776.0	4,276.0	WMAIN-1071	13.2	Passed
H-391	55.6	38.8	3,543.0	4,043.0	WMAIN-1071	13.5	Passed
H-392	55.2	50.4	1,392.0	1,892.0	WMAIN-1071	8	Passed
H-393	55.1	50.5	1,269.0	1,769.0	WMAIN-1071	8.1	Passed
H-394	53.3	32.5	3,554.0	4,054.0	WMAIN-1071	13.8	Passed
H-395	52.3	47.7	1,656.0	2,156.0	WMAIN-5897	6.8	Passed
H-396	50.7	46.2	1,326.0	1,826.0	WMAIN-5897	6.8	Passed
H-397	49.2	20	3,669.0	3,546.0	WMAIN-7741	10.4	Residual Pressure Failed
H-398	49.5	43.3	1,339.0	1,839.0	WMAIN-5897	6.8	Passed
H-399	49.8	42.9	1,294.0	1,794.0	WMAIN-3760	6.8	Passed
H-400	46.9	43.9	1,467.0	1,967.0	WMAIN-3760	6.7	Passed
H-401	45.8	39.6	3,555.0	4,055.0	WMAIN-3760	7.1	Passed
H-402	45.3	42.4	1,369.0	1,869.0	WMAIN-5897	6.7	Passed
H-403	43.9	33.2	3,563.0	4,063.0	HS-266	7.7	Passed
H-404	44.3	40.6	1,268.0	1,768.0	WMAIN-5897	6.7	Passed
H-405	44.7	22.3	5,051.0	5,551.0	HS-263	10.2	Passed
H-406	43.6	29.7	3,531.0	4,031.0	WMAIN-3760	7.2	Passed
H-407	44.6	33.9	3,551.0	4,051.0	WMAIN-3760	7.2	Passed
H-408	43.7	29.6	3,527.0	4,027.0	WMAIN-3760	7.2	Passed
H-411	44.2	32.4	3,524.0	4,024.0	WMAIN-3760	7.1	Passed
H-412	43.1	20	5,045.0	5,103.0	P-185	8.6	Passed
H-413	43.2	20	5,019.0	5,026.0	HS-294	8.2	Passed
H-414	41.7	28.3	5,048.0	5,548.0	WMAIN-3229	11.1	Passed
H-415	43.9	33.5	3,531.0	4,031.0	WMAIN-5897	7.1	Passed
H-416	44	26.4	5,019.0	5,519.0	WMAIN-1755(2)(2)	8.8	Passed
H-417	42.2	29.9	5,044.0	5,544.0	HS-234	12.5	Passed
H-418	43.8	20	5,011.0	5,187.0	HS-234	8.7	Passed
H-419	46.2	40.7	1,308.0	1,808.0	WMAIN-3778	6.9	Passed
H-420	45.8	43.4	1,256.0	1,756.0	WMAIN-5897	6.9	Passed
H-421	45.5	42.8	1,258.0	1,758.0	WMAIN-3778	6.9	Passed
H-422	45.7	29.4	3,502.0	4,002.0	WMAIN-3778	10.4	Passed
H-423	47.2	33.3	3,659.0	4,159.0	WMAIN-5897	9.6	Passed
H-424	45.7	20	5,052.0	4,886.0	WMAIN-3778	12.8	Residual Pressure Failed
H-425	46	28.2	3,503.0	4,003.0	WMAIN-3778	11.6	Passed
H-426	45.6	25	3,664.0	4,164.0	WMAIN-3778	11.6	Passed
H-427	47.2	28.5	3,707.0	4,207.0	WMAIN-3778	13.4	Passed
H-428	47.8	43.1	1,363.0	1,863.0	WMAIN-3778	9.8	Passed
H-429	48.7	20.4	5,187.0	4,832.0	WMAIN-3778	15	Residual Pressure and Velocity Failed
H-430	48.6	20	5,184.0	4,663.0	WMAIN-3778	14.8	Residual Pressure and Velocity Failed
H-431	49.9	20	3,542.0	3,564.0	WMAIN-3778	13.1	Passed
H-432	49.7	31.4	1,278.0	1,295.0	WMAIN-6208	15	Passed
H-433	53.2	43.3	1,250.0	1,750.0	HS-3	11.8	Passed
H-434	53.5	45.1	1,250.0	1,750.0	HS-3	11.8	Passed
H-435	52.6	42.6	3,505.0	4,005.0	WMAIN-1071	10.6	Passed
H-436	52	44.5	1,250.0	1,750.0	HS-24	6.9	Passed
H-437	46.2	25.3	2,639.0	3,139.0	WMAIN-3778	7.7	Passed
H-438	44.5	22	2,629.0	3,129.0	WMAIN-3778	7.7	Passed
H-439	49.5	41.7	2,605.0	3,105.0	WMAIN-3760	7.3	Passed
H-440	56.6	52.2	1,326.0	1,826.0	WMAIN-3760	6.8	Passed
J-3	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-10	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
TEMP391	51.9	49.2	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
TEMP392	50.9	42	3,506.0	4,006.0	WMAIN-1071	7.2	Passed
TEMP393	51.5	48.8	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
TEMP394	51.6	43.3	3,501.0	4,001.0	WMAIN-1072	7.4	Passed
TEMP395	52.1	44.2	3,500.0	3,805.0	P-84(2)	15	Passed
TEMP396	50.3	41.8	3,500.0	4,000.0	WMAIN-1071	7.4	Passed
TEMP397	50	41.3	3,500.0	4,000.0	WMAIN-1071	7.4	Passed
TEMP398	49.7	47.2	1,278.0	1,778.0	WMAIN-5897	6.8	Passed
TEMP399	53.5	43	3,501.0	4,001.0	WMAIN-3778	9.7	Passed
TEMP400	49.8	38.8	2,500.0	3,000.0	WMAIN-8247	14.8	Passed
TEMP401	49.8	36.5	2,526.0	3,026.0	WMAIN-8247	13.6	Passed
TEMP402	49.7	24.3	3,532.0	3,917.0	WMAIN-8247	15	Passed
TEMP403	49.7	44.5	1,250.0	1,750.0	WMAIN-8240(2)	8.1	Passed
TEMP404	49.8	45.9	1,250.0	1,750.0	WMAIN-8240(1)	9.2	Passed
TEMP405	49.8	45.6	1,250.0	1,750.0	WMAIN-8250(1)	7.3	Passed
TEMP406	49.8	45.2	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
TEMP407	49.8	32.5	3,500.0	4,000.0	WMAIN-8250(2)	14.7	Passed

Label	Pressure (psi)	Residual Pressure (psi)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pipe w/ Max. Velocity	Velocity of Max. Pipe (ft/s)	Fire Flow Status
TEMP408	48	44.1	1,250.0	1,750.0	WMAIN-8214(1)	7.3	Passed
TEMP409	48.3	39.8	1,250.0	1,750.0	WMAIN-8208(1)(1)	11.2	Passed
TEMP410	48.3	44	1,270.0	1,770.0	WMAIN-5897	6.9	Passed
TEMP411	48.3	43.9	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP412	48.2	44.1	1,250.0	1,750.0	WMAIN-8216(1)	7	Passed
TEMP413	48.2	43.5	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP414	48.3	44.6	1,250.0	1,750.0	WMAIN-8220(2)	8.1	Passed
TEMP415	48.3	43.4	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP416	48.3	44.6	1,250.0	1,750.0	WMAIN-8212(2)	6.9	Passed
TEMP417	48.2	45.2	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP418	47.9	44.1	1,250.0	1,750.0	WMAIN-8206(1)	7.9	Passed
TEMP419	48.1	43.5	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP420	48.2	43.4	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP421	47.8	45.3	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP422	48.3	43.8	1,250.0	1,750.0	WMAIN-8210(2)	7	Passed
TEMP423	47.9	45.8	1,252.0	1,752.0	WMAIN-5897	6.9	Passed
TEMP424	44.1	42	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
TEMP425	44.6	41.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
TEMP426	45	42.3	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
TEMP427	53.8	32.9	3,500.0	4,000.0	WMAIN-1071	13.9	Passed
TEMP428	53.5	33	3,512.0	4,012.0	WMAIN-1071	13.9	Passed
TEMP429	53.6	40.9	2,536.0	3,036.0	WMAIN-1071	11.4	Passed
TEMP430	53.5	41.4	2,500.0	3,000.0	WMAIN-1071	11.5	Passed
TEMP431	53.4	42.3	2,500.0	3,000.0	WMAIN-1071	11.5	Passed
TEMP432	53.5	38.1	3,500.0	4,000.0	WMAIN-1071	14.2	Passed
TEMP433	53.5	44	2,500.0	3,000.0	WMAIN-1071	11.7	Passed
TEMP434	53.6	45.4	2,500.0	3,000.0	WMAIN-1071	11.8	Passed
TEMP435	48.3	44.4	1,250.0	1,750.0	WMAIN-5897	6.9	Passed
TEMP436	48.1	39.8	3,500.0	4,000.0	WMAIN-5897	8.7	Passed
TEMP437	46.2	42.6	1,255.0	1,755.0	WMAIN-3760	6.8	Passed
TEMP438	46.7	43.9	1,252.0	1,752.0	WMAIN-8313(2)	7.1	Passed
TEMP439	47	43.6	1,254.0	1,754.0	WMAIN-3760	6.9	Passed
TEMP440	47	44.1	1,253.0	1,753.0	WMAIN-3760	6.9	Passed
TEMP441	46.4	42.4	1,254.0	1,754.0	WMAIN-8315(2)	7	Passed
TEMP442	46.1	37.9	1,254.0	1,754.0	WMAIN-8316	11.2	Passed
TEMP443	46.3	42.1	1,252.0	1,752.0	WMAIN-3760	6.9	Passed
TEMP444	48.1	43.9	1,250.0	1,750.0	WMAIN-8221(1)(1)(1)	7.4	Passed
TEMP445	51.5	48.3	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
TEMP446	51.6	47.7	1,252.0	1,752.0	WMAIN-8310(1)	6.9	Passed
TEMP447	51.7	46.9	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
TEMP448	51.7	47.4	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
TEMP449	51.7	47.1	1,255.0	1,755.0	WMAIN-8304(2)	6.9	Passed
TEMP450	51.8	48.2	1,251.0	1,751.0	WMAIN-8301(1)	7.2	Passed
TEMP451	51.8	47.9	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
TEMP452	51.8	48.2	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
TEMP453	51.6	47.3	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
TEMP454	51.7	47.1	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
TEMP455	51.4	46.9	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
TEMP456	51	46.9	1,250.0	1,750.0	WMAIN-5897	6.8	Passed
TEMP457	51.4	47.8	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
TEMP458	51.7	48.5	1,251.0	1,751.0	WMAIN-8292(2)	7.8	Passed
TEMP459	51.6	47.5	1,255.0	1,755.0	WMAIN-5897	6.8	Passed
TEMP460	51.4	47.4	1,254.0	1,754.0	WMAIN-5897	6.8	Passed
TEMP461	51.1	47	1,252.0	1,752.0	WMAIN-5897	6.8	Passed
TEMP462	51.5	48.2	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
TEMP463	51.3	47.9	1,251.0	1,751.0	WMAIN-8283(2)	8.3	Passed
TEMP464	51	47.4	1,251.0	1,751.0	WMAIN-5897	6.8	Passed
TEMP465	51.3	46.9	1,253.0	1,753.0	WMAIN-8282(1)(1)	7.5	Passed
TEMP466	50.6	47.1	1,251.0	1,751.0	WMAIN-8284(1)	8.4	Passed
TEMP467	50.8	46.3	1,253.0	1,753.0	WMAIN-8282(2)	7.1	Passed
TEMP468	51.4	45	1,252.0	1,752.0	WMAIN-8281	7.6	Passed
TEMP469	51.2	42.3	1,252.0	1,752.0	WMAIN-8279(2)	11.2	Passed
TEMP470	51.3	44.1	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
TEMP471	50.9	45.3	1,254.0	1,754.0	WMAIN-8278(1)	8.3	Passed
TEMP472	51.2	44.2	1,254.0	1,754.0	WMAIN-8278(1)	7	Passed
TEMP473	51.4	43.9	1,253.0	1,753.0	WMAIN-5897	6.8	Passed
TEMP474	47.9	28.6	3,501.0	4,001.0	WMAIN-8322	13	Passed
TEMP475	47.9	31.8	3,500.0	3,798.0	WMAIN-8323(2)	15	Passed
TEMP476	46.1	41.9	1,252.0	1,752.0	WMAIN-3760	6.8	Passed

APPENDIX J
City of Manteca
Water Master Plan
Cost Estimates

CITY OF MANTECA

Water Master Plan
Groundwater Well Cost Basis
R. Yenney, A. Singer
September 2023

Well Construction and Treatment

Description		Total Cost
Mobilization/Demobilization		$ 64,000
Civil Site Work		$ 560,000
Well Drilling and Equipment		$ 1,612,000
Well Treatment		$ 1,125,000
Electrical and Instrumentation		$ 649,000
Cost of Construction Subtotal		**$ 4,010,000**
Cost of Construction Subtotal (Rounded to nearest $1,000)		**$ 4,010,000**
Engineering Design, Consulting, and Permitting Services	17.5%	$ 702,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services	20%	$ 802,000
Construction Cost and Market Contingency	30%	$ 1,203,000
Project Total		**$ 6,717,000**

Notes

1 Costs are roughly based on Well 29 construction costs.

2 Assumes arsenic treatment and disinfection.

TCP Treatment

Description		Total Cost
General		$ 135,000
Civil Site Work		$ 758,000
Mechanical		$ 1,800,000
Electrical and Instrumentation		$ 475,000
Cost of Construction Subtotal		**$ 3,168,000**
Cost of Construction Subtotal (Rounded to nearest $1,000)		**$ 3,168,000**
Engineering Design, Consulting, and Permitting Services	17.5%	$ 554,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services	20%	$ 634,000
Construction Cost and Market Contingency	30%	$ 950,000
Project Total		**$ 5,306,000**

Notes

1 Costs are roughly based on Well 29 TCP Project and estimates.

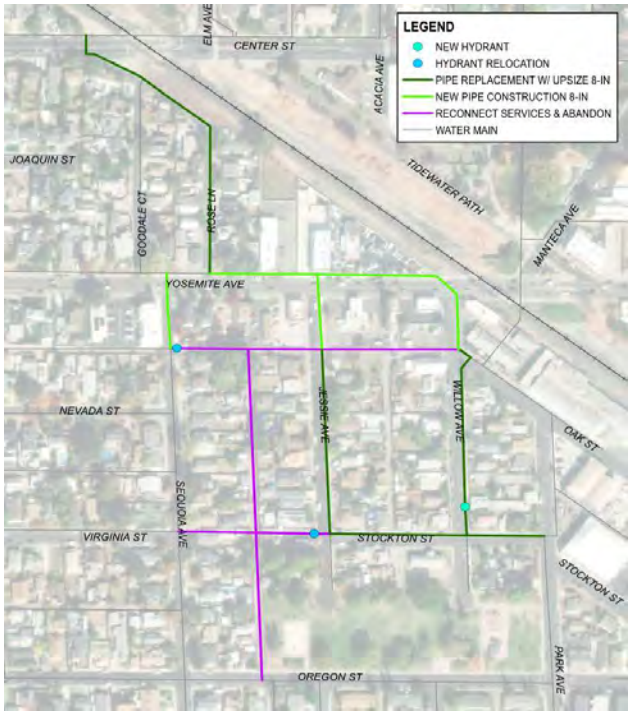
CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 Deficient hydrant services to be moved to adjacent larger main.
5 New hydrants to be added to new mains as neeeded.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 95,016
Traffic Control During Construction	5,500	LF	$ 10	$ 55,000
8-in PVC Pipe Replacement	2,292	LF	$ 270	$ 618,840
8-in PVC New Pipe	1,150	LF	$ 250	$ 287,500
8-in Gate Valve	7	EA	$ 5,000	$ 35,000
Hydrant Service Relocation	2	EA	$ 17,000	$ 34,000
New Hydrant	1	EA	$ 17,000	$ 17,000
Reconnect Services and Abandon Pipe	1,920	LF	$ 32	$ 61,007
Piping Appurtenances	1	LS	10%	$ 94,134
Street Overlay	10,326	SF	$ 15	$ 154,890
			Cost of Construction Subtotal	**$ 1,452,387**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,452,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 254,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 290,000
			Construction Cost and Market Contingency 30%	$ 436,000
			Project Total	**$ 2,432,000**

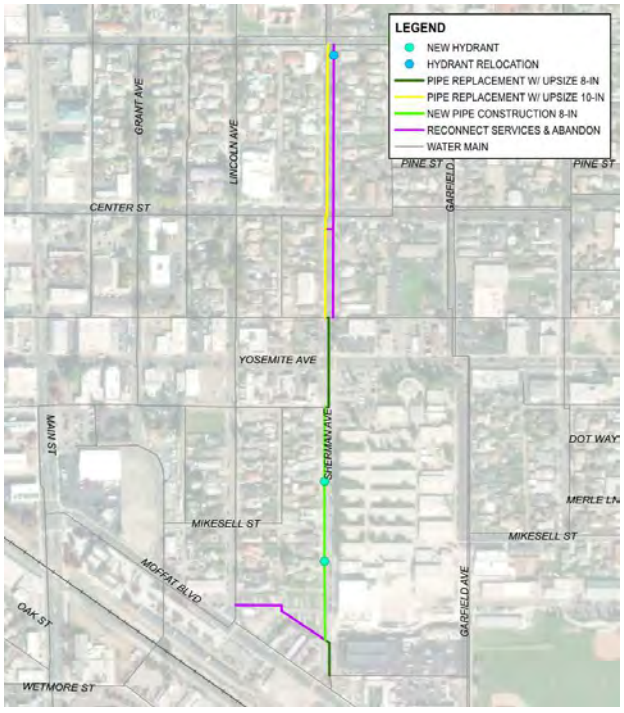
CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

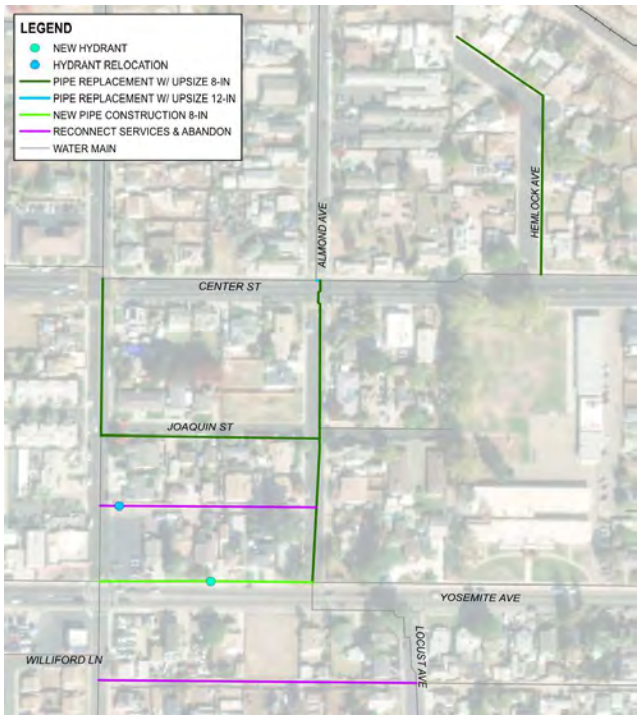
3 ≤6-in pipelines to be abandoned and services moved to adjacent or new pipeline.
4 Deficient hydrant services to be moved to adjacent larger main.
5 New hydrants to be added to new mains as neeeded.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 62,961
Traffic Control During Construction	3,700	LF	$ 10	$ 37,000
8-in PVC Pipe Replacement	546	LF	$ 270	$ 147,420
10-in PVC Pipe Replacement	1,120	LF	$ 305	$ 341,600
8-in PVC New Pipe	388	LF	$ 250	$ 97,000
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
10-in Gate Valve	2	EA	$ 6,500	$ 13,000
Hydrant Service Relocation	1	EA	$ 17,000	$ 17,000
New Hydrant	2	EA	$ 17,000	$ 34,000
Reconnect Services and Abandon Pipe	1,545	LF	$ 32	$ 49,091
Piping Appurtenances	1	LS	10%	$ 60,902
Street Overlay	6,162	SF	$ 15	$ 92,430
Cost of Construction Subtotal				**$ 962,404**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 962,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 168,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 192,000
Construction Cost and Market Contingency			30%	$ 289,000
Project Total				**$ 1,611,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 Deficient hydrant services to be moved to adjacent larger main.
5 New hydrants to be added to new mains as neeeded.

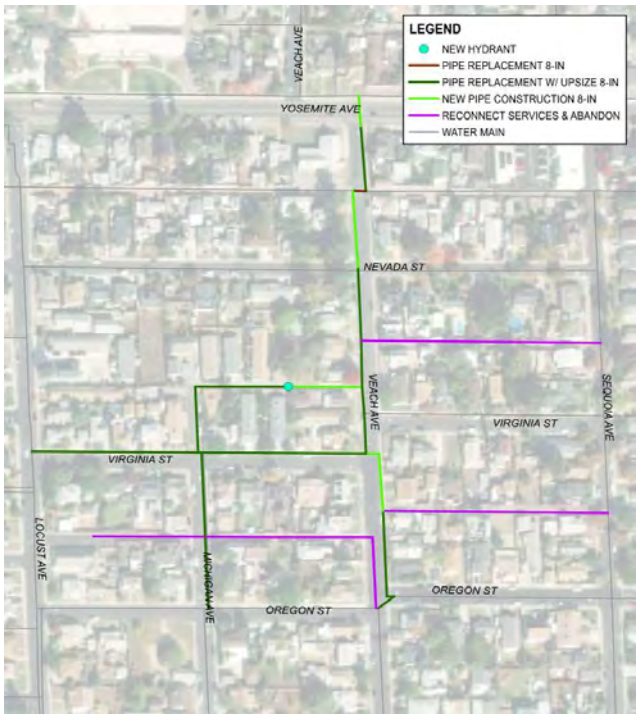
Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 62,377
Traffic Control During Construction	3,300	LF	$ 10	$ 33,000
8-in PVC Pipe Replacement	1,866	LF	$ 270	$ 503,820
12-in PVC Pipe Replacement	8	LF	$ 340	$ 2,720
8-in PVC New Pipe	388	LF	$ 250	$ 97,000
8-in Gate Valve	5	EA	$ 5,000	$ 25,000
Hydrant Service Relocation	1	EA	$ 17,000	$ 17,000
New Hydrant	1	EA	$ 17,000	$ 17,000
Reconnect Services and Abandon Pipe	973	LF	$ 32	$ 30,916
Piping Appurtenances	1	LS	10%	$ 62,854
Street Overlay	6,786	SF	$ 15	$ 101,790
			Cost of Construction Subtotal	**$ 953,477**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 953,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 167,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 191,000
			Construction Cost and Market Contingency 30%	$ 286,000
			Project Total	**$ 1,597,000**

Notes

1 Confirm the diameter of WMAIN-2998 (6-in between 12-in) before design.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 4-in, 6-in, and 8-in pipelines to be replaced and/or upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 New hydrants to be added to new mains as neeeded.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 71,089
Traffic Control During Construction	4,200	LF	$ 10	$ 42,000
8-in PVC Pipe Replacement	2,089	LF	$ 270	$ 564,030
8-in PVC New Pipe	513	LF	$ 250	$ 128,250
8-in Gate Valve	5	EA	$ 5,000	$ 25,000
New Hydrant	1	EA	$ 17,000	$ 17,000
Reconnect Services and Abandon Pipe	1,588	LF	$ 32	$ 50,458
Piping Appurtenances	1	LS	10%	$ 71,728
Street Overlay	7,806	SF	$ 15	$ 117,090
			Cost of Construction Subtotal	**$ 1,086,644**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,087,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 190,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 217,000
			Construction Cost and Market Contingency 30%	$ 326,000
			Project Total	**$ 1,820,000**

Notes

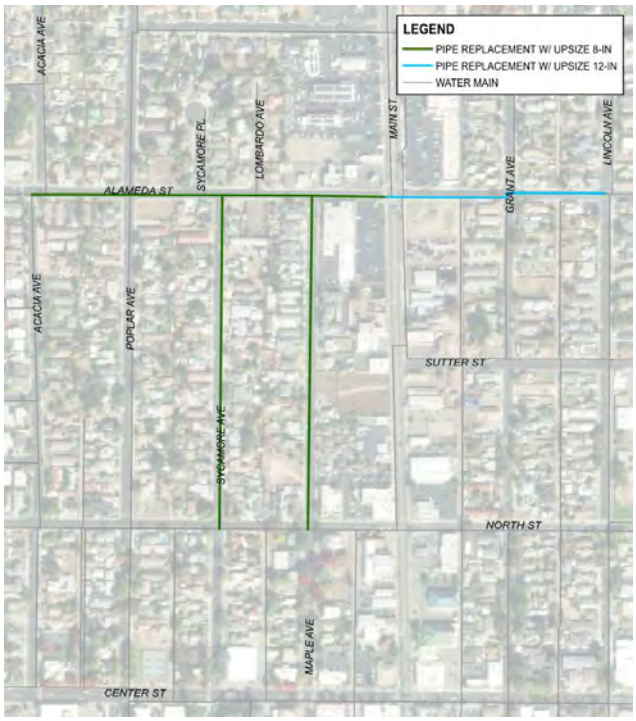
1 For the alleyway portion north of Virginia Street, continue to use the existing easement in the alleyway, add a hydrant, and extend the pipeline to close the loop.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

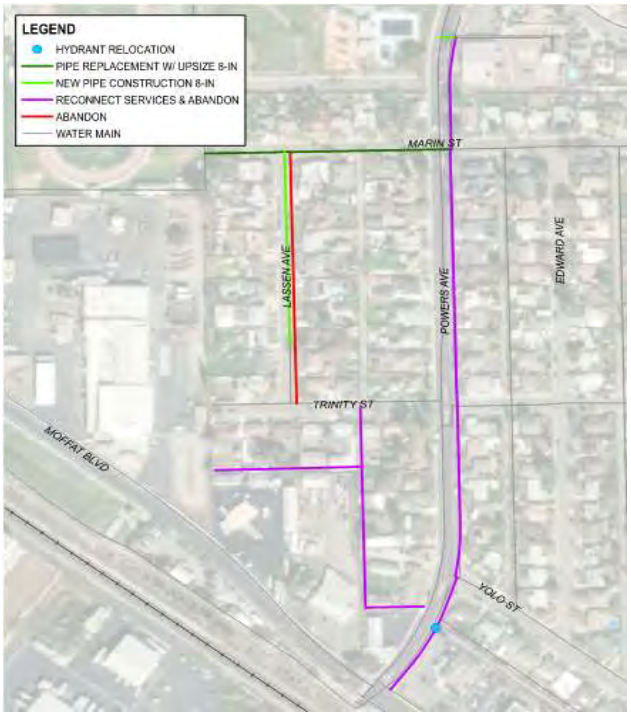
1 Existing 4-in and 6-in pipelines to be replaced and upsized.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 128,168
Traffic Control During Construction	4,900	LF	$ 10	$ 49,000
8-in PVC Pipe Replacement	4,011	LF	$ 270	$ 1,082,970
12-in PVC Pipe Replacement	832	LF	$ 340	$ 282,880
8-in Gate Valve	8	EA	$ 5,000	$ 40,000
12-in Gate Valve	2	EA	$ 8,000	$ 16,000
Piping Appurtenances	1	LS	10%	$ 142,185
Street Overlay	14,529	SF	$ 15	$ 217,935
Cost of Construction Subtotal				**$ 1,959,138**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 1,959,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 343,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 392,000
Construction Cost and Market Contingency			30%	$ 588,000
Project Total				**$ 3,282,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.

4 Deficient hydrant services to be moved to adjacent larger main.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 39,154
Traffic Control During Construction	4,800	LF	$ 10	$ 48,000
8-in PVC Pipe Replacement	605	LF	$ 270	$ 163,350
8-in PVC New Pipe	561	LF	$ 250	$ 140,250
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
Hydrant Service Relocation	1	EA	$ 17,000	$ 17,000
Abandon Pipe	688	LF	$ 8	$ 5,504
Reconnect Services and Abandon Pipe	2,877	LF	$ 32	$ 91,415
Piping Appurtenances	1	LS	10%	$ 31,360
Street Overlay	3,498	SF	$ 15	$ 52,470
			Cost of Construction Subtotal	**$ 598,503**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 599,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 105,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 120,000
			Construction Cost and Market Contingency 30%	$ 180,000
			Project Total	**$ 1,004,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 27,806
Traffic Control During Construction	1,600	LF	$ 10	$ 16,000
8-in PVC Pipe Replacement	614	LF	$ 270	$ 165,780
8-in PVC New Pipe	452	LF	$ 250	$ 113,000
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
Reconnect Services and Abandon Pipe	491	LF	$ 32	$ 15,601
Piping Appurtenances	1	LS	10%	$ 28,878
Street Overlay	3,198	SF	$ 15	$ 47,970
			Cost of Construction Subtotal	**$ 425,035**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 425,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 74,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 85,000
			Construction Cost and Market Contingency 30%	$ 128,000
			Project Total	**$ 712,000**

Notes

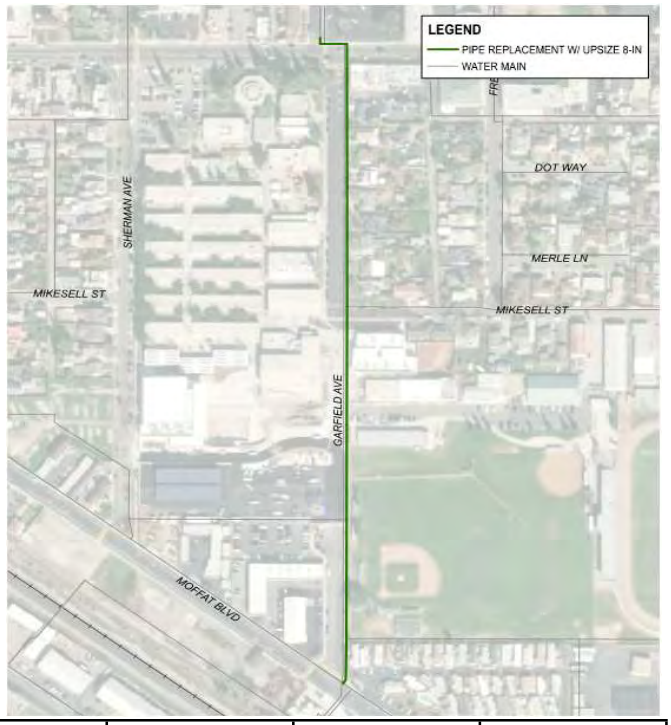
1 The two pipes in Oak St can be replaced and extended to loop, though not required hydraulically; not included in cost estimates at this time.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 46,896
Traffic Control During Construction	1,900	LF	$ 10	$ 19,000
8-in PVC Pipe Replacement	1,839	LF	$ 270	$ 496,530
8-in Gate Valve	4	EA	$ 5,000	$ 20,000
Piping Appurtenances	1	LS	10%	$ 51,653
Street Overlay	5,517	SF	$ 15	$ 82,755
			Cost of Construction Subtotal	**$ 716,834**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 717,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 125,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 143,000
			Construction Cost and Market Contingency 30%	$ 215,000
			Project Total	**$ 1,200,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

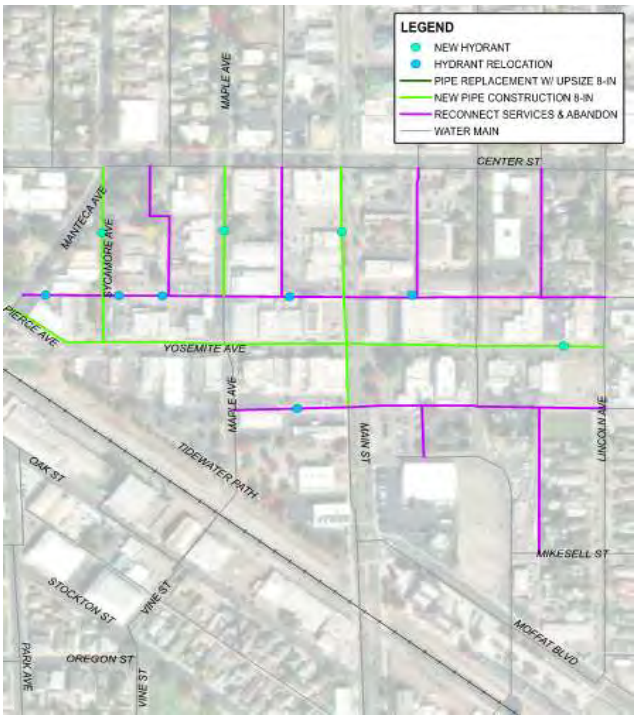
CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 51,680
Traffic Control During Construction	2,100	LF	$ 10	$ 21,000
8-in PVC Pipe Replacement	2,033	LF	$ 270	$ 548,910
8-in Gate Valve	4	EA	$ 5,000	$ 20,000
Piping Appurtenances	1	LS	10%	$ 56,891
Street Overlay	6,099	SF	$ 15	$ 91,485
			Cost of Construction Subtotal	**$ 789,966**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 790,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 138,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 158,000
			Construction Cost and Market Contingency 30%	$ 237,000
			Project Total	**$ 1,323,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

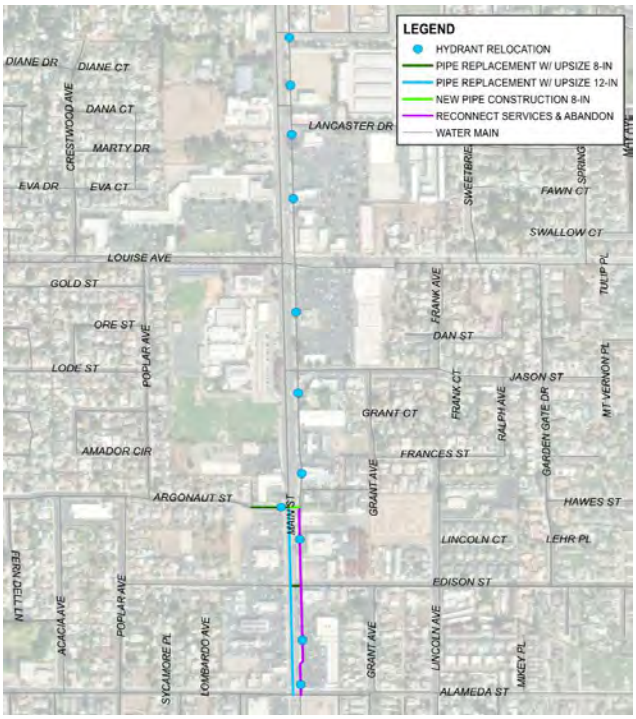
1 New 8-in and 12-in pipeline to be constructed.

2 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
3 Deficient hydrant services to be moved to adjacent larger main.
4 New hydrants to be added to new mains as neeeded.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 121,120
Traffic Control During Construction	9,100	LF	$ 10	$ 91,000
8-in PVC New Pipe	1,975	LF	$ 250	$ 493,750
12-in PVC New Pipe	1,571	LF	$ 320	$ 502,720
8-in Gate Valve	4	EA	$ 5,000	$ 20,000
12-in Gate Valve	3	EA	$ 8,000	$ 24,000
Hydrant Service Relocation	6	EA	$ 17,000	$ 102,000
New Hydrant	4	EA	$ 17,000	$ 68,000
Reconnect Services and Abandon Pipe	5,199	LF	$ 32	$ 165,195
Piping Appurtenances	1	LS	10%	$ 104,047
Street Overlay	10,638	SF	$ 15	$ 159,570
			Cost of Construction Subtotal	**$ 1,851,401**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,851,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 324,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 370,000
			Construction Cost and Market Contingency 30%	$ 555,000
			Project Total	**$ 3,100,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 New 8-in pipeline to be constructed.

3 Pipelines near parcel boundaries to be abandoned and services moved to new pipeline in City ROW.

4 Deficient hydrant services to be moved to adjacent larger main.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 60,872
Traffic Control During Construction	3,200	LF	$ 10	$ 32,000
8-in PVC Pipe Replacement	268	LF	$ 270	$ 72,360
12-in PVC Pipe Replacement	1,145	LF	$ 340	$ 389,300
8-in PVC New Pipe	61	LF	$ 250	$ 15,250
8-in Gate Valve	1	EA	$ 5,000	$ 5,000
12-in Gate Valve	2	EA	$ 8,000	$ 16,000
Hydrant Service Relocation	11	EA	$ 17,000	$ 187,000
Reconnect Services and Abandon Pipe	1,151	LF	$ 32	$ 36,572
Piping Appurtenances	1	LS	10%	$ 49,791
Street Overlay	4,422	SF	$ 15	$ 66,330
Cost of Construction Subtotal				**$ 930,475**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 930,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 163,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 186,000
Construction Cost and Market Contingency			30%	$ 279,000
Project Total				**$ 1,558,000**

Notes

1 Reconnect all hydrants from east line to west line.

2 Eventually upsize entire west line to 12-in, but this can save money in the mean time because it's a lower (relatively) priority for condition replacement.

CITY OF MANTECA

Water Master Plan
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CIP Description:

1 Existing 6-in and 8-in pipelines to be replaced and upsized.
2 New 12-in pipeline to be constructed.
3 Pipelines not in City ROW to be abandoned and services moved to new pipeline in City ROW.
4 Deficient hydrant services to be moved to adjacent larger main.
5 New trenchless 12-in pipeline crossing on S Main St at Hwy 120.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 154,929
Traffic Control During Construction	5,100	LF	$ 10	$ 51,000
12-in PVC Pipe Replacement	1,485	LF	$ 340	$ 504,900
12-in PVC New Pipe	2,630	LF	$ 320	$ 841,600
12-in Gate Valve	8	EA	$ 8,000	$ 64,000
Hydrant Service Relocation	3	EA	$ 17,000	$ 51,000
Abandon Pipe	568	LF	$ 8	$ 4,544
Bore and Jack Trenchless	250	LF	$ 1,000	$ 250,000
Excavation Pits	2	EA	$ 60,000	$ 120,000
Piping Appurtenances	1	LS	10%	$ 141,050
Street Overlay	12,345	SF	$ 15	$ 185,175
			Cost of Construction Subtotal	**$ 2,368,198**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 2,368,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 414,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 474,000
Construction Cost and Market Contingency			30%	$ 710,000
			Project Total	**$ 3,966,000**

Notes
1 Crossing near S Maple Ave – replace double 8-in barrels with a single 12-in and reconnect to the 10-in.

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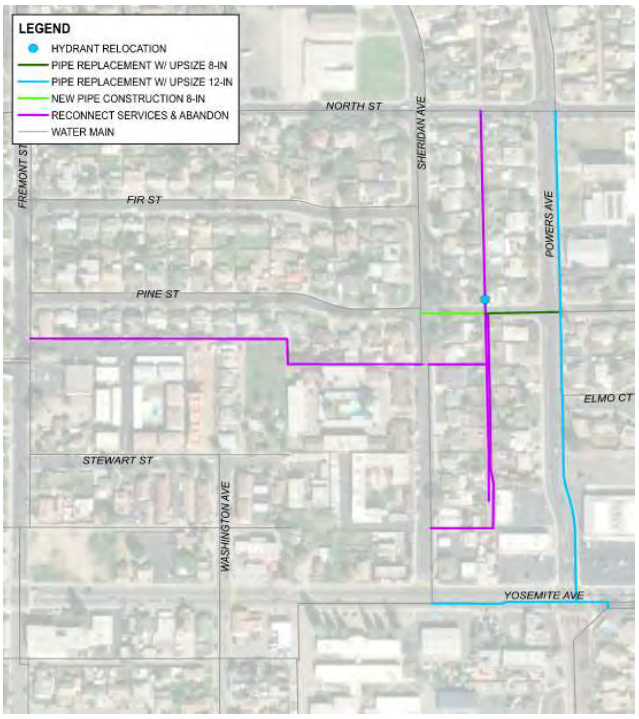

CIP Description:

1 Existing 4-in, 6-in, and 8-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 Deficient hydrant services to be moved to adjacent larger main.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 74,159
Traffic Control During Construction	5,200	LF	$ 10	$ 52,000
8-in PVC Pipe Replacement	184	LF	$ 270	$ 49,680
12-in PVC Pipe Replacement	1,771	LF	$ 340	$ 602,140
8-in PVC New Pipe	160	LF	$ 250	$ 40,000
8-in Gate Valve	1	EA	$ 5,000	$ 5,000
12-in Gate Valve	4	EA	$ 8,000	$ 32,000
Hydrant Service Relocation	1	EA	$ 17,000	$ 17,000
Reconnect Services and Abandon Pipe	2,944	LF	$ 32	$ 93,544
Piping Appurtenances	1	LS	10%	$ 72,882
Street Overlay	6,345	SF	$ 15	$ 95,175
			Cost of Construction Subtotal	**$ 1,133,580**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,134,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 198,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 227,000
Construction Cost and Market Contingency			30%	$ 340,000
			Project Total	**$ 1,899,000**

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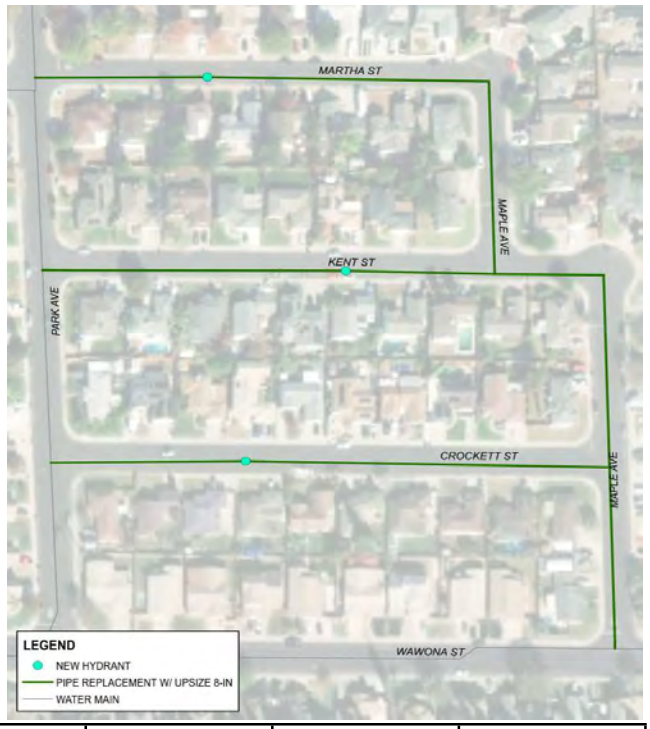
CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New hydrants to be added to mains as neeeded.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 69,964
Traffic Control During Construction	2,700	LF	$ 10	$ 27,000
8-in PVC Pipe Replacement	2,614	LF	$ 270	$ 705,780
8-in Gate Valve	5	EA	$ 5,000	$ 25,000
New Hydrant	3	EA	$ 17,000	$ 51,000
Piping Appurtenances	1	LS	10%	$ 73,078
Street Overlay	7,842	SF	$ 15	$ 117,630
			Cost of Construction Subtotal	**$ 1,069,452**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,069,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 187,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 214,000
			Construction Cost and Market Contingency 30%	$ 321,000
			Project Total	**$ 1,791,000**

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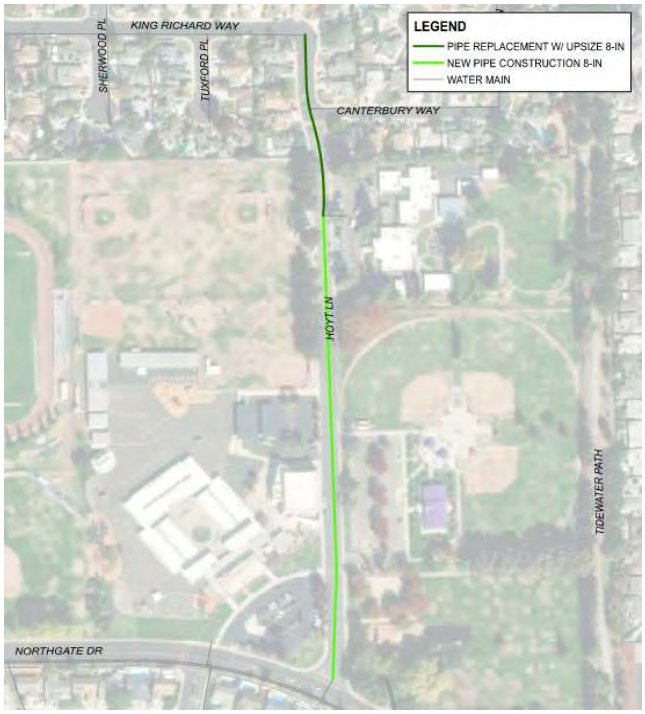

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 New 8-in pipeline to be constructed.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 42,874
Traffic Control During Construction	1,800	LF	$ 10	$ 18,000
8-in PVC Pipe Replacement	495	LF	$ 270	$ 133,650
8-in PVC New Pipe	1,260	LF	$ 250	$ 315,000
8-in Gate Valve	4	EA	$ 5,000	$ 20,000
Piping Appurtenances	1	LS	10%	$ 46,865
Street Overlay	5,265	SF	$ 15	$ 78,975
			Cost of Construction Subtotal	**$ 655,364**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 655,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 115,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 131,000
Construction Cost and Market Contingency			30%	$ 197,000
			Project Total	**$ 1,098,000**

Notes

1 There is an existing 10-in stub to the south. Recommend minimum 8-in to supply sufficient fire flow. Confirm diameter during design.

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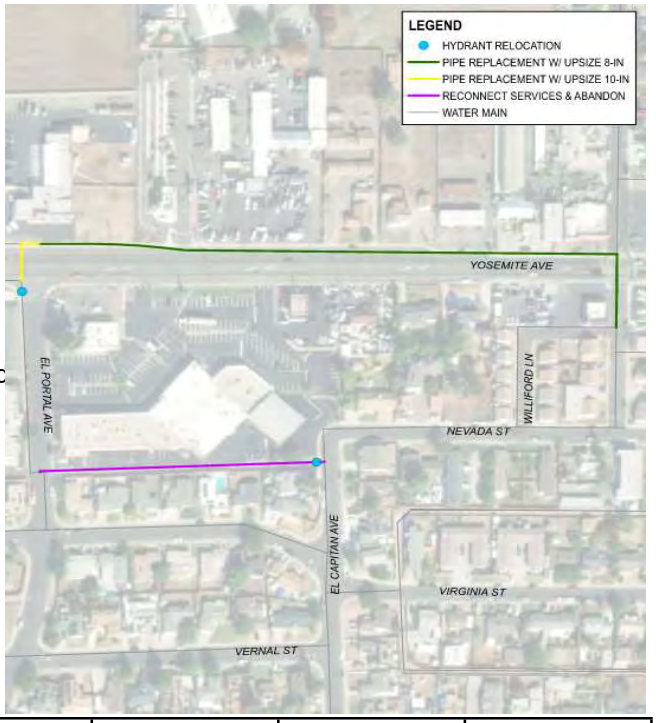
CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 Alleyway pipelines to be abandoned and services moved to existing pipeline in City ROW.
3 Deficient hydrant services to be moved to adjacent larger main.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 36,601
Traffic Control During Construction	1,900	LF	$ 10	$ 19,000
8-in PVC Pipe Replacement	1,179	LF	$ 270	$ 318,330
10-in PVC Pipe Replacement	104	LF	$ 305	$ 31,720
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
Hydrant Service Relocation	2	EA	$ 17,000	$ 34,000
Reconnect Services and Abandon Pipe	506	LF	$ 32	$ 16,078
Piping Appurtenances	1	LS	10%	$ 36,005
Street Overlay	3,849	SF	$ 15	$ 57,735
Cost of Construction Subtotal				**$ 559,469**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 559,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 98,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 112,000
Construction Cost and Market Contingency			30%	$ 168,000
Project Total				**$ 937,000**

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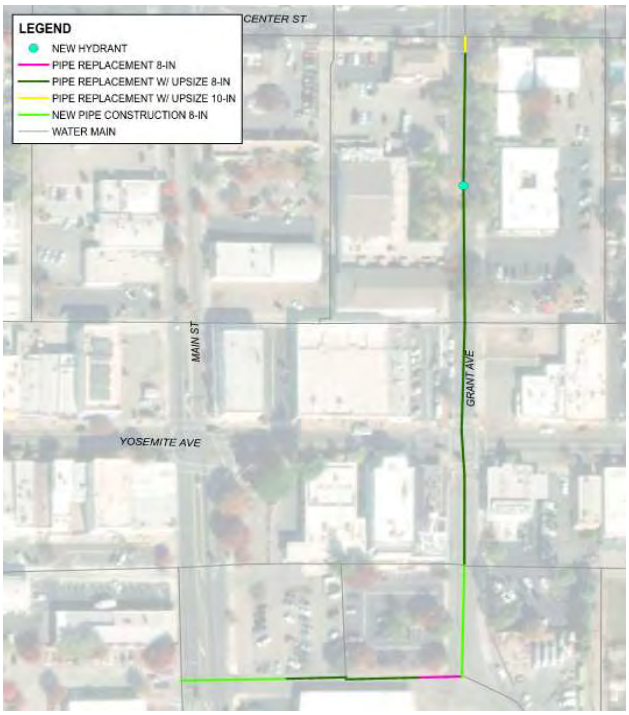

CIP Description:

1 Existing 6-in and 8-in pipelines to be replaced and/or upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 New hydrants to be added to new mains as neeeded.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 35,030
Traffic Control During Construction	1,400	LF	$ 10	$ 14,000
8-in PVC Pipe Replacement	1,016	LF	$ 270	$ 274,320
10-in PVC Pipe Replacement	24	LF	$ 305	$ 7,320
8-in PVC New Pipe	301	LF	$ 250	$ 75,250
8-in Gate Valve	3	EA	$ 5,000	$ 15,000
New Hydrant	1	EA	$ 17,000	$ 17,000
Piping Appurtenances	1	LS	10%	$ 37,189
Street Overlay	4,023	SF	$ 15	$ 60,345
			Cost of Construction Subtotal	**$ 535,454**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 535,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 94,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 107,000
			Construction Cost and Market Contingency 30%	$ 161,000
			Project Total	**$ 897,000**

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Water Master Plan
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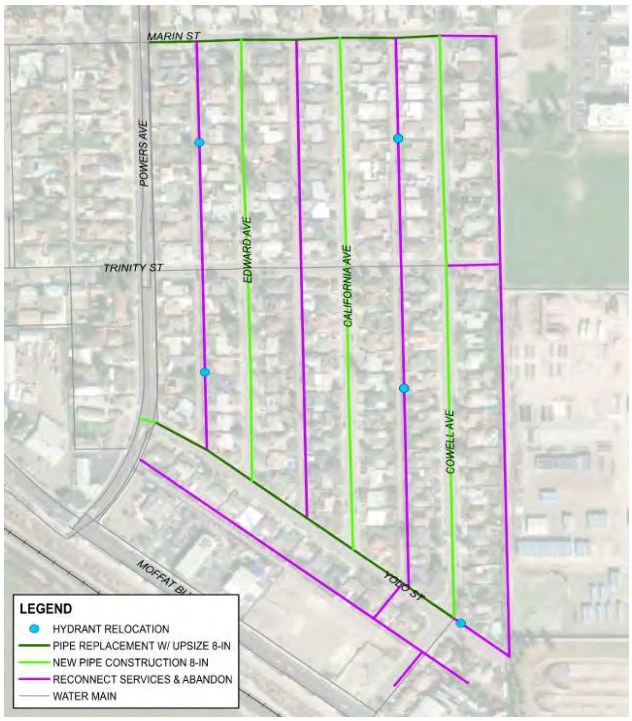

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 Deficient hydrant services to be moved to adjacent larger main.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 193,586
Traffic Control During Construction	15,300	LF	$ 10	$ 153,000
8-in PVC Pipe Replacement	1,843	LF	$ 270	$ 497,610
8-in PVC New Pipe	4,780	LF	$ 250	$ 1,195,000
8-in Gate Valve	13	EA	$ 5,000	$ 65,000
Hydrant Service Relocation	7	EA	$ 17,000	$ 119,000
Reconnect Services and Abandon Pipe	8,249	LF	$ 32	$ 262,106
Piping Appurtenances	1	LS	10%	$ 175,761
Street Overlay	19,869	SF	$ 15	$ 298,035
			Cost of Construction Subtotal	**$ 2,959,098**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 2,959,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 518,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 592,000
Construction Cost and Market Contingency			30%	$ 888,000
			Project Total	**$ 4,957,000**

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CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.

4 New hydrants to be added to new mains as neeeded.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 72,432
Traffic Control During Construction	5,200	LF	$ 10	$ 52,000
8-in PVC Pipe Replacement	1,799	LF	$ 270	$ 485,730
8-in PVC New Pipe	691	LF	$ 250	$ 172,750
8-in Gate Valve	5	EA	$ 5,000	$ 25,000
New Hydrant	2	EA	$ 17,000	$ 34,000
Reconnect Services and Abandon Pipe	2,671	LF	$ 32	$ 84,869
Piping Appurtenances	1	LS	10%	$ 68,348
Street Overlay	7,470	SF	$ 15	$ 112,050
Cost of Construction Subtotal				**$ 1,107,179**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 1,107,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 194,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 221,000
Construction Cost and Market Contingency			30%	$ 332,000
Project Total				**$ 1,854,000**

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Water Master Plan
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CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 46,654
Traffic Control During Construction	1,800	LF	$ 10	$ 18,000
8-in PVC Pipe Replacement	1,412	LF	$ 270	$ 381,240
10-in PVC Pipe Replacement	373	LF	$ 305	$ 113,765
8-in Gate Valve	3	EA	$ 5,000	$ 15,000
10-in Gate Valve	1	EA	$ 6,500	$ 6,500
Piping Appurtenances	1	LS	10%	$ 51,651
Street Overlay	5,355	SF	$ 15	$ 80,325
Cost of Construction Subtotal				**$ 713,134**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 713,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 125,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 143,000
Construction Cost and Market Contingency			30%	$ 214,000
Project Total				**$ 1,195,000**

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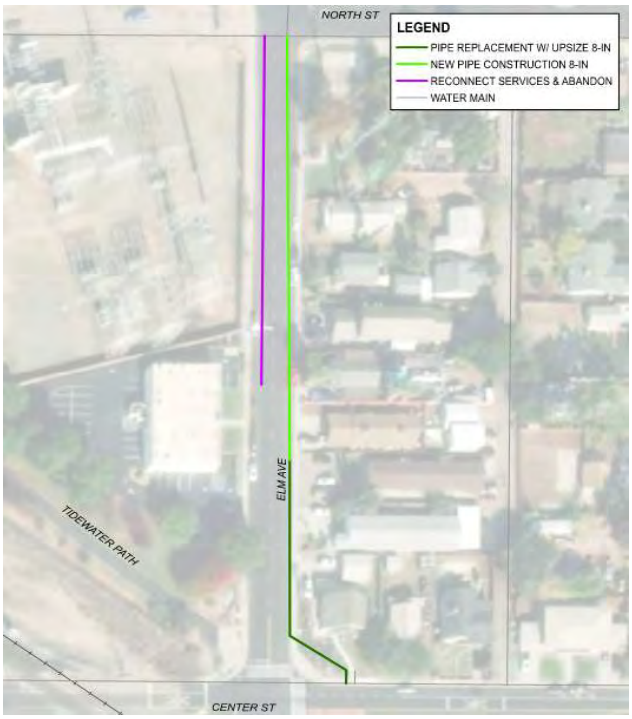

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 New 8-in pipeline to be constructed.

3 Pipelines near parcel boundaries to be abandoned and services moved to new pipeline in City ROW.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 17,270
Traffic Control During Construction	1,100	LF	$ 10	$ 11,000
8-in PVC Pipe Replacement	248	LF	$ 270	$ 66,960
8-in PVC New Pipe	420	LF	$ 250	$ 105,000
8-in Gate Valve	1	EA	$ 5,000	$ 5,000
Reconnect Services and Abandon Pipe	346	LF	$ 32	$ 10,994
Piping Appurtenances	1	LS	10%	$ 17,696
Street Overlay	2,004	SF	$ 15	$ 30,060
Cost of Construction Subtotal				**$ 263,980**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 264,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 46,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 53,000
Construction Cost and Market Contingency			30%	$ 79,000
Project Total				**$ 442,000**

CITY OF MANTECA

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CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 86,661
Traffic Control During Construction	3,500	LF	$ 10	$ 35,000
8-in PVC Pipe Replacement	3,405	LF	$ 270	$ 919,350
8-in Gate Valve	7	EA	$ 5,000	$ 35,000
Piping Appurtenances	1	LS	10%	$ 95,435
Street Overlay	10,215	SF	$ 15	$ 153,225
			Cost of Construction Subtotal	**$ 1,324,671**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,325,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 232,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 265,000
			Construction Cost and Market Contingency 30%	$ 398,000
			Project Total	**$ 2,220,000**

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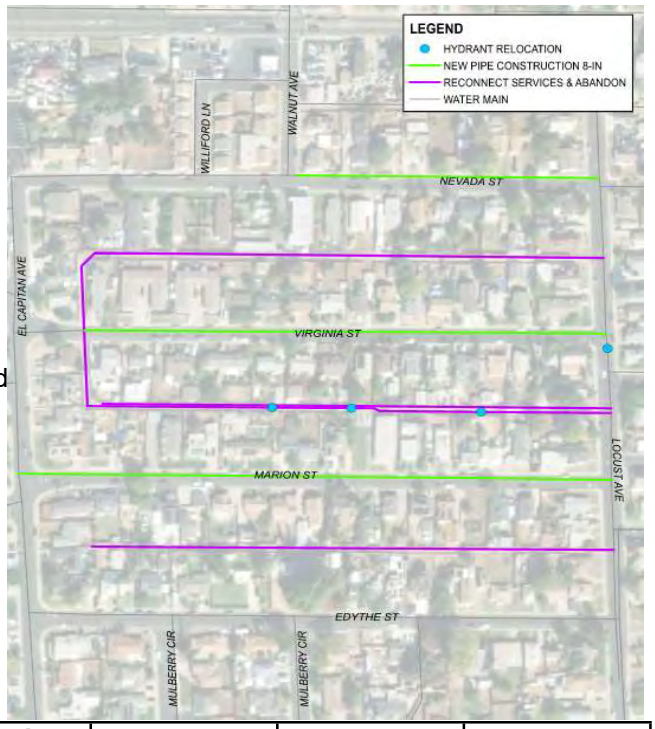

CIP Description:

1 New 8-in pipeline to be constructed.

2 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.

3 Deficient hydrant services to be moved to adjacent larger main.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 80,717
Traffic Control During Construction	7,100	LF	$ 10	$ 71,000
8-in PVC New Pipe	2,665	LF	$ 250	$ 666,250
8-in Gate Valve	5	EA	$ 5,000	$ 25,000
Hydrant Service Relocation	4	EA	$ 17,000	$ 68,000
Reconnect Services and Abandon Pipe	4,211	LF	$ 32	$ 133,802
Piping Appurtenances	1	LS	10%	$ 69,125
Street Overlay	7,995	SF	$ 15	$ 119,925
			Cost of Construction Subtotal	**$ 1,233,819**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,234,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 216,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 247,000
			Construction Cost and Market Contingency 30%	$ 370,000
			Project Total	**$ 2,067,000**

Note

1 Confirm configuration between Virginia St & Marion St because hydrant testing Site No. 3 results indicate this area is misrepresented.

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CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New hydrants to be added to mains as neeeded.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 131,307
Traffic Control During Construction	5,000	LF	$ 10	$ 50,000
8-in PVC Pipe Replacement	4,979	LF	$ 270	$ 1,344,330
8-in Gate Valve	10	EA	$ 5,000	$ 50,000
New Hydrant	4	EA	$ 17,000	$ 68,000
Piping Appurtenances	1	LS	10%	$ 139,433
Street Overlay	14,937	SF	$ 15	$ 224,055
Cost of Construction Subtotal				**$ 2,007,125**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 2,007,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 351,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 401,000
Construction Cost and Market Contingency			30%	$ 602,000
Project Total				**$ 3,361,000**

Notes

1 225 LF of upsize required in S Veach Ave to address hydraulic deficiency, but this can be extended during design.

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Water Master Plan
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CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 New 8-in pipeline to be constructed.

3 2-in pipelines to be abandoned and services moved to new pipeline in City ROW.

4 Deficient hydrant services to be moved to adjacent larger main.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 19,670
Traffic Control During Construction	1,200	LF	$ 10	$ 12,000
8-in PVC Pipe Replacement	668	LF	$ 270	$ 180,360
8-in PVC New Pipe	10	LF	$ 250	$ 2,500
8-in Gate Valve	1	EA	$ 5,000	$ 5,000
Hydrant Service Relocation	1	EA	$ 17,000	$ 17,000
Reconnect Services and Abandon Pipe	467	LF	$ 32	$ 14,839
Piping Appurtenances	1	LS	10%	$ 18,786
Street Overlay	2,034	SF	$ 15	$ 30,510
Cost of Construction Subtotal				**$ 300,664**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 301,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 53,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 60,000
Construction Cost and Market Contingency			30%	$ 90,000
Project Total				**$ 504,000**

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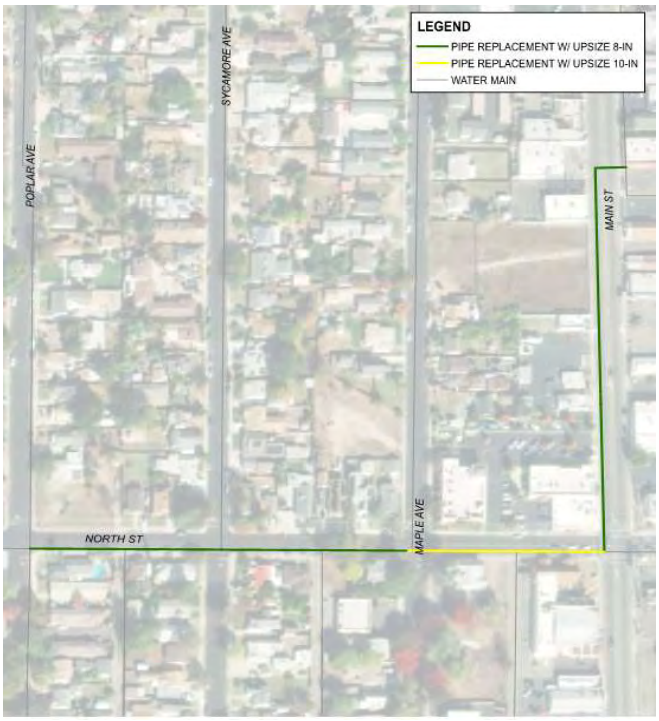
CIP Description:

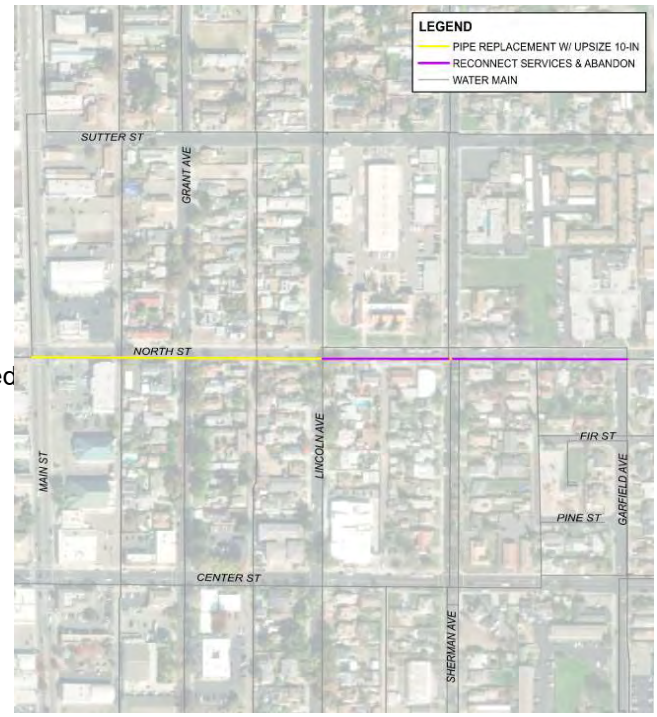
1 Existing 6-in pipelines to be replaced and upsized.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 46,567
Traffic Control During Construction	1,800	LF	$ 10	$ 18,000
8-in PVC Pipe Replacement	1,444	LF	$ 270	$ 389,880
10-in PVC Pipe Replacement	341	LF	$ 305	$ 104,005
8-in Gate Valve	3	EA	$ 5,000	$ 15,000
10-in Gate Valve	1	EA	$ 6,500	$ 6,500
Piping Appurtenances	1	LS	10%	$ 51,539
Street Overlay	5,355	SF	$ 15	$ 80,325
Cost of Construction Subtotal				**$ 711,816**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 712,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 125,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 142,000
Construction Cost and Market Contingency			30%	$ 214,000
Project Total				**$ 1,193,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 Alleyway pipelines to be abandoned and services moved to existing pipeline in City ROW.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 25,185
Traffic Control During Construction	1,700	LF	$ 10	$ 17,000
10-in PVC Pipe Replacement	795	LF	$ 305	$ 242,475
10-in Gate Valve	2	EA	$ 6,500	$ 13,000
Reconnect Services and Abandon Pipe	818	LF	$ 32	$ 25,991
Piping Appurtenances	1	LS	10%	$ 25,548
Street Overlay	2,385	SF	$ 15	$ 35,775
Cost of Construction Subtotal				**$ 384,974**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 385,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 67,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 77,000
Construction Cost and Market Contingency			30%	$ 116,000
Project Total				**$ 645,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 32,086
Traffic Control During Construction	1,300	LF	$ 10	$ 13,000
8-in PVC Pipe Replacement	1,254	LF	$ 270	$ 338,580
8-in Gate Valve	3	EA	$ 5,000	$ 15,000
Piping Appurtenances	1	LS	10%	$ 35,358
Street Overlay	3,762	SF	$ 15	$ 56,430
			Cost of Construction Subtotal	**$ 490,454**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 490,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 86,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 98,000
			Construction Cost and Market Contingency 30%	$ 147,000
			Project Total	**$ 821,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 37,863
Traffic Control During Construction	1,800	LF	$ 10	$ 18,000
8-in PVC Pipe Replacement	1,220	LF	$ 270	$ 329,400
8-in PVC New Pipe	252	LF	$ 250	$ 63,000
8-in Gate Valve	3	EA	$ 5,000	$ 15,000
Reconnect Services and Abandon Pipe	268	LF	$ 32	$ 8,516
Piping Appurtenances	1	LS	10%	$ 40,740
Street Overlay	4,416	SF	$ 15	$ 66,240
Cost of Construction Subtotal				**$ 578,758**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 579,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 101,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 116,000
Construction Cost and Market Contingency			30%	$ 174,000
Project Total				**$ 970,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

2 Deficient hydrant services to be moved to adjacent larger main.

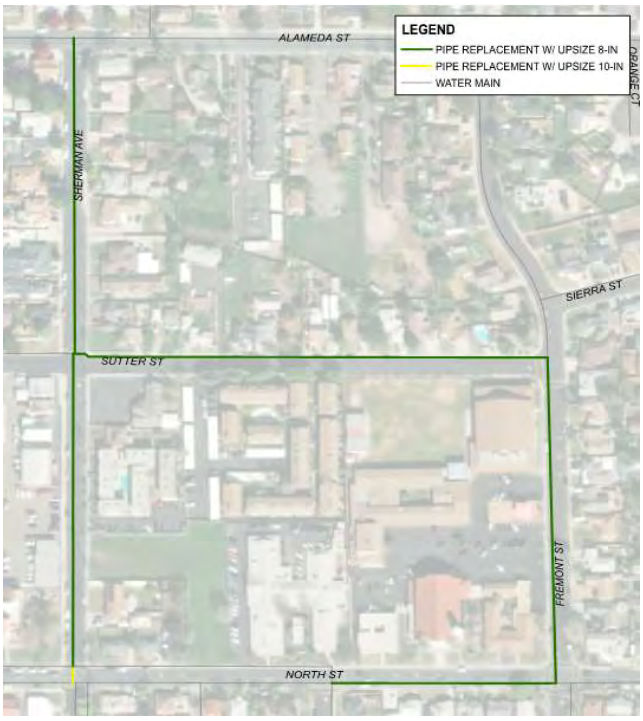
Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 46,673
Traffic Control During Construction	1,900	LF	$ 10	$ 19,000
8-in PVC Pipe Replacement	1,780	LF	$ 270	$ 480,600
8-in Gate Valve	4	EA	$ 5,000	$ 20,000
Hydrant Service Relocation	1	EA	$ 17,000	$ 17,000
Piping Appurtenances	1	LS	10%	$ 50,060
Street Overlay	5,340	SF	$ 15	$ 80,100
			Cost of Construction Subtotal	**$ 713,433**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 713,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 125,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 143,000
			Construction Cost and Market Contingency 30%	$ 214,000
			Project Total	**$ 1,195,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 85,440
Traffic Control During Construction	3,400	LF	$ 10	$ 34,000
8-in PVC Pipe Replacement	3,318	LF	$ 270	$ 895,860
10-in PVC Pipe Replacement	35	LF	$ 305	$ 10,675
8-in Gate Valve	7	EA	$ 5,000	$ 35,000
Piping Appurtenances	1	LS	10%	$ 94,154
Street Overlay	10,059	SF	$ 15	$ 150,885
			Cost of Construction Subtotal	**$ 1,306,014**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,306,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 229,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 261,000
			Construction Cost and Market Contingency 30%	$ 392,000
			Project Total	**$ 2,188,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 Alleyway pipelines to be abandoned and services moved to existing pipeline in City ROW.

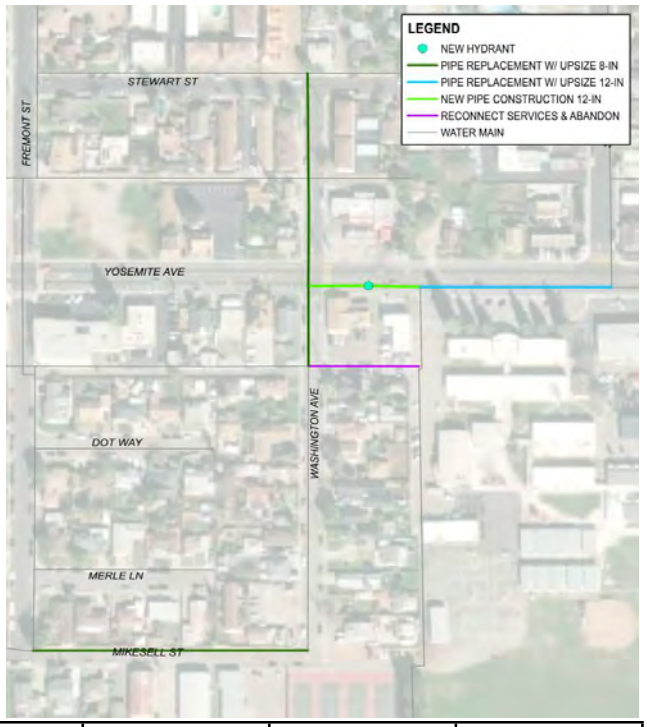
Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 92,107
Traffic Control During Construction	4,100	LF	$ 10	$ 41,000
8-in PVC Pipe Replacement	3,570	LF	$ 270	$ 963,900
8-in Gate Valve	7	EA	$ 5,000	$ 35,000
Reconnect Services and Abandon Pipe	484	LF	$ 32	$ 15,379
Piping Appurtenances	1	LS	10%	$ 99,890
Street Overlay	10,710	SF	$ 15	$ 160,650
			Cost of Construction Subtotal	**$ 1,407,926**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,408,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 246,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 282,000
			Construction Cost and Market Contingency 30%	$ 422,000
			Project Total	**$ 2,358,000**

Notes

1 For cost estimates, the Marie Ave cul-de-sac is assumed to be upsized to 8-in. Note that a 6-in would suffice for SFR fire flow; confirm diameter during design.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 6-in and 8-in pipelines to be replaced and upsized.
2 New 12-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 New hydrants to be added to new mains as neeeded.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 43,607
Traffic Control During Construction	1,800	LF	$ 10	$ 18,000
8-in PVC Pipe Replacement	1,019	LF	$ 270	$ 275,130
12-in PVC Pipe Replacement	328	LF	$ 340	$ 111,520
12-in PVC New Pipe	192	LF	$ 320	$ 61,440
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
12-in Gate Valve	1	EA	$ 8,000	$ 8,000
New Hydrant	1	EA	$ 17,000	$ 17,000
Reconnect Services and Abandon Pipe	189	LF	$ 32	$ 6,005
Piping Appurtenances	1	LS	10%	$ 46,609
Street Overlay	4,617	SF	$ 15	$ 69,255
			Cost of Construction Subtotal	**$ 666,566**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 667,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 117,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 133,000
			Construction Cost and Market Contingency 30%	$ 200,000
			Project Total	**$ 1,117,000**

Notes

1 There is a remaining hydrant that is 11% deficient; this hydrant is located on a line that runs through the school parking lot outside of ROW. Multiple hydrants surrounding this school are able to serve this fire flow. A new hydrant is recommended on the new 12-in line in E Yosemite Ave to serve the school and light industrial.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 25,983
Traffic Control During Construction	1,100	LF	$ 10	$ 11,000
8-in PVC Pipe Replacement	1,021	LF	$ 270	$ 275,670
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
Piping Appurtenances	1	LS	10%	$ 28,567
Street Overlay	3,063	SF	$ 15	$ 45,945
			Cost of Construction Subtotal	**$ 397,165**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 397,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 69,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 79,000
			Construction Cost and Market Contingency 30%	$ 119,000
			Project Total	**$ 664,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 5,381
Traffic Control During Construction	300	LF	$ 10	$ 3,000
8-in PVC Pipe Replacement	216	LF	$ 270	$ 58,320
Piping Appurtenances	1	LS	10%	$ 5,832
Street Overlay	648	SF	$ 15	$ 9,720
Cost of Construction Subtotal				**$ 82,253**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 82,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 14,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 16,000
Construction Cost and Market Contingency			30%	$ 25,000
Project Total				**$ 137,000**

Notes

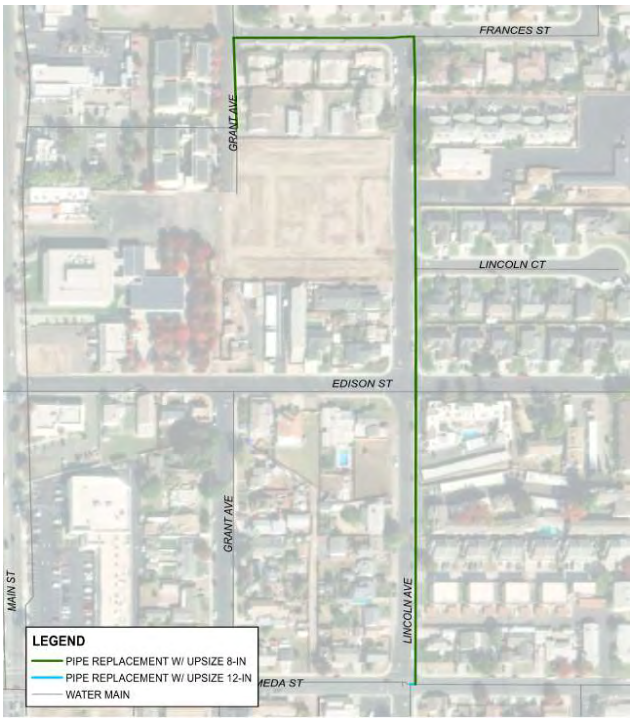
1 216 LF of upsize necessary to address hydraulic deficiency, but this can be extended during design.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 51,231
Traffic Control During Construction	2,100	LF	$ 10	$ 21,000
8-in PVC Pipe Replacement	2,002	LF	$ 270	$ 540,540
12-in PVC Pipe Replacement	10	LF	$ 340	$ 3,400
8-in Gate Valve	4	EA	$ 5,000	$ 20,000
Piping Appurtenances	1	LS	10%	$ 56,394
Street Overlay	6,036	SF	$ 15	$ 90,540
			Cost of Construction Subtotal	**$ 783,105**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 783,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 137,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 157,000
			Construction Cost and Market Contingency 30%	$ 235,000
			Project Total	**$ 1,312,000**

Notes

1 Confirm the diameter of WMAIN-2399 (6-in between 12-in) before design.

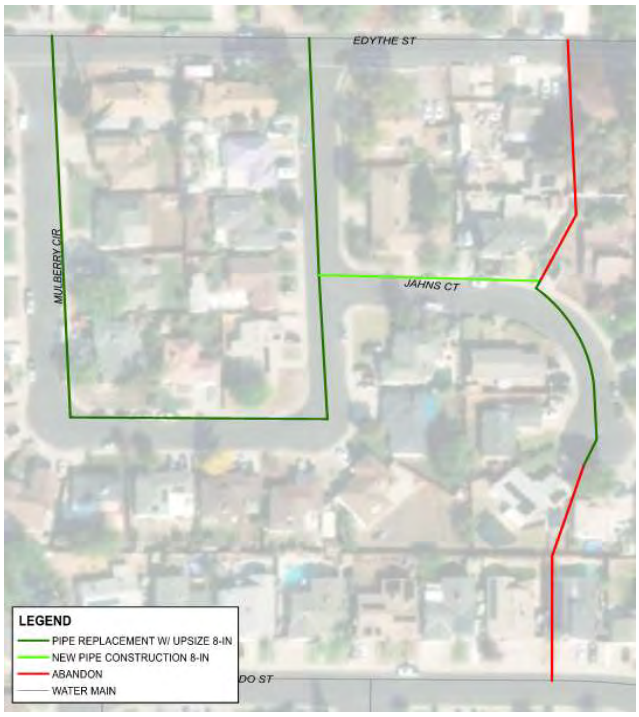
CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 35,790
Traffic Control During Construction	1,900	LF	$ 10	$ 19,000
8-in PVC Pipe Replacement	1,195	LF	$ 270	$ 322,650
8-in PVC New Pipe	198	LF	$ 250	$ 49,500
8-in Gate Valve	3	EA	$ 5,000	$ 15,000
Abandon Pipe	467	LF	$ 8	$ 3,736
Piping Appurtenances	1	LS	10%	$ 38,715
Street Overlay	4,179	SF	$ 15	$ 62,685
Cost of Construction Subtotal				**$ 547,076**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 547,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 96,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 109,000
Construction Cost and Market Contingency			30%	$ 164,000
Project Total				**$ 916,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 8-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 124,637
Traffic Control During Construction	4,000	LF	$ 10	$ 40,000
12-in PVC Pipe Replacement	3,986	LF	$ 340	$ 1,355,240
12-in Gate Valve	8	EA	$ 8,000	$ 64,000
Piping Appurtenances	1	LS	10%	$ 141,924
Street Overlay	11,958	SF	$ 15	$ 179,370
			Cost of Construction Subtotal	**$ 1,905,171**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 1,905,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 333,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 381,000
			Construction Cost and Market Contingency 30%	$ 572,000
			Project Total	**$ 3,191,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 20,767
Traffic Control During Construction	900	LF	$ 10	$ 9,000
8-in PVC Pipe Replacement	809	LF	$ 270	$ 218,430
8-in Gate Valve	2	EA	$ 5,000	$ 10,000
Piping Appurtenances	1	LS	10%	$ 22,843
Street Overlay	2,427	SF	$ 15	$ 36,405
			Cost of Construction Subtotal	**$ 317,445**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 317,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 55,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 63,000
			Construction Cost and Market Contingency 30%	$ 95,000
			Project Total	**$ 530,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 6-in pipelines to be replaced and upsized.

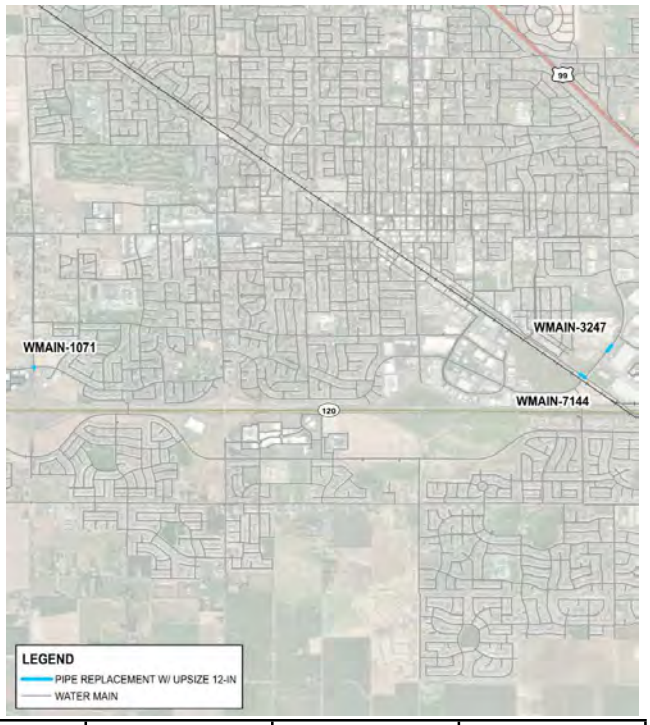
Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 8,852
Traffic Control During Construction	400	LF	$ 10	$ 4,000
8-in PVC Pipe Replacement	342	LF	$ 270	$ 92,340
8-in Gate Valve	1	EA	$ 5,000	$ 5,000
Piping Appurtenances	1	LS	10%	$ 9,734
Street Overlay	1,026	SF	$ 15	$ 15,390
			Cost of Construction Subtotal	**$ 135,316**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 135,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 24,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 27,000
			Construction Cost and Market Contingency 30%	$ 41,000
			Project Total	**$ 227,000**

Notes

1 342 LF of upsize necessary to address hydraulic deficiency, but this can be extended during design.

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023



CIP Description:

1 Existing 8-in pipelines to be replaced and upsized.

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 13,490
Traffic Control During Construction	500	LF	$ 10	$ 5,000
12-in PVC Pipe Replacement	427	LF	$ 340	$ 145,180
12-in Gate Valve	1	EA	$ 8,000	$ 8,000
Piping Appurtenances	1	LS	10%	$ 15,318
Street Overlay	1,281	SF	$ 15	$ 19,215
			Cost of Construction Subtotal	**$ 206,203**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 206,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 36,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 41,000
			Construction Cost and Market Contingency 30%	$ 62,000
			Project Total	**$ 345,000**

Notes

1 Pipes are in different parts of the City but it is the same project. Confirm the diameter of these pipes before proceeding.

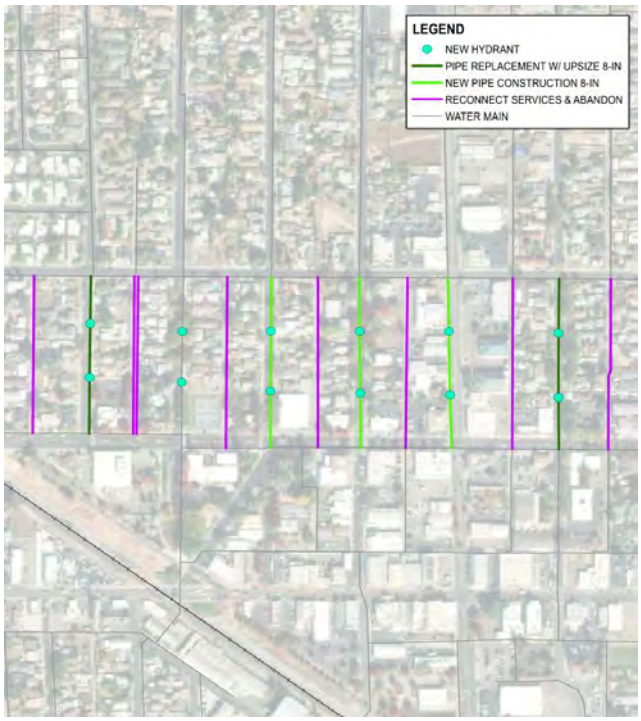
CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Existing 4-in and 6-in pipelines to be replaced and upsized.
2 New 8-in pipeline to be constructed.

3 Alleyway pipelines to be abandoned and services moved to new pipeline in City ROW.
4 New hydrants to be added to new mains as neeeded.



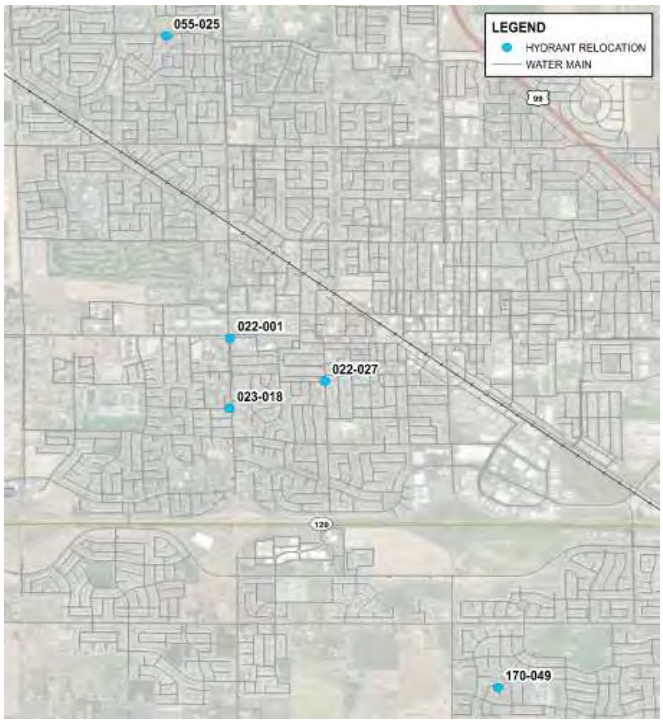
Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 113,801
Traffic Control During Construction	8,900	LF	$ 10	$ 89,000
8-in PVC Pipe Replacement	1,339	LF	$ 270	$ 361,530
8-in PVC New Pipe	2,077	LF	$ 250	$ 519,250
8-in Gate Valve	7	EA	$ 5,000	$ 35,000
New Hydrant	12	EA	$ 17,000	$ 204,000
Reconnect Services and Abandon Pipe	5,402	LF	$ 32	$ 171,645
Piping Appurtenances	1	LS	10%	$ 91,578
Street Overlay	10,248	SF	$ 15	$ 153,720
Cost of Construction Subtotal				**$ 1,739,523**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 1,740,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 305,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 348,000
Construction Cost and Market Contingency			30%	$ 522,000
Project Total				**$ 2,915,000**

CITY OF MANTECA

Water Master Plan
CIP Budgetary Cost Estimate Matrix
N. Venugopal, R. Yenney, A. Singer
September 2023

CIP Description:

1 Deficient hydrant services to be moved to adjacent larger main.



Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 6,160
Traffic Control During Construction	300	LF	$ 10	$ 3,000
Hydrant Service Relocation	5	EA	$ 17,000	$ 85,000
Cost of Construction Subtotal				**$ 94,160**
Cost of Construction Subtotal (Rounded to nearest $1,000)				**$ 94,000**
Engineering Design, Consulting, and Permitting Services			17.5%	$ 16,000
Engineering Services during Construction (ESDC), Construction Management, & Inspection Services			20%	$ 19,000
Construction Cost and Market Contingency			30%	$ 28,000
Project Total				**$ 157,000**

CITY OF MANTECA

Water Master Plan
Future 2030 Transmission Main Cost Estimate Matrix
A. Singer
February 2024

CIP Description:

12 miles of new transmission mains to serve planned developments thru 2030

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 2,069,530
Traffic Control During Construction	64,300	LF	$ 10	$ 643,000
12-in PVC New Pipe	63,072	LF	$ 320	$ 20,183,040
16-in PVC New Pipe	1,190	LF	$ 425	$ 505,750
12-in Gate Valve	126	EA	$ 8,000	$ 1,008,000
16-in Gate Valve	2	EA	$ 12,000	$ 24,000
New Hydrant	129	EA	$ 17,000	$ 2,193,000
Piping Appurtenances	1	LS	10%	$ 2,169,679
Street Overlay	189,216	SF	$ 15	$ 2,838,240
			Cost of Construction Subtotal	**$ 31,634,239**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 31,634,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 5,536,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 6,327,000
			Construction Cost and Market Contingency 30%	$ 9,490,000
			Project Total	**$ 52,987,000**

CITY OF MANTECA

Water Master Plan

Future 2045 Transmission Main Cost Estimate Matrix

A. Singer

February 2024

CIP Description:

Over 30 miles of new transmission mains to serve future land uses thru 2045

Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	7%	$ 5,122,718
Traffic Control During Construction	161,600	LF	$ 10	$ 1,616,000
8-in PVC New Pipe	14,132	LF	$ 250	$ 3,533,000
12-in PVC New Pipe	143,520	LF	$ 320	$ 45,926,400
16-in PVC New Pipe	3,849	LF	$ 425	$ 1,635,825
8-in Gate Valve	28	EA	$ 5,000	$ 140,000
12-in Gate Valve	287	EA	$ 8,000	$ 2,296,000
16-in Gate Valve	8	EA	$ 12,000	$ 96,000
New Hydrant	323	EA	$ 17,000	$ 5,491,000
Piping Appurtenances	1	LS	10%	$ 5,353,123
Street Overlay	472,956	SF	$ 15	$ 7,094,340
			Cost of Construction Subtotal	**$ 78,304,406**
			Cost of Construction Subtotal (Rounded to nearest $1,000)	**$ 78,304,000**
			Engineering Design, Consulting, and Permitting Services 17.5%	$ 13,703,000
			Engineering Services during Construction (ESDC), Construction Management, & Inspection Services 20%	$ 15,661,000
			Construction Cost and Market Contingency 30%	$ 23,491,000
			Project Total	**$ 131,159,000**

APPENDIX K

City of Manteca
Water Master Plan
California Financing Coordinating Committee
Common Funding Inquiry Form

CALIFORNIA FINANCING COORDINATING COMMITTEE (CFCC)

COMMON FUNDING INQUIRY FORM

Instructions: An electronic copy of this form can be obtained at: www.cfcc.ca.gov
Please provide the information below and e-mail the completed form to: ibank@ibank.ca.gov
If completing a hard copy of this form, attach responses where applicable and fax to 916-322-6314.

Name of Applicant or Official System Name:	**County**:

Check the box that best describes the applicant's organization:

☐ Municipal entity ☐ Private entity, for profit ☐ Private entity, nonprofit

Project OR problem description. Describe the problem or the need for the project, the purpose of the project, the basic design features of the project and what the project will accomplish. (Attach documentation, if available)

_____

Estimated Project Schedule. Provide a timeline that illustrates the estimated start and completion dates for each major phase or milestone of project development, construction and/or acquisition (including, for example, feasibility study, land acquisition, preliminary engineering, environmental review, final design and construction commencement and completion).

Financing is needed for (check all that apply):

☐ Feasibility Study ☐ Rate Study ☐ Engineering/Architectural
☐ Land Acquisition ☐ Project Construction and Administration
☐ Other, specify:_____

Estimated Total Project Costs $ **Estimated amount of funding requested** $

Multiple funding sources anticipated: ☐ Yes ☐ No

For water/sewer projects only: **System ID No**.:	**Service Area Population:** _____ **Number of Service Connections:** _____ **Estimated Median Household Income of service area:** $_____

How did you hear about the California Financing Coordinating Committee?

_____

All correspondence regarding this inquiry will be sent to the individual named below. You will receive a written acknowledgement of the receipt of this inquiry form and be contacted by staff of the appropriate CFCC member agencies to pursue additional assistance.

Printed Name of Inquirer	Title	Date
Mailing Address (street)	City/State	Zip code
( ) Phone Number	( ) FAX Number	Email

For CFCC Use Only: ***Date of Referral to CFCC Member Agencies:*** ***Date Responded to Applicant Inquiry:***