July 29, 2025

East Palo Alto Sanitary District

Sewer System Master Plan



FINAL REPORT

Prepared By

SANITARY DISTRICT SEWER SYSTEM MASTER PLAN

City of East Palo Alto, CA

July 29, 2025

Prepared for

City of East Palo Alto

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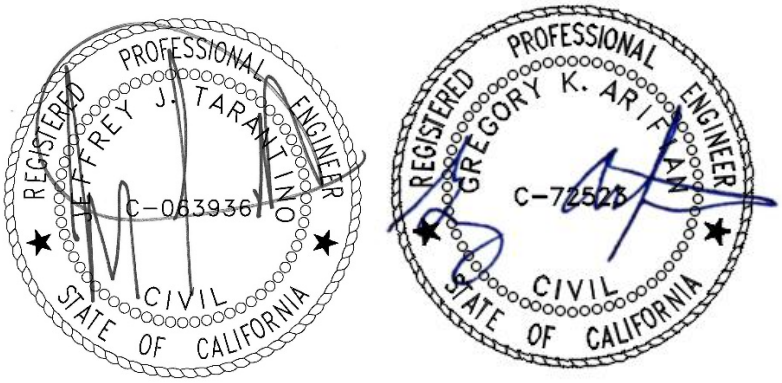


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ABBREVIATIONS

ADD	Average Day Demand
ADWF	Average Dry Weather Flow
CCTV	Closed Circuit Television
City	City of East Palo Alto
CIP	Capital Improvement Project
EDUs	Equivalent Dwelling Units
EPA	Environmental Protection Agency
EPASD	East Palo Alto Sanitary District
FAR	Floor Area Ratio
F&L	Freyer & Laureta, Inc.
ft	feet
FY	fiscal year
GIS	Geographical Information System
GPD	gallons per day
GPM	gallons per minute
HDPE	high density polyethylene
HGL	hydraulic grade line
I&I	Inflow and Infiltration
ISG	Individual Supply Guarantee
LAFco	Local Agency Formation Commission
LF	linear foot
MDD	maximum day demand
MGD	million gallons per day
O&M	Operation & Maintenance
OPPC	opinion of probable project cost
PDWF	Peak Dry Weather Flow
PWWF	Peak Wet Weather Flow
PHD	peak hour demand
PVC	polyvinyl chloride
RWQCP	Regional Water Quality Control Plant
SF	square feet
SRF	State Revolving Funds
SSOs	Sanitary Sewer Overflows
VCP	Vitrified Clay Pipe
WBSD	West Bay Sanitary District

ES EXECUTIVE SUMMARY

ES.1 Background and Introduction

The East Palo Alto Sanitation District (EPASD) was first established in 1939 in the southern corner of San Mateo County and borders Santa Clara County. Both the Cities of East Palo Alto portions of Menlo Park and are part of the EPASD's service area.

The purpose of this Master Plan was to re-establish the EPASD model in new software, provide an updated Capital Improvement Program (CIP) along with a rate and impact fee. This Master Plan is an update to EPASD's previously completed Master Plan in 2015 and its 2021 addendum.

ES.2 Land Uses

EPASD serves Cities of East Palo Alto and Menlo Park with a gravity-based sewer collection system covering approximately 1,230 acres (1.92 square miles) as shown in **Figure ES.1**. The system includes approximately 33 miles of sewer pipelines, primarily 6-inch vitrified clay pipes (VCP), with larger mains up to 30 inches in diameter. A major infrastructure component is the siphon under San Francisquito Creek, which was realigned in 2017 with two parallel 22-inch high-density polyethylene (HDPE) pipes. Downstream of the syphon, sewer system is conveyed to the Palo Alto Regional Water Quality Control Plant (RWQCP) for treatment.

EPASD operates and maintains the collection system in accordance with the requirements of the State Water Resources Control Board, as administered through the Statewide SSO Waste Discharge Requirements and RWQCB Sewer System Management Plan guidelines.

The City of East Palo Alto's 2035 General Plan, adopted in 2017, introduced land use changes to support balanced development across residential, commercial, and recreational uses. In 2024, the Ravenswood Specific Plan was adopted, which provided further refinement in the eastern portion of the city, enhancing details for mixed-use areas. These land use updates and other known developments were incorporated into system model. The land use maps are included in **Appendix A.**

ES.3 Sanitary Sewer Flow and System Analysis

Sewer flow estimates were derived using updated hydraulic modeling inputs, historic monitoring data, and land use assumptions. The methodology builds on the foundational work from the 2015 Master Plan and incorporates current Geographical Information System (GIS) data, flow monitoring studies, and zoning projections.

The flow projections for developments were calculated using a multi-step process based on billing records, zoning designations, and equivalent dwelling units (EDUs). Key elements of the process included:

- Estimating existing flows using 2019 billing data and a baseline of 200 gallons per EDU per day, which is similar to a three-bedroom, two-bath single-family home.

- Projecting future flows using zoning densities and Floor Area Ratios (FAR) from the 2035 General Plan and Ravenswood Specific Plan.
- Based on 2011-2012 Sanitary Sewer Flow Monitoring Inflow/Infiltration Study by V&A Consulting (V&A Flow Monitoring), the peaking factors were applied to calculate peak wet weather flows (PWWF) from average dry weather flows (ADWF).
- The 200 gpd per EDU is a unit rate representative of potential sanitary sewer flows from a single-family home. Establishing a unit rate was necessary to provide a methodology to project the total potential sanitary sewer flows that could reasonably be expected based on the currently anticipated new development. The total potential additional sanitary sewer flows estimated using 200 gpd per EDU is 1.85 million gallons per day (MGD), which is consistent with the City's 2020 Urban Water Management Plan (UWMP) projected potable water use at full buildout.

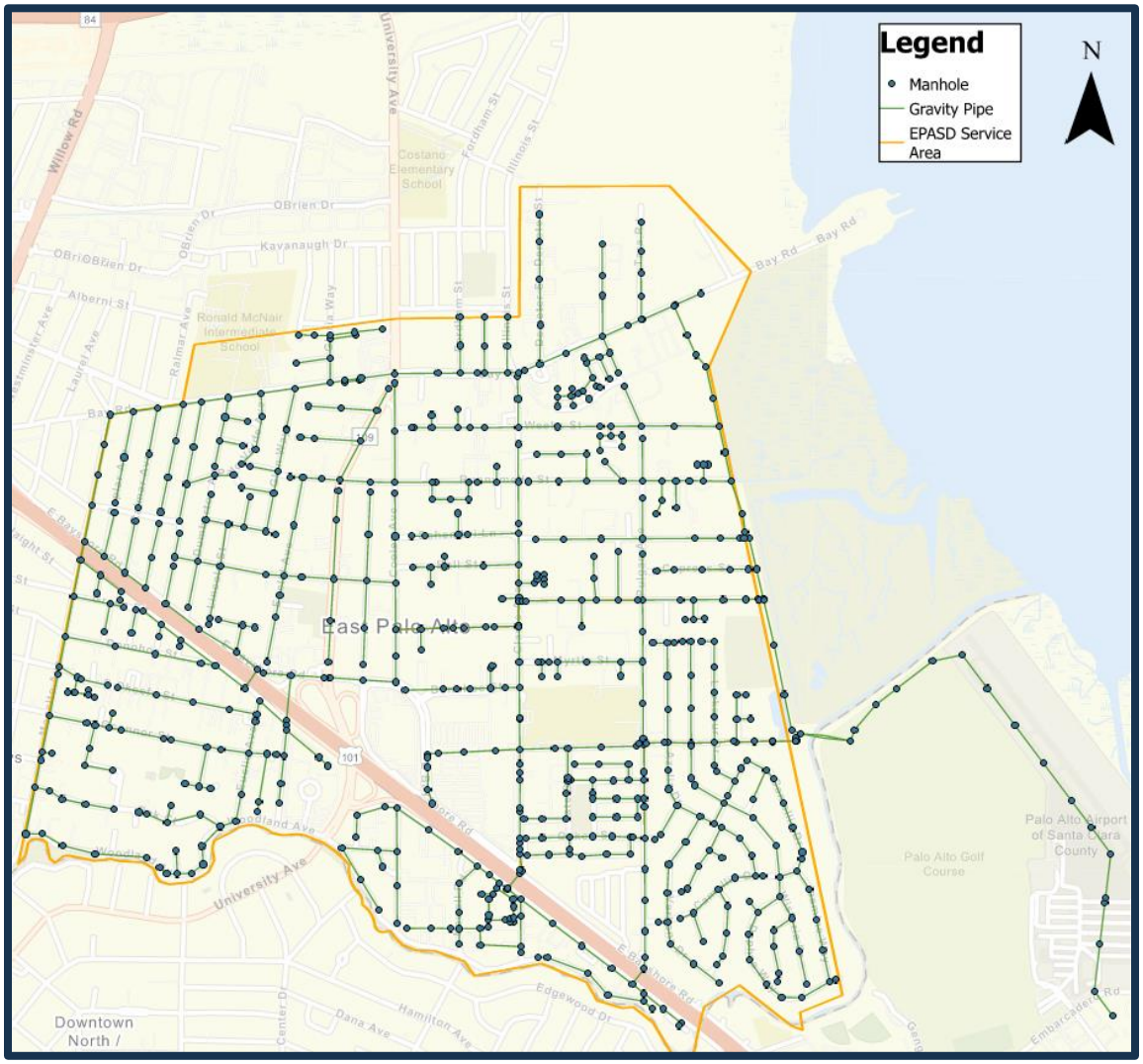


Figure ES.1 Existing Service Area

ES.4 Hydraulic Model Development

A hydraulic model was used to evaluate the current and future performance of the sewer system sewer system collection system. This model represents a tool used to support decision making for the ongoing improvement and maintenance of the system. The model incorporates physical and operational characteristics of the system and simulates key hydraulic parameters such as flow, velocity, depth, surcharge conditions, and hydraulic grade lines. The model was rebuilt from the outdated Hydra 7 platform to Bentley's SewerGEMS software. The new model was developed using EPASD's GIS database, archived field data, and updated infrastructure records. Validation against historical flow data confirmed the reliability of the SewerGEMS model, making it the analytical foundation for evaluating existing and future system capacity needs.

The three planning scenarios included the following:

- Scenario 1: 2025 Existing Conditions: The model was updated to reflect constructed developments and sewer improvements as of 2025. The projects included are Light Tree Apartments, University Plaza Phase 1, and 1950 Bay Road. The ADWF and PWWF were calculated and analyzed to assess the current system's capacity and identify deficiencies.
- Scenario 2: 2035 Conditions: Scenario 2 will be described as 2035 Conditions, which include the land use changes from the 2035 General Plan and Ravenswood Specific Plan.
- Scenario 3: 2035 Enhanced Conditions: Scenario 3 will be described as the 2035 Enhanced Conditions, which include the 2035 General Plan, Ravenswood Specific Plan, and Planned Developments. The planned developments include University Plaza Phase 2, Weeks Street Townhomes, and others.

This sanitary sewer system's performance was evaluated under wet weather conditions using a 10-year, 24-hour design storm, as defined by NOAA, to assess system capacity and predict sanitary sewer overflows (SSOs).

The 2025 Master Plan revises previous pipeline design criteria, replacing the depth-to-diameter (d/D) ratio with a freeboard-based standard. Under this updated criterion, all new or replacement pipelines are required to maintain a minimum of four feet of freeboard under design storm conditions. In instances where the pipe depth is less than four feet and the freeboard criterion cannot be applied, the system must demonstrate that no SSOs will occur under modeled conditions.

ES.5 Hydraulic Capacity Analysis Results

Hydraulic modeling was conducted for the three scenarios providing key insights into the current and future performance of the EPASD's sanitary sewer system (**Figures 5.1, 5.2,** and **5.3**). Based on the

expected surcharge in current and future conditions, current and future capacity improvements are needed to accommodate peak wet weather flows.

Major observations within the model include:

- Modeled 2025 current conditions do not predict SSOs and surcharging exists in some areas exceeding the design criteria.
- Modeled 2035 Conditions and 2035 Enhanced Conditions experience SSOs with surcharging in some areas exceeding the design criteria.
- There are both existing customer and developer-related capacity improvements required
- The system has hydraulic limitations due to relatively flat existing topography, pipe slopes, and the absence of pump stations.
- Low flow velocities under both current and future dry weather conditions do not exceed 2 ft/s, which will require ongoing maintenance and monitoring.

ES.6 Pipeline Capacity and Condition Assessment

The recommended improvements for the sanitary sewer system have been grouped into four priority-based categories. These categories address both existing and future deficiencies related to hydraulic capacity, structural condition, and system longevity. A summary of each category is provided below, and results are provided in **Table ES.1** and mapping of categories 1-3 are presented in (**Figure 6.1** through **6.5**).

TABLE ES.1 PIPELINE CAPACITY AND CONDITION ASSESSMENT

Category	Description	Length (LF)	Running Total (LF)	Running Percentage of Total System[1]
1	Existing Hydraulic Deficiencies	7,285	7,285	4.2%
2	Future Hydraulic Deficiencies[2]	13,848	21,133	12.2%
3A	Structural Deficiencies	9,796	30,929	17.8%
3B	Remaining System nearing end of useful service life	142,928	173,857	100%

1. Total Pipe in System is 173,857 LF.
2, Excludes pipelines where developers and existing customers share responsibility.
Highlights: Category 1 and 3A deficiencies are grouped with the duties of current customers to fund improvements. Category 2 Improvements are developer related improvements. Category 3B lines represent ongoing maintenance needs by all customers.

ES.7 Capital Improvement Program

The CIP was developed based on the deficiency category classifications. Categories 1 and 3A represent the most urgent needs due to existing hydraulic and structural deficiencies. Category 2 projects address future capacity needs related to anticipated development and should be reviewed regularly in coordination with the EPASD as growth occurs. Where practical, structurally deficient pipes from

Category 3A were incorporated into Category 1 or 2 projects to maximize efficiency and reduce construction overlap.

The CIP projects are broken down by Category, a summary can be seen in **Table ES.2**. Additional detail is found in **Tables 7.1** through **7.5** mapped out in **Figures 7.1** through **7.4**. A breakdown of each CIP project is found in **Appendix E**.

The project estimates should be evaluated alongside other infrastructure capital planning efforts within the City.

TABLE ES.2 CIP PROJECT SUMMARY

Category	Number of Projects	Pipe Replacement (LF)	OPPC ($)
1	2[1]	7,501	$17,357,000
2	7[1, 2]	17,000	$52,799,000
3A	4	6,429	$7,288,000

1. Portions of the project contain other category pipes to maximize construction efficiency. Work should be performed over the next 4 years funded by reserves and sewer service charges.
2. Principally developer-related projects.
3. The remaining portion of the sewer system 74% for existing VCP is suggested to be replaced over a 25-year period based on available funds. The OPPC for the remaining aging infrastructure will be approximately $4.3M/yr (6,000LF/yr), with an overall total of $107M. It is important to note that this cost is based on slip lining repair and partial replacement only.

ES.8 Rate and Impact Fee Study

As part of the EPASD's Master Plan update, a sewer service charge has been developed to support funding maintenance of the existing system. This rate is presently set at $660, and the addition of an annual increase of 5% be applied to the fund the extensive deferred maintenance in the system. Secondly, a revised impact fee has been developed to reflect newly identified CIP projects and current system capacity conditions. The proposed impact fee is $7,800 per EDU plus an annual 5% escalation, reduced from the previous fee of $10,621. The cost includes:

- Developer's Share of Capacity Assurance: 25 percent of the costs are associated with existing capacity assurance improvements that will benefit future developments.
- Developer's Improvement: 100 percent of the costs related to future capacity deficiencies based on new development demands.
- Buy-In Treatment Cost: A buy-in cost of $5 million per 1.0 million gallons per day (MGD) of treatment capacity.

1 Background and Introduction

1.1 Background and Project Objectives

The East Palo Alto Sanitary District (EPASD) was established in 1939 in response to the growing development in the East Palo Alto area. It was created under the Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.), which allowed for the formation of special districts to provide sewer system collection and treatment services. Initially, the district's sewer lines were built as part of a Works Progress Administration (WPA) project during the New Deal era. Construction of these facilities began after a treatment agreement was reached with the City of Palo Alto in 1940, and EPASD's infrastructure was officially operational on September 8, 1942.

EPASD serves a portion of the cities of East Palo Alto and Menlo Park, in San Mateo County, and its sewer system collection system directs sewage to the Palo Alto Regional Water Quality Control Plant for treatment. The district historically operated as an independent special district, meaning it is governed separately from city governments. A five-member elected Board of Directors oversees its policies, while employees carry out daily operations.

As of October 1, 2024, EPASD became a subsidiary district of the City of East Palo Alto (City). The establishment of EPASD as a subsidiary district to the City was approved by the San Mateo Local Agency Formation Commission (LAFCo) on November 23, 2023, and finalized on September 16, 2024. LAFCo's approval of the subsidiary district recognized the need for improved transparency in EPASD governance and sustainable and efficient operation of EPASD.

The EPASD system includes the operation and maintenance of over 33 miles of sewer pipelines, ensuring sewer system collection for thousands of residents in its service area. As a subsidiary district of the City, EPASD will continue to operate with the City Council as the Board of Directors and the City Manager as General Manager. The City has contracted with West Bay Sanitary District (WBSD) for the day-to-day operations of EPASD.

The previous EPASD Sewer Master Plan, completed in 2015 and updated via addendum in 2021, now requires a full update. As EPASD is currently a subsidiary district, the City is initiating a new Sewer Master Plan to support a comprehensive Capital Improvement Program (CIP), including a timeline for implementation. The Master Plan update will:

- Identify areas of needed improvement within the existing sewer system as of 2025.
- Determine capacity upgrades required to serve future growth based on 2035 General Plan, the Ravenswood Specific Plan, and approved redevelopment projects.
- Confirm pipeline renewal and replacement identified by EPASD's prior condition assessment program.
- Develop potential CIP alternatives, including conceptual opinions of probable project cost and implementation timelines.

1.2 Summary of Existing Information

Existing documentation and data sources were thoroughly reviewed to support the development of the 2025 Master Plan. The reviewed materials provided critical background information and informed the development of key technical assumptions that served as the foundation for hydraulic modeling, capacity analysis, and the formulation of proposed capital improvement and operations plans.

Prior Studies, Documents, and Data

- EPASD Masterplan Update (March 2015)
- EPASD Masterplan Addendum (April 2021)
- 2011-2012 Sanitary Sewer Flow Monitoring Inflow/Infiltration Study by V&A (June 2012)
- Vista 2035 East Palo Alto General Plan (October 2016)
- Ravenswood Business District/Four Corners Specific Plan (November 2024)
- Ravenswood/Four Corners Specific Plan Update SEIR – Appendix G Utility Impact Study (June 2024)
- Sanitary Sewer Capital Improvement and Operation Plan Development Memorandum by F&L (November 2022)
- CCTV Survey Results Evaluation and Pipeline Replacement Priorities Area 2, Trunk Line, and All Areas by Sierra West (October 2023)
- Project Completion Report Areas 1, 2, 3, 4, and Trunkline Sanitary Sewer Pipeline Closed Circuit Television Inspection Project by Sierra West (March 2023)
- 2020 Urban Water Management Plan for City of East Palo Alto by EKI Environment & Water (June 2021)
- Records Review – Completed Construction Projects
    - Sewer Trunkline Realignment (2016 CIP)
    - Sanitary Sewer Replacement Project (2023 CIP)
    - Pulgas Ave – Mixed Use Project (2014 Private Improvements)
    - Light Tree Sanitary Sewer Replacement Project (2021 Private Improvements)
- Plan Review – Projects
    - 2120-2160 Euclid Ave (Mixed Use)
    - 2012-2043 Euclid Ave - Woodland Park Development (Housing)
    - 965 Weeks St - Colibri Commons (Housing)
    - 1804 Bay Road Development (Housing)
    - 2535 Pulgas Ave Development (Office)

2 Land Uses

Section 2 summarizes EPASD's existing sewer system system, service area, and land use conditions. The information was compiled through a review of previous studies, available documents, and data provided by EPASD.

2.1 Existing Sewer System

EPASD provides sewer system collection service to portions of the communities of Menlo Park and East Palo Alto, located in San Mateo County, within the San Francisco Bay Area. EPASD's service area is primarily residential with a few commercial and industrial parcels.

As shown in **Figure 2.1,** EPASD service area encompasses nearly 1,230 acres or 1.92 square miles. The collection system operates as a gravity sewer network, with approximately 61% of the existing pipelines consisting of 6-inch diameter lines. Larger collector lines range between 8-inch to 30-inches in diameter. The system includes a siphon beneath the San Francisquito Creek, which was realigned in 2017 with two parallel 22-inch high-density polyethylene (HDPE) pipes.

EPASD's sewer system collection system consists of approximately 33 miles of gravity sewer pipelines. Historically, manholes were constructed using brick and mortar, and pipelines were constructed with vitrified clay pipe (VCP).

EPASD operates and maintains the collection system in accordance with the State Water Resources Control Board, under the Statewide SSO Waste Discharge Requirements and the RWQCB Sewer System Management Plan guidelines. The collected sewer system is conveyed to the Palo Alto RWQCP for treatment and ultimate discharge to the San Francisco Bay.

All known SSOs that have been reported were due to maintenance issues. WBSD is currently conducting ongoing system maintenance and inspection efforts.

2.2 Population Served & Land Use Characteristics

As a part of the 2015 Masterplan, land use information was compiled from multiple sources for the communities served by EPASD. The following data sources were used to characterize the population and land use within the service area:

- Land Use Database – Existing land use data in Geographical Information System (GIS)
- General Plan Information – Additional land use data provided by the City
- Aerial Photographs – Reviewed to identify parcels and land use characteristics within the service area.

In 2017, the City adopted the 2035 General Plan, which outlines the City's vision for development and growth throughout the year 2035. The General plan includes a series of land use changes to balance the residential, commercial, and recreational spaces throughout the city.

The key changes within the 2035 General Plan include:

- Land use modifications occurred along University Avenue between Bay Road and Donohoe Street, as well as around the existing Target shopping center.
- Residential zoning changes within the Ravenswood Business District were modified from low-density and commercial to high-density along Maple Street.
- University Avenue west of Highway 101 include changes from commercial to office, mixed-use, and medium-density residential.

In 2024, the City adopted the Ravenswood Plan, which is the eastern portion of the city. The plan builds on the 2035 General Plan by providing a more detailed framework for future land use developments for the mixed-use areas within Ravenswood.

The land use changes in both the 2035 General Plan and Ravenswood Plan were incorporated into the 2025 Master Plan and the hydraulic model to reflect the anticipated future flows. The land use changes in both these plans are provided in **Appendix A.**

2.3 Existing Collection System Facilities

Since the completion of the 2015 Masterplan, EPASD has implemented several CIP projects to upgrade the existing sewer system. The upgrades to the system involve replacing the aging infrastructure with improved materials for both manholes and pipes. All new manholes were constructed with precast concrete, and new pipes were constructed with plastic pipe such as polyvinyl chloride (PVC) or HDPE.

The sewer system improvements completed since the 2021 Master Plan Addendum are illustrated in **Figure 2.2**. The improvements include 6,688 linear feet (LF) of newly installed sewer pipe.

The following is a summary list of the scope of work and highlight the improvements implemented across the two different projects.

1. Light Tree (2021)

   As part of a private development project in 2021, the sewer infrastructure was improved on O'Connor Street, Pulgas Avenue, and Clarke Avenue. The project improvements included:

   - Installing 9 new manholes.
   - Reconstructing 1 manhole.
   - Installed or replaced:
     - 132 LF of 6-inch PVC.
     - 76 LF of 10-inch PVC.
     - 297 LF of 12-inch PVC.
     - 1,310 LF of 16-inch PVC.
     - 1,149 LF of 18-inch PVC.

2. Sanitary Sewer Replacement Project (2023)

As a part of the 2023 CIP project, multiple areas of EPASD sewer system were replaced/repaired. The projects occurred along Beech Street, Clarke Ave, Green Street, and O'Connor Street. The improvements included:

- Installing 7 new manholes.
- Rehabilitating 21 manholes.
- Installing or replacing:
    - 764 LF of 30-inch PVC.
    - 1,021 LF of 24-inch PVC.
    - 1,323 LF of 20-inch PVC.
    - 395 LF of 14-inch PVC.
    - 486 LF of 18-inch PVC.

3 Sanitary Sewer Flow Analysis

Section 3 summarizes the background and methodology used to determine existing and future dry weather sewer system flows for input to EPASD's collection system hydraulic model.

3.1 Infiltration and Inflow

V&A Flow Monitoring Report included a sanitary sewer flow monitoring inflow/infiltration (I&I) study in 2011-2012 for East Palo Alto. The study separated the service area into different flow monitoring sites, and the results were used to identify the average dry weather flow, peak dry weather flow, and peak wet weather flow. The flow monitoring locations are shown in **Figure 3.1** with areas in **Table 3.1**. The peaking factor results from the study are provided in **Table 3.2.**

3.2 Calculation of Flows

The V&A Flow Monitoring Report provided the data used to calculate sewer system flows for EPASD's existing hydraulic system. Based on three scenarios described later in later in this report, the following method was used to calculate the estimated additional sanitary sewer flows for each parcel. The calculated injection flows were inserted into the recalibrated 2014 Sewer Map in SewerGEMs that is further described in Section 4.

The calculation of flow injections uses a similar process as described in the 2021 Master Plan. As EPASD does not monitor flows from each individual parcel, a multiple-step process was followed to calculate the incremental additional flow by parcel. The major steps taken to estimate incremental additional flow by parcel are as follows:

1. Existing flow from each parcel was estimated and key aspects included:
    a. The 2019 Tax Year Billing Charges were reviewed to identify the individual parcel billings.
    b. Based on the individual billings, the Equivalent Dwelling Units (EDU) were calculated by dividing the parcel bill by $575 per EDU.
    c. The calculated number of EDUs by parcel was then multiplied by 200 gallons per EDU to estimate the existing sanitary sewer flow from each parcel. This represents an update and decrease in flow per EDU, previously established at 240 gallons per EDU. This new value is in line with modern plumbing standards, other local water districts, and use of more water efficient products and landscaping trends.
2. Total flow from each parcel based on the 2035 General Plan and Ravenswood Plan's revised zoning was then estimated:
    a. The Maximum and Minimum Allowable Density and Floor to Area (FAR) ratio for each zoning category was identified in the 2035 General Plan and Ravenswood Plan. The land use characteristics for these calculations are included in **Appendix A**.

b. Using 50-percent of the range between maximum and minimum allowable density and FAR for each parcel, the estimated total sanitary sewer flow for non-residential was calculated using the unit flow rates from *East Palo Alto Sanitary District Standard Specifications for Design and Construction of Sanitary Collection and Conveyance Facilities* (Standard Specifications) report dated June 2002.

3. Lastly, total additional flow by parcel for both Average Dry Weather Flow (ADWF) and Peak Wet Weather Flow (PWWF) was calculated:
    a. ADWF for existing conditions presented is subtracted from ADWF for future zoning changes based on each scenario.
    b. PWWF was calculated by multiplying the ADWF for each parcel by the Sewer Basin PWWF Peaking Factor from **Table 3.2**. Because minimal improvements have been made to the system since the V&A study, and measured flows from Palo Alto remain consistent, the V&A study results do generally reflect existing conditions.

3.3 Water Supply Service

As part of the verification of the predicted sewer model, F&L evaluated current drinking water imports into the service area. The City of EPA water supply is sourced from two primary channels: purchased water from San Francisco Public Utilities Commission (SFPUC) or groundwater extracted from wet wells. According to EPA's Supply Assurance, SFPUC is required to provide an Individual Supply Guarantee (ISG) of 3.46 MGD of drinking water to the City. As detailed in **Section 4.3**, the projected 2035 Enhanced ADWF sewer flow for the future buildout is approximately 3.3 MGD. This indicates that the anticipated water supply exceeds the projected sewer demand, demonstrating sufficiency in meeting future needs.

3.4 Sewer System Treatment Capacity.

The Palo Alto Regional Water Quality Control Plant (RWQCP) records the total sewer system flow for EPASD and neighboring cities. The RWQCP is permitted to treat an average dry weather flow of 39 MGD. EPASD has an agreement with the RWQCP, where EPASD's average annual flow capacity treatment allotment is 3.06 MGD, 7.64% of the RWQCP's total capacity.

4 Hydraulic Model Development

Section 4 summarizes assumptions, items considered during model development and calibration, and key components of the completed hydraulic model. The hydraulic model was used to perform different scenarios to assess the impacts of future developments, land use changes, and any system configuration changes.

4.1 Model Components

The hydraulic model transforms information about the physical and operational characteristics of the sewer system into a mathematical model. The modeling results provide information on flows, flow depth, velocity, surcharge, and the hydraulic grade line, which were used to analyze system performance and identify system deficiencies. The model results were used to verify the adequacy of recommended or proposed system improvements.

The hydraulic model comprises a skeletonized network of nodes and conduits, which define the physical properties within EPASD's system. The following descriptions provide information on elements used in the development of the hydraulic model.

- Nodes: Nodes represent manholes and lamp holes. All flows added into the model are attached to node structures. The data required for node structures include pipe invert elevation, manhole rim elevation, and manhole diameter.
- Conduits: Conduits represent pipes that convey sewer system from one point in the system to another. The conduits include gravity pipes and siphons. The physical data for gravity pipes include pipe invert elevation, size, length, and friction factor.

4.2 Model Calibration

The 2025 Master Plan was constructed using EPASD's GIS sewer system collection system, which includes information on the pipe material, pipe invert elevation, manhole rim elevations, pipe diameter, and pipe length. The GIS model was inserted into SewerGEMs.

As the previous sewer model developed using Hydra 7 software is outdated and no longer supported, the City approved transition to a modern platform that is better integrated with GIS. F&L rebuilt the EPASD sewer system model using SewerGEMS software using archived GIS data, databases, and field data, with a detailed ArcGIS sewer map being used as the foundation. SewerGEMS model results aligned with historical data, predicting flows, hydraulic grade lines, and surcharge locations. As the SewerGEMs model was validated, it serves as the basis for assessing system performance under current 2025 conditions and the 2035 future conditions to support updates to EPASD's Master Plan. A detailed description of the methodology and results is provided in **Appendix B**.

4.3 Model Scenarios

Scenario 1: 2025 Conditions

The first step in analyzing the system was to update the GIS Sewer Map to reflect the current conditions of 2025. The map was updated for all sewer improvements found during the records review. The sewer system flows from the known developments built to date were calculated using the method discussed in **Section 3.2**. The known developments shown in **Figure 4.1** include:

- 2485 Pulgas Avenue (Private Improvements)
- Light Tree Apartments
- Mid-Pen Housing (965 Weeks)
- University Plaza Phase 1
- 1950 Bay Road

The additional ADWF and PWWF by parcel are summarized in **Table 4.1**, with the total additional ADWF and PWWF presented at the bottom of the table. The additional ADWF is 92,574 GPD and the PWWF is 139,893 GPD. The total sewer flows for 2025 for ADWF is 1,586,080 GPD and PWWF is 5,880,153 GPD. The results from the 2025 conditions are used to assess any existing sewer capacity issues before additional development occurs within the EPASD boundaries. A detailed breakdown of the flow calculations is provided in **Appendix C**.

Scenario 2: 2035 Conditions

The next step in analyzing the system was to understand the capacity improvements that would be needed to serve new development based on the potential impact of the land use changes. The future conditions are described as the 2035 Conditions, which includes land use changes from the 2035 General Plan and Ravenswood Specific Plan.

Figure 4.2 shows the locations for the 2035 future flows to be injected into the model. The additional ADWF and PWWF by parcel are summarized in **Table 4.2**, with the total additional ADWF and PWWF presented at the bottom of the table. The additional ADWF is 1,472,639 GPD and the PWWF is 2,322,519 GPD. The total sewer flows for 2035 for ADWF is 2,966,145 GPD and for PWWF is 8,062,778 GPD.

A detailed breakdown of the flow calculations is provided in **Appendix C**.

Scenario 3: Enhanced Conditions

Once the additional flow based on the potential land use changes were inserted into the model, the next step was to update and analyze the system using known planned developments that were approved or in review by EPASD. The scenario represents the maximum buildout potential and is described as 2035 Enhanced Conditions, which include the 2035 General Plan, Ravenswood Specific Plan, and Planned Developments. The flows in these areas were recalculated based on the known and approved developments. The known developments shown in **Figure 4.3** include:

- University Plaza Phase 2
- 2331 University Avenue
- Weeks Street Townhomes
- 2519 Pulgas Avenue
- 2535 Pulgas Avenue
- 1675 Bay Road
- 2001 Manhattan
- 2101 Runnymede

The additional ADWF and PWWF by parcel are summarized in **Table 4.3**, with the total additional ADWF and PWWF presented at the bottom of the table. The additional ADWF is 1,846,104 GPD and the PWWF is 2,903,896 GPD. The total sewer flows for 2035 for ADWF are 3,339,610 GPD and PWWF are 8,644,156 GPD. A detailed breakdown of the flow calculations is provided in **Appendix C**.

The projected ADWF under Scenario 2 and Scenario 3 is approximately 3.0 MGD and 3.3 MGD, respectively. These projections are consistent with the cumulative flow estimates presented in the *Ravenswood/Four Corners Specific Plan Update SEIR – Appendix G Utility Impact Study* (Utility Impact Study) prepared by Schaaf & Wheeler. The projected future cumulative demands—ranging from 3.0 to 3.3 MGD—fall within the Utility Impact Study's estimated cumulative flow range of 3.13 to 3.33 million gallons per day (MGD).

As described earlier, EPASD's allocated dry weather treatment capacity at the RWQCP is 3.06 MGD. Although the projected cumulative flows slightly exceed this capacity, the planned capital improvements are expected to reduce I&I, thereby potentially mitigating peak flow impacts.

In order to ensure sufficient long-term treatment capacity, it is recommended that EPASD:

- Reestablish a collection system flow monitoring program similar to the sites presented in **Table 3.1** and **Figure 3.1**. Continue monitoring system flows at the treatment plant as new development occurs.
- Reassess the effectiveness of I&I reduction measures following project implementation.

These actions will align system performance with treatment capacity limits and support EPASD's planning and regulatory compliance goals.

5 System Capacity Analysis

Section 5 evaluates EPASD's sewer system collection system capacity constraints under flow conditions projected during EPASD's design storm. This section summarizes the planning and capacity criteria, identifies predicted capacity limitations, and defines the methodology used to recommend appropriate solutions and strategies to address the identified issues.

5.1 Design Storm Criteria

Design storms are simulated rainfall events used to evaluate collection system capacity under wet weather flow conditions. A specific recurrence interval and rainfall duration define each design storm. EPASD's goal is to identify predicted SSOs that occur during the 10-year, 24-hour design storm.

The master plan evaluates the ability of the system to convey flows with surcharging under the selected design storm scenario. EPASD has selected as its design storm a rainfall event of 10-year recurrence intervals and 24-hour duration (10-year, 24-hour storm), as defined by the NOAA rainfall atlas.

5.2 Pipeline Hydraulic Capacity Criteria

Hydraulic capacity assessments were conducted to establish standards for identifying when pipes exceed EPASD's acceptable surcharge limits. Under these criteria, a pipe may be considered theoretically capacity-deficient when, during PWWF conditions associated with the design storm, the water level or hydraulic grade line (HGL) rises above the top of the pipe.

While such conditions may not always result in an overflow, they indicate a potential deficiency in the pipe capacity. Exceptions to this criterion are made for siphons, which are designed to operate under surcharge conditions. All identified capacity-deficient pipelines are recommended for phased replacement, as outlined in Chapter 9, Capital Improvement Program.

In the 2015 Master Plan, pipeline capacity under projected development impacts was evaluated using the depth-to-diameter (d/D) ratio under peak dry weather flow (PDWF). This metric helped determine capital improvements needed to restore or maintain acceptable d/D values across the system. The 2025 Master Plan adopts a revised capacity deficiency criterion. The d/D method was replaced because it does not consider the effects of system aging, velocities, maintenance challenges, or non-uniform flow conditions.

In place, the revised criteria applies a freeboard-based standard that requires all pipes and manholes to maintain a minimum four-foot freeboard under design storm conditions. In areas where pipe depth is less than four feet and the freeboard criterion cannot be applied, an alternative criterion is used that no SSOs should occur under the modeled conditions.

5.3 System Capacity Deficiencies

To assess existing and future performance of EPASD's sewer system, hydraulic modeling was conducted for three planning scenarios: 2025 Existing Conditions, 2035 Base Conditions, and 2035 Enhanced Conditions. These scenarios incorporated projected PWWF and were used to identify system deficiencies and capacity limitations.

- Scenario 1: 2025 Conditions

The 2025 Conditions were first analyzed in the model to understand the existing system deficiencies. The PWWF discussed in Section 4.3 was add to the model. The results indicated no SSOs at any manholes; however, approximately 42,600 LF of pipeline were predicted to surcharge with less than four feet of freeboard. The results from the model are shown in **Figure 5.1** and model results are provided in Appendix D.

- Scenario 2: 2035 Conditions

The next scenario that was analyzed in the model was 2035 Conditions. The PWWF flows discussed in Section 4.3 was added to the model. Under this scenario, SSOs were predicted at 22 manholes and approximately 97,600 LF of pipe segments were identified as surcharging with less than four feet of freeboard. The results from the model are shown in **Figure 5.2** and model results are provided in Appendix D.

- Scenario 3: 2035 Enhanced Conditions

The final scenario evaluated incorporates 2035 Enhanced conditions, which account for planned developments and increased flow projections outlined in Section 4.3. The model predicted SSOs at 22 manholes with approximately 102,900 LF of surcharged pipe segments that do not provide four feet of freeboard. The results from the model are shown in **Figure 5.3** and model results are provided in **Appendix D**.

6 Collection System Assessment

The purpose of this section is to present an evaluation of the pipeline condition based on capacity and structural deficiencies throughout the collection system. Based on hydraulic modeling and condition assessment data, a set of recommended strategies has been developed to address identified system deficiencies. These recommendations are categorized into four groups based on the type of deficiency, each addressed in a dedicated subsection:

- Category 1: Existing Pipe Capacity Deficiencies
- Category 2: Future Pipe Capacity Deficiencies
- Category 3A: Pipe Structural Deficiencies
- Category 3B: Remaining Pipe in the Sewer System

6.1 Category 1: Existing Pipe Capacity Deficiencies

Category 1 addresses current hydraulic capacity deficiencies that exist under present-day flow conditions. As described in **Section 5**, the hydraulic modeling identified segments that fail to meet the minimum four-foot freeboard criteria for surcharging under PWWF.

To address the current deficiencies within the system, approximately 7,285 LF of pipe will require upsizing. The improvements not only improve deficiencies within the pipeline section itself but also reduce the HGL on upstream lines. The overall benefit of improving only 7,285 LF of pipe will bring approximately 21,058 LF of pipeline in compliance with the design criteria. Although there are remaining pipes that do not meet the design criteria, the pipes do not cause any concern of SSOs within the system.

The Category 1 projects will provide the hydraulic capacity and improve the operations of the present-day system. **Figure 6.1** illustrates the locations and proposed diameter increases for each of the deficient pipes. **Table 6.1** lists all the pipe segments identified and the proposed size.

6.2 Category 2: Future Pipe Capacity Deficiencies

Category 2 focuses on addressing projected capacity constraints driven by future growth and development. The analysis was conducted using the 2035 Enhanced scenario, which incorporates flows from planned and approved development flows.

Category 2 projects will provide hydraulic capacity for approximately 13,848 LF of pipe must be upsized under PPWF. **Figure 6.2** illustrates the locations, and proposed diameter increases for each of the deficient pipes. **Table 6.2** lists all the pipe segments identified and the proposed size.

6.3 Category 3A: Existing Pipe Structural Deficiencies

Category 3A addresses the physical structural defects in the system identified through closed-circuit television (CCTV). Structural deterioration, such as cracking, deformation, joint separation, and root intrusion, can lead to failures within the system and affect the operations. The pipes within this

category were identified within the *CCTV Survey Results Evaluation and Pipeline Replacement Priorities Area 2, Trunk Line, and All Areas* by Sierra West as high-priority pipes to be replaced.

WBSD is currently performing ongoing sewer system maintenance assessments through cleaning and CCTV inspections. As of the date of this report, approximately three miles of pipe have been assessed. Once WBSD field investigation is completed, the proposed improvements should be evaluated for inclusion in the annual improvement budget for aging infrastructure.

Category 3A projects will provide improved resilience for approximately 9,796 LF of pipe was identified as structurally deficient and prioritized for replacement. **Figure 6.3** illustrates the location of the high-priority structural, same size replacement segments. **Table 6.3** lists all the pipe segments identified and the proposed size.

However, approximately 5,166 LF of pipes overlap with either Category 1 or Category 2 for hydraulic capacity. **Figure 6.4** illustrates the location of the pipes with both a high-priority structural deficiency and hydraulic capacity deficiency for improvements.

6.4 Category 3B: Remaining Pipe in the Sewer System

Category 3B addresses the remaining pipes within the collection system that have not been determined to either be capacity deficient or structurally deficient. Most of the existing collection system pipe segments are nearing or exceeding their anticipated service life, typically 50 to 75 years for vitrified clay pipes.

The total remaining length of pipe recommended for phased replacement from VCP to HDPE is approximately 73% of the existing system. **Figure 6.5** illustrates the remaining system segments slated for replacement.

7 Capital Improvement Program

Section 7 summarizes the Capital Improvement Program (CIP) projects, based on the categories discussed in Section 6 – Collection System Assessment. The CIP methodology was developed to establish a prioritized timeline for each project and provide an associated Conceptual Opinion of Probable Project Cost (OPPC).

7.1 Capital Improvement Program Development

Based on the classifications outlined in Section 6, a comprehensive evaluation of system improvements was conducted. All CIP project OPPC were developed at a planning level in 2025 dollars. The OPPCs include allowances for additional project components necessary for implementation, as shown below:

- Construction Contingency: 30%
- Design: 10%
- Environmental/Permitting: 10%
- Construction Management and Inspections: 15%
- District Administration: 5%

The cost factors listed above were applied uniformly across all categories to provide a consistent and comprehensive planning-level OPPC.

CIP projects were developed and grouped primarily with their improvement category. However, in several cases, the more than one category pipeline will be addressed by projects due to overlap or immediate proximity. Below is a summary of the project Groups

7.1.1 Category 1 Existing Conditions CIP Project Group

Category 1 CIP projects address existing capacity constraints and were divided into two separate project areas. Locations and project extents are illustrated in **Figure 7.1.** Taking advantage of project proximity, some additional Category 3A pipes improvements were also added into this CIP group.

The two projects, designated as CIP 1.1 and CIP 1.2, are both scheduled to initiate the design phase during the 2025–2026 fiscal year. CIP 1.1 is anticipated to begin construction in the 2026–2027 fiscal year. Due to the need for additional environmental permitting and coordination with PG&E, the design phase for CIP 1.2 is expected to span two fiscal years, from 2025 to 2027. Construction for CIP 1.2 is scheduled to commence in the 2027–2028 fiscal year and is projected to be completed in the 2028–2029 fiscal year.

The total estimated cost for the Category 1 CIP projects is approximately $17.4 million. The project summary OPPC breakdown is presented in **Table 7.1**. These projects are funded by the existing customer base. The detailed breakdown of the OPPC is included in **Appendix E**.

7.1.2 Category 2: Developer Related CIP Project Group

Category 2 CIP projects address anticipated capacity deficiencies associated with future development and were divided into seven distinct project areas, as shown in **Figure 7.2**. Similar to the Category 1 CIP group, portions of Categories 2 and 3 deficient pipes overlap. The capacity expansion of Category 2 deficient pipes within this CIP group remains developer-related, as increasing their size would not be required by the existing customer base. Taking advantage of project proximity, small portions of both Category 1 and 3 deficient pipes were also added to this Category 2 CIP group. Approximately 93% of the Category 2 CIP projects are directly developer-related.

The specific impacts and any associated fees for each project will be evaluated on a case-by-case basis. Developers may be responsible for preparing the design and performing the construction work under the supervision of the District. In certain instances, developers may be permitted to provide design and construction services as in-kind contributions, which may be credited toward their financial obligations to the District.

Due to the dependence on future development, the implementation schedule for Category 2 CIP projects should remain flexible and be reviewed regularly in coordination with EPASD. A sewer monitoring program is recommended as well to support project prioritization. If anticipated developments are delayed or not constructed, related structural improvements incorporated may require reclassification as higher-priority projects.

The total estimated cost for developer-related and adjacent deficient pipe CIP projects is approximately $52.8 million. The project summary OPPC breakdown is presented in **Table 7.2**. The detailed breakdown of the OPPC is included in **Appendix E**.

7.1.3 Category 3A: Existing Structural Deficiency CIP Project Group

Category 3A CIP projects address structural defects identified through CCTV inspections and were divided into four project areas. The projects were divided to be approximately $2 million over the next five years. Project locations are shown in **Figure 7.3**.

The total estimated cost for remaining structural deficiency CIP projects not covered in the other groups is approximately $7.3 million. The project summary OPPC breakdown is presented in **Table 7.3**. These projects are funded by the existing customer base. The detailed breakdown of the OPPC is included in **Appendix E**.

7.1.4 Category 3B: Aging Infrastructure CIP Project Group

Category 3B encompasses the remaining sewer system assets not currently identified as hydraulically or structurally deficient but nearing the end of their expected service life. These pipes are recommended for phased replacement over a 25-year period to maintain system integrity and service reliability. The OPPC for the remaining aging infrastructure CIP projects not covered in the other groups will be approximately $4.3 million per year, with an overall total of $107 million. The cost is based on slip lining and replacement hybrid concept approach. The cost is not reflective of the complete trenching and replacement of the sewer system, which would require additional analysis. The project

summary OPPC is presented in **Table 7.5**. Fund sources evaluation is recommended to support aging infrastructure improvements, such as the California Clean Water State Revolving Funds (SRF) funded by the Environmental Protection Agency (EPA).

7.1.5 Capital Improvement Projects – All Categories

A consolidated summary of all proposed CIP projects is presented in **Table 7.4**, including brief descriptions, cost estimates, and recommended implementation priority. The combined geographic distribution of these projects is illustrated in **Figure 7.4**. Detailed project summary sheets are provided in **Appendix E**, which include the scope of work and estimated OPPC values.

An annual budget of $2 million per year is recommended for Category 3B projects to replace the existing aging infrastructure. The phasing and prioritization should be determined through the following methods:

- Yearly maintenance inspections,
- Flow monitoring, and
- Available funding.

8 Rate and Impact Fee Study

Section 7 describes the methodology and summarizes the analysis that was used to develop a preliminary estimate of impact fee for future customers. The final impact fee is being completed separately from this SSMP and will be presented separately to the EPASD Board.

As part of the ongoing development of the Master Plan and identification of new CIP projects, EPASD intends to update its impact fee to accurately reflect the costs associated with planned system improvements and infrastructure expansion. The calculation for the impact fee is presented in **Table 8.1**.

This fee has been calculated based on the following cost components, with a comprehensive summary included in **Appendix F**:

- Developer's share of existing capacity assurance: 25 percent of the costs are associated with existing capacity assurance improvements. These improvements are anticipated to provide capacity benefits for future growth. The developer-associated cost was determined through a flow-based analysis. It evaluated the projected increase in sewer system flow contributed by new development relative to total system demand.
- Developer's Improvement: 100 percent of the costs related to capacity deficiencies that are directly attributable to new development demands.
- Buy-In Treatment Cost: A buy-in cost of $5 million per 1.0 million gallons per day (MGD) of treatment capacity, representing the proportional reimbursement by developers for the available capacity at the PAWRQCP.

Table 3.1
Flow Monitoring Locations
2025 Sewer System Master Plan

Monitoring Site (1)	Location	Basin Size (Acres)
A15	Bay Road, east of Demeter St.	118
B13	Intersection of Bay Rd and Poplar Ave	87
E1	Intersection of Cooley Ave and Green St.	101
E2	Cooley Ave, north of Donohoe St.	149
H3	Intersection of Clarke Ave and Beech St.	74
I3	East end of Beech St.	74
I12	Pulgas Ave, north of Sage St.	135
K4	Intersection O'Connor St and Larkspur Dr.	107
K28	Larkspur Dr, south of O'Connor St.	95
T20	75 feet east of end of Cypress St.	171
T13	Along north edge of Palo Alto Municipal Golf Course.	1,230

Notes
(1) Monitoring sites are identified in Table 3 of the East Palo Alto Sanitary District Sanitary Sewer Flow Monitoring and Inflow/Infiltration Study dated June 2012 prepared by V&A Consulting Engineers, Inc., referred to herein as "Flow Monitoring Study."

Table 3.2
Peaking Factor Calculations
2025 Sewer System Master Plan

Monitoring Site (1)	ADWF (MGD) (2)	PDWF (MGD) (3)	PWWF (MGD) (4)	PDWF Peaking Factor (5)	PWWF Peaking Factor (6)
A15	0.27	0.43	1.19	1.59	2.77
B13	0.06	0.11	0.52	1.83	4.73
E1	0.13	0.19	0.59	1.46	3.11
E2	0.25	0.43	1.45	1.72	3.37
H3	0.14	0.23	0.58	1.64	2.52
I3	0.83	1.22	2.76	1.47	2.26
I12	0.23	0.39	0.76	1.70	1.95
K4	0.22	0.35	0.99	1.59	2.83
K28	0.11	0.17	0.68	1.55	4.00
T20	0.40	0.60	1.55	1.50	2.58
T13	1.53	2.31	5.78	1.51	2.50

Notes
(1) Monitoring sites are identified in Table 3 of the East Palo Alto Sanitary District Sanitary Sewer Flow Monitoring and Inflow/Infiltration Study dated June 2012 prepared by V&A Consulting Engineers, Inc., referred to herein as "Flow Monitoring Study."
(2) ADWF is presented in Table 5 of the Flow Monitoring Study
(3) PDWF is presented in Table 7-3 of the East Palo Alto Sanitary District Wastewater Collection System Master Plan Update dated March 2015 prepared by Freyer & Laureta, Inc., herein referred to as "Master Plan Update."
(4) PWWF is presented in Table 7-3 of the Master Plan Update.
(5) PDWF Peaking Factor is calculated by dividing the PDWF by the Overall ADWF.
(6) PWWF Peaking Factor is calculated by dividing the PWWF by the PDWF.

Abbreviations
ADWF: Average Dry Weather Flow
MGD: Million Gallons per Day
PDWF: Peak Dry Weather Flow
PWWF: Peak Wet Weather Flow

Table 4.1
Scenario 1: 2025 Flow Injections
2025 Sewer System Master Plan

Injection Manhole	Total ADWF, CFS	Total PWWF, CFS
A16	0.0310	0.0465
A34	0.0027	0.0040
A36	0.0028	0.0042
A38	0.0018	0.0028
A41	0.0009	0.0014
A42	0.0018	0.0028
A43	0.0006	0.0009
A45	0.0009	0.0014
A46	0.0043	0.0065
F8	0.0419	0.0628
D1	0.0256	0.0374
M32	0.0280	0.0446
Total, CFS	**0.14**	**0.22**
Total, MGD	**0.09**	**0.14**

Abbreviations
ADWF: Average Dry Weather Flow
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
MGD: Million Gallons per Day

Table 4.2
Scenario 2: 2035 Flow Injections
2025 Sewer System Master Plan

Injection Manhole	Total ADWF, CFS	Total PWWF, CFS
A10	0.0167	0.0267
A11	0.0145	0.0230
A12	0.0098	0.0151
A13	0.0034	0.0051
A14	0.0630	0.1000
A15	0.0068	0.0102
A16	0.0385	0.0577
A17	0.0032	0.0048
A2	0.0050	0.0079
A18	0.0191	0.0286
A19	0.0179	0.0268
A20	0.0180	0.0271
A21	0.0317	0.0475
A23	0.0127	0.0190
A24	0.0045	0.0068
A25	0.0153	0.0229
A26	0.0196	0.0295
A27	0.0353	0.0530
A28	0.0259	0.0388
A30	0.1886	0.2830
A31	0.0027	0.0041
A34	0.0014	0.0021
A36	0.0019	0.0028
A38	0.0012	0.0018
A41	0.0024	0.0036
A42	0.0012	0.0018
A43	0.0003	0.0005
A45	0.0006	0.0009
A46	0.0026	0.0039
A5	0.0219	0.0349
A8	0.0223	0.0356
B2	0.0081	0.0129
B3	0.0307	0.0490
B4	0.1638	0.2612
B40	0.0472	0.0752
C16	0.0054	0.0100
D1	0.0489	0.0842
D5	0.0126	0.0216
D17	0.0657	0.1131
D22	0.0629	0.1082
D73	0.0145	0.0249
D74	0.0232	0.0399
D8	0.0061	0.0105
E1	0.0004	0.0006
E20	0.0340	0.0497
E22	0.0373	0.0546
E25	0.0581	0.0849
E30	0.0046	0.0067
E45	0.1006	0.1471

Table 4.2
Scenario 2: 2035 Flow Injections
2025 Sewer System Master Plan

Injection Manhole	Total ADWF, CFS	Total PWWF, CFS
E47	0.0330	0.0483
F11	0.0252	0.0377
F14	0.0115	0.0172
F15	0.0085	0.0127
F20	0.0127	0.0190
F7	0.0102	0.0153
F8	0.0915	0.1373
G14	0.0056	0.0083
G17	0.0056	0.0083
G19	0.0023	0.0034
G2	0.0054	0.0081
G20	0.0006	0.0010
G21	0.0006	0.0009
G22	0.0006	0.0010
H24	0.0326	0.0479
H32	0.0098	0.0161
H33	0.0073	0.0117
H36	0.0637	0.1046
H37	0.0161	0.0264
H42	0.0047	0.0078
H44	0.0017	0.0027
M32	0.0481	0.0765
M38	0.3439	0.5832
N8	0.0711	0.1105
O16	0.0123	0.0208
O27	0.0006	0.0009
O3	0.0064	0.0102
O51	0.0110	0.0186
O58	0.0055	0.0093
T23	0.0072	0.0107
T25	0.0441	0.0661
T28	0.0363	0.0545
Total, CFS	**2.27**	**3.58**
Total, MGD	**1.47**	**2.32**

Abbreviations
ADWF: Average Dry Weather Flow
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
MGD: Million Gallons per Day

Table 4.3
Scenario 3: 2035 Enhanced Flow Injections
2025 Sewer System Master Plan

Injection Manhole	Total ADWF, CFS	Total PWWF, CFS
A10	0.0196	0.0312
A11	0.0148	0.0236
A12	0.0109	0.0169
A13	0.0034	0.0051
A14	0.0634	0.1006
A15	0.0075	0.0113
A16	0.0425	0.0638
A17	0.0032	0.0048
A18	0.0198	0.0297
A19	0.0193	0.0290
A2	0.0226	0.0361
A20	0.0184	0.0276
A21	0.0324	0.0486
A23	0.0127	0.0190
A24	0.0056	0.0084
A25	0.0153	0.0229
A26	0.0196	0.0295
A27	0.0353	0.0530
A28	0.0259	0.0388
A30	0.1901	0.2852
A31	0.0037	0.0056
A34	0.0022	0.0032
A36	0.0031	0.0046
A38	0.0018	0.0028
A41	0.0028	0.0043
A42	0.0018	0.0028
A43	0.0006	0.0009
A45	0.0009	0.0014
A46	0.0043	0.0065
A5	0.0223	0.0355
A8	0.0238	0.0379
B2	0.0427	0.0680
B3	0.0455	0.0724
B4	0.2009	0.3204
B40	0.0476	0.0758
C16	0.0076	0.0140
D1	0.0526	0.0830
D5	0.0140	0.0242
D17	0.0736	0.1265
D22	0.1865	0.3208
D73	0.0215	0.0369
D74	0.0437	0.0712
D8	0.0065	0.0112
E1	0.0008	0.0011
E20	0.0444	0.0650
E22	0.0412	0.0603
E25	0.1659	0.2424
E30	0.0068	0.0100
E45	0.1122	0.1640

Table 4.3
Scenario 3: 2035 Enhanced Flow Injections
2025 Sewer System Master Plan

Injection Manhole	Total ADWF, CFS	Total PWWF, CFS
E47	0.0393	0.0574
F11	0.0344	0.0515
F14	0.0118	0.0178
F15	0.0129	0.0193
F20	0.0172	0.0258
F7	0.0132	0.0192
F8	0.1002	0.1502
G14	0.0059	0.0089
G17	0.0059	0.0089
G19	0.0030	0.0045
G2	0.0062	0.0093
G20	0.0010	0.0015
G21	0.0010	0.0015
G22	0.0010	0.0015
H24	0.0513	0.0757
H32	0.0333	0.0547
H33	0.0073	0.0117
H36	0.0772	0.1268
H37	0.0182	0.0299
H42	0.0082	0.0135
H44	0.0024	0.0039
M32	0.0481	0.0765
M38	0.3657	0.6079
N8	0.0734	0.1153
O16	0.0156	0.0265
O27	0.0016	0.0026
O3	0.0082	0.0131
O51	0.0136	0.0230
O58	0.0132	0.0224
T23	0.0083	0.0124
T25	0.0444	0.0667
T28	0.0363	0.0545
Total, CFS	**2.84**	**4.47**
Total, MGD	**1.85**	**2.90**

Abbreviations
ADWF: Average Dry Weather Flow
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
MGD: Million Gallons per Day

Table 6.1
2025 Capacity Improvements for Existing Hydraulic Deficiencies Under PWWF
2025 Sewer System Master Plan
East Palo Alto, California

Segment	Length (Feet)	Existing Diameter (Inches)	Proposed Diameter (Inches)
B15+B49	331	8	12
B16+B15	327	8	12
B19+B12	500	6	10
B49+B14	328	8	12
C1+B16	402	8	12
C2+C1	204	8	10
C3+C2	398	6	10
C4+C3	436	6	10
C5+C4	328	6	10
C6+C5	87	6	10
C12+C1	265	6	10
D7+D6	398	6	10
H34+H17	269	6	10
H35+H34	322	6	10
H36+H35	474	6	10
I4+I3	243	18	30
K28+K4	242	10	16
L1+L21	223	10	16
L21+K28	68	10	16
T17+T34	407	21	30
T18+T17	540	21	30
T36+T18	494	21	30
Total	**7,285**		

Abbreviations
PWWF: Peak Wet Weather Flow

Table 6.2
2035 Enhanced Capacity Improvements for Future Hydraulic Deficiencies Under PWWF
2025 Sewer System Master Plan
East Palo Alto, California

Segment	Length (Feet)	Existing Diameter (Inches)	Proposed Diameter (Inches)
A9+A10	181	15	24
A10+A15	299	15	24
A15+A16	435	15	24
A16+A21	296	15	24
A21+A23	155	15	24
A23+A22	14	15	24
A22+A29	369	18	24
A29+T29	345	18	30
B37+B6	262	6	10
D1+E4	354	12	24
D21+D19	391	8	12
D22+D21	149	8	12
E2+E1	283	12	24
E3+E2	280	12	24
E4+E3	357	12	24
F7+T25	477	6	10
F8+F7	357	6	10
F23+F8	327	6	10
H12+H11	333	8	12
H13+H12	108	8	12
H14+H13	446	8	12
H15+H62	201	8	12
H16+H60	351	8	12
H17+H57	397	8	12
H57+H16	40	8	12
H60+H15	99	8	12
H62+H14	233	8	12
I5+I31	135	18	30
I6+I5	411	18	30
I31+I4	321	18	30
I37+I6	48	15	30
M2+M44	42	8	12
M3+M2	380	8	12
M31+M3	357	8	12
M44+I15	62	12	12
T11+T10	326	24	24
T12+T11	482	24	24
T19+T36	6	24	30

Table 6.2
2035 Enhanced Capacity Improvements for Future Hydraulic Deficiencies Under PWWF
2025 Sewer System Master Plan
East Palo Alto, California

Segment	Length (Feet)	Existing Diameter (Inches)	Proposed Diameter (Inches)
T20+T19	332	18	30
T21+T20	338	21	30
T22+T37	191	21	30
T23+T22	373	18	30
T24+T23	317	18	30
T25+T24	282	18	30
T26+T25	306	18	30
T27+T26	356	18	30
T28+T27	162	18	30
T29+T28	234	18	30
T30+T12	285	24	24
T31+T30	351	24.2	24
T32+T31	125	24.2	24
T37+T21	83	21	30
Total	**13,848**		

Abbreviations
PWWF: Peak Wet Weather Flow

Table 6.3
Structural Deficient Pipe Improvements
2025 Sewer System Master Plan
East Palo Alto, California

Segment	Length (Feet)	Existing Diameter (Inches)	Proposed Diameter (Inches)
K19+K18	272	6	8
L2+L1	179	10	12
O4+O3	277	8	10
O20+O19	116	6	8
O21+O19	394	6	8
J7+J6	441	6	8
J9+J8	401	6	8
A1+A2	80	12	16
A2+A5	244	12	16
A5+A8	124	15	18
A18+A16	442	6	8
B5+B52	176	12	16
B6+B5	158	12	16
B12+B11	277	10	12
B17+B13	501	6	8
B27+B25	318	6	8
B31+B29	257	6	8
B32+B31	254	6	8
H20+H19	271	6	8
E20+E7	504	6	8
E30+E29	502	6	8
E33+E29	455	6	8
E36+E15	420	6	8
E46+E7	501	6	8
C40+C36	257	6	8
C41+C40	191	6	8
D10+D3	489	10	12
D25+D24	301	6	8
D51+D7	458	6	8
F12+F11	355	6	8
B2+A1	181	12	16
Total	**9,796**		

Table 7.1
Category 1 - CIP Project Summary
2025 Sewer System Master Plan
East Palo Alto, California

Project #	Improvement Description	Proposed Pipe Sizes	Approximate Length of Pipe (LF)	Projected OPPC ($)	Notes
1.1 (2)	Pipeline Replacement on Menalto Avenue, Poplar Avenue, Bay Road, and Elliot Drive	8-inch, 10-inch, 12-inch HDPE DR 17	4,833	$ 6,042,000	Projects will need Encroachmen Permit with City of Menlo Park. Project will involve crossing Bayshore Freeway.
1.2	Pipeline Replacement on Trunk Line in Creek, Beech Street, Larkspur Drive, and Gardenia Ave	8-inch, 12-inch, 16-inch, 30-inch HDPE DR 17	2,668	$ 11,315,000	Environmental Permits will be required. Trunk Line improvements are located on Creek. Coordination will be required for PG&E gas line.
		Total	**7,501**	**$ 17,357,000**	

Notes
(1) See Figure 7.1 for limits of improvements.
(2) Projects include Category 3 pipes that overlap with Category 1 deficiencies.

Abbreviations
CIP: Capital Improvement Program
DR: dimension ration
HDPE: high density polyethylene
LF: linear feet
OPPC: opinion of probable project cost

Table 7.2
Category 2 - CIP Project Summary
2025 Sewer System Master Plan
East Palo Alto, California

Project #	Improvement Description	Proposed Pipe Sizes	Proposed Development (If applicable)	Project Priority	Approximate Length of Pipe (LF)	Projected OPPC ($)	Notes
2.1	Pipeline Replacement on Bayshore Road, Donohoe Street, Cooley Ave, and O'Connor Street	8-inch, 10-inch, 12-inch, 24-inch HDPE DR 17	Woodland Parks (2001 Manhattan) & 2120-60 Euclid Avenue	See Note 2	3,460	$ 7,466,000	Project will involve crossing Bayshore Freeway. Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
2.2	Pipeline Replacement on University Avenue, Runnymede Street, Clarke Avenue, and Beech Street	10-inch, 12-inch HDPE DR 17	Woodland Parks (2001 Manhattan) & 2120-60 Euclid Avenue	See Note 2	4,188	$ 9,795,000	Project will include coordination with PG&E on gas line on Beech Street.
2.3	Pipeline Replacement on Trunk Line in Creek	30-inch HDPE DR 17	Ravenswood Area	See Note 2	2,981	$ 17,635,000	Environmental Permits will be required. Trunk Line improvements are located on Creek.
2.4	Pipeline Replacement on Bay Road and Pulgas Avenue	8-inch, 10-inch, 24-inch, 30-inch HDPE DR 17	2485 Pulgas Avenue (3) 2535 Pulgas Ave (Office) 2519 Pulgas Ave (Office) 1804 Bay Road 1675 Bay Road	See Note 2	2,799	$ 9,293,000	Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
2.5	Pipeline Replacement on Maple Lane	10-inch HDPE DR 17	Mid-Pen Housing (965 Weeks Street) (3)	See Note 2	1,161	$ 1,401,000	
2.6	Pipeline Replacement on O'Connor Street. Project will also include 11 Smart Cover Meters to be installed similar to the subbasin locations notated in V&A Flow Monitoring Study.	12-inchHDPE DR 17	Light Tree Apartments (East Bayshore Road) (3)	See Note 2	841	$ 1,377,000	Project will require coordination for two 24-inch PG&E Gas Main Transmissions. Project will also reinstate City's Flow Monitoring Program.
2.7	New Parallel Trunk Line within San Francisquito Creek on Palo Alto Golf Course	24-inch HDPE DR 17	Ravenswood Area	See Note 2	1,569	$ 5,832,000	Project should be re-evaluated on a yearly basis. As project scope on developments may be reduced/removed.
				Total	**17,000**	**$ 52,799,000**	

Notes
(1) See Figure 7.2 for limits of improvements.
(2) Project timeline will be dependent on when the proposed developments are constructed. City to assess every fiscal year.
(3) Developments have already been completed or are nearing completion..

Abbreviations
CIP: Capital Improvement Program
DR: dimension ration
HDPE: high density polyethylene
LF: linear feet
OPPC: opinion of probable project cost

Table 7.3
Category 3A - CIP Project Summary
2025 Sewer System Master Plan
East Palo Alto, California

Project #	Improvement Description	Proposed Pipe Sizes	Approximate Length of Pipe (LF)	Projected OPPC ($)
3.1	Pipeline Replacements on Dumbarton Avenue, Palo Verde Way, and Lilac Lane.	8-inch HDPE DR 17	1,786	$ 1,786,000
3.2	Pipe Replacements on Garden Street, Clarke Avenue, Pulgas Avenue, Woodland Avenue, and Bayshore Road.	8-inch, 10-inch HDPE DR 17	1,899	$ 1,949,000
3.2	Pipe Replacements on Glen Way and Capitol Avenue.	8-inch HDPE DR 17	1,425	$ 1,398,000
3.2	Pipe Replacements on Bay Road and Weeks Street.	8-inch, 16-inch, 18-inch HDPE DR 17	1,138	$ 2,155,000
		Total	**6,248**	**$ 7,288,000**

Notes
(1) See Figure 7.3 for limits of improvements.
(2) Pipes within this project category are all remaining pipes that have not been included in Category 1 or Category 2. projects.

Abbreviations
CIP: Capital Improvement Program
DR: dimension ration
HDPE: high density polyethylene
LF: linear feet
OPPC: opinion of probable project cost

Table 7.4
Overall – Proposed Capital Improvement Plan
2025 Sewer System Master Plan
East Palo Alto, California

Project #	Improvement Description	Proposed Pipe Sizes	Proposed Development (If applicable)	Project Priority	Approximate Length of Pipe (LF)	Projected OPPC ($)	Notes
1.1	Pipeline Replacement on Menalto Avenue, Poplar Avenue, Bay Road, and Elliot Drive	8-inch, 10-inch, 12-inch HDPE DR 17			4,833	$ 6,042,000	Projects will need Encroachment Permit with City of Menlo Park. Project will involve crossing Bayshore Freeway.
1.2	Pipeline Replacement on Trunk Line in Creek, Beech Street, Larkspur Drive, and Gardenia Ave	8-inch, 12-inch, 16-inch, 30-inch HDPE DR 17			2,668	$ 11,315,000	Environmental Permits will be required. Trunk Line improvements are located on Creek. Coordination will be required for PG&E gas line.
2.1	Pipeline Replacement on Bayshore Road, Donohoe Street, Cooley Ave, and O'Connor Street	8-inch, 10-inch, 12-inch, 24-inch HDPE DR 17	Woodland Parks (2001 Manhattan) & 2120-60 Euclid Avenue	See Note 2	3,460	$ 7,466,000	Project will involve crossing Bayshore Freeway. Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
2.2	Pipeline Replacement on University Avenue, Runnymede Street, Clarke Avenue, and Beech Street	10-inch, 12-inch HDPE DR 17	Woodland Parks (2001 Manhattan) & 2120-60 Euclid Avenue	See Note 2	4,188	$ 9,795,000	Project will include coordination with PG&E on gas line on Beech Street.
2.3	Pipeline Replacement on Trunk Line in Creek	30-inch HDPE DR 17	Ravenswood Area	See Note 2	2,981	$ 17,635,000	Environmental Permits will be required. Trunk Line improvements are located on Creek.
2.4	Pipeline Replacement on Bay Road and Pulgas Avenue	8-inch, 10-inch, 24-inch, 30-inch HDPE DR 17	2485 Pulgas Avenue (3) 2535 Pulgas Ave (Office) 2519 Pulgas Ave (Office) 1804 Bay Road 1675 Bay Road	See Note 2	2,799	$ 9,293,000	Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
2.5	Pipeline Replacement on Maple Lane.	10-inch HDPE DR 17	Mid-Pen Housing (965 Weeks Street) (3)	See Note 2	1,161	$ 1,401,000	
2.6	Pipeline Replacement on O'Connor Street. Project will also include 11 Smart Cover Meters to be installed similar to the subbasin locations notated in V&A Flow Monitoring Study.	12-inchHDPE DR 17	Light Tree Apartments (East Bayshore Road) (3)	See Note 2	841	$ 1,377,000	Project will require coordination for two 24-inch PG&E Gas Main Transmissions. Project will also reinstate City's Flow Monitoring Program.
2.7	New Parallel Trunk Line within San Francisquito Creek on Palo Alto Golf Course	24-inch HDPE DR 17	Ravenswood Area	See Note 2	1,569	$ 5,832,000	Project should be re-evaluated on a yearly basis. As project scope on developments may be reduced/removed.
3.1	Pipeline Replacements on Dumbarton Avenue, Palo Verde Way, and Lilac Lane.	8-inch HDPE DR 17			1,786	$ 1,786,000	
3.2	Pipe Replacements on Garden Street, Clarke Avenue, Pulgas Avenue, Woodland Avenue, and Bayshore Road.	8-inch, 10-inch HDPE DR 17			1,899	$ 1,949,000	
3.3	Pipe Replacements on Glen Way and Capitol Avenue.	8-inch HDPE DR 17			1,425	$ 1,398,000	
3.4	Pipe Replacements on Bay Road and Weeks Street.	8-inch, 16-inch, 18-inch HDPE DR 17			1,138	$ 2,155,000	
				Grand Total	30,750	$ 77,444,000	

Notes
(1) See Figure 7.4 for limits of improvements.
(2) Project timeline will be dependent on when the proposed developments are constructed. City to assess every fiscal year.
(3) Developments have already been completed or are nearing completion.
(4) Category 3B projects will include the remaining portion of the sewer system 74% for existing VCP is suggested to be replaced over a 25-year period based on available funds. The OPPC for the remaining aging infrastructure will be approximately $4.3 M/yr (6,000LF/yr), with an overall total of $107 M. It is important to note that this cost is based on slip lining repair and partial replacement only.

Abbreviations
CIP: Capital Improvement Program
DR: dimension ration
HDPE: high density polyethylene
LF: linear feet
OPPC: opinion of probable project cost

Table 7.5
Category 3B - CIP Project Summary
2025 Sewer System Master Plan
East Palo Alto, California

Project #	Improvement Description	Proposed Pipe Sizes	Unit	Unit Price ($)	Approximate Length of Pipe (LF)	Projected OPPC ($)
-	Slip line, repair and replacement	8-inch through 24-inch HDPE DR 17	LF	$ 750	142,928	$ 107,196,000

Total	**142,928**	**$ 107,196,000**
Average Annual Totals (4)	**5,717**	**$ 4,287,840**

Notes
(1) Cost per LF is a general estimate based on use of predominately trenchless pipe repair systems and some as needed replacement. Use for conceptual purposes only.
(2) Cost for full replacement and manhole replacement will increase the OPPC.
(3) Project work would occur beyond the immediate timeline of CIP work presented in the Master Plan.
(4) Average annual cost is taken over a 25-year period.

Abbreviations
CIP: Capital Improvement Program
DR: dimension ration
HDPE: high density polyethylene
LF: linear feet
OPPC: opinion of probable project cost

Table 8.1
Impact Fee Calculations
2025 Sewer System Master Plan
East Palo Alto, California

AT FULL BUILDOUT		
Projected Total ADWF Increase (gpd) (1)		1,560,000
Projected Total EDU Increase (2)		7800
Development Share of Cost of Capacity Assurance (3)	$	4,380,500
Total Cost of Improvements Due to Development (4)	$	49,046,000
Total Cost of Treatment		See Note 5

Notes

(1) Projected Total ADWF Increase is from the EPASD 2025 Sewer System Master Plan.
(2) Projected Total EDU Increase was calculated using a rate of 200 gpd/EDU.
(3) Refer to Sewer Impact Fee Memorandum, Table 2.
(4) Refer to Sewer Impact Fee Memorandum, Table 7.
(5) Total Cost of Treatment is based on EPASD reported cost of $5 million per 1.0 MGD of treatment capacity. The separate impact fee study will confirm the buy in cost of treatment. It should be noted that EPASD current 7.96% ownership of the PARWQCP is equivalent to ADWF capacity of 3.06 MGD. The total project ADWF at full buildout is 3.3 MGD based on 200 gpd/EDU and 12,730 EDUs. Therefore, the Total Cost of Treatment presented above is for new development to buy-in to the available treatment capacity.
(6) Impact fee is calculated by dividing the total cost of improvements, capacity assurance, and treatment by the projected Total EDU increase and rounding to nearest $100.

Abbreviations

ADWF: Average Dry Weather Flow
EDUs: Equivalent Dwelling Units
gpd: gallons per day

EPASD SANITARY SEWER SERMCE AREA
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- MANHOLE
- LAMPHOLE
- MANHOLE/LAMPHOLE NUMBER C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

NORTH

SCALE
1" = 1000'

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SCALE:	1" = 1000'
DESIGNED:	ZG
DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
2.1

JOB NO.
221009

LEGEND

SERVICE AREA BOUNDARY

UPDATED PIPE SEGMENT BETWEEN 2021 AND 2025

MANHOLE

LAMPHOLE

MANHOLE/LAMPHOLE NUMBER C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

NORTH

SCALE
1" = 1000'

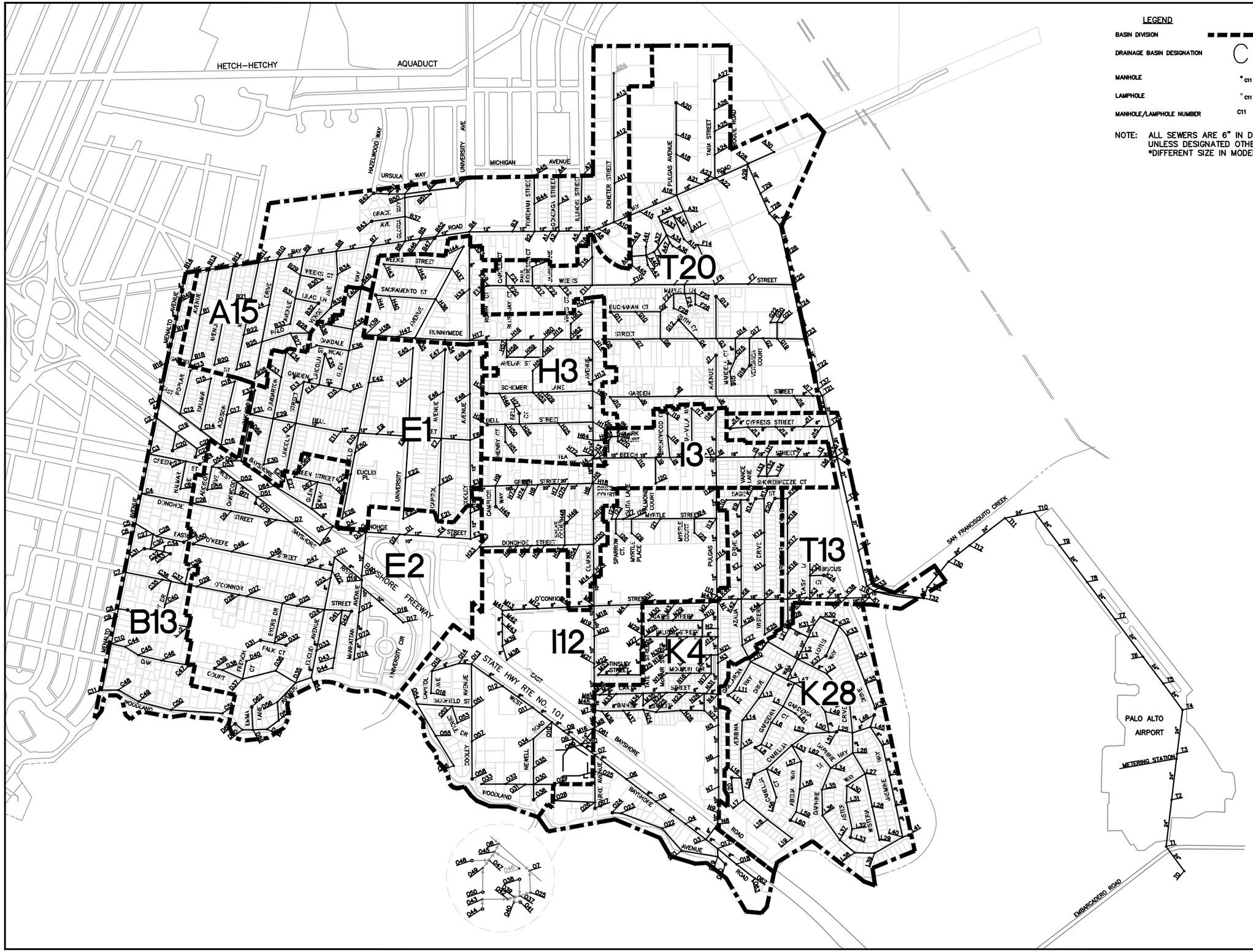
2025 SEWER MAP
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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FIGURE
2.2

JOB NO.
221009



FLOW MONITORING LOCATIONS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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FIGURE
3.1

JOB NO.
221009

SCENARIO 1: 2025 - ADDITIONAL FLOW INJECTION LOCATIONS + BUILT DEVELOPMENTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- DEVELOPMENT PARCEL
- FLOW INJECTION
- INJECTION MANHOLE — D63
- MANHOLE — C11
- LAMPHOLE — C11
- MANHOLE/LAMPHOLE NUMBER — C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

NORTH

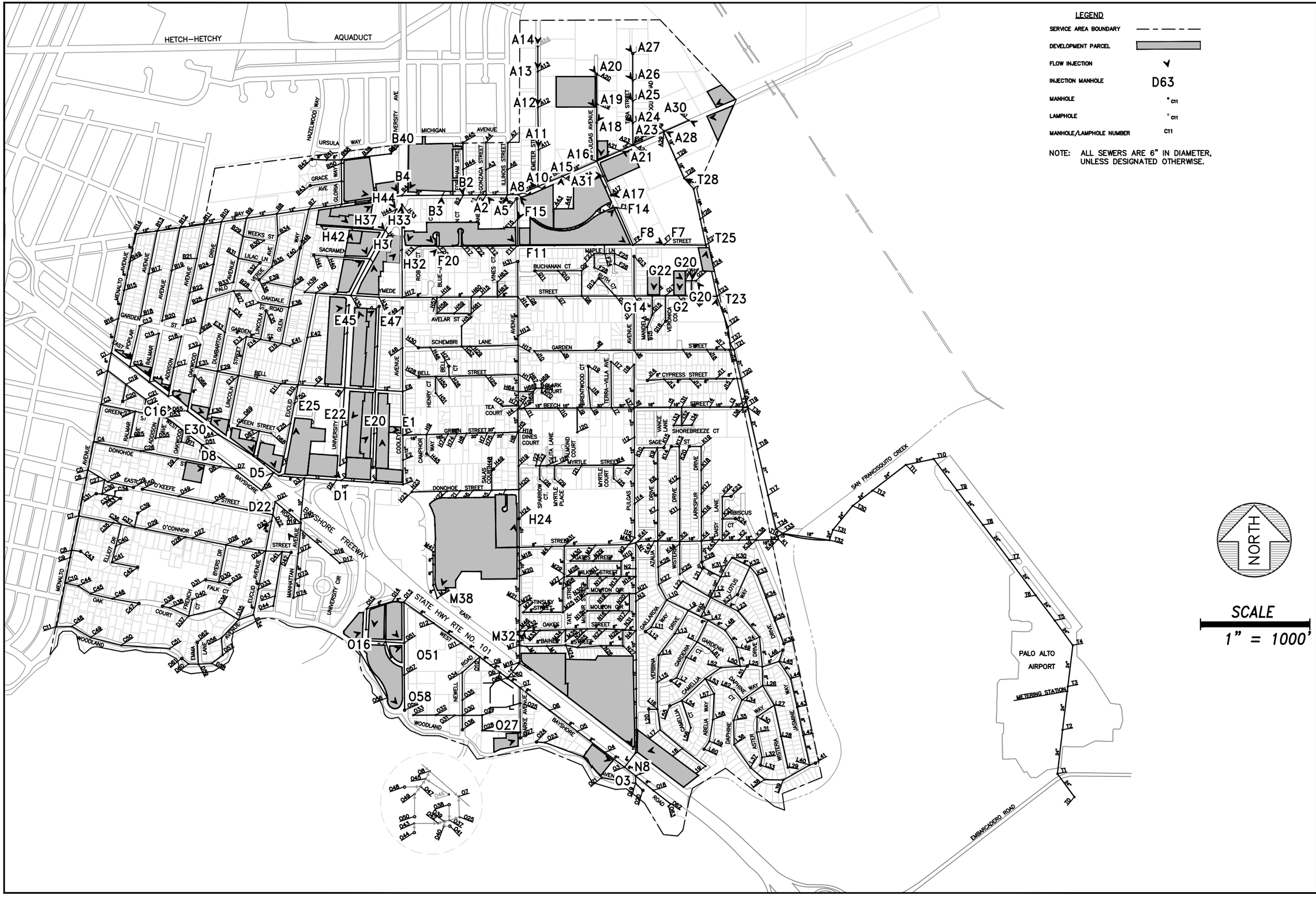
SCALE
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FIGURE
4.1

JOB NO.
221009



LEGEND

- SERVICE AREA BOUNDARY
- DEVELOPMENT PARCEL
- FLOW INJECTION
- INJECTION MANHOLE — D63
- MANHOLE — C11
- LAMPHOLE — C11
- MANHOLE/LAMPHOLE NUMBER — C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

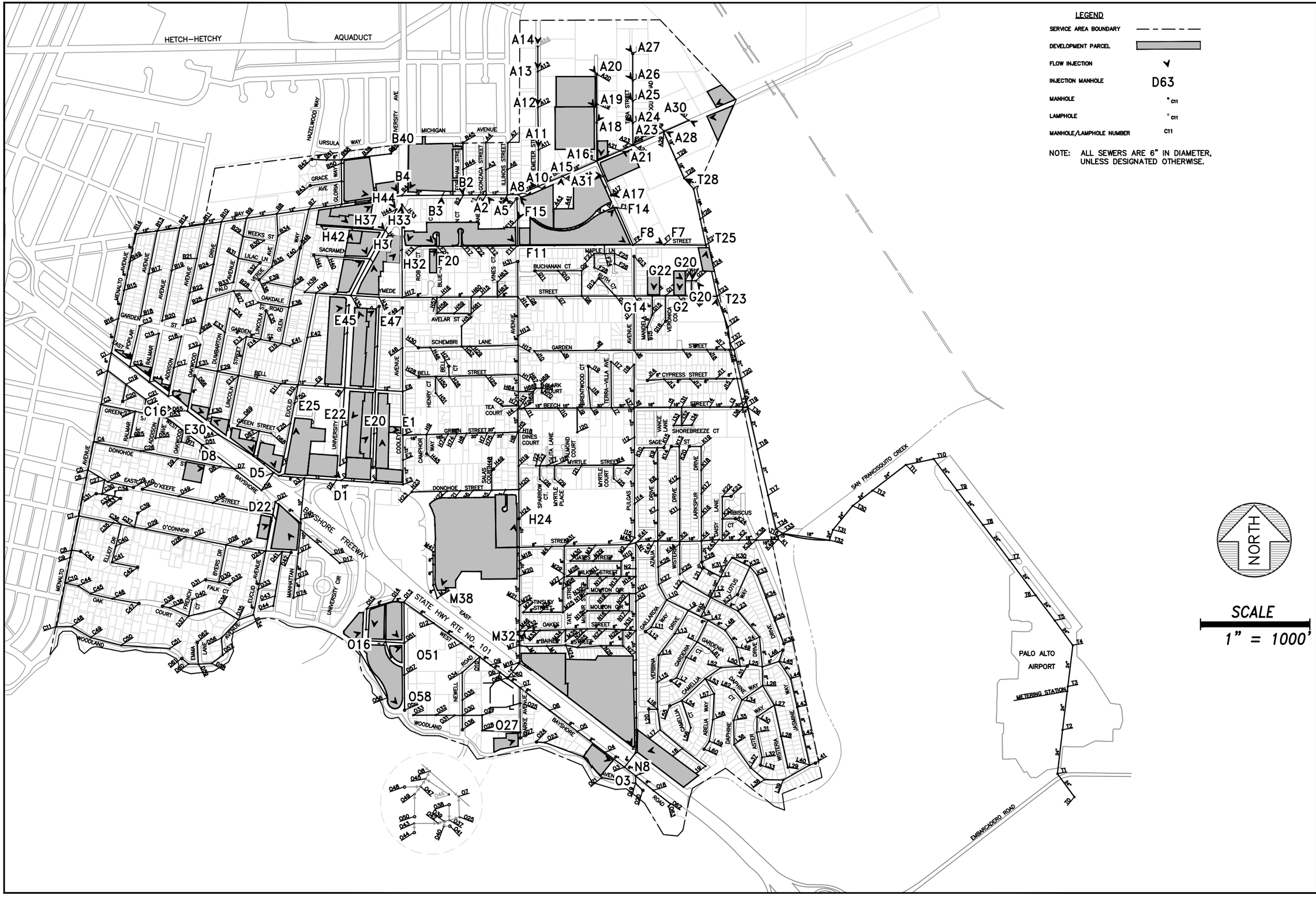
SCENARIO 2: 2035 - ADDITIONAL FLOW INJECTION LOCATIONS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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PROJ. ENGR:	

FIGURE 4.2

JOB NO. 221009



SCENARIO 3: 2035 ENHANCED – ADDITIONAL FLOW
INJECTION LOCATIONS + KNOWN DEVELOPMENTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
4.3

JOB NO.
221009

SCENARIO 1: 2025 - PWWF CONDITIONS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- SURCHARGED PIPE SEGMENT
- MANHOLE WITH OVERFLOW — D63
- MANHOLE — C11
- LAMPHOLE — C11
- MANHOLE/LAMPHOLE NUMBER — C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

HETCH–HETCHY AQUADUCT

BAYSHORE FREEWAY

STATE HWY RTE NO. 101

SAN FRANCISQUITO CREEK

PALO ALTO AIRPORT

METERING STATION

EMBARCADERO ROAD

NORTH

SCALE
1" = 1000'

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SCALE:	1" = 1000'
DESIGNED:	ZG
DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
5.1

JOB NO.
221009

SCENARIO 2: 2035 - PWWF CONDITIONS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- SURCHARGED PIPE SEGMENT
- MANHOLE WITH OVERFLOW — D63
- MANHOLE — * C11
- LAMPHOLE — * C11
- MANHOLE/LAMPHOLE NUMBER — C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

HETCH-HETCHY AQUADUCT

H44 H37 H36 H47 H35 H34 M31 M29 M27 C5 C6

MICHIGAN AVENUE · URSULA WAY · HAZELWOOD WAY · UNIVERSITY AVE · FORDHAM STREET · GONZAGA STREET · ILLINOIS STREET · DEMETER STREET · PULGAS AVENUE · TARA STREET · ROGUE ROAD · BAY ROAD · GRACE AVE · GLORIA WAY · WEEKS STREET · SACRAMENTO ST · RUNNYMEDE AVENUE · CAROLE CT · PAUL ROBESON CT · JAMIE LANE · ROBIN CT · BLUE-JAY CT · VINES CT · AVELAR ST · MAPLE LN · BUCHANAN CT · RUTH CT · MANDELA CT · VERONICA COURT · SCHEMBRI LANE · GARDEN STREET · BELL STREET · BELL CT · HENRY CT · CLARK COURT · BEECH STREET · BRENTWOOD CT · TERRA-VILLA AVE · CYPRESS STREET · TEA COURT · GREEN STREET · DINES COURT · LITA LANE · ALMOND COURT · MYRTLE STREET · SAGE ST · VANCE LANE · SHOREBREEZE CT · SALAS COURT · SPARROW CT. · MYRTLE PLACE · MYRTLE COURT · DONOHOE STREET · CLARKE · PULGAS DRIVE · LARKSPUR DRIVE · DAISY LANE · HIBISCUS CT · O'CONNOR STREET · GATES STREET · WILKES STREET · MOUTON CIR · TINSLEY STREET · OAKES STREET · BAINES STREET · MEHLER STREET · TATE STREET · AZALIA · WISTERIA · LOTUS WAY · GAILLARDIA WAY · GARDENIA CT · CAMELLIA · DAPHNE WAY · ASTER WAY · JASMINE WAY · VERBENA DRIVE · MENALTO AVENUE · PALO ALTO AVENUE · GARDEN ST · POPLAR ST · RALMAR AVE · ADDISON AVE · OAKWOOD ST · DUMBARTON STREET · LINCOLN ST · GLEN WAY · EUCLID PL · CAPITOL AVENUE · COOLEY AVENUE · CAMPHOR WAY · GREEN ST · DONOHOE STREET · EAST O'KEEFE STREET · BAYSHORE ROAD · BAYSHORE FREEWAY · ELLIOT DR · BYERS DR · FALK CT · FRENCH CT · OAK COURT · EUCLID AVENUE · MANHATTAN AVENUE · UNIVERSITY CIR · EMMA LANE · WOODLAND AVENUE · CAPITOL AVE · SCOFIELD ST · CIRCLE DR · NEWELL ROAD · CLARKE AVENUE · STATE HWY RTE NO. 101 · SAN FRANCISQUITO CREEK · PALO ALTO AIRPORT · METERING STATION · EMBARCADERO ROAD

NORTH

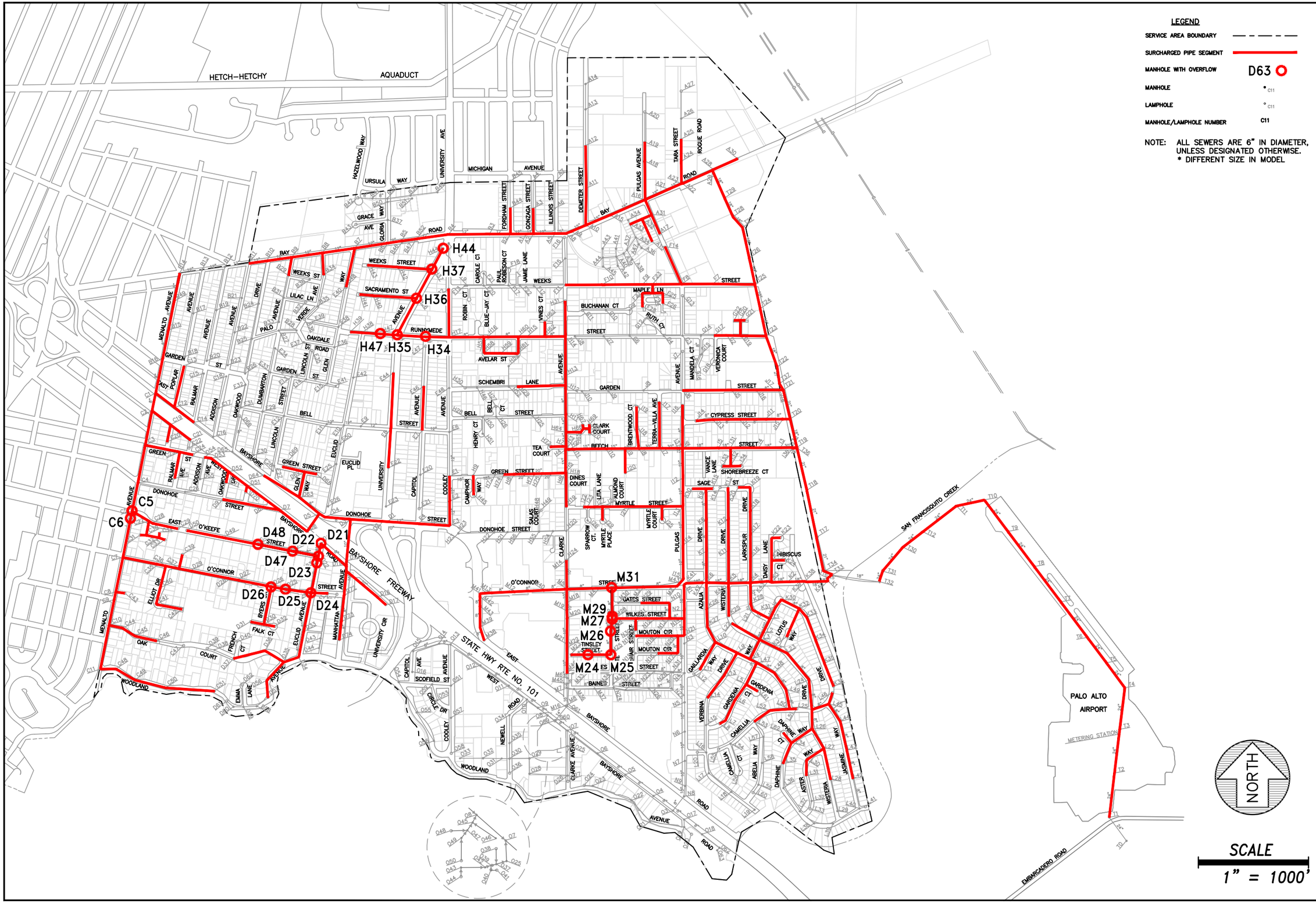
SCALE
1" = 1000'

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PROJ. ENGR:	JTT

FIGURE
5.2

JOB NO.
221009



LEGEND

- SERVICE AREA BOUNDARY
- SURCHARGED PIPE SEGMENT
- MANHOLE WITH OVERFLOW — D63
- MANHOLE — C11
- LAMPHOLE — C11
- MANHOLE/LAMPHOLE NUMBER — C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

SCENARIO 3: 2035 ENHANCED – PWWF CONDITIONS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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FIGURE 5.3

JOB NO. 221009

CATEGORY 1: EXISTING PIPE CAPACITY DEFICIENCIES
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- PIPE SEGMENT WITH CATEGORY 1 DEFICIENCY
- MANHOLE •C11
- LAMPHOLE °C11
- MANHOLE/LAMPHOLE NUMBER C11

NOTES:
1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

HETCH–HETCHY AQUADUCT

MICHIGAN AVENUE

BAYSHORE FREEWAY

STATE HWY RTE NO. 101

SAN FRANCISQUITO CREEK

PALO ALTO AIRPORT

METERING STATION

EMBARCADERO ROAD

NORTH

SCALE
1" = 1000'

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DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
6.1

JOB NO.
221009

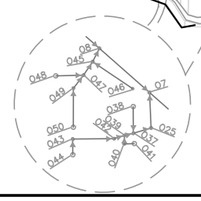
CATEGORY 2: FUTURE PIPE CAPACITY DEFICIENCIES
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- PIPE SEGMENT WITH CATEGORY 2 DEFICIENCY
- PIPE SEGMENT WITH CATEGORY 1 DEFICIENCY (DEVELOPER SHARED COST)
- MANHOLE • C11
- LAMPHOLE ° C11
- MANHOLE/LAMPHOLE NUMBER C11

NOTES:
1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

HETCH–HETCHY AQUADUCT
BAYSHORE FREEWAY
STATE HWY RTE NO. 101
SAN FRANCISQUITO CREEK
PALO ALTO AIRPORT
METERING STATION
EMBARCADERO ROAD
MICHIGAN AVENUE
BAY ROAD
WEEKS STREET
SACRAMENTO ST
RUNNYMEDE
AVELAR ST
SCHEMBRI LANE
GARDEN STREET
BELL STREET
GREEN STREET
BEECH STREET
CYPRESS STREET
MAPLE LN
BUCHANAN CT
RUTH CT
MANDELA CT
VERONICA COURT
CLARK COURT
TEA COURT
DINES COURT
LITA LANE
ALMOND COURT
MYRTLE STREET
MYRTLE COURT
SPARROW CT.
MYRTLE PLACE
SAGE ST
VANCE LANE
SHOREBREEZE CT
DONOHOE STREET
O'CONNOR STREET
GATES STREET
WILKES STREET
MOUTON CIR
TINSLEY STREET
OAKES
BAINES STREET
TATE STREET
MENAR STREET
DRIVE
LARKSPUR
DAISY LANE
HIBISCUS CT
AZALIA
WISTERIA
LOTUS WAY
GAILLARDIA WAY
GARDENIA CT
CAMELLIA CT
ABELIA WAY
DAPHNE WAY
ASTER WAY
JASMINE WAY
VERBENA
PULGAS AVENUE
DEMETER STREET
FORDHAM STREET
GONZAGA STREET
ILLINOIS STREET
UNIVERSITY AVE
HAZELWOOD WAY
URSULA WAY
GRACE AVE
GLORIA WAY
TARA STREET
ROGUE ROAD
CAROLE CT
PAUL ROBESON CT
JAMIE LANE
ROBIN CT
BLUE–JAY CT
VINES CT
HENRY CT
CAMPHOR WAY
CAPITOL AVE
COOLEY AVENUE
UNIVERSITY CIR
MANHATTAN AVENUE
EUCLID AVENUE
EUCLID PL
CLARKE AVENUE
NEWELL ROAD
CIRCLE DR
SCOFIELD ST
WOODLAND AVENUE
EMMA LANE
OAK COURT
FALK CT
FRENCH CT
BYERS DR
ELLIOT DR
MENALTO AVENUE
PALO ALTO AVENUE
LILAC LN
VERDE AVENUE
OAKDALE AVENUE
GLEN WAY
LINCOLN ST
DUMBARTON ROAD
ASTER AVENUE
POPLAR AVENUE
RALMAR AVE
ADDISON AVE
OAKWOOD DR
BAYSHORE AVENUE
LINCOLN STREET
EAST O'KEEFE STREET
DONOHOE STREET
GREEN STREET
BELL STREET
EAST BAYSHORE ROAD
WEST BAYSHORE ROAD
SCHEMBRI LANE
AVELAR ST
RUNNYMEDE
SACRAMENTO ST
WEEKS ST
PALO ALTO AVENUE
MENALTO AVENUE



NORTH

SCALE
1" = 1000'

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PROJ. ENGR:	JTT

FIGURE
6.2

JOB NO.
221009

CATEGORY 3A: EXISTING PIPE STRUCTURAL DEFICIENCIES
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- PIPE SEGMENT WITH CATEGORY 3 DEFICIENCY
- MANHOLE • C11
- LAMPHOLE ° C11
- MANHOLE/LAMPHOLE NUMBER C11

NOTES:
1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

HETCH–HETCHY AQUADUCT

BAYSHORE FREEWAY

STATE HWY RTE NO. 101

SAN FRANCISQUITO CREEK

PALO ALTO AIRPORT

METERING STATION

EMBARCADERO ROAD

NORTH

SCALE
1" = 1000'

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CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
6.3

JOB NO.
221009



LEGEND

- SERVICE AREA BOUNDARY
- PIPE SEGMENT WITH CATEGORY 1 AND CATEGORY 3 DEFICIENCIES
- PIPE SEGMENT WITH CATEGORY 2 AND CATEGORY 3 DEFICIENCIES
- MANHOLE •C11
- LAMPHOLE °C11
- MANHOLE/LAMPHOLE NUMBER C11

NOTES:
1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

NORTH

SCALE
1" = 1000'

CATEGORY 1, 2, AND 3A OVERLAP
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
6.4

JOB NO.
221009

CATEGORY 3B: REMAINING PIPES IN THE SEWER SYSTEM
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

LEGEND

- SERVICE AREA BOUNDARY
- PIPE SEGMENT WITH CATEGORY4 DEFICIENCIES
- PIPE SEGMENT IN PALO ALTO AIRPORT, SEE NOTE 2
- MANHOLE
- LAMPHOLE
- MANHOLE/LAMPHOLE NUMBER C11

NOTES:
1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
2. PIPE SEGMENTS IN THE PALO ALTO AIRPORT MAY REQUIRE ADDITIONAL MEASURES TO REPLACE.

HETCH–HETCHY AQUADUCT

BAYSHORE FREEWAY

STATE HWY RTE NO. 101

SAN FRANCISQUITO CREEK

PALO ALTO AIRPORT

METERING STATION

EMBARCADERO ROAD

NORTH

SCALE
1" = 1000'

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SCALE:	1" = 1000'
DESIGNED:	ZG
DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
6.5

JOB NO.
221009

CATEGORY 1 - CIP PROJECTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA



LEGEND

SERVICE AREA BOUNDARY

PROPOSED PIPE TO BE REPLACED — CIP 1.1, CIP 1.2

MANHOLE

LAMPHOLE

MANHOLE/LAMPHOLE NUMBER C11

NOTE: ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

ABBREVIATIONS

CIP CAPITAL IMPROVEMENT PROJECT

PROJECT NUMBER	DESIGN YEAR	CONSTRUCTION YEAR
1.1	2025/2026	2026/2027
1.2	2025/2027	2026/2029

NORTH

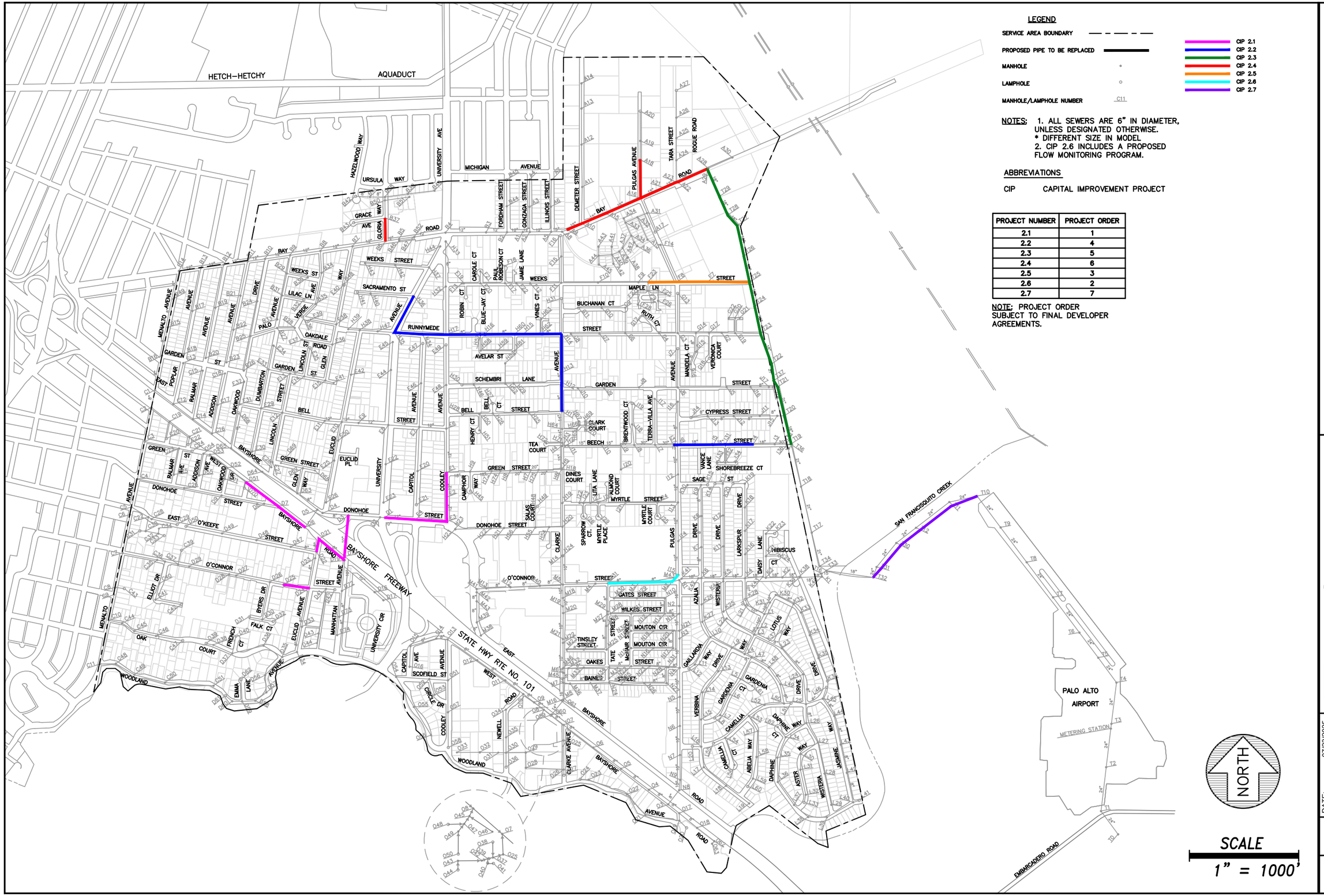
SCALE
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CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
7.1

JOB NO.
221009



LEGEND

- SERVICE AREA BOUNDARY
- PROPOSED PIPE TO BE REPLACED
- MANHOLE
- LAMPHOLE
- MANHOLE/LAMPHOLE NUMBER (C11)

- CIP 2.1
- CIP 2.2
- CIP 2.3
- CIP 2.4
- CIP 2.5
- CIP 2.6
- CIP 2.7

NOTES: 1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL
2. CIP 2.6 INCLUDES A PROPOSED FLOW MONITORING PROGRAM.

ABBREVIATIONS

CIP CAPITAL IMPROVEMENT PROJECT

PROJECT NUMBER	PROJECT ORDER
2.1	1
2.2	4
2.3	5
2.4	6
2.5	3
2.6	2
2.7	7

NOTE: PROJECT ORDER SUBJECT TO FINAL DEVELOPER AGREEMENTS.

NORTH

SCALE
1" = 1000'

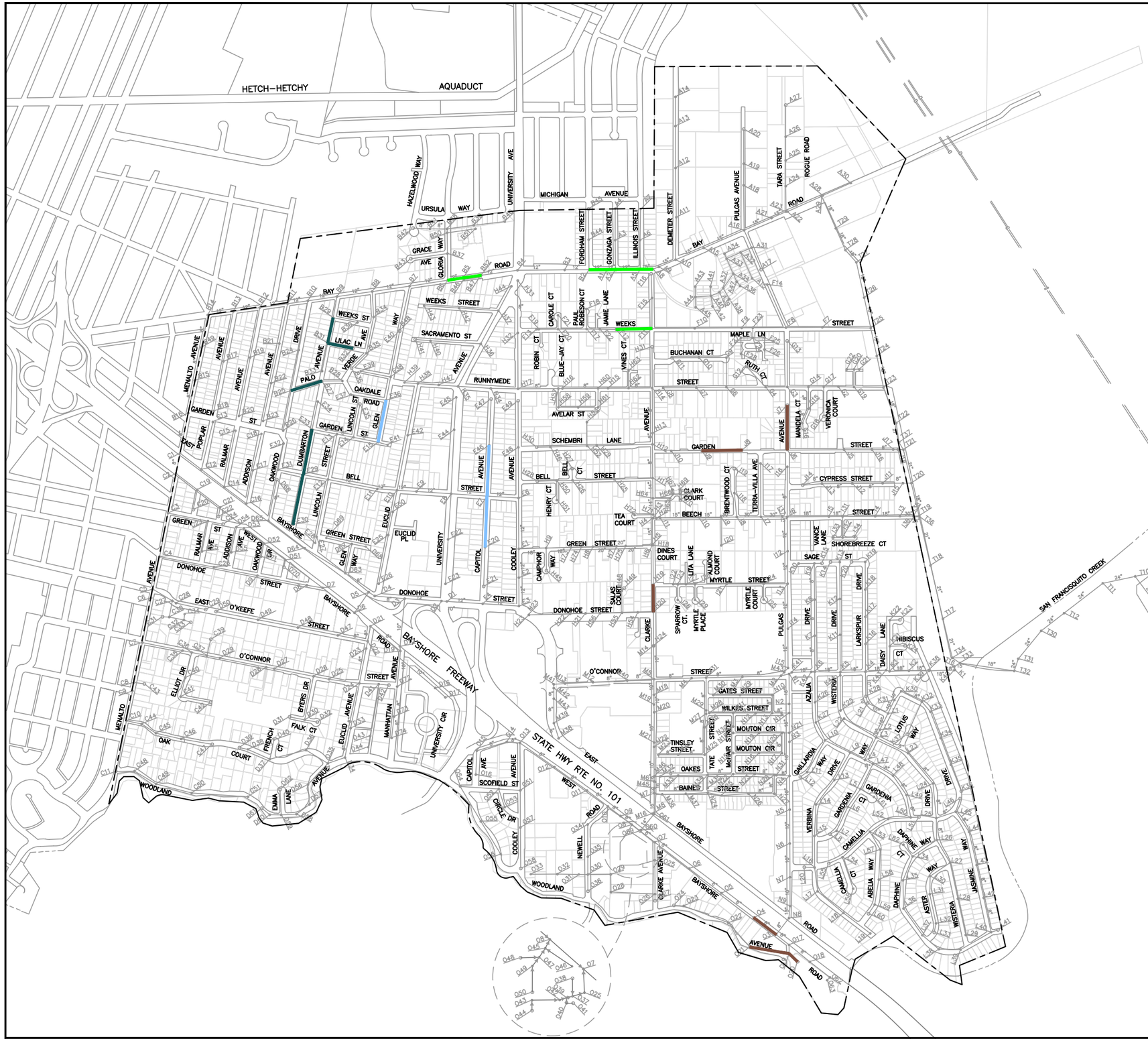
CATEGORY 2 - CIP PROJECTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

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DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
7.2

JOB NO.
221009



LEGEND

SERVICE AREA BOUNDARY

PROPOSED PIPE TO BE REPLACED

MANHOLE

LAMPHOLE

MANHOLE/LAMPHOLE NUMBER C11

CIP 3.1
CIP 3.2
CIP 3.3
CIP 3.4

NOTE: 1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL
2. SOME CATEGORY 3A SEGMENTS ARE INCLUDED IN CATEGORY 2 CIP PROJECTS.

ABBREVIATIONS

CIP CAPITAL IMPROVEMENT PROJECT

PROJECT NUMBER	PROJECT ORDER
3.1	4
3.2	3
3.3	2
3.4	1

NORTH

SCALE
1" = 1000'

CATEGORY 3A - CIP PROJECTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA

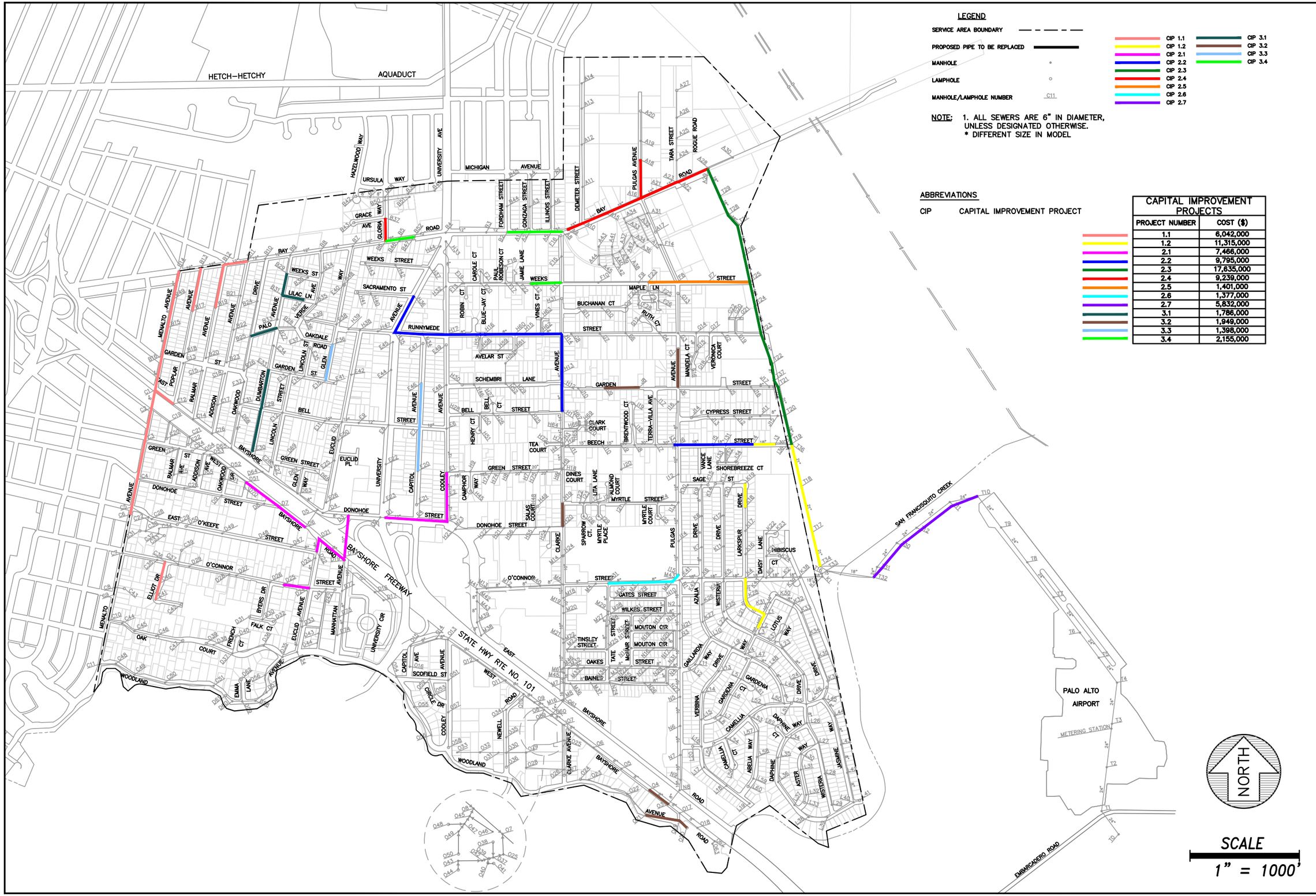
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CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
7.3

JOB NO.
221009

OVERALL - CIP PROJECTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA



LEGEND

- SERVICE AREA BOUNDARY
- PROPOSED PIPE TO BE REPLACED
- MANHOLE
- LAMPHOLE
- MANHOLE/LAMPHOLE NUMBER C11

CIP 1.1, CIP 1.2, CIP 2.1, CIP 2.2, CIP 2.3, CIP 2.4, CIP 2.5, CIP 2.6, CIP 2.7, CIP 3.1, CIP 3.2, CIP 3.3, CIP 3.4

NOTE: 1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

ABBREVIATIONS

CIP CAPITAL IMPROVEMENT PROJECT

CAPITAL IMPROVEMENT PROJECTS	
PROJECT NUMBER	COST ($)
1.1	6,042,000
1.2	11,315,000
2.1	7,486,000
2.2	9,795,000
2.3	17,635,000
2.4	9,239,000
2.5	1,401,000
2.6	1,377,000
2.7	5,832,000
3.1	1,786,000
3.2	1,949,000
3.3	1,398,000
3.4	2,155,000

NORTH

SCALE
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FIGURE
7.4

JOB NO.
221009

APPENDIX A

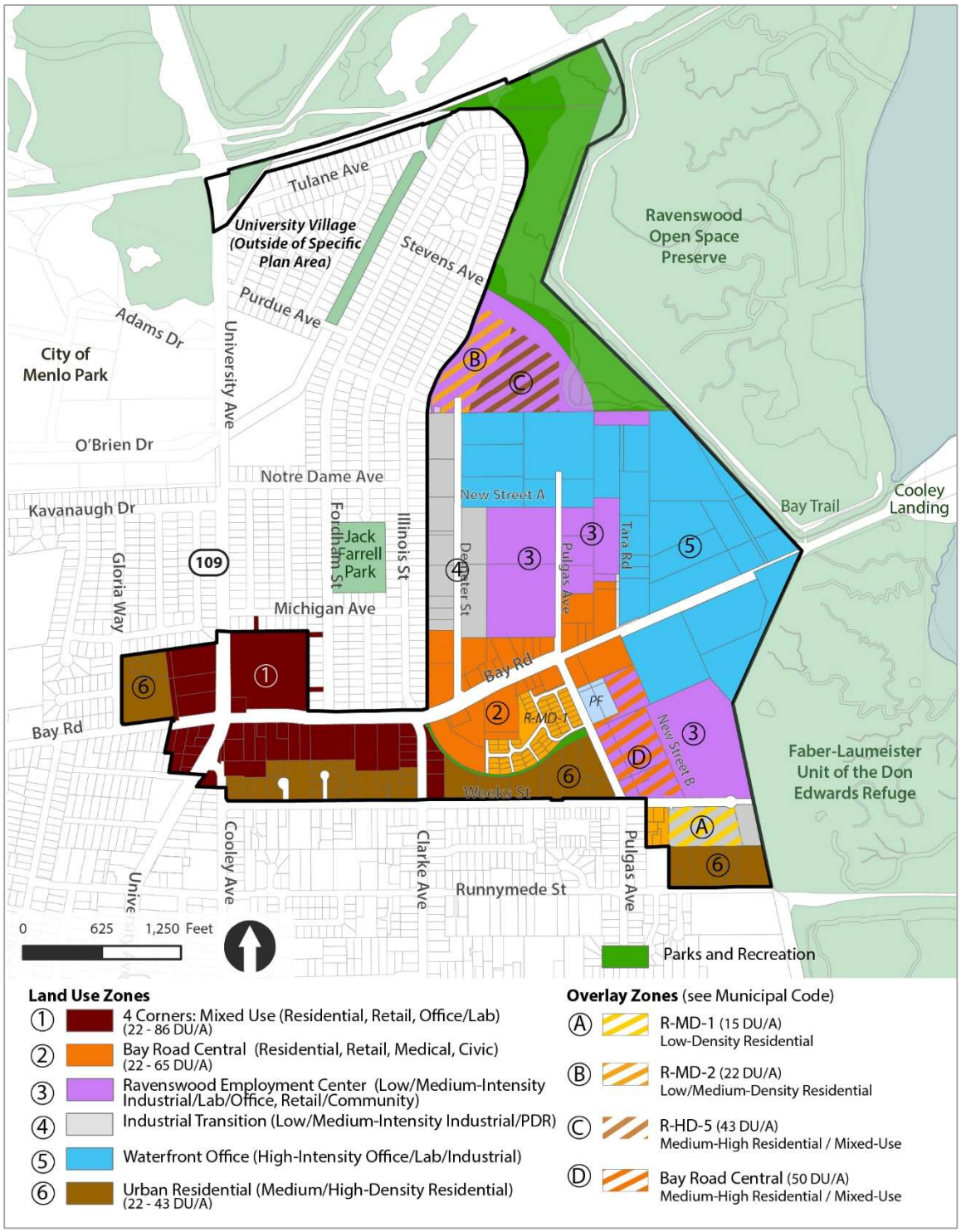
2035 General Plan and Ravenswood Business Specific Plan Land Use Excerpts

Table 4-2: Land Use Classification System			
Major Classes	**Maximum Density / FAR**	**Land Use Designation and Summary Description**	**Maximum Building Height** (see zoning code for further restrictions and standards)
RESIDENTIAL	0 – 12 du/a	**Low Density Residential** (R-LD). Single-family dwellings, with 2nd units allowed on some parcels.	Maximum height of 2 stories and 26 feet.
	12 – 22 du/a	**Medium Density Residential** (R-MD). A range of multi-family residential uses including second units, single-family, duplex, triplex, quadplex, rowhouses, courtyard buildings and small-scale multi-family buildings.	Maximum height of 3 stories and 36 feet.
	22 – 43 du/a	**High Density Residential** (R-HD). A range of multi-family housing types ranging from townhomes to multi-family apartments at moderate to high densities.	Maximum height of 5 stories and 60 feet.
	43 – 86 du/a	**Urban Residential** (R-UHD). High-density multi-family dwellings (apartments, condos, and SROs).	Maximum height of 7 stories and 75 feet.
COMMERCIAL	Up to 22 du/a; 1.0 FAR	**Neighborhood Commercial** (NC). Local-serving retail, services and related uses.	Maximum of 3 floors or 36 feet.
	Up to 2.0 FAR	**General Commercial** (GC). Regional retail, office, and service-oriented business activities serving a community-wide population or broader market.	Maximum of 3 stories and 75 feet.
	Up to 3.0 FAR	**Office** (OC). Single-tenant or multi-tenant offices that include professional, legal, medical, financial, corporate and general business offices.	Maximum of 8 stories or 100 feet, whichever is greater.
MIXED USE	Up to 22 du/a; 1.0 FAR	**Mixed Use Low** (MUL). Low-density mixed-use.	Maximum of 3 stories and 36 feet.
	Up to 65 du/a; 1.75 FAR	**Mixed Use Corridor** (MUC). Multi-story mixed-use buildings.	Maximum 5 stories or 60 feet.
	Up to 86 du/a; 2.5 FAR	**Mixed Use High** (MUH). Multi-story mixed-use buildings at a larger scale than MUC.	Maximum of 8 stories or 100 feet, whichever is greater.
INDUSTRIAL	Up to 1.0 FAR	**General Industrial** (I-G). Industrial (storage and manufacturing), and R&D (lab/medical).	Maximum of 3 stories or 30 feet.
	Ranges from 0.75 to 3.0 FAR	**Industrial Buffer** (I-B). High-quality office buildings, along with a limited range of manufacturing and repair businesses.	Maximum of 8 stories or 100 feet. Maximum height within 200 feet of University Village area is 3 stories above grade.
COMMUNITY	Determined during approval	**Parks/Recreation/Conservation** (PRC). Public recreational uses, including park and open space.	n/a
	N/A	**Resource Management** (RM). Preservation of sensitive open space lands in a natural condition.	n/a
	N/A	**Public/Institutional** (PI). Education, city buildings, fire/police stations, & other uses.	n/a

Figure 4-2: General Plan Land Use Designations



Figure 6-1. Land Use Zones Map



APPENDIX B

SANITARY SEWER MODEL CALIBRATION MEMO

FREYER & LAURETA, INC.
Civil Engineers – Surveyors – Construction Managers

Memorandum

Re: East Palo Alto – Rebuilding EPASD sewer model in SewerGEMS
Date: May 1, 2025
To: Richard Perez, City of East Palo Alto
Humza Javed, P.E. City of East Palo Alto
From: Greg Arifian P.E., Freyer & Laureta, Inc.
Rheanna Ostrea, Freyer & Laureta, Inc.
Zoe Gnass, Freyer & Laureta, Inc.
Reviewed: Jeff Tarantino, Freyer & Laureta, Inc.

1 Introduction

Freyer and Laureta, Inc. (F&L) has prepared this memorandum to document the development of a new sewer collection system model. The East Palo Alto Sanitary District's (EPASD) wastewater collection system was developed by EPASD using Hydra 7 software by Pizer Incorporated (Hydra 7). The Hydra 7 hydraulic model was first used by EPASD in the 2015 Master Plan. The hydraulic model created a mathematical representation based on the physical properties and operational information of the system and was calibrated using field data. As the initial Hydra 7 model software is no longer supported, the model needed to be rebuilt with modern software. F&L was tasked to recreate the hydraulic model using a GIS-based hydraulic model platform, which was done using SewerGEMS within OpenFlows Sewers Advanced by Bentley Systems, Incorporated. This memorandum outlines the steps that were taken to recreate and validate the model.

2 Model Methodology

F&L used a structured workflow to develop the SewerGEMS model. The legacy Hydra7 software was inaccessible, so the approach began with a research phase. This involved compiling archived and limited GIS sewer maps, PDFs, and database output files. Thereafter a series of tasks were developed, often iterative, to produce a final working model. The major tasks and sub-tasks identified became the basis of the model rebuilding approach and included:

1. Model Development
    a. Gathering archived 2014 field, model, and mapping data used in the 2015 Master plan
    b. Re-building a complete and detailed sewer map in GIS
    c. Importing sewer model and field flow data
2. SewerGEMS model Calibration
    a. Iteratively updating sewer properties through calibration
    b. Developing the Average Dry Weather Calibration buy analyzing HGL
    c. Therafter completing the Peak Wet Weather Calibration
3. Peformaing final quality checks on the SewerGEMS model results for final accuracy
4. Next steps: Model the 2025 and 2035 sewer conditions

3 Model Development

3.1 Gather Archived Model and Mapping Data

The first step in developing the updated model was to gather all available datasets from EPASD to support the construction of the ArcGIS sewer map using existing EPASD shapefiles, Microsoft Access database files, and Excel spreadsheets associated with the Hydra7 model developed for the 2015 Master Plan. Once all data sources were assembled, the information was reviewed and organized to confirm the accuracy and completeness of the sewer system inputs required for GIS mapping.

3.2 Build ArcGIS Sewer Map

The next step in the modeling process was to construct an accurate and functional ArcGIS map of EPASD's sewer system. The GIS map serves as the spatial foundation for the hydraulic model and must reflect reliable infrastructure attributes and connectivity. Archived GIS shapefiles were imported into ArcGIS and systematically compared to the Hydra7 model databases to verify the accuracy of system components, including manholes, pipes, and associated attributes.

To ensure data accuracy, key infrastructure attributes were reviewed across the archived GIS shape and model files. These features included manhole IDs, rim and invert elevations, pipe lengths, diameters, friction factors, and connectivity. The Hydra7 model contained the most recent field-verified measurements and system-wide modeling results and was used as the primary reference for validating and correcting discrepancies in the spatial data.

The following assumptions were applied in developing the ArcGIS sewer map:

1. **Hydraulic Attribute Consistency:** The Hydra7 data was assumed to represent the most accurate and current values for manhole and pipe attributes, including rim and invert elevations, lengths, diameters, and Manning's *n* values.

2. **Pipe Material and Friction Factors:** A single Manning's roughness coefficient of $n = 0.013$ was applied throughout the system, consistent with vitrified clay pipe, the predominant material in EPASD's network, and validated by the *Civil Engineering Reference Manual*.

3. **Manhole Dimensions:** All manholes were modeled as 48-inch diameter circular structures, in accordance with EPASD standard design specifications.

4. **Invert Elevation Logic:** Invert elevations were assumed to match the lowest connected pipe at each manhole. Given EPASD's relatively flat topography and supporting field observations, this assumption provides a reasonable basis for establishing flowlines. The horizontal datum used is the North American Datum of 1983 (NAD83, NSR 2007), and the vertical datum is the National Geodetic Vertical Datum of 1929 (NAVD 29).

5. **Head Loss Representation:** Minor losses at manholes were incorporated using industry-standard head loss coefficients for pipe bends. These values were based on the Standard Loss Method as documented in Bentley's *OpenFlows Water Infrastructure* modeling software.

The GIS base map and associated attribute dataset formed the foundation for updating the hydraulic model and performing system capacity assessments.

3.3 SewerGEMS Model Development

Following the creation of the ArcGIS sewer map, the spatial data was imported into SewerGEMS within Bentley's OpenFlows Sewer Advanced platform to initiate hydraulic model development. Upon import, all manhole and pipe

segment attributes—including labels, elevations, and connectivity—were reviewed against the GIS map to ensure accurate data transfer.

During this verification process, several issues were identified and corrected prior to running any simulations:

1. **Duplicate and Conflicting Identifiers:** The imported GIS data contained several duplicate or conflicting manhole and pipe labels. The discrepancies were resolved by cross-referencing EPASD's official system map from the 2015 Master Plan. All naming conventions were updated within the GIS data to maintain consistency with EPASD records.

2. **Connectivity Errors:** Several manholes and pipes were found to be improperly connected or entirely disconnected within the GIS data. The GIS data was corrected to ensure continuous hydraulic flow throughout the modeled network.

To validate basic model functionality, ADWF from the Hydra7 dataset were input into the SewerGEMS model and used to run a preliminary test simulation. The test simulation served as an initial calibration step and revealed inconsistencies that required updates to certain model parameters. The following adjustments and assumptions were made:

1. **Head Loss Adjustments:** The original Hydra7 model did not account for head loss at manholes. When industry-standard head loss coefficients (as described in Section 3.2) were applied, the resulting flow levels did not align with observed average dry weather field data. To reconcile this, all head loss values at manholes (nodes) were temporarily set to zero for the purposes of model calibration.

2. **Ponding Area Assumptions:** Manholes were assigned a ponding area property value of zero. The ponding area assumption setting enabled the model to track and report the volume of predicted Sanitary Sewer Overflows (SSOs) lost during simulations. The approach was developed iteratively during the calibration process.

The updates described above resulted the SewerGEMS model accurately represented EPASD's sewer system and was properly configured for subsequent calibration and capacity analysis.

4 SewerGEMS Model Calibration

The SewerGEMS model calibration process focused on validating two critical parameters: (1) the hydraulic grade line (HGL) and (2) flow rates at model nodes. Calibration was conducted for two distinct flow scenarios: (1) Average Dry Weather Flow (ADWF) and (2) Peak Wet Weather Flow (PWWF). The methods used to validate input data for both scenarios is described in the follow sections.

4.1 Average Dry Weather Calibration

For ADWF conditions, flow inputs for all upstream manholes in the system were derived from the Hydra7 model Excel files. **Figure 1** illustrates the locations of the upstream manholes, which were designated as flow injection points. The total ADWF injection flow was cross-checked and validated against the Hydra7 model database, which reports a total system flow of 1.53 million gallons per day (MGD).

SewerGEMS model results for ADWF were compared against Hydra7 model data and available field data for flow rates and maximum HGL at each manhole. **Table 1** presents the comparison of flows and HGL values between the two models. The comparison showed good agreement, with a few outliers identified. These discrepancies are addressed in more detail in Section 5.1, *Average Dry Weather Results*.

The ADWF calibration step confirmed that the input parameters were accurately transferred to the SewerGEMS model and that base flow conditions were properly established. With ADWF successfully calibrated, the next step was to validate the model under peak wet weather conditions.

4.2 Peak Wet Weather Calibration

The calibration of the PWWF involved importing the injection flows from the Hydra7 model into SewerGEMS. The resulting predictions for surcharge and SSOs did not align with those from the Hydra7 model, likely due to insufficient information on how the Hydra7 model accounted for surcharged conditions and SSOs. The discovered discrepancy prompted an iterative process to investigate and resolve the differences in model results, leading to the following findings:

1. **Flow Losses:** Model simulations indicated flow losses within the system. To address this, a ponding property was added to capture and return the predicted SSOs, as outlined in Section 2.3. This property update was applied system-wide for both ADWF and PWWF scenarios.

2. **Surcharge and SSOs:** Hand-calculated hydraulic analyses showed that the Hydra7 model predicted surcharge and SSOs in locations where they were unlikely to occur. These predictions did not align with field observations or the EPASD's operational experience. As a result, the SewerGEMS model was found to more accurately reflect existing conditions.

3. **Flow Adjustments:** Discrepancies were observed in the injection flow rates, with high flows in single-family housing areas and low flows in multi-family dwellings. To correct this, flow injections at selected upstream manholes were adjusted to better align with EPASD's 2013 zoning data. Flow rates in single-family areas were reduced, while multi-family areas received increased flow injections. These adjustments maintained the total system flow of 5.78 MGD, as recorded in the Hydra7 database, and provided a more realistic loading scenario across the system. Table 2 summarizes the changes in injection flows and the affected manholes.

5 SewerGEMS Model Results

Following the calibration process described in the previous section, the SewerGEMS model results were compared to the original hydraulic data from the Hydra7 model from the 2015 Master Plan. The comparison between the Hydra 7 and SewerGems output was performed to assess the accuracy and reliability of the SewerGEMS model in representing the system's performance under both ADWF and PWWF conditions. The sections below detail the methods used for this comparison and summarize the key findings from each scenario.

5.1 Average Dry Weather Results

For ADWF, the maximum HGL from SewerGEMS at each manhole was compared to the HGL from the original Hydra7 model. In most cases, the predicted HGLs from SewerGEMS differed by no more than 6 inches from those predicted by the Hydra7 model, as shown in **Table 1.**

Five manholes were identified as outliers, likely due to one of the following causes:

1. Locations near manholes with split flow directions or passive bypass piping, as shown in **Figure 2**. Manhole Outliers: E33, L10, M2, M3.

2. Duplicate manhole identifications, as discussed in Section 2.2. The Hydra7 model presented multiple data points for these manholes, making it unclear which data should be used for comparison. Manhole Outlier: H29.

Figure 3 shows the manhole outliers, which exhibited HGL differences ranging from nine inches to 24 inches, with SewerGEMS predicting lower HGLs than the Hydra7 model. The discrepancies are likely due to differences in routing strategies between the two models. However, as these outliers had minimal impact on adjacent branches, the outliers were considered insignificant in terms of overall model accuracy.

The full model outputs for ADWF are included in **Attachment 1**.

5.2 Peak Wet Weather Results

As described in Section 3.2, the PWWF model results could not be fully validated using HGL comparisons due to inconsistencies in the model. To verify the PWWF results, the following methods were used:

1. Manhole flows were compared to ensure that the total system flow of 5.78 MGD matched the total flow in Hydra7.
2. Predicted SSO locations were validated within the model.
3. System segments known to be surcharged, based on historical data and field observations, were validated in the model, including previous bypass pumping plans and flow metering results.

Figure 4 presents a map of predicted SSOs and surcharged segments in SewerGEMS. The model outputs and hydraulics for PWWF are included in **Attachment 2**.

6 Conclusions and Next Steps

The SewerGEMS model recreation has been validated as an acceptable tool for analyzing flows within EPASD sewer system. Based on the calibration and validation efforts, the model is now ready for more detailed analysis and future planning. The next steps in the process include:

1. Updating the GIS map file to reflect the most current As-Built data for the 2025 sanitary sewer system.
2. Recalibrating the hydraulic model under the following scenarios:
    a. **2025 Conditions:** Incorporating flow injections from the latest developments based on As-Built data to identify potential system issues or deficiencies.
    b. **2035 Conditions:** Adding flow injections from the East Palo Alto 2035 General Plan and Ravenswood Specific Planto identify necessary system upgrades to accommodate future growth.
    c. **2035 Enhanced Conditions:** Adding flow injections from the 2035 General Plan, Ravenswood Specific Plan, and approved planned developments to identify infrastructure needs for future development.
3. Updating EPASD's Master Plan to incorporate the results of the updated calibration and system analysis.

The next steps described above will ensure the model remains accurate and relevant for both current and future sewer system management.

7 References

EPASD, 2002 *East Palo Alto Sanitary District Standard Specifications for Design and Construction of Sanitary Collection and Conveyance Facilities*. East Palo Alto Sanitary District. June 6, 2002.

F&L, 2015 *East Palo Alto Sanitary District Master Plan Update*. Freyer & Laureta, Inc. March 2015.

K/J, 2002 *East Palo Alto Sanitary District Master Plan Update*. Kennedy/Jenks Consultants. September 2002.

VA, 2012 *2011-2012 Sanitary Sewer Flow Monitoring and Inflow/Infiltration Study*. V&A Consultants. June 2012.

Attachments:

- Tables
  - Table 1: Selected Average Dry Weather HGL and Flow Comparison
  - Table 2: Peak Wet Weather Updated Injection Flows
- Figures
  - Figure 1: EPASD Sanitary Sewer Service Area and Flow Injection Manholes
  - Figure 2: Typical Bypass Manhole
  - Figure 3: Manhole Outliers
  - Figure 4: SewerGEMS PWWF Model Results
- Attachments
  - Attachment 1: Average Dry Weather Flow Model Results
  - Attachment 2: Peak Wet Weather Flow Model Results

Table 1: Selected Average Dry Weather HGL and Flow Comparison

Table 1.1 HGL Comparison

	HGL (ft)		
MANHOLE LABEL	2013 Hydra7 Model[1]	2025 SewerGEMS Model	Change from Hydra7 Model
A15	0.63	0.55	0.08
B13	9.81	9.81	0.00
E1	4.05	4.06	(-0.00)
E2	4.59	4.61	(-0.02)
H3	1.20	1.14	0.06
I12	-1.87	-1.85	(-0.02)
I3	-3.41	-3.43	0.02
K28	-3.58	-3.61	0.03
K4	-3.78	-3.81	0.04
T20	-3.54	-3.54	0.00
T13	-6.60	-6.63	0.03

Table 1.2 Flow Comparison

	Flows (MGD)		
MANHOLE LABEL	2013 Hydra7 Model[1]	2025 SewerGEMS Model	Change from Hydra7 Model
A15	0.39	0.37	0.02
B13	0.14	0.14	0.00
E1	0.40	0.41	(-0.01)
E2	0.27	0.28	(-0.01)
H3	0.58	0.55	0.03
I12	0.22	0.22	(-0.00)
I3	0.82	0.79	0.03
K28	0.14	0.13	0.02
K4	0.26	0.24	0.02
T20	0.54	0.52	0.02
T13	1.63	1.51	0.12

Notes:

1. 2013 Hydra 7 Model data is taken from the East Palo Alto Sanitary District Master Plan Update, Freyer & Laureta, Inc., March 2015.

Abbreviations:

ft	feet
HGL	Hydraulic Grade Line
MGD	Million Gallons/Day

Table 2 - Peak Wet Weather Updated Injection Flows

Manhole Label	2013 PWWF Injection Value[1] (cfs)	2025 PWWF Injection Value (cfs)	Change from Hydra7 Model
C26	0.19	0.20	(-0.01)
D50	0.23	0.35	(-0.12)
D17	0.08	0.20	(-0.12)
D55	0.07	0.12	(-0.05)
D70	0.06	0.14	(-0.08)
D71	0.06	0.12	(-0.06)
D39	0.12	0.01	0.11
D40	0.12	0.01	0.11
D28	0.18	0.17	0.01
D69	0.07	0.03	0.04
D62	0.13	0.02	0.12
D68	0.07	0.03	0.04

Notes:

1. 2013 Hydra 7 Model data is taken from the East Palo Alto Sanitary District Master Plan Update, Freyer & Laureta, Inc., March 2015.

Abbreviations:

cfs	cubic feet / second
PWWF	Peak Wet Weather Flow

FIGURE 1 EPA&D SANITARY SEWER SERVICE AREA AND FLOW INJECTION MANHOLES
EPA&D SANITARY SEWER CALIBRATION MEMORANDUM
EAST PALO ALTO, CA

HETCH–HETCHY AQUADUCT

NOT IN SERVICE AREA

BAYSHORE FREEWAY

STATE HWY RTE NO. 101

SAN FRANCISQUITO CREEK

PALO ALTO AIRPORT

LOCATION OF ABANDONED METERING STATION

LOCATION OF CURRENT METERING STATION

PALO ALTO PUMP STATION

PALO ALTO REGIONAL WATER POLLUTION CONTROL PLANT

EMBARCADERO ROAD

NORTH

SCALE 1" = 1000'

LEGEND

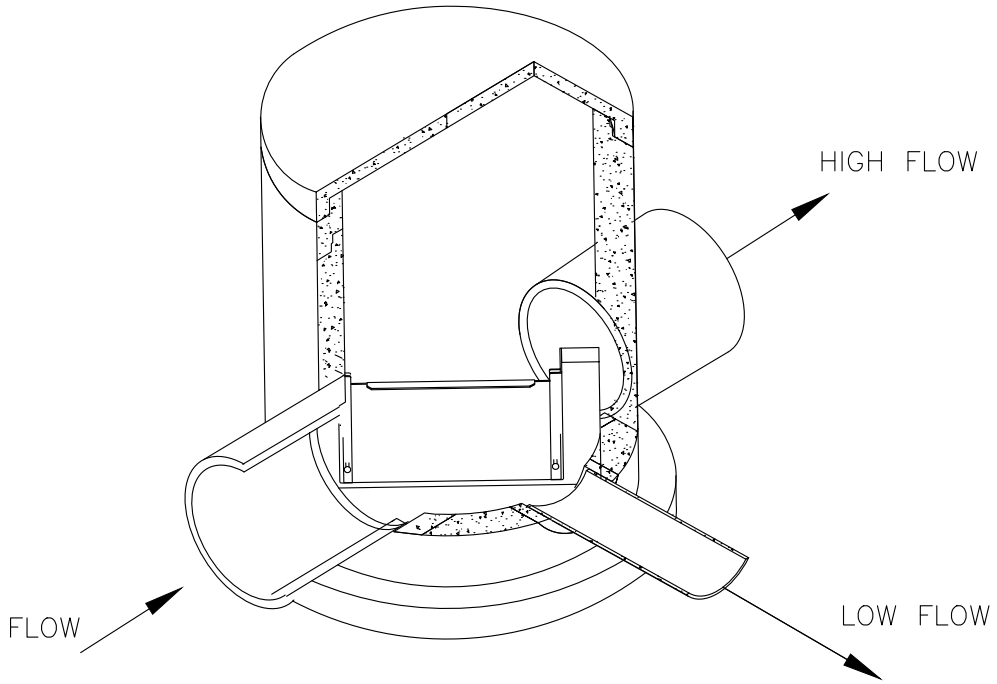
- SERVICE AREA BOUNDARY
- INJECTION MANHOLES
- MANHOLE • C11
- LAMPHOLE ° C11
- MANHOLE/LAMPHOLE NUMBER C11

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DATE:	4/4/2025
SCALE:	1" = 1000'
DESIGNED:	RO
DRAWN:	RO
CHECKED:	GKA
PROJ. ENGR:	JJT

FIGURE 1

JOB NO. 221009



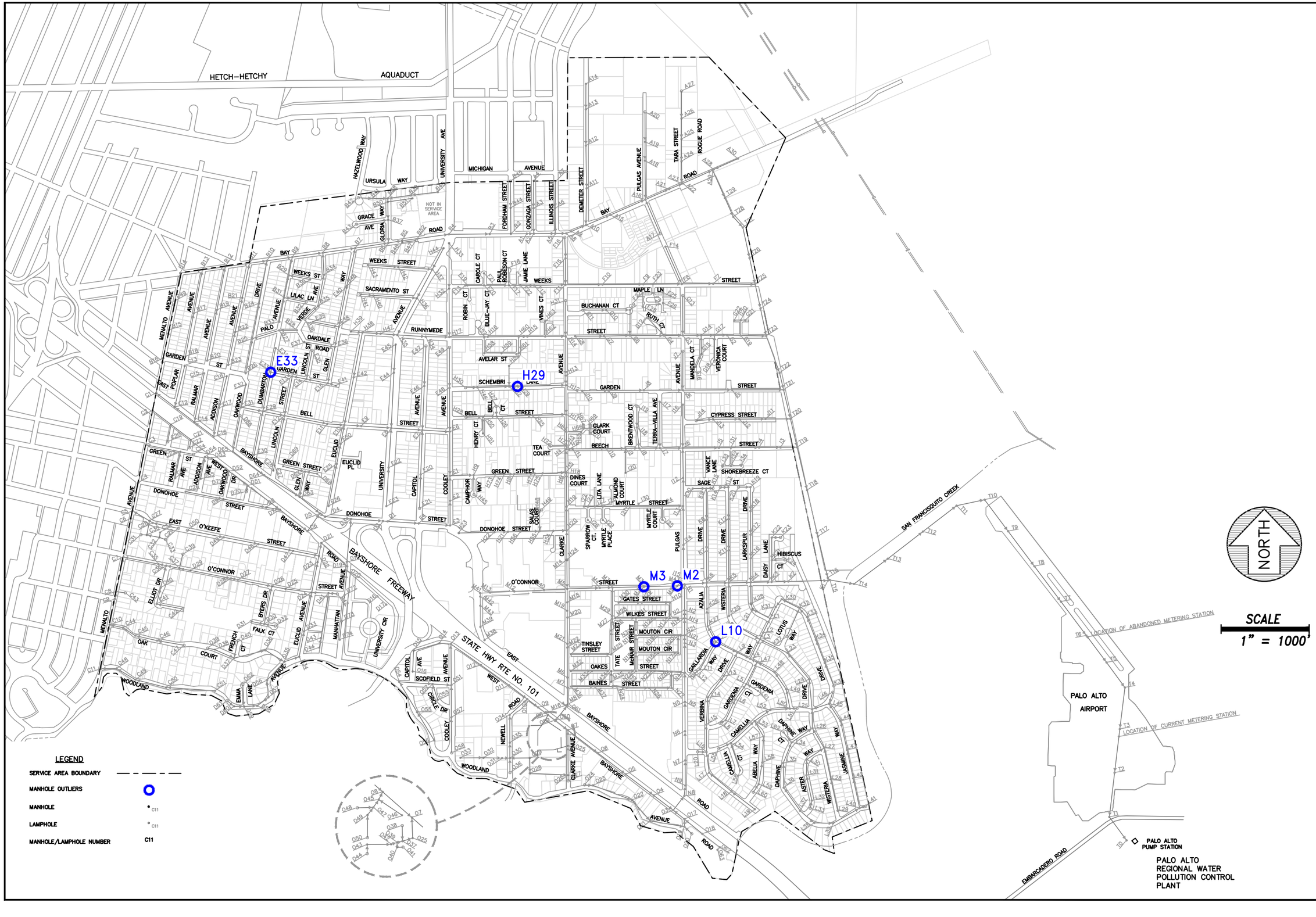
1 — BYPASS MANHOLE
NTS

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BYPASS MANHOLE
EPASD SANITARY SEWER CALIBRATION MEMORANDUM
EAST PALO ALTO, CA

FIGURE
2

FIGURE 3 MANHOLE OUTLIERS
EPA/SD SANITARY SEWER CALIBRATION MEMORANDUM
EAST PALO ALTO, CA



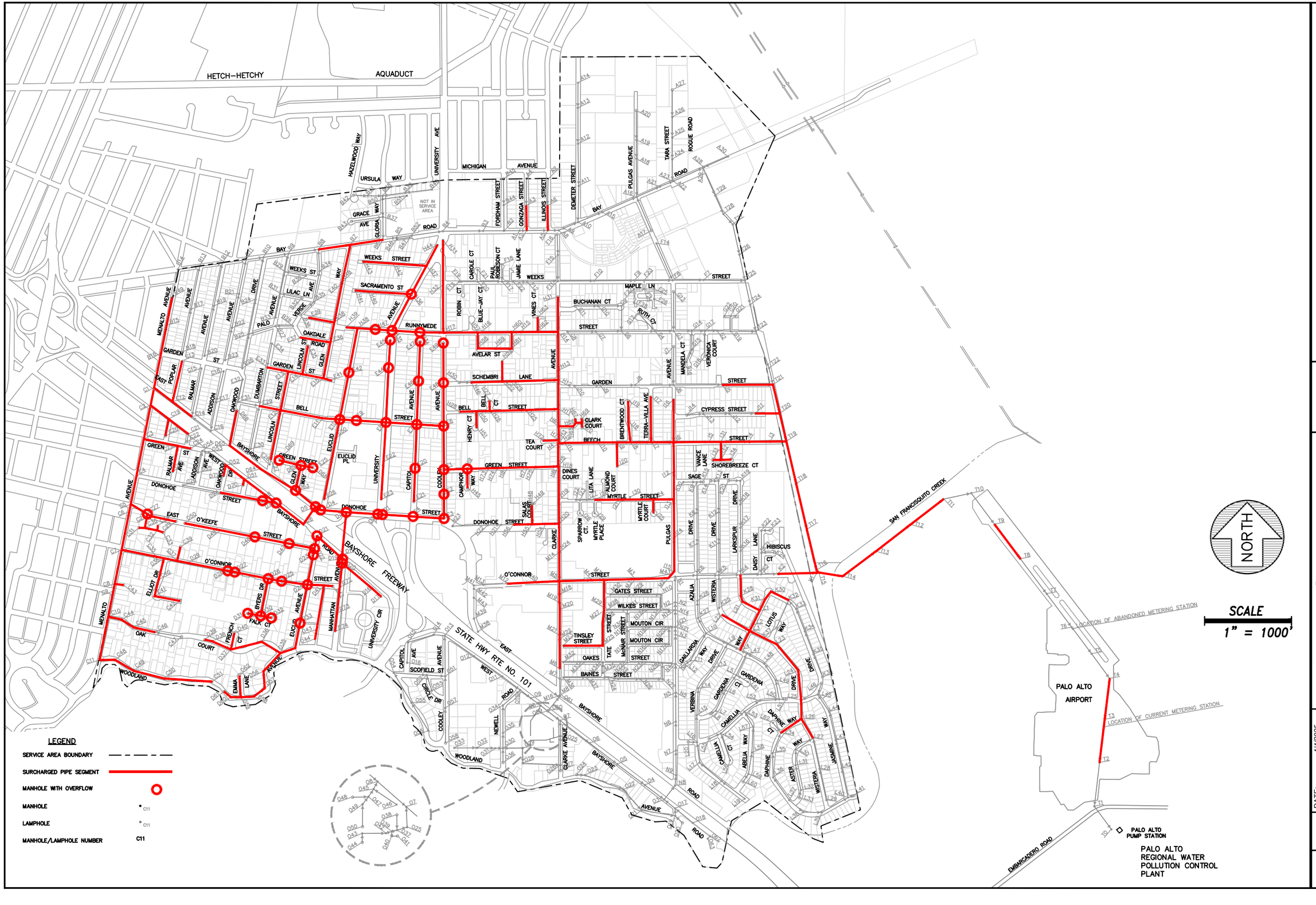
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FIGURE 3

JOB NO. 221009

FIGURE 4 SEWERGEMS PWWF MODEL RESULTS
EPA/SD SANITARY SEWER CALIBRATION MEMORANDUM
EAST PALO ALTO, CA



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FIGURE 4

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Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
A1+A2	A1	16.28	2	A2	15.82	1.92	79.9	0.001	Circle	12	0.013	0.378	2.39	0	0.5101	1.1273	33.5	0	39.8	FALSE	2.435
A2+A5	A2	15.82	1.82	A5	14.53	1.57	244.2	0.001	Circle	12	0.013	0.395	2.56	0.02	0.5271	1.1399	34.7	1.8	46.6	FALSE	2.311
A3+A2	A3	14.86	8.76	A2	15.82	2.12	287.5	0.023	Circle	6	0.013	0.017	0.85	0.05	0.017	0.8527	2	10.7	10.1	FALSE	8.907
A4+A3	A4	14	9.48	A3	14.86	8.86	312	0.002	Circle	6	0.013	0.017	0.88	0.06	0.017	0.2501	6.8	11.7	11.7	FALSE	9.566
A5+A8	A5	14.53	1.57	A8	13.85	1.53	124.3	0	Circle	15	0.013	0.412	2.56	0	0.5441	1.1587	35.6	0	34	FALSE	2.049
A6+A5	A6	13.72	7.32	A5	14.53	5.81	286.8	0.005	Circle	6	0.013	0.017	0.9	0.06	0.017	0.4071	4.2	12.6	15	FALSE	7.429
A7+A6	A7	14	8.03	A6	13.72	7.42	306	0.002	Circle	6	0.013	0.017	0.88	0.06	0.017	0.2505	6.8	11.7	17.2	FALSE	8.116
A8+A9	A8	13.85	1.43	A9	12.82	1.16	61.2	0.004	Circle	15	0.013	0.412	2.65	0.02	0.5441	4.2904	9.6	1.5	24.6	FALSE	1.825
A9+A10	A9	12.82	0.62	A10	11.42	0.57	181.2	0	Circle	15	0.013	0.412	2.56	0	0.5441	1.073	38.4	0	36.3	FALSE	1.455
A10+A15	A10	11.42	0.47	A15	9.93	0.03	299.3	0.001	Circle	15	0.013	0.4413	2.91	0.04	0.5734	2.4767	17.8	3.3	33.7	FALSE	0.897
A11+A10	A11	11.83	2.53	A10	11.42	1.12	417.5	0.003	Circle	6	0.013	0.0293	0.72	0.01	0.0293	0.3261	9	2.9	23.9	FALSE	2.654
A12+A11	A12	9.52	4.07	A11	11.83	2.63	485.1	0.003	Circle	6	0.013	0.0293	1.05	0.08	0.0293	0.3057	9.6	16	25.4	FALSE	4.198
A13+A12	A13	7.19	5.15	A12	9.52	4.07	412.1	0.003	Circle	6	0.013	0.0293	1.05	0.08	0.0293	0.2872	10.2	16.2	25.9	FALSE	5.286
A14+A13	A14	8.06	5.91	A13	7.19	5.19	288.3	0.002	Circle	6	0.013	0.0293	1.1	0.09	0.0294	0.2804	10.4	18	26.8	FALSE	6.043
A15+A16	A15	9.93	-0.03	A16	8.08	-0.17	435.1	0	Circle	15	0.013	0.4413	2.95	0.05	0.5734	1.1587	38.1	3.9	42.6	FALSE	0.551
A16+A21	A16	8.08	-0.22	A21	7.13	-0.42	296.3	0.001	Circle	15	0.013	0.4553	2.86	0.02	0.5874	1.6782	27.1	1.3	38.7	FALSE	0.29
A17+A16	A17	8.77	1.57	A16	8.08	0.73	422.7	0.002	Circle	6	0.013	0.004	0.55	0.01	0.004	0.2501	1.6	1.1	4.3	FALSE	1.592
A18+A16	A18	7.05	1.45	A16	8.08	0.73	441.8	0.002	Circle	6	0.013	0.01	0.71	0.03	0.01	0.2265	4.4	6.4	11	FALSE	1.506
A19+A18	A19	6.77	2.98	A18	7.05	1.45	213.5	0.007	Circle	6	0.013	0.01	0.61	0.01	0.01	0.475	2.1	2.2	8.7	FALSE	3.058
A20+A19	A20	5.62	3.73	A19	6.77	3.05	339.8	0.002	Circle	6	0.013	0.01	0.74	0.04	0.01	0.251	4	7.8	10.8	FALSE	3.783
A21+A23	A21	7.13	-0.52	A23	7.01	-0.8	155.1	0.002	Circle	15	0.013	0.4553	2.89	0.02	0.5888	2.7445	16.6	1.8	31.4	FALSE	-0.115
A22+A29	A22	6.99	-0.92	A29	6.36	-1.21	369.1	0.001	Circle	18	0.013	0.463	3.02	0.04	0.5955	2.9442	15.7	2.8	30.2	FALSE	-0.452
A23+A22	A23	7.01	-0.8	A22	6.99	-0.92	13.8	0.009	Circle	15	0.013	0.463	2.91	0.02	0.5984	6.0235	7.7	1.6	32.7	FALSE	-0.45
A24+A23	A24	7.7	1.62	A23	7.01	0.37	250.6	0.005	Circle	6	0.013	0.0077	0.72	0.04	0.0077	0.3963	1.9	7.1	9	FALSE	1.66
A25+A24	A25	8.36	2.89	A24	7.7	1.62	253.1	0.005	Circle	6	0.013	0.0077	0.72	0.04	0.0077	0.3974	1.9	7.3	9	FALSE	2.93
A26+A25	A26	7.42	4.06	A25	8.36	2.89	234.1	0.005	Circle	6	0.013	0.0077	0.57	0.01	0.0077	0.3967	1.9	1.4	3.4	FALSE	4.087
A27+A26	A27	6.96	5	A26	7.42	4.06	310.9	0.003	Circle	6	0.013	0.0077	0.72	0.04	0.0077	0.3085	2.5	7.1	9.1	FALSE	5.037
A28+A29	A28	6.24	0.21	A29	6.36	-0.25	14.8	0.031	Circle	6	0.013	0.002	0.53	0	0.002	0.9892	0.2	0.9	0.9	FALSE	0.325
A29+T29	A29	6.36	-1.24	T29	4.98	-1.62	345.5	0.001	Circle	18	0.013	0.465	2.98	0.03	0.5971	3.4835	13.3	2.1	28.2	FALSE	-0.804
A30+A28	A30	6.07	1.27	A28	6.24	0.32	301	0.003	Circle	6	0.013	0.002	0.53	0	0.002	0.3152	0.6	0.9	0.9	FALSE	1.275
B2+A1	B2	16	2.46	A1	16.28	2.1	180.8	0.002	Circle	12	0.013	0.378	2.39	0	0.5101	1.5897	23.8	0	39.6	FALSE	2.87
B3+B2	B3	18.59	2.64	B2	16	2.46	239.4	0.001	Circle	12	0.013	0.361	2.43	0.03	0.4931	0.9769	37	2.5	46.2	FALSE	3.137
B4+B3	B4	20.32	3.42	B3	18.59	2.74	464.8	0.001	Circle	12	0.013	0.361	2.39	0.02	0.4931	1.3627	26.5	1.7	43	FALSE	3.871
B5+B52	B5	18.61	4.51	B52	20.58	4.29	176.2	0.001	Circle	12	0.013	0.361	2.31	0	0.4931	1.2589	28.7	0	42	FALSE	4.957
B6+B5	B6	18.29	5.6	B5	18.61	4.56	158.4	0.007	Circle	12	0.013	0.349	2.24	0	0.4811	2.8867	12.1	0	28.7	FALSE	5.893
B7+B6	B7	18.66	5.76	B6	18.29	5.6	380.1	0	Circle	12	0.013	0.305	2.03	0	0.4371	0.7309	41.7	0	50	FALSE	6.298
B8+B7	B8	20.55	6.5	B7	18.66	5.81	371	0.002	Circle	12	0.013	0.2883	1.94	0	0.4204	1.5364	18.8	0	37.3	FALSE	6.878
B9+B8	B9	18.41	7.16	B8	20.55	6.55	350.9	0.002	Circle	12	0.013	0.2755	1.9	0.01	0.4076	1.4854	18.5	0.5	37.3	FALSE	7.539
B10+B9	B10	16.86	7.61	B9	18.41	7.16	289.7	0.002	Circle	12	0.013	0.1951	1.53	0.01	0.3272	1.4041	13.9	1.1	34.6	FALSE	7.96
B11+B10	B11	16.46	8.71	B10	16.86	7.66	201.4	0.005	Circle	12	0.013	0.1695	1.35	0	0.266	2.5724	6.6	0	23	FALSE	8.967
B12+B11	B12	15.83	9.18	B11	16.46	8.76	277	0.002	Circle	12	0.013	0.1695	1.35	0	0.2231	1.3872	12.2	0	29.2	FALSE	9.475
B13+B12	B13	15.33	9.53	B12	15.83	9.18	262.7	0.001	Circle	12	0.013	0.1695	1.35	0	0.1802	1.3004	13	0	27.4	FALSE	9.807
B14+B13	B14	15.47	10.07	B13	15.33	9.53	253.1	0.002	Circle	12	0.013	0.1695	1.35	0	0.1695	1.6456	10.3	0	0	FALSE	10.289
B15+B49	B15	20.29	12.19	B49	17.11	11.21	330.9	0.003	Circle	8	0.013	0.1695	1.35	0	0.1695	0.6576	25.8	0	0	FALSE	12.424
B16+B15	B16	20.39	13.24	B15	20.29	12.19	327.3	0.003	Circle	8	0.013	0.1695	1.35	0	0.1695	0.6844	24.8	0	0	FALSE	13.469
B17+B13	B17	19.31	13.31	B13	15.33	9.73	501.1	0.007	Circle	6	0.013	0.028	1.02	0.08	0.0429	0.4742	5.9	15	27.4	FALSE	13.448
B18+B17	B18	22.26	14.3	B17	19.31	13.31	497.2	0.002	Circle	6	0.013	0.0259	0.7	0.12	0.0429	0.2504	10.3	24.2	38.3	FALSE	14.491
B19+B12	B19	20.74	14.44	B12	15.83	9.88	499.6	0.009	Circle	6	0.013	0.0382	1.16	0.09	0.043	0.536	7.1	18.7	25.7	FALSE	14.573
B20+B19	B20	23.22	19.12	B19	20.74	14.44	585	0.008	Circle	6	0.013	0.0519	1.21	0.09	0.0519	0.5018	10.3	17.9	17.9	FALSE	19.253
B21+B11	B21	18.68	13.54	B11	16.46	9.36	399.6	0.01	Circle	6	0.013	0.0297	0.92	0.05	0.0431	0.5738	5.2	11	24.9	FALSE	13.698
B22+B21	B22	24.77	18.67	B21	18.68	13.58	399.5	0.013	Circle	6	0.013	0.0288	0.8	0.03	0.0431	0.6333	4.5	6.4	23.8	FALSE	18.789
B23+B22	B23	28	23.55	B22	24.77	18.67	380.2	0.013	Circle	6	0.013	0.0363	0.9	0.04	0.0429	0.6357	5.7	8.8	24	FALSE	23.67
B24+B10	B24	22.52	15.82	B10	16.86	9.61	492.5	0.013	Circle	6	0.013	0.0284	1.02	0.08	0.0612	0.63	4.5	15.3	26.4	FALSE	15.971
B25+B24	B25	27.09	18.84	B24	22.52	15.82	406.2	0.007	Circle	6	0.013	0.0256	0.87	0.05	0.0612	0.4838	5.3	9.5	30.2	FALSE	18.993
B26+B25	B26	27.62	21.62	B25	27.09	18.84	401.5	0.007	Circle	6	0.013	0.0267	0.91	0.05	0.0356	0.4669	5.7	10.9	23.9	FALSE	21.742
B27+B25	B27	25.46	19.69	B25	27.09	18.99	318	0.002	Circle	6	0.013	0.0256	1.03	0.08	0.0256	0.2632	9.7	16.2	24.4	FALSE	19.813
B28+B27	B28	24.83	20.93	B27	25.46	19.69	202	0.006	Circle	6	0.013	0.0256	0.8	0.03	0.0256	0.4396	5.8	6.8	17.7	FALSE	21.024
B29+B9	B29	19.43	13.68	B9	18.41	7.61	211.2	0.029	Circle	6	0.013	0.0804	0.97	0.01	0.0804	0.9512	8.5	2.9	23.4	FALSE	13.822
B30+B29	B30	23.55	14.31	B29	19.43	13.83	243.2	0.002	Circle	6	0.013	0.0268	1.02	0.08	0.0268	0.2493	10.8	15.4	24.7	FALSE	14.442
B31+B29	B31	21.81	15.76	B29	19.43	13.68	256.8	0.008	Circle	6	0.013	0.0536	1.18	0.08	0.0536	0.505	10.6	16.4	28.3	FALSE	15.903
B32+B31	B32	26.3	16.37	B31	21.81	15.86	253.7	0.002	Circle	6	0.013	0.0268	1.06	0.09	0.0268	0.2516	10.7	17.2	25.9	FALSE	16.499
B33+B31	B33	25.73	19.18	B31	21.81	15.76	279.8	0.012	Circle	6	0.013	0.0268	1.01	0.08	0.0269	0.6203	4.3	15.2	16.7	FALSE	19.266
B34+B8	B34	24.69	15.24	B8	20.55	7.1	251.1	0.032	Circle	6	0.013	0.0128	0.75	0.04	0.0128	1.0102	1.3	7.5	7.1	FALSE	15.277
B35+B34	B35	26.3	20	B34	24.69	15.24	363.8	0.013	Circle	6	0.013	0.0128	0.61	0.01	0.0128	0.6418	2	2	8.2	FALSE	20.047
B36+B35	B36	24.45	20.41	B35	26.3	20	207	0.002	Circle	6	0.013	0.0128	0.77	0.04	0.0128	0.2497	5.1	8.2	12.1	FALSE	20.477
B37+B6	B37	14.71	7.31	B6	18.29	6.74	262.3	0.002	Circle	6	0.013	0.044	0.85	0.03	0.044	0.2616	16.8	5	37.7	FALSE	7.5
B38+B50	B38	12.43	7.93	B50	13.27	7.77	38.9	0.004	Circle	6	0.013	0.02	0.74	0.03	0.02	0.3598	5.6	5.6	5.6	FALSE	8.038
B39+B38	B39	13	8.56	B38	12.43	8.03	265.5	0.002	Circle	6	0.013	0.01	0.73	0.04	0.01	0.2507	4	7.1	10.7	FALSE	8.614
B40+B39	B40	13	9.17	B39	13	8.56	306.1	0.002	Circle	6	0.013	0.01	0.74	0.04	0.01	0.2505	4	7.6	10.5	FALSE	9.223

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
B41+B38	B41	11.68	8.37	B38	12.43	8.03	170	0.002	Circle	6	0.013	0.01	0.72	0.03	0.01	0.2509	4	6.9	10	FALSE	8.424
B42+B41	B42	11.68	8.7	B41	11.68	8.37	166.3	0.002	Circle	6	0.013	0.01	0.73	0.04	0.01	0.2499	4	7.3	7.3	FALSE	8.753
B43+B37	B43	15.97	8.74	B37	14.71	8.01	363.4	0.002	Circle	6	0.013	0.017	0.87	0.06	0.017	0.2515	6.8	11.5	17.1	FALSE	8.826
B44+B2	B44	15.76	9.16	B2	16	2.46	296.4	0.023	Circle	6	0.013	0.017	0.86	0.05	0.017	0.8436	2	10.9	10.2	FALSE	9.33
B45+B44	B45	14.05	9.86	B44	15.76	9.26	301	0.002	Circle	6	0.013	0.017	0.88	0.06	0.017	0.2505	6.8	11.6	17.2	FALSE	9.946
B46+B5	B46	19	13.75	B5	18.61	12.56	16.9	0.07	Circle	6	0.013	0.012	0.6	0.01	0.012	1.4889	0.8	1.6	3.9	FALSE	13.797
B47+B46	B47	20.58	14.06	B46	19	13.75	157.8	0.002	Circle	6	0.013	0.012	0.79	0.05	0.012	0.2487	4.8	9	12.3	FALSE	14.123
B48+B7	B48	22.9	7.11	B7	18.66	6.21	450.2	0.002	Circle	6	0.013	0.0167	0.87	0.06	0.0167	0.2509	6.7	11.5	16.8	FALSE	7.194
B49+B14	B49	17.11	11.16	B14	15.47	10.07	327.7	0.003	Circle	8	0.013	0.1695	1.35	0	0.1695	0.6969	24.3	0	0	FALSE	11.4
B50+B37	B50	13.27	7.77	B37	14.71	7.31	204.7	0.002	Circle	6	0.013	0.027	0.73	0.02	0.027	0.266	10.2	3.9	3.9	FALSE	7.9
B51+B50	B51	14.15	9.95	B50	13.27	7.97	281.7	0.007	Circle	6	0.013	0.007	0.7	0.03	0.0071	0.4704	1.5	6.7	6.9	FALSE	9.983
B52+B4	B52	20.58	4.29	B4	20.32	3.57	359.8	0.002	Circle	12	0.013	0.361	2.31	0	0.4931	1.5937	22.7	0.1	39.6	FALSE	4.688
C1+B16	C1	23.15	14.8	B16	20.39	13.24	401.9	0.004	Circle	8	0.013	0.1695	1.35	0	0.1695	0.7528	22.5	0	0	FALSE	15.02
C2+C1	C2	21.54	15.19	C1	23.15	14.85	204.3	0.002	Circle	8	0.013	0.1235	1.2	0.02	0.1235	0.4929	25.1	2.5	2.5	FALSE	15.422
C3+C2	C3	22.97	17.37	C2	21.54	15.24	397.8	0.005	Circle	6	0.013	0.1065	1.11	0.02	0.1065	0.4106	25.9	3.2	3.2	FALSE	17.554
C4+C3	C4	25.03	19.53	C3	22.97	17.42	436	0.005	Circle	6	0.013	0.0885	1.02	0.01	0.0885	0.3903	22.7	3	3	FALSE	19.695
C5+C4	C5	25.49	20.95	C4	25.03	19.53	327.7	0.004	Circle	6	0.013	0.0885	1.02	0.01	0.0885	0.3693	24	3	3	FALSE	21.121
C6+C5	C6	25.82	21.42	C5	25.49	20.99	87.5	0.005	Circle	6	0.013	0.0697	0.92	0.01	0.0697	0.3933	17.7	2.8	2.8	FALSE	21.56
C7+C6	C7	34.43	23.65	C6	25.82	21.42	447.8	0.005	Circle	6	0.013	0.0697	0.92	0.01	0.0697	0.3959	17.6	2.8	2.8	FALSE	23.791
C8+C7	C8	29.93	24.33	C7	34.43	23.65	400.9	0.002	Circle	6	0.013	0.0447	0.86	0.03	0.0447	0.2311	19.3	5.5	5.5	FALSE	24.534
C9+C8	C9	30	24.55	C8	29.93	24.38	84.1	0.002	Circle	6	0.013	0.0437	0.87	0.03	0.0437	0.2523	17.3	6.2	6.2	FALSE	24.742
C10+C9	C10	31.71	25.71	C9	30	24.55	300.8	0.004	Circle	6	0.013	0.0437	0.88	0.03	0.0437	0.3484	12.5	6.5	6.5	FALSE	25.873
C11+C10	C11	41.2	28.9	C10	31.71	25.76	508	0.006	Circle	6	0.013	0.0248	0.67	0.01	0.0248	0.4411	5.6	2	2	FALSE	28.993
C12+C1	C12	23.43	14.93	C1	23.15	14.85	264.8	0	Circle	6	0.013	0.046	0.79	0.01	0.046	0.0975	47.2	2.4	2.4	FALSE	15.237
C13+C12	C13	23	15.99	C12	23.43	15.03	480.7	0.002	Circle	6	0.013	0.01	0.73	0.04	0.01	0.2507	4	7.3	10.4	FALSE	16.042
C14+C12	C14	24.3	15.8	C12	23.43	14.97	282.1	0.003	Circle	6	0.013	0.036	0.95	0.05	0.036	0.3043	11.8	10.7	30.3	FALSE	16.092
C15+C14	C15	22.5	18.05	C14	24.3	16.1	565.3	0.003	Circle	6	0.013	0.018	0.82	0.05	0.018	0.3295	5.5	9.2	15.7	FALSE	18.129
C16+C14	C16	26.5	17.4	C14	24.3	16.05	272.9	0.005	Circle	6	0.013	0.018	0.92	0.07	0.018	0.3946	4.6	13.1	16.1	FALSE	17.477
C17+C16	C17	27.07	19.62	C16	26.5	17.4	332.8	0.007	Circle	6	0.013	0.018	0.88	0.06	0.018	0.4583	3.9	11.5	14	FALSE	19.689
C18+C17	C18	28	20.36	C17	27.07	19.62	369.6	0.002	Circle	6	0.013	0.018	0.89	0.06	0.018	0.2511	7.2	12.1	12.1	FALSE	20.45
C19+C2	C19	21.59	15.49	C2	21.54	15.24	264.1	0.001	Circle	6	0.013	0.017	0.77	0.04	0.017	0.1726	9.8	7.5	21	FALSE	15.6
C20+C19	C20	23.19	17.64	C19	21.59	15.54	198.5	0.011	Circle	6	0.013	0.0085	0.58	0.01	0.0085	0.5771	1.5	1.6	6	FALSE	17.671
C21+C19	C21	23.94	17.74	C19	21.59	15.54	284.2	0.008	Circle	6	0.013	0.0085	0.72	0.04	0.0085	0.4937	1.7	7	7.4	FALSE	17.837
C22+C21	C22	24.43	18.08	C21	23.94	17.79	91.8	0.003	Circle	6	0.013	0.0085	0.7	0.03	0.0085	0.3154	2.7	6.1	8	FALSE	18.121
C23+C3	C23	23.27	18.07	C3	22.97	17.42	400.5	0.002	Circle	6	0.013	0.018	0.74	0.03	0.018	0.226	8	6.1	19.1	FALSE	18.427
C24+C23	C24	25.53	18.72	C23	23.27	18.42	151.2	0.002	Circle	6	0.013	0.008	0.69	0.03	0.0081	0.2499	3.2	6.2	8	FALSE	18.763
C25+C23	C25	25.08	19.73	C23	23.27	18.17	303.1	0.005	Circle	6	0.013	0.01	0.59	0.01	0.01	0.4025	2.5	1.5	1.5	FALSE	19.79
C26+D9	C26	29.07	24.47	D9	27.55	21.3	435.8	0.007	Circle	6	0.013	0.0309	0.93	0.05	0.0488	0.4785	6.5	10.9	28.3	FALSE	24.612
C27+C5	C27	25	21.41	C5	25.49	20.97	221.6	0.002	Circle	6	0.013	0.0188	0.75	0.03	0.0188	0.25	7.5	6.1	17.9	FALSE	21.507
C28+C27	C28	27.89	23.34	C27	25	21.41	43	0.045	Circle	6	0.013	0.0115	0.6	0.01	0.0115	1.1887	1	1.6	4.6	FALSE	23.387
C29+C28	C29	32.14	23.94	C28	27.89	23.34	298.4	0.002	Circle	6	0.013	0.0115	0.77	0.04	0.0115	0.2516	4.6	8.5	11.9	FALSE	24
C30+C27	C30	28.53	23.63	C27	25	21.41	162.9	0.014	Circle	6	0.013	0.0073	0.57	0.01	0.0073	0.655	1.1	1.4	4.8	FALSE	23.657
C31+C30	C31	29.09	23.76	C30	28.53	23.63	67.1	0.002	Circle	6	0.013	0.0014	0.53	0	0.0014	0.247	0.6	0.8	0.8	FALSE	23.764
C32+C30	C32	30.12	24.36	C30	28.53	23.63	146.7	0.005	Circle	6	0.013	0.0059	0.56	0.01	0.0059	0.3958	1.5	1.3	1.3	FALSE	24.396
C33+C32	C33	31.26	24.53	C32	30.12	24.39	70.7	0.002	Circle	6	0.013	0.0044	0.6	0.02	0.0044	0.2497	1.8	3.3	3.3	FALSE	24.554
C34+C32	C34	30	24.5	C32	30.12	24.39	56.9	0.002	Circle	6	0.013	0.0015	0.53	0	0.0015	0.2467	0.6	0.9	0.9	FALSE	24.504
C35+C7	C35	31.98	25.2	C7	34.43	23.65	403.4	0.004	Circle	6	0.013	0.025	0.69	0.01	0.025	0.3478	7.2	2.7	2.7	FALSE	25.239
C36+C35	C36	32.58	25.7	C35	31.98	25.2	92	0.005	Circle	6	0.013	0.025	0.68	0.01	0.025	0.4136	6	2	2	FALSE	25.736
C37+C36	C37	34.3	26.67	C36	32.58	25.73	153.2	0.006	Circle	6	0.013	0.005	0.56	0.01	0.005	0.4395	1.1	1.2	1.2	FALSE	26.706
C39+C37	C39	33.37	27.03	C37	34.3	26.7	164.1	0.002	Circle	6	0.013	0.005	0.61	0.02	0.005	0.2516	2	3.5	4.9	FALSE	27.057
C40+C36	C40	32.93	26.9	C36	32.58	25.83	257.5	0.004	Circle	6	0.013	0.02	0.91	0.06	0.02	0.3617	5.5	12.2	18.3	FALSE	26.987
C41+C40	C41	33.56	27.26	C40	32.93	26.93	191.4	0.002	Circle	6	0.013	0.02	0.93	0.07	0.02	0.233	8.6	13.4	20.6	FALSE	27.365
C42+C41	C42	34.21	27.91	C41	33.56	27.31	300.1	0.002	Circle	6	0.013	0.02	0.93	0.07	0.02	0.2509	8	13.2	19.9	FALSE	28.01
C43+C8	C43	30.16	24.53	C8	29.93	24.33	101	0.002	Circle	6	0.013	0.001	0.52	0	0.001	0.2497	0.4	0.8	0.8	FALSE	24.535
C44+C10	C44	32.45	26.73	C10	31.71	25.76	154.5	0.006	Circle	6	0.013	0.0189	0.65	0.01	0.0189	0.4446	4.3	2.4	13.5	FALSE	26.836
C45+C44	C45	33.66	27.91	C44	32.45	26.77	166.1	0.007	Circle	6	0.013	0.0189	0.7	0.02	0.0189	0.4648	4.1	4.4	13.8	FALSE	27.981
C46+C45	C46	36.3	29.85	C45	33.66	27.91	255.5	0.008	Circle	6	0.013	0.0189	0.91	0.06	0.0189	0.4889	3.9	12.8	14	FALSE	30.07
C47+C46	C47	35.05	30.62	C46	36.3	30	309.1	0.002	Circle	6	0.013	0.0189	0.91	0.06	0.0189	0.2513	7.5	12.6	19	FALSE	30.715
C48+C11	C48	43.08	29.1	C11	41.2	28.98	178.7	0.001	Circle	6	0.013	0.0248	0.71	0.02	0.0248	0.1454	17.1	3.3	3.3	FALSE	29.258
C49+C48	C49	41.32	29.82	C48	43.08	29.1	247.7	0.003	Circle	6	0.013	0.0248	0.96	0.07	0.0248	0.3025	8.2	13.2	13.2	FALSE	29.932
C50+C49	C50	40.78	30.68	C49	41.32	29.82	361.2	0.002	Circle	6	0.013	0.0248	0.95	0.07	0.0248	0.2738	9.1	13.2	13.2	FALSE	30.797
C51+C50	C51	38.55	32.75	C50	40.78	30.68	556.1	0.004	Circle	6	0.013	0.0248	0.95	0.06	0.0248	0.3423	7.2	12.9	20.5	FALSE	32.853
D1+E4	D1	17.33	6.83	E4	16.28	6.08	354.5	0.002	Circle	12	0.013	0.2054	1.53	0	0.431	1.6387	12.5	0	36.5	FALSE	7.197
D2+D1	D2	17.54	6.91	D1	17.33	6.88	53.3	0.001	Circle	12	0.013	0.2054	1.53	0	0.4314	0.8452	24.3	0	36.1	FALSE	7.31
D3+D2	D3	18.91	7.46	D2	17.54	6.99	363.3	0.001	Circle	12	0.013	0.2054	1.53	0	0.4334	1.2814	16	0	41.4	FALSE	8.054
D4+D3	D4	19	8.15	D3	18.91	7.56	296.1	0.002	Circle	8	0.013	0.0595	0.86	0.01	0.1542	0.5394	11	2	41	FALSE	8.424
D5+D4	D5	19	8.29	D4	19	8.15	69.6	0.002	Circle	8	0.013	0.0595	0.86	0.01	0.1542	0.5419	11	2	38.4	FALSE	8.562
D6+D5	D6	19.87	13.77	D5	19	8.29	246.1	0.022	Circle	8	0.013	0.0324	0.72	0.01	0.0812	1.8031	1.8	1.6	16.9	FALSE	13.974
D7+D6	D7	19.85	15.5	D6	19.87	13.82	398	0.004	Circle	8	0.013	0.0324	0.72	0.01	0.0812	0.7851	4.1	1.6	25.9	FALSE	15.675

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
D8+D7	D8	21.51	16.11	D7	19.85	15.5	157.8	0.004	Circle	6	0.013	0.0361	1.19	0.1	0.0488	0.3488	10.4	20.3	33.1	FALSE	16.278
D9+D8	D9	27.55	21.3	D8	21.51	16.11	496	0.01	Circle	6	0.013	0.0299	1.08	0.1	0.0488	0.5739	5.2	19.8	25.8	FALSE	21.442
D10+D3	D10	21.78	10.58	D3	18.91	7.81	489.1	0.006	Circle	10	0.013	0.1459	1.32	0.02	0.2843	1.6488	8.8	2.1	29.8	FALSE	10.83
D16+D20	D16	23	13.91	D20	22	13	453.9	0.002	Circle	8	0.013	0.018	0.89	0.06	0.018	0.541	3.3	9	12.7	FALSE	13.998
D17+D16	D17	23.1	14.18	D16	23	13.91	136.3	0.002	Circle	8	0.013	0.018	0.91	0.06	0.018	0.5378	3.3	9.5	12.5	FALSE	14.265
D19+D10	D19	21.54	12.39	D10	21.78	10.63	48.1	0.037	Circle	8	0.013	0.1459	1.32	0.02	0.2861	2.3114	6.3	2.6	25.2	FALSE	12.999
D20+D19	D20	22	13	D19	21.54	12.89	52.7	0.002	Circle	8	0.013	0.036	0.89	0.04	0.036	0.5521	6.5	6.4	20.3	FALSE	13.152
D21+D19	D21	20.93	15.08	D19	21.54	12.84	390.8	0.006	Circle	8	0.013	0.1099	1.13	0.02	0.251	0.9148	12	2.4	38.4	FALSE	15.4
D22+D21	D22	22.23	15.84	D21	20.93	15.13	149	0.005	Circle	6	0.013	0.1099	1.13	0.02	0.2516	0.3873	28.4	3.2	63.9	FALSE	16.171
D23+D22	D23	22.62	16.12	D22	22.23	15.88	73.3	0.003	Circle	6	0.013	0.1099	1.13	0.02	0.1991	0.3211	34.2	3.2	60.7	FALSE	16.437
D24+D23	D24	24.01	17.46	D23	22.62	16.12	349.8	0.004	Circle	6	0.013	0.1099	1.13	0.02	0.2029	0.3473	31.7	3.2	60.6	FALSE	17.767
D25+D24	D25	24.45	18.45	D24	24.01	17.56	300.9	0.003	Circle	6	0.013	0.0348	0.73	0.01	0.0855	0.3051	11.4	2.2	43.4	FALSE	18.676
D26+D25	D26	24.79	19.26	D25	24.45	18.5	156.7	0.005	Circle	6	0.013	0.0348	0.73	0.01	0.0857	0.3907	8.9	2.2	38	FALSE	19.461
D27+D26	D27	26.68	20.86	D26	24.79	19.28	392.4	0.004	Circle	6	0.013	0	0	0	0.0622	0.356	0	0	35.7	FALSE	21.066
D28+D27	D28	27.45	21.65	D27	26.68	20.9	81.1	0.009	Circle	6	0.013	0	0	0	0.0973	0.5396	0	0	33.2	FALSE	21.827
D29+C37	D29	34.53	27.53	C37	34.3	26.7	129.5	0.006	Circle	6	0.013	0	0	0	0.0232	0.4492	0	0	20.7	FALSE	27.595
D29+D28	D29	34.53	27.53	D28	27.45	21.67	465.5	0.013	Circle	6	0.013	0	0	0	0.1352	0.6295	0	0	37.7	FALSE	27.595
D30+D26	D30	26.26	21.18	D26	24.79	19.29	436.5	0.004	Circle	6	0.013	0.0348	0.8	0.03	0.0348	0.3692	9.4	5.1	26.6	FALSE	21.468
D31+D30	D31	26.68	21.76	D30	26.26	21.46	152.5	0.002	Circle	6	0.013	0.0124	0.8	0.05	0.0124	0.2489	5	9.4	12.7	FALSE	21.824
D32+D30	D32	26.44	21.71	D30	26.26	21.46	126.2	0.002	Circle	6	0.013	0.0224	1.03	0.08	0.0224	0.2497	9	16.6	22.1	FALSE	21.821
D33+D24	D33	28.14	19.34	D24	24.01	17.51	450.4	0.004	Circle	6	0.013	0.0448	0.78	0.01	0.1103	0.3576	12.5	2.4	44.4	FALSE	19.563
D34+D33	D34	34.45	22.3	D33	28.14	19.34	293.3	0.01	Circle	6	0.013	0.0448	1.01	0.06	0.1103	0.5637	7.9	11.4	34.7	FALSE	22.491
D35+D34	D35	33.56	22.51	D34	34.45	22.3	177.8	0.001	Circle	6	0.013	0.0448	1.16	0.09	0.1103	0.1928	23.2	17.4	60.6	FALSE	22.831
D36+D35	D36	31.3	25.05	D35	33.56	22.56	250.8	0.01	Circle	6	0.013	0.0208	0.92	0.06	0.0515	0.5591	3.7	12.5	26.6	FALSE	25.195
D37+D36	D37	31.11	26.01	D36	31.3	25.05	367.8	0.003	Circle	6	0.013	0.0216	0.94	0.09	0.0515	0.2866	7.5	17.4	37.6	FALSE	26.2
D38+D37	D38	32	26.64	D37	31.11	26.16	237.7	0.002	Circle	6	0.013	0.0191	0.81	0.09	0.0307	0.2521	7.6	17.7	28.1	FALSE	26.787
D39+D38	D39	32.14	26.81	D38	32	26.64	84.1	0.002	Circle	6	0.013	0.0257	0.83	0.11	0.0307	0.2523	10.2	21.4	27.7	FALSE	26.955
D40+D37	D40	32	26.6	D37	31.11	26.21	193.6	0.002	Circle	6	0.013	0.0208	0.94	0.07	0.0208	0.2518	8.2	13.5	13.5	FALSE	26.704
D41+D24	D41	31.35	25.75	D24	24.01	17.51	190.6	0.043	Circle	6	0.013	0.0304	0.71	0.01	0.0304	1.1666	2.6	2.1	11.5	FALSE	25.823
D42+D41	D42	30	26	D41	31.35	25.8	100.2	0.002	Circle	6	0.013	0.004	0.61	0.02	0.004	0.2507	1.6	3.6	4.4	FALSE	26.022
D43+D41	D43	32	26.89	D41	31.35	25.85	517.4	0.002	Circle	6	0.013	0.0264	1.07	0.09	0.0264	0.2516	10.5	17.6	17.6	FALSE	27.019
D44+D43	D44	32	27.12	D43	32	26.89	113	0.002	Circle	6	0.013	0.0264	1	0.1	0.0264	0.2531	10.4	19.1	25.2	FALSE	27.247
D47+D22	D47	20.69	17.09	D22	22.23	15.86	299.2	0.004	Circle	6	0.013	0.0413	1.1	0.12	0.0561	0.3597	11.5	24.5	33.8	FALSE	17.263
D48+D47	D48	22.05	18.7	D47	20.69	17.09	401	0.004	Circle	6	0.013	0.0292	1.11	0.09	0.0561	0.3555	8.2	18.6	34.3	FALSE	18.873
D49+D48	D49	27.59	21.99	D48	22.05	18.7	399.7	0.008	Circle	6	0.013	0.0383	1.07	0.08	0.056	0.509	7.5	15.1	28.6	FALSE	22.135
D50+D49	D50	31.35	22.83	D49	27.59	21.99	421.6	0.002	Circle	6	0.013	0.0338	0.67	0.15	0.056	0.2504	13.5	30.3	41.7	FALSE	23.038
D51+D7	D51	23.54	18.66	D7	19.85	15.5	457.8	0.007	Circle	6	0.013	0.0324	0.81	0.03	0.0324	0.4662	7	6.1	22.3	FALSE	18.775
D52+D51	D52	27.31	20.31	D51	23.54	18.69	267	0.006	Circle	6	0.013	0.0216	0.83	0.05	0.0216	0.437	4.9	9.1	17.9	FALSE	20.398
D53+D52	D53	29.62	21.22	D52	27.31	20.31	247.8	0.004	Circle	6	0.013	0.0108	0.77	0.04	0.0108	0.34	3.2	8.8	11.3	FALSE	21.296
D54+D53	D54	29.68	21.68	D53	29.62	21.27	74.9	0.005	Circle	6	0.013	0.0108	0.68	0.02	0.0108	0.4151	2.6	4.9	8.8	FALSE	21.888
D55+D54	D55	30.37	22.39	D54	29.68	21.88	252.3	0.002	Circle	6	0.013	0.0108	0.76	0.04	0.0108	0.2523	4.3	8.3	11.3	FALSE	22.446
D56+D35	D56	35.05	23.65	D35	33.56	22.51	286.3	0.004	Circle	6	0.013	0.024	0.95	0.07	0.0588	0.354	6.8	13.4	34.5	FALSE	23.83
D57+D56	D57	37.86	26.21	D56	35.05	23.7	197.1	0.013	Circle	6	0.013	0.024	0.73	0.02	0.0588	0.6332	3.8	4.4	26	FALSE	26.512
D58+D57	D58	37.67	27.07	D57	37.86	26.36	158	0.004	Circle	6	0.013	0.024	0.86	0.05	0.0588	0.3761	6.4	9.4	33.6	FALSE	27.261
D59+D58	D59	37.27	28.53	D58	37.67	27.12	151.4	0.009	Circle	6	0.013	0.024	0.78	0.03	0.0588	0.5415	4.4	6.2	28.2	FALSE	28.673
D60+D59	D60	37.44	29.8	D59	37.27	28.57	112.6	0.011	Circle	6	0.013	0.024	0.81	0.04	0.024	0.5864	4.1	7.7	15.7	FALSE	29.934
D61+D60	D61	37.37	30.05	D60	37.44	29.84	101	0.002	Circle	6	0.013	0.024	1.02	0.09	0.024	0.2558	9.4	17.7	22.9	FALSE	30.166
D62+D59	D62	32.76	29.07	D59	37.27	28.57	247.7	0.002	Circle	6	0.013	0.0229	0.74	0.11	0.0348	0.2521	9.1	21.5	32.5	FALSE	29.233
D63+D5	D63	19.63	8.6	D5	19	8.29	296.6	0.001	Circle	8	0.013	0.0271	0.97	0.07	0.073	0.3906	6.9	10	35.8	FALSE	8.841
D64+D63	D64	24.68	17.38	D63	19.63	8.56	470.5	0.019	Circle	6	0.013	0.0263	0.68	0.01	0.035	0.7682	3.4	2	2.2	FALSE	17.497
D65+D64	D65	28.98	20.08	D64	24.68	17.38	448	0.006	Circle	6	0.013	0.0242	1.05	0.09	0.035	0.4356	5.6	17.2	25	FALSE	20.205
D66+D65	D66	29.37	20.96	D65	28.98	20.13	412.5	0.002	Circle	6	0.013	0.0222	0.74	0.11	0.035	0.2517	8.8	21	32.7	FALSE	21.124
D67+D63	D67	18.77	12.39	D63	19.63	8.6	294.1	0.013	Circle	6	0.013	0.0271	0.89	0.05	0.0271	0.6369	4.3	10.2	16.8	FALSE	12.476
D68+D67	D68	19	12.7	D67	18.77	12.42	138.9	0.002	Circle	6	0.013	0.0134	0.82	0.05	0.0134	0.2519	5.3	10.3	13.7	FALSE	12.769
D69+D67	D69	19	12.94	D67	18.77	12.42	259	0.002	Circle	6	0.013	0.0137	0.82	0.05	0.0137	0.2514	5.4	10.1	14.1	FALSE	13.01
D70+D51	D70	24	18.86	D51	23.54	18.72	70.8	0.002	Circle	6	0.013	0.0108	0.76	0.04	0.0108	0.2495	4.3	8.1	10.2	FALSE	18.916
D71+D52	D71	28.07	22.62	D52	27.31	21.11	130	0.012	Circle	6	0.013	0.0108	0.62	0.01	0.0108	0.6047	1.8	2.5	7.3	FALSE	22.658
D72+D20	D72	22.5	13.56	D20	22	13	279.6	0.002	Circle	8	0.013	0.018	0.87	0.06	0.018	0.5408	3.3	8.3	13.1	FALSE	13.646
D73+D72	D73	23	14.16	D72	22.5	13.56	297.4	0.002	Circle	8	0.013	0.018	0.9	0.06	0.018	0.5427	3.3	9.2	13.2	FALSE	14.248
D74+D73	D74	23.2	14.58	D73	23	14.16	210.2	0.002	Circle	8	0.013	0.018	0.86	0.05	0.0181	0.5401	3.3	8	11.4	FALSE	14.666
E1+H9	E1	12.09	3.59	H9	11.84	3.14	269.8	0.002	Circle	12	0.013	0.4047	2.52	0	0.5952	1.455	27.8	0	45.4	FALSE	4.056
E2+E1	E2	13.48	4.23	E1	12.09	3.64	283.2	0.002	Circle	12	0.013	0.2054	1.59	0.01	0.429	1.6261	12.6	1.4	36.5	FALSE	4.607
E3+E2	E3	15.11	4.76	E2	13.48	4.33	279.6	0.002	Circle	12	0.013	0.2054	1.63	0.02	0.4289	1.3971	14.7	2	39.3	FALSE	5.295
E4+E3	E4	16.28	6.08	E3	15.11	5.01	356.7	0.003	Circle	12	0.013	0.2054	1.58	0.01	0.4299	1.9512	10.5	1	33.2	FALSE	6.414
E6+E1	E6	11.14	4.84	E1	12.09	4.04	501	0.002	Circle	12	0.013	0.1994	1.5	0	0.1994	1.4236	14	0	0	FALSE	5.219
E7+E6	E7	11.77	6.02	E6	11.14	4.84	310.5	0.004	Circle	8	0.013	0.1844	1.54	0.02	0.1844	0.7449	24.7	3.4	3.4	FALSE	6.255
E8+E7	E8	13.72	6.77	E7	11.77	6.07	354.7	0.002	Circle	8	0.013	0.1544	1.48	0.04	0.1544	0.5368	28.8	6.3	6.3	FALSE	7.025
E9+E8	E9	13.77	7.32	E8	13.72	6.82	341.1	0.001	Circle	12	0.013	0.1294	1.23	0.02	0.1294	1.364	9.5	1.7	1.7	FALSE	7.536
E10+E9	E10	14.53	7.78	E9	13.77	7.32	192.1	0.002	Circle	12	0.013	0.1294	1.23	0.02	0.1294	1.7433	7.4	1.7	1.7	FALSE	7.972

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
E11+E10	E11	14.94	8.04	E10	14.53	7.93	194.9	0.001	Circle	12	0.013	0.1124	1.14	0.02	0.1124	0.8464	13.3	1.6	1.6	FALSE	8.281
E12+E11	E12	20.13	9.13	E11	14.94	8.14	494.5	0.002	Circle	12	0.013	0.1124	1.14	0.02	0.1124	1.5941	7	1.6	1.6	FALSE	9.311
E13+E12	E13	18.72	10	E12	20.13	9.18	450.3	0.002	Circle	8	0.013	0.0732	1.07	0.04	0.0732	0.5156	14.2	6.1	31.1	FALSE	10.21
E14+E13	E14	17.24	10.39	E13	18.72	10.12	185.5	0.001	Circle	8	0.013	0.0608	0.87	0.01	0.0609	0.461	13.2	2	30.8	FALSE	10.598
E15+E14	E15	15.27	10.72	E14	17.24	10.49	246.2	0.001	Circle	8	0.013	0.043	0.77	0.01	0.043	0.3693	11.6	1.8	31	FALSE	10.929
E20+E7	E20	12.61	7.71	E7	11.77	6.12	504.5	0.003	Circle	6	0.013	0.015	0.78	0.04	0.015	0.315	4.8	8.3	13.7	FALSE	7.78
E21+E20	E21	14.72	8.53	E20	12.61	7.76	385.6	0.002	Circle	6	0.013	0.015	0.83	0.05	0.015	0.2507	6	10.3	10.3	FALSE	8.606
E22+E8	E22	15.38	8.48	E8	13.72	6.87	449.9	0.004	Circle	6	0.013	0.015	0.75	0.04	0.0151	0.3356	4.5	7	13.5	FALSE	8.551
E23+E22	E23	16.82	10.42	E22	15.38	8.48	438.8	0.004	Circle	6	0.013	0.015	0.69	0.02	0.0151	0.3731	4	4.4	11.1	FALSE	10.484
E25+E50	E25	16.75	10.9	E50	16.04	9.64	231.9	0.005	Circle	6	0.013	0.017	0.68	0.02	0.017	0.4136	4.1	4	11.9	FALSE	10.965
E26+E25	E26	19.82	13.82	E25	16.75	10.9	488.2	0.006	Circle	6	0.013	0.017	0.87	0.06	0.0171	0.4339	3.9	11.6	13.5	FALSE	13.887
E27+E12	E27	21.28	15.85	E12	20.13	9.53	576.2	0.011	Circle	6	0.013	0.0137	0.65	0.02	0.0137	0.5876	2.3	3.1	9.4	FALSE	15.9
E28+E27	E28	22	15.93	E27	21.28	15.81	61.8	0.002	Circle	6	0.013	0.0137	0.81	0.05	0.0137	0.2472	5.5	9.5	12.1	FALSE	15.999
E29+E12	E29	23.08	15.79	E12	20.13	9.58	247	0.025	Circle	6	0.013	0.0255	0.68	0.01	0.0255	0.8896	2.9	2	2	FALSE	15.839
E30+E29	E30	27	20.5	E29	23.08	15.83	502.3	0.009	Circle	6	0.013	0.01	0.71	0.03	0.01	0.541	1.8	6.4	8	FALSE	20.538
E31+E29	E31	27.93	20.63	E29	23.08	15.83	252.3	0.019	Circle	6	0.013	0.0155	0.84	0.05	0.0155	0.7739	2	10.6	10	FALSE	20.75
E32+E31	E32	28	21.21	E31	27.93	20.68	263.2	0.002	Circle	6	0.013	0.0155	0.86	0.06	0.0155	0.2518	6.2	11.2	15.7	FALSE	21.289
E33+E13	E33	21.41	15.78	E13	18.72	10.02	228.9	0.025	Circle	8	0.013	0.0124	0.6	0.01	0.0126	1.9168	0.6	1.2	5.6	FALSE	15.863
E33+E29	E33	21.41	17.11	E29	23.08	15.86	455.1	0.003	Circle	6	0.013	0	0	0	0	0.2941	0	0	0	FALSE	15.863
E34+E33	E34	24.94	18.94	E33	21.41	15.83	278.9	0.011	Circle	6	0.013	0.01	0.77	0.04	0.0101	0.5925	1.7	8.9	8.3	FALSE	18.983
E35+E14	E35	19.06	11.41	E14	17.24	10.74	333	0.002	Circle	6	0.013	0.0178	0.89	0.06	0.0178	0.2517	7.1	12.1	18	FALSE	11.499
E36+E15	E36	17.4	12.35	E15	15.27	10.82	420.2	0.004	Circle	6	0.013	0.04	0.79	0.02	0.04	0.3386	11.8	3.6	30.9	FALSE	12.512
E37+E36	E37	18	13.11	E36	17.4	12.4	353.2	0.002	Circle	6	0.013	0.015	0.83	0.05	0.015	0.2516	6	10.4	15.1	FALSE	13.186
E38+E36	E38	18.78	13.33	E36	17.4	12.35	233.6	0.004	Circle	6	0.013	0.025	0.68	0.01	0.025	0.3634	6.9	2	17.1	FALSE	13.432
E39+E38	E39	19	14.13	E38	18.78	13.53	300.6	0.002	Circle	6	0.013	0.015	0.84	0.05	0.0151	0.2507	6	10.5	15.2	FALSE	14.206
E40+E38	E40	22.91	14.25	E38	18.78	13.33	458.2	0.002	Circle	6	0.013	0.01	0.73	0.04	0.01	0.2514	4	7.3	10.4	FALSE	14.302
E41+E15	E41	16	11.07	E15	15.27	10.87	98.3	0.002	Circle	6	0.013	0.003	0.54	0.01	0.003	0.2531	1.2	1.1	3.3	FALSE	11.087
E42+E10	E42	14.56	10.06	E10	14.53	7.88	550.5	0.004	Circle	6	0.013	0	0	0	0.0091	0.3531	0	0	12.8	FALSE	10.117
E44+E8	E44	12.57	8.62	E8	13.72	6.82	630.5	0.003	Circle	6	0.013	0.01	0.72	0.03	0.01	0.2998	3.3	6.6	9.8	FALSE	8.67
E45+E44	E45	13.15	9.55	E44	12.57	8.57	319.4	0.003	Circle	6	0.013	0.01	0.76	0.04	0.01	0.3108	3.2	8.5	10.9	FALSE	9.598
E46+E7	E46	11	7.4	E7	11.77	6.02	500.5	0.003	Circle	6	0.013	0.015	0.79	0.04	0.015	0.2946	5.1	8.7	14	FALSE	7.472
E47+E46	E47	11.54	8.31	E46	11	7.4	455.2	0.002	Circle	6	0.013	0.015	0.84	0.05	0.015	0.2509	6	10.5	15.2	FALSE	8.386
E48+E6	E48	11.94	7.54	E6	11.14	5.19	498.5	0.005	Circle	8	0.013	0.015	0.77	0.04	0.015	0.8296	1.8	6	9	FALSE	7.598
E49+E48	E49	11.53	8.46	E48	11.94	7.54	457.8	0.002	Circle	6	0.013	0.015	0.84	0.05	0.015	0.2515	6	10.5	15.2	FALSE	8.536
E50+E10	E50	16.04	9.64	E10	14.53	7.88	217.9	0.008	Circle	6	0.013	0.017	0.66	0.01	0.017	0.5043	3.4	2.8	12.3	FALSE	9.71
F7+T25	F7	4.65	0.3	T25	3.95	-2.2	477	0.005	Circle	8	0.013	0.064	0.89	0.01	0.0641	0.8748	7.3	2	22.8	FALSE	0.452
F8+F7	F8	8.3	1.38	F7	4.65	0.3	356.7	0.003	Circle	8	0.013	0.064	0.89	0.01	0.0641	0.6649	9.6	2	26	FALSE	1.603
F9+F23	F9	8.21	3.11	F23	8.23	2.7	110	0.004	Circle	6	0.013	0.047	0.8	0.01	0.0474	0.3425	13.7	2.4	33.2	FALSE	3.301
F10+F9	F10	11.76	4.96	F9	8.21	3.21	462.6	0.004	Circle	6	0.013	0.047	0.8	0.01	0.0471	0.3451	13.6	2.4	33.2	FALSE	5.16
F11+F10	F11	13	6.84	F10	11.76	5.06	419.8	0.004	Circle	6	0.013	0.047	0.88	0.03	0.0471	0.3654	12.9	5.8	31.9	FALSE	7.003
F12+F11	F12	13	7.65	F11	13	6.94	355.2	0.002	Circle	6	0.013	0.032	1.03	0.07	0.032	0.2509	12.8	14.6	30.3	FALSE	7.804
F13+F19	F13	15.24	10.24	F19	15.18	10.23	24.2	0	Circle	6	0.013	0.024	0.41	0.17	0.024	0.1141	21	33.9	39.6	FALSE	10.433
F14+F8	F14	9.56	5.64	F8	8.3	1.76	463.1	0.008	Circle	6	0.013	0.003	0.54	0.01	0.003	0.5136	0.6	1.1	3.4	FALSE	5.656
F15+F11	F15	13.27	7.77	F11	13	7.17	301.1	0.002	Circle	6	0.013	0.015	0.83	0.05	0.015	0.2505	6	10	15.5	FALSE	7.852
F16+F15	F16	13.27	8.24	F15	13.27	7.77	238	0.002	Circle	6	0.013	0.015	0.79	0.04	0.0152	0.2493	6	8.7	13.2	FALSE	8.317
F17+F22	F17	15.11	8.76	F22	13	8.39	130.3	0.003	Circle	6	0.013	0.032	1	0.07	0.032	0.299	10.7	13.5	27.3	FALSE	8.903
F18+F17	F18	15.34	9.94	F17	15.11	8.89	197.5	0.005	Circle	6	0.013	0.004	0.55	0.01	0.004	0.4091	1	1.1	2.3	FALSE	9.957
F19+F20	F19	15.18	10.33	F20	15.15	9.7	188.8	0.003	Circle	6	0.013	0.024	0.85	0.05	0.024	0.3241	7.4	9.4	18.5	FALSE	10.433
F20+F17	F20	15.15	9.7	F17	15.11	8.86	281.2	0.003	Circle	6	0.013	0.028	1.04	0.08	0.028	0.3067	9.1	15.9	25.4	FALSE	9.826
F21+F20	F21	15.15	10.38	F20	15.15	9.7	136.4	0.005	Circle	6	0.013	0.004	0.64	0.02	0.004	0.3962	1	5	9.1	FALSE	10.407
F22+F12	F22	13	8.39	F12	13	7.65	158.8	0.005	Circle	6	0.013	0.032	0.83	0.03	0.032	0.383	8.4	6.8	22.8	FALSE	8.512
F23+F8	F23	8.23	2.7	F8	8.3	1.48	327.4	0.004	Circle	8	0.013	0.061	0.87	0.01	0.0612	0.7376	8.3	2	24.6	FALSE	2.864
F24+F23	F24	8.23	3.19	F23	8.23	2.7	98	0.005	Circle	6	0.013	0.014	0.71	0.03	0.014	0.3967	3.5	5.5	13.5	FALSE	3.254
F25+F24	F25	8.73	3.77	F24	8.23	3.19	115	0.005	Circle	6	0.013	0.002	0.53	0	0.002	0.3985	0.5	0.9	0.9	FALSE	3.775
F26+F25	F26	8.73	4.36	F25	8.73	3.77	118	0.005	Circle	6	0.013	0.002	0.53	0	0.002	0.3967	0.5	0.9	0.9	FALSE	4.365
F27+F24	F27	8.73	3.78	F24	8.23	3.19	118	0.005	Circle	6	0.013	0.012	0.65	0.02	0.012	0.3967	3	3.7	9	FALSE	3.832
F28+F27	F28	8.73	4.57	F27	8.73	3.78	158	0.005	Circle	6	0.013	0.012	0.65	0.02	0.012	0.3967	3	3.7	8.3	FALSE	4.619
G2+G19	G2	4.2	0.05	G19	2.65	-0.76	154	0.005	Circle	6	0.013	0.0796	0.97	0.01	0.0797	0.4069	19.6	2.9	35.9	FALSE	0.295
G3+G14	G3	7	1.85	G14	6.79	1.05	208.1	0.004	Circle	6	0.013	0.0566	0.85	0.01	0.0567	0.3479	16.3	2.6	34.3	FALSE	2.027
G4+G3	G4	7.49	2.26	G3	7	1.95	212.7	0.001	Circle	6	0.013	0.0436	0.88	0.03	0.0437	0.2142	20.4	6.6	41.9	FALSE	2.476
G6+G4	G6	10.75	5.12	G4	7.49	2.36	387.6	0.007	Circle	6	0.013	0.0318	0.8	0.03	0.0319	0.4735	6.7	5.5	22.2	FALSE	5.233
G7+G6	G7	10.12	5.81	G6	10.75	5.22	294.7	0.002	Circle	6	0.013	0.0159	0.83	0.05	0.016	0.251	6.3	10.2	16.3	FALSE	5.892
G8+G7	G8	10.83	6.45	G7	10.12	5.8	326.8	0.002	Circle	6	0.013	0.0159	0.86	0.06	0.0159	0.2502	6.4	11.1	16.3	FALSE	6.531
G9+G6	G9	8.88	5.78	G6	10.75	5.2	290.8	0.002	Circle	6	0.013	0.0159	0.84	0.05	0.016	0.2506	6.3	10.2	16.3	FALSE	5.862
G10+G9	G10	11.09	6.24	G9	8.88	5.78	270.6	0.002	Circle	6	0.013	0.0159	0.86	0.06	0.0159	0.2313	6.9	11.1	16.9	FALSE	6.349
G11+G10	G11	11.78	6.87	G10	11.09	6.34	265.7	0.002	Circle	6	0.013	0.0159	0.86	0.06	0.016	0.2506	6.3	11.4	16.1	FALSE	6.951
G12+G4	G12	8.32	3.02	G4	7.49	2.47	277	0.002	Circle	6	0.013	0.0118	0.78	0.05	0.0118	0.25	4.7	9	12.4	FALSE	3.081
G13+G3	G13	8.34	2.8	G3	7	1.9	452.5	0.002	Circle	6	0.013	0.013	0.8	0.05	0.013	0.2502	5.2	9.3	13.4	FALSE	2.867
G14+G17	G14	6.79	1.05	G17	5.65	0.6	151.1	0.003	Circle	6	0.013	0.0681	0.91	0.01	0.0682	0.3062	22.2	2.7	39.9	FALSE	1.253

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
G15+G14	G15	6.2	2.15	G14	6.79	1.05	214.7	0.005	Circle	6	0.013	0.0115	0.66	0.02	0.0115	0.4016	2.9	4.1	25.1	FALSE	2.239
G16+G15	G16	6.21	3.21	G15	6.2	2.2	154.5	0.007	Circle	6	0.013	0.0115	0.64	0.02	0.0115	0.4536	2.5	3.3	8.8	FALSE	3.257
G17+G2	G17	5.65	0.5	G2	4.2	0.15	143.7	0.002	Circle	6	0.013	0.0796	0.97	0.01	0.0797	0.2769	28.7	2.9	44.8	FALSE	0.74
G18+G17	G18	5.86	1.15	G17	5.65	0.57	291.5	0.002	Circle	6	0.013	0.0115	0.78	0.04	0.0116	0.2503	4.6	8.9	12	FALSE	1.21
G19+T23	G19	2.65	-0.76	T23	6.87	-2.3	290.9	0.005	Circle	6	0.013	0.091	1.03	0.02	0.0911	0.4082	22.3	3	38.5	FALSE	-0.566
G20+G19	G20	2.66	0.11	G19	2.65	-0.76	173.9	0.005	Circle	6	0.013	0.0114	0.6	0.01	0.0114	0.3969	2.9	1.9	21.2	FALSE	0.18
G21+G20	G21	2.67	0.37	G20	2.66	0.11	51.4	0.005	Circle	6	0.013	0.0057	0.64	0.02	0.0057	0.399	1.4	4.3	5.3	FALSE	0.397
G22+G20	G22	2.67	0.25	G20	2.66	0.11	71.7	0.002	Circle	6	0.013	0.0057	0.64	0.02	0.0057	0.2479	2.3	4.3	8	FALSE	0.281
H2+I11	H2	7.99	0.59	I11	8.07	0.17	36.6	0.011	Circle	15	0.013	0.6282	3.69	0.01	0.8467	6.9196	9.1	0.8	24.1	FALSE	1.009
H3+H2	H3	8.2	0.7	H2	7.99	0.64	30.8	0.002	Circle	15	0.013	0.6282	3.69	0.01	0.8467	2.851	22	0.8	32.4	FALSE	1.139
H4+H3	H4	8.13	0.71	H3	8.2	0.7	7.1	0.001	Circle	15	0.013	0.4293	2.73	0.02	0.6198	2.4242	17.7	1.3	34.7	FALSE	1.141
H5+H4	H5	8.95	0.95	H4	8.13	0.71	259.3	0.001	Circle	15	0.013	0.4293	2.81	0.03	0.6198	1.9652	21.8	2.6	37.5	FALSE	1.441
H6+H5	H6	8.89	0.99	H5	8.95	0.95	9	0.004	Circle	12	0.013	0.4093	2.63	0.02	0.5998	2.3751	17.2	1.7	47.1	FALSE	1.443
H7+H75	H7	10.51	1.76	H75	10.09	1.58	89.8	0.002	Circle	12	0.013	0.4093	2.59	0.01	0.5998	1.595	25.7	0.8	40.6	FALSE	2.189
H8+H7	H8	10.95	2.05	H7	10.51	1.76	233.4	0.001	Circle	12	0.013	0.4093	2.62	0.02	0.5998	1.2558	32.6	1.5	47.3	FALSE	2.547
H9+H73	H9	11.84	3.09	H73	11.36	2.56	246.2	0.002	Circle	12	0.013	0.4093	2.55	0	0.5998	1.653	24.8	0	42.7	FALSE	3.527
H11+H64	H11	9.92	1.44	H64	9.05	0.99	198.2	0.002	Circle	8	0.013	0.1904	1.45	0	0.2184	0.5758	33.1	0	46.3	FALSE	1.756
H12+H11	H12	10.15	2.2	H11	9.92	1.54	333.5	0.002	Circle	8	0.013	0.1616	1.31	0	0.1896	0.5375	30.1	0	45.1	FALSE	2.505
H13+H12	H13	10.85	2.55	H12	10.15	2.3	107.9	0.002	Circle	8	0.013	0.1216	1.2	0.02	0.1496	0.5816	20.9	2.9	38.1	FALSE	2.845
H14+H13	H14	11.02	3.54	H13	10.85	2.65	446.5	0.002	Circle	8	0.013	0.1216	1.3	0.04	0.1496	0.5395	22.5	5.7	40.3	FALSE	3.812
H15+H62	H15	14.61	5.6	H62	12.95	4.64	201.4	0.005	Circle	8	0.013	0.1104	1.13	0.02	0.1384	0.8343	13.2	2.4	30.6	FALSE	5.89
H16+H60	H16	14.43	6.48	H60	14.57	5.9	351.2	0.002	Circle	8	0.013	0.1104	1.18	0.03	0.1384	0.4911	22.5	4	41	FALSE	6.755
H17+H57	H17	12.03	6.83	H57	14.21	6.69	396.8	0	Circle	8	0.013	0.1104	1.15	0.02	0.1353	0.227	48.6	3.1	55.7	FALSE	7.229
H18+H5	H18	8.92	1.27	H5	8.95	1.25	7.9	0.003	Circle	8	0.013	0.02	0.65	0.01	0.02	0.608	3.3	1.4	27	FALSE	1.44
H19+H18	H19	8.88	2.58	H18	8.92	1.27	386.9	0.003	Circle	8	0.013	0.02	0.71	0.02	0.02	0.7031	2.8	3.2	11.4	FALSE	2.662
H20+H19	H20	9.1	3.65	H19	8.88	2.63	270.8	0.004	Circle	8	0.013	0.02	0.84	0.05	0.02	0.7416	2.7	7.1	13	FALSE	3.733
H21+H56	H21	9.3	5.04	H56	9.2	4.75	143.8	0.002	Circle	6	0.013	0.005	0.6	0.02	0.005	0.252	2	3	5.2	FALSE	5.068
H22+H21	H22	9.3	5.34	H21	9.3	5.04	151.4	0.002	Circle	6	0.013	0.005	0.61	0.02	0.005	0.2498	2	3.3	5.1	FALSE	5.368
H23+H22	H23	9.4	6.15	H22	9.3	5.34	404.8	0.002	Circle	6	0.013	0.005	0.62	0.02	0.005	0.251	2	3.8	5.3	FALSE	6.177
H24+H20	H24	10.14	5.82	H20	9.1	3.65	332.8	0.007	Circle	6	0.013	0.01	0.77	0.04	0.01	0.4531	2.2	8.9	8.5	FALSE	5.861
H25+H11	H25	11.2	3.3	H11	9.92	1.7	378	0.004	Circle	6	0.013	0.0288	0.72	0.02	0.0288	0.365	7.9	3	21.8	FALSE	3.416
H26+H25	H26	10.63	4.58	H25	11.2	3.3	412.5	0.003	Circle	6	0.013	0.0288	0.77	0.03	0.0288	0.3125	9.2	5	24.2	FALSE	4.707
H27+H26	H27	11.38	5.66	H26	10.63	5.43	114.6	0.002	Circle	6	0.013	0.0096	0.75	0.04	0.0096	0.2514	3.8	7.9	7.9	FALSE	5.71
H28+H50	H28	10.4	5.41	H50	10.13	5.03	191.6	0.002	Circle	6	0.013	0.0096	0.71	0.03	0.0096	0.2499	3.8	6.3	9.3	FALSE	5.461
H29+H12	H29	12.43	5.83	H12	10.15	2.65	550.5	0.006	Circle	6	0.013	0.04	0.84	0.03	0.0401	0.4264	9.4	5.5	27.8	FALSE	5.972
H30+H46	H30	11.57	7.74	H46	11.27	7.47	135.4	0.002	Circle	6	0.013	0.015	0.86	0.06	0.0151	0.2505	6	11.5	15.1	FALSE	7.816
H31+H14	H31	13.28	4.5	H14	11.02	3.69	403.7	0.002	Circle	6	0.013	0.0066	0.66	0.02	0.0066	0.2513	2.6	4.9	7	FALSE	4.535
H32+H17	H32	16.06	10.26	H17	12.03	6.88	549.9	0.006	Circle	6	0.013	0.011	0.72	0.03	0.034	0.4399	2.5	6.8	27.8	FALSE	10.38
H33+H32	H33	20	11.29	H32	16.06	10.26	515	0.002	Circle	6	0.013	0.0229	0.74	0.11	0.034	0.2509	9.1	21.3	32	FALSE	11.45
H34+H17	H34	12.74	7.69	H17	12.03	6.83	268.6	0.003	Circle	6	0.013	0.1104	1.43	0.08	0.1104	0.3175	34.8	15.2	15.2	FALSE	7.92
H35+H34	H35	14.34	9.56	H34	12.74	7.69	321.9	0.006	Circle	6	0.013	0.1104	1.38	0.07	0.1104	0.4276	25.8	13.3	13.3	FALSE	9.757
H36+H35	H36	15.37	9.87	H35	14.34	9.56	473.9	0.001	Circle	6	0.013	0.0867	1.45	0.1	0.0867	0.1435	60.4	20.5	67.2	FALSE	10.22
H37+H36	H37	17.89	12.09	H36	15.37	9.87	370.1	0.006	Circle	6	0.013	0.0578	1.13	0.07	0.0579	0.4345	13.3	13.6	33.2	FALSE	12.247
H38+E42	H38	17.69	11.79	E42	14.56	10.11	518.8	0.003	Circle	6	0.013	0	0	0	0.0091	0.3193	0	0	10.5	FALSE	11.91
H38+H47	H38	17.69	11.79	H47	15.05	10.1	205.2	0.008	Circle	6	0.013	0.0237	0.75	0.03	0.0237	0.5092	4.7	5.2	5.2	FALSE	11.91
H39+H38	H39	18	12.1	H38	17.69	11.84	131.9	0.002	Circle	6	0.013	0.0187	0.95	0.07	0.0187	0.2491	7.5	14.2	18.8	FALSE	12.194
H40+H36	H40	22.17	15.97	H36	15.37	9.87	496.1	0.012	Circle	6	0.013	0.0289	0.7	0.01	0.0291	0.6222	4.6	2.1	17.9	FALSE	16.067
H41+H40	H41	24.38	16.27	H40	22.17	15.97	150.4	0.002	Circle	6	0.013	0.0289	0.94	0.11	0.029	0.2506	11.5	21.3	27.6	FALSE	16.409
H42+H37	H42	21.01	14.76	H37	17.89	12.19	387.7	0.007	Circle	6	0.013	0.0289	0.88	0.05	0.0291	0.4568	6.3	9.4	19.8	FALSE	14.867
H43+H42	H43	22.12	16.57	H42	21.01	14.76	346.3	0.005	Circle	6	0.013	0.0289	1.1	0.1	0.0289	0.4056	7.1	19	23.6	FALSE	16.677
H44+H37	H44	20.24	14.24	H37	17.89	12.14	272.4	0.008	Circle	6	0.013	0.0289	1.11	0.09	0.0291	0.4926	5.9	18.7	20.8	FALSE	14.341
H45+H9	H45	12.4	3.93	H9	11.84	3.49	222.4	0.002	Circle	6	0.013	0.0046	0.57	0.01	0.0046	0.2496	1.8	1.7	3.2	FALSE	3.954
H46+H52	H46	11.27	7.47	H52	12.58	6.18	360.9	0.004	Circle	6	0.013	0.015	0.78	0.04	0.0152	0.3354	4.5	8	12.6	FALSE	7.543
H47+H35	H47	15.05	10.1	H35	14.34	9.62	192.4	0.002	Circle	6	0.013	0.0237	0.95	0.07	0.0237	0.2802	8.5	13.2	13.2	FALSE	10.182
H48+H55	H48	9.12	6.64	H55	9.3	4.32	217.4	0.011	Circle	6	0.013	0.005	0.56	0.01	0.005	0.5796	0.9	1.2	3.6	FALSE	6.743
H49+H48	H49	8.35	6.77	H48	9.12	6.72	32.6	0.002	Circle	6	0.013	0.005	0.56	0.01	0.005	0.2197	2.3	1.2	1.2	FALSE	6.783
H50+H26	H50	10.13	5.03	H26	10.63	4.58	154.3	0.003	Circle	6	0.013	0.0192	0.71	0.02	0.0192	0.303	6.3	4.6	16.2	FALSE	5.121
H51+H50	H51	10.5	6.35	H50	10.13	5.13	189.2	0.006	Circle	6	0.013	0.0096	0.61	0.01	0.0096	0.4505	2.1	2.3	7.9	FALSE	6.391
H52+H29	H52	12.58	6.18	H29	12.43	5.83	94.4	0.004	Circle	6	0.013	0.04	0.89	0.04	0.0405	0.3416	11.7	7.6	31.4	FALSE	6.343
H53+H52	H53	12.4	8.3	H52	12.58	6.23	233.2	0.009	Circle	6	0.013	0.025	0.84	0.04	0.025	0.5286	4.7	8.7	16.6	FALSE	8.384
H54+H20	H54	9.2	4	H20	9.1	3.7	152.6	0.002	Circle	6	0.013	0.01	0.59	0.01	0.01	0.2488	4	1.5	10.3	FALSE	4.228
H55+H54	H55	9.3	4.32	H54	9.2	4.22	50	0.002	Circle	6	0.013	0.01	0.59	0.01	0.01	0.2509	4	1.5	7.9	FALSE	4.375
H56+H55	H56	9.2	4.75	H55	9.3	4.32	215.8	0.002	Circle	6	0.013	0.005	0.56	0.01	0.005	0.2505	2	1.2	3.8	FALSE	4.777
H57+H16	H57	14.21	6.69	H16	14.43	6.48	40.5	0.005	Circle	8	0.013	0.1104	1.13	0.02	0.1384	0.8701	12.7	2.4	30.1	FALSE	6.898
H58+H57	H58	15.13	7.62	H57	14.21	6.69	184.6	0.005	Circle	8	0.013	0	0	0	0	0.8577	0	0	0	FALSE	7.62
H59+H58	H59	16.1	8.59	H58	15.13	7.62	194.6	0.005	Circle	8	0.013	0	0	0	0	0.8531	0	0	0	FALSE	8.59
H59+H61	H59	16.1	8.59	H61	15.42	6.28	194.6	0.012	Circle	8	0.013	0	0	0	0	1.3165	0	0	0	FALSE	8.59
H60+H15	H60	14.57	5.9	H15	14.61	5.7	98.7	0.002	Circle	8	0.013	0.1104	1.22	0.03	0.1384	0.5439	20.3	5	37.7	FALSE	6.162
H61+H60	H61	15.42	6.28	H60	14.57	5.9	189.5	0.002	Circle	8	0.013	0	0	0	0	0.5411	0	0	0	FALSE	6.28

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H62+H14	H62	12.95	4.64	H14	11.02	3.54	232.8	0.005	Circle	8	0.013	0.115	1.16	0.02	0.143	0.8306	13.8	2.4	31	FALSE	4.852
H63+H62	H63	13.79	5.49	H62	12.95	4.64	169.8	0.005	Circle	6	0.013	0.0046	0.55	0.01	0.0046	0.397	1.2	1.2	19.1	FALSE	5.539
H64+H71	H64	9.05	0.99	H71	8.35	0.77	160.6	0.001	Circle	8	0.013	0.1979	1.49	0	0.2259	0.4472	44.3	0	51.9	FALSE	1.355
H65+H64	H65	9.89	1.83	H64	9.05	0.99	168.3	0.005	Circle	6	0.013	0.0075	0.57	0.01	0.0076	0.3964	1.9	1.4	14.3	FALSE	1.888
H66+H65	H66	9.89	2.09	H65	9.89	1.83	51.4	0.005	Circle	6	0.013	0.0075	0.57	0.01	0.0075	0.399	1.9	1.4	6.7	FALSE	2.129
H67+H66	H67	9.89	2.32	H66	9.89	2.09	46	0.005	Circle	6	0.013	0.0025	0.54	0	0.0025	0.3967	0.6	1	1	FALSE	2.325
H68+H66	H68	9.89	2.42	H66	9.89	2.09	67	0.005	Circle	6	0.013	0.005	0.56	0.01	0.005	0.3938	1.3	1.2	4.8	FALSE	2.448
H69+H68	H69	9.89	2.64	H68	9.89	2.42	45.6	0.005	Circle	6	0.013	0.0025	0.54	0	0.0025	0.3897	0.6	1	1	FALSE	2.645
H70+H68	H70	9.89	2.67	H68	9.89	2.42	51.2	0.005	Circle	6	0.013	0.0025	0.54	0	0.0025	0.3921	0.6	1	1	FALSE	2.675
H71+H3	H71	8.35	0.77	H3	8.2	0.7	35	0.002	Circle	8	0.013	0.1989	1.49	0	0.2269	0.5404	36.8	0	60.5	FALSE	1.139
H72+H71	H72	9.26	1.54	H71	8.35	0.77	182.4	0.004	Circle	6	0.013	0.001	0.52	0	0.001	0.3645	0.3	0.8	0.8	FALSE	1.544
H73+H74	H73	11.36	2.56	H74	11.16	2.34	101	0.002	Circle	12	0.013	0.4093	2.55	0	0.5998	1.6627	24.6	0.1	40.5	FALSE	2.984
H74+H8	H74	11.16	2.34	H8	10.95	2.1	112.9	0.002	Circle	12	0.013	0.4093	2.56	0	0.5998	1.6426	24.9	0.2	41.1	FALSE	2.768
H75+H6	H75	10.09	1.58	H6	8.89	1.04	259.7	0.002	Circle	12	0.013	0.4093	2.61	0.01	0.5998	1.6245	25.2	1.3	43.2	FALSE	2.016
I3+T19	I3	1.69	-3.99	T19	2.23	-4.27	188.4	0.001	Circle	18	0.013	0.7435	4.3	0.02	1.2176	4.0493	18.4	1.1	35.9	FALSE	-3.425
I4+I3	I4	1.84	-3.79	I3	1.69	-3.99	242.6	0.001	Circle	18	0.013	0.7435	4.22	0	1.2176	3.0159	24.7	0	39.7	FALSE	-3.151
I5+I31	I5	3.41	-3.42	I31	2.94	-3.53	135	0.001	Circle	18	0.013	0.7375	4.19	0	1.2116	2.9983	24.6	0	40.7	FALSE	-2.793
I6+I5	I6	4.62	-3.08	I5	3.41	-3.42	410.7	0.001	Circle	18	0.013	0.7375	4.19	0	1.2116	3.0222	24.4	0	42.2	FALSE	-2.417
I7+I6	I7	5.18	-2.32	I6	4.62	-3.08	259	0.003	Circle	18	0.013	0.6452	3.73	0	0.8637	5.6899	11.3	0	26.9	FALSE	-1.91
I8+I7	I8	6.15	-1.45	I7	5.18	-2.32	238.1	0.004	Circle	15	0.013	0.6372	3.69	0	0.8557	3.9046	16.3	0	32.5	FALSE	-1.036
I9+I8	I9	5.69	-1.31	I8	6.15	-1.45	154.7	0.001	Circle	15	0.013	0.6322	3.78	0.02	0.8507	1.9432	32.5	1.8	40.3	FALSE	-0.758
I10+I9	I10	7.26	-0.74	I9	5.69	-1.31	221.1	0.003	Circle	15	0.013	0.6282	3.64	0	0.8467	3.2797	19.2	0	35.4	FALSE	-0.295
I11+I10	I11	8.07	-0.03	I10	7.26	-0.74	379.8	0.002	Circle	15	0.013	0.6282	3.74	0.02	0.8467	2.7928	22.5	1.6	38.5	FALSE	0.47
I12+I6	I12	4.46	-2.19	I6	4.62	-2.83	338.5	0.002	Circle	12	0.013	0.0873	1.01	0.01	0.3429	1.5491	5.6	1.5	33.7	FALSE	-1.852
I13+I12	I13	5.54	-1.56	I12	4.46	-2.14	319.8	0.002	Circle	12	0.013	0.0873	1.01	0.01	0.3429	1.5172	5.8	1.5	34	FALSE	-1.216
I14+I13	I14	4.22	-0.83	I13	5.54	-1.51	443.5	0.002	Circle	12	0.013	0.0025	0.54	0	0.2581	1.395	0.2	0.5	31.1	FALSE	-0.518
I15+I14	I15	5.32	-0.53	I14	4.22	-0.78	386	0.001	Circle	12	0.013	0.0025	0.54	0	0.2582	0.9067	0.3	0.5	37.5	FALSE	-0.143
I16+I6	I16	4.85	0.96	I6	4.62	-2.38	492.8	0.007	Circle	6	0.013	0.005	0.64	0.02	0.005	0.4619	1.1	4.6	4.9	FALSE	0.984
I17+I7	I17	5.54	1.51	I7	5.18	-1.27	525.8	0.005	Circle	6	0.013	0.008	0.7	0.03	0.008	0.408	2	6.3	8.1	FALSE	1.545
I18+I8	I18	5.2	1.01	I8	6.15	-0.65	236.8	0.007	Circle	6	0.013	0.005	0.56	0.01	0.005	0.4698	1.1	1.2	4.3	FALSE	1.116
I19+I18	I19	6.48	1.59	I18	5.2	1.11	238.8	0.002	Circle	6	0.013	0.005	0.56	0.01	0.005	0.2516	2	1.5	3.2	FALSE	1.616
I20+I9	I20	5.86	1.26	I9	5.69	-0.81	278.4	0.007	Circle	6	0.013	0.004	0.63	0.02	0.0041	0.4838	0.8	4.4	3.4	FALSE	1.281
I21+I24	I21	7.17	1.52	I24	7	-0.08	364.1	0.004	Circle	6	0.013	0.0636	0.95	0.03	0.0636	0.3719	17.1	5.2	5.2	FALSE	1.697
I22+I23	I22	8.69	3.44	I23	8.52	3.17	44.5	0.006	Circle	6	0.013	0.0212	0.9	0.06	0.0212	0.437	4.9	11.6	16.1	FALSE	3.521
I23+I27	I23	8.52	3.12	I27	8.3	2.86	80.1	0.003	Circle	6	0.013	0.0424	1.09	0.08	0.0424	0.3197	13.3	15	33.5	FALSE	3.29
I24+I13	I24	7	-0.08	I13	5.54	-0.56	236.9	0.002	Circle	6	0.013	0.0848	1.25	0.06	0.0848	0.2526	33.6	12.9	12.9	FALSE	0.165
I25+I24	I25	7	0.22	I24	7	-0.08	153.5	0.002	Circle	6	0.013	0.0212	0.98	0.08	0.0212	0.248	8.5	15.2	20.9	FALSE	0.326
I26+I23	I26	9.29	4.04	I23	8.52	3.27	153.5	0.005	Circle	6	0.013	0.0212	0.77	0.03	0.0212	0.3974	5.3	6.6	14.7	FALSE	4.123
I27+I28	I27	8.3	2.86	I28	8.04	2.57	89.9	0.003	Circle	6	0.013	0.0424	0.97	0.05	0.0424	0.3187	13.3	10.5	10.5	FALSE	3.029
I28+I21	I28	8.04	2.57	I21	7.17	1.57	311.5	0.003	Circle	6	0.013	0.0636	1.23	0.08	0.0636	0.3179	20	16.5	38.4	FALSE	2.763
I29+I28	I29	8.81	3.34	I28	8.04	2.57	153.5	0.005	Circle	6	0.013	0.0212	0.91	0.06	0.0212	0.3974	5.3	12	22.1	FALSE	3.431
I31+I4	I31	2.94	-3.53	I4	1.84	-3.79	321.1	0.001	Circle	18	0.013	0.7435	4.22	0	1.2176	2.9889	24.9	0	41.8	FALSE	-2.866
I32+I31	I32	3.97	-2.18	I31	2.94	-3.26	207.6	0.005	Circle	6	0.013	0.006	0.56	0.01	0.0061	0.4047	1.5	1.3	22.8	FALSE	-2.102
I33+I32	I33	4.43	-1.73	I32	3.97	-2.18	90.2	0.005	Circle	6	0.013	0.002	0.53	0	0.002	0.3963	0.5	0.9	0.9	FALSE	-1.725
I34+I32	I34	4.56	-1.6	I32	3.97	-2.18	117.2	0.005	Circle	6	0.013	0.004	0.57	0.01	0.0041	0.3947	1	1.9	3.5	FALSE	-1.579
I43+I15	I43	5.62	0.12	I15	5.32	-0.53	61.7	0.011	Circle	12	0.013	0.0025	0.54	0	0.2604	3.6566	0.1	0.5	19.3	FALSE	0.451
J5+T21	J5	4.44	-1.06	T21	3.07	-3.03	585.4	0.003	Circle	6	0.013	0.0417	0.77	0.01	0.0417	0.3255	12.8	2.4	33	FALSE	-0.894
J6+J5	J6	5.85	0.6	J5	4.44	-0.96	558.5	0.003	Circle	6	0.013	0.0417	0.8	0.02	0.0417	0.2965	14.1	3.6	34.7	FALSE	0.775
J7+J6	J7	5.96	1.9	J6	5.85	1.02	441.1	0.002	Circle	6	0.013	0.0133	0.8	0.05	0.0133	0.2506	5.3	9.4	13.6	FALSE	1.968
J8+J6	J8	7.5	2.81	J6	5.85	0.7	442.1	0.005	Circle	6	0.013	0.0284	0.85	0.04	0.0284	0.3876	7.3	8.2	20.7	FALSE	2.92
J9+J8	J9	8.19	3.23	J8	7.5	2.81	400.5	0.001	Circle	6	0.013	0.0284	1.04	0.1	0.0284	0.1817	15.6	19.6	19.6	FALSE	3.397
J10+J9	J10	9.91	4.26	J9	8.19	3.34	299.8	0.003	Circle	6	0.013	0.0284	1.04	0.08	0.0284	0.3108	9.1	16	25.1	FALSE	4.383
J11+T20	J11	1.31	-2.3	T20	2.72	-3.58	282.4	0.005	Circle	8	0.013	0.0145	0.8	0.04	0.0145	0.8135	1.8	6.7	9.7	FALSE	-2.192
J12+J11	J12	1.94	-1.61	J11	1.31	-2.2	299.4	0.002	Circle	8	0.013	0.0145	0.8	0.05	0.0145	0.5364	2.7	6.9	10.8	FALSE	-1.502
J13+J12	J13	2.73	-0.51	J12	1.94	-1.51	298.6	0.003	Circle	8	0.013	0.0145	0.85	0.06	0.0145	0.6993	2.1	8.4	10.3	FALSE	-0.402
J14+J13	J14	3.27	-0.03	J13	2.73	-0.41	190	0.002	Circle	8	0.013	0.0145	0.8	0.05	0.0145	0.5404	2.7	6.8	9.8	FALSE	0.041
K1+T15	K1	2.02	-6.28	T15	2.75	-6.5	20.4	0.011	Circle	14	0.013	0.3785	2.39	0	0.3785	5.5807	6.8	0	0	FALSE	-6.05
K2+K1	K2	3.35	-5.2	K1	2.02	-6.28	451.1	0.002	Circle	14	0.013	0.3785	2.46	0.01	0.3785	2.6295	14.4	1.2	1.2	FALSE	-4.914
K3+K2	K3	4.05	-4.8	K2	3.35	-5.2	189.7	0.002	Circle	12	0.013	0.3785	2.39	0	0.3785	1.6359	23.1	0	0	FALSE	-4.484
K4+K3	K4	3.55	-4.1	K3	4.05	-4.8	238.3	0.003	Circle	12	0.013	0.3765	2.38	0	0.3765	1.9309	19.5	0	0	FALSE	-3.814
K5+K4	K5	3.31	-3.39	K4	3.55	-4.1	248.1	0.003	Circle	12	0.013	0.1743	1.37	0	0.1743	1.9058	9.1	0	0	FALSE	-3.205
K6+K5	K6	4.44	-2.86	K5	3.31	-3.39	251.1	0.002	Circle	12	0.013	0.1606	1.3	0	0.1606	1.6368	9.8	0	0	FALSE	-2.669
K7+K6	K7	3.35	-1.85	K6	4.44	-2.66	362.1	0.002	Circle	8	0.013	0.0076	0.57	0.01	0.0076	0.5715	1.3	1	5.8	FALSE	-1.809
K8+K7	K8	2.87	-1.18	K7	3.35	-1.85	355.5	0.002	Circle	8	0.013	0.0076	0.57	0.01	0.0076	0.5246	1.4	1	1	FALSE	-1.138
K9+K8	K9	3.87	-0.58	K8	2.87	-1.18	355.9	0.002	Circle	8	0.013	0.0076	0.57	0.01	0.0076	0.4961	1.5	1	6.4	FALSE	-0.475
K10+K9	K10	4.11	0.11	K9	3.87	-0.48	155.5	0.004	Circle	6	0.013	0.0046	0.55	0.01	0.0046	0.3456	1.3	1.2	2.5	FALSE	0.131
K11+K5	K11	3.67	-2.23	K5	3.31	-2.99	369.8	0.002	Circle	6	0.013	0.0077	0.64	0.02	0.0077	0.2544	3	4	4	FALSE	-2.073
K12+K11	K12	3.54	-0.86	K11	3.67	-2.08	353.5	0.003	Circle	6	0.013	0.0077	0.63	0.02	0.0078	0.3296	2.4	3.5	6.5	FALSE	-0.821
K13+K12	K13	2.97	0.27	K12	3.54	-0.86	362	0.003	Circle	6	0.013	0.0077	0.65	0.02	0.0078	0.3135	2.5	4.3	6.8	FALSE	0.309

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
K14+K13	K14	3.19	0.45	K13	2.97	0.27	90.4	0.002	Circle	6	0.013	0.0077	0.7	0.03	0.0078	0.2504	3.1	6.5	8.1	FALSE	0.491
K15+K9	K15	3.43	-0.33	K9	3.87	-0.48	73.9	0.002	Circle	6	0.013	0.003	0.54	0.01	0.003	0.2528	1.2	1.1	2.9	FALSE	-0.313
K16+K4	K16	3.55	-2.65	K4	3.55	-3.45	273.7	0.003	Circle	6	0.013	0.008	0.77	0.05	0.008	0.3033	2.6	9	9	FALSE	-2.593
K17+K16	K17	2.92	-1.88	K16	3.55	-2.6	267.2	0.003	Circle	6	0.013	0.0062	0.71	0.04	0.0062	0.2913	2.1	7	7.6	FALSE	-1.846
K18+K17	K18	3.64	-1.31	K17	2.92	-1.88	268.7	0.002	Circle	6	0.013	0.0062	0.68	0.03	0.0062	0.2584	2.4	5.9	7.2	FALSE	-1.276
K19+K18	K19	3.25	-0.65	K18	3.64	-1.31	272	0.002	Circle	6	0.013	0.0062	0.67	0.03	0.0062	0.2764	2.2	5.7	7.4	FALSE	-0.593
K20+K19	K20	2.67	-0.53	K19	3.25	-0.6	134.6	0.001	Circle	6	0.013	0.0062	0.56	0.01	0.0062	0.128	4.8	1.3	1.3	FALSE	-0.504
K21+K3	K21	3.15	-2.1	K3	4.05	-4.25	246.4	0.009	Circle	6	0.013	0.002	0.53	0	0.002	0.5241	0.4	0.9	0.9	FALSE	-2.046
K22+K21	K22	3.29	-1.16	K21	3.15	-2.05	256.2	0.003	Circle	6	0.013	0.001	0.52	0	0.001	0.3307	0.3	0.8	0.8	FALSE	-1.106
K23+K22	K23	3.52	-0.91	K22	3.29	-1.11	99.5	0.002	Circle	6	0.013	0.001	0.52	0	0.001	0.2516	0.4	0.8	0.8	FALSE	-0.906
K24+K21	K24	3.55	-1.7	K21	3.15	-2	148.6	0.002	Circle	6	0.013	0.001	0.52	0	0.001	0.2521	0.4	0.8	0.8	FALSE	-1.696
K25+K5	K25	3.6	-1.7	K5	3.31	-3.09	376.2	0.004	Circle	6	0.013	0.006	0.59	0.01	0.006	0.3411	1.8	2.6	4.7	FALSE	-1.669
K26+K6	K26	4.36	-1.29	K6	4.44	-2.76	293.6	0.005	Circle	6	0.013	0.0208	0.51	0.13	0.0208	0.397	5.2	25.9	25.9	FALSE	-1.184
K27+K26	K27	3.95	-0.6	K26	4.36	-1.29	199.5	0.003	Circle	6	0.013	0	0	0	0	0.33	0	0	0	FALSE	-0.55
K28+K4	K28	3.27	-4	K4	3.55	-4.1	242	0	Circle	10	0.013	0.196	1.48	0	0.196	0.4454	44	0	0	FALSE	-3.611
K30+K31	K30	3.78	-3.21	K31	3.08	-3.43	108.2	0.002	Circle	8	0.013	0.028	0.69	0.01	0.028	0.5449	5.1	1.6	18.3	FALSE	-3.087
K31+L1	K31	3.08	-3.43	L1	2.82	-3.73	147.8	0.002	Circle	8	0.013	0.028	0.69	0.01	0.028	0.5444	5.1	1.6	27.4	FALSE	-3.307
K32+K30	K32	3.16	-2.76	K30	3.78	-3.21	226.9	0.002	Circle	8	0.013	0.028	0.69	0.01	0.028	0.5381	5.2	1.6	17.4	FALSE	-2.635
K33+K32	K33	2.74	-2.37	K32	3.16	-2.76	130.8	0.003	Circle	6	0.013	0.011	0.67	0.02	0.011	0.3064	3.6	4.8	9.6	FALSE	-2.316
K34+K33	K34	3.08	-1.54	K33	2.74	-2.37	278.4	0.003	Circle	6	0.013	0.011	0.77	0.04	0.011	0.3064	3.6	8.7	11.9	FALSE	-1.485
K35+K34	K35	2.78	-0.7	K34	3.08	-1.54	279.8	0.003	Circle	6	0.013	0.011	0.79	0.05	0.011	0.3074	3.6	9.5	12	FALSE	-0.645
K36+K35	K36	2.75	0.15	K35	2.78	-0.7	281.5	0.003	Circle	6	0.013	0.011	0.79	0.05	0.0111	0.3083	3.6	9.5	11.9	FALSE	0.204
K37+K32	K37	2.51	-1.01	K32	3.16	-2.76	350.2	0.005	Circle	6	0.013	0.017	0.83	0.05	0.017	0.3966	4.3	9.7	14.4	FALSE	-0.941
L1+L21	L1	2.82	-3.73	L21	2.74	-3.95	223.2	0.001	Circle	10	0.013	0.196	1.65	0.03	0.196	0.6878	28.5	4	4	FALSE	-3.398
L2+L1	L2	2.72	-3.28	L1	2.82	-3.73	178.7	0.003	Circle	10	0.013	0.168	1.39	0.01	0.168	1.0994	15.3	1.1	1.1	FALSE	-3.037
L3+L2	L3	2.93	-3.17	L2	2.72	-3.28	83.4	0.001	Circle	10	0.013	0.168	1.45	0.02	0.168	0.7957	21.1	2.5	2.5	FALSE	-2.89
L4+L3	L4	3.39	-2.3	L3	2.93	-3.12	247.6	0.003	Circle	10	0.013	0.1123	1.15	0.02	0.1123	1.2608	8.9	2.1	2.1	FALSE	-2.106
L5+L47	L5	4.17	-1.38	L47	3.21	-2.04	276.3	0.002	Circle	6	0.013	0.021	0.87	0.05	0.021	0.2742	7.7	10.8	19.7	FALSE	-1.278
L6+L5	L6	4.69	-0.51	L5	4.17	-1.38	214.9	0.004	Circle	6	0.013	0.015	0.65	0.02	0.015	0.357	4.2	3.1	9.2	FALSE	-0.45
L7+L6	L7	5.31	-0.39	L6	4.69	-0.51	260.6	0	Circle	6	0.013	0.015	0.88	0.06	0.015	0.1204	12.5	12	17.3	FALSE	-0.281
L8+L7	L8	5.39	-0.24	L7	5.31	-0.39	72.8	0.002	Circle	6	0.013	0.015	0.86	0.06	0.015	0.2547	5.9	11.4	14.2	FALSE	-0.165
L9+L4	L9	3.42	-1.78	L4	3.39	-2.05	162.3	0.002	Circle	6	0.013	0.0409	0.92	0.04	0.0409	0.2288	17.9	8.7	8.7	FALSE	-1.58
L10+K27	L10	3.59	0.24	K27	3.95	-0.55	197.2	0.004	Circle	6	0.013	0	0	0	0	0.3551	0	0	0	FALSE	-0.552
L10+L9	L10	3.59	-0.76	L9	3.42	-1.78	274.7	0.004	Circle	6	0.013	0.01	0.78	0.05	0.01	0.3419	2.9	9.4	9.4	FALSE	-0.552
L11+L10	L11	4.97	0.57	L10	3.59	-0.56	359.8	0.003	Circle	6	0.013	0.01	0.69	0.03	0.01	0.3144	3.2	5.5	8.9	FALSE	0.619
L12+L11	L12	4.97	0.62	L11	4.97	0.57	81.8	0.001	Circle	6	0.013	0.01	0.6	0.01	0.01	0.1387	7.2	2.1	4.8	FALSE	0.653
L13+L9	L13	4.47	-0.58	L9	3.42	-1.73	310.9	0.004	Circle	6	0.013	0.0309	0.71	0.01	0.0309	0.3412	9.1	2.1	26.1	FALSE	-0.454
L14+L13	L14	5.25	0.6	L13	4.47	-0.58	301.6	0.004	Circle	6	0.013	0.0309	0.71	0.01	0.0309	0.351	8.8	2.1	25.8	FALSE	0.724
L15+L14	L15	6.17	1.92	L14	5.25	0.6	310.2	0.004	Circle	6	0.013	0.0309	0.86	0.04	0.0309	0.366	8.4	8.4	25.4	FALSE	2.042
L16+L15	L16	7.37	2.67	L15	6.17	1.92	311.1	0.002	Circle	6	0.013	0.0309	1.06	0.08	0.0309	0.2755	11.2	16.2	28.2	FALSE	2.814
L17+L16	L17	7.38	3.53	L16	7.37	2.67	236.3	0.004	Circle	6	0.013	0.0294	0.79	0.03	0.0294	0.3385	8.7	5.8	20.2	FALSE	3.647
L18+L17	L18	8.22	4.37	L17	7.38	3.53	330.9	0.003	Circle	6	0.013	0.0294	1.1	0.09	0.0294	0.2827	10.4	18.2	27	FALSE	4.507
L19+L18	L19	9.56	5.51	L18	8.22	4.37	332.7	0.003	Circle	6	0.013	0.0294	1.09	0.09	0.0295	0.3284	9	17.6	25.3	FALSE	5.633
L20+L16	L20	8.52	2.97	L16	7.37	2.77	101.4	0.002	Circle	6	0.013	0.0015	0.53	0	0.0015	0.2492	0.6	0.9	0.9	FALSE	2.974
L21+K28	L21	2.74	-3.95	K28	3.27	-4	68.3	0.001	Circle	10	0.013	0.196	1.5	0	0.196	0.5928	33.1	0.6	0.6	FALSE	-3.611
L22+L3	L22	3.32	-0.13	L3	2.93	-2.72	365.6	0.007	Circle	6	0.013	0.013	0.71	0.03	0.013	0.4722	2.8	5.7	9.8	FALSE	-0.078
L23+L3	L23	3.05	-2.75	L3	2.93	-3.02	351.1	0.001	Circle	8	0.013	0.0427	0.77	0.01	0.0427	0.3351	12.7	1.8	32.5	FALSE	-2.531
L24+L23	L24	2.38	-2.17	L23	3.05	-2.75	386.3	0.002	Circle	8	0.013	0.0427	0.77	0.01	0.0427	0.4682	9.1	1.8	27.5	FALSE	-1.986
L25+L24	L25	3.54	-1.91	L24	2.38	-2.17	342	0.001	Circle	8	0.013	0.0427	0.77	0.01	0.0427	0.3332	12.8	1.8	32.5	FALSE	-1.69
L26+L25	L26	3.77	-1.38	L25	3.54	-1.91	215.6	0.002	Circle	8	0.013	0.037	0.74	0.01	0.037	0.5991	6.2	1.7	20.6	FALSE	-1.231
L27+L26	L27	3.7	-0.86	L26	3.77	-1.38	260.1	0.002	Circle	8	0.013	0.028	0.87	0.05	0.028	0.5403	5.2	6.9	18.6	FALSE	-0.735
L28+L27	L28	3.81	0.26	L27	3.7	-0.86	362.9	0.003	Circle	6	0.013	0.014	0.73	0.03	0.014	0.3117	4.5	6.4	12.3	FALSE	0.326
L29+L28	L29	4.59	1.14	L28	3.81	0.26	366	0.002	Circle	6	0.013	0.014	0.79	0.04	0.014	0.2751	5.1	9	13.5	FALSE	1.209
L30+L27	L30	3.71	-0.19	L27	3.7	-0.86	236	0.003	Circle	6	0.013	0.014	0.69	0.02	0.014	0.299	4.7	4.8	12.3	FALSE	-0.124
L31+L30	L31	4.39	0.64	L30	3.71	-0.19	178.8	0.005	Circle	6	0.013	0.014	0.66	0.02	0.014	0.3823	3.7	3.6	9.1	FALSE	0.696
L32+L31	L32	5.42	1.62	L31	4.39	0.64	293.5	0.003	Circle	6	0.013	0.014	0.86	0.06	0.014	0.3242	4.3	11.5	14.8	FALSE	1.688
L33+L32	L33	5.85	1.8	L32	5.42	1.62	90.7	0.002	Circle	6	0.013	0.014	0.85	0.06	0.014	0.25	5.6	11	14	FALSE	1.872
L34+L26	L34	4.66	-0.24	L26	3.77	-1.28	287.3	0.004	Circle	6	0.013	0.009	0.58	0.01	0.009	0.3376	2.7	1.5	1.5	FALSE	-0.192
L35+L34	L35	5.3	0.7	L34	4.66	-0.24	253.5	0.004	Circle	6	0.013	0	0	0	0	0.3417	0	0	0	FALSE	0.7
L36+L35	L36	5.75	1.65	L35	5.3	0.7	277.7	0.003	Circle	6	0.013	0	0	0	0	0.3282	0	0	0	FALSE	1.65
L37+L36	L37	6.21	2.76	L36	5.75	1.65	322.8	0.003	Circle	6	0.013	0	0	0	0	0.329	0	0	0	FALSE	2.76
L37+L38	L37	6.21	2.76	L38	5.64	2.24	210.4	0.002	Circle	6	0.013	0	0	0	0	0.2789	0	0	0	FALSE	2.76
L38+L39	L38	5.64	2.24	L39	4.89	1.54	215.2	0.003	Circle	6	0.013	0	0	0	0	0.32	0	0	0	FALSE	2.24
L39+L40	L39	4.89	1.54	L40	4.16	0.81	345.7	0.002	Circle	6	0.013	0	0	0	0	0.2578	0	0	0	FALSE	1.54
L40+L42	L40	4.16	0.61	L42	3.25	0.2	345.8	0.001	Circle	8	0.013	0.0017	0.53	0	0.0017	0.4161	0.4	0.7	0.7	FALSE	0.814
L41+L40	L41	6.09	0.95	L40	4.16	0.81	70.6	0.002	Circle	6	0.013	0.0017	0.53	0	0.0017	0.2499	0.7	0.9	0.9	FALSE	0.954
L42+L43	L42	3.25	0.2	L43	2.56	-0.34	330.1	0.002	Circle	8	0.013	0.0017	0.53	0	0.0017	0.4887	0.3	0.7	0.7	FALSE	0.204
L43+L44	L43	2.56	-0.34	L44	3.5	-0.85	334.4	0.002	Circle	8	0.013	0.0017	0.53	0	0.0017	0.4719	0.4	0.7	0.7	FALSE	-0.336
L44+L45	L44	3.5	-0.85	L45	2.57	-1.33	238.4	0.002	Circle	8	0.013	0.0017	0.53	0	0.0017	0.5422	0.3	0.7	0.7	FALSE	-0.846

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
L45+L25	L45	2.57	-1.38	L25	3.54	-1.76	201.8	0.002	Circle	8	0.013	0.0057	0.56	0.01	0.0062	0.5244	1.1	1	4.3	FALSE	-1.326
L46+L45	L46	2.92	-0.93	L45	2.57	-1.23	136	0.002	Circle	6	0.013	0.004	0.59	0.01	0.004	0.2635	1.5	2.9	4	FALSE	-0.908
L47+L4	L47	3.21	-2.04	L4	3.39	-2.3	88	0.003	Circle	8	0.013	0.0714	0.93	0.01	0.0714	0.6568	10.9	2.1	27.2	FALSE	-1.856
L48+L47	L48	3.22	-1.35	L47	3.21	-2.04	228.9	0.003	Circle	8	0.013	0.0504	0.81	0.01	0.0504	0.6634	7.6	1.9	23.6	FALSE	-1.189
L49+L48	L49	4.08	-1.2	L48	3.22	-1.35	233.3	0.001	Circle	8	0.013	0.0504	0.81	0.01	0.0504	0.3064	16.4	1.9	34.5	FALSE	-0.962
L50+L49	L50	4.26	-0.68	L49	4.08	-1.2	223.6	0.002	Circle	8	0.013	0.0504	0.81	0.01	0.0504	0.5827	8.6	1.9	25.5	FALSE	-0.506
L51+L50	L51	3.85	-0.28	L50	4.26	-0.68	79.7	0.005	Circle	6	0.013	0.0013	0.53	0	0.0013	0.3975	0.3	0.8	0.8	FALSE	-0.276
L52+L50	L52	4.54	-0.36	L50	4.26	-0.68	223.9	0.001	Circle	6	0.013	0.0491	1.06	0.06	0.0491	0.2121	23.1	12.4	43.7	FALSE	-0.14
L53+L52	L53	5.4	0.6	L52	4.54	-0.36	218.4	0.004	Circle	6	0.013	0.0491	0.82	0.02	0.0491	0.372	13.2	3.1	31.5	FALSE	0.762
L54+L53	L54	6.47	2.07	L53	5.4	0.6	369.4	0.004	Circle	6	0.013	0.037	0.91	0.04	0.037	0.3539	10.5	9	27.9	FALSE	2.218
L55+L54	L55	6.53	2.37	L54	6.47	2.07	148.7	0.002	Circle	6	0.013	0.0177	0.91	0.06	0.0177	0.252	7	12.9	17.7	FALSE	2.459
L56+L54	L56	7.59	3.34	L54	6.47	2.17	326.7	0.004	Circle	6	0.013	0.0193	0.93	0.07	0.0193	0.3358	5.7	13.3	18.3	FALSE	3.424
L57+L53	L57	5.49	1.29	L53	5.4	0.65	202.8	0.003	Circle	6	0.013	0.0121	0.63	0.01	0.0121	0.3152	3.8	2.8	8.4	FALSE	1.345
L58+L57	L58	6.75	2.35	L57	5.49	1.29	295.3	0.004	Circle	6	0.013	0.0121	0.82	0.05	0.0121	0.3362	3.6	10.6	13.1	FALSE	2.409
L59+L58	L59	7.91	3.31	L58	6.75	2.35	250	0.004	Circle	6	0.013	0.0121	0.81	0.05	0.0121	0.3477	3.5	10	12.5	FALSE	3.368
L60+L59	L60	8.08	3.53	L59	7.91	3.31	108.8	0.002	Circle	6	0.013	0.0121	0.8	0.05	0.0121	0.2523	4.8	9.7	12.5	FALSE	3.592
L61+L5	L61	4.57	-0.73	L5	4.17	-1.13	152.5	0.003	Circle	6	0.013	0.006	0.61	0.02	0.006	0.2874	2.1	3.2	4.9	FALSE	-0.7
L62+L34	L62	4.95	0.45	L34	4.66	-0.19	146.7	0.004	Circle	6	0.013	0.009	0.62	0.02	0.009	0.3706	2.4	3	6.7	FALSE	0.49
M2+I43	M2	5.62	0.3	I43	5.62	0.22	42.2	0.002	Circle	10	0.013	0.0025	0.54	0	0.2603	0.9539	0.3	0.6	33.7	FALSE	0.604
M2+N1	M2	5.62	2.62	N1	5.32	2.32	82	0.004	Circle	12	0.013	0	0	0	0	2.1549	0	0	0	FALSE	0.604
M3+M2	M3	6.98	1.33	M2	5.62	0.3	379.8	0.003	Circle	8	0.013	0.0015	0.53	0	0.2575	0.6293	0.2	0.6	47.9	FALSE	1.652
M4+M31	M4	9.9	3	M31	7	2.52	142.5	0.003	Circle	8	0.013	0.0122	0.73	0.03	0.2022	0.7013	1.7	5	40.1	FALSE	3.271
M5+M4	M5	11.95	3.9	M4	9.9	3.05	372.5	0.002	Circle	8	0.013	0.0519	0.85	0.15	0.2018	0.5772	9	23	44.6	FALSE	4.379
M6+M22	M6	12.3	6.22	M22	12.3	5.54	341.1	0.002	Circle	10	0.013	0.0744	0.85	0.18	0.1443	0.9782	7.6	21.8	29	FALSE	6.463
M7+M6	M7	12.4	6.45	M6	12.3	6.22	115.5	0.002	Circle	10	0.013	0.0979	1.02	0.19	0.1445	0.9777	10	23.2	28.6	FALSE	6.692
M8+M7	M8	14.41	7.71	M7	12.4	6.45	192.5	0.007	Circle	10	0.013	0.1057	1.62	0.12	0.1447	1.7725	6	14.2	21.5	FALSE	7.976
M12+M40	M12	14.95	7.4	M40	13.27	5.72	338.8	0.005	Circle	8	0.013	0.041	0.86	0.13	0.0567	0.8509	4.8	19.3	22.4	FALSE	7.548
M13+M12	M13	16.33	8.78	M12	14.95	7.4	275.6	0.005	Circle	8	0.013	0.0368	0.89	0.12	0.0568	0.8551	4.3	17.5	22.4	FALSE	8.928
M14+M5	M14	10.14	5.82	M5	11.95	3.95	327.8	0.006	Circle	6	0.013	0.001	0.52	0	0.001	0.4238	0.2	0.8	0.8	FALSE	5.824
M16+M8	M16	14.85	8.05	M8	14.41	7.81	19.7	0.012	Circle	6	0.013	0.0005	0.45	0	0.0005	0.6193	0.1	0.6	0.6	FALSE	8.053
M18+M5	M18	12	4.51	M5	11.95	4.2	153.9	0.002	Circle	10	0.013	0.0696	0.85	0.17	0.1445	0.9833	7.1	20.8	28.8	FALSE	4.753
M19+M18	M19	12.1	4.7	M18	12	4.51	94.8	0.002	Circle	10	0.013	0.063	0.8	0.17	0.1449	0.9808	6.4	20.2	28.3	FALSE	4.942
M20+M19	M20	12.2	4.86	M19	12.1	4.7	78	0.002	Circle	10	0.013	0.0706	0.88	0.17	0.145	0.9923	7.1	20.5	27.9	FALSE	5.1
M21+M20	M21	12.3	5.45	M20	12.2	4.86	296.6	0.002	Circle	10	0.013	0.074	0.85	0.18	0.1444	0.9771	7.6	21.6	29	FALSE	5.694
M22+M21	M22	12.3	5.54	M21	12.3	5.45	43.3	0.002	Circle	10	0.013	0.0885	1.13	0.17	0.146	0.9988	8.9	20.1	26.6	FALSE	5.774
M23+M24	M23	7.5	4.92	M24	7.4	4.53	195	0.002	Circle	8	0.013	0.0387	0.66	0.15	0.0557	0.5404	7.2	22.4	27.6	FALSE	5.105
M24+M25	M24	7.4	4.56	M25	7.3	4.04	260	0.002	Circle	8	0.013	0.0327	0.67	0.13	0.0557	0.5404	6	19.8	27.7	FALSE	4.745
M25+M26	M25	7.3	4.04	M26	7.3	3.5	270	0.002	Circle	8	0.013	0.0371	0.71	0.14	0.0557	0.5404	6.9	20.7	27.7	FALSE	4.225
M26+M27	M26	7.3	3.5	M27	7.2	3.25	124.9	0.002	Circle	8	0.013	0.022	0.65	0.1	0.0557	0.5406	4.1	15.3	27.7	FALSE	3.685
M27+M29	M27	7.2	3.25	M29	7.1	3.18	35.2	0.002	Circle	8	0.013	0.0237	1.01	0.08	0.0557	0.5389	4.4	11.7	25.7	FALSE	3.431
M28+N11	M28	7.3	0.37	N11	7.2	-0.1	236.4	0.002	Circle	8	0.013	0.0031	0.54	0.01	0.0031	0.5388	0.6	0.8	1.1	FALSE	0.389
M29+M31	M29	7.1	3.18	M31	7	2.52	328.8	0.002	Circle	8	0.013	0.0373	0.76	0.13	0.0557	0.5414	6.9	19.8	27.7	FALSE	3.365
M30+N29	M30	7.3	0.64	N29	7.2	0.13	255.2	0.002	Circle	8	0.013	0.006	0.68	0.03	0.006	0.5402	1.1	4.4	5.5	FALSE	0.675
M31+M3	M31	7	2.52	M3	6.98	1.33	357.1	0.003	Circle	8	0.013	0.0033	0.58	0.01	0.2575	0.6975	0.5	1.9	45.2	FALSE	2.827
M32+M33	M32	7.3	2.88	M33	7.3	2.49	195	0.002	Circle	8	0.013	0.0062	0.63	0.02	0.0062	0.5404	1.1	2.9	4.1	FALSE	2.915
M33+M34	M33	7.3	2.49	M34	7.2	1.91	287.6	0.002	Circle	8	0.013	0.0062	0.68	0.03	0.0062	0.5426	1.1	4.6	5.9	FALSE	2.526
M34+N22	M34	7.2	1.91	N22	7.1	1.4	253.5	0.002	Circle	8	0.013	0.011	0.69	0.03	0.011	0.542	2	4.1	8.7	FALSE	1.968
M35+M34	M35	7.2	2.16	M34	7.2	1.91	123.6	0.002	Circle	8	0.013	0.0048	0.64	0.02	0.0048	0.5434	0.9	3.5	4.3	FALSE	2.189
M36+M37	M36	7.3	3.24	M37	7.4	2.73	256.6	0.002	Circle	8	0.013	0.0108	0.77	0.04	0.0108	0.5387	2	6.5	8.5	FALSE	3.295
M37+N24	M37	7.4	2.73	N24	7.3	2.21	259.3	0.002	Circle	8	0.013	0.0108	0.76	0.04	0.0108	0.5411	2	6.1	8.6	FALSE	2.786
M38+M39	M38	19.58	12.03	M39	18.79	11.24	153	0.005	Circle	8	0.013	0.0532	1.28	0.1	0.0568	0.8683	6.1	15.4	21.7	FALSE	12.176
M39+M43	M39	18.79	11.24	M43	17.59	10.04	240	0.005	Circle	8	0.013	0.0367	0.89	0.04	0.0567	0.8544	4.3	6.2	21.6	FALSE	11.387
M40+M5	M40	13.27	5.72	M5	11.95	4.4	265.2	0.005	Circle	8	0.013	0.0284	0.86	0.1	0.0567	0.8525	3.3	15	22.4	FALSE	5.869
M41+M13	M41	16.89	9.34	M13	16.33	8.78	109.7	0.005	Circle	8	0.013	0.0449	1.2	0.1	0.0568	0.8633	5.2	14.4	21.9	FALSE	9.487
M42+M41	M42	17.07	9.82	M41	16.89	9.34	37	0.013	Circle	8	0.013	0.0401	0.92	0.04	0.0568	1.3763	2.9	6.6	17.4	FALSE	9.958
M43+M42	M43	17.59	10.04	M42	17.07	9.82	103	0.002	Circle	8	0.013	0.0458	0.7	0.16	0.0568	0.5585	8.2	24.3	27.3	FALSE	10.223
METERING STATION+T2	METERING STATION	0	-14.66	T2	3.04	-14.76	444.9	0	Circle	24	0.013	1.7982	9.49	0	2.3358	3.3914	53	0	43	FALSE	-13.703
N1+K6	N1	5.32	-2.08	K6	4.44	-2.86	253.3	0.003	Circle	12	0.013	0.153	1.26	0	0.153	1.977	7.7	0	0	FALSE	-1.912
N2+N1	N2	5.71	-1.39	N1	5.32	-2.08	295.7	0.002	Circle	10	0.013	0.153	1.26	0	0.153	1.0583	14.5	0	0	FALSE	-1.175
N3+N21	N3	6	-0.64	N21	6	-0.82	88.8	0.002	Circle	10	0.013	0.1316	1.24	0.02	0.1316	0.9864	13.3	2	2	FALSE	-0.434
N4+N3	N4	6.14	0.24	N3	6	-0.64	334.7	0.003	Circle	10	0.013	0.1316	1.24	0.02	0.1316	1.1234	11.7	2	2	FALSE	0.435
N5+N4	N5	7.28	1.13	N4	6.14	0.29	332.5	0.003	Circle	10	0.013	0.1098	1.13	0.02	0.1098	1.1012	10	1.9	1.9	FALSE	1.309
N6+N5	N6	8.64	1.99	N5	7.28	1.13	332.5	0.003	Circle	10	0.013	0.1098	1.13	0.02	0.1098	1.1142	9.9	1.9	1.9	FALSE	2.168
N7+N6	N7	9.69	2.84	N6	8.64	1.99	332.7	0.003	Circle	10	0.013	0.1098	1.13	0.02	0.1098	1.1074	9.9	1.9	1.9	FALSE	3.018
N8+N9	N8	13.8	4.05	N9	11.48	3.68	118.7	0.003	Circle	10	0.013	0.1098	1.13	0.02	0.1098	1.2232	9	1.9	1.9	FALSE	4.22
N9+N7	N9	11.48	3.68	N7	9.69	2.84	284	0.003	Circle	10	0.013	0.1098	1.13	0.02	0.1098	1.1915	9.2	1.9	1.9	FALSE	3.852
N10+N13	N10	7.1	-0.52	N13	7	-0.88	176	0.002	Circle	8	0.013	0.006	0.62	0.02	0.006	0.5465	1.1	2.7	4.8	FALSE	-0.485
N11+N12	N11	7.2	-0.1	N12	7.1	-0.56	227.2	0.002	Circle	8	0.013	0.0062	0.56	0.01	0.0062	0.5437	1.1	1	3.5	FALSE	-0.065
N12+N13	N12	7.1	-0.56	N13	7	-0.88	157.9	0.002	Circle	8	0.013	0.0062	0.56	0.01	0.0062	0.544	1.1	1	4.7	FALSE	-0.524

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
N13+N14	N13	7	-0.88	N14	6	-1.21	167	0.002	Circle	8	0.013	0.0122	0.6	0.01	0.0122	0.5371	2.3	1.2	9.2	FALSE	-0.817
N14+N2	N14	6	-1.21	N2	5.71	-1.39	88.4	0.002	Circle	10	0.013	0.153	1.26	0	0.153	0.9886	15.5	0	0	FALSE	-0.986
N15+N16	N15	7.3	0.75	N16	7.2	0.25	251.8	0.002	Circle	8	0.013	0.0046	0.65	0.02	0.0046	0.5385	0.9	3.7	4.5	FALSE	0.778
N16+N17	N16	7.2	0.25	N17	7.1	-0.21	228.2	0.002	Circle	8	0.013	0.0046	0.57	0.01	0.0046	0.5425	0.8	1.3	2.5	FALSE	0.277
N17+N20	N17	7.1	-0.27	N20	7	-0.67	197	0.002	Circle	8	0.013	0.0046	0.55	0.01	0.0046	0.5445	0.8	0.9	3.7	FALSE	-0.204
N18+N19	N18	7.2	0.29	N19	7.1	-0.22	255.9	0.002	Circle	8	0.013	0.0046	0.65	0.02	0.0046	0.5394	0.9	3.7	4.6	FALSE	0.318
N19+N20	N19	7.1	-0.22	N20	7	-0.67	224.1	0.002	Circle	8	0.013	0.0046	0.57	0.01	0.0046	0.5415	0.8	1.4	2.6	FALSE	-0.192
N20+N21	N20	7	-0.67	N21	6	-0.82	72	0.002	Circle	8	0.013	0.0092	0.65	0.02	0.0092	0.5515	1.7	3	21.2	FALSE	-0.604
N21+N14	N21	6	-0.82	N14	6	-1.21	195.8	0.002	Circle	10	0.013	0.1408	1.29	0.02	0.1408	0.9778	14.4	2.1	2.1	FALSE	-0.604
N22+N23	N22	7.1	1.4	N23	7.1	0.98	212	0.002	Circle	8	0.013	0.011	0.59	0.01	0.011	0.5378	2	1.2	7.2	FALSE	1.456
N23+N28	N23	7.1	0.98	N28	7	0.59	193.2	0.002	Circle	8	0.013	0.011	0.59	0.01	0.011	0.5429	2	1.2	7.4	FALSE	1.036
N24+N25	N24	7.3	2.21	N25	7.3	1.98	116.3	0.002	Circle	8	0.013	0.0108	0.74	0.04	0.0108	0.5374	2	5.6	8.3	FALSE	2.266
N25+N26	N25	7.3	1.98	N26	7.2	1.46	262.5	0.002	Circle	8	0.013	0.0108	0.73	0.04	0.0108	0.5378	2	5.4	8.6	FALSE	2.036
N26+N27	N26	7.2	1.46	N27	7.1	0.96	247.5	0.002	Circle	8	0.013	0.0108	0.59	0.01	0.0108	0.5431	2	1.2	6.3	FALSE	1.514
N27+N28	N27	7.1	0.96	N28	7	0.59	183	0.002	Circle	8	0.013	0.0108	0.59	0.01	0.0108	0.5433	2	1.2	8	FALSE	1.016
N28+N4	N28	7	0.59	N4	6.14	0.29	150.3	0.002	Circle	8	0.013	0.0218	0.66	0.01	0.0218	0.5398	4	1.4	14.9	FALSE	0.692
N29+N10	N29	7.2	0.13	N10	7.1	-0.52	325.6	0.002	Circle	8	0.013	0.006	0.67	0.03	0.006	0.5399	1.1	4.2	5.6	FALSE	0.165
N30+N11	N30	7.3	0.17	N11	7.2	-0.1	134	0.002	Circle	8	0.013	0.0031	0.54	0.01	0.0031	0.5424	0.6	0.8	3	FALSE	0.191
O3+N8	O3	17.6	8.2	N8	13.8	4.1	205.1	0.02	Circle	8	0.013	0.1098	1.13	0.02	0.1098	1.7084	6.4	2.4	2.4	FALSE	8.347
O4+O3	O4	15.39	9.13	O3	17.6	8.3	277.4	0.003	Circle	8	0.013	0.0912	1.03	0.02	0.0912	0.661	13.8	2.3	2.3	FALSE	9.299
O5+O4	O5	14.73	10.25	O4	15.39	9.13	398.6	0.003	Circle	8	0.013	0.0912	1.03	0.02	0.0912	0.6405	14.2	2.3	2.3	FALSE	10.421
O6+O5	O6	13.82	11.05	O5	14.73	10.25	399.4	0.002	Circle	8	0.013	0.0912	1.03	0.02	0.0912	0.5408	16.9	2.3	2.3	FALSE	11.236
O7+O6	O7	15.16	11.56	O6	13.82	11.05	426.9	0.001	Circle	8	0.013	0.0912	1.03	0.02	0.0912	0.4177	21.8	2.3	2.3	FALSE	11.774
O8+O59	O8	16.28	12.23	O59	16.36	11.92	102.7	0.003	Circle	8	0.013	0.0788	0.97	0.01	0.0788	0.6639	11.9	2.2	2.2	FALSE	12.387
O9+O8	O9	17.01	12.76	O8	16.28	12.23	139.7	0.004	Circle	6	0.013	0.0711	0.92	0.01	0.0711	0.3456	20.6	2.8	2.8	FALSE	12.906
O10+O9	O10	17.95	13.1	O9	17.01	12.76	156.6	0.002	Circle	8	0.013	0.0711	0.92	0.01	0.0711	0.563	12.6	2.1	2.1	FALSE	13.265
O11+O10	O11	19.41	14.01	O10	17.95	13.15	259.2	0.003	Circle	8	0.013	0.0543	0.84	0.01	0.0549	0.696	7.8	1.9	24.5	FALSE	14.173
O12+O11	O12	19.9	14.5	O11	19.41	14.01	394.2	0.001	Circle	8	0.013	0.0543	0.84	0.01	0.0548	0.426	12.7	1.9	31.2	FALSE	14.708
O13+O12	O13	22.22	16.47	O12	19.9	14.5	414.6	0.005	Circle	8	0.013	0.0543	0.86	0.02	0.0551	0.8329	6.5	2.6	22.1	FALSE	16.878
O14+O13	O14	21.75	17.35	O13	22.22	16.87	129.7	0.004	Circle	8	0.013	0.0105	0.66	0.02	0.0105	0.7351	1.4	3.3	5.8	FALSE	17.395
O15+O14	O15	24.85	19.05	O14	21.75	17.35	307.9	0.006	Circle	8	0.013	0.0105	0.75	0.04	0.0105	0.8979	1.2	6.1	6.8	FALSE	19.233
O16+O15	O16	28.01	22.56	O15	24.85	19.2	234.7	0.014	Circle	6	0.013	0.0105	0.59	0.01	0.0105	0.6713	1.6	1.5	6.5	FALSE	22.594
O17+O3	O17	10.93	8.62	O3	17.6	8.3	161.2	0.002	Circle	8	0.013	0.0186	0.68	0.02	0.0187	0.5384	3.5	2.7	12.6	FALSE	8.71
O18+O17	O18	15.83	11.93	O17	10.93	8.62	264	0.013	Circle	8	0.013	0.0051	0.58	0.01	0.0051	1.353	0.4	1.6	1.5	FALSE	11.953
O19+O17	O19	17.6	10.75	O17	10.93	8.62	85.9	0.025	Circle	6	0.013	0.0135	0.61	0.01	0.0135	0.8835	1.5	1.7	6.8	FALSE	10.788
O20+O19	O20	17	10.98	O19	17.6	10.75	115.6	0.002	Circle	6	0.013	0.0042	0.61	0.02	0.0042	0.2503	1.7	3.7	4.6	FALSE	11.003
O21+O19	O21	20.09	12.64	O19	17.6	10.75	393.6	0.005	Circle	6	0.013	0.0093	0.61	0.01	0.0093	0.3888	2.4	2.5	7.3	FALSE	12.684
O22+O21	O22	20	13.27	O21	20.09	12.64	318.2	0.002	Circle	6	0.013	0.0093	0.7	0.03	0.0093	0.2497	3.7	6.3	10.1	FALSE	13.32
O23+O22	O23	21.65	15.65	O22	20	13.27	469.8	0.005	Circle	6	0.013	0.0093	0.73	0.04	0.0093	0.3993	2.3	7.2	8.6	FALSE	15.692
O24+O23	O24	21.18	15.84	O23	21.65	15.65	96.7	0.002	Circle	6	0.013	0.0093	0.74	0.04	0.0093	0.2487	3.7	7.7	9.6	FALSE	15.889
O25+O7	O25	16.12	12.07	O7	15.16	11.61	177.4	0.003	Circle	6	0.013	0.0124	0.6	0.01	0.0124	0.2857	4.3	1.6	10.5	FALSE	12.133
O26+O25	O26	18.86	13.26	O25	16.12	12.12	332.8	0.003	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.3284	0.9	1.1	5.1	FALSE	13.315
O27+O26	O27	19.94	13.44	O26	18.86	13.31	65.4	0.002	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.2502	1.2	1.1	1.1	FALSE	13.457
O28+O26	O28	19	14.28	O26	18.86	13.41	434.3	0.002	Circle	6	0.013	0	0	0	0	0.2511	0	0	0	FALSE	14.28
O29+O28	O29	23	19.53	O28	19	14.28	174	0.03	Circle	6	0.013	0	0	0	0	0.9746	0	0	0	FALSE	19.53
O29+O30	O29	23	19.53	O30	22.78	19.08	226	0.002	Circle	6	0.013	0	0	0	0	0.2504	0	0	0	FALSE	19.53
O30+O35	O30	22.78	17.63	O35	21.74	16.44	175.9	0.007	Circle	6	0.013	0.0168	0.63	0.01	0.0168	0.4615	3.6	1.9	1.9	FALSE	17.687
O31+O30	O31	23	18.76	O30	22.78	18.58	89.5	0.002	Circle	6	0.013	0.009	0.7	0.03	0.009	0.2516	3.6	6.2	9.2	FALSE	18.809
O32+O31	O32	24	19.18	O31	23	18.76	210.5	0.002	Circle	6	0.013	0.009	0.67	0.02	0.009	0.2506	3.6	4.8	8.3	FALSE	19.232
O33+O32	O33	25	19.71	O32	24	19.18	262.5	0.002	Circle	6	0.013	0.009	0.72	0.04	0.0091	0.2521	3.6	7.2	9.6	FALSE	19.758
O34+O10	O34	23.33	14.69	O10	17.95	13.35	267.7	0.005	Circle	6	0.013	0.0168	0.76	0.03	0.0168	0.397	4.2	6.9	6.9	FALSE	14.725
O35+O34	O35	21.74	16.44	O34	23.33	14.69	316.4	0.006	Circle	6	0.013	0.0168	0.79	0.04	0.0168	0.4173	4	8.1	8.1	FALSE	16.458
O36+O30	O36	24.12	18.01	O30	22.78	17.68	164.4	0.002	Circle	6	0.013	0.0077	0.68	0.03	0.0077	0.2514	3.1	5.6	5.6	FALSE	18.051
O37+O25	O37	16.63	12.23	O25	16.12	12.07	80.9	0.002	Circle	6	0.013	0.0093	0.58	0.01	0.0093	0.2495	3.7	1.5	12.7	FALSE	12.283
O38+O37	O38	17.23	12.46	O37	16.63	12.23	117.5	0.002	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.2482	1.2	1.1	1.1	FALSE	12.477
O39+O37	O39	16.48	12.31	O37	16.63	12.23	40.8	0.002	Circle	6	0.013	0.0062	0.56	0.01	0.0062	0.2484	2.5	1.3	3.1	FALSE	12.344
O40+O39	O40	16.65	12.38	O39	16.48	12.31	37.3	0.002	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.2431	1.3	1.1	16.1	FALSE	12.428
O41+O40	O41	16.5	12.47	O40	16.65	12.38	44.5	0.002	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.2523	1.2	1.1	1.1	FALSE	12.485
O42+O39	O42	16.78	12.41	O39	16.48	12.31	47.6	0.002	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.2572	1.2	1.1	1.6	FALSE	12.428
O43+O42	O43	17.92	13.6	O42	16.78	12.41	181.9	0.007	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.4538	0.7	1.1	3.2	FALSE	13.645
O44+O43	O44	18.13	13.78	O43	17.92	13.64	69.2	0.002	Circle	6	0.013	0.0031	0.54	0.01	0.0031	0.2524	1.2	1.1	1.1	FALSE	13.797
O45+O8	O45	17.06	12.55	O8	16.28	12.23	65.8	0.005	Circle	6	0.013	0.0078	0.62	0.02	0.0078	0.3913	2	3.2	7.2	FALSE	12.59
O46+O45	O46	18	13.61	O45	17.06	12.55	212.5	0.005	Circle	6	0.013	0.0016	0.53	0	0.0016	0.3963	0.4	0.9	0.9	FALSE	13.614
O47+O45	O47	16.84	12.91	O45	17.06	12.55	71.5	0.005	Circle	6	0.013	0.0062	0.6	0.01	0.0062	0.3981	1.6	2.6	5.3	FALSE	12.943
O48+O47	O48	17.43	13.52	O47	16.84	12.91	122	0.005	Circle	6	0.013	0.0016	0.53	0	0.0016	0.3967	0.4	0.9	0.9	FALSE	13.524
O49+O47	O49	17.41	13.27	O47	16.84	12.91	72.6	0.005	Circle	6	0.013	0.0047	0.59	0.01	0.0047	0.3951	1.2	2.5	4.1	FALSE	13.294
O50+O49	O50	17.95	14.13	O49	17.41	13.27	172.1	0.005	Circle	6	0.013	0.0047	0.55	0.01	0.0047	0.3966	1.2	1.2	2.6	FALSE	14.15
O51+O13	O51	24.5	18.4	O13	22.22	16.57	467.6	0.004	Circle	6	0.013	0.0438	0.91	0.04	0.0441	0.351	12.5	7.5	31.8	FALSE	18.563
O52+O51	O52	26.81	19.11	O51	24.5	18.4	213.3	0.003	Circle	6	0.013	0.029	0.7	0.01	0.029	0.3237	9	2.1	22.5	FALSE	19.234

Attachement 1
Average Dry Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
O53+O52	O53	27	19.48	O52	26.81	19.11	188.5	0.002	Circle	6	0.013	0.0145	0.83	0.05	0.0145	0.2486	5.8	10.1	14.5	FALSE	19.554
O54+O52	O54	31.19	20.39	O52	26.81	19.11	380.1	0.003	Circle	6	0.013	0.0145	0.69	0.02	0.0145	0.3256	4.5	4.9	12.2	FALSE	20.457
O55+O54	O55	28.75	20.95	O54	31.19	20.44	399.4	0.001	Circle	6	0.013	0.0145	0.83	0.05	0.0145	0.2005	7.2	10.1	10.1	FALSE	21.035
O56+O55	O56	27.04	22.24	O55	28.75	20.95	376.5	0.003	Circle	6	0.013	0.0145	0.74	0.03	0.0145	0.3284	4.4	6.8	12.1	FALSE	22.306
O57+O51	O57	25.61	19.76	O51	24.5	18.4	365.2	0.004	Circle	6	0.013	0.0148	0.71	0.03	0.0148	0.3424	4.3	5.6	12.1	FALSE	19.827
O58+O57	O58	26.81	20.57	O57	25.61	19.76	403.4	0.002	Circle	6	0.013	0.0148	0.83	0.05	0.0148	0.2514	5.9	10.4	15	FALSE	20.645
O59+O7	O59	16.36	11.92	O7	15.16	11.56	182.3	0.002	Circle	8	0.013	0.0788	0.97	0.01	0.0788	0.537	14.7	2.2	2.2	FALSE	12.094
O60+O61	O60	15.68	9.18	O61	14.55	7.85	199	0.007	Circle	14	0.013	0.1346	1.68	0.1	0.1436	4.3933	3.1	8.8	13.7	FALSE	9.341
O61+M8	O61	14.55	7.85	M8	14.41	7.81	11.8	0.003	Circle	14	0.013	0.1272	1.78	0.14	0.1458	3.1288	4.1	11.9	15	FALSE	8.033
O62+O18	O62	17.08	13.18	O18	15.83	11.93	249	0.005	Circle	6	0.013	0.0051	0.68	0.03	0.0051	0.3975	1.3	6.1	6.1	FALSE	13.209
O63+O62	O63	17.27	13.37	O62	17.08	13.18	38	0.005	Circle	6	0.013	0.0051	0.63	0.02	0.0051	0.3967	1.3	4.2	4.9	FALSE	13.395
T1+T0	T1	4.57	-15.43	T0	#N/A	-17.68	329.2	0.007	Circle	24	0.013	1.7982	9.65	0.03	2.3358	18.7015	9.6	1.6	24	FALSE	-14.895
T2+T1	T2	3.04	-14.76	T1	4.57	-15.43	505.8	0.001	Circle	24	0.013	1.7982	9.6	0.02	2.3358	8.2331	21.8	1.1	35.9	FALSE	-14.023
T3+METERING STATION	T3	2.52	-14.63	METERING STATION	0	-14.66	55	0.001	Circle	24	0.013	1.7982	9.49	0	2.3358	5.2832	34	0	47.2	FALSE	-13.694
T4+T3	T4	1.41	-12.09	T3	2.52	-14.63	474.9	0.005	Circle	24	0.013	1.7982	9.49	0	2.3358	16.5436	10.9	0	25.6	FALSE	-11.455
T5+T4	T5	0.16	-11.76	T4	1.41	-11.99	352.3	0.001	Circle	24	0.013	1.7982	9.49	0	2.3358	5.7799	31.1	0	39	FALSE	-10.928
T6+T5	T6	0.17	-11.38	T5	0.16	-11.66	382.1	0.001	Circle	24	0.013	1.7982	9.49	0	2.3358	6.1236	29.4	0	39.3	FALSE	-10.552
T7+T6	T7	-0.07	-10.42	T6	0.17	-11.28	480.8	0.002	Circle	24	0.013	1.7982	9.49	0	2.3358	9.5671	18.8	0	33.8	FALSE	-9.737
T8+T7	T8	0.14	-10.08	T7	-0.07	-10.32	501.9	0	Circle	24	0.013	1.7982	9.49	0	2.3358	4.9467	36.4	0	41.2	FALSE	-9.181
T9+T8	T9	0.14	-9.67	T8	0.14	-9.98	497.7	0.001	Circle	24	0.013	1.7982	9.49	0	2.3358	5.6456	31.9	0	41.2	FALSE	-8.799
T10+T9	T10	0.07	-9.12	T9	0.14	-9.57	446.9	0.001	Circle	24	0.013	1.7982	9.6	0.02	2.3358	7.1782	25.1	1	38	FALSE	-8.333
T11+T10	T11	-0.24	-8.44	T10	0.07	-9.02	325.8	0.002	Circle	24	0.013	1.7982	9.49	0	2.3358	9.5445	18.8	0	33.3	FALSE	-7.758
T12+T11	T12	0.55	-8.25	T11	-0.24	-8.49	482.2	0	Circle	24	0.013	1.7982	9.49	0	2.3358	5.0467	35.6	0	41.9	FALSE	-7.355
T13+T12	T13	2.14	-7.3	T12	0.55	-8.25	504	0.002	Circle	24	0.013	1.7982	9.49	0	2.3358	9.8211	18.3	0	33.8	FALSE	-6.626
T14+T13	T14	7.1	-7.1	T13	2.14	-7.3	478.1	0	Circle	24	0.013	1.7982	9.49	0	2.3358	4.6267	38.9	0	42	FALSE	-6.193
T15+T14	T15	2.75	-12.9	T14	7.1	-7.9	93	-0.054	Circle	24	0.013	1.7982	0.57	2	2.3358	52.4516	3.4	100	100	TRUE	-5.864
T16+T15	T16	1.34	-6.26	T15	2.75	-6.38	34.4	0.003	Circle	21	0.013	1.4197	7.6	0	2.0261	9.358	15.2	0	30.4	FALSE	-5.712
T17+T16	T17	0.96	-5.84	T16	1.34	-6.26	481.7	0.001	Circle	21	0.013	1.4197	7.6	0	2.0261	4.6785	30.3	0	43.6	FALSE	-5.042
T18+T17	T18	1.12	-5.23	T17	0.96	-5.79	540.4	0.001	Circle	21	0.013	1.4197	7.6	0	2.0261	5.1004	27.8	0	42.9	FALSE	-4.457
T19+T18	T19	2.23	-4.72	T18	1.12	-5.23	500	0.001	Circle	21	0.013	1.4197	7.79	0.04	2.0261	5.0602	28.1	2.2	43	FALSE	-3.939
T20+T19	T20	2.72	-3.98	T19	2.23	-4.62	331.9	0.002	Circle	18	0.013	0.6762	4.14	0.05	0.8085	4.6124	14.7	3.4	29.7	FALSE	-3.539
T21+T20	T21	3.07	-3.43	T20	2.72	-3.98	338.4	0.002	Circle	18	0.013	0.6617	4.01	0.04	0.794	4.2346	15.6	2.7	29.8	FALSE	-2.974
T22+T21	T22	2.81	-3.39	T21	3.07	-3.43	197.4	0	Circle	18	0.013	0.62	3.71	0.02	0.7523	1.4952	41.5	1.5	33.6	FALSE	-2.825
T23+T22	T23	6.87	-3.03	T22	2.81	-3.29	446	0.001	Circle	18	0.013	0.62	3.98	0.08	0.7523	2.5361	24.4	5.1	35.3	FALSE	-2.468
T24+T23	T24	3.66	-2.69	T23	6.87	-2.93	316.7	0.001	Circle	18	0.013	0.529	3.47	0.06	0.6612	2.8915	18.3	4.3	31.4	FALSE	-2.197
T25+T24	T25	3.95	-2.59	T24	3.66	-2.62	282.2	0	Circle	18	0.013	0.529	3.14	0	0.6612	1.083	48.8	0	35.3	FALSE	-2.008
T26+T25	T26	7.03	-2.32	T25	3.95	-2.52	305.6	0.001	Circle	18	0.013	0.465	3.18	0.07	0.5971	2.6871	17.3	4.7	31.1	FALSE	-1.835
T27+T26	T27	7.85	-2.05	T26	7.03	-2.22	355.8	0	Circle	18	0.013	0.465	3.11	0.06	0.5971	2.296	20.3	3.8	32.2	FALSE	-1.539
T28+T27	T28	8.67	-1.93	T27	7.85	-1.95	162.1	0	Circle	18	0.013	0.465	2.82	0	0.5971	1.1667	39.9	0	29.8	FALSE	-1.425
T29+T28	T29	4.98	-1.62	T28	8.67	-1.93	233.8	0.001	Circle	18	0.013	0.465	2.82	0	0.5971	3.8248	12.2	0	27.3	FALSE	-1.206

Abbreviations
CFS: Cubic Feet per Second
ft: Feet
s: Seconds
in: Inches

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
A1+A2	A1	16.28	2	A2	15.82	1.92	79.9	0.001	Circle	12	0.013	0.378	1.536	2.2	0.83	1.536	1.1273	136.3	83.3	FALSE	2.85
A2+A5	A2	15.82	1.82	A5	14.53	1.57	244.2	0.001	Circle	12	0.013	0.395	1.57	2.21	0.85	1.57	1.1399	137.7	84.8	FALSE	2.79
A3+A2	A3	14.86	8.76	A2	15.82	2.12	287.5	0.023	Circle	6	0.013	0.017	0.034	1.11	0.09	0.034	0.8527	4	17.5	TRUE	8.848
A4+A3	A4	14	9.48	A3	14.86	8.86	312	0.002	Circle	6	0.013	0.017	0.034	0.62	0.16	0.034	0.2501	13.6	32.1	FALSE	9.64
A5+A8	A5	14.53	1.57	A8	13.85	1.53	124.3	0	Circle	15	0.013	0.412	1.604	2.35	0.68	1.604	1.1587	138.4	54.5	FALSE	2.351
A6+A5	A6	13.72	7.32	A5	14.53	5.81	286.8	0.005	Circle	6	0.013	0.017	0.034	0.82	0.13	0.034	0.4071	8.4	26.3	FALSE	7.449
A7+A6	A7	14	8.03	A6	13.72	7.42	306	0.002	Circle	6	0.013	0.017	0.034	0.63	0.16	0.034	0.2505	13.6	32	FALSE	8.19
A8+A9	A8	13.85	1.43	A9	12.82	1.16	61.2	0.004	Circle	15	0.013	0.412	1.604	3.28	0.52	1.604	4.2904	37.4	42	FALSE	1.966
A9+A10	A9	12.82	0.62	A10	11.42	0.57	181.2	0	Circle	15	0.013	0.412	1.604	2.08	0.75	1.604	1.073	149.5	60.1	FALSE	1.465
A10+A15	A10	11.42	0.47	A15	9.93	0.03	299.3	0.001	Circle	15	0.013	0.4413	1.6685	2.01	0.8	1.6685	2.4767	67.4	64.1	FALSE	1.261
A11+A10	A11	11.83	2.53	A10	11.42	1.12	417.5	0.003	Circle	6	0.013	0.0293	0.0645	0.95	0.19	0.0646	0.3261	19.8	37.8	FALSE	2.72
A12+A11	A12	9.52	4.07	A11	11.83	2.63	485.1	0.003	Circle	6	0.013	0.0293	0.0645	0.9	0.2	0.0646	0.3057	21.1	39.2	FALSE	4.268
A13+A12	A13	7.19	5.15	A12	9.52	4.07	412.1	0.003	Circle	6	0.013	0.0293	0.0645	0.86	0.2	0.0646	0.2872	22.5	40.6	FALSE	5.355
A14+A13	A14	8.06	5.91	A13	7.19	5.19	288.3	0.002	Circle	6	0.013	0.0293	0.0644	0.84	0.21	0.0647	0.2804	23	41.2	FALSE	6.116
A15+A16	A15	9.93	-0.03	A16	8.08	-0.17	435.1	0	Circle	15	0.013	0.4413	1.6685	1.72	0.92	1.6685	1.1587	144	73.7	FALSE	0.997
A16+A21	A16	8.08	-0.22	A21	7.13	-0.42	296.3	0.001	Circle	15	0.013	0.4553	1.7392	2.05	0.81	1.7392	1.6782	103.6	65.2	FALSE	0.67
A17+A16	A17	8.77	1.57	A16	8.08	0.73	422.7	0.002	Circle	6	0.013	0.004	0.0259	0.67	0.13	0.0259	0.2501	10.4	25.2	FALSE	1.696
A18+A16	A18	7.05	1.45	A16	8.08	0.73	441.8	0.002	Circle	6	0.013	0.01	0.0448	0.59	0.2	0.0448	0.2265	19.8	41	FALSE	1.656
A19+A18	A19	6.77	2.98	A18	7.05	1.45	213.5	0.007	Circle	6	0.013	0.01	0.0448	1.01	0.14	0.0448	0.475	9.4	27.7	FALSE	3.119
A20+A19	A20	5.62	3.73	A19	6.77	3.05	339.8	0.002	Circle	6	0.013	0.01	0.0448	0.64	0.19	0.0448	0.251	17.8	38.7	FALSE	3.924
A21+A23	A21	7.13	-0.52	A23	7.01	-0.8	155.1	0.002	Circle	15	0.013	0.4553	1.7392	2.65	0.66	1.7392	2.7445	63.4	52.8	FALSE	0.183
A22+A29	A22	6.99	-0.92	A29	6.36	-1.21	369.1	0.001	Circle	18	0.013	0.463	1.7791	1.94	0.77	1.7791	2.9442	60.4	51.6	FALSE	-0.109
A23+A22	A23	7.01	-0.8	A22	6.99	-0.92	13.8	0.009	Circle	15	0.013	0.463	1.7791	2.3	0.75	1.7791	6.0235	29.5	60.4	FALSE	-0.102
A24+A23	A24	7.7	1.62	A23	7.01	0.37	250.6	0.005	Circle	6	0.013	0.0077	0.0399	0.81	0.15	0.0399	0.3963	10.1	29.8	FALSE	1.767
A25+A24	A25	8.36	2.89	A24	7.7	1.62	253.1	0.005	Circle	6	0.013	0.0077	0.0399	0.81	0.15	0.0399	0.3974	10	29.7	FALSE	3.037
A26+A25	A26	7.42	4.06	A25	8.36	2.89	234.1	0.005	Circle	6	0.013	0.0077	0.0399	0.95	0.13	0.0399	0.3967	10.1	26.7	FALSE	4.202
A27+A26	A27	6.96	5	A26	7.42	4.06	310.9	0.003	Circle	6	0.013	0.0077	0.0399	0.69	0.17	0.0399	0.3085	12.9	33.5	FALSE	5.165
A28+A29	A28	6.24	0.21	A29	6.36	-0.25	14.8	0.031	Circle	6	0.013	0.002	0.0129	0.72	0.03	0.0129	0.9892	1.3	6.4	FALSE	0.248
A29+T29	A29	6.36	-1.24	T29	4.98	-1.62	345.5	0.001	Circle	18	0.013	0.465	1.792	2.11	0.73	1.792	3.4835	51.4	48.5	FALSE	-0.474
A30+A28	A30	6.07	1.27	A28	6.24	0.32	301	0.003	Circle	6	0.013	0.002	0.0129	0.83	0.07	0.0129	0.3152	4.1	13.3	FALSE	1.33
B2+A1	B2	16	2.46	A1	16.28	2.1	180.8	0.002	Circle	12	0.013	0.378	1.536	2.5	0.73	1.536	1.5897	96.6	72.9	FALSE	3.245
B3+B2	B3	18.59	2.64	B2	16	2.46	239.4	0.001	Circle	12	0.013	0.361	1.5017	2.1	0.86	1.5017	0.9769	153.7	85.6	FALSE	3.614
B4+B3	B4	20.32	3.42	B3	18.59	2.74	464.8	0.001	Circle	12	0.013	0.361	1.5017	2.07	0.87	1.5017	1.3627	110.2	87.1	FALSE	4.336
B5+B52	B5	18.61	4.51	B52	20.58	4.29	176.2	0.001	Circle	12	0.013	0.361	1.5017	2.28	0.78	1.5017	1.2589	119.3	78.2	FALSE	5.372
B6+B5	B6	18.29	5.6	B5	18.61	4.56	158.4	0.007	Circle	12	0.013	0.349	1.492	3.57	0.53	1.492	2.8867	51.7	52.5	FALSE	6.14
B7+B6	B7	18.66	5.76	B6	18.29	5.6	380.1	0	Circle	12	0.013	0.305	1.358	1.83	0.9	1.358	0.7309	185.8	89.7	TRUE	6.839
B8+B7	B8	20.55	6.5	B7	18.66	5.81	371	0.002	Circle	12	0.013	0.2883	1.3252	1.96	0.8	1.3252	1.5364	86.3	80.5	TRUE	7.276
B9+B8	B9	18.41	7.16	B8	20.55	6.55	350.9	0.002	Circle	12	0.013	0.2755	1.2725	2.15	0.71	1.2725	1.4854	85.7	70.6	FALSE	7.895
B10+B9	B10	16.86	7.61	B9	18.41	7.16	289.7	0.002	Circle	12	0.013	0.1951	1.1735	2.03	0.69	1.1735	1.4041	83.6	69.1	FALSE	8.327
B11+B10	B11	16.46	8.71	B10	16.86	7.66	201.4	0.005	Circle	12	0.013	0.1695	1.0403	3.03	0.45	1.0403	2.5724	40.4	45.1	FALSE	9.174
B12+B11	B12	15.83	9.18	B11	16.46	8.76	277	0.002	Circle	12	0.013	0.1695	0.9383	1.94	0.59	0.9383	1.3872	67.6	59	FALSE	9.798
B13+B12	B13	15.33	9.53	B12	15.83	9.18	262.7	0.001	Circle	12	0.013	0.1695	0.8363	1.77	0.58	0.8363	1.3004	64.3	57.9	FALSE	10.129
B14+B13	B14	15.47	10.07	B13	15.33	9.53	253.1	0.002	Circle	12	0.013	0.1695	0.7343	1.96	0.48	0.7343	1.6456	44.6	48.1	FALSE	10.553
B15+B49	B15	20.29	12.19	B49	17.11	11.21	330.9	0.003	Circle	8	0.013	0.1695	0.7343	2.12	0.65	0.7343	0.6576	111.7	96.9	TRUE	13.012
B16+B15	B16	20.39	13.24	B15	20.29	12.19	327.3	0.003	Circle	8	0.013	0.1695	0.7343	2.1	0.67	0.7343	0.6844	107.3	100	TRUE	14.239
B17+B13	B17	19.31	13.31	B13	15.33	9.73	501.1	0.007	Circle	6	0.013	0.028	0.102	1.62	0.18	0.102	0.4742	21.5	35.7	FALSE	13.495
B18+B17	B18	22.26	14.3	B17	19.31	13.31	497.2	0.002	Circle	6	0.013	0.0259	0.102	0.97	0.26	0.102	0.2504	40.7	52.7	FALSE	14.564
B19+B12	B19	20.74	14.44	B12	15.83	9.88	499.6	0.009	Circle	6	0.013	0.0382	0.102	1.7	0.17	0.1023	0.536	19	34.5	FALSE	14.614
B20+B19	B20	23.22	19.12	B19	20.74	14.44	585	0.008	Circle	6	0.013	0.0519	0.102	1.62	0.18	0.1023	0.5018	20.3	35.7	FALSE	19.298
B21+B11	B21	18.68	13.54	B11	16.46	9.36	399.6	0.01	Circle	6	0.013	0.0297	0.102	1.78	0.17	0.1023	0.5738	17.8	33.2	FALSE	13.707
B22+B21	B22	24.77	18.67	B21	18.68	13.58	399.5	0.013	Circle	6	0.013	0.0288	0.102	1.8	0.16	0.1023	0.6333	16.1	31.6	FALSE	18.829
B23+B22	B23	28	23.55	B22	24.77	18.67	380.2	0.013	Circle	6	0.013	0.0363	0.102	1.8	0.16	0.102	0.6357	16	31.5	FALSE	23.708
B24+B10	B24	22.52	15.82	B10	16.86	9.61	492.5	0.013	Circle	6	0.013	0.0284	0.1332	2.05	0.18	0.1332	0.63	21.1	35.3	FALSE	15.998
B25+B24	B25	27.09	18.84	B24	22.52	15.82	406.2	0.007	Circle	6	0.013	0.0256	0.1332	1.77	0.2	0.1332	0.4838	27.5	40.7	FALSE	19.047
B26+B25	B26	27.62	21.62	B25	27.09	18.84	401.5	0.007	Circle	6	0.013	0.0267	0.0666	1.24	0.16	0.0666	0.4669	14.3	31.7	FALSE	21.778
B27+B25	B27	25.46	19.69	B25	27.09	18.99	318	0.002	Circle	6	0.013	0.0256	0.0666	0.82	0.22	0.0666	0.2632	25.3	43.1	FALSE	19.906
B28+B27	B28	24.83	20.93	B27	25.46	19.69	202	0.006	Circle	6	0.013	0.0256	0.0666	1.2	0.16	0.0742	0.4396	15.2	32.5	FALSE	21.093
B29+B9	B29	19.43	13.68	B9	18.41	7.61	211.2	0.029	Circle	6	0.013	0.0804	0.099	1.63	0.13	0.099	0.9512	10.4	25.3	FALSE	13.809
B30+B29	B30	23.55	14.31	B29	19.43	13.83	243.2	0.002	Circle	6	0.013	0.0268	0.033	0.66	0.15	0.033	0.2493	13.2	30.3	FALSE	14.468
B31+B29	B31	21.81	15.76	B29	19.43	13.68	256.8	0.008	Circle	6	0.013	0.0536	0.066	1.31	0.15	0.066	0.505	13.1	30.3	FALSE	15.913
B32+B31	B32	26.3	16.37	B31	21.81	15.86	253.7	0.002	Circle	6	0.013	0.0268	0.033	0.63	0.16	0.033	0.2516	13.1	31.1	FALSE	16.525
B33+B31	B33	25.73	19.18	B31	21.81	15.76	279.8	0.012	Circle	6	0.013	0.0268	0.033	1.16	0.1	0.0372	0.6203	5.3	19.9	FALSE	19.281
B34+B8	B34	24.69	15.24	B8	20.55	7.1	251.1	0.032	Circle	6	0.013	0.0128	0.0527	1.27	0.1	0.0531	1.0102	5.2	20.1	FALSE	15.342
B35+B34	B35	26.3	20	B34	24.69	15.24	363.8	0.013	Circle	6	0.013	0.0128	0.0527	1.37	0.12	0.0527	0.6418	8.2	24.9	FALSE	20.126
B36+B35	B36	24.45	20.41	B35	26.3	20	207	0.002	Circle	6	0.013	0.0128	0.0527	0.7	0.2	0.0527	0.2497	21.1	40.9	FALSE	20.614
B37+B6	B37	14.71	7.31	B6	18.29	6.74	262.3	0.002	Circle	6	0.013	0.044	0.134	1.12	0.29	0.134	0.2616	51.2	58.5	FALSE	7.607
B38+B50	B38	12.43	7.93	B50	13.27	7.77	38.9	0.004	Circle	6	0.013	0.02	0.072	1.1	0.18	0.072	0.3598	20	36.7	FALSE	8.121
B39+B38	B39	13	8.56	B38	12.43	8.03	265.5	0.002	Circle	6	0.013	0.01	0.036	0.62	0.17	0.036	0.2507	14.4	33.7	FALSE	8.73
B40+B39	B40	13	9.17	B39	13	8.56	306.1	0.002	Circle	6	0.013	0.01	0.036	0.62	0.17	0.036	0.2505	14.4	33.7	FALSE	9.338

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
B41+B38	B41	11.68	8.37	B38	12.43	8.03	170	0.002	Circle	6	0.013	0.01	0.036	0.62	0.17	0.036	0.2509	14.3	33.7	FALSE	8.54
B42+B41	B42	11.68	8.7	B41	11.68	8.37	166.3	0.002	Circle	6	0.013	0.01	0.036	0.62	0.17	0.036	0.2499	14.4	33.8	FALSE	8.869
B43+B37	B43	15.97	8.74	B37	14.71	8.01	363.4	0.002	Circle	6	0.013	0.017	0.036	0.62	0.17	0.036	0.2515	14.3	33.6	FALSE	8.908
B44+B2	B44	15.76	9.16	B2	16	2.46	296.4	0.023	Circle	6	0.013	0.017	0.0343	1.11	0.09	0.0343	0.8436	4.1	17.7	TRUE	9.249
B45+B44	B45	14.05	9.86	B44	15.76	9.26	301	0.002	Circle	6	0.013	0.017	0.0343	0.62	0.16	0.0343	0.2505	13.7	32.3	FALSE	10.021
B46+B5	B46	19	13.75	B5	18.61	12.56	16.9	0.07	Circle	6	0.013	0.012	0.0097	0.63	0.02	0.0097	1.4889	0.7	3.1	FALSE	13.769
B47+B46	B47	20.58	14.06	B46	19	13.75	157.8	0.002	Circle	6	0.013	0.012	0.0097	0.8	0.05	0.0097	0.2487	3.9	10	FALSE	14.112
B48+B7	B48	22.9	7.11	B7	18.66	6.21	450.2	0.002	Circle	6	0.013	0.0167	0.0328	0.59	0.16	0.0328	0.2509	13.1	32.5	TRUE	7.265
B49+B14	B49	17.11	11.16	B14	15.47	10.07	327.7	0.003	Circle	8	0.013	0.1695	0.7343	2.23	0.6	0.7343	0.6969	105.4	89.4	FALSE	11.8
B50+B37	B50	13.27	7.77	B37	14.71	7.31	204.7	0.002	Circle	6	0.013	0.027	0.098	1	0.25	0.098	0.266	36.8	50	FALSE	8.023
B51+B50	B51	14.15	9.95	B50	13.27	7.97	281.7	0.007	Circle	6	0.013	0.007	0.026	1.03	0.09	0.026	0.4704	5.5	18.6	FALSE	10.043
B52+B4	B52	20.58	4.29	B4	20.32	3.57	359.8	0.002	Circle	12	0.013	0.361	1.5017	2.34	0.76	1.5017	1.5937	94.2	76.1	FALSE	5.073
C1+B16	C1	23.15	14.8	B16	20.39	13.24	401.9	0.004	Circle	8	0.013	0.1695	0.7343	2.1	0.67	0.7343	0.7528	97.5	100	TRUE	15.781
C2+C1	C2	21.54	15.19	C1	23.15	14.85	204.3	0.002	Circle	8	0.013	0.1235	0.5727	1.64	0.67	0.5727	0.4929	116.2	100	TRUE	16.204
C3+C2	C3	22.97	17.37	C2	21.54	15.24	397.8	0.005	Circle	6	0.013	0.1065	0.5067	2.58	0.5	0.5067	0.4106	123.4	100	TRUE	19.837
C4+C3	C4	25.03	19.53	C3	22.97	17.42	436	0.005	Circle	6	0.013	0.0885	0.4501	2.29	0.5	0.4501	0.3903	115.3	100	TRUE	23.013
C5+C4	C5	25.49	20.95	C4	25.03	19.53	327.7	0.004	Circle	6	0.013	0.0885	0.4501	2.29	0.5	0.4501	0.3693	121.9	100	TRUE	25.383
C6+C5	C6	25.82	21.42	C5	25.49	20.99	87.5	0.005	Circle	6	0.013	0.0697	0.3822	1.95	0.5	0.3822	0.3933	97.2	100	TRUE	25.779
C7+C6	C7	34.43	23.65	C6	25.82	21.42	447.8	0.005	Circle	6	0.013	0.0697	0.3822	1.95	0.5	0.3822	0.3959	96.5	100	TRUE	28.169
C8+C7	C8	29.93	24.33	C7	34.43	23.65	400.9	0.002	Circle	6	0.013	0.0447	0.2797	1.42	0.5	0.2797	0.2311	121.1	100	TRUE	29.337
C9+C8	C9	30	24.55	C8	29.93	24.38	84.1	0.002	Circle	6	0.013	0.0437	0.2665	1.36	0.5	0.2665	0.2523	105.7	100	TRUE	29.485
C10+C9	C10	31.71	25.71	C9	30	24.55	300.8	0.004	Circle	6	0.013	0.0437	0.2665	1.36	0.5	0.2665	0.3484	76.5	100	TRUE	30.26
C11+C10	C11	41.2	28.9	C10	31.71	25.76	508	0.006	Circle	6	0.013	0.0248	0.1754	0.89	0.5	0.176	0.4411	39.8	100	TRUE	30.876
C12+C1	C12	23.43	14.93	C1	23.15	14.85	264.8	0	Circle	6	0.013	0.046	0.1616	0.82	0.5	0.1616	0.0975	165.7	100	TRUE	16.057
C13+C12	C13	23	15.99	C12	23.43	15.03	480.7	0.002	Circle	6	0.013	0.01	0.0472	0.24	0.5	0.0472	0.2507	18.8	99.9	TRUE	16.19
C14+C12	C14	24.3	15.8	C12	23.43	14.97	282.1	0.003	Circle	6	0.013	0.036	0.1144	0.58	0.5	0.1144	0.3043	37.6	100	TRUE	16.155
C15+C14	C15	22.5	18.05	C14	24.3	16.1	565.3	0.003	Circle	6	0.013	0.018	0.0572	0.89	0.18	0.0572	0.3295	17.4	36.1	FALSE	18.231
C16+C14	C16	26.5	17.4	C14	24.3	16.05	272.9	0.005	Circle	6	0.013	0.018	0.0572	1	0.17	0.0572	0.3946	14.5	33.2	FALSE	17.566
C17+C16	C17	27.07	19.62	C16	26.5	17.4	332.8	0.007	Circle	6	0.013	0.018	0.0572	1.13	0.15	0.0572	0.4583	12.5	30.4	FALSE	19.773
C18+C17	C18	28	20.36	C17	27.07	19.62	369.6	0.002	Circle	6	0.013	0.018	0.0572	0.73	0.21	0.0572	0.2511	22.8	41.9	FALSE	20.57
C19+C2	C19	21.59	15.49	C2	21.54	15.24	264.1	0.001	Circle	6	0.013	0.017	0.066	0.34	0.5	0.0757	0.1726	38.2	100	TRUE	16.238
C20+C19	C20	23.19	17.64	C19	21.59	15.54	198.5	0.011	Circle	6	0.013	0.0085	0.033	1.16	0.1	0.0342	0.5771	5.7	20.2	TRUE	17.743
C21+C19	C21	23.94	17.74	C19	21.59	15.54	284.2	0.008	Circle	6	0.013	0.0085	0.033	0.65	0.15	0.0331	0.4937	6.7	30.4	TRUE	17.881
C22+C21	C22	24.43	18.08	C21	23.94	17.79	91.8	0.003	Circle	6	0.013	0.0085	0.033	0.75	0.14	0.033	0.3154	10.5	27.5	FALSE	18.218
C23+C3	C23	23.27	18.07	C3	22.97	17.42	400.5	0.002	Circle	6	0.013	0.018	0.0566	0.29	0.5	0.0566	0.226	25	100	TRUE	19.892
C24+C23	C24	25.53	18.72	C23	23.27	18.42	151.2	0.002	Circle	6	0.013	0.008	0.0283	0.14	0.5	0.0283	0.2499	11.3	100	TRUE	19.892
C25+C23	C25	25.08	19.73	C23	23.27	18.17	303.1	0.005	Circle	6	0.013	0.01	0.0283	0.14	0.5	0.0283	0.4025	7	100	TRUE	19.893
C26+D9	C26	29.07	24.47	D9	27.55	21.3	435.8	0.007	Circle	6	0.013	0.0309	0.2	2.06	0.25	0.2	0.4785	41.8	49.5	FALSE	24.718
C27+C5	C27	25	21.41	C5	25.49	20.97	221.6	0.002	Circle	6	0.013	0.0188	0.0679	0.35	0.5	0.068	0.25	27.2	100	TRUE	25.406
C28+C27	C28	27.89	23.34	C27	25	21.41	43	0.045	Circle	6	0.013	0.0115	0.0195	0.1	0.5	0.0196	1.1887	1.6	100	TRUE	25.407
C29+C28	C29	32.14	23.94	C28	27.89	23.34	298.4	0.002	Circle	6	0.013	0.0115	0.0195	0.1	0.5	0.0195	0.2516	7.7	100	TRUE	25.407
C30+C27	C30	28.53	23.63	C27	25	21.41	162.9	0.014	Circle	6	0.013	0.0073	0.0484	0.25	0.5	0.0486	0.655	7.4	100	TRUE	25.407
C31+C30	C31	29.09	23.76	C30	28.53	23.63	67.1	0.002	Circle	6	0.013	0.0014	0.0195	0.1	0.5	0.0195	0.247	7.9	100	TRUE	25.407
C32+C30	C32	30.12	24.36	C30	28.53	23.63	146.7	0.005	Circle	6	0.013	0.0059	0.029	0.15	0.5	0.029	0.3958	7.3	100	TRUE	25.407
C33+C32	C33	31.26	24.53	C32	30.12	24.39	70.7	0.002	Circle	6	0.013	0.0044	0.0195	0.1	0.5	0.0195	0.2497	7.8	100	TRUE	25.407
C34+C32	C34	30	24.5	C32	30.12	24.39	56.9	0.002	Circle	6	0.013	0.0015	0.0095	0.05	0.5	0.0095	0.2467	3.8	100	TRUE	25.407
C35+C7	C35	31.98	25.2	C7	34.43	23.65	403.4	0.004	Circle	6	0.013	0.025	0.1025	0.52	0.5	0.1028	0.3478	29.5	100	TRUE	28.169
C36+C35	C36	32.58	25.7	C35	31.98	25.2	92	0.005	Circle	6	0.013	0.025	0.1025	0.52	0.5	0.1026	0.4136	24.8	100	TRUE	28.17
C37+C36	C37	34.3	26.67	C36	32.58	25.73	153.2	0.006	Circle	6	0.013	0.005	0.0572	0.29	0.5	0.0891	0.4395	13	100	TRUE	28.17
C39+C37	C39	33.37	27.03	C37	34.3	26.7	164.1	0.002	Circle	6	0.013	0.005	0.0459	0.23	0.5	0.0459	0.2516	18.2	100	TRUE	28.171
C40+C36	C40	32.93	26.9	C36	32.58	25.83	257.5	0.004	Circle	6	0.013	0.02	0.0458	0.23	0.5	0.0458	0.3617	12.7	100	TRUE	28.17
C41+C40	C41	33.56	27.26	C40	32.93	26.93	191.4	0.002	Circle	6	0.013	0.02	0.0458	0.23	0.5	0.0458	0.233	19.7	100	TRUE	28.171
C42+C41	C42	34.21	27.91	C41	33.56	27.31	300.1	0.002	Circle	6	0.013	0.02	0.0458	0.23	0.5	0.0458	0.2509	18.3	100	TRUE	28.171
C43+C8	C43	30.16	24.53	C8	29.93	24.33	101	0.002	Circle	6	0.013	0.001	0.0132	0.07	0.5	0.0132	0.2497	5.3	100	TRUE	29.337
C44+C10	C44	32.45	26.73	C10	31.71	25.76	154.5	0.006	Circle	6	0.013	0.0189	0.0911	0.46	0.5	0.0914	0.4446	20.5	100	TRUE	30.261
C45+C44	C45	33.66	27.91	C44	32.45	26.77	166.1	0.007	Circle	6	0.013	0.0189	0.0911	0.46	0.5	0.0911	0.4648	19.6	100	TRUE	30.261
C46+C45	C46	36.3	29.85	C45	33.66	27.91	255.5	0.008	Circle	6	0.013	0.0189	0.0911	0.46	0.5	0.0911	0.4889	18.6	100	TRUE	30.262
C47+C46	C47	35.05	30.62	C46	36.3	30	309.1	0.002	Circle	6	0.013	0.0189	0.0911	0.92	0.25	0.0911	0.2513	36.3	50.1	FALSE	30.87
C48+C11	C48	43.08	29.1	C11	41.2	28.98	178.7	0.001	Circle	6	0.013	0.0248	0.1755	0.89	0.5	0.1755	0.1454	120.7	100	TRUE	31.03
C49+C48	C49	41.32	29.82	C48	43.08	29.1	247.7	0.003	Circle	6	0.013	0.0248	0.1755	0.89	0.5	0.1755	0.3025	58	100	TRUE	31.28
C50+C49	C50	40.78	30.68	C49	41.32	29.82	361.2	0.002	Circle	6	0.013	0.0248	0.1755	0.89	0.5	0.1755	0.2738	64.1	100	TRUE	31.689
C51+C50	C51	38.55	32.75	C50	40.78	30.68	556.1	0.004	Circle	6	0.013	0.0248	0.1755	1.52	0.28	0.1755	0.3423	51.3	56.8	TRUE	33.033
D1+E4	D1	17.33	6.83	E4	16.28	6.08	354.5	0.002	Circle	12	0.013	0.2054	2.1273	2.71	1	2.1273	1.6387	129.8	100	TRUE	18.603
D2+D1	D2	17.54	6.91	D1	17.33	6.88	53.3	0.001	Circle	12	0.013	0.2054	2.1275	2.71	1	2.1275	0.8452	251.7	100	TRUE	18.692
D3+D2	D3	18.91	7.46	D2	17.54	6.99	363.3	0.001	Circle	12	0.013	0.2054	2.1276	2.71	1	2.1276	1.2814	166	100	TRUE	19.941
D4+D3	D4	19	8.15	D3	18.91	7.56	296.1	0.002	Circle	8	0.013	0.0595	0.8383	2.4	0.67	0.8383	0.5394	155.4	100	TRUE	21.448
D5+D4	D5	19	8.29	D4	19	8.15	69.6	0.002	Circle	8	0.013	0.0595	0.8385	2.4	0.67	0.8385	0.5419	154.7	100	TRUE	21.729
D6+D5	D6	19.87	13.77	D5	19	8.29	246.1	0.022	Circle	8	0.013	0.0324	0.58	1.66	0.67	0.58	1.8031	32.2	100	TRUE	21.731
D7+D6	D7	19.85	15.5	D6	19.87	13.82	398	0.004	Circle	8	0.013	0.0324	0.58	1.66	0.67	0.58	0.7851	73.9	100	TRUE	21.736

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
D8+D7	D8	21.51	16.11	D7	19.85	15.5	157.8	0.004	Circle	6	0.013	0.0361	0.2	1.02	0.5	0.2001	0.3488	57.3	100	TRUE	21.737
D9+D8	D9	27.55	21.3	D8	21.51	16.11	496	0.01	Circle	6	0.013	0.0299	0.2	1.02	0.5	0.2001	0.5739	34.8	100	TRUE	21.739
D10+D3	D10	21.78	10.58	D3	18.91	7.81	489.1	0.006	Circle	10	0.013	0.1459	1.2894	2.36	0.83	1.2894	1.6488	78.2	100	TRUE	21.639
D16+D20	D16	23	13.91	D20	22	13	453.9	0.002	Circle	8	0.013	0.018	0.1999	0.57	0.67	0.2003	0.541	37	100	TRUE	22.221
D17+D16	D17	23.1	14.18	D16	23	13.91	136.3	0.002	Circle	8	0.013	0.018	0.2	0.57	0.67	0.2003	0.5378	37.2	100	TRUE	22.222
D19+D10	D19	21.54	12.39	D10	21.78	10.63	48.1	0.037	Circle	8	0.013	0.1459	1.2895	3.69	0.67	1.2895	2.3114	55.8	100	TRUE	22.164
D20+D19	D20	22	13	D19	21.54	12.89	52.7	0.002	Circle	8	0.013	0.036	0.2767	0.79	0.67	0.2771	0.5521	50.1	100	TRUE	22.165
D21+D19	D21	20.93	15.08	D19	21.54	12.84	390.8	0.006	Circle	8	0.013	0.1099	1.013	2.9	0.67	1.013	0.9148	110.7	100	TRUE	22.171
D22+D21	D22	22.23	15.84	D21	20.93	15.13	149	0.005	Circle	6	0.013	0.1099	1.013	5.16	0.5	1.013	0.3873	261.5	100	TRUE	22.244
D23+D22	D23	22.62	16.12	D22	22.23	15.88	73.3	0.003	Circle	6	0.013	0.1099	0.663	3.37	0.5	0.663	0.3211	206.5	100	TRUE	23.318
D24+D23	D24	24.01	17.46	D23	22.62	16.12	349.8	0.004	Circle	6	0.013	0.1099	0.663	3.37	0.5	0.663	0.3473	190.9	100	TRUE	28.649
D25+D24	D25	24.45	18.45	D24	24.01	17.56	300.9	0.003	Circle	6	0.013	0.0348	0.323	1.64	0.5	0.323	0.3051	105.9	100	TRUE	28.651
D26+D25	D26	24.79	19.26	D25	24.45	18.5	156.7	0.005	Circle	6	0.013	0.0348	0.323	1.64	0.5	0.323	0.3907	82.7	100	TRUE	28.652
D27+D26	D27	26.68	20.86	D26	24.79	19.28	392.4	0.004	Circle	6	0.013	0	0.17	0.87	0.5	0.1701	0.356	47.7	100	TRUE	28.653
D28+D27	D28	27.45	21.65	D27	26.68	20.9	81.1	0.009	Circle	6	0.013	0	0.17	0.87	0.5	0.17	0.5396	31.5	100	TRUE	28.654
D29+C37	D29	34.53	27.53	C37	34.3	26.7	129.5	0.006	Circle	6	0.013	0	0	0	0.5	0	0.4492	0	100	TRUE	28.655
D29+D28	D29	34.53	27.53	D28	27.45	21.67	465.5	0.013	Circle	6	0.013	0	0	0	0.5	0	0.6295	0	100	TRUE	28.655
D30+D26	D30	26.26	21.18	D26	24.79	19.29	436.5	0.004	Circle	6	0.013	0.0348	0.153	0.78	0.5	0.1531	0.3692	41.4	100	TRUE	28.653
D31+D30	D31	26.68	21.76	D30	26.26	21.46	152.5	0.002	Circle	6	0.013	0.0124	0.0765	0.39	0.5	0.0765	0.2489	30.7	100	TRUE	28.654
D32+D30	D32	26.44	21.71	D30	26.26	21.46	126.2	0.002	Circle	6	0.013	0.0224	0.0765	0.39	0.5	0.0765	0.2497	30.6	100	TRUE	28.654
D33+D24	D33	28.14	19.34	D24	24.01	17.51	450.4	0.004	Circle	6	0.013	0.0448	0.1686	0.86	0.5	0.1686	0.3576	47.1	100	TRUE	29.143
D34+D33	D34	34.45	22.3	D33	28.14	19.34	293.3	0.01	Circle	6	0.013	0.0448	0.1686	0.86	0.5	0.2011	0.5637	29.9	100	TRUE	29.431
D35+D34	D35	33.56	22.51	D34	34.45	22.3	177.8	0.001	Circle	6	0.013	0.0448	0.1686	0.86	0.5	0.1686	0.1928	87.4	100	TRUE	29.567
D36+D35	D36	31.3	25.05	D35	33.56	22.56	250.8	0.01	Circle	6	0.013	0.0208	0.02	0.1	0.5	0.02	0.5591	3.6	100	TRUE	29.568
D37+D36	D37	31.11	26.01	D36	31.3	25.05	367.8	0.003	Circle	6	0.013	0.0216	0.02	0.1	0.5	0.02	0.2866	7	100	TRUE	29.568
D38+D37	D38	32	26.64	D37	31.11	26.16	237.7	0.002	Circle	6	0.013	0.0191	0.01	0.05	0.5	0.01	0.2521	4	100	TRUE	29.569
D39+D38	D39	32.14	26.81	D38	32	26.64	84.1	0.002	Circle	6	0.013	0.0257	0.01	0.05	0.5	0.01	0.2523	4	100	TRUE	29.569
D40+D37	D40	32	26.6	D37	31.11	26.21	193.6	0.002	Circle	6	0.013	0.0208	0.01	0.05	0.5	0.01	0.2518	4	100	TRUE	29.569
D41+D24	D41	31.35	25.75	D24	24.01	17.51	190.6	0.043	Circle	6	0.013	0.0304	0.1714	0.87	0.5	0.1714	1.1666	14.7	100	TRUE	28.649
D42+D41	D42	30	26	D41	31.35	25.8	100.2	0.002	Circle	6	0.013	0.004	0.0214	0.11	0.5	0.0214	0.2507	8.5	100	TRUE	28.65
D43+D41	D43	32	26.89	D41	31.35	25.85	517.4	0.002	Circle	6	0.013	0.0264	0.15	0.76	0.5	0.15	0.2516	59.6	100	TRUE	28.651
D44+D43	D44	32	27.12	D43	32	26.89	113	0.002	Circle	6	0.013	0.0264	0.15	0.76	0.5	0.1501	0.2531	59.3	100	TRUE	28.652
D47+D22	D47	20.69	17.09	D22	22.23	15.86	299.2	0.004	Circle	6	0.013	0.0413	0.35	1.78	0.5	0.35	0.3597	97.3	100	TRUE	22.246
D48+D47	D48	22.05	18.7	D47	20.69	17.09	401	0.004	Circle	6	0.013	0.0292	0.35	1.78	0.5	0.35	0.3555	98.4	100	TRUE	22.249
D49+D48	D49	27.59	21.99	D48	22.05	18.7	399.7	0.008	Circle	6	0.013	0.0383	0.35	1.78	0.5	0.3507	0.509	68.8	100	TRUE	22.32
D50+D49	D50	31.35	22.83	D49	27.59	21.99	421.6	0.002	Circle	6	0.013	0.0338	0.35	1.78	0.5	0.35	0.2504	139.8	100	TRUE	24.376
D51+D7	D51	23.54	18.66	D7	19.85	15.5	457.8	0.007	Circle	6	0.013	0.0324	0.38	1.93	0.5	0.38	0.4662	81.5	100	TRUE	21.739
D52+D51	D52	27.31	20.31	D51	23.54	18.69	267	0.006	Circle	6	0.013	0.0216	0.24	1.22	0.5	0.24	0.437	54.9	100	TRUE	21.741
D53+D52	D53	29.62	21.22	D52	27.31	20.31	247.8	0.004	Circle	6	0.013	0.0108	0.12	0.61	0.5	0.12	0.34	35.3	100	TRUE	21.741
D54+D53	D54	29.68	21.68	D53	29.62	21.27	74.9	0.005	Circle	6	0.013	0.0108	0.12	1.12	0.27	0.12	0.4151	28.9	53.4	FALSE	21.894
D55+D54	D55	30.37	22.39	D54	29.68	21.88	252.3	0.002	Circle	6	0.013	0.0108	0.12	1.05	0.28	0.12	0.2523	47.6	56.6	FALSE	22.673
D56+D35	D56	35.05	23.65	D35	33.56	22.51	286.3	0.004	Circle	6	0.013	0.024	0.1486	0.76	0.5	0.1499	0.354	42	100	TRUE	29.775
D57+D56	D57	37.86	26.21	D56	35.05	23.7	197.1	0.013	Circle	6	0.013	0.024	0.1486	0.76	0.5	0.1629	0.6332	23.5	100	TRUE	29.887
D58+D57	D58	37.67	27.07	D57	37.86	26.36	158	0.004	Circle	6	0.013	0.024	0.1486	0.76	0.5	0.1489	0.3761	39.5	100	TRUE	29.957
D59+D58	D59	37.27	28.53	D58	37.67	27.12	151.4	0.009	Circle	6	0.013	0.024	0.1486	0.76	0.5	0.1497	0.5415	27.4	100	TRUE	30.021
D60+D59	D60	37.44	29.8	D59	37.27	28.57	112.6	0.011	Circle	6	0.013	0.024	0.1336	0.68	0.5	0.1344	0.5864	22.8	100	TRUE	30.041
D61+D60	D61	37.37	30.05	D60	37.44	29.84	101	0.002	Circle	6	0.013	0.024	0.1336	1.17	0.28	0.1336	0.2558	52.2	56.4	FALSE	30.343
D62+D59	D62	32.76	29.07	D59	37.27	28.57	247.7	0.002	Circle	6	0.013	0.0229	0.015	0.08	0.5	0.0156	0.2521	6	100	TRUE	30.022
D63+D5	D63	19.63	8.6	D5	19	8.29	296.6	0.001	Circle	8	0.013	0.0271	0.2587	0.74	0.67	0.2587	0.3906	66.2	100	TRUE	21.804
D64+D63	D64	24.68	17.38	D63	19.63	8.56	470.5	0.019	Circle	6	0.013	0.0263	0.1988	1.01	0.5	0.211	0.7682	25.9	100	TRUE	22.523
D65+D64	D65	28.98	20.08	D64	24.68	17.38	448	0.006	Circle	6	0.013	0.0242	0.1988	1.01	0.5	0.1993	0.4356	45.6	100	TRUE	23.204
D66+D65	D66	29.37	20.96	D65	28.98	20.13	412.5	0.002	Circle	6	0.013	0.0222	0.1989	1.01	0.5	0.1989	0.2517	79	100	TRUE	23.817
D67+D63	D67	18.77	12.39	D63	19.63	8.6	294.1	0.013	Circle	6	0.013	0.0271	0.06	0.31	0.5	0.0602	0.6369	9.4	100	TRUE	21.805
D68+D67	D68	19	12.7	D67	18.77	12.42	138.9	0.002	Circle	6	0.013	0.0134	0.03	0.15	0.5	0.0301	0.2519	11.9	100	TRUE	21.805
D69+D67	D69	19	12.94	D67	18.77	12.42	259	0.002	Circle	6	0.013	0.0137	0.0301	0.15	0.5	0.0301	0.2514	12	100	TRUE	21.805
D70+D51	D70	24	18.86	D51	23.54	18.72	70.8	0.002	Circle	6	0.013	0.0108	0.14	0.71	0.5	0.14	0.2495	56.1	100	TRUE	21.74
D71+D52	D71	28.07	22.62	D52	27.31	21.11	130	0.012	Circle	6	0.013	0.0108	0.12	1.96	0.17	0.121	0.6047	19.8	34.5	TRUE	22.793
D72+D20	D72	22.5	13.56	D20	22	13	279.6	0.002	Circle	8	0.013	0.018	0.0769	0.22	0.67	0.0772	0.5408	14.2	100	TRUE	22.165
D73+D72	D73	23	14.16	D72	22.5	13.56	297.4	0.002	Circle	8	0.013	0.018	0.0769	0.22	0.67	0.0774	0.5427	14.2	100	TRUE	22.166
D74+D73	D74	23.2	14.58	D73	23	14.16	210.2	0.002	Circle	8	0.013	0.018	0.0769	0.22	0.67	0.0776	0.5401	14.2	100	TRUE	22.166
E1+H9	E1	12.09	3.59	H9	11.84	3.14	269.8	0.002	Circle	12	0.013	0.4047	3.0914	3.94	1	3.0914	1.455	212.5	100	TRUE	14.341
E2+E1	E2	13.48	4.23	E1	12.09	3.64	283.2	0.002	Circle	12	0.013	0.2054	2.1269	2.71	1	2.1269	1.6261	130.8	100	TRUE	15.276
E3+E2	E3	15.11	4.76	E2	13.48	4.33	279.6	0.002	Circle	12	0.013	0.2054	2.1271	2.71	1	2.1271	1.3971	152.2	100	TRUE	16.198
E4+E3	E4	16.28	6.08	E3	15.11	5.01	356.7	0.003	Circle	12	0.013	0.2054	2.1272	2.71	1	2.1272	1.9512	109	100	TRUE	17.405
E6+E1	E6	11.14	4.84	E1	12.09	4.04	501	0.002	Circle	12	0.013	0.1994	0.9646	1.23	1	0.9646	1.4236	67.8	100	TRUE	14.681
E7+E6	E7	11.77	6.02	E6	11.14	4.84	310.5	0.004	Circle	8	0.013	0.1844	0.9041	2.59	0.67	0.9041	0.7449	121.4	100	TRUE	14.687
E8+E7	E8	13.72	6.77	E7	11.77	6.07	354.7	0.002	Circle	8	0.013	0.1544	0.7823	2.24	0.67	0.7823	0.5368	145.7	100	TRUE	14.692
E9+E8	E9	13.77	7.32	E8	13.72	6.82	341.1	0.001	Circle	12	0.013	0.1294	0.6605	0.84	1	0.6605	1.364	48.4	100	TRUE	14.696
E10+E9	E10	14.53	7.78	E9	13.77	7.32	192.1	0.002	Circle	12	0.013	0.1294	0.6605	0.84	1	0.6605	1.7433	37.9	100	TRUE	14.699

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
E11+E10	E11	14.94	8.04	E10	14.53	7.93	194.9	0.001	Circle	12	0.013	0.1124	0.5237	0.67	1	0.5237	0.8464	61.9	100	TRUE	14.701
E12+E11	E12	20.13	9.13	E11	14.94	8.14	494.5	0.002	Circle	12	0.013	0.1124	0.5237	0.67	1	0.5237	1.5941	32.9	100	TRUE	14.706
E13+E12	E13	18.72	10	E12	20.13	9.18	450.3	0.002	Circle	8	0.013	0.0732	0.3879	1.11	0.67	0.388	0.5156	75.2	100	TRUE	14.709
E14+E13	E14	17.24	10.39	E13	18.72	10.12	185.5	0.001	Circle	8	0.013	0.0608	0.2317	0.66	0.67	0.2317	0.461	50.3	100	TRUE	14.71
E15+E14	E15	15.27	10.72	E14	17.24	10.49	246.2	0.001	Circle	8	0.013	0.043	0.201	0.58	0.67	0.201	0.3693	54.4	100	TRUE	14.711
E20+E7	E20	12.61	7.71	E7	11.77	6.12	504.5	0.003	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.061	0.315	19.3	100	TRUE	14.688
E21+E20	E21	14.72	8.53	E20	12.61	7.76	385.6	0.002	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.0609	0.2507	24.3	100	TRUE	14.688
E22+E8	E22	15.38	8.48	E8	13.72	6.87	449.9	0.004	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.061	0.3356	18.1	100	TRUE	14.693
E23+E22	E23	16.82	10.42	E22	15.38	8.48	438.8	0.004	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.0619	0.3731	16.3	100	TRUE	14.694
E25+E50	E25	16.75	10.9	E50	16.04	9.64	231.9	0.005	Circle	6	0.013	0.017	0.067	0.34	0.5	0.067	0.4136	16.2	100	TRUE	14.7
E26+E25	E26	19.82	13.82	E25	16.75	10.9	488.2	0.006	Circle	6	0.013	0.017	0.067	0.34	0.5	0.0678	0.4339	15.4	100	TRUE	14.701
E27+E12	E27	21.28	15.85	E12	20.13	9.53	576.2	0.011	Circle	6	0.013	0.0137	0.0427	0.22	0.5	0.0477	0.5876	7.3	100	TRUE	15.973
E28+E27	E28	22	15.93	E27	21.28	15.81	61.8	0.002	Circle	6	0.013	0.0137	0.0427	0.71	0.17	0.0429	0.2472	17.3	34.4	FALSE	16.12
E29+E12	E29	23.08	15.79	E12	20.13	9.58	247	0.025	Circle	6	0.013	0.0255	0.0931	0.47	0.5	0.0931	0.8896	10.5	100	TRUE	15.92
E30+E29	E30	27	20.5	E29	23.08	15.83	502.3	0.009	Circle	6	0.013	0.01	0.067	1.39	0.15	0.067	0.541	12.4	29.4	FALSE	20.647
E31+E29	E31	27.93	20.63	E29	23.08	15.83	252.3	0.019	Circle	6	0.013	0.0155	0.061	1.4	0.12	0.061	0.7739	7.9	23.8	FALSE	20.75
E32+E31	E32	28	21.21	E31	27.93	20.68	263.2	0.002	Circle	6	0.013	0.0155	0.061	0.76	0.21	0.061	0.2518	24.2	42.8	FALSE	21.424
E33+E13	E33	21.41	15.78	E13	18.72	10.02	228.9	0.025	Circle	8	0.013	0.0124	0.0911	0.26	0.67	0.0911	1.9168	4.8	100	TRUE	15.978
E33+E29	E33	21.41	17.11	E29	23.08	15.86	455.1	0.003	Circle	6	0.013	0	0	0	0	0	0.2941	0	0	FALSE	17.11
E34+E33	E34	24.94	18.94	E33	21.41	15.83	278.9	0.011	Circle	6	0.013	0.01	0.04	1.12	0.12	0.0413	0.5925	6.8	23.7	FALSE	19.061
E35+E14	E35	19.06	11.41	E14	17.24	10.74	333	0.002	Circle	6	0.013	0.0178	0.0306	0.16	0.5	0.0306	0.2517	12.1	100	TRUE	14.711
E36+E15	E36	17.4	12.35	E15	15.27	10.82	420.2	0.004	Circle	6	0.013	0.04	0.1827	0.93	0.5	0.1827	0.3386	54	100	TRUE	14.712
E37+E36	E37	18	13.11	E36	17.4	12.4	353.2	0.002	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.0609	0.2516	24.2	100	TRUE	14.713
E38+E36	E38	18.78	13.33	E36	17.4	12.35	233.6	0.004	Circle	6	0.013	0.025	0.1218	0.62	0.5	0.1218	0.3634	33.5	100	TRUE	14.713
E39+E38	E39	19	14.13	E38	18.78	13.53	300.6	0.002	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.0609	0.2507	24.3	100	TRUE	14.713
E40+E38	E40	22.91	14.25	E38	18.78	13.33	458.2	0.002	Circle	6	0.013	0.01	0.0609	0.31	0.5	0.0609	0.2514	24.2	100	TRUE	14.714
E41+E15	E41	16	11.07	E15	15.27	10.87	98.3	0.002	Circle	6	0.013	0.003	0.0183	0.09	0.5	0.0183	0.2531	7.2	100	TRUE	14.711
E42+E10	E42	14.56	10.06	E10	14.53	7.88	550.5	0.004	Circle	6	0.013	0	0.0698	0.36	0.5	0.0699	0.3531	19.8	100	TRUE	14.699
E44+E8	E44	12.57	8.62	E8	13.72	6.82	630.5	0.003	Circle	6	0.013	0.01	0.0609	0.31	0.5	0.0609	0.2998	20.3	100	TRUE	14.693
E45+E44	E45	13.15	9.55	E44	12.57	8.57	319.4	0.003	Circle	6	0.013	0.01	0.0609	0.31	0.5	0.0611	0.3108	19.6	100	TRUE	14.694
E46+E7	E46	11	7.4	E7	11.77	6.02	500.5	0.003	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.0618	0.2946	20.7	100	TRUE	14.688
E47+E46	E47	11.54	8.31	E46	11	7.4	455.2	0.002	Circle	6	0.013	0.015	0.0609	0.31	0.5	0.0609	0.2509	24.3	100	TRUE	14.689
E48+E6	E48	11.94	7.54	E6	11.14	5.19	498.5	0.005	Circle	8	0.013	0.015	0.0607	0.17	0.67	0.0623	0.8296	7.3	100	TRUE	14.682
E49+E48	E49	11.53	8.46	E48	11.94	7.54	457.8	0.002	Circle	6	0.013	0.015	0.0608	0.31	0.5	0.0611	0.2515	24.2	100	TRUE	14.683
E50+E10	E50	16.04	9.64	E10	14.53	7.88	217.9	0.008	Circle	6	0.013	0.017	0.067	0.34	0.5	0.067	0.5043	13.3	100	TRUE	14.699
F7+T25	F7	4.65	0.3	T25	3.95	-2.2	477	0.005	Circle	8	0.013	0.064	0.1876	1.75	0.23	0.1876	0.8748	21.4	34.6	FALSE	0.53
F8+F7	F8	8.3	1.38	F7	4.65	0.3	356.7	0.003	Circle	8	0.013	0.064	0.1876	1.45	0.27	0.1876	0.6649	28.2	39.8	FALSE	1.65
F9+F23	F9	8.21	3.11	F23	8.23	2.7	110	0.004	Circle	6	0.013	0.047	0.1428	1.42	0.26	0.1428	0.3425	41.7	51	FALSE	3.368
F10+F9	F10	11.76	4.96	F9	8.21	3.21	462.6	0.004	Circle	6	0.013	0.047	0.1428	1.42	0.25	0.1428	0.3451	41.4	50.9	FALSE	5.216
F11+F10	F11	13	6.84	F10	11.76	5.06	419.8	0.004	Circle	6	0.013	0.047	0.1428	1.48	0.25	0.1428	0.3654	39.1	49.2	FALSE	7.091
F12+F11	F12	13	7.65	F11	13	6.94	355.2	0.002	Circle	6	0.013	0.032	0.078	0.86	0.24	0.078	0.2509	31.1	47	FALSE	7.886
F13+F19	F13	15.24	10.24	F19	15.18	10.23	24.2	0	Circle	6	0.013	0.024	0.026	0.34	0.21	0.026	0.1141	22.8	41.1	FALSE	10.441
F14+F8	F14	9.56	5.64	F8	8.3	1.76	463.1	0.008	Circle	6	0.013	0.003	0.019	0.94	0.07	0.019	0.5136	3.7	13.7	FALSE	5.708
F15+F11	F15	13.27	7.77	F11	13	7.17	301.1	0.002	Circle	6	0.013	0.015	0.0648	0.78	0.22	0.0651	0.2505	25.9	43.9	FALSE	7.992
F16+F15	F16	13.27	8.24	F15	13.27	7.77	238	0.002	Circle	6	0.013	0.015	0.065	0.78	0.22	0.065	0.2493	26.1	43.9	FALSE	8.46
F17+F22	F17	15.11	8.76	F22	13	8.39	130.3	0.003	Circle	6	0.013	0.032	0.078	0.98	0.21	0.078	0.299	26.1	42.6	FALSE	8.976
F18+F17	F18	15.34	9.94	F17	15.11	8.89	197.5	0.005	Circle	6	0.013	0.004	0.026	1.07	0.09	0.0261	0.4091	6.4	17.8	FALSE	10.037
F19+F20	F19	15.18	10.33	F20	15.15	9.7	188.8	0.003	Circle	6	0.013	0.024	0.026	0.94	0.1	0.026	0.3241	8	19.8	FALSE	10.44
F20+F17	F20	15.15	9.7	F17	15.11	8.86	281.2	0.003	Circle	6	0.013	0.028	0.052	0.8	0.18	0.052	0.3067	17	36.7	FALSE	9.884
F21+F20	F21	15.15	10.38	F20	15.15	9.7	136.4	0.005	Circle	6	0.013	0.004	0.026	0.8	0.11	0.026	0.3962	6.6	22.2	FALSE	10.484
F22+F12	F22	13	8.39	F12	13	7.65	158.8	0.005	Circle	6	0.013	0.032	0.078	1.19	0.18	0.078	0.383	20.4	36.8	FALSE	8.577
F23+F8	F23	8.23	2.7	F8	8.3	1.48	327.4	0.004	Circle	8	0.013	0.061	0.1686	1.49	0.24	0.1686	0.7376	22.9	36	FALSE	2.943
F24+F23	F24	8.23	3.19	F23	8.23	2.7	98	0.005	Circle	6	0.013	0.014	0.0258	0.97	0.1	0.0259	0.3967	6.5	19.3	FALSE	3.295
F25+F24	F25	8.73	3.77	F24	8.23	3.19	115	0.005	Circle	6	0.013	0.002	0.0129	0.84	0.06	0.0129	0.3985	3.2	11.2	FALSE	3.826
F26+F25	F26	8.73	4.36	F25	8.73	3.77	118	0.005	Circle	6	0.013	0.002	0.0129	0.8	0.05	0.0129	0.3967	3.3	9.6	FALSE	4.415
F27+F24	F27	8.73	3.78	F24	8.23	3.19	118	0.005	Circle	6	0.013	0.012	0.0129	0.8	0.05	0.0129	0.3967	3.3	9.6	FALSE	3.835
F28+F27	F28	8.73	4.57	F27	8.73	3.78	158	0.005	Circle	6	0.013	0.012	0.0129	0.79	0.04	0.0129	0.3967	3.3	8.8	FALSE	4.623
G2+G19	G2	4.2	0.05	G19	2.65	-0.76	154	0.005	Circle	6	0.013	0.0796	0.1265	1.54	0.22	0.1265	0.4069	31.1	43.5	FALSE	0.271
G3+G14	G3	7	1.85	G14	6.79	1.05	208.1	0.004	Circle	6	0.013	0.0566	0.1071	1.29	0.22	0.1071	0.3479	30.8	43.9	FALSE	2.076
G4+G3	G4	7.49	2.26	G3	7	1.95	212.7	0.001	Circle	6	0.013	0.0436	0.0881	0.82	0.27	0.0881	0.2142	41.1	53.7	FALSE	2.534
G6+G4	G6	10.75	5.12	G4	7.49	2.36	387.6	0.007	Circle	6	0.013	0.0318	0.0764	1.35	0.16	0.0765	0.4735	16.1	33	FALSE	5.289
G7+G6	G7	10.12	5.81	G6	10.75	5.22	294.7	0.002	Circle	6	0.013	0.0159	0.0383	0.62	0.18	0.0383	0.251	15.3	35.4	FALSE	5.993
G8+G7	G8	10.83	6.45	G7	10.12	5.8	326.8	0.002	Circle	6	0.013	0.0159	0.0381	0.61	0.18	0.0384	0.2502	15.2	35.6	FALSE	6.628
G9+G6	G9	8.88	5.78	G6	10.75	5.2	290.8	0.002	Circle	6	0.013	0.0159	0.0382	0.61	0.18	0.0383	0.2506	15.2	35.7	FALSE	5.963
G10+G9	G10	11.09	6.24	G9	8.88	5.78	270.6	0.002	Circle	6	0.013	0.0159	0.0381	0.57	0.19	0.0384	0.2313	16.5	37.2	FALSE	6.432
G11+G10	G11	11.78	6.87	G10	11.09	6.34	265.7	0.002	Circle	6	0.013	0.0159	0.0383	0.61	0.18	0.0383	0.2506	15.3	35.4	FALSE	7.047
G12+G4	G12	8.32	3.02	G4	7.49	2.47	277	0.002	Circle	6	0.013	0.0118	0.0116	0.83	0.06	0.0116	0.25	4.6	12.4	FALSE	3.08
G13+G3	G13	8.34	2.8	G3	7	1.9	452.5	0.002	Circle	6	0.013	0.013	0.019	0.73	0.09	0.019	0.2502	7.6	19	FALSE	2.895
G14+G17	G14	6.79	1.05	G17	5.65	0.6	151.1	0.003	Circle	6	0.013	0.0681	0.1168	1.2	0.25	0.1168	0.3062	38.1	49.7	FALSE	1.303

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
G15+G14	G15	6.2	2.15	G14	6.79	1.05	214.7	0.005	Circle	6	0.013	0.0115	0.0097	0.2	0.15	0.0097	0.4016	2.4	29.7	FALSE	2.24
G16+G15	G16	6.21	3.21	G15	6.2	2.2	154.5	0.007	Circle	6	0.013	0.0115	0.0097	0.75	0.04	0.0097	0.4536	2.1	8	FALSE	3.252
G17+G2	G17	5.65	0.5	G2	4.2	0.15	143.7	0.002	Circle	6	0.013	0.0796	0.1265	1.16	0.27	0.1265	0.2769	45.7	54.4	FALSE	0.779
G18+G17	G18	5.86	1.15	G17	5.65	0.57	291.5	0.002	Circle	6	0.013	0.0115	0.0097	0.8	0.05	0.0097	0.2503	3.9	10.2	FALSE	1.201
G19+T23	G19	2.65	-0.76	T23	6.87	-2.3	290.9	0.005	Circle	6	0.013	0.091	0.1365	1.62	0.22	0.1365	0.4082	33.4	44.3	FALSE	-0.53
G20+G19	G20	2.66	0.11	G19	2.65	-0.76	173.9	0.005	Circle	6	0.013	0.0114	0.01	0.29	0.11	0.01	0.3969	2.5	22.9	FALSE	0.18
G21+G20	G21	2.67	0.37	G20	2.66	0.11	51.4	0.005	Circle	6	0.013	0.0057	0.005	0.64	0.02	0.005	0.399	1.3	4.7	FALSE	0.394
G22+G20	G22	2.67	0.25	G20	2.66	0.11	71.7	0.002	Circle	6	0.013	0.0057	0.005	0.67	0.04	0.005	0.2479	2	8	FALSE	0.277
H2+I11	H2	7.99	0.59	I11	8.07	0.17	36.6	0.011	Circle	15	0.013	0.6282	4.0105	3.27	1.25	4.0104	6.9196	58	100	TRUE	4.428
H3+H2	H3	8.2	0.7	H2	7.99	0.64	30.8	0.002	Circle	15	0.013	0.6282	4.0105	3.27	1.25	4.0104	2.851	140.7	100	TRUE	4.454
H4+H3	H4	8.13	0.71	H3	8.2	0.7	7.1	0.001	Circle	15	0.013	0.4293	3.1211	2.54	1.25	3.1211	2.4242	128.7	100	TRUE	4.466
H5+H4	H5	8.95	0.95	H4	8.13	0.71	259.3	0.001	Circle	15	0.013	0.4293	3.1211	2.54	1.25	3.1211	1.9652	158.8	100	TRUE	4.864
H6+H5	H6	8.89	0.99	H5	8.95	0.95	9	0.004	Circle	12	0.013	0.4093	3.1012	3.95	1	3.1012	2.3751	130.6	100	TRUE	4.876
H7+H75	H7	10.51	1.76	H75	10.09	1.58	89.8	0.002	Circle	12	0.013	0.4093	3.1012	3.95	1	3.1012	1.595	194.4	100	TRUE	7.337
H8+H7	H8	10.95	2.05	H7	10.51	1.76	233.4	0.001	Circle	12	0.013	0.4093	3.1012	3.95	1	3.1012	1.2558	247	100	TRUE	9.044
H9+H73	H9	11.84	3.09	H73	11.36	2.56	246.2	0.002	Circle	12	0.013	0.4093	3.1013	3.95	1	3.1013	1.653	187.6	100	TRUE	12.335
H11+H64	H11	9.92	1.44	H64	9.05	0.99	198.2	0.002	Circle	8	0.013	0.1904	0.8515	2.44	0.67	0.8514	0.5758	147.9	100	TRUE	6.448
H12+H11	H12	10.15	2.2	H11	9.92	1.54	333.5	0.002	Circle	8	0.013	0.1616	0.747	2.14	0.67	0.747	0.5375	139	100	TRUE	7.758
H13+H12	H13	10.85	2.55	H12	10.15	2.3	107.9	0.002	Circle	8	0.013	0.1216	0.6412	1.84	0.67	0.6412	0.5816	110.2	100	TRUE	7.999
H14+H13	H14	11.02	3.54	H13	10.85	2.65	446.5	0.002	Circle	8	0.013	0.1216	0.6412	1.84	0.67	0.6412	0.5395	118.9	100	TRUE	9.306
H15+H62	H15	14.61	5.6	H62	12.95	4.64	201.4	0.005	Circle	8	0.013	0.1104	0.5888	1.69	0.67	0.5888	0.8343	70.6	100	TRUE	10.295
H16+H60	H16	14.43	6.48	H60	14.57	5.9	351.2	0.002	Circle	8	0.013	0.1104	0.5484	1.57	0.67	0.5484	0.4911	111.7	100	TRUE	11.185
H17+H57	H17	12.03	6.83	H57	14.21	6.69	396.8	0	Circle	8	0.013	0.1104	0.5079	1.45	0.67	0.5079	0.227	223.8	100	TRUE	11.891
H18+H5	H18	8.92	1.27	H5	8.95	1.25	7.9	0.003	Circle	8	0.013	0.02	0.02	0.06	0.67	0.0332	0.608	3.3	100	TRUE	4.864
H19+H18	H19	8.88	2.58	H18	8.92	1.27	386.9	0.003	Circle	8	0.013	0.02	0.02	0.06	0.67	0.0334	0.7031	2.8	100	TRUE	4.865
H20+H19	H20	9.1	3.65	H19	8.88	2.63	270.8	0.004	Circle	8	0.013	0.02	0.02	0.06	0.67	0.0337	0.7416	2.7	100	TRUE	4.865
H21+H56	H21	9.3	5.04	H56	9.2	4.75	143.8	0.002	Circle	6	0.013	0.005	0.01	0.81	0.05	0.01	0.252	4	10.3	FALSE	5.093
H22+H21	H22	9.3	5.34	H21	9.3	5.04	151.4	0.002	Circle	6	0.013	0.005	0.01	0.81	0.05	0.01	0.2498	4	10.3	FALSE	5.394
H23+H22	H23	9.4	6.15	H22	9.3	5.34	404.8	0.002	Circle	6	0.013	0.005	0.01	0.81	0.05	0.01	0.251	4	10.4	FALSE	6.202
H24+H20	H24	10.14	5.82	H20	9.1	3.65	332.8	0.007	Circle	6	0.013	0.01	0	0	0.13	0	0.4531	0	26.2	TRUE	5.82
H25+H11	H25	11.2	3.3	H11	9.92	1.7	378	0.004	Circle	6	0.013	0.0288	0.1045	0.53	0.5	0.1047	0.365	28.6	100	TRUE	6.449
H26+H25	H26	10.63	4.58	H25	11.2	3.3	412.5	0.003	Circle	6	0.013	0.0288	0.1045	0.53	0.5	0.1045	0.3125	33.4	100	TRUE	6.45
H27+H26	H27	11.38	5.66	H26	10.63	5.43	114.6	0.002	Circle	6	0.013	0.0096	0.0371	0.19	0.5	0.0372	0.2514	14.8	100	TRUE	6.45
H28+H50	H28	10.4	5.41	H50	10.13	5.03	191.6	0.002	Circle	6	0.013	0.0096	0.0302	0.15	0.5	0.0304	0.2499	12.1	100	TRUE	6.45
H29+H12	H29	12.43	5.83	H12	10.15	2.65	550.5	0.006	Circle	6	0.013	0.04	0.1059	0.54	0.5	0.1061	0.4264	24.8	100	TRUE	7.759
H30+H46	H30	11.57	7.74	H46	11.27	7.47	135.4	0.002	Circle	6	0.013	0.015	0.0529	0.7	0.2	0.0529	0.2505	21.1	40.8	FALSE	7.944
H31+H14	H31	13.28	4.5	H14	11.02	3.69	403.7	0.002	Circle	6	0.013	0.0066	0.0415	0.21	0.5	0.0415	0.2513	16.5	100	TRUE	9.327
H32+H17	H32	16.06	10.26	H17	12.03	6.88	549.9	0.006	Circle	6	0.013	0.011	0.1118	0.57	0.5	0.1119	0.4399	25.4	100	TRUE	11.892
H33+H32	H33	20	11.29	H32	16.06	10.26	515	0.002	Circle	6	0.013	0.0229	0.1119	0.57	0.5	0.1119	0.2509	44.6	100	TRUE	11.893
H34+H17	H34	12.74	7.69	H17	12.03	6.83	268.6	0.003	Circle	6	0.013	0.1104	0.3961	2.02	0.5	0.3961	0.3175	124.8	100	TRUE	13.389
H35+H34	H35	14.34	9.56	H34	12.74	7.69	321.9	0.006	Circle	6	0.013	0.1104	0.3963	2.02	0.5	0.3963	0.4276	92.7	100	TRUE	15.206
H36+H35	H36	15.37	9.87	H35	14.34	9.56	473.9	0.001	Circle	6	0.013	0.0867	0.2857	1.45	0.5	0.2857	0.1435	199.1	100	TRUE	16.714
H37+H36	H37	17.89	12.09	H36	15.37	9.87	370.1	0.006	Circle	6	0.013	0.0578	0.1939	0.99	0.5	0.1952	0.4345	44.6	100	TRUE	17.233
H38+E42	H38	17.69	11.79	E42	14.56	10.11	518.8	0.003	Circle	6	0.013	0	0.0698	0.36	0.5	0.0706	0.3193	21.9	100	TRUE	14.699
H38+H47	H38	17.69	11.79	H47	15.05	10.1	205.2	0.008	Circle	6	0.013	0.0237	0.1111	0.57	0.5	0.1665	0.5092	21.8	100	TRUE	15.277
H39+H38	H39	18	12.1	H38	17.69	11.84	131.9	0.002	Circle	6	0.013	0.0187	0.102	0.52	0.5	0.102	0.2491	40.9	100	TRUE	15.277
H40+H36	H40	22.17	15.97	H36	15.37	9.87	496.1	0.012	Circle	6	0.013	0.0289	0.092	0.47	0.5	0.0925	0.6222	14.8	100	TRUE	16.715
H41+H40	H41	24.38	16.27	H40	22.17	15.97	150.4	0.002	Circle	6	0.013	0.0289	0.092	0.47	0.5	0.092	0.2506	36.7	100	TRUE	16.715
H42+H37	H42	21.01	14.76	H37	17.89	12.19	387.7	0.007	Circle	6	0.013	0.0289	0.092	0.47	0.5	0.0921	0.4568	20.1	100	TRUE	17.233
H43+H42	H43	22.12	16.57	H42	21.01	14.76	346.3	0.005	Circle	6	0.013	0.0289	0.092	0.47	0.5	0.0921	0.4056	22.7	100	TRUE	17.234
H44+H37	H44	20.24	14.24	H37	17.89	12.14	272.4	0.008	Circle	6	0.013	0.0289	0.102	0.52	0.5	0.1025	0.4926	20.7	100	TRUE	17.293
H45+H9	H45	12.4	3.93	H9	11.84	3.49	222.4	0.002	Circle	6	0.013	0.0046	0.01	0.05	0.5	0.0124	0.2496	4	100	TRUE	12.335
H46+H52	H46	11.27	7.47	H52	12.58	6.18	360.9	0.004	Circle	6	0.013	0.015	0.0529	0.27	0.5	0.0529	0.3354	15.8	100	TRUE	7.76
H47+H35	H47	15.05	10.1	H35	14.34	9.62	192.4	0.002	Circle	6	0.013	0.0237	0.1108	0.56	0.5	0.1472	0.2802	39.5	100	TRUE	15.237
H48+H55	H48	9.12	6.64	H55	9.3	4.32	217.4	0.011	Circle	6	0.013	0.005	0.01	0.72	0.03	0.01	0.5796	1.7	6.9	TRUE	6.677
H49+H48	H49	8.35	6.77	H48	9.12	6.72	32.6	0.002	Circle	6	0.013	0.005	0.01	0.66	0.02	0.01	0.2197	4.6	4.4	FALSE	6.807
H50+H26	H50	10.13	5.03	H26	10.63	4.58	154.3	0.003	Circle	6	0.013	0.0192	0.0671	0.34	0.5	0.0676	0.303	22.1	100	TRUE	6.45
H51+H50	H51	10.5	6.35	H50	10.13	5.13	189.2	0.006	Circle	6	0.013	0.0096	0.0371	0.19	0.5	0.0373	0.4505	8.2	100	TRUE	6.479
H52+H29	H52	12.58	6.18	H29	12.43	5.83	94.4	0.004	Circle	6	0.013	0.04	0.1059	0.54	0.5	0.1059	0.3416	31	100	TRUE	7.759
H53+H52	H53	12.4	8.3	H52	12.58	6.23	233.2	0.009	Circle	6	0.013	0.025	0.0529	0.27	0.49	0.053	0.5286	10	98.9	TRUE	8.438
H54+H20	H54	9.2	4	H20	9.1	3.7	152.6	0.002	Circle	6	0.013	0.01	0.02	0.1	0.5	0.0203	0.2488	8	100	TRUE	4.866
H55+H54	H55	9.3	4.32	H54	9.2	4.22	50	0.002	Circle	6	0.013	0.01	0.02	0.1	0.5	0.02	0.2509	8	100	TRUE	4.866
H56+H55	H56	9.2	4.75	H55	9.3	4.32	215.8	0.002	Circle	6	0.013	0.005	0.01	0.07	0.33	0.01	0.2505	4	66.3	TRUE	4.867
H57+H16	H57	14.21	6.69	H16	14.43	6.48	40.5	0.005	Circle	8	0.013	0.1104	0.5485	1.57	0.67	0.5485	0.8701	63	100	TRUE	11.188
H58+H57	H58	15.13	7.62	H57	14.21	6.69	184.6	0.005	Circle	8	0.013	0	0.0406	0.12	0.67	0.0409	0.8577	4.7	100	TRUE	11.188
H59+H58	H59	16.1	8.59	H58	15.13	7.62	194.6	0.005	Circle	8	0.013	0	0	0	0.67	0	0.8531	0	100	TRUE	11.188
H59+H61	H59	16.1	8.59	H61	15.42	6.28	194.6	0.012	Circle	8	0.013	0	0	0	0.67	0.0352	1.3165	0	100	TRUE	10.465
H60+H15	H60	14.57	5.9	H15	14.61	5.7	98.7	0.002	Circle	8	0.013	0.1104	0.5888	1.69	0.67	0.5888	0.5439	108.3	100	TRUE	10.465
H61+H60	H61	15.42	6.28	H60	14.57	5.9	189.5	0.002	Circle	8	0.013	0	0.0406	0.12	0.67	0.0782	0.5411	7.5	100	TRUE	10.465

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H62+H14	H62	12.95	4.64	H14	11.02	3.54	232.8	0.005	Circle	8	0.013	0.115	0.5997	1.72	0.67	0.5997	0.8306	72.2	100	TRUE	9.856
H63+H62	H63	13.79	5.49	H62	12.95	4.64	169.8	0.005	Circle	6	0.013	0.0046	0.011	0.06	0.5	0.0115	0.397	2.8	100	TRUE	9.856
H64+H71	H64	9.05	0.99	H71	8.35	0.77	160.6	0.001	Circle	8	0.013	0.1979	0.8804	2.52	0.67	0.8804	0.4472	196.9	100	TRUE	5.463
H65+H64	H65	9.89	1.83	H64	9.05	0.99	168.3	0.005	Circle	6	0.013	0.0075	0.029	0.15	0.5	0.0296	0.3964	7.3	100	TRUE	5.464
H66+H65	H66	9.89	2.09	H65	9.89	1.83	51.4	0.005	Circle	6	0.013	0.0075	0.029	0.15	0.5	0.029	0.399	7.3	100	TRUE	5.464
H67+H66	H67	9.89	2.32	H66	9.89	2.09	46	0.005	Circle	6	0.013	0.0025	0.01	0.05	0.5	0.01	0.3967	2.5	100	TRUE	5.465
H68+H66	H68	9.89	2.42	H66	9.89	2.09	67	0.005	Circle	6	0.013	0.005	0.019	0.1	0.5	0.019	0.3938	4.8	100	TRUE	5.465
H69+H68	H69	9.89	2.64	H68	9.89	2.42	45.6	0.005	Circle	6	0.013	0.0025	0.01	0.05	0.5	0.01	0.3897	2.6	100	TRUE	5.465
H70+H68	H70	9.89	2.67	H68	9.89	2.42	51.2	0.005	Circle	6	0.013	0.0025	0.009	0.05	0.5	0.009	0.3921	2.3	100	TRUE	5.465
H71+H3	H71	8.35	0.77	H3	8.2	0.7	35	0.002	Circle	8	0.013	0.1989	0.8894	2.55	0.67	0.8894	0.5404	164.6	100	TRUE	4.622
H72+H71	H72	9.26	1.54	H71	8.35	0.77	182.4	0.004	Circle	6	0.013	0.001	0.009	0.05	0.5	0.0095	0.3645	2.5	100	TRUE	4.623
H73+H74	H73	11.36	2.56	H74	11.16	2.34	101	0.002	Circle	12	0.013	0.4093	3.1013	3.95	1	3.1013	1.6627	186.5	100	TRUE	10.498
H74+H8	H74	11.16	2.34	H8	10.95	2.1	112.9	0.002	Circle	12	0.013	0.4093	3.1013	3.95	1	3.1012	1.6426	188.8	100	TRUE	9.817
H75+H6	H75	10.09	1.58	H6	8.89	1.04	259.7	0.002	Circle	12	0.013	0.4093	3.1012	3.95	1	3.1012	1.6245	190.9	100	TRUE	6.743
I3+T19	I3	1.69	-3.99	T19	2.23	-4.27	188.4	0.001	Circle	18	0.013	0.7435	5.2299	2.96	1.5	5.2299	4.0493	129.2	100	TRUE	-1.601
I4+I3	I4	1.84	-3.79	I3	1.69	-3.99	242.6	0.001	Circle	18	0.013	0.7435	5.2299	2.96	1.5	5.2299	3.0159	173.4	100	TRUE	-1.136
I5+I31	I5	3.41	-3.42	I31	2.94	-3.53	135	0.001	Circle	18	0.013	0.7375	5.2199	2.95	1.5	5.2199	2.9983	174.1	100	TRUE	-0.25
I6+I5	I6	4.62	-3.08	I5	3.41	-3.42	410.7	0.001	Circle	18	0.013	0.7375	5.2199	2.95	1.5	5.2199	3.0222	172.7	100	TRUE	0.662
I7+I6	I7	5.18	-2.32	I6	4.62	-3.08	259	0.003	Circle	18	0.013	0.6452	4.0421	2.29	1.5	4.0421	5.6899	71	100	TRUE	0.934
I8+I7	I8	6.15	-1.45	I7	5.18	-2.32	238.1	0.004	Circle	15	0.013	0.6372	4.0354	3.29	1.25	4.0353	3.9046	103.3	100	TRUE	1.785
I9+I8	I9	5.69	-1.31	I8	6.15	-1.45	154.7	0.001	Circle	15	0.013	0.6322	4.0227	3.28	1.25	4.0226	1.9432	207	100	TRUE	2.3
I10+I9	I10	7.26	-0.74	I9	5.69	-1.31	221.1	0.003	Circle	15	0.013	0.6282	4.0104	3.27	1.25	4.0104	3.2797	122.3	100	TRUE	3.043
I11+I10	I11	8.07	-0.03	I10	7.26	-0.74	379.8	0.002	Circle	15	0.013	0.6282	4.0105	3.27	1.25	4.0104	2.7928	143.6	100	TRUE	4.409
I12+I6	I12	4.46	-2.19	I6	4.62	-2.83	338.5	0.002	Circle	12	0.013	0.0873	1.1728	1.49	1	1.1728	1.5491	75.7	100	TRUE	0.985
I13+I12	I13	5.54	-1.56	I12	4.46	-2.14	319.8	0.002	Circle	12	0.013	0.0873	1.1728	1.49	1	1.1728	1.5172	77.3	100	TRUE	1.25
I14+I13	I14	4.22	-0.83	I13	5.54	-1.51	443.5	0.002	Circle	12	0.013	0.0025	0.897	1.14	1	0.897	1.395	64.3	100	TRUE	1.447
I15+I14	I15	5.32	-0.53	I14	4.22	-0.78	386	0.001	Circle	12	0.013	0.0025	0.897	1.14	1	0.897	0.9067	98.9	100	TRUE	1.603
I16+I6	I16	4.85	0.96	I6	4.62	-2.38	492.8	0.007	Circle	6	0.013	0.005	0.005	0.03	0.5	0.0058	0.4619	1.1	100	TRUE	1.018
I17+I7	I17	5.54	1.51	I7	5.18	-1.27	525.8	0.005	Circle	6	0.013	0.008	0.005	0.03	0.5	0.0051	0.408	1.2	100	TRUE	1.546
I18+I8	I18	5.2	1.01	I8	6.15	-0.65	236.8	0.007	Circle	6	0.013	0.005	0.0088	0.05	0.5	0.015	0.4698	1.9	100	TRUE	1.785
I19+I18	I19	6.48	1.59	I18	5.2	1.11	238.8	0.002	Circle	6	0.013	0.005	0.005	0.03	0.44	0.005	0.2516	2	87.1	TRUE	1.785
I20+I9	I20	5.86	1.26	I9	5.69	-0.81	278.4	0.007	Circle	6	0.013	0.004	0.005	0.03	0.5	0.0081	0.4838	1	100	TRUE	2.301
I21+I24	I21	7.17	1.52	I24	7	-0.08	364.1	0.004	Circle	6	0.013	0.0636	0.197	1	0.5	0.1972	0.3719	53	100	TRUE	2.456
I22+I23	I22	8.69	3.44	I23	8.52	3.17	44.5	0.006	Circle	6	0.013	0.0212	0.059	1.11	0.16	0.0605	0.437	13.5	31.5	FALSE	3.597
I23+I27	I23	8.52	3.12	I27	8.3	2.86	80.1	0.003	Circle	6	0.013	0.0424	0.128	1.31	0.25	0.128	0.3197	40	49.8	FALSE	3.379
I24+I13	I24	7	-0.08	I13	5.54	-0.56	236.9	0.002	Circle	6	0.013	0.0848	0.2759	1.4	0.5	0.2759	0.2526	109.2	100	TRUE	1.933
I25+I24	I25	7	0.22	I24	7	-0.08	153.5	0.002	Circle	6	0.013	0.0212	0.0789	0.4	0.5	0.0817	0.248	31.8	100	TRUE	1.945
I26+I23	I26	9.29	4.04	I23	8.52	3.27	153.5	0.005	Circle	6	0.013	0.0212	0.069	1.15	0.17	0.0705	0.3974	17.4	34.5	FALSE	4.214
I27+I28	I27	8.3	2.86	I28	8.04	2.57	89.9	0.003	Circle	6	0.013	0.0424	0.128	1.29	0.25	0.1289	0.3187	40.2	50.4	FALSE	3.117
I28+I21	I28	8.04	2.57	I21	7.17	1.57	311.5	0.003	Circle	6	0.013	0.0636	0.197	1	0.5	0.197	0.3179	62	100	TRUE	2.909
I29+I28	I29	8.81	3.34	I28	8.04	2.57	153.5	0.005	Circle	6	0.013	0.0212	0.069	1.11	0.18	0.069	0.3974	17.4	35.4	FALSE	3.516
I31+I4	I31	2.94	-3.53	I4	1.84	-3.79	321.1	0.001	Circle	18	0.013	0.7435	5.2299	2.96	1.5	5.2299	2.9889	175	100	TRUE	-0.445
I32+I31	I32	3.97	-2.18	I31	2.94	-3.26	207.6	0.005	Circle	6	0.013	0.006	0.01	0.05	0.5	0.012	0.4047	2.5	100	TRUE	-0.444
I33+I32	I33	4.43	-1.73	I32	3.97	-2.18	90.2	0.005	Circle	6	0.013	0.002	0.005	0.03	0.5	0.005	0.3963	1.3	100	TRUE	-0.444
I34+I32	I34	4.56	-1.6	I32	3.97	-2.18	117.2	0.005	Circle	6	0.013	0.004	0.005	0.03	0.5	0.0051	0.3947	1.3	100	TRUE	-0.444
I43+I15	I43	5.62	0.12	I15	5.32	-0.53	61.7	0.011	Circle	12	0.013	0.0025	0.897	1.14	1	0.897	3.6566	24.5	100	TRUE	1.607
J5+T21	J5	4.44	-1.06	T21	3.07	-3.03	585.4	0.003	Circle	6	0.013	0.0417	0.0772	1.02	0.2	0.0772	0.3255	23.7	40.8	TRUE	-0.857
J6+J5	J6	5.85	0.6	J5	4.44	-0.96	558.5	0.003	Circle	6	0.013	0.0417	0.0772	0.97	0.21	0.0772	0.2965	26	42.6	FALSE	0.816
J7+J6	J7	5.96	1.9	J6	5.85	1.02	441.1	0.002	Circle	6	0.013	0.0133	0.0227	0.7	0.11	0.0227	0.2506	9.1	22.2	FALSE	2.012
J8+J6	J8	7.5	2.81	J6	5.85	0.7	442.1	0.005	Circle	6	0.013	0.0284	0.0545	0.99	0.16	0.0545	0.3876	14.1	32.4	FALSE	2.974
J9+J8	J9	8.19	3.23	J8	7.5	2.81	400.5	0.001	Circle	6	0.013	0.0284	0.0545	0.56	0.25	0.0545	0.1817	30	49.3	FALSE	3.478
J10+J9	J10	9.91	4.26	J9	8.19	3.34	299.8	0.003	Circle	6	0.013	0.0284	0.0545	0.83	0.18	0.0546	0.3108	17.5	36.9	FALSE	4.444
J11+T20	J11	1.31	-2.3	T20	2.72	-3.58	282.4	0.005	Circle	8	0.013	0.0145	0.029	0.08	0.67	0.0293	0.8135	3.6	100	TRUE	-1.982
J12+J11	J12	1.94	-1.61	J11	1.31	-2.2	299.4	0.002	Circle	8	0.013	0.0145	0.029	0.62	0.13	0.029	0.5364	5.4	19.1	FALSE	-1.48
J13+J12	J13	2.73	-0.51	J12	1.94	-1.51	298.6	0.003	Circle	8	0.013	0.0145	0.0291	0.72	0.11	0.0291	0.6993	4.2	17.2	FALSE	-0.397
J14+J13	J14	3.27	-0.03	J13	2.73	-0.41	190	0.002	Circle	8	0.013	0.0145	0.029	0.65	0.12	0.0292	0.5404	5.4	18.6	FALSE	0.097
K1+T15	K1	2.02	-6.28	T15	2.75	-6.5	20.4	0.011	Circle	14	0.013	0.3785	1.5059	1.41	1.17	1.5092	5.5807	27	100	TRUE	-5.086
K2+K1	K2	3.35	-5.2	K1	2.02	-6.28	451.1	0.002	Circle	14	0.013	0.3785	1.5059	2.51	0.64	1.5059	2.6295	57.3	54.8	TRUE	-4.555
K3+K2	K3	4.05	-4.8	K2	3.35	-5.2	189.7	0.002	Circle	12	0.013	0.3785	1.5059	2.6	0.69	1.5059	1.6359	92.1	69.2	FALSE	-4.044
K4+K3	K4	3.55	-4.1	K3	4.05	-4.8	238.3	0.003	Circle	12	0.013	0.3765	1.4959	2.69	0.67	1.4959	1.9309	77.5	66.7	FALSE	-3.424
K5+K4	K5	3.31	-3.39	K4	3.55	-4.1	248.1	0.003	Circle	12	0.013	0.1743	0.3979	1.77	0.33	0.398	1.9058	20.9	32.8	FALSE	-3.062
K6+K5	K6	4.44	-2.86	K5	3.31	-3.39	251.1	0.002	Circle	12	0.013	0.1606	0.3614	1.57	0.33	0.3615	1.6368	22.1	33.5	FALSE	-2.52
K7+K6	K7	3.35	-1.85	K6	4.44	-2.66	362.1	0.002	Circle	8	0.013	0.0076	0.02	0.72	0.09	0.02	0.5715	3.5	13.4	FALSE	-1.759
K8+K7	K8	2.87	-1.18	K7	3.35	-1.85	355.5	0.002	Circle	8	0.013	0.0076	0.02	0.67	0.09	0.02	0.5246	3.8	14	FALSE	-1.085
K9+K8	K9	3.87	-0.58	K8	2.87	-1.18	355.9	0.002	Circle	8	0.013	0.0076	0.02	0.64	0.1	0.02	0.4961	4	14.4	FALSE	-0.481
K10+K9	K10	4.11	0.11	K9	3.87	-0.48	155.5	0.004	Circle	6	0.013	0.0046	0.01	0.73	0.04	0.01	0.3456	2.9	7.3	FALSE	0.155
K11+K5	K11	3.67	-2.23	K5	3.31	-2.99	369.8	0.002	Circle	6	0.013	0.0077	0.0205	0.72	0.1	0.0205	0.2544	8.1	20.1	FALSE	-2.128
K12+K11	K12	3.54	-0.86	K11	3.67	-2.08	353.5	0.003	Circle	6	0.013	0.0077	0.0205	0.91	0.09	0.0205	0.3296	6.2	17.1	FALSE	-0.77
K13+K12	K13	2.97	0.27	K12	3.54	-0.86	362	0.003	Circle	6	0.013	0.0077	0.0205	0.87	0.09	0.0205	0.3135	6.5	17.7	FALSE	0.362

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
K14+K13	K14	3.19	0.45	K13	2.97	0.27	90.4	0.002	Circle	6	0.013	0.0077	0.0205	0.75	0.1	0.0205	0.2504	8.2	19.7	FALSE	0.551
K15+K9	K15	3.43	-0.33	K9	3.87	-0.48	73.9	0.002	Circle	6	0.013	0.003	0.01	0.79	0.05	0.01	0.2528	4	9.7	FALSE	-0.278
K16+K4	K16	3.55	-2.65	K4	3.55	-3.45	273.7	0.003	Circle	6	0.013	0.008	0.0205	0.75	0.1	0.0205	0.3033	6.8	19.7	FALSE	-2.555
K17+K16	K17	2.92	-1.88	K16	3.55	-2.6	267.2	0.003	Circle	6	0.013	0.0062	0.0205	0.75	0.1	0.0205	0.2913	7	19.7	FALSE	-1.784
K18+K17	K18	3.64	-1.31	K17	2.92	-1.88	268.7	0.002	Circle	6	0.013	0.0062	0.0205	0.72	0.1	0.0205	0.2584	7.9	20.3	FALSE	-1.209
K19+K18	K19	3.25	-0.65	K18	3.64	-1.31	272	0.002	Circle	6	0.013	0.0062	0.0205	0.73	0.1	0.0207	0.2764	7.4	20	FALSE	-0.552
K20+K19	K20	2.67	-0.53	K19	3.25	-0.6	134.6	0.001	Circle	6	0.013	0.0062	0.0205	0.94	0.07	0.0205	0.128	16	13.5	FALSE	-0.407
K21+K3	K21	3.15	-2.1	K3	4.05	-4.25	246.4	0.009	Circle	6	0.013	0.002	0.01	0.73	0.04	0.01	0.5241	1.9	7.3	FALSE	-2.061
K22+K21	K22	3.29	-1.16	K21	3.15	-2.05	256.2	0.003	Circle	6	0.013	0.001	0.005	0.69	0.03	0.005	0.3307	1.5	6.7	FALSE	-1.132
K23+K22	K23	3.52	-0.91	K22	3.29	-1.11	99.5	0.002	Circle	6	0.013	0.001	0.005	0.66	0.03	0.005	0.2516	2	5.4	FALSE	-0.883
K24+K21	K24	3.55	-1.7	K21	3.15	-2	148.6	0.002	Circle	6	0.013	0.001	0.005	0.65	0.03	0.005	0.2521	2	5.1	FALSE	-1.673
K25+K5	K25	3.6	-1.7	K5	3.31	-3.09	376.2	0.004	Circle	6	0.013	0.006	0.016	0.91	0.07	0.016	0.3411	4.7	13.2	FALSE	-1.629
K26+K6	K26	4.36	-1.29	K6	4.44	-2.76	293.6	0.005	Circle	6	0.013	0.0208	0	0	0	0.0093	0.397	0	0	FALSE	-1.156
K27+K26	K27	3.95	-0.6	K26	4.36	-1.29	199.5	0.003	Circle	6	0.013	0	0	0	0	0.0241	0.33	0	0	FALSE	-0.474
K28+K4	K28	3.27	-4	K4	3.55	-4.1	242	0	Circle	10	0.013	0.196	1.0776	1.98	0.83	1.0776	0.4454	242	100	TRUE	-2.84
K30+K31	K30	3.78	-3.21	K31	3.08	-3.43	108.2	0.002	Circle	8	0.013	0.028	0.119	0.34	0.67	0.1197	0.5449	21.8	100	TRUE	-2.286
K31+L1	K31	3.08	-3.43	L1	2.82	-3.73	147.8	0.002	Circle	8	0.013	0.028	0.119	0.34	0.67	0.1197	0.5444	21.9	100	TRUE	-2.287
K32+K30	K32	3.16	-2.76	K30	3.78	-3.21	226.9	0.002	Circle	8	0.013	0.028	0.119	0.34	0.67	0.1195	0.5381	22.1	100	TRUE	-2.286
K33+K32	K33	2.74	-2.37	K32	3.16	-2.76	130.8	0.003	Circle	6	0.013	0.011	0.0595	0.53	0.28	0.0595	0.3064	19.4	55.9	FALSE	-2.178
K34+K33	K34	3.08	-1.54	K33	2.74	-2.37	278.4	0.003	Circle	6	0.013	0.011	0.0595	0.86	0.19	0.0595	0.3064	19.4	38.3	FALSE	-1.349
K35+K34	K35	2.78	-0.7	K34	3.08	-1.54	279.8	0.003	Circle	6	0.013	0.011	0.0595	0.86	0.19	0.0595	0.3074	19.4	38.2	FALSE	-0.509
K36+K35	K36	2.75	0.15	K35	2.78	-0.7	281.5	0.003	Circle	6	0.013	0.011	0.0595	0.86	0.19	0.0596	0.3083	19.3	38.2	FALSE	0.34
K37+K32	K37	2.51	-1.01	K32	3.16	-2.76	350.2	0.005	Circle	6	0.013	0.017	0.0595	1.01	0.17	0.0595	0.3966	15	33.9	FALSE	-0.844
L1+L21	L1	2.82	-3.73	L21	2.74	-3.95	223.2	0.001	Circle	10	0.013	0.196	1.0776	1.98	0.83	1.0776	0.6878	156.7	100	TRUE	-2.287
L2+L1	L2	2.72	-3.28	L1	2.82	-3.73	178.7	0.003	Circle	10	0.013	0.168	0.9586	1.76	0.83	0.9586	1.0994	87.2	100	TRUE	-2.025
L3+L2	L3	2.93	-3.17	L2	2.72	-3.28	83.4	0.001	Circle	10	0.013	0.168	0.9586	1.76	0.83	0.9586	0.7957	120.5	100	TRUE	-1.955
L4+L3	L4	3.39	-2.3	L3	2.93	-3.12	247.6	0.003	Circle	10	0.013	0.1123	0.5071	1.07	0.67	0.5071	1.2608	40.2	80.9	TRUE	-1.862
L5+L47	L5	4.17	-1.38	L47	3.21	-2.04	276.3	0.002	Circle	6	0.013	0.021	0.068	0.86	0.21	0.068	0.2742	24.8	42.5	FALSE	-1.165
L6+L5	L6	4.69	-0.51	L5	4.17	-1.38	214.9	0.004	Circle	6	0.013	0.015	0.034	0.95	0.12	0.034	0.357	9.5	23.7	FALSE	-0.379
L7+L6	L7	5.31	-0.39	L6	4.69	-0.51	260.6	0	Circle	6	0.013	0.015	0.034	0.47	0.2	0.034	0.1204	28.2	39.5	FALSE	-0.158
L8+L7	L8	5.39	-0.24	L7	5.31	-0.39	72.8	0.002	Circle	6	0.013	0.015	0.034	0.64	0.16	0.034	0.2547	13.3	31.5	FALSE	-0.082
L9+L4	L9	3.42	-1.78	L4	3.39	-2.05	162.3	0.002	Circle	6	0.013	0.0409	0.2351	1.36	0.41	0.2351	0.2288	102.7	82.5	FALSE	-1.318
L10+K27	L10	3.59	0.24	K27	3.95	-0.55	197.2	0.004	Circle	6	0.013	0	0	0	0	0.0032	0.3551	0	0	FALSE	0.24
L10+L9	L10	3.59	-0.76	L9	3.42	-1.78	274.7	0.004	Circle	6	0.013	0.01	0.0694	1	0.19	0.0694	0.3419	20.3	38.3	FALSE	-0.568
L11+L10	L11	4.97	0.57	L10	3.59	-0.56	359.8	0.003	Circle	6	0.013	0.01	0.0696	0.96	0.2	0.0697	0.3144	22.1	39.7	FALSE	0.771
L12+L11	L12	4.97	0.62	L11	4.97	0.57	81.8	0.001	Circle	6	0.013	0.01	0.0536	0.88	0.17	0.0542	0.1387	38.6	34.9	FALSE	0.864
L13+L9	L13	4.47	-0.58	L9	3.42	-1.73	310.9	0.004	Circle	6	0.013	0.0309	0.1657	1.49	0.28	0.1657	0.3412	48.6	55.2	FALSE	-0.302
L14+L13	L14	5.25	0.6	L13	4.47	-0.58	301.6	0.004	Circle	6	0.013	0.0309	0.1657	1.52	0.27	0.1657	0.351	47.2	54.2	FALSE	0.873
L15+L14	L15	6.17	1.92	L14	5.25	0.6	310.2	0.004	Circle	6	0.013	0.0309	0.1657	1.57	0.26	0.1657	0.366	45.3	52.9	FALSE	2.186
L16+L15	L16	7.37	2.67	L15	6.17	1.92	311.1	0.002	Circle	6	0.013	0.0309	0.1657	1.26	0.32	0.1658	0.2755	60.2	63.3	FALSE	2.992
L17+L16	L17	7.38	3.53	L16	7.37	2.67	236.3	0.004	Circle	6	0.013	0.0294	0.16	1.48	0.27	0.16	0.3385	47.3	54.1	FALSE	3.804
L18+L17	L18	8.22	4.37	L17	7.38	3.53	330.9	0.003	Circle	6	0.013	0.0294	0.16	1.27	0.31	0.16	0.2827	56.6	61	FALSE	4.677
L19+L18	L19	9.56	5.51	L18	8.22	4.37	332.7	0.003	Circle	6	0.013	0.0294	0.16	1.43	0.28	0.16	0.3284	48.7	55.5	FALSE	5.787
L20+L16	L20	8.52	2.97	L16	7.37	2.77	101.4	0.002	Circle	6	0.013	0.0015	0.0058	0.15	0.12	0.0058	0.2492	2.3	24.5	FALSE	3.001
L21+K28	L21	2.74	-3.95	K28	3.27	-4	68.3	0.001	Circle	10	0.013	0.196	1.0776	1.98	0.83	1.0776	0.5928	181.8	100	TRUE	-2.769
L22+L3	L22	3.32	-0.13	L3	2.93	-2.72	365.6	0.007	Circle	6	0.013	0.013	0.0255	0.68	0.01	0.0261	0.4722	5.4	2	TRUE	0.003
L23+L3	L23	3.05	-2.75	L3	2.93	-3.02	351.1	0.001	Circle	8	0.013	0.0427	0.4197	1.2	0.67	0.4197	0.3351	125.3	100	TRUE	-1.508
L24+L23	L24	2.38	-2.17	L23	3.05	-2.75	386.3	0.002	Circle	8	0.013	0.0427	0.4197	1.2	0.67	0.4197	0.4682	89.6	100	TRUE	-1.062
L25+L24	L25	3.54	-1.91	L24	2.38	-2.17	342	0.001	Circle	8	0.013	0.0427	0.4197	1.2	0.67	0.4197	0.3332	126	100	TRUE	-0.676
L26+L25	L26	3.77	-1.38	L25	3.54	-1.91	215.6	0.002	Circle	8	0.013	0.037	0.282	0.81	0.67	0.282	0.5991	47.1	100	TRUE	-0.627
L27+L26	L27	3.7	-0.86	L26	3.77	-1.38	260.1	0.002	Circle	8	0.013	0.028	0.158	0.64	0.44	0.158	0.5403	29.2	66.2	TRUE	-0.57
L28+L27	L28	3.81	0.26	L27	3.7	-0.86	362.9	0.003	Circle	6	0.013	0.014	0.079	1.01	0.21	0.079	0.3117	25.3	41.8	FALSE	0.47
L29+L28	L29	4.59	1.14	L28	3.81	0.26	366	0.002	Circle	6	0.013	0.014	0.079	0.92	0.22	0.079	0.2751	28.7	44.8	FALSE	1.364
L30+L27	L30	3.71	-0.19	L27	3.7	-0.86	236	0.003	Circle	6	0.013	0.014	0.079	0.98	0.22	0.079	0.299	26.4	43	FALSE	0.025
L31+L30	L31	4.39	0.64	L30	3.71	-0.19	178.8	0.005	Circle	6	0.013	0.014	0.079	1.2	0.18	0.079	0.3823	20.7	36.9	FALSE	0.828
L32+L31	L32	5.42	1.62	L31	4.39	0.64	293.5	0.003	Circle	6	0.013	0.014	0.079	1.04	0.21	0.079	0.3242	24.4	41.2	FALSE	1.828
L33+L32	L33	5.85	1.8	L32	5.42	1.62	90.7	0.002	Circle	6	0.013	0.014	0.079	0.9	0.23	0.0796	0.25	31.6	45.8	FALSE	2.035
L34+L26	L34	4.66	-0.24	L26	3.77	-1.28	287.3	0.004	Circle	6	0.013	0.009	0.124	1.36	0.24	0.124	0.3376	36.7	47.2	TRUE	0.005
L35+L34	L35	5.3	0.7	L34	4.66	-0.24	253.5	0.004	Circle	6	0.013	0	0.11	1.26	0.23	0.11	0.3417	32.2	45.6	FALSE	0.929
L36+L35	L36	5.75	1.65	L35	5.3	0.7	277.7	0.003	Circle	6	0.013	0	0.11	1.22	0.23	0.11	0.3282	33.5	46.6	FALSE	1.884
L37+L36	L37	6.21	2.76	L36	5.75	1.65	322.8	0.003	Circle	6	0.013	0	0	0	0	0	0.329	0	0	FALSE	2.76
L37+L38	L37	6.21	2.76	L38	5.64	2.24	210.4	0.002	Circle	6	0.013	0	0	0	0	0	0.2789	0	0	FALSE	2.76
L38+L39	L38	5.64	2.24	L39	4.89	1.54	215.2	0.003	Circle	6	0.013	0	0.12	1.26	0.24	0.12	0.32	37.5	48.8	FALSE	2.487
L39+L40	L39	4.89	1.54	L40	4.16	0.81	345.7	0.002	Circle	6	0.013	0	0.12	1.06	0.28	0.12	0.2578	46.5	55.9	FALSE	1.821
L40+L42	L40	4.16	0.61	L42	3.25	0.2	345.8	0.001	Circle	8	0.013	0.0017	0.1249	0.88	0.29	0.125	0.4161	30	42.8	FALSE	0.899
L41+L40	L41	6.09	0.95	L40	4.16	0.81	70.6	0.002	Circle	6	0.013	0.0017	0.0049	0.64	0.02	0.0049	0.2499	2	4.7	FALSE	0.977
L42+L43	L42	3.25	0.2	L43	2.56	-0.34	330.1	0.002	Circle	8	0.013	0.0017	0.125	0.98	0.26	0.125	0.4887	25.6	39.3	FALSE	0.464
L43+L44	L43	2.56	-0.34	L44	3.5	-0.85	334.4	0.002	Circle	8	0.013	0.0017	0.125	0.95	0.27	0.125	0.4719	26.5	40.1	FALSE	-0.071
L44+L45	L44	3.5	-0.85	L45	2.57	-1.33	238.4	0.002	Circle	8	0.013	0.0017	0.125	0.55	0.42	0.125	0.5422	23	62.3	FALSE	-0.6

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
L45+L25	L45	2.57	-1.38	L25	3.54	-1.76	201.8	0.002	Circle	8	0.013	0.0057	0.1377	0.39	0.67	0.1377	0.5244	26.3	100	TRUE	-0.675
L46+L45	L46	2.92	-0.93	L45	2.57	-1.23	136	0.002	Circle	6	0.013	0.004	0.0128	0.07	0.41	0.0128	0.2635	4.8	81	TRUE	-0.675
L47+L4	L47	3.21	-2.04	L4	3.39	-2.3	88	0.003	Circle	8	0.013	0.0714	0.272	1.62	0.32	0.272	0.6568	41.4	48.5	FALSE	-1.711
L48+L47	L48	3.22	-1.35	L47	3.21	-2.04	228.9	0.003	Circle	8	0.013	0.0504	0.204	1.49	0.28	0.204	0.6634	30.7	41.4	FALSE	-1.072
L49+L48	L49	4.08	-1.2	L48	3.22	-1.35	233.3	0.001	Circle	8	0.013	0.0504	0.204	0.99	0.38	0.204	0.3064	66.6	56.9	FALSE	-0.788
L50+L49	L50	4.26	-0.68	L49	4.08	-1.2	223.6	0.002	Circle	8	0.013	0.0504	0.204	1.35	0.3	0.204	0.5827	35	44.6	FALSE	-0.378
L51+L50	L51	3.85	-0.28	L50	4.26	-0.68	79.7	0.005	Circle	6	0.013	0.0013	0.0077	0.27	0.1	0.0077	0.3975	1.9	20.3	FALSE	-0.245
L52+L50	L52	4.54	-0.36	L50	4.26	-0.68	223.9	0.001	Circle	6	0.013	0.0491	0.1963	1.17	0.4	0.1963	0.2121	92.5	79.9	FALSE	0.071
L53+L52	L53	5.4	0.6	L52	4.54	-0.36	218.4	0.004	Circle	6	0.013	0.0491	0.1963	1.69	0.29	0.1963	0.372	52.8	57.2	FALSE	0.892
L54+L53	L54	6.47	2.07	L53	5.4	0.6	369.4	0.004	Circle	6	0.013	0.037	0.0935	1.21	0.21	0.0935	0.3539	26.4	41.6	FALSE	2.281
L55+L54	L55	6.53	2.37	L54	6.47	2.07	148.7	0.002	Circle	6	0.013	0.0177	0.0425	0.62	0.19	0.0425	0.252	16.9	38	FALSE	2.56
L56+L54	L56	7.59	3.34	L54	6.47	2.17	326.7	0.004	Circle	6	0.013	0.0193	0.051	0.84	0.17	0.0511	0.3358	15.2	34.8	FALSE	3.512
L57+L53	L57	5.49	1.29	L53	5.4	0.65	202.8	0.003	Circle	6	0.013	0.0121	0.1028	1.16	0.23	0.1028	0.3152	32.6	46	FALSE	1.523
L58+L57	L58	6.75	2.35	L57	5.49	1.29	295.3	0.004	Circle	6	0.013	0.0121	0.1028	1.21	0.22	0.1028	0.3362	30.6	44.8	FALSE	2.574
L59+L58	L59	7.91	3.31	L58	6.75	2.35	250	0.004	Circle	6	0.013	0.0121	0.1028	1.24	0.22	0.103	0.3477	29.6	43.9	FALSE	3.531
L60+L59	L60	8.08	3.53	L59	7.91	3.31	108.8	0.002	Circle	6	0.013	0.0121	0.1028	1.02	0.26	0.1028	0.2523	40.7	51.1	FALSE	3.792
L61+L5	L61	4.57	-0.73	L5	4.17	-1.13	152.5	0.003	Circle	6	0.013	0.006	0.034	0.71	0.15	0.034	0.2874	11.8	29.3	FALSE	-0.581
L62+L34	L62	4.95	0.45	L34	4.66	-0.19	146.7	0.004	Circle	6	0.013	0.009	0.014	0.66	0.08	0.014	0.3706	3.8	16.4	FALSE	0.515
M2+I43	M2	5.62	0.3	I43	5.62	0.22	42.2	0.002	Circle	10	0.013	0.0025	0.897	1.64	0.83	0.897	0.9539	94	100	TRUE	1.611
M2+N1	M2	5.62	2.62	N1	5.32	2.32	82	0.004	Circle	12	0.013	0	0	0	0.03	0	2.1549	0	2.5	FALSE	2.66
M3+M2	M3	6.98	1.33	M2	5.62	0.3	379.8	0.003	Circle	8	0.013	0.0015	0.8973	2.57	0.67	0.8973	0.6293	142.6	100	TRUE	3.687
M4+M31	M4	9.9	3	M31	7	2.52	142.5	0.003	Circle	8	0.013	0.0122	0.6174	1.77	0.67	0.6174	0.7013	88	100	TRUE	6.051
M5+M4	M5	11.95	3.9	M4	9.9	3.05	372.5	0.002	Circle	8	0.013	0.0519	0.6174	1.77	0.67	0.6174	0.5772	107	100	TRUE	7.038
M6+M22	M6	12.3	6.22	M22	12.3	5.54	341.1	0.002	Circle	10	0.013	0.0744	0.3512	0.64	0.83	0.3513	0.9782	35.9	100	TRUE	7.047
M7+M6	M7	12.4	6.45	M6	12.3	6.22	115.5	0.002	Circle	10	0.013	0.0979	0.3513	0.71	0.71	0.3513	0.9777	35.9	85.5	FALSE	7.048
M8+M7	M8	14.41	7.71	M7	12.4	6.45	192.5	0.007	Circle	10	0.013	0.1057	0.3513	2.36	0.26	0.3521	1.7725	19.8	31.7	FALSE	7.979
M12+M40	M12	14.95	7.4	M40	13.27	5.72	338.8	0.005	Circle	8	0.013	0.041	0.2462	0.92	0.48	0.2466	0.8509	28.9	71.9	TRUE	7.665
M13+M12	M13	16.33	8.78	M12	14.95	7.4	275.6	0.005	Circle	8	0.013	0.0368	0.2463	1.92	0.26	0.2466	0.8551	28.8	39.6	FALSE	9.045
M14+M5	M14	10.14	5.82	M5	11.95	3.95	327.8	0.006	Circle	6	0.013	0.001	0.02	0.1	0.5	0.0209	0.4238	4.7	100	TRUE	7.038
M16+M8	M16	14.85	8.05	M8	14.41	7.81	19.7	0.012	Circle	6	0.013	0.0005	0.01	0.44	0.09	0.01	0.6193	1.6	17.4	FALSE	8.086
M18+M5	M18	12	4.51	M5	11.95	4.2	153.9	0.002	Circle	10	0.013	0.0696	0.3512	0.64	0.83	0.3513	0.9833	35.7	100	TRUE	7.039
M19+M18	M19	12.1	4.7	M18	12	4.51	94.8	0.002	Circle	10	0.013	0.063	0.3512	0.64	0.83	0.3513	0.9808	35.8	100	TRUE	7.04
M20+M19	M20	12.2	4.86	M19	12.1	4.7	78	0.002	Circle	10	0.013	0.0706	0.3512	0.64	0.83	0.3513	0.9923	35.4	100	TRUE	7.042
M21+M20	M21	12.3	5.45	M20	12.2	4.86	296.6	0.002	Circle	10	0.013	0.074	0.3512	0.64	0.83	0.3513	0.9771	35.9	100	TRUE	7.044
M22+M21	M22	12.3	5.54	M21	12.3	5.45	43.3	0.002	Circle	10	0.013	0.0885	0.3512	0.64	0.83	0.3513	0.9988	35.2	100	TRUE	7.045
M23+M24	M23	7.5	4.92	M24	7.4	4.53	195	0.002	Circle	8	0.013	0.0387	0.28	0.8	0.67	0.28	0.5404	51.8	100	TRUE	5.999
M24+M25	M24	7.4	4.56	M25	7.3	4.04	260	0.002	Circle	8	0.013	0.0327	0.28	0.8	0.67	0.28	0.5404	51.8	100	TRUE	5.969
M25+M26	M25	7.3	4.04	M26	7.3	3.5	270	0.002	Circle	8	0.013	0.0371	0.28	0.8	0.67	0.28	0.5404	51.8	100	TRUE	5.909
M26+M27	M26	7.3	3.5	M27	7.2	3.25	124.9	0.002	Circle	8	0.013	0.022	0.28	0.8	0.67	0.28	0.5406	51.8	100	TRUE	5.907
M27+M29	M27	7.2	3.25	M29	7.1	3.18	35.2	0.002	Circle	8	0.013	0.0237	0.28	0.8	0.67	0.28	0.5389	52	100	TRUE	5.906
M28+N11	M28	7.3	0.37	N11	7.2	-0.1	236.4	0.002	Circle	8	0.013	0.0031	0.0109	0.78	0.04	0.0109	0.5388	2	6.7	FALSE	0.425
M29+M31	M29	7.1	3.18	M31	7	2.52	328.8	0.002	Circle	8	0.013	0.0373	0.28	0.8	0.67	0.28	0.5414	51.7	100	TRUE	5.905
M30+N29	M30	7.3	0.64	N29	7.2	0.13	255.2	0.002	Circle	8	0.013	0.006	0.0109	0.74	0.06	0.0109	0.5402	2	8.7	FALSE	0.696
M31+M3	M31	7	2.52	M3	6.98	1.33	357.1	0.003	Circle	8	0.013	0.0033	0.8973	2.57	0.67	0.8973	0.6975	128.6	100	TRUE	5.733
M32+M33	M32	7.3	2.88	M33	7.3	2.49	195	0.002	Circle	8	0.013	0.0062	0.0123	0.84	0.05	0.0123	0.5404	2.3	8.2	FALSE	2.942
M33+M34	M33	7.3	2.49	M34	7.2	1.91	287.6	0.002	Circle	8	0.013	0.0062	0.0123	0.7	0.06	0.0123	0.5426	2.3	9.7	FALSE	2.552
M34+N22	M34	7.2	1.91	N22	7.1	1.4	253.5	0.002	Circle	8	0.013	0.011	0.0246	0.64	0.11	0.0246	0.542	4.5	16.6	FALSE	2.022
M35+M34	M35	7.2	2.16	M34	7.2	1.91	123.6	0.002	Circle	8	0.013	0.0048	0.0123	0.76	0.06	0.0123	0.5434	2.3	9.2	FALSE	2.221
M36+M37	M36	7.3	3.24	M37	7.4	2.73	256.6	0.002	Circle	8	0.013	0.0108	0.0287	0.62	0.13	0.0288	0.5387	5.3	19	FALSE	3.366
M37+N24	M37	7.4	2.73	N24	7.3	2.21	259.3	0.002	Circle	8	0.013	0.0108	0.0287	0.62	0.13	0.0289	0.5411	5.3	19	FALSE	2.859
M38+M39	M38	19.58	12.03	M39	18.79	11.24	153	0.005	Circle	8	0.013	0.0532	0.2464	1.95	0.26	0.2472	0.8683	28.4	39	FALSE	12.291
M39+M43	M39	18.79	11.24	M43	17.59	10.04	240	0.005	Circle	8	0.013	0.0367	0.2465	1.94	0.26	0.2466	0.8544	28.8	39.2	FALSE	11.505
M40+M5	M40	13.27	5.72	M5	11.95	4.4	265.2	0.005	Circle	8	0.013	0.0284	0.2465	0.71	0.67	0.2465	0.8525	28.9	100	TRUE	7.039
M41+M13	M41	16.89	9.34	M13	16.33	8.78	109.7	0.005	Circle	8	0.013	0.0449	0.2463	1.94	0.26	0.2464	0.8633	28.5	39.3	FALSE	9.604
M42+M41	M42	17.07	9.82	M41	16.89	9.34	37	0.013	Circle	8	0.013	0.0401	0.2463	2.71	0.2	0.2464	1.3763	17.9	30.7	FALSE	10.029
M43+M42	M43	17.59	10.04	M42	17.07	9.82	103	0.002	Circle	8	0.013	0.0458	0.2463	1.49	0.32	0.2465	0.5585	44.1	48	FALSE	10.373
METERING STATION+T2	METERING STATION	0	-14.66	T2	3.04	-14.76	444.9	0	Circle	24	0.013	1.7982	8.9574	3.04	1.77	8.9574	3.3914	264.1	88.7	TRUE	-12.603
N1+K6	N1	5.32	-2.08	K6	4.44	-2.86	253.3	0.003	Circle	12	0.013	0.153	0.3379	1.75	0.29	0.338	1.977	17.1	29.4	FALSE	-1.781
N2+N1	N2	5.71	-1.39	N1	5.32	-2.08	295.7	0.002	Circle	10	0.013	0.153	0.3725	1.66	0.36	0.3725	1.0583	35.2	43	FALSE	-1.03
N3+N21	N3	6	-0.64	N21	6	-0.82	88.8	0.002	Circle	10	0.013	0.1316	0.3152	1.6	0.32	0.3152	0.9864	32	38.9	FALSE	-0.301
N4+N3	N4	6.14	0.24	N3	6	-0.64	334.7	0.003	Circle	10	0.013	0.1316	0.3152	1.64	0.32	0.3152	1.1234	28.1	38.3	FALSE	0.564
N5+N4	N5	7.28	1.13	N4	6.14	0.29	332.5	0.003	Circle	10	0.013	0.1098	0.2619	1.51	0.3	0.2619	1.1012	23.8	35.5	FALSE	1.427
N6+N5	N6	8.64	1.99	N5	7.28	1.13	332.5	0.003	Circle	10	0.013	0.1098	0.2619	1.52	0.29	0.2619	1.1142	23.5	35.2	FALSE	2.285
N7+N6	N7	9.69	2.84	N6	8.64	1.99	332.7	0.003	Circle	10	0.013	0.1098	0.2619	1.52	0.29	0.2619	1.1074	23.7	35.4	FALSE	3.136
N8+N9	N8	13.8	4.05	N9	11.48	3.68	118.7	0.003	Circle	10	0.013	0.1098	0.2619	1.64	0.28	0.262	1.2232	21.4	33.4	FALSE	4.331
N9+N7	N9	11.48	3.68	N7	9.69	2.84	284	0.003	Circle	10	0.013	0.1098	0.2619	1.6	0.28	0.2619	1.1915	22	34	FALSE	3.965
N10+N13	N10	7.1	-0.52	N13	7	-0.88	176	0.002	Circle	8	0.013	0.006	0.0109	0.78	0.06	0.0109	0.5465	2	8.4	FALSE	-0.464
N11+N12	N11	7.2	-0.1	N12	7.1	-0.56	227.2	0.002	Circle	8	0.013	0.0062	0.0218	0.77	0.09	0.0218	0.5437	4	13.6	FALSE	0.001
N12+N13	N12	7.1	-0.56	N13	7	-0.88	157.9	0.002	Circle	8	0.013	0.0062	0.0218	0.69	0.1	0.0218	0.544	4	14.6	FALSE	-0.46

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
N13+N14	N13	7	-0.88	N14	6	-1.21	167	0.002	Circle	8	0.013	0.0122	0.0327	0.35	0.21	0.0327	0.5371	6.1	31.1	FALSE	-0.737
N14+N2	N14	6	-1.21	N2	5.71	-1.39	88.4	0.002	Circle	10	0.013	0.153	0.3725	1.72	0.35	0.3725	0.9886	37.7	41.8	FALSE	-0.838
N15+N16	N15	7.3	0.75	N16	7.2	0.25	251.8	0.002	Circle	8	0.013	0.0046	0.0123	0.72	0.06	0.0123	0.5385	2.3	9.5	FALSE	0.812
N16+N17	N16	7.2	0.25	N17	7.1	-0.21	228.2	0.002	Circle	8	0.013	0.0046	0.0123	0.81	0.05	0.0123	0.5425	2.3	7.6	FALSE	0.311
N17+N20	N17	7.1	-0.27	N20	7	-0.67	197	0.002	Circle	8	0.013	0.0046	0.0123	0.74	0.06	0.0123	0.5445	2.3	9.4	FALSE	-0.208
N18+N19	N18	7.2	0.29	N19	7.1	-0.22	255.9	0.002	Circle	8	0.013	0.0046	0.0123	0.72	0.06	0.0123	0.5394	2.3	9.5	FALSE	0.352
N19+N20	N19	7.1	-0.22	N20	7	-0.67	224.1	0.002	Circle	8	0.013	0.0046	0.0123	0.82	0.05	0.0123	0.5415	2.3	7.7	FALSE	-0.159
N20+N21	N20	7	-0.67	N21	6	-0.82	72	0.002	Circle	8	0.013	0.0092	0.0246	0.17	0.29	0.0246	0.5515	4.5	43.2	FALSE	-0.457
N21+N14	N21	6	-0.82	N14	6	-1.21	195.8	0.002	Circle	10	0.013	0.1408	0.3398	1.54	0.35	0.3398	0.9778	34.8	42.5	FALSE	-0.457
N22+N23	N22	7.1	1.4	N23	7.1	0.98	212	0.002	Circle	8	0.013	0.011	0.0246	0.7	0.1	0.0246	0.5378	4.6	15.7	FALSE	1.511
N23+N28	N23	7.1	0.98	N28	7	0.59	193.2	0.002	Circle	8	0.013	0.011	0.0246	0.69	0.11	0.0246	0.5429	4.5	15.8	FALSE	1.09
N24+N25	N24	7.3	2.21	N25	7.3	1.98	116.3	0.002	Circle	8	0.013	0.0108	0.0287	0.63	0.13	0.0288	0.5374	5.3	18.9	FALSE	2.337
N25+N26	N25	7.3	1.98	N26	7.2	1.46	262.5	0.002	Circle	8	0.013	0.0108	0.0287	0.62	0.13	0.0288	0.5378	5.3	19	FALSE	2.107
N26+N27	N26	7.2	1.46	N27	7.1	0.96	247.5	0.002	Circle	8	0.013	0.0108	0.0287	0.71	0.11	0.0287	0.5431	5.3	17.2	FALSE	1.585
N27+N28	N27	7.1	0.96	N28	7	0.59	183	0.002	Circle	8	0.013	0.0108	0.0287	0.64	0.12	0.0287	0.5433	5.3	18.7	FALSE	1.086
N28+N4	N28	7	0.59	N4	6.14	0.29	150.3	0.002	Circle	8	0.013	0.0218	0.0533	0.67	0.19	0.0533	0.5398	9.9	27.9	FALSE	0.774
N29+N10	N29	7.2	0.13	N10	7.1	-0.52	325.6	0.002	Circle	8	0.013	0.006	0.0109	0.72	0.06	0.0109	0.5399	2	8.8	FALSE	0.186
N30+N11	N30	7.3	0.17	N11	7.2	-0.1	134	0.002	Circle	8	0.013	0.0031	0.0109	0.79	0.06	0.0109	0.5424	2	8.3	FALSE	0.226
O3+N8	O3	17.6	8.2	N8	13.8	4.1	205.1	0.02	Circle	8	0.013	0.1098	0.2615	2.75	0.19	0.2623	1.7084	15.3	28.2	FALSE	8.392
O4+O3	O4	15.39	9.13	O3	17.6	8.3	277.4	0.003	Circle	8	0.013	0.0912	0.2128	1.51	0.28	0.2128	0.661	32.2	42.4	FALSE	9.415
O5+O4	O5	14.73	10.25	O4	15.39	9.13	398.6	0.003	Circle	8	0.013	0.0912	0.2125	1.47	0.29	0.2126	0.6405	33.2	43.1	FALSE	10.54
O6+O5	O6	13.82	11.05	O5	14.73	10.25	399.4	0.002	Circle	8	0.013	0.0912	0.2126	1.3	0.32	0.2126	0.5408	39.3	47.5	FALSE	11.369
O7+O6	O7	15.16	11.56	O6	13.82	11.05	426.9	0.001	Circle	8	0.013	0.0912	0.2126	1.09	0.36	0.2126	0.4177	50.9	54.7	FALSE	11.933
O8+O59	O8	16.28	12.23	O59	16.36	11.92	102.7	0.003	Circle	8	0.013	0.0788	0.1798	1.43	0.26	0.1798	0.6639	27.1	38.9	FALSE	12.496
O9+O8	O9	17.01	12.76	O8	16.28	12.23	139.7	0.004	Circle	6	0.013	0.0711	0.1588	1.48	0.27	0.1588	0.3456	46	53.5	FALSE	13.03
O10+O9	O10	17.95	13.1	O9	17.01	12.76	156.6	0.002	Circle	8	0.013	0.0711	0.1588	1.21	0.27	0.1588	0.563	28.2	40.3	FALSE	13.373
O11+O10	O11	19.41	14.01	O10	17.95	13.15	259.2	0.003	Circle	8	0.013	0.0543	0.1445	1.34	0.23	0.1445	0.696	20.8	34.7	FALSE	14.242
O12+O11	O12	19.9	14.5	O11	19.41	14.01	394.2	0.001	Circle	8	0.013	0.0543	0.1445	0.94	0.3	0.1445	0.426	33.9	45.2	FALSE	14.803
O13+O12	O13	22.22	16.47	O12	19.9	14.5	414.6	0.005	Circle	8	0.013	0.0543	0.1445	1.53	0.21	0.1445	0.8329	17.3	31.5	FALSE	16.683
O14+O13	O14	21.75	17.35	O13	22.22	16.87	129.7	0.004	Circle	8	0.013	0.0105	0.0279	0.88	0.1	0.0282	0.7351	3.8	14.6	FALSE	17.455
O15+O14	O15	24.85	19.05	O14	21.75	17.35	307.9	0.006	Circle	8	0.013	0.0105	0.0279	0.87	0.1	0.03	0.8979	3.1	14.8	FALSE	19.143
O16+O15	O16	28.01	22.56	O15	24.85	19.2	234.7	0.014	Circle	6	0.013	0.0105	0.0279	1.04	0.08	0.0309	0.6713	4.2	15.9	FALSE	22.645
O17+O3	O17	10.93	8.62	O3	17.6	8.3	161.2	0.002	Circle	8	0.013	0.0186	0.0493	0.66	0.18	0.0493	0.5384	9.2	26.7	FALSE	8.8
O18+O17	O18	15.83	11.93	O17	10.93	8.62	264	0.013	Circle	8	0.013	0.0051	0.0136	0.74	0.04	0.0136	1.353	1	5.3	FALSE	11.966
O19+O17	O19	17.6	10.75	O17	10.93	8.62	85.9	0.025	Circle	6	0.013	0.0135	0.0357	1.09	0.08	0.0362	0.8835	4	16.6	FALSE	10.84
O20+O19	O20	17	10.98	O19	17.6	10.75	115.6	0.002	Circle	6	0.013	0.0042	0.0057	0.68	0.03	0.0057	0.2503	2.3	6.2	FALSE	11.011
O21+O19	O21	20.09	12.64	O19	17.6	10.75	393.6	0.005	Circle	6	0.013	0.0093	0.0302	0.97	0.11	0.0302	0.3888	7.8	21.5	FALSE	12.761
O22+O21	O22	20	13.27	O21	20.09	12.64	318.2	0.002	Circle	6	0.013	0.0093	0.03	0.64	0.14	0.0302	0.2497	12	28.9	FALSE	13.418
O23+O22	O23	21.65	15.65	O22	20	13.27	469.8	0.005	Circle	6	0.013	0.0093	0.0301	0.89	0.11	0.0301	0.3993	7.5	22.8	FALSE	15.768
O24+O23	O24	21.18	15.84	O23	21.65	15.65	96.7	0.002	Circle	6	0.013	0.0093	0.03	0.67	0.14	0.03	0.2487	12.1	27.9	FALSE	15.983
O25+O7	O25	16.12	12.07	O7	15.16	11.61	177.4	0.003	Circle	6	0.013	0.0124	0.0328	0.76	0.14	0.0335	0.2857	11.5	27.2	FALSE	12.222
O26+O25	O26	18.86	13.26	O25	16.12	12.12	332.8	0.003	Circle	6	0.013	0.0031	0.0131	0.8	0.07	0.0141	0.3284	4	13.8	FALSE	13.324
O27+O26	O27	19.94	13.44	O26	18.86	13.31	65.4	0.002	Circle	6	0.013	0.0031	0.0066	0.68	0.03	0.0066	0.2502	2.6	6	FALSE	13.475
O28+O26	O28	19	14.28	O26	18.86	13.41	434.3	0.002	Circle	6	0.013	0	0.0065	0.7	0.03	0.0079	0.2511	2.6	6.8	FALSE	14.333
O29+O28	O29	23	19.53	O28	19	14.28	174	0.03	Circle	6	0.013	0	0	0	0	0	0.9746	0	0	FALSE	19.544
O29+O30	O29	23	19.53	O30	22.78	19.08	226	0.002	Circle	6	0.013	0	0	0	0.04	0	0.2504	0	7.4	FALSE	19.599
O30+O35	O30	22.78	17.63	O35	21.74	16.44	175.9	0.007	Circle	6	0.013	0.0168	0.0492	0.99	0.05	0.0492	0.4615	10.7	9.8	FALSE	17.699
O31+O30	O31	23	18.76	O30	22.78	18.58	89.5	0.002	Circle	6	0.013	0.009	0.0164	0.8	0.08	0.0164	0.2516	6.5	16.1	FALSE	18.845
O32+O31	O32	24	19.18	O31	23	18.76	210.5	0.002	Circle	6	0.013	0.009	0.0164	0.83	0.08	0.0164	0.2506	6.5	15.6	FALSE	19.264
O33+O32	O33	25	19.71	O32	24	19.18	262.5	0.002	Circle	6	0.013	0.009	0.0164	0.76	0.08	0.0165	0.2521	6.5	16.7	FALSE	19.793
O34+O10	O34	23.33	14.69	O10	17.95	13.35	267.7	0.005	Circle	6	0.013	0.0168	0.0492	1.09	0.07	0.0492	0.397	12.4	13.9	FALSE	14.769
O35+O34	O35	21.74	16.44	O34	23.33	14.69	316.4	0.006	Circle	6	0.013	0.0168	0.0492	1.08	0.07	0.0492	0.4173	11.8	13.5	FALSE	16.519
O36+O30	O36	24.12	18.01	O30	22.78	17.68	164.4	0.002	Circle	6	0.013	0.0077	0.0164	0.78	0.08	0.0164	0.2514	6.5	16.3	FALSE	18.093
O37+O25	O37	16.63	12.23	O25	16.12	12.07	80.9	0.002	Circle	6	0.013	0.0093	0.0197	0.71	0.1	0.0197	0.2495	7.9	19.8	FALSE	12.334
O38+O37	O38	17.23	12.46	O37	16.63	12.23	117.5	0.002	Circle	6	0.013	0.0031	0.0066	0.71	0.04	0.0066	0.2482	2.6	7	FALSE	12.495
O39+O37	O39	16.48	12.31	O37	16.63	12.23	40.8	0.002	Circle	6	0.013	0.0062	0.0131	0.88	0.06	0.0131	0.2484	5.3	12.8	FALSE	12.377
O40+O39	O40	16.65	12.38	O39	16.48	12.31	37.3	0.002	Circle	6	0.013	0.0031	0.0066	0.28	0.09	0.0066	0.2431	2.7	17.7	FALSE	12.434
O41+O40	O41	16.5	12.47	O40	16.65	12.38	44.5	0.002	Circle	6	0.013	0.0031	0.0066	0.64	0.02	0.0066	0.2523	2.6	4.2	FALSE	12.502
O42+O39	O42	16.78	12.41	O39	16.48	12.31	47.6	0.002	Circle	6	0.013	0.0031	0.0066	0.65	0.02	0.0066	0.2572	2.6	4.8	FALSE	12.445
O43+O42	O43	17.92	13.6	O42	16.78	12.41	181.9	0.007	Circle	6	0.013	0.0031	0.0066	0.65	0.02	0.0066	0.4538	1.4	4.5	FALSE	13.628
O44+O43	O44	18.13	13.78	O43	17.92	13.64	69.2	0.002	Circle	6	0.013	0.0031	0.0066	0.69	0.03	0.0066	0.2524	2.6	6.2	FALSE	13.815
O45+O8	O45	17.06	12.55	O8	16.28	12.23	65.8	0.005	Circle	6	0.013	0.0078	0.021	0.69	0.11	0.021	0.3913	5.4	21.2	FALSE	12.64
O46+O45	O46	18	13.61	O45	17.06	12.55	212.5	0.005	Circle	6	0.013	0.0016	0.007	0.75	0.04	0.007	0.3963	1.8	8.5	FALSE	13.647
O47+O45	O47	16.84	12.91	O45	17.06	12.55	71.5	0.005	Circle	6	0.013	0.0062	0.014	0.85	0.06	0.014	0.3981	3.5	11.3	FALSE	12.973
O48+O47	O48	17.43	13.52	O47	16.84	12.91	122	0.005	Circle	6	0.013	0.0016	0.007	0.69	0.03	0.007	0.3967	1.8	6.3	FALSE	13.552
O49+O47	O49	17.41	13.27	O47	16.84	12.91	72.6	0.005	Circle	6	0.013	0.0047	0.007	0.68	0.03	0.007	0.3951	1.8	5.9	FALSE	13.304
O50+O49	O50	17.95	14.13	O49	17.41	13.27	172.1	0.005	Circle	6	0.013	0.0047	0.007	0.63	0.02	0.007	0.3966	1.8	3.9	FALSE	14.159
O51+O13	O51	24.5	18.4	O13	22.22	16.57	467.6	0.004	Circle	6	0.013	0.0438	0.1166	1.32	0.23	0.1166	0.351	33.2	45.9	FALSE	18.633
O52+O51	O52	26.81	19.11	O51	24.5	18.4	213.3	0.003	Circle	6	0.013	0.029	0.0772	1.04	0.2	0.0772	0.3237	23.8	40.3	FALSE	19.315

Attachment 2
Peak Wet Weather Flow Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Section Type	Diameter (in)	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
O53+O52	O53	27	19.48	O52	26.81	19.11	188.5	0.002	Circle	6	0.013	0.0145	0.01	0.81	0.05	0.01	0.2486	4	10.5	FALSE	19.533
O54+O52	O54	31.19	20.39	O52	26.81	19.11	380.1	0.003	Circle	6	0.013	0.0145	0.0672	0.97	0.19	0.0672	0.3256	20.6	38.4	FALSE	20.584
O55+O54	O55	28.75	20.95	O54	31.19	20.44	399.4	0.001	Circle	6	0.013	0.0145	0.0672	0.68	0.25	0.0672	0.2005	33.5	50.4	FALSE	21.204
O56+O55	O56	27.04	22.24	O55	28.75	20.95	376.5	0.003	Circle	6	0.013	0.0145	0.0672	0.97	0.19	0.0674	0.3284	20.5	38.2	FALSE	22.431
O57+O51	O57	25.61	19.76	O51	24.5	18.4	365.2	0.004	Circle	6	0.013	0.0148	0.0394	0.78	0.15	0.0394	0.3424	11.5	30.3	FALSE	19.916
O58+O57	O58	26.81	20.57	O57	25.61	19.76	403.4	0.002	Circle	6	0.013	0.0148	0.0394	0.61	0.18	0.0394	0.2514	15.7	36.4	FALSE	20.752
O59+O7	O59	16.36	11.92	O7	15.16	11.56	182.3	0.002	Circle	8	0.013	0.0788	0.1798	1.22	0.29	0.1798	0.537	33.5	43.8	FALSE	12.214
O60+O61	O60	15.68	9.18	O61	14.55	7.85	199	0.007	Circle	14	0.013	0.1346	0.3413	2.29	0.23	0.3413	4.3933	7.8	19.7	FALSE	9.411
O61+M8	O61	14.55	7.85	M8	14.41	7.81	11.8	0.003	Circle	14	0.013	0.1272	0.3413	2	0.25	0.3413	3.1288	10.9	21.7	FALSE	8.112
O62+O18	O62	17.08	13.18	O18	15.83	11.93	249	0.005	Circle	6	0.013	0.0051	0.0136	0.89	0.07	0.0136	0.3975	3.4	13.1	FALSE	13.241
O63+O62	O63	17.27	13.37	O62	17.08	13.18	38	0.005	Circle	6	0.013	0.0051	0.0136	0.85	0.06	0.0136	0.3967	3.4	11.4	FALSE	13.427
T1+T0	T1	4.57	-15.43	T0	#N/A	-17.68	329.2	0.007	Circle	24	0.013	1.7982	8.9574	5.86	0.98	8.9573	18.7015	47.9	48.9	FALSE	-14.443
T2+T1	T2	3.04	-14.76	T1	4.57	-15.43	505.8	0.001	Circle	24	0.013	1.7982	8.9574	3.62	1.47	8.9574	8.2331	108.8	73.4	FALSE	-13.154
T3+METERING STATION	T3	2.52	-14.63	METERING STATION	0	-14.66	55	0.001	Circle	24	0.013	1.7982	8.9574	2.85	2	8.9574	5.2832	169.5	100	TRUE	-12.567
T4+T3	T4	1.41	-12.09	T3	2.52	-14.63	474.9	0.005	Circle	24	0.013	1.7982	8.9575	5.17	1.08	8.9574	16.5436	54.1	54.1	TRUE	-11.029
T5+T4	T5	0.16	-11.76	T4	1.41	-11.99	352.3	0.001	Circle	24	0.013	1.7982	8.9575	3.5	1.52	8.9574	5.7799	155	75.9	FALSE	-10.07
T6+T5	T6	0.17	-11.38	T5	0.16	-11.66	382.1	0.001	Circle	24	0.013	1.7982	8.9575	3.21	1.66	8.9575	6.1236	146.3	83.1	FALSE	-9.585
T7+T6	T7	-0.07	-10.42	T6	0.17	-11.28	480.8	0.002	Circle	24	0.013	1.7982	8.9575	3.48	1.52	8.9575	9.5671	93.6	76.2	FALSE	-8.882
T8+T7	T8	0.14	-10.08	T7	-0.07	-10.32	501.9	0	Circle	24	0.013	1.7982	8.9576	3.19	1.67	8.9575	4.9467	181.1	83.7	FALSE	-8.151
T9+T8	T9	0.14	-9.67	T8	0.14	-9.98	497.7	0.001	Circle	24	0.013	1.7982	8.9576	2.94	1.86	8.9575	5.6456	158.7	93	TRUE	-7.593
T10+T9	T10	0.07	-9.12	T9	0.14	-9.57	446.9	0.001	Circle	24	0.013	1.7982	8.9576	2.93	1.88	8.9576	7.1782	124.8	93.8	FALSE	-7.153
T11+T10	T11	-0.24	-8.44	T10	0.07	-9.02	325.8	0.002	Circle	24	0.013	1.7982	8.9577	3.25	1.64	8.9576	9.5445	93.9	81.8	FALSE	-6.828
T12+T11	T12	0.55	-8.25	T11	-0.24	-8.49	482.2	0	Circle	24	0.013	1.7982	8.9578	3.01	1.8	8.9577	5.0467	177.5	89.8	TRUE	-6.246
T13+T12	T13	2.14	-7.3	T12	0.55	-8.25	504	0.002	Circle	24	0.013	1.7982	8.9578	3.16	1.69	8.9578	9.8211	91.2	84.6	TRUE	-5.69
T14+T13	T14	7.1	-7.1	T13	2.14	-7.3	478.1	0	Circle	24	0.013	1.7982	8.9579	3.03	1.78	8.9578	4.6267	193.6	89.2	TRUE	-5.092
T15+T14	T15	2.75	-12.9	T14	7.1	-7.9	93	-0.054	Circle	24	0.013	1.7982	8.9579	2.85	2	8.9578	52.4516	17.1	100	TRUE	-5.092
T16+T15	T16	1.34	-6.26	T15	2.75	-6.38	34.4	0.003	Circle	21	0.013	1.4197	7.4519	4.08	1.24	7.4519	9.358	79.6	71	FALSE	-5.062
T17+T16	T17	0.96	-5.84	T16	1.34	-6.26	481.7	0.001	Circle	21	0.013	1.4197	7.452	3.29	1.56	7.4519	4.6785	159.3	89.2	TRUE	-4.01
T18+T17	T18	1.12	-5.23	T17	0.96	-5.79	540.4	0.001	Circle	21	0.013	1.4197	7.452	3.1	1.75	7.4519	5.1004	146.1	100	TRUE	-3.002
T19+T18	T19	2.23	-4.72	T18	1.12	-5.23	500	0.001	Circle	21	0.013	1.4197	7.452	3.1	1.75	7.4519	5.0602	147.3	100	TRUE	-2.02
T20+T19	T20	2.72	-3.98	T19	2.23	-4.62	331.9	0.002	Circle	18	0.013	0.6762	2.2221	1.26	1.5	2.2221	4.6124	48.2	100	TRUE	-1.983
T21+T20	T21	3.07	-3.43	T20	2.72	-3.98	338.4	0.002	Circle	18	0.013	0.6617	2.1931	1.24	1.5	2.1931	4.2346	51.8	100	TRUE	-1.948
T22+T21	T22	2.81	-3.39	T21	3.07	-3.43	197.4	0	Circle	18	0.013	0.62	2.1159	1.2	1.47	2.1159	1.4952	141.5	97.8	FALSE	-1.939
T23+T22	T23	6.87	-3.03	T22	2.81	-3.29	446	0.001	Circle	18	0.013	0.62	2.116	1.36	1.23	2.116	2.5361	83.4	82	FALSE	-1.897
T24+T23	T24	3.66	-2.69	T23	6.87	-2.93	316.7	0.001	Circle	18	0.013	0.529	1.9796	1.74	0.92	1.9796	2.8915	68.5	61.3	FALSE	-1.77
T25+T24	T25	3.95	-2.59	T24	3.66	-2.62	282.2	0	Circle	18	0.013	0.529	1.9796	1.76	0.91	1.9796	1.083	182.8	60.7	FALSE	-1.599
T26+T25	T26	7.03	-2.32	T25	3.95	-2.52	305.6	0.001	Circle	18	0.013	0.465	1.792	1.75	0.84	1.792	2.6871	66.7	56.1	FALSE	-1.454
T27+T26	T27	7.85	-2.05	T26	7.03	-2.22	355.8	0	Circle	18	0.013	0.465	1.792	1.81	0.82	1.792	2.296	78.1	54.7	FALSE	-1.173
T28+T27	T28	8.67	-1.93	T27	7.85	-1.95	162.1	0	Circle	18	0.013	0.465	1.792	1.95	0.77	1.792	1.1667	153.6	51.6	FALSE	-1.082
T29+T28	T29	4.98	-1.62	T28	8.67	-1.93	233.8	0.001	Circle	18	0.013	0.465	1.792	2.1	0.73	1.792	3.8248	46.9	48.7	FALSE	-0.888

Abbreviations
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
ft: Feet
s: Seconds
in: Inches

APPENDIX C

FLOW DEMAND CALCULATIONS

Scenario 1: 2025 Flow Demand Calculations

Scenario 2: 2035 Flow Demand Calculations

Scenario 3: 2035 Enhanced Flow Demand Calculations

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-121-400	2091 BAY RD, EAST PALO ALTO	Parks/Recreation/Conservation	Office
063-122-030	BAY RD, EAST PALO ALTO	Parks/Recreation/Conservation	Office
063-132-140	1905 BAY RD, EAST PALO ALTO	Parks/Recreation/Conservation	Mixed Use Corridor
063-111-250	1675 BAY RD, EAST PALO ALTO	Low Density Residential Office	Mixed Use High Mixed Use High
063-111-230		Parks/Recreation/Conservation	Mixed Use High
063-103-310	1585 BAY RD, EAST PALO ALTO	Office	Mixed Use High
113-530-999		Low Density Residential	High Density Residential
113-530-040	2426 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-530-050	2428 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-530-020	2422 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-530-030	2424 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-530-060	2430 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-530-010	2420 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-060	2450 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-040	2446 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-020	2442 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-030	2444 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-010	2440 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-050	2448 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-710-999		Low Density Residential	High Density Residential
113-720-999		Low Density Residential	High Density Residential
113-720-030	2464 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-720-010	2460 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-720-040	2466 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-720-020	2462 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-050	2478 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-020	2472 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-999		Low Density Residential	High Density Residential
113-740-070	2482 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-080	2484 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-030	2474 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-010	2470 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-040	2476 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
113-740-060	2480 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
063-103-440	2400 GLORIA WAY, EAST PALO ALTO	Low Density Residential	High Density Residential
063-090-020	1423-1425A BAY RD, EAST PALO ALTO	Medium Density Residential	Parks/Recreation/Conservation
063-090-060		Low Density Residential	Public/Institutional
063-090-080		Low Density Residential	Public/Institutional
063-231-220	1800 BAY RD, EAST PALO ALTO	Office	Mixed Use Corridor
063-231-240	1804 BAY RD, EAST PALO ALTO	Office	Mixed Use Corridor
063-231-250	1798 BAY RD, EAST PALO ALTO	Office	Mixed Use Corridor
063-232-350	901 WEEKS ST, EAST PALO ALTO	Office	Mixed Use High
063-232-210	WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-220	WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-230	WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-260	1001 WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-090	1003 WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-240	1045 WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-150	2421 PULGAS AVE, EAST PALO ALTO	Office	High Density Residential
063-232-300	1095 WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-250	1085 WEEKS ST, EAST PALO ALTO	Office	High Density Residential
063-232-160	2447 PULGAS AVE, EAST PALO ALTO	Office	High Density Residential
063-221-180	2371 CLARKE AVE, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-190	2369 CLARKE AVE, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-200	891 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-220	867 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-210	871 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-230	865 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-500	863 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-221-240		Low Density Residential	High Density Residential
063-221-250	831 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-260	819 JAMIE LN, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-270	823 JAMIE LN, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-280	827 JAMIE LN, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-320	817 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-310	815 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-300	813 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-290	811 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-380	809 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-370	807 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-360	805 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-350	803 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-340	801 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-390	791 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-550	785 CAROLE CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-540	779 CAROLE CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-530	773 CAROLE CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-520	767 CAROLE CT, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-510	761 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-410	731 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-420	717 WEEKS ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-430	2360 COOLEY AVE, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-440	2362-2362 COOLEY AVE, EAST PALO ALTO	Low Density Residential	High Density Residential
063-221-450	2364 COOLEY AVE, EAST PALO ALTO	Low Density Residential	High Density Residential
063-203-210	585 WEEKS ST, EAST PALO ALTO	Commercial	Mixed Use High
063-203-220	579 WEEKS ST, EAST PALO ALTO	Commercial	Low Density Residential
063-203-230	563 WEEKS ST, EAST PALO ALTO	Commercial	Low Density Residential
063-203-240	549 WEEKS ST, EAST PALO ALTO	Commercial	Low Density Residential
063-203-250	541 WEEKS ST, EAST PALO ALTO	Commercial	Low Density Residential
063-203-260	533 WEEKS ST, EAST PALO ALTO	Commercial	Low Density Residential
063-203-270		Commercial	Low Density Residential
063-203-390	1518 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-370	1508 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-350	1574 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-410	1568 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-400	1560 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-440	1554 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-360	1546 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-450	1538 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-430	1530 BAY RD, EAST PALO ALTO	Commercial	Medium Density Residential
063-203-380		Commercial	Medium Density Residential
063-202-280	2361-2369 UNIVERSITY AVE 101-308, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-202-160	561 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-202-100	566 WEEKS ST, EAST PALO ALTO	High Density Residential	Low Density Residential
063-202-090	564 WEEKS ST, EAST PALO ALTO	High Density Residential	Low Density Residential
063-202-080	556 WEEKS ST, EAST PALO ALTO	High Density Residential	Low Density Residential
063-201-270	578 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-201-240	2343 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-201-220	2337 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-201-090	576 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-201-080	566 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	Low Density Residential
063-201-290	2331 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-201-250	RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-201-260	RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-210-630	2358 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-210-450	2377 COOLEY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-210-410	2371 COOLEY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-210-340	2369 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-210-350	2365 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential
063-210-480	2361 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential
063-210-490	2355 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential
063-210-310	2346 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-210-380	2354 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-210-520	2338 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-070	2330 UNIVERSITY AVE # 160, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-200	2330 UNIVERSITY AVE # 290, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-020	2330 UNIVERSITY AVE # 110, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-010	2330 UNIVERSITY AVE # 100, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-260	2330 UNIVERSITY AVE # 350, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-170	2330 UNIVERSITY AVE # 260, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-050	2330 UNIVERSITY AVE # 140, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-280	2330 UNIVERSITY AVE # 370, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-060	2330 UNIVERSITY AVE # 150, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-300	2330 UNIVERSITY AVE # 390, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-270	2330 UNIVERSITY AVE # 360, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-110	2330 UNIVERSITY AVE # 200, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-090	2330 UNIVERSITY AVE # 180, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-080	2330 UNIVERSITY AVE # 170, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-100	2330 UNIVERSITY AVE # 190, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-290	2330 UNIVERSITY AVE # 380, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-160	2330 UNIVERSITY AVE # 250, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-230	2330 UNIVERSITY AVE # 320, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-190	2330 UNIVERSITY AVE # 280, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-150	2330 UNIVERSITY AVE # 240, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-040	2330 UNIVERSITY AVE # 130, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-180	2330 UNIVERSITY AVE # 270, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-220	2330 UNIVERSITY AVE # 310, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-240	2330 UNIVERSITY AVE # 330, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-250	2330 UNIVERSITY AVE # 340, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-120	2330 UNIVERSITY AVE # 210, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-210	2330 UNIVERSITY AVE # 300, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-030	2330 UNIVERSITY AVE # 120, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-140	2330 UNIVERSITY AVE # 230, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
114-240-130	2330 UNIVERSITY AVE # 220, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-210-610	661 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-210-470	633 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-210-360	2300 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	Mixed Use Corridor
063-302-340	584 RUNNYMEDE ST, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-170	2283 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-180	2281 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-470	2279 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-460	2277 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-210	2263 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-220	2253 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-230	2247 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-330	2201 UNIVERSITY AVE, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-280	575A BELL ST, EAST PALO ALTO	Office	Mixed Use Corridor
063-302-290	565 BELL ST, EAST PALO ALTO	Office	Mixed Use Corridor
063-331-420	RUNNYMEDE ST, EAST PALO ALTO	Commercial	Public/Institutional
063-331-150	2284 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-140	2280 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-130	2276 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-120	2274 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-110	2272 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-100	2268 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-090	2264 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-080	2252 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-070	2248 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-331-060	2242 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-380	2240 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-410	2220 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-030	2212 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-370	2200 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-190	2291 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-200	2287 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-210	2285 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-220	2277 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-230	2267 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-240	2263 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-250	2255 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-260	2251 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-270	2249 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-280	2245 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-290	2239 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-300	2233 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-310	2227 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-320	2219 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-330	2217 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-340	2205 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-331-350	643 BELL ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-180	612 BELL ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-190	616 BELL ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-200	644 BELL ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-210	2189 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-220	2187 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-230	2181 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-240	2171 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-250	2165 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-260	2161 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-270	2157 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-280	2153 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-290	2149 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-300	2145 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-310	2141 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-320	2133 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-330	2129 CAPITOL AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-400	2194 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-140	2178 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-130	2172 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-120	2166 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-110	2164 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-100	2160 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-410	2148 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-080	2142 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-070		Commercial	Mixed Use Corridor
063-321-060	2126 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-050	2124 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-321-420		Commercial	Office
063-322-150	2198 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-160	660 BELL ST, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-140	2194 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-130	2184 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-340	2169 COOLEY AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-110	2162 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-500	2159 COOLEY AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-100	2154 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-090	2144 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-080	2142 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-322-070	2138 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-060	2134 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-050	2132 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-040	2124 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-580	2118 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-322-560	DONOHOE ST, EAST PALO ALTO	High Density Residential	Office
063-322-410		High Density Residential	Office
063-292-380	2160 EUCLID AVE, EAST PALO ALTO	Low Density Residential	Mixed Use High
063-292-370	2117 UNIVERSITY AVE, EAST PALO ALTO	Office, High Density Residential	Mixed Use High
063-292-180	2101 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Mixed Use High
063-291-010	1489 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-184-010	1475 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-184-020	2056 GLEN WAY, EAST PALO ALTO	Low Density Residential	Mixed Use Low
063-184-030	2070 GLEN WAY, EAST PALO ALTO	Low Density Residential	Mixed Use Low
063-184-040	2080 GLEN WAY, EAST PALO ALTO	Low Density Residential	Mixed Use Low
063-183-080	1435 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-183-070	2045 GLEN WAY, EAST PALO ALTO	Commercial	Mixed Use Low
063-183-090		Commercial	Mixed Use Low
063-183-110	1401 E BAYSHORE RD 2, EAST PALO ALTO	Commercial	Mixed Use Low
063-183-010	2088 LINCOLN ST, EAST PALO ALTO	Commercial	Mixed Use Low
063-181-240	1385 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-181-010	2110 DUMBARTON AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-181-230	2097 LINCOLN ST, EAST PALO ALTO	Low Density Residential	Mixed Use Low
063-181-220	2111 LINCOLN ST, EAST PALO ALTO	Low Density Residential	Mixed Use Low
063-155-190	2109 DUMBARTON AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-155-180	2123 DUMBARTON AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-155-010	2106 OAKWOOD DR, EAST PALO ALTO	Commercial	Mixed Use Low
063-154-260	2119 OAKWOOD DR, EAST PALO ALTO	Commercial	Mixed Use Low
063-154-200	2110 ADDISON AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-153-250	2119 ADDISON AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-153-010	1205 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-152-230	1199 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-151-170	2159 POPLAR AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-151-200	1001 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-154-240		Parks/Recreation/Conservation	Public/Institutional
063-271-480		Parks/Recreation/Conservation	Industrial Buffer
063-271-370	1171 RUNNYMEDE ST, EAST PALO ALTO	Low Density Residential	High Density Residential
063-272-080	1286 RUNNYMEDE ST, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-381-190		Low Density Residential	Public/Institutional
063-341-130	1063 GARDEN ST, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-341-150	1039 GARDEN ST, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-600-060	1266 BEECH ST, EAST PALO ALTO	Low Density Residential	Parks/Recreation/Conservation
063-352-170	980 MYRTLE ST, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-352-480	1050 MYRTLE ST, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-491-040	2033A PULGAS AVE, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-491-030	951 OCONNOR ST, EAST PALO ALTO	Low Density Residential	Public/Institutional
063-511-240	896 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-260	890 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-020	2039 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-030	2035 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-040	2029 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-050	2027 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-060	2023 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-070	2017 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-080	2013 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-090	2009 CLARKE AVE, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-660	899 OCONNOR ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-220	862 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-250	860 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-210	864 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-511-200	866 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-190	872 DONOHOE ST, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-020	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-090	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-030	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-170	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-060	1765 EAST BAYSHORE RD 206, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-100	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-270	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-260	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-140	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-450-060	1765 EAST BAYSHORE RD A1&A2, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-210	1765 EAST BAYSHORE RD 221, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-450-020	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-040	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-450-040	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-200	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-450-010	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-050	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-180	1765 EAST BAYSHORE RD 218, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-250	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-110	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-150	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-450-050	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-160	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-280	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-120	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-450-030	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-010	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-220	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-240	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-290	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-070	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-130	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-300	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-190	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-230	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
114-460-080	1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-511-520	1761 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use High
063-511-680	1751 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use High
063-511-690	1745 E BAYSHORE BLVD, EAST PALO ALTO	Commercial	Mixed Use High
063-511-490	1731 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use High
063-511-630	1721 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use High
063-511-720	1775 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use High
063-312-400		Commercial	Office
063-665-020	1960-1962 TATE ST, EAST PALO ALTO	Medium Density Residential	Parks/Recreation/Conservation
063-676-020	1960-1962 TATE ST, EAST PALO ALTO	Medium Density Residential	Parks/Recreation/Conservation
134-241-370		High Density Residential	Low Density Residential
134-241-090	1885 E BAYSHORE RD SPC 9, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-100	1885 E BAYSHORE RD SPC 10, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-360		High Density Residential	Low Density Residential
134-241-120		High Density Residential	Low Density Residential
134-241-891	1885 E BAYSHORE RD, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-400	1885 E BAYSHORE RD SPC 40, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-750	1885 E BAYSHORE RD SPC 75, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-680		High Density Residential	Low Density Residential
134-241-080		High Density Residential	Low Density Residential
134-241-650		High Density Residential	Low Density Residential
134-241-791	1885 E BAYSHORE RD SPC 79, EAST PALO ALTO	High Density Residential	Low Density Residential

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
134-241-630	1885 E BAYSHORE RD, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-140	1885 E BAYSHORE RD #14, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-520		High Density Residential	Low Density Residential
134-241-720	1885 E BAYSHORE RD SPC 72, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-240	1885 E BAYSHORE RD SPC 24, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-340		High Density Residential	Low Density Residential
134-241-380		High Density Residential	Low Density Residential
134-241-810		High Density Residential	Low Density Residential
134-241-261	1885 E BAYSHORE RD SPC 26, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-180		High Density Residential	Low Density Residential
134-241-980	1885 E BAYSHORE RD SPC 98, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-221	1885 E BAYSHORE RD SPC 22, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-960	1885 E BAYSHORE RD #96, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-580	1885 E BAYSHORE RD SPC 58, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-870		High Density Residential	Low Density Residential
134-241-350	1885 E BAYSHORE RD, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-991		High Density Residential	Low Density Residential
134-241-780	1885 E BAYSHORE RD SPC 78, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-550	1885 E BAYSHORE BLVD #55, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-200	1885 E BAYSHORE RD SPC 20, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-770	1885 E BAYSHORE RD SPC 77, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-070		High Density Residential	Low Density Residential
134-241-660	1885 E BAYSHORE RD SPC 66, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-150		High Density Residential	Low Density Residential
134-242-131	1885 E BAYSHORE RD SPC 112, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-110		High Density Residential	Low Density Residential
134-241-530	1885 E BAYSHORE RD SPC 53, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-070		High Density Residential	Low Density Residential
134-241-640	1885 E BAYSHORE RD SPC 64, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-590	1885 E BAYSHORE RD #59, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-160	1885 E BAYSHORE RD #16, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-790		High Density Residential	Low Density Residential
134-241-560	1885 E BAYSHORE RD SPC 56, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-060		High Density Residential	Low Density Residential
134-241-921	1885 E BAYSHORE RD SPC 92, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-390		High Density Residential	Low Density Residential
134-241-010	1885 E BAYSHORE RD SPC 1, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-140		High Density Residential	Low Density Residential
134-241-330	1885 E BAYSHORE RD SPC 33, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-300		High Density Residential	Low Density Residential
134-241-850		High Density Residential	Low Density Residential
134-241-670	1885 E BAYSHORE RD SPC 67, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-050		High Density Residential	Low Density Residential
134-241-800		High Density Residential	Low Density Residential
134-241-510	1885 E BAYSHORE RD SPC 51, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-311	1855 E BAYSHORE RD #31, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-050	1885 E BAYSHORE RD SPC 5, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-831	1885 E BAYSHORE RD SPC 83, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-110	1885 E BAYSHORE RD SPC 11, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-950	1885 E BAYSHORE RD SPC 95, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-860		High Density Residential	Low Density Residential
134-241-700	1885 E BAYSHORE RD #70, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-930	1885 E BAYSHORE RD SPC 93, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-821	1885 E BAYSHORE RD SPC 82, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-040	1885 E BAYSHORE RD #103, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-681		High Density Residential	Low Density Residential
134-241-290	1885 E BAYSHORE RD SPC 29, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-470	1885 E BAYSHORE RD SPC 47, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-690	1885 E BAYSHORE RD SPC 69, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-410		High Density Residential	Low Density Residential

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APN	Address	2014 Zoning (2)	2035 Zoning (3)
134-241-900	1885 E BAYSHORE RD SPC 90, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-420	1885 E BAYSHORE RD SPC 42, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-910	1885 E BAYSHORE RD SPC 91, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-190	1885 E BAYSHORE RD SPC 19, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-230		High Density Residential	Low Density Residential
134-241-270	1885 E BAYSHORE RD SPC 27, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-210		High Density Residential	Low Density Residential
134-242-150		High Density Residential	Low Density Residential
134-241-490	1885 E BAYSHORE RD SPC 49, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-801	1885 E BAYSHORE RD #80, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-280	1885 E BAYSHORE RD SPC 28, EAST PALO ALTO	High Density Residential	Low Density Residential
134-242-060	1885 E BAYSHORE RD SPC 105, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-880		High Density Residential	Low Density Residential
134-241-180		High Density Residential	Low Density Residential
134-242-100		High Density Residential	Low Density Residential
134-241-761		High Density Residential	Low Density Residential
063-492-270	1885 E BAYSHORE RD, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-310		High Density Residential	Low Density Residential
134-241-570	1885 E BAYSHORE RD SPC 57, EAST PALO ALTO	High Density Residential	Low Density Residential
134-241-020	1885 E BAYSHORE RD SPC 2, EAST PALO ALTO	High Density Residential	Low Density Residential
063-492-280	1933 PULGAS AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-492-070	1927 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-492-480	1895 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-571-090	1905 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-571-080	1961 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-571-060	1985 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-571-070	1981 E BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Corridor
063-501-020	1874 W BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-501-030	1870 W BAYSHORE RD, EAST PALO ALTO	Commercial	Mixed Use Low
063-501-040	1879 WOODLAND AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-501-050	1875 WOODLAND AVE, EAST PALO ALTO	Commercial	Mixed Use Low
063-515-060	1821 CLARKE AVE, EAST PALO ALTO	High Density Residential	Low Density Residential
063-515-070	1805 CLARKE AVE, EAST PALO ALTO	High Density Residential	Low Density Residential
063-515-080	1787 WOODLAND AVE, EAST PALO ALTO	High Density Residential	Low Density Residential
063-515-230	1785 WOODLAND AVE, EAST PALO ALTO	High Density Residential	Low Density Residential
063-484-130	1957 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-090	1949 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-100	1941 COOLEY AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-110	685 SCOFIELD AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-060	1934 CAPITOL AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-050	1920 CAPITOL AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-040	1916 CAPITOL AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-030	1908 CAPITOL AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-020	1902 CAPITOL AVE, EAST PALO ALTO	Commercial	High Density Residential
063-484-010	655 SCOFIELD AVE, EAST PALO ALTO	Commercial	High Density Residential
063-483-040	1943 CAPITOL AVE, EAST PALO ALTO	Commercial	High Density Residential
063-483-050	1609 WOODLAND AVE, EAST PALO ALTO	Commercial	High Density Residential
063-483-030	1909 CAPITOL AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-482-030	611 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-482-020	621 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-482-010	641 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-120	660 SCOFIELD AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-130	610 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-140	620 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-150	630 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-160	640 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-170	650 CIRCLE DR, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-110	652 SCOFIELD AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-100	644 SCOFIELD AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-090	1621 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential

Appendix C: Table 1
Land Use Changes - 2014 Zoning versus Proposed 2035 Zoning

APN	Address	2014 Zoning (2)	2035 Zoning (3)
063-481-080	1629 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-070	1637 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-060	1643 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-050	1651 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-040	1669 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-030	1671 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-020	1681 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-010	1699 WOODLAND AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-210	1901 COOLEY AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-220	1905 COOLEY AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-190	1909 COOLEY AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-481-180	1917 COOLEY AVE, EAST PALO ALTO	Commercial	Medium Density Residential
063-680-050		Commercial	Office
063-680-150	2050 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Office
063-680-130	2000 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Office
063-680-020	1900 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Office
063-680-100		Commercial	Office
063-680-110		Commercial	Office
063-680-190	2000 UNIVERSITY AVE, EAST PALO ALTO	Commercial	Office
063-680-090		Commercial	Office
063-680-180		Commercial	Office
063-680-060		Commercial	Office
063-282-080	2033 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-282-090	2001 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-473-150	1995 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-473-160	1991 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-473-170	1965 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-473-180	1955 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-473-190	1919 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-473-200	1901 MANHATTAN AVE, EAST PALO ALTO	Commercial	High Density Residential
063-442-360	330 DONOHOE ST, EAST PALO ALTO	Low Density Residential	High Density Residential

Notes
(1) Assessor Parcel Number (APNs) for all parcels is provided and street addresses are included when the parcel has an assigned address.
If no address is available, the cell is left blank.
(2) 2014 zoning is the zoning for the parcel at the time of the preparation of the 2015 Master Plan for the East Palo Alto Sanitary District.
(3) 2035 Zoning per the City of East Palo Alto's General Plan.

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-103-310		1585 BAY RD, EAST PALO ALTO	Restaurant	30	7,240
063-103-360	(5)	, EAST PALO ALTO	Public	0	0
063-103-370	(5)	, EAST PALO ALTO	Public	1	240
063-103-380	(5)	, EAST PALO ALTO	Public	0	0
063-103-390	(5)	, EAST PALO ALTO	Public	0	0
063-103-440		2400 GLORIA WAY, EAST PALO ALTO	Res-Multpl	40	9,600
063-111-230		BETWEEN 1585 AND 1675 BAY RD, EAST PALO ALTO	Public	0	0
063-111-250		1675 BAY RD, EAST PALO ALTO	Commercial	1	240
063-121-030	(5)	, EAST PALO ALTO	No hookup	0	0
063-121-040	(5)	, EAST PALO ALTO	No hookup	0	0
063-121-050	(5)	TARA RD, EAST PALO ALTO	No hookup	0	0
063-121-060	(5)	264 TARA RD, EAST PALO ALTO	Commercial	0	0
063-121-070	(5)	2081 BAY RD, EAST PALO ALTO	Industrial	0	0
063-121-110	(5)	2077 BAY RD, EAST PALO ALTO	Industrial	0	0
063-121-120	(5)	2005 BAY RD, EAST PALO ALTO	Industrial	0	0
063-121-150	(5)	, EAST PALO ALTO	No hookup	0	0
063-121-160	(5)	180 TARA ROAD, EAST PALO ALTO	No hookup	0	0
063-121-170	(5)	240 TARA ROAD, EAST PALO ALTO	No hookup	0	0
063-121-190	(5)	2560 PULGAS AVE, EAST PALO ALTO	Industrial	1	240
063-121-200	(5)	2555 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-121-210	(5)	2555 PULGAS AVE, EAST PALO ALTO	Commercial	1	240
063-121-290	(5)	218 DEMETER ST, EAST PALO ALTO	Commercial	3	744
063-121-320	(5)	350 DEMETER ST, EAST PALO ALTO	Commercial	1	240
063-121-330	(5)	, EAST PALO ALTO	No hookup	0	0
063-121-350	(5)	, EAST PALO ALTO	No hookup	0	0
063-121-360	(5)	, EAST PALO ALTO	No hookup	0	0
063-121-370	(5)	2535 PULGAS AVE, EAST PALO ALTO	Industrial	1	240
063-121-390	(5)	, EAST PALO ALTO	Commercial	0	0
063-121-400		2091 BAY RD, EAST PALO ALTO	Commercial	1	240
063-121-410	(5)	2091 BAY RD, EAST PALO ALTO	Industrial	0	0
063-121-490	(5)	, EAST PALO ALTO	Industrial	0	0
063-121-500	(5)	, EAST PALO ALTO	Industrial	1	240
063-121-510	(5)	, EAST PALO ALTO	Industrial	1	240
063-122-040	(5)	1990 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-131-220	(5)	2519 PULGAS AVE, EAST PALO ALTO	Civic Facilities	1	240
063-131-230	(5)	, EAST PALO ALTO	No hookup	0	0
063-131-240	(5)	1885 BAY RD, EAST PALO ALTO	Civic Facilities	1	240
063-131-250	(5)	1861 BAY RD, EAST PALO ALTO	Commercial	0	0
063-131-260	(5)	1879 BAY RD, EAST PALO ALTO	Commercial	1	240
063-131-270	(5)	1873 BAY RD, EAST PALO ALTO	No hookup	0	0
063-131-290	(5)	140 DEMETER ST, EAST PALO ALTO	Commercial	1	240
063-131-300	(5)	, EAST PALO ALTO	Commercial	1	240
063-131-310	(5)	1891 BAY RD, EAST PALO ALTO	Civic Facilities	1	240
063-131-320	(5)	1847 BAY RD, EAST PALO ALTO	Commercial	1	240
063-131-330	(5)	1851 BAY RD, EAST PALO ALTO	Commercial	0	0
063-131-340	(5)	2509 PULGAS AVE, EAST PALO ALTO	Commercial	1	240
063-132-020	(5)	151 TARA RD, EAST PALO ALTO	Commercial	1	240
063-132-060	(5)	150 TARA RD, EAST PALO ALTO	Commercial	1	240
063-132-090	(5)	, EAST PALO ALTO	No hookup	0	0
063-132-110	(5)	1923 BAY RD, EAST PALO ALTO	Commercial	0	0
063-132-120	(5)	1907 BAY RD, EAST PALO ALTO	Commercial	1	240
063-132-130	(5)	1911 BAY RD, EAST PALO ALTO	Commercial	1	240
063-132-140		1905 BAY RD, EAST PALO ALTO	Industrial	1	240
063-132-150	(5)	2520 PULGAS AVE, EAST PALO ALTO	Industrial	1	240
063-132-170	(5)	, EAST PALO ALTO	Industrial	1	240
063-132-190	(5)	2532 PULGAS AVE, EAST PALO ALTO	Industrial	2	480

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-132-210	(5)	2524 PULGAS AVE, EAST PALO ALTO	Industrial	1	240
063-132-220	(5)	1987 BAY RD, EAST PALO ALTO	No hookup	0	0
063-133-110	(5)	, EAST PALO ALTO	Industrial	1	240
063-133-130	(5)	1805 BAY RD, EAST PALO ALTO	Commercial	7	1,620
063-151-170		2159 POPLAR AVE, EAST PALO ALTO	Res-Multpl	2	480
063-151-200		1001 E BAYSHORE RD, EAST PALO ALTO	Res-Single	1	240
063-152-230		1199 E BAYSHORE RD, EAST PALO ALTO	Church	1	240
063-153-010		1205 E BAYSHORE RD, EAST PALO ALTO	No hookup	0	0
063-153-250		2119 ADDISON AVE, EAST PALO ALTO	Manual	0	0
063-154-200		2110 ADDISON AVE, EAST PALO ALTO	Commercial	1	240
063-154-260		2119 OAKWOOD DR, EAST PALO ALTO	Res-Multpl	1	240
063-155-010		2106 OAKWOOD DR, EAST PALO ALTO	Commercial	1	240
063-155-180		2123 DUMBARTON AVE, EAST PALO ALTO	Res-Single	1	240
063-155-190		2109 DUMBARTON AVE, EAST PALO ALTO	Res-Multpl	1	240
063-181-010		2110 DUMBARTON AVE, EAST PALO ALTO	Res-Multpl	1	240
063-181-220		2111 LINCOLN ST, EAST PALO ALTO	Res-Single	1	240
063-181-230		2097 LINCOLN ST, EAST PALO ALTO	Res-Single	1	240
063-181-240		1385 E BAYSHORE RD, EAST PALO ALTO	No hookup	0	0
063-183-010		2088 LINCOLN ST, EAST PALO ALTO	Res-Multpl	1	240
063-183-070		2045 GLEN WAY, EAST PALO ALTO	Res-Multpl	1	240
063-183-080		1441 E BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-183-090		, EAST PALO ALTO	No hookup	0	0
063-183-110		1401 E BAYSHORE RD 2, EAST PALO ALTO	Res-Multpl	0	0
063-184-010		1475 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0
063-184-020		2056 GLEN WAY, EAST PALO ALTO	Res-Multpl	0	0
063-184-030		2070 GLEN WAY, EAST PALO ALTO	Res-Multpl	0	0
063-184-040		2080 GLEN WAY, EAST PALO ALTO	Manual	0	0
063-201-080		566 SACRAMENTO ST, EAST PALO ALTO	Res-Multpl	1	240
063-201-090		576 SACRAMENTO ST, EAST PALO ALTO	Res-Single	1	240
063-201-220		2337 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-201-240		2343 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-201-250		RUNNYMEDE ST, EAST PALO ALTO	Res-Multpl	1	240
063-201-260		RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-201-270		578 SACRAMENTO ST, EAST PALO ALTO	Res-Multpl	1	240
063-201-290		2331 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-202-080		556 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-202-090		564 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-202-100		566 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-202-160		561 SACRAMENTO ST, EAST PALO ALTO	Res-Multpl	1	240
063-202-280		2361-2369 UNIVERSITY AVE 101-308, EAST PALO ALTO	Res-Multpl	1	240
063-203-160	(5)	2387 UNIVERSITY AVE, EAST PALO ALTO	Commercial	2	461
063-203-170	(5)	2381 UNIVERSITY AVE, EAST PALO ALTO	Commercial	2	408
063-203-180	(5)	2373 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240
063-203-200	(5)	593 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-203-210		585 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-203-220		579 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-203-230		563 WEEKS ST, EAST PALO ALTO	Res-Multpl	1	240
063-203-240		549 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-203-250		541 WEEKS ST, EAST PALO ALTO	Res-Multpl	1	240
063-203-260		533 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-203-270		, EAST PALO ALTO	No hookup	0	0
063-203-300	(5)	2395 UNIVERSITY AVE, EAST PALO ALTO	Restaurant	4	922
063-203-310	(5)	2371 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240
063-203-320	(5)	1586 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-330	(5)	1590 BAY RD, EAST PALO ALTO	No hookup	0	0
063-203-340	(5)	2387 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-203-350		1574 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-360		1546 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-370		1508 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-380		, NO DATA	No hookup	0	0
063-203-390		1518 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-400		1560 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-410		1568 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-430		1530 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-440		1554 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-203-450		1538 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-210-310		2346 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-210-340		2369 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-350		2365 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-360		2300 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-380		2354 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-410		2371 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-450		2377 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-460	(5)	2396 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240
063-210-470		633 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-210-480		2361 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-210-490		2355 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-210-520		2338 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-210-610		661 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-210-630		2358 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-221-010	(5)	, EAST PALO ALTO	Manual	0	0
063-221-020	(5)	1620 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-221-030	(5)	, EAST PALO ALTO	Res-Single	1	240
063-221-040	(5)	1640 BAY RD, EAST PALO ALTO	Res-Multpl	12	2,880
063-221-050	(5)	1650 BAY RD, EAST PALO ALTO	Res-Multpl	5	1,200
063-221-060	(5)	1660 BAY RD, EAST PALO ALTO	Res-Multpl	21	5,040
063-221-070	(5)	1670 BAY RD, EAST PALO ALTO	Res-Multpl	17	4,080
063-221-100	(5)	1760 BAY RD, EAST PALO ALTO	Res-Multpl	48	11,520
063-221-110	(5)	1796 BAY RD, EAST PALO ALTO	Commercial	1	240
063-221-140	(5)	2397 CLARKE AVE, EAST PALO ALTO	Res-Multpl	5	1,200
063-221-150	(5)	2387 CLARKE AVE, EAST PALO ALTO	Res-Multpl	5	1,200
063-221-160	(5)	2377 CLARKE AVE, EAST PALO ALTO	Res-Multpl	5	1,200
063-221-170	(5)	2373 CLARKE AVE, EAST PALO ALTO	Res-Multpl	2	480
063-221-180		2371 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-221-190		2369 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-221-200		891 WEEKS ST, EAST PALO ALTO	Church	1	240
063-221-210		871 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-220		867 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-230		865 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-240		, NO DATA	No hookup	0	0
063-221-250		831 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-260		819 JAMIE LN, EAST PALO ALTO	No hookup	0	0
063-221-270		823 JAMIE LN, EAST PALO ALTO	No hookup	0	0
063-221-280		827 JAMIE LN, EAST PALO ALTO	No hookup	0	0
063-221-290		811 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-300		813 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-310		815 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-320		817 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-340		801 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-350		803 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-360		805 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-370		807 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240
063-221-380		809 PAUL ROBESON CT, EAST PALO ALTO	Res-Single	1	240

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-221-390		791 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-410		731 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-420		717 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-430		2360 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-221-440		2362-2362 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-221-450		2364 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-221-460	(5)	2370 COOLEY AVE, EAST PALO ALTO	Res-Multpl	42	10,080
063-221-480	(5)	2380 COOLEY AVE, EAST PALO ALTO	Commercial	16	3,758
063-221-490	(5)	, EAST PALO ALTO	No hookup	0	0
063-221-500		863 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-510		761 WEEKS ST, EAST PALO ALTO	Res-Single	1	240
063-221-520		767 CAROLE CT, EAST PALO ALTO	Res-Single	1	240
063-221-530		773 CAROLE CT, EAST PALO ALTO	Res-Single	1	240
063-221-540		779 CAROLE CT, EAST PALO ALTO	Res-Single	1	240
063-221-550		785 CAROLE CT, EAST PALO ALTO	Res-Single	1	240
063-221-560	(5)	1794 BAY RD, EAST PALO ALTO	Church	1	240
063-221-570	(5)	, EAST PALO ALTO	No hookup	0	0
063-221-580	(5)	, EAST PALO ALTO	No hookup	0	0
063-221-590	(5)	1730 BAY RD, EAST PALO ALTO	Res-Multpl	77	18,480
063-231-210	(5)	2495 PULGAS AVE, EAST PALO ALTO	Commercial	3	629
063-231-220		1800 BAY RD, EAST PALO ALTO	Commercial	1	240
063-231-230	(5)	1890 BAY RD, EAST PALO ALTO	Res-Multpl	2	480
063-231-240		1804 BAY RD, EAST PALO ALTO	Commercial	1	240
063-231-250		1798 BAY RD, EAST PALO ALTO	Medical	1	240
063-231-260	(5)	1836 BAY RD, EAST PALO ALTO	Commercial	1	240
063-231-270	(5)	1894 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-231-280	(5)	1896 BAY RD, EAST PALO ALTO	Res-Single	1	240
063-231-300	(5)	, EAST PALO ALTO	No hookup	0	0
063-232-090		1003 WEEKS ST, EAST PALO ALTO	Commercial	11	2,743
063-232-150		2421 PULGAS AVE, EAST PALO ALTO	Restaurant	6	1,545
063-232-160		2447 PULGAS AVE, EAST PALO ALTO	Commercial	1	302
063-232-200	(5)	2373 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-232-210		WEEKS ST, EAST PALO ALTO	No hookup	0	0
063-232-220		WEEKS ST, EAST PALO ALTO	Commercial	0	0
063-232-230		WEEKS ST, EAST PALO ALTO	No hookup	0	0
063-232-240		1045 WEEKS ST, EAST PALO ALTO	Commercial	1	240
063-232-250		1085 WEEKS ST, EAST PALO ALTO	Manual	0	0
063-232-260		1001 WEEKS ST, EAST PALO ALTO	Church	1	240
063-232-300		1095 WEEKS ST, EAST PALO ALTO	Commercial	1	336
063-232-310	(5)	2368 CLARKE AVE, EAST PALO ALTO	Commercial	1	240
063-232-340	(5)	2386 CLARKE AVE, EAST PALO ALTO	Commercial	1	240
063-232-350		901 WEEKS ST, EAST PALO ALTO	Public	0	0
063-240-210	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-240-220	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-240-270	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-240-310	(5)	NO DATA, EAST PALO ALTO	Industrial	1	240
063-240-350	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-240-360	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-240-370	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-240-380	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-240-390	(5)	NO DATA, EAST PALO ALTO	Industrial	1	240
063-240-420	(5)	NO DATA, EAST PALO ALTO	Industrial	1	240
063-240-440	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-240-460	(5)	NO DATA, EAST PALO ALTO	Industrial	1	240
063-253-320	(5)	,NO DATA	No hookup	0	0
063-271-070	(5)	1275 RUNNYMEDE ST, EAST PALO ALTO	Res-Multpl	3	720
063-271-090	(5)	1201 RUNNYMEDE ST, EAST PALO ALTO	Res-Multpl	2	480

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-271-370		1171 RUNNYMEDE ST, EAST PALO ALTO	Church	1	240
063-271-410	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-271-420	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-271-440	(5)	1191 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-271-450	(5)	1200 WEEKS ST, EAST PALO ALTO	No hookup	0	0
063-271-470	(5)	1249 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-271-480		, EAST PALO ALTO	No hookup	0	0
063-271-490	(5)	NO DATA, EAST PALO ALTO	No hookup	0	0
063-271-500	(5)	1269 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-271-510	(5)	1265 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-271-520	(5)	1261 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-271-530	(5)	1257 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-271-540	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-271-550	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-271-560	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-271-570	(5)	NO DATA, EAST PALO ALTO	Res-Single	1	240
063-281-020	(5)	2021 EUCLID AVE	Res-Multpl	1	240
063-281-030	(5)	2025 EUCLID AVE	Res-Multpl	1	240
063-281-040	(5)	2031 EUCLID AVE	Res-Multpl	1	240
063-281-100	(5)	2043 EUCLID AVE	Commercial	1	240
063-281-110	(5)	2041 EUCLID AVE	Commercial	1	240
063-282-010	(5)	501 O'CONNOR STREET	Res-Multpl	1	240
063-282-020	(5)	2012 EUCLID AVE	Res-Multpl	1	240
063-282-030	(5)	2032 EUCLID AVE	Res-Multpl	1	240
063-282-040	(5)	2036 EUCLID AVE	Res-Multpl	1	240
063-282-050	(5)	2040/2042 EUCLID AVE	Res-Multpl	1	240
063-282-060	(5)	2044 EUCLID AVE	Res-Multpl	1	240
063-282-070	(5)	2054 EUCLID AVE	Res-Multpl	1	240
063-282-080		2033 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	1	240
063-282-090		2001 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	1	240
063-291-010		1489 E BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-292-180		2101 UNIVERSITY AVE, EAST PALO ALTO	Industrial	2	474
063-292-370		2117 UNIVERSITY AVE, EAST PALO ALTO	#N/A	5	1,209
063-292-380		2160 EUCLID AVE, EAST PALO ALTO	#N/A	5	1,209
063-302-170		2283 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-302-180		2281 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-302-210		2263 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-302-220		2253 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-302-230		2247 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-302-280		575A BELL ST, EAST PALO ALTO	Res-Single	1	240
063-302-290		565 BELL ST, EAST PALO ALTO	Res-Single	1	240
063-302-330		2201 UNIVERSITY AVE, EAST PALO ALTO	Church	1	240
063-302-340		584 RUNNYMEDE ST, EAST PALO ALTO	Res-Single	1	240
063-302-460		2277 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-302-470		2279 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-312-400		, NO DATA	#N/A	1	240
063-321-050		2124 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-321-060		2126 UNIVERSITY AVE, EAST PALO ALTO	Manual	0	0
063-321-070		, EAST PALO ALTO	No hookup	0	0
063-321-080		2142 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240
063-321-100		2160 UNIVERSITY AVE, EAST PALO ALTO	Commercial	2	388
063-321-110		2164 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-321-120		2166 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-321-130		2172 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-321-140		2178 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-321-180		612 BELL ST, EAST PALO ALTO	Res-Single	1	240
063-321-190		616 BELL ST, EAST PALO ALTO	Res-Single	1	240

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-321-200		644 BELL ST, EAST PALO ALTO	Res-Multpl	1	240
063-321-210		2189 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-220		2187 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-230		2181 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-240		2171 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-250		2165 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-260		2161 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-270		2157 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-280		2153 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-290		2149 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-300		2145 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-310		2141 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-320		2133 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-330		2129 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-321-400		2194 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240
063-321-410		2148 UNIVERSITY AVE, EAST PALO ALTO	Restaurant	1	240
063-321-420		, NO DATA	#N/A	1	240
063-322-040		2124 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-050		2132 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-060		2134 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-070		2138 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-080		2142 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-090		2144 CAPITOL AVE, EAST PALO ALTO	Res-Multpl	1	240
063-322-100		2154 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-110		2162 CAPITOL AVE, EAST PALO ALTO	Church	1	240
063-322-130		2184 CAPITOL AVE, EAST PALO ALTO	Church	1	240
063-322-140		2194 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-150		2198 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-322-160		660 BELL ST, EAST PALO ALTO	Res-Single	1	240
063-322-340		2169 COOLEY AVE, EAST PALO ALTO	Church	1	344
063-322-410		, NO DATA	0	0	0
063-322-500		2159 COOLEY AVE, EAST PALO ALTO	Res-Single	1	240
063-322-560		DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-322-580		2118 CAPITOL AVE, EAST PALO ALTO	#N/A	0	0
063-331-030		2212 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-060		2242 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-070		2248 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-331-080		2252 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-090		2264 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-100		2268 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-110		2272 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-120		2274 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-130		2276 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-140		2280 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-150		2284 UNIVERSITY AVE, EAST PALO ALTO	Res-Single	1	240
063-331-190		2291 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-200		2287 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-210		2285 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-220		2277 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-230		2267 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-240		2263 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-250		2255 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-260		2251 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-270		2249 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-280		2245 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-290		2239 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-300		2233 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-331-310		2227 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-320		2219 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-330		2217 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-340		2205 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-331-350		643 BELL ST, EAST PALO ALTO	Res-Single	1	240
063-331-370		2200 UNIVERSITY AVE, EAST PALO ALTO	Office	1	358
063-331-380		2240 UNIVERSITY AVE, EAST PALO ALTO	Commercial	1	240
063-331-410		2220 UNIVERSITY AVE, EAST PALO ALTO	Restaurant	7	1,695
063-442-360		330 DONOHOE ST, EAST PALO ALTO	Church	1	240
063-473-150		1995 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	14	3,418
063-473-160		1991 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	14	3,418
063-473-170		1965 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	14	3,418
063-473-180		1955 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	14	3,418
063-473-190		1919 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	14	3,418
063-473-200		1901 MANHATTAN AVE, EAST PALO ALTO	Res-Multpl	14	3,418
063-481-010		1699 WOODLAND AVE, EAST PALO ALTO	Res-Single	1	240
063-481-020		1681 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-030		1671 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-040		1669 WOODLAND AVE, EAST PALO ALTO	Res-Single	1	240
063-481-050		1651 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-060		1643 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-070		1637 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-080		1629 WOODLAND AVE, EAST PALO ALTO	Res-Single	1	240
063-481-090		1621 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-100		644 SCOFIELD AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-110		652 SCOFIELD AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-120		660 SCOFIELD AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-130		610 CIRCLE DR, EAST PALO ALTO	Res-Multpl	1	240
063-481-140		620 CIRCLE DR, EAST PALO ALTO	Res-Multpl	1	240
063-481-150		630 CIRCLE DR, EAST PALO ALTO	Res-Single	1	240
063-481-160		640 CIRCLE DR, EAST PALO ALTO	Res-Single	1	240
063-481-170		650 CIRCLE DR, EAST PALO ALTO	Res-Single	1	240
063-481-180		1917 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-190		1909 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-210		1901 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-481-220		1905 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-482-010		641 CIRCLE DR, EAST PALO ALTO	Res-Single	1	240
063-482-020		621 CIRCLE DR, EAST PALO ALTO	Res-Multpl	1	240
063-482-030		611 CIRCLE DR, EAST PALO ALTO	Res-Multpl	1	240
063-483-030		1909 CAPITOL AVE, EAST PALO ALTO	Res-Multpl	1	240
063-483-040		1943 CAPITOL AVE, EAST PALO ALTO	Res-Multpl	1	240
063-483-050		1609 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-010		655 SCOFIELD AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-020		1902 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-484-030		1908 CAPITOL AVE, EAST PALO ALTO	Res-Single	1	240
063-484-040		1916 CAPITOL AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-050		1920 CAPITOL AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-060		1934 CAPITOL AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-090		1949 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-100		1941 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-110		685 SCOFIELD AVE, EAST PALO ALTO	Res-Multpl	1	240
063-484-130		1957 COOLEY AVE, EAST PALO ALTO	Res-Multpl	1	240
063-492-070		1927 E BAYSHORE RD, EAST PALO ALTO	Res-Single	1	240
063-492-280		1933 PULGAS AVE, EAST PALO ALTO	Commercial	1	240
063-492-480		1895 E BAYSHORE RD, EAST PALO ALTO	Res-Single	1	240
063-501-020		1874 W BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-501-030		1870 W BAYSHORE RD, EAST PALO ALTO	Commercial	1	240

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-501-040		1879 WOODLAND AVE, EAST PALO ALTO	Res-Multpl	1	240
063-501-050		1875 WOODLAND AVE, EAST PALO ALTO	Res-Single	1	240
063-511-020		2039 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-030		2035 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-040		2029 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-050		2027 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-060		2023 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-070		2017 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-080		2013 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-090		2009 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-511-190		872 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-200		866 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-210		864 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-220		862 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-240		896 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-250		860 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-260		890 DONOHOE ST, EAST PALO ALTO	Res-Single	1	240
063-511-490		1731 E BAYSHORE RD, EAST PALO ALTO	Restaurant	23	5,615
063-511-520		1761 E BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-511-630		1721 E BAYSHORE RD, EAST PALO ALTO	Restaurant	21	4,925
063-511-660		899 OCONNOR ST, EAST PALO ALTO	Commercial	1	240
063-511-680		1751 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-511-690		1745 E BAYSHORE BLVD, EAST PALO ALTO	Commercial	6	1,467
063-511-720		1775 E BAYSHORE RD, EAST PALO ALTO	Commercial	6	1,499
063-515-060		1821 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-515-070		1805 CLARKE AVE, EAST PALO ALTO	Res-Single	1	240
063-515-080		1787 WOODLAND AVE, EAST PALO ALTO	Res-Single	1	240
063-515-230		1785 WOODLAND AVE, EAST PALO ALTO	Res-Single	1	240
063-571-060		1985 E BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-571-070		1981 E BAYSHORE RD, EAST PALO ALTO	No hookup	0	0
063-571-080		1961 E BAYSHORE RD, EAST PALO ALTO	Commercial	1	240
063-571-090		1905 E BAYSHORE RD, EAST PALO ALTO	Industrial	1	240
114-590-050	(5)	NO DATA, EAST PALO ALTO	#N/A	0	0
063-680-020		1900 UNIVERSITY AVE, EAST PALO ALTO	Office	15	3,500
063-680-050		, NO DATA	#N/A	15	3,500
063-680-060		, NO DATA	#N/A	15	3,500
063-680-090		, EAST PALO ALTO	No hookup	0	0
063-680-100		, EAST PALO ALTO	Commercial	1	240
063-680-110		, EAST PALO ALTO	Commercial	1	240
063-680-130		2000 UNIVERSITY AVE, EAST PALO ALTO	Office	19	4,567
063-680-150		2050 UNIVERSITY AVE, EAST PALO ALTO	Motel	19	4,567
063-680-180		, EAST PALO ALTO	No hookup	0	0
063-680-190		2000 UNIVERSITY AVE, EAST PALO ALTO	Office	1	240
063-730-010		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-020		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-030		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-040		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-050		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-060		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-070		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-080		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-090		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-100		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-110		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-120		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-130		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-140		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
063-730-150		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-160		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-170		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-180		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-190		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-200		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-210		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-220		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-230		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-240		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-250		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-260		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-270		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-280		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-290		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-300		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-310		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-320		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-330		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-340		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-350		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-360		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-370		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-380		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-390		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-400		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-410		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-420		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-430		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-440		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-450		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-460		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-470		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-480		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-490		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-500		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
063-730-510		2477 PULGAS AVE, EAST PALO ALTO	No hookup	0	0
113-530-010 to 113-530-999		2420 GLORIA WAY, EAST PALO ALTO	Res-Multpl	7	1,680
113-710-010 to 113-710-999		2440 GLORIA WAY, EAST PALO ALTO	Res-Multpl	7	1,680
113-720-010 to 113-720-999		2460 GLORIA WAY, EAST PALO ALTO	Res-Multpl	5	1,200

Appendix C: Table 2
2014 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	Land Use from EDS (2)	Equivalent Dwelling Units (3)	Average Daily Flow for Residential , GPD (4)
113-740-010 to 113-740-999		2470 GLORIA WAY, EAST PALO ALTO	Res-Multpl	9	2,160
114-240-010 to 114-240-300		2330 UNIVERSITY AVE, EAST PALO ALTO	Res-Multpl	30	7,200
114-450-010 to 114-460-300		1765 EAST BAYSHORE RD, EAST PALO ALTO	Res-Multpl	36	8,640
			Total	**1,034**	**248,273**

Notes:

(1) Properties with Zoning change per Figure 4-12: General Plan Land Use and Figure 4-16: Ravenswood / 4 Corners TOP Specific Plan Land Use City of East Palo Alto General Plan "Existing Conditions Report, February 2014" and Figure 4-2: General Plan Land Use Designations City of East Palo Alto General Plan "Vista 2035, Final Version: March 2017"

(2) Land use from EDS (Engineering Data Services) Service Fee Calculation sheet.

(3) Equivalent Dwelling Units. Unit= (Past Billing amount from EDS)/$575

(4) ADWF Equivalent Dwellings, calculated by multiplying 240 gallons per dwelling unit per day by the total number of units. Based on Section B1.03.2.b of the East Palo Alto Sanitary District Standard Specifications for Design and Construction of Sanitary Collection and Conveyance Facilities date June 6, 2002. Units converted from GPD (Gallons Per Day) to CFS. Based Based off 24 hours in a day, 60 minutes in a hour, and 60 seconds in a minute.

(5) Additional parcles added to 2014 conditions per 2025 EPASD Master Plan Appendix D.

Abbreviations

ADWF: Average Dry Weather Flow
APN: Assessors Parcel Number
CFS: Cubic Feet per Second
MGD: Million Gallons Per Day
PDWF: Peak Dry Weather Flow

Appendix C: Table 3
2035 Zoning Sanitary Sewer Flows

APN (1)	Address (1)	2035 Zoning	Maximum Density and FAR Extents (2)	Acres per Parcel (3)	FAR	Maximum du per acre	Average du per Parcel or Project (4)	Average Non-Residential Development, SF (5)	Average Daily Flow Residential, GPD (6)	Average Daily Flow Non-Residential, GPD (7)
063-103-310	1585 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.81	2.50	86	35	43,891	6,932	4,389
063-103-360	, EAST PALO ALTO	Public/Institutional	22-86 du/a; 2.5 FAR (kept FAR)	1.29	2.50	86	55	69,968	11,051	6,997
063-103-370	, EAST PALO ALTO	Public/Institutional	22-86 du/a; 2.5 FAR (kept FAR)	0.76	2.50	86	33	41,600	6,570	4,160
063-103-380	, EAST PALO ALTO	Public/Institutional	22-86 du/a; 2.5 FAR (kept FAR)	0.15	2.50	86	7	8,276	1,307	828
063-103-390	, EAST PALO ALTO	Public/Institutional	22-86 du/a; 2.5 FAR (kept FAR)	0.23	2.50	86	10	12,251	1,935	1,225
063-103-440	2400 GLORIA WAY, EAST PALO ALTO	High Density Residential	22-43 du/a	2.00	0.00	43	43	0	8,618	0
063-111-230	BETWEEN 1585 AND 1675 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.23	2.50	86	10	12,513	1,976	1,251
063-111-250	1675 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	6.03	2.50	86	259	328,120	51,824	32,812
063-121-040	, EAST PALO ALTO	General Industrial	3.0 FAR	1.88	3.00	0	0	122,905	0	12,290
063-121-050	TARA RD, EAST PALO ALTO	Industrial Buffer	3.0 FAR	0.18	3.00	0	0	11,500	0	1,150
063-121-030	, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.78	1.00	0	0	16,945	0	1,694
063-121-060	264 TARA RD, EAST PALO ALTO	Industrial Buffer	3.0 FAR	1.20	3.00	0	0	78,081	0	7,808
063-121-070	2081 BAY RD, EAST PALO ALTO	Office	3.0 FAR	5.21	3.00	0	0	340,421	0	34,042
063-121-110	2077 BAY RD, EAST PALO ALTO	Office	3.0 FAR	1.29	3.00	0	0	84,289	0	8,429
063-121-120	2005 BAY RD, EAST PALO ALTO	Office	3.0 FAR	2.57	3.00	0	0	167,924	0	16,792
063-121-150	, EAST PALO ALTO	Industrial Buffer	3.0 FAR	0.30	3.00	0	0	19,733	0	1,973
063-121-160	180 TARA ROAD, EAST PALO ALTO	Industrial Buffer	3.0 FAR	1.17	3.00	0	0	76,513	0	7,651
063-121-170	240 TARA ROAD, EAST PALO ALTO	Industrial Buffer	3.0 FAR	1.30	3.00	0	0	84,615	0	8,462
063-121-190	2560 PULGAS AVE, EAST PALO ALTO	General Industrial	1.0 FAR	0.91	1.00	0	0	19,907	0	1,991
063-121-200	2555 PULGAS AVE, EAST PALO ALTO	General Industrial	3.0 FAR	0.91	3.00	0	0	59,721	0	5,972
063-121-210	2555 PULGAS AVE, EAST PALO ALTO	General Industrial	3.0 FAR	0.92	3.00	0	0	59,786	0	5,979
063-121-240	, EAST PALO ALTO	General Industrial	3.0 FAR	1.90	3.00	0	0	123,950	0	12,395
063-121-290	218 DEMETER ST, EAST PALO ALTO	General Industrial	1.0 FAR	1.45	1.00	0	0	31,668	0	3,167
063-121-320	350 DEMETER ST, EAST PALO ALTO	General Industrial	3.0 FAR	2.00	3.00	0	0	130,484	0	13,048
063-121-330	, EAST PALO ALTO	General Industrial	3.0 FAR	1.99	3.00	0	0	130,027	0	13,003
063-121-350	, EAST PALO ALTO	General Industrial	1.0 FAR	1.97	1.00	0	0	42,928	0	4,293
063-121-360	, EAST PALO ALTO	Industrial Buffer	3.0 FAR	0.04	3.00	0	0	2,875	0	287
063-121-370	2535 PULGAS AVE, EAST PALO ALTO	General Industrial	1.0 FAR	3.91	1.00	0	0	85,051	0	8,505
063-121-390	, EAST PALO ALTO	Office	3.0 FAR	0.63	3.00	0	0	41,164	0	4,116
063-121-400	2091 BAY RD, EAST PALO ALTO	Office	3.0 FAR	0.83	3.00	0	0	54,548	0	5,455
063-121-410	2091 BAY RD, EAST PALO ALTO	Office	3.0 FAR	1.00	3.00	0	0	65,340	0	6,534
063-121-490	, EAST PALO ALTO	Office	3.0 FAR	1.97	3.00	0	0	128,720	0	12,872
063-121-500	, EAST PALO ALTO	Office	3.0 FAR	2.53	3.00	0	0	165,310	0	16,531
063-121-510	, EAST PALO ALTO	Office	3.0 FAR	0.72	3.00	0	0	47,045	0	4,704
063-122-040	1990 BAY RD, EAST PALO ALTO	Office	3.0 FAR	4.71	3.00	0	0	307,727	0	30,773
063-123-010	351 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	1.25	1.00	0	0	27,225	0	2,723
063-123-030	225 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.80	1.00	0	0	17,337	0	1,734
063-123-060	325 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	1.02	1.00	0	0	22,216	0	2,222
063-123-070	245 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.92	1.00	0	0	20,016	0	2,002
063-123-080	, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.10	1.00	0	0	2,091	0	209
063-131-220	2519 PULGAS AVE, EAST PALO ALTO	General Industrial	1.0 FAR	5.01	1.00	0	0	109,031	0	10,903
063-131-230	, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.24	0.00	65	8	0	1,541	0
063-131-240	1885 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.23	0.00	65	7	0	1,495	0
063-131-250	1861 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.31	0.00	65	10	0	2,002	0
063-131-260	1879 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.57	0.00	65	19	0	3,718	0
063-131-270	1873 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.11	0.00	65	4	0	702	0
063-131-290	140 DEMETER ST, EAST PALO ALTO	General Industrial	1.0 FAR	2.67	1.00	0	0	58,153	0	5,815
063-131-300	, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.10	0.00	65	3	0	663	0
063-131-310	1891 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.15	0.00	65	5	0	975	0
063-131-320	1847 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.22	0.00	65	7	0	1,450	0
063-131-330	1851 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.12	0.00	65	4	0	787	0
063-131-340	2509 PULGAS AVE, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.22	0.00	65	7	0	1,411	0
063-132-020	151 TARA RD, EAST PALO ALTO	General Industrial	1.0 FAR	0.17	1.00	0	0	3,659	0	366
063-132-060	150 TARA RD, EAST PALO ALTO	Industrial Buffer	3.0 FAR	0.34	3.00	0	0	21,889	0	2,189
063-132-090	, EAST PALO ALTO	Industrial Buffer	3.0 FAR	0.03	3.00	0	0	2,026	0	203
063-132-110	1923 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.99	0.00	65	32	0	6,455	0
063-132-120	1907 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.16	0.00	65	5	0	1,040	0
063-132-130	1911 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.14	0.00	65	4	0	878	0
063-132-140	1905 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.43	0.00	65	14	0	2,763	0
063-132-150	2520 PULGAS AVE, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.95	0.00	65	31	0	6,195	0
063-132-170	, EAST PALO ALTO	General Industrial	22-65 du/a	0.17	0.00	65	5	0	1,092	0
063-132-190	2532 PULGAS AVE, EAST PALO ALTO	General Industrial	1.0 FAR	0.94	1.00	0	0	20,560	0	2,056
063-132-210	2524 PULGAS AVE, EAST PALO ALTO	General Industrial	1.0 FAR	0.91	1.00	0	0	19,754	0	1,975
063-132-220	1987 BAY RD, EAST PALO ALTO	Industrial Buffer	3.0 FAR	1.23	3.00	0	0	80,434	0	8,043
063-133-070	195 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.31	1.00	0	0	6,817	0	682
063-133-080	175 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.32	1.00	0	0	6,926	0	693
063-133-090	75 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.28	1.00	0	0	6,055	0	605
063-133-100	215 DEMETER ST, EAST PALO ALTO	Industrial Buffer	1.0 FAR	0.84	1.00	0	0	18,361	0	1,836
063-133-110	, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.89	0.00	65	29	0	5,753	0
063-133-130	1805 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	1.07	0.00	65	35	0	6,981	0
063-151-170	2159 POPLAR AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.13	1.00	22	1	2,929	296	293
063-151-200	1001 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.08	1.00	22	1	1,773	179	177
063-152-230	1199 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.26	1.00	22	3	5,605	566	561
063-153-010	1205 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.12	1.00	22	1	2,648	267	265
063-153-250	2119 ADDISON AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.12	1.00	22	1	2,572	260	257
063-154-200	2110 ADDISON AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.15	1.00	22	2	3,331	336	333
063-154-260	2119 OAKWOOD DR, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.27	1.00	22	3	5,878	594	588
063-155-010	2106 OAKWOOD DR, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.17	1.00	22	2	3,747	378	375
063-155-180	2123 DUMBARTON AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.11	1.00	22	1	2,454	248	245
063-155-190	2109 DUMBARTON AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.17	1.00	22	2	3,742	378	374
063-181-010	2110 DUMBARTON AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.22	1.00	22	2	4,705	475	470
063-181-220	2111 LINCOLN ST, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.12	1.00	22	1	2,660	269	266
063-181-230	2097 LINCOLN ST, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.11	1.00	22	1	2,488	251	249
063-181-240	1385 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.10	1.00	22	1	2,232	225	223
063-183-010	2088 LINCOLN ST, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.11	1.00	22	1	2,476	250	248
063-183-070	2045 GLEN WAY, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.18	1.00	22	2	3,894	393	389
063-183-080	1441 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.24	1.00	22	3	5,172	522	517
063-183-090	, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.09	1.00	22	1	1,898	192	190
063-183-110	1401 E BAYSHORE RD 2, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.21	1.00	22	2	4,512	456	451
063-184-010	1475 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.23	1.00	22	3	5,053	510	505
063-184-020	2056 GLEN WAY, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.21	1.00	22	2	4,526	457	453
063-184-030	2070 GLEN WAY, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.18	1.00	22	2	3,872	391	387
063-184-040	2080 GLEN WAY, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.19	1.00	22	2	4,205	425	420
063-201-080	566 SACRAMENTO ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.19	0.00	12	1	0	227	0
063-201-090	576 SACRAMENTO ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.22	1.75	65	7	8,209	1,400	821
063-201-220	2337 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.13	1.75	65	4	4,964	847	496
063-201-240	2343 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,292	902	529
063-201-250	RUNNYMEDE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.35	1.75	65	11	13,216	2,254	1,322
063-201-260	RUNNYMEDE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	4	4,295	733	430
063-201-270	578 SACRAMENTO ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,553	947	555
063-201-290	2331 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.45	1.75	65	15	17,157	2,926	1,716
063-202-080	556 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.18	0.00	12	1	0	210	0
063-202-090	564 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.17	0.00	12	1	0	208	0
063-202-100	566 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.17	0.00	12	1	0	203	0
063-202-160	561 SACRAMENTO ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.52	1.75	65	17	19,723	3,363	1,972
063-202-280	2361-2369 UNIVERSITY AVE 101-308, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	1.01	1.75	65	33	38,579	6,579	3,858
063-203-160	2387 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.11	2.50	86	5	5,968	943	597
063-203-170	2381 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.15	2.50	86	6	7,950	1,256	795
063-203-180	2373 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.18	2.50	86	8	9,747	1,539	975
063-203-200	593 WEEKS ST, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.21	2.50	86	9	11,543	1,823	1,154
063-203-210	585 WEEKS ST, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	0.15	2.50	86	6	7,995	1,263	800
063-203-220	579 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.15	0.00	12	1	0	177	0
063-203-230	563 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.44	0.00	12	3	0	530	0
063-203-240	549 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.15	0.00	12	1	0	178	0
063-203-250	541 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.14	0.00	12	1	0	174	0
063-203-260	533 WEEKS ST, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.14	0.00	12	1	0	170	0

Appendix C: Table 3
2035 Zoning Sanitary Sewer Flows

APN (1)	Address (1)	2035 Zoning	Maximum Density and FAR Extents (2)	Acres per Parcel (3)	FAR	Maximum du per acre	Average du per Parcel or Project (4)	Average Non-Residential Development, SF (5)	Average Daily Flow Residential, GPD (6)	Average Daily Flow Non-Residential, GPD (7)
063-203-270	, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.13	0.00	12	1	0	161	0
063-203-300	2395 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.18	2.50	86	8	9,638	1,522	964
063-203-310	2371 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.07	2.50	86	3	3,648	576	365
063-203-320	1586 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.18	2.50	86	8	9,638	1,522	964
063-203-330	1590 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.28	2.50	86	12	15,083	2,382	1,508
063-203-340	2387 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.20	2.50	86	9	10,836	1,711	1,084
063-203-350	1574 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.17	0.00	22	2	0	368	0
063-203-360	1546 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.15	0.00	22	2	0	337	0
063-203-370	1508 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.25	0.00	22	3	0	555	0
063-203-380	, NO DATA	Medium Density Residential	12-22 du/a	0.12	0.00	22	1	0	260	0
063-203-390	1518 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.33	0.00	22	4	0	724	0
063-203-400	1560 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.15	0.00	22	2	0	322	0
063-203-410	1568 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.15	0.00	22	2	0	340	0
063-203-430	1530 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	343	0
063-203-440	1554 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.13	0.00	22	1	0	297	0
063-203-450	1538 BAY RD, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.14	0.00	22	2	0	307	0
063-210-310	2346 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.21	1.75	65	7	7,835	1,336	783
063-210-340	2369 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.12	0.00	43	3	0	512	0
063-210-350	2365 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.12	0.00	43	3	0	531	0
063-210-360	2300 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.20	1.75	65	7	7,627	1,301	763
063-210-380	2354 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.17	1.75	65	6	6,548	1,117	655
063-210-410	2371 COOLEY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	4	4,228	721	423
063-210-450	2377 COOLEY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.09	1.75	65	3	3,257	555	326
063-210-460	2396 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.24	2.50	86	10	12,905	2,038	1,290
063-210-470	633 RUNNYMEDE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	4	4,256	726	426
063-210-480	2361 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.16	0.00	43	3	0	681	0
063-210-490	2355 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.17	0.00	43	4	0	714	0
063-210-520	2338 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.22	1.75	65	7	8,249	1,407	825
063-210-610	661 RUNNYMEDE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.23	1.75	65	8	8,831	1,506	883
063-210-630	2358 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.17	1.75	65	6	6,659	1,136	666
063-221-010	, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.25	2.50	86	11	13,667	2,159	1,367
063-221-020	1620 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.42	2.50	86	18	22,760	3,595	2,276
063-221-030	, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.13	2.50	86	5	6,806	1,075	681
063-221-040	1640 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.66	2.50	86	28	35,719	5,642	3,572
063-221-050	1650 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.18	2.50	86	8	9,964	1,574	996
063-221-060	1660 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.42	2.50	86	18	22,869	3,612	2,287
063-221-070	1670 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.39	2.50	86	17	21,236	3,354	2,124
063-221-100	1760 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	1.05	2.50	86	45	57,173	9,030	5,717
063-221-110	1796 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	1.03	2.50	86	44	56,084	8,858	5,608
063-221-140	2397 CLARKE AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.12	2.50	86	5	6,697	1,058	670
063-221-150	2387 CLARKE AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.13	2.50	86	6	7,296	1,152	730
063-221-160	2377 CLARKE AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.15	2.50	86	6	8,004	1,264	800
063-221-170	2373 CLARKE AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.13	2.50	86	6	7,242	1,144	724
063-221-180	2371 CLARKE AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.13	0.00	43	3	0	577	0
063-221-190	2369 CLARKE AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.15	0.00	43	3	0	634	0
063-221-200	891 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.29	0.00	43	6	0	1,235	0
063-221-210	871 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.13	0.00	43	3	0	562	0
063-221-220	867 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.19	0.00	43	4	0	800	0
063-221-230	865 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.19	0.00	43	4	0	827	0
063-221-240	, NO DATA	High Density Residential	22-43 du/a	0.65	0.00	43	14	0	2,813	0
063-221-250	831 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.19	0.00	43	4	0	819	0
063-221-260	819 JAMIE LN, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	492	0
063-221-270	823 JAMIE LN, EAST PALO ALTO	High Density Residential	22-43 du/a	0.15	0.00	43	3	0	648	0
063-221-280	827 JAMIE LN, EAST PALO ALTO	High Density Residential	22-43 du/a	0.19	0.00	43	4	0	835	0
063-221-290	811 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.12	0.00	43	3	0	507	0
063-221-300	813 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.10	0.00	43	2	0	429	0
063-221-310	815 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	463	0
063-221-320	817 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	469	0
063-221-340	801 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	471	0
063-221-350	803 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	475	0
063-221-360	805 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.09	0.00	43	2	0	398	0
063-221-370	807 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	492	0
063-221-380	809 PAUL ROBESON CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	459	0
063-221-390	791 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.89	0.00	43	19	0	3,814	0
063-221-410	731 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.30	0.00	43	7	0	1,303	0
063-221-420	717 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.22	0.00	43	5	0	958	0
063-221-430	2360 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.14	0.00	43	3	0	620	0
063-221-440	2362-2362 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.14	0.00	43	3	0	584	0
063-221-450	2364 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.16	0.00	43	3	0	682	0
063-221-460	2370 COOLEY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.67	2.50	86	29	36,482	5,762	3,648
063-221-480	2380 COOLEY AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.42	2.50	86	18	22,978	3,629	2,298
063-221-490	, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.30	2.50	86	13	16,498	2,606	1,650
063-221-500	863 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.13	0.00	43	3	0	562	0
063-221-510	761 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.17	0.00	43	4	0	743	0
063-221-520	767 CAROLE CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.14	0.00	43	3	0	622	0
063-221-530	773 CAROLE CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.13	0.00	43	3	0	564	0
063-221-540	779 CAROLE CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.13	0.00	43	3	0	552	0
063-221-550	785 CAROLE CT, EAST PALO ALTO	High Density Residential	22-43 du/a	0.13	0.00	43	3	0	566	0
063-221-560	1794 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.21	2.50	86	9	11,435	1,806	1,143
063-221-570	, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.06	2.50	86	3	3,267	516	327
063-221-580	, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.03	2.50	86	1	1,416	224	142
063-221-590	1730 BAY RD, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	1.59	2.50	86	68	86,684	13,691	8,668
063-231-210	2495 PULGAS AVE, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.42	0.00	50	11	0	2,105	0
063-231-220	1800 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.23	0.00	50	6	0	1,130	0
063-231-230	1890 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.14	0.00	50	4	0	720	0
063-231-240	1804 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.90	0.00	50	23	0	4,510	0
063-231-250	1798 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	1.38	0.00	50	34	0	6,883	0
063-231-260	1836 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	1.43	0.00	50	36	0	7,150	0
063-231-270	1894 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.10	0.00	50	2	0	485	0
063-231-280	1896 BAY RD, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.10	0.00	50	2	0	485	0
063-231-300	, EAST PALO ALTO	Mixed Use Corridor	50 du/a	0.25	0.00	50	6	0	1,240	0
063-232-090	1003 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.58	0.00	43	12	0	2,499	0
063-232-150	2421 PULGAS AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.77	0.00	43	17	0	3,305	0
063-232-160	2447 PULGAS AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.32	0.00	43	7	0	1,388	0
063-232-200	2373 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	22-86 du/a; 2.5 FAR (kept FAR)	0.25	2.50	86	11	13,340	2,107	1,334
063-232-210 (8)	WEEKS ST, EAST PALO ALTO	High Density Residential	102 du/a	1.13	0.00	102	58	0	11,564	0
063-232-220 (8)	WEEKS ST, EAST PALO ALTO	High Density Residential	102 du/a	0.64	0.00	102	33	0	6,560	0
063-232-230 (8)	WEEKS ST, EAST PALO ALTO	High Density Residential	101 du/a	0.90	0.00	101	45	0	9,065	0
063-232-240	1045 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.98	0.00	43	21	0	4,218	0
063-232-250	1085 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.11	0.00	43	2	0	461	0
063-232-260	1001 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.35	0.00	43	8	0	1,505	0

Appendix C: Table 3
2035 Zoning Sanitary Sewer Flows

APN (1)	Address (1)	2035 Zoning	Maximum Density and FAR Extents (2)	Acres per Parcel (3)	FAR	Maximum du per acre	Average du per Parcel or Project (4)	Average Non-Residential Development, SF (5)	Average Daily Flow Residential, GPD (6)	Average Daily Flow Non-Residential, GPD (7)
063-232-300	1095 WEEKS ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.21	0.00	43	4	0	891	0
063-232-310	2368 CLARKE AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.16	2.50	86	7	8,712	1,376	871
063-232-340	2386 CLARKE AVE, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.18	2.50	86	8	9,747	1,539	975
063-232-350	901 WEEKS ST, EAST PALO ALTO	Mixed Use High	22-86 du/a; 2.5 FAR (kept FAR)	0.46	2.50	86	20	24,865	3,927	2,487
063-240-210	NO DATA, EAST PALO ALTO	General Industrial	1.0 FAR	0.49	1.00	0	0	10,716	0	1,072
063-240-220	NO DATA, EAST PALO ALTO	General Industrial	1.0 FAR	0.47	1.00	0	0	10,237	0	1,024
063-240-270	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	0.15	0.00	50	4	0	746	0
063-240-310	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	2.36	0.00	50	59	0	11,780	0
063-240-320	1950 BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	1.51	0.00	65	49	0	9,815	0
063-240-330	BAY RD, EAST PALO ALTO	Mixed Use Corridor	22-65 du/a	0.44	0.00	65	14	0	2,860	0
063-240-350	NO DATA, EAST PALO ALTO	General Industrial	1.0 FAR	0.07	1.00	0	0	1,416	0	142
063-240-360	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	0.14	0.00	50	3	0	676	0
063-240-370	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	0.15	0.00	50	4	0	767	0
063-240-380	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	1.17	0.00	50	29	0	5,854	0
063-240-390	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	0.80	0.00	50	20	0	3,987	0
063-240-420	NO DATA, EAST PALO ALTO	General Industrial	1.0 FAR	8.42	1.00	0	0	183,316	0	18,332
063-240-440	NO DATA, EAST PALO ALTO	General Industrial	1.0 FAR	0.07	1.00	0	0	1,590	0	159
063-240-460	NO DATA, EAST PALO ALTO	General Industrial	50 du/a	1.54	0.00	50	38	0	7,695	0
063-253-320 (8)	NO DATA, EAST PALO ALTO	Medium Density Residential	10 du Planned	0.47	0.00	22	10	0	2,068	0
063-271-070	1275 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	1.25	0.00	43	27	0	5,371	0
063-271-090	1201 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.93	0.00	43	20	0	4,008	0
063-271-370	1171 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.90	0.00	43	19	0	3,851	0
063-271-410	NO DATA, EAST PALO ALTO	Medium Density Residential	1.0 FAR	0.11	1.00	0	0	2,439	0	244
063-271-420	NO DATA, EAST PALO ALTO	Medium Density Residential	1.0 FAR	0.16	1.00	0	0	3,463	0	346
063-271-440	1191 RUNNYMEDE ST, EAST PALO ALTO	Medium Density Residential	22-43 du/a	0.15	0.00	43	3	0	636	0
063-271-450	1200 WEEKS ST, EAST PALO ALTO	Medium Density Residential	22-43 du/a	0.75	0.00	43	16	0	3,212	0
063-271-470	1249 RUNNYMEDE ST, EAST PALO ALTO	Medium Density Residential	22-43 du/a	0.22	0.00	43	5	0	942	0
063-271-480	, EAST PALO ALTO	Industrial Buffer	0.75 to 3.0 FAR	0.83	2.55	0	0	45,961	0	4,596
063-271-490	NO DATA, EAST PALO ALTO	Industrial Buffer	15 du/a	2.72	1.00	0	0	59,285	0	5,929
063-271-500	1269 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.23	0.00	43	5	0	1,002	0
063-271-510	1265 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.15	0.00	43	3	0	645	0
063-271-520	1261 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.15	0.00	43	3	0	654	0
063-271-530	1257 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.15	0.00	43	3	0	654	0
063-271-540	NO DATA, EAST PALO ALTO	Medium Density Residential	1.0 FAR	0.28	1.00	0	0	6,055	0	605
063-271-550	NO DATA, EAST PALO ALTO	Medium Density Residential	1.0 FAR	0.11	1.00	0	0	2,483	0	248
063-271-560	NO DATA, EAST PALO ALTO	Medium Density Residential	1.0 FAR	0.11	1.00	0	0	2,483	0	248
063-271-570	NO DATA, EAST PALO ALTO	Medium Density Residential	1.0 FAR	0.12	1.00	0	0	2,505	0	250
063-281-020 (8)	2021 EUCLID AVE	High Density Residential	175 du/a	0.15	0.00	175	26	0	5,285	0
063-281-030 (8)	2025 EUCLID AVE	High Density Residential	175 du/a	0.12	0.00	175	22	0	4,305	0
063-281-040 (8)	2031 EUCLID AVE	High Density Residential	175 du/a	0.21	0.00	175	36	0	7,210	0
063-281-100 (8)	2043 EUCLID AVE	High Density Residential	175 du/a	0.12	0.00	175	22	0	4,305	0
063-281-110 (8)	2041 EUCLID AVE	High Density Residential	175 du/a	0.12	0.00	175	21	0	4,165	0
063-282-010 (8)	501 O'CONNOR STREET	High Density Residential	175 du/a	0.32	0.00	175	57	0	11,340	0
063-282-020 (8)	2012 EUCLID AVE	High Density Residential	175 du/a	0.34	0.00	175	59	0	11,865	0
063-282-030 (8)	2032 EUCLID AVE	High Density Residential	175 du/a	0.16	0.00	175	28	0	5,670	0
063-282-040 (8)	2036 EUCLID AVE	High Density Residential	175 du/a	0.15	0.00	175	27	0	5,390	0
063-282-050 (8)	2040/2042 EUCLID AVE	High Density Residential	175 du/a	0.14	0.00	175	25	0	4,900	0
063-282-060 (8)	2044 EUCLID AVE	High Density Residential	175 du/a	0.18	0.00	175	31	0	6,195	0
063-282-070 (8)	2054 EUCLID AVE	High Density Residential	175 du/a	0.24	0.00	175	42	0	8,435	0
063-282-080 (8)	2033 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	175 du/a	0.51	0.00	175	89	0	17,843	0
063-282-090 (8)	2001 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	175 du/a	0.69	0.00	175	121	0	24,199	0
063-291-010	1489 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.45	1.00	22	5	9,783	988	978
063-292-180	2101 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	0.33	2.50	86	14	17,860	2,821	1,786
063-292-370	2117 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	0.77	2.50	86	33	41,778	6,598	4,178
063-292-380 (8)	2160 EUCLID AVE, EAST PALO ALTO	Mixed Use High	430 du planned	3.99	2.50	216	430	217,239	85,978	21,724
063-302-170	2283 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.24	1.75	65	8	9,103	1,552	910
063-302-180	2281 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.21	1.75	65	7	7,997	1,364	800
063-302-210	2263 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.46	1.75	65	15	17,653	3,011	1,765
063-302-220	2253 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.21	1.75	65	7	7,983	1,361	798
063-302-230	2247 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.30	1.75	65	10	11,258	1,920	1,126
063-302-280	575A BELL ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.20	1.75	65	6	7,476	1,275	748
063-302-290	565 BELL ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.19	1.75	65	6	7,242	1,235	724
063-302-330	2201 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	1.41	1.75	65	46	53,812	9,177	5,381
063-302-340	584 RUNNYMEDE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.39	1.75	65	13	14,888	2,539	1,489
063-302-460	2277 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.36	1.75	65	12	13,569	2,314	1,357
063-302-470	2279 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.23	1.75	65	7	8,788	1,499	879
063-312-400	, NO DATA	Office	3.0 FAR	0.35	3.00	0	0	22,556	0	2,256
063-321-050	2124 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.28	1.75	65	9	10,643	1,815	1,064
063-321-060	2126 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.23	1.75	65	7	8,711	1,485	871
063-321-070	, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.05	1.75	65	2	1,984	338	198
063-321-080	2142 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.19	1.75	65	6	7,128	1,216	713
063-321-100	2160 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.37	1.75	65	12	13,973	2,383	1,397
063-321-110	2164 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.18	1.75	65	6	6,772	1,155	677
063-321-120	2166 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.17	1.75	65	6	6,661	1,136	666
063-321-130	2172 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.17	1.75	65	6	6,660	1,136	666
063-321-140	2178 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.17	1.75	65	5	6,371	1,086	637
063-321-180	612 BELL ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	4	4,282	730	428
063-321-190	616 BELL ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.12	1.75	65	4	4,548	776	455
063-321-200	644 BELL ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,729	977	573
063-321-210	2189 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,402	921	540
063-321-220	2187 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.12	1.75	65	4	4,432	756	443
063-321-230	2181 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.17	1.75	65	6	6,626	1,130	663
063-321-240	2171 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,776	985	578
063-321-250	2165 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,590	953	559
063-321-260	2161 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,779	986	578
063-321-270	2157 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,850	998	585
063-321-280	2153 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,682	969	568
063-321-290	2149 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	5,921	1,010	592
063-321-300	2145 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	5,988	1,021	599
063-321-310	2141 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,901	1,006	590
063-321-320	2133 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,669	967	567
063-321-330	2129 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	3	4,007	683	401
063-321-400	2194 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.43	1.75	65	14	16,237	2,769	1,624
063-321-410	2148 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.25	1.75	65	8	9,620	1,641	962
063-321-420	, NO DATA	Office	3.0 FAR	1.64	3.00	0	0	107,405	0	10,740
063-322-040	2124 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	349	0
063-322-050	2132 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.17	0.00	22	2	0	379	0
063-322-060	2134 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	350	0
063-322-070	2138 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	349	0
063-322-080	2142 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	345	0
063-322-090	2144 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	363	0
063-322-100	2154 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.20	0.00	22	2	0	434	0
063-322-110	2162 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.22	0.00	22	2	0	477	0
063-322-130	2184 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.19	0.00	22	2	0	425	0
063-322-140	2194 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.24	0.00	22	3	0	538	0
063-322-150	2198 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.13	0.00	22	1	0	297	0
063-322-160	660 BELL ST, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.13	0.00	22	1	0	286	0
063-322-340	2169 COOLEY AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.69	0.00	22	8	0	1,508	0
063-322-410	, NO DATA	Office	3.0 FAR	0.17	3.00	0	0	11,099	0	1,110
063-322-500	2159 COOLEY AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.22	0.00	22	2	0	494	0
063-322-560	DONOHOE ST, EAST PALO ALTO	Office	3.0 FAR	0.72	3.00	0	0	46,920	0	4,692
063-322-580	2118 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	359	0
063-331-030	2212 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.20	1.75	65	7	7,656	1,306	766
063-331-060	2242 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,118	1,043	612
063-331-070	2248 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,105	1,041	610
063-331-080	2252 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,092	1,039	609
063-331-090	2264 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,078	1,036	608
063-331-100	2268 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,065	1,034	606
063-331-110	2272 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,052	1,032	605
063-331-120	2274 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.21	1.75	65	7	8,187	1,396	819
063-331-130	2276 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,449	929	545
063-331-140	2280 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,443	928	544
063-331-150	2284 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,436	927	544
063-331-190	2291 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,555	947	556
063-331-200	2287 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,592	954	559

Appendix C: Table 3
2035 Zoning Sanitary Sewer Flows

APN (1)		Address (1)	2035 Zoning	Maximum Density and FAR Extents (2)	Acres per Parcel (3)	FAR	Maximum du per acre	Average du per Parcel or Project (4)	Average Non-Residential Development, SF (5)	Average Daily Flow Residential, GPD (6)	Average Daily Flow Non-Residential, GPD (7)
063-331-210		2285 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,629	960	563
063-331-220		2277 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,333	909	533
063-331-230		2267 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.13	1.75	65	4	5,120	873	512
063-331-240		2263 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	4	5,149	878	515
063-331-250		2255 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	4	5,179	883	518
063-331-260		2251 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	4	5,208	888	521
063-331-270		2249 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	4	5,238	893	524
063-331-280		2245 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	4	5,267	898	527
063-331-290		2239 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.18	1.75	65	6	6,726	1,147	673
063-331-300		2233 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.18	1.75	65	6	6,808	1,161	681
063-331-310		2227 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,530	943	553
063-331-320		2219 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	5	5,465	932	547
063-331-330		2217 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.12	1.75	65	4	4,464	761	446
063-331-340		2205 CAPITOL AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,151	1,049	615
063-331-350		643 BELL ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	5,924	1,010	592
063-331-370		2200 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.40	1.75	65	13	15,313	2,611	1,531
063-331-380		2240 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.24	1.75	65	8	9,056	1,544	906
063-331-410		2220 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.44	1.75	65	14	16,713	2,850	1,671
063-442-360		330 DONOHOE ST, EAST PALO ALTO	High Density Residential	22-43 du/a	0.98	0.00	43	21	0	4,213	0
063-473-150		1995 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.17	0.00	43	4	0	725	0
063-473-160		1991 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.38	0.00	43	8	0	1,631	0
063-473-170		1965 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.28	0.00	43	6	0	1,207	0
063-473-180		1955 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.34	0.00	43	7	0	1,448	0
063-473-190		1919 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.46	0.00	43	10	0	1,962	0
063-473-200		1901 MANHATTAN AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.58	0.00	43	13	0	2,503	0
063-481-010		1699 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.17	0.00	22	2	0	367	0
063-481-020		1681 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	345	0
063-481-030		1671 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	360	0
063-481-040		1669 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	396	0
063-481-050		1651 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.24	0.00	22	3	0	531	0
063-481-060		1643 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	403	0
063-481-070		1637 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.19	0.00	22	2	0	423	0
063-481-080		1629 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.17	0.00	22	2	0	384	0
063-481-090		1621 WOODLAND AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.17	0.00	22	2	0	363	0
063-481-100		644 SCOFIELD AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.21	0.00	22	2	0	463	0
063-481-110		652 SCOFIELD AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.15	0.00	22	2	0	322	0
063-481-120		660 SCOFIELD AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	396	0
063-481-130		610 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	396	0
063-481-140		620 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.19	0.00	22	2	0	415	0
063-481-150		630 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	387	0
063-481-160		640 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	399	0
063-481-170		650 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.21	0.00	22	2	0	461	0
063-481-180		1917 COOLEY AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.21	0.00	22	2	0	470	0
063-481-190		1909 COOLEY AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.21	0.00	22	2	0	457	0
063-481-210		1901 COOLEY AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.20	0.00	22	2	0	441	0
063-481-220		1905 COOLEY AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.18	0.00	22	2	0	407	0
063-482-010		641 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.15	0.00	22	2	0	322	0
063-482-020		621 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.16	0.00	22	2	0	359	0
063-482-030		611 CIRCLE DR, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.19	0.00	22	2	0	414	0
063-483-030		1909 CAPITOL AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.23	0.00	22	2	0	496	0
063-483-040		1943 CAPITOL AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.25	0.00	43	5	0	1,068	0
063-483-050		1609 WOODLAND AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.50	0.00	43	11	0	2,169	0
063-484-010		655 SCOFIELD AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.09	0.00	43	2	0	407	0
063-484-020		1902 CAPITOL AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.12	0.00	43	2	0	497	0
063-484-030		1908 CAPITOL AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.21	0.00	43	5	0	907	0
063-484-040		1916 CAPITOL AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.33	0.00	43	7	0	1,407	0
063-484-050		1920 CAPITOL AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.20	0.00	43	4	0	865	0
063-484-060		1934 CAPITOL AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.54	0.00	43	12	0	2,327	0
063-484-090		1949 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.31	0.00	43	7	0	1,319	0
063-484-100		1941 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.34	0.00	43	7	0	1,464	0
063-484-110		685 SCOFIELD AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.41	0.00	43	9	0	1,743	0
063-484-130		1957 COOLEY AVE, EAST PALO ALTO	High Density Residential	22-43 du/a	0.74	0.00	43	16	0	3,197	0
063-492-070		1927 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.19	1.75	65	6	7,139	1,217	714
063-492-280		1933 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	2.14	0.00	22	24	0	4,705	0
063-492-350	(8)	1805 E BAYSHORE RD #1-94, EAST PALO ALTO	High Density Residential	94 proposed	3.32		94	156	0	31,208	0
063-492-480		1895 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.25	1.75	65	8	9,521	1,624	952
063-501-020		1874 W BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.50	1.00	22	5	10,818	1,093	1,082
063-501-030		1870 W BAYSHORE RD, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.23	1.00	22	3	5,052	510	505
063-501-040		1879 WOODLAND AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.24	1.00	22	3	5,119	517	512
063-501-050		1875 WOODLAND AVE, EAST PALO ALTO	Mixed Use Low	22 du/a; 1.0 FAR	0.20	1.00	22	2	4,456	450	446
063-511-020		2039 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.12	1.75	65	4	4,698	801	470
063-511-030		2035 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.13	1.75	65	4	5,094	869	509
063-511-040		2029 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.26	1.75	65	8	9,897	1,688	990
063-511-050		2027 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.12	1.75	65	4	4,482	764	448
063-511-060		2023 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.14	1.75	65	4	5,275	899	527
063-511-070		2017 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.13	1.75	65	4	4,908	837	491
063-511-080		2013 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.13	1.75	65	4	4,857	828	486
063-511-090		2009 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.13	1.75	65	4	4,834	824	483
063-511-190		872 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.21	1.75	65	7	8,007	1,366	801
063-511-200		866 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.18	1.75	65	6	6,898	1,176	690
063-511-210		864 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.15	1.75	65	5	5,844	997	584
063-511-220		862 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	3	4,040	689	404
063-511-240		896 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.11	1.75	65	4	4,244	724	424
063-511-250		860 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.16	1.75	65	5	6,145	1,048	615
063-511-260		890 DONOHOE ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.12	1.75	65	4	4,566	779	457
063-511-490		1731 E BAYSHORE RD, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	2.51	2.50	86	108	136,888	21,620	13,689
063-511-520		1761 E BAYSHORE RD, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	2.64	2.50	86	114	143,790	22,711	14,379
063-511-630		1721 E BAYSHORE RD, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	0.67	2.50	86	29	36,236	5,723	3,624
063-511-660		899 OCONNOR ST, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.08	1.75	65	2	2,872	490	287
063-511-680		1751 EAST BAYSHORE RD, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	4.24	2.50	86	182	231,026	36,489	23,103
063-511-690		1745 E BAYSHORE BLVD, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	0.67	2.50	86	29	36,743	5,803	3,674
063-511-720		1775 E BAYSHORE RD, EAST PALO ALTO	Mixed Use High	86 du/a; 2.5 FAR	6.12	2.50	86	263	333,269	52,637	33,327
063-515-060		1821 CLARKE AVE, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.19	0.00	12	1	0	226	0
063-515-070		1805 CLARKE AVE, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.35	0.00	12	2	0	424	0
063-515-080		1787 WOODLAND AVE, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.18	0.00	12	1	0	218	0
063-515-230		1785 WOODLAND AVE, EAST PALO ALTO	Low Density Residential	0-12 du/a	0.35	0.00	12	2	0	423	0
063-571-060		1985 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	1.38	1.75	65	45	52,597	8,970	5,260
063-571-070		1981 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.66	1.75	65	21	25,211	4,299	2,521
063-571-080		1961 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	1.44	1.75	65	47	54,786	9,343	5,479
063-571-090		1905 E BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.25	1.75	65	8	9,439	1,610	944
063-680-020		1900 UNIVERSITY AVE, EAST PALO ALTO	Office	3.0 FAR	2.31	3.00	0	0	150,737	0	15,074
063-680-050		, NO DATA	Office	3.0 FAR	0.02	3.00	0	0	1,566	0	157
063-680-060		, NO DATA	Office	3.0 FAR	0.02	3.00	0	0	1,566	0	157
063-680-090		, EAST PALO ALTO	Office	3.0 FAR	0.13	3.00	0	0	8,177	0	818
063-680-100		, EAST PALO ALTO	Office	3.0 FAR	0.13	3.00	0	0	8,273	0	827
063-680-110		, EAST PALO ALTO	Office	3.0 FAR	0.35	3.00	0	0	22,595	0	2,259
063-680-130		2000 UNIVERSITY AVE, EAST PALO ALTO	Office	3.0 FAR	2.14	3.00	0	0	139,586	0	13,959
063-680-150		2050 UNIVERSITY AVE, EAST PALO ALTO	Office	3.0 FAR	3.35	3.00	0	0	218,937	0	21,894
063-680-180		, EAST PALO ALTO	Office	3.0 FAR	0.01	3.00	0	0	533	0	53
063-680-190		2000 UNIVERSITY AVE, EAST PALO ALTO	Office	3.0 FAR	3.92	3.00	0	0	256,076	0	25,608
063-730-010	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-020	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-030	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-040	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-050	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-060	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-070	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-080	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-090	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-100	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-110	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-120	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-130	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-140	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-150	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-160	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-170	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-180	(8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0

Appendix C: Table 3
2035 Zoning Sanitary Sewer Flows

APN (1)	Address (1)	2035 Zoning	Maximum Density and FAR Extents (2)	Acres per Parcel (3)	FAR	Maximum du per acre	Average du per Parcel or Project (4)	Average Non-Residential Development, SF (5)	Average Daily Flow Residential, GPD (6)	Average Daily Flow Non-Residential, GPD (7)
063-730-190 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-200 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-210 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-220 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.09	0.00	22	1	0	200	0
063-730-230 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-240 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-250 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-260 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-270 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-280 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-290 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-300 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-310 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.08	0.00	22	1	0	200	0
063-730-320 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-330 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-340 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-350 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-360 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-370 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-380 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.07	0.00	22	1	0	200	0
063-730-390 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-400 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-410 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-420 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-430 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-440 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-450 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-460 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-470 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.07	0.00	22	1	0	200	0
063-730-480 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.06	0.00	22	1	0	200	0
063-730-490 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-500 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
063-730-510 (8)	2477 PULGAS AVE, EAST PALO ALTO	Medium Density Residential	12-22 du/a	0.05	0.00	22	1	0	200	0
113-530-010 to 113-530-999	2420 GLORIA WAY, EAST PALO ALTO	High Density Residential	22-43 du/a	0.47	0.00	43	10	0	2,036	0
113-710-010 to 113-710-999	2440 GLORIA WAY, EAST PALO ALTO	High Density Residential	22-43 du/a	0.25	0.00	43	5	0	1,064	0
113-720-010 to 113-720-999	2460 GLORIA WAY, EAST PALO ALTO	High Density Residential	22-43 du/a	0.21	0.00	43	4	0	895	0
113-740-010 to 113-740-999	2470 GLORIA WAY, EAST PALO ALTO	High Density Residential	22-43 du/a	0.33	0.00	43	7	0	1,402	0
114-240-010 to 114-240-300	2330 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	0.46	1.75	65	15	17,593	3,000	1,759
114-450-010 to 114-460-300	1765 EAST BAYSHORE RD, EAST PALO ALTO	Mixed Use Corridor	65 du/a; 1.75 FAR	1.04	1.75	65	34	39,597	6,753	3,960
114-590-050	NO DATA, EAST PALO ALTO	Office	3.0 FAR	3.61	3	0	0	235,877	0	23,588

Notes:
(1) Properties with Zoning change per Figure 4-12: General Plan Land Use and Figure 4-16: Ravenswood / 4 Corners TOP Specific Plan Land Use City of East Palo Alto General Plan "Existing Conditions Report, February 2014" and Figure 4-2: General Plan Land Use Designations City of East Palo Alto General Plan "Vista 2035, Final Version: March 2017"
(2) du/a and FAR based on Section 4 Table 4-2 of City of East Palo Alto General Plan "Vista 2035, Final Version: March 2017"
(3) Square footage of parcel divided 43,560 feet (1 Acre Equivalent).
(4) Average Dwelling units per number of acres in parcel is calculated to be 50% of the maximum number of units allowed in the General Plan.
(5) Calculated by multiplying 50% of the maximum FAR for the land use allowed by the General Plan and square feet of parcel.
(6) 2025 Master Plan update ADWF Residential Dwellings, calculated by multiplying 200 gallons per dwelling unit per day by the total number of untis.
(7) ADWF Non-Residential , calculated by multiplying 0.1 gallons per day per square foot. Based on Section B1.03.3 for Office and Retail of the East Palo Alto Sanitary District Standard Specifications for Design and Construction of Sanitray Collection and Conveyance Facilities dated June 6, 2002. Units converted from GPD (Gallons Per Day) to CFS assuming flows are discharged over 24 hours in a day.
(8) Number of units planned are approved development projects by the City. Average Daily Flow, Residential is calculated using the known unit count.

Abbreviations
ADWF: Average Dry Weather Flow
APN: Assessors Parcel Number
CFS: Cubic Feet per Second

Appendix C: Table 4
Scenario 2: 2025 Additional Sanitary Sewer Flows

APN (1)	Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-232-210 (9)	WEEKS ST, EAST PALO ALTO	T20	1.5	11,564	0	0.0178	0.0000	0.0267	0.0000	0.0178	0.0267
063-232-220 (9)	WEEKS ST, EAST PALO ALTO	T20	1.5	6,560	0	0.0101	0.0000	0.0152	0.0000	0.0101	0.0152
063-232-230 (9)	WEEKS ST, EAST PALO ALTO	T20	1.5	9,065	0	0.0140	0.0000	0.0209	0.0000	0.0140	0.0209
063-240-320 (9)	1950 BAY RD, EAST PALO ALTO	T20	1.5	9,799	5,746	0.0151	0.0088	0.0226	0.0133	0.0239	0.0359
063-240-330 (9)	1950 BAY RD, EAST PALO ALTO	T20	1.5	2,895	1,698	0.0045	0.0026	0.0067	0.0039	0.0071	0.0106
063-730-190 (9)	2477 PULGAS AVE	T20	1.5	114	0	0.0002	0.0000	0.0003	0.0000	0.0002	0.0003
063-730-200 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-220 (9)	2477 PULGAS AVE	T20	1.5	200	341	0.0003	0.0005	0.0005	0.0008	0.0008	0.0012
063-730-230 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-130 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-090 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-140 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-180 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-100 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-110 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-010 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-020 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-040 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-050 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-060 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-240 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-250 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-290 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-300 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-320 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-330 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-340 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-350 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-360 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-370 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-420 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-430 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-440 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-450 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-480 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-490 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-500 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-510 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-470 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-460 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-380 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-390 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-400 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-410 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-260 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-270 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-280 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-210 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-080 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-070 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-030 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-120 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-170 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-160 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-150 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-730-310 (9)	2477 PULGAS AVE	T20	1.5	200	0	0.0003	0.0000	0.0005	0.0000	0.0003	0.0005
063-492-350 (9)	1805 E BAYSHORE RD #1-94, EAST PALO ALTO	K4	1.59	18,200	0	0.0280	0.0000	0.0446	0.0000	0.0280	0.0446
063-321-420 (9)	, NO DATA	E2	1.46	0	10,740	0.0000	0.0165	0.0000	0.0241	0.0165	0.0241
063-322-410 (9)	, NO DATA	E2	1.47	0	1,159	0.0000	0.0018	0.0000	0.0026	0.0018	0.0026
063-322-560 (9)	DONOHOE ST, EAST PALO ALTO	E2	1.47	0	4,692	0.0000	0.0072	0.0000	0.0106	0.0072	0.0106

Notes are on Page 2 of 2.

Appendix C: Table 4
Scenario 2: 2025 Additional Sanitary Sewer Flows

Notes:

(1) Properties with Zoning change per Figure 4-12: General Plan Land Use and Figure 4-16: Ravenswood / 4 Corners TOP Specific Plan Land Use City of East Palo Alto General Plan "Existing Conditions Report, February 2014" and Figure 4-2: General Plan Land Use Designations City of East Palo Alto General Plan "Vista 2035, Final Version: March 2017"

(2) Per Section 5.3.2 of the "East Palo Alto Sanitary District Master Plan Update, March 2015". For modeling scenarios, peak sanitary flows based on the collected data. Collected data for Peaking Factors for each sub-basin are shown in Table 3.2.

(3) Delta Residential Flows is calculated by taking the Average Daily Flow for Residential areas from Table 3 minus the Average Daily Flow for Residential area from Table 2. If calculation resulted in a decrease of flow, the flow change is shown as "0" because it is not anticipated that the land use changes will result in flow reductions.

(4) Delta Non-Residential Flows is calculated by taking the Average Faily Flow for Non-Residential areas from Table 3 minus the Average Daily Flow for Non-Residential areas from Table 2.

(5) ADWF Residential Dwellings, calculated by multiplying 200 gallons per dwelling unit per day by the total number of units. Based on internal F&L meeting, 2/13/2025. Units converted from GPD (Gallons Per Day) to CFS based off 24 hours in a day, 60 minutes in a hour, and 60 seconds in a minute.

(6) ADWF Non-Residential , calculated by multiplying 0.1 gallons per day per square foot. Based on Section B1.03.3 for Office and Retail of the East Palo Alto Sanitary District Standard Specifications forDesign and Construction of Sanitray Collection and Conveyance Facilities dated June 6, 2002. Units converted from GPD (Gallons Per Day) to CFS. Based off 24 hours in a day, 60 minutes in an hour, and 60 seconds in a minute.

(7) PDWF Residential Dwellings, calculated by multiplying Average Dry Weather Flows (5) by the Peaking Factor (2). Units converted from GPD to CFS. Based off 24 hours a day, 60 minutes in a hour, and 60 seconds in a minute.

(8) PDWF Non-Residential, calculated by multiplying Average Dry Weather Flows (6) by the Peaking Factor (2). Units converted from GPD to CFS. Based off 24 hours a day, 60 minutes in a hour, and 60seconds in a minute.

(9) Number of units planned are approved development projects by the City. Average Daily Flow, Residential is calculated using the known unit count.

Abbreviations

ADWF: Average Dry Weather Flow
APN: Assessors Parcel Number
CFS: Cubic Feet per Second
MGD: Million Gallons Per Day
PDWF: Peak Dry Weather Flow

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-103-310		1585 BAY RD, EAST PALO ALTO	A15	0.00	43,861	6,902	0.0675	0.0106	0.0000	0.0000	0.0782	0.0000
063-103-360		, EAST PALO ALTO	A15	0.00	69,968	11,051	0.1078	0.0170	0.0000	0.0000	0.1248	0.0000
063-103-370		, EAST PALO ALTO	A15	0.00	41,599	6,569	0.0641	0.0101	0.0000	0.0000	0.0742	0.0000
063-103-380		, EAST PALO ALTO	A15	0.00	8,276	1,307	0.0127	0.0020	0.0000	0.0000	0.0148	0.0000
063-103-390		, EAST PALO ALTO	A15	0.00	12,251	1,935	0.0189	0.0030	0.0000	0.0000	0.0218	0.0000
063-103-440		2400 GLORIA WAY, EAST PALO ALTO	A15	0.00	0	8,578	0.0000	0.0132	0.0000	0.0000	0.0132	0.0000
063-111-230		BETWEEN 1585 AND 1675 BAY RD, EAST PALO A	A15	0.00	12,513	1,976	0.0193	0.0030	0.0000	0.0000	0.0223	0.0000
063-111-250		1675 BAY RD, EAST PALO ALTO	A15	0.00	328,119	51,823	0.5053	0.0798	0.0000	0.0000	0.5851	0.0000
063-121-030		, EAST PALO ALTO	T20	0.00	16,945	0	0.0261	0.0000	0.0000	0.0000	0.0261	0.0000
063-121-040		, EAST PALO ALTO	T20	0.00	122,905	0	0.1893	0.0000	0.0000	0.0000	0.1893	0.0000
063-121-050		TARA RD, EAST PALO ALTO	T20	0.00	11,500	0	0.0177	0.0000	0.0000	0.0000	0.0177	0.0000
063-121-060		264 TARA RD, EAST PALO ALTO	T20	0.00	78,081	0	0.1202	0.0000	0.0000	0.0000	0.1202	0.0000
063-121-070		2081 BAY RD, EAST PALO ALTO	T20	0.00	340,421	0	0.5242	0.0000	0.0000	0.0000	0.5242	0.0000
063-121-110		2077 BAY RD, EAST PALO ALTO	T20	0.00	84,289	0	0.1298	0.0000	0.0000	0.0000	0.1298	0.0000
063-121-120		2005 BAY RD, EAST PALO ALTO	T20	0.00	167,924	0	0.2586	0.0000	0.0000	0.0000	0.2586	0.0000
063-121-150		, EAST PALO ALTO	T20	0.00	19,733	0	0.0304	0.0000	0.0000	0.0000	0.0304	0.0000
063-121-160		180 TARA ROAD, EAST PALO ALTO	T20	0.00	76,513	0	0.1178	0.0000	0.0000	0.0000	0.1178	0.0000
063-121-170		240 TARA ROAD, EAST PALO ALTO	T20	0.00	84,615	0	0.1303	0.0000	0.0000	0.0000	0.1303	0.0000
063-121-190		2560 PULGAS AVE, EAST PALO ALTO	T20	0.00	19,906	0	0.0307	0.0000	0.0000	0.0000	0.0307	0.0000
063-121-200		2555 PULGAS AVE, EAST PALO ALTO	T20	0.00	59,721	0	0.0920	0.0000	0.0000	0.0000	0.0920	0.0000
063-121-210		2555 PULGAS AVE, EAST PALO ALTO	T20	0.00	59,785	0	0.0921	0.0000	0.0000	0.0000	0.0921	0.0000
063-121-240		, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-121-290		218 DEMETER ST, EAST PALO ALTO	A15	0.00	31,665	0	0.0488	0.0000	0.0000	0.0000	0.0488	0.0000
063-121-320		350 DEMETER ST, EAST PALO ALTO	A15	0.00	130,483	0	0.2009	0.0000	0.0000	0.0000	0.2009	0.0000
063-121-330		, EAST PALO ALTO	A15	0.00	130,027	0	0.2002	0.0000	0.0000	0.0000	0.2002	0.0000
063-121-350		, EAST PALO ALTO	T20	0.00	42,928	0	0.0661	0.0000	0.0000	0.0000	0.0661	0.0000
063-121-360		, EAST PALO ALTO	T20	0.00	2,875	0	0.0044	0.0000	0.0000	0.0000	0.0044	0.0000
063-121-370		2535 PULGAS AVE, EAST PALO ALTO	T20	0.00	85,050	0	0.1310	0.0000	0.0000	0.0000	0.1310	0.0000
063-121-390		, EAST PALO ALTO	T20	0.00	41,164	0	0.0634	0.0000	0.0000	0.0000	0.0634	0.0000
063-121-400		2091 BAY RD, EAST PALO ALTO	T20	0.00	54,547	0	0.0840	0.0000	0.0000	0.0000	0.0840	0.0000
063-121-410		2091 BAY RD, EAST PALO ALTO	T20	0.00	65,340	0	0.1006	0.0000	0.0000	0.0000	0.1006	0.0000
063-121-490		, EAST PALO ALTO	T20	0.00	128,720	0	0.1982	0.0000	0.0000	0.0000	0.1982	0.0000
063-121-500		, EAST PALO ALTO	T20	0.00	165,309	0	0.2546	0.0000	0.0000	0.0000	0.2546	0.0000
063-121-510		, EAST PALO ALTO	T20	0.00	47,044	0	0.0724	0.0000	0.0000	0.0000	0.0724	0.0000
063-122-040		1990 BAY RD, EAST PALO ALTO	T20	0.00	307,726	0	0.4739	0.0000	0.0000	0.0000	0.4739	0.0000
063-123-010		351 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-030		225 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-060		325 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-070		245 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-080		, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-131-220	(9)	2519 PULGAS AVE, EAST PALO ALTO	T20	0.00	109,030	0	0.1679	0.0000	0.0000	0.0000	0.1679	0.0000
063-131-230		, EAST PALO ALTO	T20	0.00	0	1,541	0.0000	0.0024	0.0000	0.0000	0.0024	0.0000
063-131-240		1885 BAY RD, EAST PALO ALTO	T20	0.00	0	1,494	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-131-250		1861 BAY RD, EAST PALO ALTO	T20	0.00	0	2,002	0.0000	0.0031	0.0000	0.0000	0.0031	0.0000
063-131-260		1879 BAY RD, EAST PALO ALTO	T20	0.00	0	3,717	0.0000	0.0057	0.0000	0.0000	0.0057	0.0000
063-131-270		1873 BAY RD, EAST PALO ALTO	T20	0.00	0	702	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-131-290		140 DEMETER ST, EAST PALO ALTO	A15	0.00	58,152	0	0.0896	0.0000	0.0000	0.0000	0.0896	0.0000
063-131-300		, EAST PALO ALTO	T20	0.00	0	662	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-131-310		1891 BAY RD, EAST PALO ALTO	T20	0.00	0	974	0.0000	0.0015	0.0000	0.0000	0.0015	0.0000
063-131-320		1847 BAY RD, EAST PALO ALTO	T20	0.00	0	1,449	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-131-330		1851 BAY RD, EAST PALO ALTO	T20	0.00	0	787	0.0000	0.0012	0.0000	0.0000	0.0012	0.0000
063-131-340		2509 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	1,410	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-132-020		151 TARA RD, EAST PALO ALTO	T20	0.00	3,658	0	0.0056	0.0000	0.0000	0.0000	0.0056	0.0000
063-132-060		150 TARA RD, EAST PALO ALTO	T20	0.00	21,888	0	0.0337	0.0000	0.0000	0.0000	0.0337	0.0000
063-132-090		, EAST PALO ALTO	T20	0.00	2,026	0	0.0031	0.0000	0.0000	0.0000	0.0031	0.0000
063-132-110		1923 BAY RD, EAST PALO ALTO	T20	0.00	0	6,455	0.0000	0.0099	0.0000	0.0000	0.0099	0.0000
063-132-120		1907 BAY RD, EAST PALO ALTO	T20	0.00	0	1,039	0.0000	0.0016	0.0000	0.0000	0.0016	0.0000
063-132-130		1911 BAY RD, EAST PALO ALTO	T20	0.00	0	877	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-132-140		1905 BAY RD, EAST PALO ALTO	T20	0.00	0	2,762	0.0000	0.0043	0.0000	0.0000	0.0043	0.0000
063-132-150		2520 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	6,194	0.0000	0.0095	0.0000	0.0000	0.0095	0.0000
063-132-170		, EAST PALO ALTO	T20	0.00	0	1,091	0.0000	0.0017	0.0000	0.0000	0.0017	0.0000
063-132-190		2532 PULGAS AVE, EAST PALO ALTO	T20	0.00	20,558	0	0.0317	0.0000	0.0000	0.0000	0.0317	0.0000
063-132-210		2524 PULGAS AVE, EAST PALO ALTO	T20	0.00	19,753	0	0.0304	0.0000	0.0000	0.0000	0.0304	0.0000
063-132-220		1987 BAY RD, EAST PALO ALTO	T20	0.00	80,434	0	0.1239	0.0000	0.0000	0.0000	0.1239	0.0000
063-133-070		195 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-080		175 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-090		75 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-100		215 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-110		, EAST PALO ALTO	A15	0.00	0	5,752	0.0000	0.0089	0.0000	0.0000	0.0089	0.0000
063-133-130		1805 BAY RD, EAST PALO ALTO	A15	0.00	0	6,974	0.0000	0.0107	0.0000	0.0000	0.0107	0.0000
063-151-170		2159 POPLAR AVE, EAST PALO ALTO	B13	0.00	2,927	294	0.0045	0.0005	0.0000	0.0000	0.0050	0.0000
063-151-200		1001 E BAYSHORE RD, EAST PALO ALTO	B13	0.00	1,772	178	0.0027	0.0003	0.0000	0.0000	0.0030	0.0000
063-152-230		1199 E BAYSHORE RD, EAST PALO ALTO	B13	0.00	5,604	565	0.0086	0.0009	0.0000	0.0000	0.0095	0.0000
063-153-010		1205 E BAYSHORE RD, EAST PALO ALTO	B13	0.00	2,648	267	0.0041	0.0004	0.0000	0.0000	0.0045	0.0000
063-153-250		2119 ADDISON AVE, EAST PALO ALTO	B13	0.00	2,572	260	0.0040	0.0004	0.0000	0.0000	0.0044	0.0000
063-154-200		2110 ADDISON AVE, EAST PALO ALTO	B13	0.00	3,330	335	0.0051	0.0005	0.0000	0.0000	0.0056	0.0000
063-154-260		2119 OAKWOOD DR, EAST PALO ALTO	B13	0.00	5,877	593	0.0091	0.0009	0.0000	0.0000	0.0100	0.0000
063-155-010		2106 OAKWOOD DR, EAST PALO ALTO	E1	0.00	3,746	377	0.0058	0.0006	0.0000	0.0000	0.0063	0.0000
063-155-180		2123 DUMBARTON AVE, EAST PALO ALTO	E1	0.00	2,453	247	0.0038	0.0004	0.0000	0.0000	0.0042	0.0000
063-155-190		2109 DUMBARTON AVE, EAST PALO ALTO	E1	0.00	3,741	377	0.0058	0.0006	0.0000	0.0000	0.0063	0.0000
063-181-010		2110 DUMBARTON AVE, EAST PALO ALTO	E1	0.00	4,704	474	0.0072	0.0007	0.0000	0.0000	0.0080	0.0000
063-181-220		2111 LINCOLN ST, EAST PALO ALTO	E1	0.00	2,659	268	0.0041	0.0004	0.0000	0.0000	0.0045	0.0000

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-181-230		2097 LINCOLN ST, EAST PALO ALTO	E1	0.00	2,487	250	0.0038	0.0004	0.0000	0.0000	0.0042	0.0000
063-181-240		1385 E BAYSHORE RD, EAST PALO ALTO	E1	0.00	2,232	225	0.0034	0.0003	0.0000	0.0000	0.0038	0.0000
063-183-010		2088 LINCOLN ST, EAST PALO ALTO	E2	0.00	2,475	249	0.0038	0.0004	0.0000	0.0000	0.0042	0.0000
063-183-070		2045 GLEN WAY, EAST PALO ALTO	E2	0.00	3,893	392	0.0060	0.0006	0.0000	0.0000	0.0066	0.0000
063-183-080		1441 E BAYSHORE RD, EAST PALO ALTO	E2	0.00	5,171	521	0.0080	0.0008	0.0000	0.0000	0.0088	0.0000
063-183-090		, EAST PALO ALTO	E2	0.00	1,898	192	0.0029	0.0003	0.0000	0.0000	0.0032	0.0000
063-183-110		1401 E BAYSHORE RD 2, EAST PALO ALTO	E2	0.00	4,512	456	0.0069	0.0007	0.0000	0.0000	0.0076	0.0000
063-184-010		1475 E BAYSHORE RD, EAST PALO ALTO	E2	0.00	5,053	510	0.0078	0.0008	0.0000	0.0000	0.0086	0.0000
063-184-020		2056 GLEN WAY, EAST PALO ALTO	E2	0.00	4,526	457	0.0070	0.0007	0.0000	0.0000	0.0077	0.0000
063-184-030		2070 GLEN WAY, EAST PALO ALTO	E2	0.00	3,872	391	0.0060	0.0006	0.0000	0.0000	0.0066	0.0000
063-184-040		2080 GLEN WAY, EAST PALO ALTO	E2	0.00	4,205	425	0.0065	0.0007	0.0000	0.0000	0.0071	0.0000
063-201-080		566 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	0	226	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-201-090		576 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	8,208	1,399	0.0126	0.0022	0.0000	0.0000	0.0148	0.0000
063-201-220		2337 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	4,963	846	0.0076	0.0013	0.0000	0.0000	0.0089	0.0000
063-201-240		2343 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	5,291	901	0.0081	0.0014	0.0000	0.0000	0.0095	0.0000
063-201-250		RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	13,215	2,253	0.0204	0.0035	0.0000	0.0000	0.0238	0.0000
063-201-260		RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	4,294	732	0.0066	0.0011	0.0000	0.0000	0.0077	0.0000
063-201-270		578 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	5,552	946	0.0085	0.0015	0.0000	0.0000	0.0100	0.0000
063-201-290	(9)	2331 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	17,156	2,925	0.0264	0.0045	0.0000	0.0000	0.0309	0.0000
063-202-080		556 WEEKS ST, EAST PALO ALTO	H3	0.00	0	209	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-202-090		564 WEEKS ST, EAST PALO ALTO	H3	0.00	0	207	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-202-100		566 WEEKS ST, EAST PALO ALTO	H3	0.00	0	202	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-202-160		561 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	19,722	3,362	0.0304	0.0052	0.0000	0.0000	0.0355	0.0000
063-202-280		2361-2369 UNIVERSITY AVE 101-308, EAST PALO	H3	0.00	38,578	6,578	0.0594	0.0101	0.0000	0.0000	0.0695	0.0000
063-203-160		2387 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	5,966	941	0.0092	0.0014	0.0000	0.0000	0.0106	0.0000
063-203-170		2381 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	7,948	1,254	0.0122	0.0019	0.0000	0.0000	0.0142	0.0000
063-203-180		2373 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	9,746	1,538	0.0150	0.0024	0.0000	0.0000	0.0174	0.0000
063-203-200		593 WEEKS ST, EAST PALO ALTO	H3	0.00	11,542	1,822	0.0178	0.0028	0.0000	0.0000	0.0206	0.0000
063-203-210		585 WEEKS ST, EAST PALO ALTO	H3	0.00	7,994	1,262	0.0123	0.0019	0.0000	0.0000	0.0143	0.0000
063-203-220		579 WEEKS ST, EAST PALO ALTO	H3	0.00	0	176	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-230		563 WEEKS ST, EAST PALO ALTO	H3	0.00	0	529	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-203-240		549 WEEKS ST, EAST PALO ALTO	H3	0.00	0	177	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-250		541 WEEKS ST, EAST PALO ALTO	H3	0.00	0	173	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-260		533 WEEKS ST, EAST PALO ALTO	H3	0.00	0	169	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-270		, EAST PALO ALTO	H3	0.00	0	161	0.0000	0.0002	0.0000	0.0000	0.0002	0.0000
063-203-300		2395 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	9,634	1,518	0.0148	0.0023	0.0000	0.0000	0.0172	0.0000
063-203-310		2371 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	3,647	575	0.0056	0.0009	0.0000	0.0000	0.0065	0.0000
063-203-320		1586 BAY RD, EAST PALO ALTO	A15	0.00	9,637	1,521	0.0148	0.0023	0.0000	0.0000	0.0172	0.0000
063-203-330		1590 BAY RD, EAST PALO ALTO	A15	0.00	15,083	2,382	0.0232	0.0037	0.0000	0.0000	0.0269	0.0000
063-203-340		2387 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	10,835	1,710	0.0167	0.0026	0.0000	0.0000	0.0193	0.0000
063-203-350		1574 BAY RD, EAST PALO ALTO	A15	0.00	0	367	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-203-360		1546 BAY RD, EAST PALO ALTO	A15	0.00	0	336	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-370		1508 BAY RD, EAST PALO ALTO	H3	0.00	0	554	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-203-380		, NO DATA	A15	0.00	0	260	0.0000	0.0004	0.0000	0.0000	0.0004	0.0000
063-203-390		1518 BAY RD, EAST PALO ALTO	H3	0.00	0	723	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-203-400		1560 BAY RD, EAST PALO ALTO	A15	0.00	0	321	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-410		1568 BAY RD, EAST PALO ALTO	A15	0.00	0	339	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-430		1530 BAY RD, EAST PALO ALTO	A15	0.00	0	342	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-440		1554 BAY RD, EAST PALO ALTO	A15	0.00	0	296	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-450		1538 BAY RD, EAST PALO ALTO	A15	0.00	0	306	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-210-310		2346 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	7,834	1,335	0.0121	0.0021	0.0000	0.0000	0.0141	0.0000
063-210-340		2369 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	511	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-210-350		2365 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	530	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-210-360		2300 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	7,626	1,300	0.0117	0.0020	0.0000	0.0000	0.0137	0.0000
063-210-380		2354 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	6,547	1,116	0.0101	0.0017	0.0000	0.0000	0.0118	0.0000
063-210-410		2371 COOLEY AVE, EAST PALO ALTO	H3	0.00	4,227	720	0.0065	0.0011	0.0000	0.0000	0.0076	0.0000
063-210-450		2377 COOLEY AVE, EAST PALO ALTO	H3	0.00	3,256	554	0.0050	0.0009	0.0000	0.0000	0.0059	0.0000
063-210-460		2396 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	12,904	2,037	0.0199	0.0031	0.0000	0.0000	0.0230	0.0000
063-210-470		633 RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	4,255	725	0.0066	0.0011	0.0000	0.0000	0.0077	0.0000
063-210-480		2361 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	680	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-210-490		2355 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	713	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-210-520		2338 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	8,248	1,406	0.0127	0.0022	0.0000	0.0000	0.0149	0.0000
063-210-610		661 RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	8,830	1,505	0.0136	0.0023	0.0000	0.0000	0.0159	0.0000
063-210-630		2358 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	6,658	1,135	0.0103	0.0017	0.0000	0.0000	0.0120	0.0000
063-221-010		, EAST PALO ALTO	A15	0.00	13,667	2,159	0.0210	0.0033	0.0000	0.0000	0.0244	0.0000
063-221-020		1620 BAY RD, EAST PALO ALTO	A15	0.00	22,759	3,594	0.0350	0.0055	0.0000	0.0000	0.0406	0.0000
063-221-030		, EAST PALO ALTO	A15	0.00	6,805	1,074	0.0105	0.0017	0.0000	0.0000	0.0121	0.0000
063-221-040		1640 BAY RD, EAST PALO ALTO	A15	0.00	35,707	5,630	0.0550	0.0087	0.0000	0.0000	0.0637	0.0000
063-221-050		1650 BAY RD, EAST PALO ALTO	A15	0.00	9,959	1,569	0.0153	0.0024	0.0000	0.0000	0.0178	0.0000
063-221-060		1660 BAY RD, EAST PALO ALTO	A15	0.00	22,848	3,591	0.0352	0.0055	0.0000	0.0000	0.0407	0.0000
063-221-070		1670 BAY RD, EAST PALO ALTO	A15	0.00	21,219	3,337	0.0327	0.0051	0.0000	0.0000	0.0378	0.0000
063-221-100		1760 BAY RD, EAST PALO ALTO	A15	0.00	57,125	8,982	0.0880	0.0138	0.0000	0.0000	0.1018	0.0000
063-221-110		1796 BAY RD, EAST PALO ALTO	A15	0.00	56,083	8,857	0.0864	0.0136	0.0000	0.0000	0.1000	0.0000
063-221-140		2397 CLARKE AVE, EAST PALO ALTO	T20	0.00	6,692	1,053	0.0103	0.0016	0.0000	0.0000	0.0119	0.0000
063-221-150		2387 CLARKE AVE, EAST PALO ALTO	T20	0.00	7,291	1,147	0.0112	0.0018	0.0000	0.0000	0.0130	0.0000
063-221-160		2377 CLARKE AVE, EAST PALO ALTO	T20	0.00	7,999	1,259	0.0123	0.0019	0.0000	0.0000	0.0143	0.0000
063-221-170		2373 CLARKE AVE, EAST PALO ALTO	T20	0.00	7,240	1,142	0.0111	0.0018	0.0000	0.0000	0.0129	0.0000
063-221-180		2371 CLARKE AVE, EAST PALO ALTO	T20	0.00	0	576	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-190		2369 CLARKE AVE, EAST PALO ALTO	T20	0.00	0	633	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-200		891 WEEKS ST, EAST PALO ALTO	T20	0.00	0	1,234	0.0000	0.0019	0.0000	0.0000	0.0019	0.0000
063-221-210		871 WEEKS ST, EAST PALO ALTO	T20	0.00	0	561	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-221-220		867 WEEKS ST, EAST PALO ALTO	T20	0.00	0	799	0.0000	0.0012	0.0000	0.0000	0.0012	0.0000
063-221-230		865 WEEKS ST, EAST PALO ALTO	T20	0.00	0	826	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-221-240		, NO DATA	T20	0.00	0	2,813	0.0000	0.0043	0.0000	0.0000	0.0043	0.0000
063-221-250		831 WEEKS ST, EAST PALO ALTO	T20	0.00	0	818	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-221-260		819 JAMIE LN, EAST PALO ALTO	T20	0.00	0	492	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-270		823 JAMIE LN, EAST PALO ALTO	T20	0.00	0	648	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-280		827 JAMIE LN, EAST PALO ALTO	T20	0.00	0	835	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-221-290		811 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	506	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-300		813 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	428	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-310		815 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	462	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-320		817 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	468	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-340		801 WEEKS ST, EAST PALO ALTO	T20	0.00	0	470	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-350		803 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	474	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-360		805 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	397	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-221-370		807 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	491	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-380		809 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	458	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-390		791 WEEKS ST, EAST PALO ALTO	T20	0.00	0	3,813	0.0000	0.0059	0.0000	0.0000	0.0059	0.0000
063-221-410		731 WEEKS ST, EAST PALO ALTO	T20	0.00	0	1,302	0.0000	0.0020	0.0000	0.0000	0.0020	0.0000
063-221-420		717 WEEKS ST, EAST PALO ALTO	T20	0.00	0	957	0.0000	0.0015	0.0000	0.0000	0.0015	0.0000
063-221-430		2360 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	619	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-440		2362-2362 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	583	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-450		2364 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	681	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-460		2370 COOLEY AVE, EAST PALO ALTO	H3	0.00	36,440	5,720	0.0561	0.0088	0.0000	0.0000	0.0649	0.0000
063-221-480		2380 COOLEY AVE, EAST PALO ALTO	H3	0.00	22,962	3,614	0.0354	0.0056	0.0000	0.0000	0.0409	0.0000
063-221-490		, EAST PALO ALTO	A15	0.00	16,498	2,606	0.0254	0.0040	0.0000	0.0000	0.0294	0.0000
063-221-500		863 WEEKS ST, EAST PALO ALTO	T20	0.00	0	561	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-510		761 WEEKS ST, EAST PALO ALTO	T20	0.00	0	742	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-221-520		767 CAROLE CT, EAST PALO ALTO	T20	0.00	0	621	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-530		773 CAROLE CT, EAST PALO ALTO	T20	0.00	0	563	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-540		779 CAROLE CT, EAST PALO ALTO	T20	0.00	0	551	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-550		785 CAROLE CT, EAST PALO ALTO	T20	0.00	0	565	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-560		1794 BAY RD, EAST PALO ALTO	A15	0.00	11,434	1,805	0.0176	0.0028	0.0000	0.0000	0.0204	0.0000
063-221-570		, EAST PALO ALTO	H3	0.00	3,267	516	0.0050	0.0008	0.0000	0.0000	0.0058	0.0000
063-221-580		, EAST PALO ALTO	H3	0.00	1,416	224	0.0022	0.0003	0.0000	0.0000	0.0025	0.0000
063-221-590		1730 BAY RD, EAST PALO ALTO	A15	0.00	86,607	13,614	0.1334	0.0210	0.0000	0.0000	0.1543	0.0000
063-231-210		2495 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	2,102	0.0000	0.0032	0.0000	0.0000	0.0032	0.0000
063-231-220		1800 BAY RD, EAST PALO ALTO	A15	0.00	0	1,129	0.0000	0.0017	0.0000	0.0000	0.0017	0.0000
063-231-230		1890 BAY RD, EAST PALO ALTO	T20	0.00	0	718	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-231-240		1804 BAY RD, EAST PALO ALTO	A15	0.00	0	4,509	0.0000	0.0069	0.0000	0.0000	0.0069	0.0000
063-231-250		1798 BAY RD, EAST PALO ALTO	A15	0.00	0	6,882	0.0000	0.0106	0.0000	0.0000	0.0106	0.0000
063-231-260		1836 BAY RD, EAST PALO ALTO	T20	0.00	0	7,149	0.0000	0.0110	0.0000	0.0000	0.0110	0.0000
063-231-270		1894 BAY RD, EAST PALO ALTO	T20	0.00	0	484	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-231-280		1896 BAY RD, EAST PALO ALTO	T20	0.00	0	484	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-231-300		, EAST PALO ALTO	T20	0.00	0	1,240	0.0000	0.0019	0.0000	0.0000	0.0019	0.0000
063-232-090		1003 WEEKS ST, EAST PALO ALTO	T20	0.00	0	2,488	0.0000	0.0038	0.0000	0.0000	0.0038	0.0000
063-232-150		2421 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	3,299	0.0000	0.0051	0.0000	0.0000	0.0051	0.0000
063-232-160		2447 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	1,387	0.0000	0.0021	0.0000	0.0000	0.0021	0.0000
063-232-200		2373 CLARKE AVE, EAST PALO ALTO	T20	0.00	13,339	2,106	0.0205	0.0032	0.0000	0.0000	0.0238	0.0000
063-232-210	(9)	WEEKS ST, EAST PALO ALTO	T20	0.00	0	11,564	0.0000	0.0178	0.0000	0.0000	0.0178	0.0000
063-232-220	(9)	WEEKS ST, EAST PALO ALTO	T20	0.00	0	6,560	0.0000	0.0101	0.0000	0.0000	0.0101	0.0000
063-232-230	(9)	WEEKS ST, EAST PALO ALTO	T20	0.00	0	9,065	0.0000	0.0140	0.0000	0.0000	0.0140	0.0000
063-232-240		1045 WEEKS ST, EAST PALO ALTO	T20	0.00	0	4,217	0.0000	0.0065	0.0000	0.0000	0.0065	0.0000
063-232-250		1085 WEEKS ST, EAST PALO ALTO	T20	0.00	0	461	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-232-260		1001 WEEKS ST, EAST PALO ALTO	T20	0.00	0	1,504	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-232-300		1095 WEEKS ST, EAST PALO ALTO	T20	0.00	0	890	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
063-232-310		2368 CLARKE AVE, EAST PALO ALTO	T20	0.00	8,711	1,375	0.0134	0.0021	0.0000	0.0000	0.0155	0.0000
063-232-340		2386 CLARKE AVE, EAST PALO ALTO	T20	0.00	9,746	1,538	0.0150	0.0024	0.0000	0.0000	0.0174	0.0000
063-232-350		901 WEEKS ST, EAST PALO ALTO	T20	0.00	24,865	3,927	0.0383	0.0060	0.0000	0.0000	0.0443	0.0000
063-240-210		NO DATA, EAST PALO ALTO	T20	0.00	10,716	0	0.0165	0.0000	0.0000	0.0000	0.0165	0.0000
063-240-220		NO DATA, EAST PALO ALTO	T20	0.00	10,237	0	0.0158	0.0000	0.0000	0.0000	0.0158	0.0000
063-240-270		NO DATA, EAST PALO ALTO	T20	0.00	0	746	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-240-310		NO DATA, EAST PALO ALTO	T20	0.00	0	11,779	0.0000	0.0181	0.0000	0.0000	0.0181	0.0000
063-240-320		1950 BAY RD, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-240-330		BAY RD, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-240-350		NO DATA, EAST PALO ALTO	T20	0.00	1,416	0	0.0022	0.0000	0.0000	0.0000	0.0022	0.0000
063-240-360		NO DATA, EAST PALO ALTO	T20	0.00	0	676	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-240-370		NO DATA, EAST PALO ALTO	T20	0.00	0	766	0.0000	0.0012	0.0000	0.0000	0.0012	0.0000
063-240-380		NO DATA, EAST PALO ALTO	T20	0.00	0	5,853	0.0000	0.0090	0.0000	0.0000	0.0090	0.0000
063-240-390		NO DATA, EAST PALO ALTO	T20	0.00	0	3,986	0.0000	0.0061	0.0000	0.0000	0.0061	0.0000
063-240-420		NO DATA, EAST PALO ALTO	T20	0.00	183,315	0	0.2823	0.0000	0.0000	0.0000	0.2823	0.0000
063-240-440		NO DATA, EAST PALO ALTO	T20	0.00	1,590	0	0.0024	0.0000	0.0000	0.0000	0.0024	0.0000
063-240-460		NO DATA, EAST PALO ALTO	T20	0.00	0	7,694	0.0000	0.0118	0.0000	0.0000	0.0118	0.0000
063-253-320	(9)	NO DATA, EAST PALO ALTO	T20	0.00	0	2,068	0.0000	0.0032	0.0000	0.0000	0.0032	0.0000
063-271-070		1275 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	5,368	0.0000	0.0083	0.0000	0.0000	0.0083	0.0000
063-271-090	(9)	1201 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	4,006	0.0000	0.0062	0.0000	0.0000	0.0062	0.0000
063-271-370		1171 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	3,850	0.0000	0.0059	0.0000	0.0000	0.0059	0.0000
063-271-410		NO DATA, EAST PALO ALTO	T20	0.00	2,438	0	0.0038	0.0000	0.0000	0.0000	0.0038	0.0000
063-271-420		NO DATA, EAST PALO ALTO	T20	0.00	3,462	0	0.0053	0.0000	0.0000	0.0000	0.0053	0.0000
063-271-440		1191 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	635	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-450		1200 WEEKS ST, EAST PALO ALTO	T20	0.00	0	3,212	0.0000	0.0049	0.0000	0.0000	0.0049	0.0000
063-271-470		1249 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	941	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
063-271-480		, EAST PALO ALTO	T20	0.00	45,961	0	0.0708	0.0000	0.0000	0.0000	0.0708	0.0000

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-271-490		NO DATA, EAST PALO ALTO	T20	0.00	59,285	0	0.0913	0.0000	0.0000	0.0000	0.0913	0.0000
063-271-500		1269 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	1,001	0.0000	0.0015	0.0000	0.0000	0.0015	0.0000
063-271-510		1265 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	644	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-520		1261 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	653	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-530		1257 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	653	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-540		NO DATA, EAST PALO ALTO	T20	0.00	6,054	0	0.0093	0.0000	0.0000	0.0000	0.0093	0.0000
063-271-550		NO DATA, EAST PALO ALTO	T20	0.00	2,482	0	0.0038	0.0000	0.0000	0.0000	0.0038	0.0000
063-271-560		NO DATA, EAST PALO ALTO	T20	0.00	2,482	0	0.0038	0.0000	0.0000	0.0000	0.0038	0.0000
063-271-570		NO DATA, EAST PALO ALTO	T29	0.00	2,504	0	0.0039	0.0000	0.0000	0.0000	0.0039	0.0000
063-281-020	(9)	2021 EUCLID AVE	E2	0.00	0	5,284	0.0000	0.0081	0.0000	0.0000	0.0081	0.0000
063-281-030	(9)	2025 EUCLID AVE	E2	0.00	0	4,304	0.0000	0.0066	0.0000	0.0000	0.0066	0.0000
063-281-040	(9)	2031 EUCLID AVE	E2	0.00	0	7,209	0.0000	0.0111	0.0000	0.0000	0.0111	0.0000
063-281-100	(9)	2043 EUCLID AVE	E2	0.00	0	4,304	0.0000	0.0066	0.0000	0.0000	0.0066	0.0000
063-281-110	(9)	2041 EUCLID AVE	E2	0.00	0	4,164	0.0000	0.0064	0.0000	0.0000	0.0064	0.0000
063-282-010	(9)	501 O'CONNOR STREET	E2	0.00	0	11,339	0.0000	0.0175	0.0000	0.0000	0.0175	0.0000
063-282-020	(9)	2012 EUCLID AVE	E2	0.00	0	11,864	0.0000	0.0183	0.0000	0.0000	0.0183	0.0000
063-282-030	(9)	2032 EUCLID AVE	E2	0.00	0	5,669	0.0000	0.0087	0.0000	0.0000	0.0087	0.0000
063-282-040	(9)	2036 EUCLID AVE	E2	0.00	0	5,389	0.0000	0.0083	0.0000	0.0000	0.0083	0.0000
063-282-050	(9)	2040/2042 EUCLID AVE	E2	0.00	0	4,899	0.0000	0.0075	0.0000	0.0000	0.0075	0.0000
063-282-060	(9)	2044 EUCLID AVE	E2	0.00	0	6,194	0.0000	0.0095	0.0000	0.0000	0.0095	0.0000
063-282-070	(9)	2054 EUCLID AVE	E2	0.00	0	8,434	0.0000	0.0130	0.0000	0.0000	0.0130	0.0000
063-282-080	(9)	2033 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	17,842	0.0000	0.0275	0.0000	0.0000	0.0275	0.0000
063-282-090	(9)	2001 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	24,198	0.0000	0.0373	0.0000	0.0000	0.0373	0.0000
063-291-010		1489 E BAYSHORE RD, EAST PALO ALTO	E2	0.00	9,782	987	0.0151	0.0015	0.0000	0.0000	0.0166	0.0000
063-292-180		2101 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	17,858	2,819	0.0275	0.0043	0.0000	0.0000	0.0318	0.0000
063-292-370	(9)	2117 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	41,772	6,593	0.0643	0.0102	0.0000	0.0000	0.0745	0.0000
063-292-380		2160 EUCLID AVE, EAST PALO ALTO	E1	0.00	217,234	85,973	0.3345	0.1324	0.0000	0.0000	0.4669	0.0000
063-302-170		2283 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	9,102	1,551	0.0140	0.0024	0.0000	0.0000	0.0164	0.0000
063-302-180		2281 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,996	1,363	0.0123	0.0021	0.0000	0.0000	0.0144	0.0000
063-302-210		2263 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	17,652	3,010	0.0272	0.0046	0.0000	0.0000	0.0318	0.0000
063-302-220		2253 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,982	1,360	0.0123	0.0021	0.0000	0.0000	0.0144	0.0000
063-302-230		2247 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	11,257	1,919	0.0173	0.0030	0.0000	0.0000	0.0203	0.0000
063-302-280		575A BELL ST, EAST PALO ALTO	E1	0.00	7,475	1,274	0.0115	0.0020	0.0000	0.0000	0.0135	0.0000
063-302-290		565 BELL ST, EAST PALO ALTO	E1	0.00	7,241	1,234	0.0112	0.0019	0.0000	0.0000	0.0131	0.0000
063-302-330		2201 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	53,811	9,176	0.0829	0.0141	0.0000	0.0000	0.0970	0.0000
063-302-340		584 RUNNYMEDE ST, EAST PALO ALTO	E1	0.00	14,887	2,538	0.0229	0.0039	0.0000	0.0000	0.0268	0.0000
063-302-460		2277 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	13,568	2,313	0.0209	0.0036	0.0000	0.0000	0.0245	0.0000
063-302-470		2279 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	8,787	1,498	0.0135	0.0023	0.0000	0.0000	0.0158	0.0000
063-312-400	(9)	, NO DATA	E1	0.00	22,555	0	0.0347	0.0000	0.0000	0.0000	0.0347	0.0000
063-321-050		2124 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	10,642	1,814	0.0164	0.0028	0.0000	0.0000	0.0192	0.0000
063-321-060		2126 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	8,711	1,485	0.0134	0.0023	0.0000	0.0000	0.0157	0.0000
063-321-070		, EAST PALO ALTO	E1	0.00	1,984	338	0.0031	0.0005	0.0000	0.0000	0.0036	0.0000
063-321-080		2142 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,127	1,215	0.0110	0.0019	0.0000	0.0000	0.0128	0.0000
063-321-100		2160 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	13,971	2,381	0.0215	0.0037	0.0000	0.0000	0.0252	0.0000
063-321-110		2164 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,771	1,154	0.0104	0.0018	0.0000	0.0000	0.0122	0.0000
063-321-120		2166 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,660	1,135	0.0103	0.0017	0.0000	0.0000	0.0120	0.0000
063-321-130		2172 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,659	1,135	0.0103	0.0017	0.0000	0.0000	0.0120	0.0000
063-321-140		2178 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,370	1,085	0.0098	0.0017	0.0000	0.0000	0.0115	0.0000
063-321-180		612 BELL ST, EAST PALO ALTO	E1	0.00	4,281	729	0.0066	0.0011	0.0000	0.0000	0.0077	0.0000
063-321-190		616 BELL ST, EAST PALO ALTO	E1	0.00	4,547	775	0.0070	0.0012	0.0000	0.0000	0.0082	0.0000
063-321-200		644 BELL ST, EAST PALO ALTO	E1	0.00	5,728	976	0.0088	0.0015	0.0000	0.0000	0.0103	0.0000
063-321-210		2189 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,401	920	0.0083	0.0014	0.0000	0.0000	0.0097	0.0000
063-321-220		2187 CAPITOL AVE, EAST PALO ALTO	E1	0.00	4,431	755	0.0068	0.0012	0.0000	0.0000	0.0080	0.0000
063-321-230		2181 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,625	1,129	0.0102	0.0017	0.0000	0.0000	0.0119	0.0000
063-321-240		2171 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,775	984	0.0089	0.0015	0.0000	0.0000	0.0104	0.0000
063-321-250		2165 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,589	952	0.0086	0.0015	0.0000	0.0000	0.0101	0.0000
063-321-260		2161 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,778	985	0.0089	0.0015	0.0000	0.0000	0.0104	0.0000
063-321-270		2157 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,849	997	0.0090	0.0015	0.0000	0.0000	0.0105	0.0000
063-321-280		2153 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,681	968	0.0087	0.0015	0.0000	0.0000	0.0102	0.0000
063-321-290		2149 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,920	1,009	0.0091	0.0016	0.0000	0.0000	0.0107	0.0000
063-321-300		2145 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,987	1,020	0.0092	0.0016	0.0000	0.0000	0.0108	0.0000
063-321-310		2141 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,900	1,005	0.0091	0.0015	0.0000	0.0000	0.0106	0.0000
063-321-320		2133 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,668	966	0.0087	0.0015	0.0000	0.0000	0.0102	0.0000
063-321-330		2129 CAPITOL AVE, EAST PALO ALTO	E1	0.00	4,006	682	0.0062	0.0011	0.0000	0.0000	0.0072	0.0000
063-321-400		2194 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	16,236	2,768	0.0250	0.0043	0.0000	0.0000	0.0293	0.0000
063-321-410		2148 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	9,619	1,640	0.0148	0.0025	0.0000	0.0000	0.0173	0.0000
063-321-420	(9)	, NO DATA	E1	0.00	107,404	0	0.1654	0.0000	0.0000	0.0000	0.1654	0.0000
063-322-040		2124 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	348	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-050		2132 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	378	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-322-060		2134 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	349	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-070		2138 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	348	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-080		2142 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	344	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-090		2144 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	362	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-322-100		2154 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	433	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-322-110		2162 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	476	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-322-130		2184 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	424	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-322-140		2194 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	537	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-322-150		2198 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	296	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-160		660 BELL ST, EAST PALO ALTO	E1	0.00	0	285	0.0000	0.0004	0.0000	0.0000	0.0004	0.0000
063-322-340		2169 COOLEY AVE, EAST PALO ALTO	E1	0.00	0	1,507	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-322-410	(9)	, NO DATA	E1	0.00	11,099	0	0.0171	0.0000	0.0000	0.0000	0.0171	0.0000
063-322-500		2159 COOLEY AVE, EAST PALO ALTO	E1	0.00	0	493	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-322-560	(9)	DONOHOE ST, EAST PALO ALTO	E1	0.00	46,919	0	0.0723	0.0000	0.0000	0.0000	0.0723	0.0000
063-322-580		2118 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	359	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-331-030		2212 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,655	1,305	0.0118	0.0020	0.0000	0.0000	0.0138	0.0000
063-331-060		2242 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,117	1,042	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-070		2248 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,104	1,040	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-080		2252 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,091	1,038	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-090		2264 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,077	1,035	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-100		2268 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,064	1,033	0.0093	0.0016	0.0000	0.0000	0.0109	0.0000
063-331-110		2272 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,051	1,031	0.0093	0.0016	0.0000	0.0000	0.0109	0.0000
063-331-120		2274 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	8,186	1,395	0.0126	0.0021	0.0000	0.0000	0.0148	0.0000
063-331-130		2276 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	5,448	928	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-140		2280 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	5,442	927	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-150		2284 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	5,435	926	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-190		2291 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,554	946	0.0086	0.0015	0.0000	0.0000	0.0100	0.0000
063-331-200		2287 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,591	953	0.0086	0.0015	0.0000	0.0000	0.0101	0.0000
063-331-210		2285 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,628	959	0.0087	0.0015	0.0000	0.0000	0.0101	0.0000
063-331-220		2277 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,332	908	0.0082	0.0014	0.0000	0.0000	0.0096	0.0000
063-331-230		2267 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,119	872	0.0079	0.0013	0.0000	0.0000	0.0092	0.0000
063-331-240		2263 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,148	877	0.0079	0.0014	0.0000	0.0000	0.0093	0.0000
063-331-250		2255 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,178	882	0.0080	0.0014	0.0000	0.0000	0.0093	0.0000
063-331-260		2251 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,207	887	0.0080	0.0014	0.0000	0.0000	0.0094	0.0000
063-331-270		2249 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,237	892	0.0081	0.0014	0.0000	0.0000	0.0094	0.0000
063-331-280		2245 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,266	897	0.0081	0.0014	0.0000	0.0000	0.0095	0.0000
063-331-290		2239 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,725	1,146	0.0104	0.0018	0.0000	0.0000	0.0121	0.0000
063-331-300		2233 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,807	1,160	0.0105	0.0018	0.0000	0.0000	0.0123	0.0000
063-331-310		2227 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,529	942	0.0085	0.0015	0.0000	0.0000	0.0100	0.0000
063-331-320		2219 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,464	931	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-330		2217 CAPITOL AVE, EAST PALO ALTO	E1	0.00	4,463	760	0.0069	0.0012	0.0000	0.0000	0.0080	0.0000
063-331-340		2205 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,150	1,048	0.0095	0.0016	0.0000	0.0000	0.0111	0.0000
063-331-350		643 BELL ST, EAST PALO ALTO	E1	0.00	5,923	1,009	0.0091	0.0016	0.0000	0.0000	0.0107	0.0000
063-331-370		2200 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	15,311	2,610	0.0236	0.0040	0.0000	0.0000	0.0276	0.0000
063-331-380		2240 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	9,055	1,543	0.0139	0.0024	0.0000	0.0000	0.0163	0.0000
063-331-410		2220 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	16,705	2,843	0.0257	0.0044	0.0000	0.0000	0.0301	0.0000
063-442-360	(9)	330 DONOHOE ST, EAST PALO ALTO	E2	0.00	0	4,212	0.0000	0.0065	0.0000	0.0000	0.0065	0.0000
063-473-150	(9)	1995 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	711	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-473-160	(9)	1991 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,616	0.0000	0.0025	0.0000	0.0000	0.0025	0.0000
063-473-170	(9)	1965 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,193	0.0000	0.0018	0.0000	0.0000	0.0018	0.0000
063-473-180	(9)	1955 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,434	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-473-190	(9)	1919 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,948	0.0000	0.0030	0.0000	0.0000	0.0030	0.0000
063-473-200	(9)	1901 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	2,488	0.0000	0.0038	0.0000	0.0000	0.0038	0.0000
063-481-010		1699 WOODLAND AVE, EAST PALO ALTO	E2	0.00	0	366	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-020		1681 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	344	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-481-030		1671 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	359	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-040		1669 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	395	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-050		1651 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	530	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-481-060		1643 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	402	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-070		1637 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	422	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-080		1629 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	383	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-090		1621 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	362	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-100		644 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	462	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-110		652 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	321	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-481-120		660 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	395	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-130		610 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	395	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-140		620 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	414	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-150		630 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	386	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-160		640 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	398	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-170		650 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	460	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-180		1917 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	469	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-190		1909 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	456	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-210		1901 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	440	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-220		1905 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	406	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-482-010		641 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	321	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-482-020		621 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	358	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-482-030		611 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	413	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-483-030		1909 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	495	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-483-040		1943 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	1,067	0.0000	0.0016	0.0000	0.0000	0.0016	0.0000
063-483-050		1609 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	2,168	0.0000	0.0033	0.0000	0.0000	0.0033	0.0000
063-484-010		655 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	406	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-484-020		1902 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	496	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-484-030		1908 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	906	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
063-484-040		1916 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	1,406	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-484-050		1920 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	864	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-484-060		1934 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	2,326	0.0000	0.0036	0.0000	0.0000	0.0036	0.0000
063-484-090		1949 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	1,318	0.0000	0.0020	0.0000	0.0000	0.0020	0.0000
063-484-100		1941 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	1,463	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-484-110		685 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	1,742	0.0000	0.0027	0.0000	0.0000	0.0027	0.0000
063-484-130		1957 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	3,196	0.0000	0.0049	0.0000	0.0000	0.0049	0.0000
063-492-070		1927 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	7,138	1,216	0.0110	0.0019	0.0000	0.0000	0.0129	0.0000
063-492-280		1933 PULGAS AVE, EAST PALO ALTO	K4	0.00	0	4,704	0.0000	0.0072	0.0000	0.0000	0.0072	0.0000
063-492-350	(9)	1805 E BAYSHORE RD #1-94, EAST PALO ALTO	K4	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-492-480		1895 E BAYSHORE RD, EAST PALO ALTO	K4	0.00	9,520	1,623	0.0147	0.0025	0.0000	0.0000	0.0172	0.0000
063-501-020		1874 W BAYSHORE RD, EAST PALO ALTO	K4	0.00	10,817	1,092	0.0167	0.0017	0.0000	0.0000	0.0183	0.0000

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-501-030		1870 W BAYSHORE RD, EAST PALO ALTO	K4	0.00	5,051	509	0.0078	0.0008	0.0000	0.0000	0.0086	0.0000
063-501-040		1879 WOODLAND AVE, EAST PALO ALTO	K4	0.00	5,118	516	0.0079	0.0008	0.0000	0.0000	0.0087	0.0000
063-501-050		1875 WOODLAND AVE, EAST PALO ALTO	K4	0.00	4,455	449	0.0069	0.0007	0.0000	0.0000	0.0076	0.0000
063-511-020		2039 CLARKE AVE, EAST PALO ALTO	K4	0.00	4,697	800	0.0072	0.0012	0.0000	0.0000	0.0085	0.0000
063-511-030		2035 CLARKE AVE, EAST PALO ALTO	I3	0.00	5,093	868	0.0078	0.0013	0.0000	0.0000	0.0092	0.0000
063-511-040		2029 CLARKE AVE, EAST PALO ALTO	I3	0.00	9,896	1,687	0.0152	0.0026	0.0000	0.0000	0.0178	0.0000
063-511-050		2027 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,481	763	0.0069	0.0012	0.0000	0.0000	0.0081	0.0000
063-511-060		2023 CLARKE AVE, EAST PALO ALTO	I3	0.00	5,274	898	0.0081	0.0014	0.0000	0.0000	0.0095	0.0000
063-511-070		2017 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,907	836	0.0076	0.0013	0.0000	0.0000	0.0088	0.0000
063-511-080		2013 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,856	827	0.0075	0.0013	0.0000	0.0000	0.0088	0.0000
063-511-090		2009 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,833	823	0.0074	0.0013	0.0000	0.0000	0.0087	0.0000
063-511-190		872 DONOHOE ST, EAST PALO ALTO	I3	0.00	8,006	1,365	0.0123	0.0021	0.0000	0.0000	0.0144	0.0000
063-511-200		866 DONOHOE ST, EAST PALO ALTO	I3	0.00	6,897	1,175	0.0106	0.0018	0.0000	0.0000	0.0124	0.0000
063-511-210		864 DONOHOE ST, EAST PALO ALTO	I3	0.00	5,843	996	0.0090	0.0015	0.0000	0.0000	0.0105	0.0000
063-511-220		862 DONOHOE ST, EAST PALO ALTO	I3	0.00	4,039	688	0.0062	0.0011	0.0000	0.0000	0.0073	0.0000
063-511-240		896 DONOHOE ST, EAST PALO ALTO	I3	0.00	4,243	723	0.0065	0.0011	0.0000	0.0000	0.0076	0.0000
063-511-250		860 DONOHOE ST, EAST PALO ALTO	I3	0.00	6,144	1,047	0.0095	0.0016	0.0000	0.0000	0.0111	0.0000
063-511-260		890 DONOHOE ST, EAST PALO ALTO	I3	0.00	4,565	778	0.0070	0.0012	0.0000	0.0000	0.0082	0.0000
063-511-490		1731 E BAYSHORE RD, EAST PALO ALTO	I3	0.00	136,864	21,597	0.2108	0.0333	0.0000	0.0000	0.2440	0.0000
063-511-520		1761 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	143,789	22,710	0.2214	0.0350	0.0000	0.0000	0.2564	0.0000
063-511-630		1721 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	36,216	5,703	0.0558	0.0088	0.0000	0.0000	0.0646	0.0000
063-511-660		899 OCONNOR ST, EAST PALO ALTO	I12	0.00	2,871	489	0.0044	0.0008	0.0000	0.0000	0.0052	0.0000
063-511-680		1751 EAST BAYSHORE RD, EAST PALO ALTO	I12	0.00	231,025	36,488	0.3558	0.0562	0.0000	0.0000	0.4120	0.0000
063-511-690		1745 E BAYSHORE BLVD, EAST PALO ALTO	I12	0.00	36,736	5,797	0.0566	0.0089	0.0000	0.0000	0.0655	0.0000
063-511-720		1775 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	333,263	52,631	0.5132	0.0811	0.0000	0.0000	0.5943	0.0000
063-515-060		1821 CLARKE AVE, EAST PALO ALTO	I12	0.00	0	225	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-515-070		1805 CLARKE AVE, EAST PALO ALTO	K4	0.00	0	423	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-515-080		1787 WOODLAND AVE, EAST PALO ALTO	K4	0.00	0	217	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-515-230		1785 WOODLAND AVE, EAST PALO ALTO	K4	0.00	0	422	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-571-060		1985 E BAYSHORE RD, EAST PALO ALTO	K4	0.00	52,596	8,969	0.0810	0.0138	0.0000	0.0000	0.0948	0.0000
063-571-070		1981 E BAYSHORE RD, EAST PALO ALTO	K28	0.00	25,211	4,299	0.0388	0.0066	0.0000	0.0000	0.0454	0.0000
063-571-080		1961 E BAYSHORE RD, EAST PALO ALTO	K28	0.00	54,785	9,342	0.0844	0.0144	0.0000	0.0000	0.0988	0.0000
063-571-090		1905 E BAYSHORE RD, EAST PALO ALTO	K28	0.00	9,438	1,609	0.0145	0.0025	0.0000	0.0000	0.0170	0.0000
063-680-020	(9)	1900 UNIVERSITY AVE, EAST PALO ALTO	K28	0.00	150,722	0	0.2321	0.0000	0.0000	0.0000	0.2321	0.0000
063-680-050	(9)	, NO DATA	E2	0.00	1,551	0	0.0024	0.0000	0.0000	0.0000	0.0024	0.0000
063-680-060	(9)	, NO DATA	E2	0.00	1,551	0	0.0024	0.0000	0.0000	0.0000	0.0024	0.0000
063-680-090	(9)	, EAST PALO ALTO	E2	0.00	8,177	0	0.0126	0.0000	0.0000	0.0000	0.0126	0.0000
063-680-100	(9)	, EAST PALO ALTO	E2	0.00	8,272	0	0.0127	0.0000	0.0000	0.0000	0.0127	0.0000
063-680-110	(9)	, EAST PALO ALTO	E2	0.00	22,594	0	0.0348	0.0000	0.0000	0.0000	0.0348	0.0000
063-680-130	(9)	2000 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	139,566	0	0.2149	0.0000	0.0000	0.0000	0.2149	0.0000
063-680-150	(9)	2050 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	218,918	0	0.3371	0.0000	0.0000	0.0000	0.3371	0.0000
063-680-180	(9)	, EAST PALO ALTO	E2	0.00	533	0	0.0008	0.0000	0.0000	0.0000	0.0008	0.0000
063-680-190	(9)	2000 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	256,075	0	0.3944	0.0000	0.0000	0.0000	0.3944	0.0000
063-730-010	(9)	2477 PULGAS AVE, EAST PALO ALTO	E2	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-020	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-030	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-040	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-050	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-060	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-070	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-080	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-090	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-100	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-110	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-120	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-130	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-140	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-150	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-160	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-170	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-180	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-190	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-200	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-210	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-220	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-230	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-240	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-250	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-260	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-270	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-280	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-290	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-300	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-310	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-320	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-330	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-340	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-350	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-360	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-370	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-380	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-390	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000

Appendix C: Table 5
Scenario 2: 2035 Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-730-400	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-410	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-420	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-430	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-440	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-450	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-460	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-470	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-480	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-490	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-500	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-510	(9)	2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
113-530-010 to 113-530-999		2420 GLORIA WAY, EAST PALO ALTO	NEW	0	0	2,029	0.0000	0.0031	0.0000	0.0000	0.0031	0.0000
113-710-010 to 113-710-999		2440 GLORIA WAY, EAST PALO ALTO	NEW	0	0	1,057	0.0000	0.0016	0.0000	0.0000	0.0016	0.0000
113-720-010 to 113-720-999		2460 GLORIA WAY, EAST PALO ALTO	NEW	0	0	890	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
113-740-010 to 113-740-999		2470 GLORIA WAY, EAST PALO ALTO	NEW	0	0	1,393	0.0000	0.0021	0.0000	0.0000	0.0021	0.0000
114-240-010 to 114-240-300		2330 UNIVERSITY AVE, EAST PALO ALTO	NEW	0	17,563	2,970	0.0270	0.0046	0.0000	0.0000	0.0316	0.0000
114-450-010 to 114-460-300		1765 EAST BAYSHORE RD, EAST PALO ALTO	NEW	0	39,561	6,717	0.0609	0.0103	0.0000	0.0000	0.0713	0.0000
114-590-050		NO DATA, EAST PALO ALTO	T20	0.00	235,877	0	0.3633	0.0000	0.0000	0.0000	0.3633	0.0000

Notes:

(1) Properties with Zoning change per Figure 4-12: General Plan Land Use and Figure 4-16: Ravenswood / 4 Corners TOP Specific Plan Land Use City of East Palo Alto General Plan "Existing Conditions Report, February 2014" and Figure 4-2: General Plan Land Use Designations City of East Palo Alto General Plan "Vista 2035, Final Version: March 2017"

(2) Per Section 5.3.2 of the "East Palo Alto Sanitary District Master Plan Update, March 2015". For modeling scenarios, peak sanitary flows based on the collected data. Collected data for Peaking Factors for each sub-basin are shown in Table 3.2.

(3) Delta Residential Flows is calculated by taking the Average Daily Flow for Residential areas from Table 3 minus the Average Daily Flow for Residential area from Table 2. If calculation resulted in a decrease of flow, the flow change is shown as "0" because it is not anticipated that the land use changes will result in flow reductions.

(4) Delta Non-Residential Flows is calculated by taking the Average Faily Flow for Non-Residential areas from Table 3 minus the Average Daily Flow for Non-Residential areas from Table 2.

(5) ADWF Residential Dwellings, calculated by multiplying 200 gallons per dwelling unit per day by the total number of units. Based on internal F&L meeting, 2/13/2025. Units converted from GPD (Gallons Per Day) to CFS based off 24 hours in a day, 60 minutes in a hour, and 60 seconds in a minute.

(6) ADWF Non-Residential , calculated by multiplying 0.1 gallons per day per square foot. Based on Section B1.03.3 for Office and Retail of the East Palo Alto Sanitary District Standard Specifications for Design and Construction of Sanitray Collection and Conveyance Facilities dated June 6, 2002. Units converted from GPD (Gallons Per Day) to CFS. Based off 24 hours in a day, 60 minutes in a hour, and 60 seconds in a minute.

(7) PDWF Residential Dwellings, calculated by multiplying Average Dry Weather Flows (5) by the Peaking Factor (2). Units converted from GPD to CFS. Based off 24 hours a day, 60 minutes in a hour, and 60 seconds in a minute.

(8) PDWF Non-Residential, calculated by multiplying Average Dry Weather Flows (6) by the Peaking Factor (2). Units converted from GPD to CFS. Based off 24 hours a day, 60 minutes in a hour, and 60 seconds in a minute.

(9) Number of units planned are approved development projects by the City. Average Daily Flow, Residential is calculated using the known unit count.

Abbreviations

ADWF: Average Dry Weather Flow
APN: Assessors Parcel Number
CFS: Cubic Feet per Second
MGD: Million Gallons Per Day
PDWF: Peak Dry Weather Flow

Appendix C: Table 6
Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-103-310		1585 BAY RD, EAST PALO ALTO	A15	0.00	43,861	6,902	0.0675	0.0106	0.0000	0.0000	0.0782	0.0000
063-103-360		, EAST PALO ALTO	A15	0.00	69,968	11,051	0.1078	0.0170	0.0000	0.0000	0.1248	0.0000
063-103-370		, EAST PALO ALTO	A15	0.00	41,599	6,569	0.0641	0.0101	0.0000	0.0000	0.0742	0.0000
063-103-380		, EAST PALO ALTO	A15	0.00	8,276	1,307	0.0127	0.0020	0.0000	0.0000	0.0148	0.0000
063-103-390		, EAST PALO ALTO	A15	0.00	12,251	1,935	0.0189	0.0030	0.0000	0.0000	0.0218	0.0000
063-103-440		2400 GLORIA WAY, EAST PALO ALTO	A15	0.00	0	8,578	0.0000	0.0132	0.0000	0.0000	0.0132	0.0000
063-111-230		BETWEEN 1585 AND 1675 BAY RD, EAST PALO A	A15	0.00	12,513	1,976	0.0193	0.0030	0.0000	0.0000	0.0223	0.0000
063-111-250		1675 BAY RD, EAST PALO ALTO	A15	0.00	328,119	51,823	0.5053	0.0798	0.0000	0.0000	0.5851	0.0000
063-121-030		, EAST PALO ALTO	T20	0.00	16,945	0	0.0261	0.0000	0.0000	0.0000	0.0261	0.0000
063-121-040		, EAST PALO ALTO	T20	0.00	122,905	0	0.1893	0.0000	0.0000	0.0000	0.1893	0.0000
063-121-050		TARA RD, EAST PALO ALTO	T20	0.00	11,500	0	0.0177	0.0000	0.0000	0.0000	0.0177	0.0000
063-121-060		264 TARA RD, EAST PALO ALTO	T20	0.00	78,081	0	0.1202	0.0000	0.0000	0.0000	0.1202	0.0000
063-121-070		2081 BAY RD, EAST PALO ALTO	T20	0.00	340,421	0	0.5242	0.0000	0.0000	0.0000	0.5242	0.0000
063-121-110		2077 BAY RD, EAST PALO ALTO	T20	0.00	84,289	0	0.1298	0.0000	0.0000	0.0000	0.1298	0.0000
063-121-120		2005 BAY RD, EAST PALO ALTO	T20	0.00	167,924	0	0.2586	0.0000	0.0000	0.0000	0.2586	0.0000
063-121-150		, EAST PALO ALTO	T20	0.00	19,733	0	0.0304	0.0000	0.0000	0.0000	0.0304	0.0000
063-121-160		180 TARA ROAD, EAST PALO ALTO	T20	0.00	76,513	0	0.1178	0.0000	0.0000	0.0000	0.1178	0.0000
063-121-170		240 TARA ROAD, EAST PALO ALTO	T20	0.00	84,615	0	0.1303	0.0000	0.0000	0.0000	0.1303	0.0000
063-121-190		2560 PULGAS AVE, EAST PALO ALTO	T20	0.00	19,906	0	0.0307	0.0000	0.0000	0.0000	0.0307	0.0000
063-121-200		2555 PULGAS AVE, EAST PALO ALTO	T20	0.00	59,721	0	0.0920	0.0000	0.0000	0.0000	0.0920	0.0000
063-121-210		2555 PULGAS AVE, EAST PALO ALTO	T20	0.00	59,785	0	0.0921	0.0000	0.0000	0.0000	0.0921	0.0000
063-121-240		, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-121-290		218 DEMETER ST, EAST PALO ALTO	A15	0.00	31,665	0	0.0488	0.0000	0.0000	0.0000	0.0488	0.0000
063-121-320		350 DEMETER ST, EAST PALO ALTO	A15	0.00	130,483	0	0.2009	0.0000	0.0000	0.0000	0.2009	0.0000
063-121-330		, EAST PALO ALTO	A15	0.00	130,027	0	0.2002	0.0000	0.0000	0.0000	0.2002	0.0000
063-121-350		, EAST PALO ALTO	T20	0.00	42,928	0	0.0661	0.0000	0.0000	0.0000	0.0661	0.0000
063-121-360		, EAST PALO ALTO	T20	0.00	2,875	0	0.0044	0.0000	0.0000	0.0000	0.0044	0.0000
063-121-370		2535 PULGAS AVE, EAST PALO ALTO	T20	0.00	85,050	0	0.1310	0.0000	0.0000	0.0000	0.1310	0.0000
063-121-390		, EAST PALO ALTO	T20	0.00	41,164	0	0.0634	0.0000	0.0000	0.0000	0.0634	0.0000
063-121-400		2091 BAY RD, EAST PALO ALTO	T20	0.00	54,547	0	0.0840	0.0000	0.0000	0.0000	0.0840	0.0000
063-121-410		2091 BAY RD, EAST PALO ALTO	T20	0.00	65,340	0	0.1006	0.0000	0.0000	0.0000	0.1006	0.0000
063-121-490		, EAST PALO ALTO	T20	0.00	128,720	0	0.1982	0.0000	0.0000	0.0000	0.1982	0.0000
063-121-500		, EAST PALO ALTO	T20	0.00	165,309	0	0.2546	0.0000	0.0000	0.0000	0.2546	0.0000
063-121-510		, EAST PALO ALTO	T20	0.00	47,044	0	0.0724	0.0000	0.0000	0.0000	0.0724	0.0000
063-122-040		1990 BAY RD, EAST PALO ALTO	T20	0.00	307,726	0	0.4739	0.0000	0.0000	0.0000	0.4739	0.0000
063-123-010		351 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-030		225 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-060		325 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-070		245 DEMETER ST, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-123-080		, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-131-220	(9)	2519 PULGAS AVE, EAST PALO ALTO	T20	0.00	109,030	0	0.1679	0.0000	0.0000	0.0000	0.1679	0.0000
063-131-230		, EAST PALO ALTO	T20	0.00	0	1,541	0.0000	0.0024	0.0000	0.0000	0.0024	0.0000
063-131-240		1885 BAY RD, EAST PALO ALTO	T20	0.00	0	1,494	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-131-250		1861 BAY RD, EAST PALO ALTO	T20	0.00	0	2,002	0.0000	0.0031	0.0000	0.0000	0.0031	0.0000
063-131-260		1879 BAY RD, EAST PALO ALTO	T20	0.00	0	3,717	0.0000	0.0057	0.0000	0.0000	0.0057	0.0000
063-131-270		1873 BAY RD, EAST PALO ALTO	T20	0.00	0	702	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-131-290		140 DEMETER ST, EAST PALO ALTO	A15	0.00	58,152	0	0.0896	0.0000	0.0000	0.0000	0.0896	0.0000
063-131-300		, EAST PALO ALTO	T20	0.00	0	662	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-131-310		1891 BAY RD, EAST PALO ALTO	T20	0.00	0	974	0.0000	0.0015	0.0000	0.0000	0.0015	0.0000
063-131-320		1847 BAY RD, EAST PALO ALTO	T20	0.00	0	1,449	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-131-330		1851 BAY RD, EAST PALO ALTO	T20	0.00	0	787	0.0000	0.0012	0.0000	0.0000	0.0012	0.0000
063-131-340		2509 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	1,410	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-132-020		151 TARA RD, EAST PALO ALTO	T20	0.00	3,658	0	0.0056	0.0000	0.0000	0.0000	0.0056	0.0000
063-132-060		150 TARA RD, EAST PALO ALTO	T20	0.00	21,888	0	0.0337	0.0000	0.0000	0.0000	0.0337	0.0000
063-132-090		, EAST PALO ALTO	T20	0.00	2,026	0	0.0031	0.0000	0.0000	0.0000	0.0031	0.0000
063-132-110		1923 BAY RD, EAST PALO ALTO	T20	0.00	0	6,455	0.0000	0.0099	0.0000	0.0000	0.0099	0.0000
063-132-120		1907 BAY RD, EAST PALO ALTO	T20	0.00	0	1,039	0.0000	0.0016	0.0000	0.0000	0.0016	0.0000
063-132-130		1911 BAY RD, EAST PALO ALTO	T20	0.00	0	877	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-132-140		1905 BAY RD, EAST PALO ALTO	T20	0.00	0	2,762	0.0000	0.0043	0.0000	0.0000	0.0043	0.0000
063-132-150		2520 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	6,194	0.0000	0.0095	0.0000	0.0000	0.0095	0.0000
063-132-170		, EAST PALO ALTO	T20	0.00	0	1,091	0.0000	0.0017	0.0000	0.0000	0.0017	0.0000
063-132-190		2532 PULGAS AVE, EAST PALO ALTO	T20	0.00	20,558	0	0.0317	0.0000	0.0000	0.0000	0.0317	0.0000
063-132-210		2524 PULGAS AVE, EAST PALO ALTO	T20	0.00	19,753	0	0.0304	0.0000	0.0000	0.0000	0.0304	0.0000
063-132-220		1987 BAY RD, EAST PALO ALTO	T20	0.00	80,434	0	0.1239	0.0000	0.0000	0.0000	0.1239	0.0000
063-133-070		195 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-080		175 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-090		75 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-100		215 DEMETER ST, EAST PALO ALTO	A15	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-133-110		, EAST PALO ALTO	A15	0.00	0	5,752	0.0000	0.0089	0.0000	0.0000	0.0089	0.0000
063-133-130		1805 BAY RD, EAST PALO ALTO	A15	0.00	0	6,974	0.0000	0.0107	0.0000	0.0000	0.0107	0.0000
063-151-170		2159 POPLAR AVE, EAST PALO ALTO	B13	0.00	2,927	294	0.0045	0.0005	0.0000	0.0000	0.0050	0.0000
063-151-200		1001 E BAYSHORE RD, EAST PALO ALTO	B13	0.00	1,772	178	0.0027	0.0003	0.0000	0.0000	0.0030	0.0000
063-152-230		1199 E BAYSHORE RD, EAST PALO ALTO	B13	0.00	5,604	565	0.0086	0.0009	0.0000	0.0000	0.0095	0.0000
063-153-010		1205 E BAYSHORE RD, EAST PALO ALTO	B13	0.00	2,648	267	0.0041	0.0004	0.0000	0.0000	0.0045	0.0000
063-153-250		2119 ADDISON AVE, EAST PALO ALTO	B13	0.00	2,572	260	0.0040	0.0004	0.0000	0.0000	0.0044	0.0000
063-154-200		2110 ADDISON AVE, EAST PALO ALTO	B13	0.00	3,330	335	0.0051	0.0005	0.0000	0.0000	0.0056	0.0000
063-154-260		2119 OAKWOOD DR, EAST PALO ALTO	B13	0.00	5,877	593	0.0091	0.0009	0.0000	0.0000	0.0100	0.0000
063-155-010		2106 OAKWOOD DR, EAST PALO ALTO	E1	0.00	3,746	377	0.0058	0.0006	0.0000	0.0000	0.0063	0.0000
063-155-180		2123 DUMBARTON AVE, EAST PALO ALTO	E1	0.00	2,453	247	0.0038	0.0004	0.0000	0.0000	0.0042	0.0000
063-155-190		2109 DUMBARTON AVE, EAST PALO ALTO	E1	0.00	3,741	377	0.0058	0.0006	0.0000	0.0000	0.0063	0.0000
063-181-010		2110 DUMBARTON AVE, EAST PALO ALTO	E1	0.00	4,704	474	0.0072	0.0007	0.0000	0.0000	0.0080	0.0000
063-181-220		2111 LINCOLN ST, EAST PALO ALTO	E1	0.00	2,659	268	0.0041	0.0004	0.0000	0.0000	0.0045	0.0000

Appendix C: Table 6
Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-181-230		2097 LINCOLN ST, EAST PALO ALTO	E1	0.00	2,487	250	0.0038	0.0004	0.0000	0.0000	0.0042	0.0000
063-181-240		1385 E BAYSHORE RD, EAST PALO ALTO	E1	0.00	2,232	225	0.0034	0.0003	0.0000	0.0000	0.0038	0.0000
063-183-010		2088 LINCOLN ST, EAST PALO ALTO	E2	0.00	2,475	249	0.0038	0.0004	0.0000	0.0000	0.0042	0.0000
063-183-070		2045 GLEN WAY, EAST PALO ALTO	E2	0.00	3,893	392	0.0060	0.0006	0.0000	0.0000	0.0066	0.0000
063-183-080		1441 E BAYSHORE RD, EAST PALO ALTO	E2	0.00	5,171	521	0.0080	0.0008	0.0000	0.0000	0.0088	0.0000
063-183-090		, EAST PALO ALTO	E2	0.00	1,898	192	0.0029	0.0003	0.0000	0.0000	0.0032	0.0000
063-183-110		1401 E BAYSHORE RD 2, EAST PALO ALTO	E2	0.00	4,512	456	0.0069	0.0007	0.0000	0.0000	0.0076	0.0000
063-184-010		1475 E BAYSHORE RD, EAST PALO ALTO	E2	0.00	5,053	510	0.0078	0.0008	0.0000	0.0000	0.0086	0.0000
063-184-020		2056 GLEN WAY, EAST PALO ALTO	E2	0.00	4,526	457	0.0070	0.0007	0.0000	0.0000	0.0077	0.0000
063-184-030		2070 GLEN WAY, EAST PALO ALTO	E2	0.00	3,872	391	0.0060	0.0006	0.0000	0.0000	0.0066	0.0000
063-184-040		2080 GLEN WAY, EAST PALO ALTO	E2	0.00	4,205	425	0.0065	0.0007	0.0000	0.0000	0.0071	0.0000
063-201-080		566 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	0	226	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-201-090		576 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	8,208	1,399	0.0126	0.0022	0.0000	0.0000	0.0148	0.0000
063-201-220		2337 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	4,963	846	0.0076	0.0013	0.0000	0.0000	0.0089	0.0000
063-201-240		2343 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	5,291	901	0.0081	0.0014	0.0000	0.0000	0.0095	0.0000
063-201-250		RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	13,215	2,253	0.0204	0.0035	0.0000	0.0000	0.0238	0.0000
063-201-260		RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	4,294	732	0.0066	0.0011	0.0000	0.0000	0.0077	0.0000
063-201-270		578 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	5,552	946	0.0085	0.0015	0.0000	0.0000	0.0100	0.0000
063-201-290	(9)	2331 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	17,156	2,925	0.0264	0.0045	0.0000	0.0000	0.0309	0.0000
063-202-080		556 WEEKS ST, EAST PALO ALTO	H3	0.00	0	209	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-202-090		564 WEEKS ST, EAST PALO ALTO	H3	0.00	0	207	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-202-100		566 WEEKS ST, EAST PALO ALTO	H3	0.00	0	202	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-202-160		561 SACRAMENTO ST, EAST PALO ALTO	H3	0.00	19,722	3,362	0.0304	0.0052	0.0000	0.0000	0.0355	0.0000
063-202-280		2361-2369 UNIVERSITY AVE 101-308, EAST PALO	H3	0.00	38,578	6,578	0.0594	0.0101	0.0000	0.0000	0.0695	0.0000
063-203-160		2387 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	5,966	941	0.0092	0.0014	0.0000	0.0000	0.0106	0.0000
063-203-170		2381 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	7,948	1,254	0.0122	0.0019	0.0000	0.0000	0.0142	0.0000
063-203-180		2373 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	9,746	1,538	0.0150	0.0024	0.0000	0.0000	0.0174	0.0000
063-203-200		593 WEEKS ST, EAST PALO ALTO	H3	0.00	11,542	1,822	0.0178	0.0028	0.0000	0.0000	0.0206	0.0000
063-203-210		585 WEEKS ST, EAST PALO ALTO	H3	0.00	7,994	1,262	0.0123	0.0019	0.0000	0.0000	0.0143	0.0000
063-203-220		579 WEEKS ST, EAST PALO ALTO	H3	0.00	0	176	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-230		563 WEEKS ST, EAST PALO ALTO	H3	0.00	0	529	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-203-240		549 WEEKS ST, EAST PALO ALTO	H3	0.00	0	177	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-250		541 WEEKS ST, EAST PALO ALTO	H3	0.00	0	173	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-260		533 WEEKS ST, EAST PALO ALTO	H3	0.00	0	169	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-203-270		, EAST PALO ALTO	H3	0.00	0	161	0.0000	0.0002	0.0000	0.0000	0.0002	0.0000
063-203-300		2395 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	9,634	1,518	0.0148	0.0023	0.0000	0.0000	0.0172	0.0000
063-203-310		2371 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	3,647	575	0.0056	0.0009	0.0000	0.0000	0.0065	0.0000
063-203-320		1586 BAY RD, EAST PALO ALTO	A15	0.00	9,637	1,521	0.0148	0.0023	0.0000	0.0000	0.0172	0.0000
063-203-330		1590 BAY RD, EAST PALO ALTO	A15	0.00	15,083	2,382	0.0232	0.0037	0.0000	0.0000	0.0269	0.0000
063-203-340		2387 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	10,835	1,710	0.0167	0.0026	0.0000	0.0000	0.0193	0.0000
063-203-350		1574 BAY RD, EAST PALO ALTO	A15	0.00	0	367	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-203-360		1546 BAY RD, EAST PALO ALTO	A15	0.00	0	336	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-370		1508 BAY RD, EAST PALO ALTO	H3	0.00	0	554	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-203-380		, NO DATA	A15	0.00	0	260	0.0000	0.0004	0.0000	0.0000	0.0004	0.0000
063-203-390		1518 BAY RD, EAST PALO ALTO	H3	0.00	0	723	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-203-400		1560 BAY RD, EAST PALO ALTO	A15	0.00	0	321	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-410		1568 BAY RD, EAST PALO ALTO	A15	0.00	0	339	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-430		1530 BAY RD, EAST PALO ALTO	A15	0.00	0	342	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-440		1554 BAY RD, EAST PALO ALTO	A15	0.00	0	296	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-203-450		1538 BAY RD, EAST PALO ALTO	A15	0.00	0	306	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-210-310		2346 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	7,834	1,335	0.0121	0.0021	0.0000	0.0000	0.0141	0.0000
063-210-340		2369 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	511	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-210-350		2365 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	530	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-210-360		2300 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	7,626	1,300	0.0117	0.0020	0.0000	0.0000	0.0137	0.0000
063-210-380		2354 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	6,547	1,116	0.0101	0.0017	0.0000	0.0000	0.0118	0.0000
063-210-410		2371 COOLEY AVE, EAST PALO ALTO	H3	0.00	4,227	720	0.0065	0.0011	0.0000	0.0000	0.0076	0.0000
063-210-450		2377 COOLEY AVE, EAST PALO ALTO	H3	0.00	3,256	554	0.0050	0.0009	0.0000	0.0000	0.0059	0.0000
063-210-460		2396 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	12,904	2,037	0.0199	0.0031	0.0000	0.0000	0.0230	0.0000
063-210-470		633 RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	4,255	725	0.0066	0.0011	0.0000	0.0000	0.0077	0.0000
063-210-480		2361 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	680	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-210-490		2355 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	713	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-210-520		2338 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	8,248	1,406	0.0127	0.0022	0.0000	0.0000	0.0149	0.0000
063-210-610		661 RUNNYMEDE ST, EAST PALO ALTO	H3	0.00	8,830	1,505	0.0136	0.0023	0.0000	0.0000	0.0159	0.0000
063-210-630		2358 UNIVERSITY AVE, EAST PALO ALTO	H3	0.00	6,658	1,135	0.0103	0.0017	0.0000	0.0000	0.0120	0.0000
063-221-010		, EAST PALO ALTO	A15	0.00	13,667	2,159	0.0210	0.0033	0.0000	0.0000	0.0244	0.0000
063-221-020		1620 BAY RD, EAST PALO ALTO	A15	0.00	22,759	3,594	0.0350	0.0055	0.0000	0.0000	0.0406	0.0000
063-221-030		, EAST PALO ALTO	A15	0.00	6,805	1,074	0.0105	0.0017	0.0000	0.0000	0.0121	0.0000
063-221-040		1640 BAY RD, EAST PALO ALTO	A15	0.00	35,707	5,630	0.0550	0.0087	0.0000	0.0000	0.0637	0.0000
063-221-050		1650 BAY RD, EAST PALO ALTO	A15	0.00	9,959	1,569	0.0153	0.0024	0.0000	0.0000	0.0178	0.0000
063-221-060		1660 BAY RD, EAST PALO ALTO	A15	0.00	22,848	3,591	0.0352	0.0055	0.0000	0.0000	0.0407	0.0000
063-221-070		1670 BAY RD, EAST PALO ALTO	A15	0.00	21,219	3,337	0.0327	0.0051	0.0000	0.0000	0.0378	0.0000
063-221-100		1760 BAY RD, EAST PALO ALTO	A15	0.00	57,125	8,982	0.0880	0.0138	0.0000	0.0000	0.1018	0.0000
063-221-110		1796 BAY RD, EAST PALO ALTO	A15	0.00	56,083	8,857	0.0864	0.0136	0.0000	0.0000	0.1000	0.0000
063-221-140		2397 CLARKE AVE, EAST PALO ALTO	T20	0.00	6,692	1,053	0.0103	0.0016	0.0000	0.0000	0.0119	0.0000
063-221-150		2387 CLARKE AVE, EAST PALO ALTO	T20	0.00	7,291	1,147	0.0112	0.0018	0.0000	0.0000	0.0130	0.0000
063-221-160		2377 CLARKE AVE, EAST PALO ALTO	T20	0.00	7,999	1,259	0.0123	0.0019	0.0000	0.0000	0.0143	0.0000
063-221-170		2373 CLARKE AVE, EAST PALO ALTO	T20	0.00	7,240	1,142	0.0111	0.0018	0.0000	0.0000	0.0129	0.0000
063-221-180		2371 CLARKE AVE, EAST PALO ALTO	T20	0.00	0	576	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-190		2369 CLARKE AVE, EAST PALO ALTO	T20	0.00	0	633	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-200		891 WEEKS ST, EAST PALO ALTO	T20	0.00	0	1,234	0.0000	0.0019	0.0000	0.0000	0.0019	0.0000
063-221-210		871 WEEKS ST, EAST PALO ALTO	T20	0.00	0	561	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000

Appendix C: Table 6
Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-221-220		867 WEEKS ST, EAST PALO ALTO	T20	0.00	0	799	0.0000	0.0012	0.0000	0.0000	0.0012	0.0000
063-221-230		865 WEEKS ST, EAST PALO ALTO	T20	0.00	0	826	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-221-240		, NO DATA	T20	0.00	0	2,813	0.0000	0.0043	0.0000	0.0000	0.0043	0.0000
063-221-250		831 WEEKS ST, EAST PALO ALTO	T20	0.00	0	818	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-221-260		819 JAMIE LN, EAST PALO ALTO	T20	0.00	0	492	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-270		823 JAMIE LN, EAST PALO ALTO	T20	0.00	0	648	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-280		827 JAMIE LN, EAST PALO ALTO	T20	0.00	0	835	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-221-290		811 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	506	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-300		813 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	428	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-310		815 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	462	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-320		817 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	468	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-340		801 WEEKS ST, EAST PALO ALTO	T20	0.00	0	470	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-350		803 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	474	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-360		805 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	397	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-221-370		807 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	491	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-380		809 PAUL ROBESON CT, EAST PALO ALTO	T20	0.00	0	458	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-221-390		791 WEEKS ST, EAST PALO ALTO	T20	0.00	0	3,813	0.0000	0.0059	0.0000	0.0000	0.0059	0.0000
063-221-410		731 WEEKS ST, EAST PALO ALTO	T20	0.00	0	1,302	0.0000	0.0020	0.0000	0.0000	0.0020	0.0000
063-221-420		717 WEEKS ST, EAST PALO ALTO	T20	0.00	0	957	0.0000	0.0015	0.0000	0.0000	0.0015	0.0000
063-221-430		2360 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	619	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-440		2362-2362 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	583	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-450		2364 COOLEY AVE, EAST PALO ALTO	H3	0.00	0	681	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-460		2370 COOLEY AVE, EAST PALO ALTO	H3	0.00	36,440	5,720	0.0561	0.0088	0.0000	0.0000	0.0649	0.0000
063-221-480		2380 COOLEY AVE, EAST PALO ALTO	H3	0.00	22,962	3,614	0.0354	0.0056	0.0000	0.0000	0.0409	0.0000
063-221-490		, EAST PALO ALTO	A15	0.00	16,498	2,606	0.0254	0.0040	0.0000	0.0000	0.0294	0.0000
063-221-500		863 WEEKS ST, EAST PALO ALTO	T20	0.00	0	561	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-510		761 WEEKS ST, EAST PALO ALTO	T20	0.00	0	742	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-221-520		767 CAROLE CT, EAST PALO ALTO	T20	0.00	0	621	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-221-530		773 CAROLE CT, EAST PALO ALTO	T20	0.00	0	563	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-540		779 CAROLE CT, EAST PALO ALTO	T20	0.00	0	551	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-221-550		785 CAROLE CT, EAST PALO ALTO	T20	0.00	0	565	0.0000	0.0009	0.0000	0.0000	0.0009	0.0000
063-221-560		1794 BAY RD, EAST PALO ALTO	A15	0.00	11,434	1,805	0.0176	0.0028	0.0000	0.0000	0.0204	0.0000
063-221-570		, EAST PALO ALTO	H3	0.00	3,267	516	0.0050	0.0008	0.0000	0.0000	0.0058	0.0000
063-221-580		, EAST PALO ALTO	H3	0.00	1,416	224	0.0022	0.0003	0.0000	0.0000	0.0025	0.0000
063-221-590		1730 BAY RD, EAST PALO ALTO	A15	0.00	86,607	13,614	0.1334	0.0210	0.0000	0.0000	0.1543	0.0000
063-231-210		2495 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	2,102	0.0000	0.0032	0.0000	0.0000	0.0032	0.0000
063-231-220		1800 BAY RD, EAST PALO ALTO	A15	0.00	0	1,129	0.0000	0.0017	0.0000	0.0000	0.0017	0.0000
063-231-230		1890 BAY RD, EAST PALO ALTO	T20	0.00	0	718	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-231-240		1804 BAY RD, EAST PALO ALTO	A15	0.00	0	4,509	0.0000	0.0069	0.0000	0.0000	0.0069	0.0000
063-231-250		1798 BAY RD, EAST PALO ALTO	A15	0.00	0	6,882	0.0000	0.0106	0.0000	0.0000	0.0106	0.0000
063-231-260		1836 BAY RD, EAST PALO ALTO	T20	0.00	0	7,149	0.0000	0.0110	0.0000	0.0000	0.0110	0.0000
063-231-270		1894 BAY RD, EAST PALO ALTO	T20	0.00	0	484	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-231-280		1896 BAY RD, EAST PALO ALTO	T20	0.00	0	484	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-231-300		, EAST PALO ALTO	T20	0.00	0	1,240	0.0000	0.0019	0.0000	0.0000	0.0019	0.0000
063-232-090		1003 WEEKS ST, EAST PALO ALTO	T20	0.00	0	2,488	0.0000	0.0038	0.0000	0.0000	0.0038	0.0000
063-232-150		2421 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	3,299	0.0000	0.0051	0.0000	0.0000	0.0051	0.0000
063-232-160		2447 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	1,387	0.0000	0.0021	0.0000	0.0000	0.0021	0.0000
063-232-200		2373 CLARKE AVE, EAST PALO ALTO	T20	0.00	13,339	2,106	0.0205	0.0032	0.0000	0.0000	0.0238	0.0000
063-232-210	(9)	WEEKS ST, EAST PALO ALTO	T20	0.00	0	11,564	0.0000	0.0178	0.0000	0.0000	0.0178	0.0000
063-232-220	(9)	WEEKS ST, EAST PALO ALTO	T20	0.00	0	6,560	0.0000	0.0101	0.0000	0.0000	0.0101	0.0000
063-232-230	(9)	WEEKS ST, EAST PALO ALTO	T20	0.00	0	9,065	0.0000	0.0140	0.0000	0.0000	0.0140	0.0000
063-232-240		1045 WEEKS ST, EAST PALO ALTO	T20	0.00	0	4,217	0.0000	0.0065	0.0000	0.0000	0.0065	0.0000
063-232-250		1085 WEEKS ST, EAST PALO ALTO	T20	0.00	0	461	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-232-260		1001 WEEKS ST, EAST PALO ALTO	T20	0.00	0	1,504	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-232-300		1095 WEEKS ST, EAST PALO ALTO	T20	0.00	0	890	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
063-232-310		2368 CLARKE AVE, EAST PALO ALTO	T20	0.00	8,711	1,375	0.0134	0.0021	0.0000	0.0000	0.0155	0.0000
063-232-340		2386 CLARKE AVE, EAST PALO ALTO	T20	0.00	9,746	1,538	0.0150	0.0024	0.0000	0.0000	0.0174	0.0000
063-232-350		901 WEEKS ST, EAST PALO ALTO	T20	0.00	24,865	3,927	0.0383	0.0060	0.0000	0.0000	0.0443	0.0000
063-240-210		NO DATA, EAST PALO ALTO	T20	0.00	10,716	0	0.0165	0.0000	0.0000	0.0000	0.0165	0.0000
063-240-220		NO DATA, EAST PALO ALTO	T20	0.00	10,237	0	0.0158	0.0000	0.0000	0.0000	0.0158	0.0000
063-240-270		NO DATA, EAST PALO ALTO	T20	0.00	0	746	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-240-310		NO DATA, EAST PALO ALTO	T20	0.00	0	11,779	0.0000	0.0181	0.0000	0.0000	0.0181	0.0000
063-240-320		1950 BAY RD, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-240-330		BAY RD, EAST PALO ALTO	T20	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-240-350		NO DATA, EAST PALO ALTO	T20	0.00	1,416	0	0.0022	0.0000	0.0000	0.0000	0.0022	0.0000
063-240-360		NO DATA, EAST PALO ALTO	T20	0.00	0	676	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-240-370		NO DATA, EAST PALO ALTO	T20	0.00	0	766	0.0000	0.0012	0.0000	0.0000	0.0012	0.0000
063-240-380		NO DATA, EAST PALO ALTO	T20	0.00	0	5,853	0.0000	0.0090	0.0000	0.0000	0.0090	0.0000
063-240-390		NO DATA, EAST PALO ALTO	T20	0.00	0	3,986	0.0000	0.0061	0.0000	0.0000	0.0061	0.0000
063-240-420		NO DATA, EAST PALO ALTO	T20	0.00	183,315	0	0.2823	0.0000	0.0000	0.0000	0.2823	0.0000
063-240-440		NO DATA, EAST PALO ALTO	T20	0.00	1,590	0	0.0024	0.0000	0.0000	0.0000	0.0024	0.0000
063-240-460		NO DATA, EAST PALO ALTO	T20	0.00	0	7,694	0.0000	0.0118	0.0000	0.0000	0.0118	0.0000
063-253-320	(9)	NO DATA, EAST PALO ALTO	T20	0.00	0	2,068	0.0000	0.0032	0.0000	0.0000	0.0032	0.0000
063-271-070		1275 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	5,368	0.0000	0.0083	0.0000	0.0000	0.0083	0.0000
063-271-090	(9)	1201 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	4,006	0.0000	0.0062	0.0000	0.0000	0.0062	0.0000
063-271-370		1171 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	3,850	0.0000	0.0059	0.0000	0.0000	0.0059	0.0000
063-271-410		NO DATA, EAST PALO ALTO	T20	0.00	2,438	0	0.0038	0.0000	0.0000	0.0000	0.0038	0.0000
063-271-420		NO DATA, EAST PALO ALTO	T20	0.00	3,462	0	0.0053	0.0000	0.0000	0.0000	0.0053	0.0000
063-271-440		1191 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	635	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-450		1200 WEEKS ST, EAST PALO ALTO	T20	0.00	0	3,212	0.0000	0.0049	0.0000	0.0000	0.0049	0.0000
063-271-470		1249 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	941	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
063-271-480		, EAST PALO ALTO	T20	0.00	45,961	0	0.0708	0.0000	0.0000	0.0000	0.0708	0.0000

Appendix C: Table 6

Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-271-490		NO DATA, EAST PALO ALTO	T20	0.00	59,285	0	0.0913	0.0000	0.0000	0.0000	0.0913	0.0000
063-271-500		1269 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	1,001	0.0000	0.0015	0.0000	0.0000	0.0015	0.0000
063-271-510		1265 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	644	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-520		1261 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	653	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-530		1257 RUNNYMEDE ST, EAST PALO ALTO	T20	0.00	0	653	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000
063-271-540		NO DATA, EAST PALO ALTO	T20	0.00	6,054	0	0.0093	0.0000	0.0000	0.0000	0.0093	0.0000
063-271-550		NO DATA, EAST PALO ALTO	T20	0.00	2,482	0	0.0038	0.0000	0.0000	0.0000	0.0038	0.0000
063-271-560		NO DATA, EAST PALO ALTO	T20	0.00	2,482	0	0.0038	0.0000	0.0000	0.0000	0.0038	0.0000
063-271-570		NO DATA, EAST PALO ALTO	T29	0.00	2,504	0	0.0039	0.0000	0.0000	0.0000	0.0039	0.0000
063-281-020	(9)	2021 EUCLID AVE	E2	0.00	0	5,284	0.0000	0.0081	0.0000	0.0000	0.0081	0.0000
063-281-030	(9)	2025 EUCLID AVE	E2	0.00	0	4,304	0.0000	0.0066	0.0000	0.0000	0.0066	0.0000
063-281-040	(9)	2031 EUCLID AVE	E2	0.00	0	7,209	0.0000	0.0111	0.0000	0.0000	0.0111	0.0000
063-281-100	(9)	2043 EUCLID AVE	E2	0.00	0	4,304	0.0000	0.0066	0.0000	0.0000	0.0066	0.0000
063-281-110	(9)	2041 EUCLID AVE	E2	0.00	0	4,164	0.0000	0.0064	0.0000	0.0000	0.0064	0.0000
063-282-010	(9)	501 O'CONNOR STREET	E2	0.00	0	11,339	0.0000	0.0175	0.0000	0.0000	0.0175	0.0000
063-282-020	(9)	2012 EUCLID AVE	E2	0.00	0	11,864	0.0000	0.0183	0.0000	0.0000	0.0183	0.0000
063-282-030	(9)	2032 EUCLID AVE	E2	0.00	0	5,669	0.0000	0.0087	0.0000	0.0000	0.0087	0.0000
063-282-040	(9)	2036 EUCLID AVE	E2	0.00	0	5,389	0.0000	0.0083	0.0000	0.0000	0.0083	0.0000
063-282-050	(9)	2040/2042 EUCLID AVE	E2	0.00	0	4,899	0.0000	0.0075	0.0000	0.0000	0.0075	0.0000
063-282-060	(9)	2044 EUCLID AVE	E2	0.00	0	6,194	0.0000	0.0095	0.0000	0.0000	0.0095	0.0000
063-282-070	(9)	2054 EUCLID AVE	E2	0.00	0	8,434	0.0000	0.0130	0.0000	0.0000	0.0130	0.0000
063-282-080	(9)	2033 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	17,842	0.0000	0.0275	0.0000	0.0000	0.0275	0.0000
063-282-090	(9)	2001 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	24,198	0.0000	0.0373	0.0000	0.0000	0.0373	0.0000
063-291-010		1489 E BAYSHORE RD, EAST PALO ALTO	E2	0.00	9,782	987	0.0151	0.0015	0.0000	0.0000	0.0166	0.0000
063-292-180		2101 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	17,858	2,819	0.0275	0.0043	0.0000	0.0000	0.0318	0.0000
063-292-370	(9)	2117 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	41,772	6,593	0.0643	0.0102	0.0000	0.0000	0.0745	0.0000
063-292-380		2160 EUCLID AVE, EAST PALO ALTO	E1	0.00	217,234	85,973	0.3345	0.1324	0.0000	0.0000	0.4669	0.0000
063-302-170		2283 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	9,102	1,551	0.0140	0.0024	0.0000	0.0000	0.0164	0.0000
063-302-180		2281 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,996	1,363	0.0123	0.0021	0.0000	0.0000	0.0144	0.0000
063-302-210		2263 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	17,652	3,010	0.0272	0.0046	0.0000	0.0000	0.0318	0.0000
063-302-220		2253 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,982	1,360	0.0123	0.0021	0.0000	0.0000	0.0144	0.0000
063-302-230		2247 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	11,257	1,919	0.0173	0.0030	0.0000	0.0000	0.0203	0.0000
063-302-280		575A BELL ST, EAST PALO ALTO	E1	0.00	7,475	1,274	0.0115	0.0020	0.0000	0.0000	0.0135	0.0000
063-302-290		565 BELL ST, EAST PALO ALTO	E1	0.00	7,241	1,234	0.0112	0.0019	0.0000	0.0000	0.0131	0.0000
063-302-330		2201 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	53,811	9,176	0.0829	0.0141	0.0000	0.0000	0.0970	0.0000
063-302-340		584 RUNNYMEDE ST, EAST PALO ALTO	E1	0.00	14,887	2,538	0.0229	0.0039	0.0000	0.0000	0.0268	0.0000
063-302-460		2277 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	13,568	2,313	0.0209	0.0036	0.0000	0.0000	0.0245	0.0000
063-302-470		2279 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	8,787	1,498	0.0135	0.0023	0.0000	0.0000	0.0158	0.0000
063-312-400	(9)	, NO DATA	E1	0.00	22,555	0	0.0347	0.0000	0.0000	0.0000	0.0347	0.0000
063-321-050		2124 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	10,642	1,814	0.0164	0.0028	0.0000	0.0000	0.0192	0.0000
063-321-060		2126 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	8,711	1,485	0.0134	0.0023	0.0000	0.0000	0.0157	0.0000
063-321-070		, EAST PALO ALTO	E1	0.00	1,984	338	0.0031	0.0005	0.0000	0.0000	0.0036	0.0000
063-321-080		2142 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,127	1,215	0.0110	0.0019	0.0000	0.0000	0.0128	0.0000
063-321-100		2160 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	13,971	2,381	0.0215	0.0037	0.0000	0.0000	0.0252	0.0000
063-321-110		2164 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,771	1,154	0.0104	0.0018	0.0000	0.0000	0.0122	0.0000
063-321-120		2166 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,660	1,135	0.0103	0.0017	0.0000	0.0000	0.0120	0.0000
063-321-130		2172 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,659	1,135	0.0103	0.0017	0.0000	0.0000	0.0120	0.0000
063-321-140		2178 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,370	1,085	0.0098	0.0017	0.0000	0.0000	0.0115	0.0000
063-321-180		612 BELL ST, EAST PALO ALTO	E1	0.00	4,281	729	0.0066	0.0011	0.0000	0.0000	0.0077	0.0000
063-321-190		616 BELL ST, EAST PALO ALTO	E1	0.00	4,547	775	0.0070	0.0012	0.0000	0.0000	0.0082	0.0000
063-321-200		644 BELL ST, EAST PALO ALTO	E1	0.00	5,728	976	0.0088	0.0015	0.0000	0.0000	0.0103	0.0000
063-321-210		2189 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,401	920	0.0083	0.0014	0.0000	0.0000	0.0097	0.0000
063-321-220		2187 CAPITOL AVE, EAST PALO ALTO	E1	0.00	4,431	755	0.0068	0.0012	0.0000	0.0000	0.0080	0.0000
063-321-230		2181 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,625	1,129	0.0102	0.0017	0.0000	0.0000	0.0119	0.0000
063-321-240		2171 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,775	984	0.0089	0.0015	0.0000	0.0000	0.0104	0.0000
063-321-250		2165 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,589	952	0.0086	0.0015	0.0000	0.0000	0.0101	0.0000
063-321-260		2161 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,778	985	0.0089	0.0015	0.0000	0.0000	0.0104	0.0000
063-321-270		2157 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,849	997	0.0090	0.0015	0.0000	0.0000	0.0105	0.0000
063-321-280		2153 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,681	968	0.0087	0.0015	0.0000	0.0000	0.0102	0.0000
063-321-290		2149 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,920	1,009	0.0091	0.0016	0.0000	0.0000	0.0107	0.0000
063-321-300		2145 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,987	1,020	0.0092	0.0016	0.0000	0.0000	0.0108	0.0000
063-321-310		2141 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,900	1,005	0.0091	0.0015	0.0000	0.0000	0.0106	0.0000
063-321-320		2133 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,668	966	0.0087	0.0015	0.0000	0.0000	0.0102	0.0000
063-321-330		2129 CAPITOL AVE, EAST PALO ALTO	E1	0.00	4,006	682	0.0062	0.0011	0.0000	0.0000	0.0072	0.0000
063-321-400		2194 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	16,236	2,768	0.0250	0.0043	0.0000	0.0000	0.0293	0.0000
063-321-410		2148 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	9,619	1,640	0.0148	0.0025	0.0000	0.0000	0.0173	0.0000
063-321-420	(9)	, NO DATA	E1	0.00	107,404	0	0.1654	0.0000	0.0000	0.0000	0.1654	0.0000
063-322-040		2124 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	348	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-050		2132 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	378	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-322-060		2134 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	349	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-070		2138 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	348	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-080		2142 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	344	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-090		2144 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	362	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-322-100		2154 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	433	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-322-110		2162 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	476	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-322-130		2184 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	424	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-322-140		2194 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	537	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-322-150		2198 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	296	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-322-160		660 BELL ST, EAST PALO ALTO	E1	0.00	0	285	0.0000	0.0004	0.0000	0.0000	0.0004	0.0000
063-322-340		2169 COOLEY AVE, EAST PALO ALTO	E1	0.00	0	1,507	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-322-410	(9)	, NO DATA	E1	0.00	11,099	0	0.0171	0.0000	0.0000	0.0000	0.0171	0.0000
063-322-500		2159 COOLEY AVE, EAST PALO ALTO	E1	0.00	0	493	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000

Appendix C: Table 6
Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-322-560	(9)	DONOHOE ST, EAST PALO ALTO	E1	0.00	46,919	0	0.0723	0.0000	0.0000	0.0000	0.0723	0.0000
063-322-580		2118 CAPITOL AVE, EAST PALO ALTO	E1	0.00	0	359	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-331-030		2212 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	7,655	1,305	0.0118	0.0020	0.0000	0.0000	0.0138	0.0000
063-331-060		2242 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,117	1,042	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-070		2248 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,104	1,040	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-080		2252 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,091	1,038	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-090		2264 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,077	1,035	0.0094	0.0016	0.0000	0.0000	0.0110	0.0000
063-331-100		2268 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,064	1,033	0.0093	0.0016	0.0000	0.0000	0.0109	0.0000
063-331-110		2272 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	6,051	1,031	0.0093	0.0016	0.0000	0.0000	0.0109	0.0000
063-331-120		2274 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	8,186	1,395	0.0126	0.0021	0.0000	0.0000	0.0148	0.0000
063-331-130		2276 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	5,448	928	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-140		2280 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	5,442	927	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-150		2284 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	5,435	926	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-190		2291 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,554	946	0.0086	0.0015	0.0000	0.0000	0.0100	0.0000
063-331-200		2287 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,591	953	0.0086	0.0015	0.0000	0.0000	0.0101	0.0000
063-331-210		2285 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,628	959	0.0087	0.0015	0.0000	0.0000	0.0101	0.0000
063-331-220		2277 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,332	908	0.0082	0.0014	0.0000	0.0000	0.0096	0.0000
063-331-230		2267 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,119	872	0.0079	0.0013	0.0000	0.0000	0.0092	0.0000
063-331-240		2263 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,148	877	0.0079	0.0014	0.0000	0.0000	0.0093	0.0000
063-331-250		2255 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,178	882	0.0080	0.0014	0.0000	0.0000	0.0093	0.0000
063-331-260		2251 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,207	887	0.0080	0.0014	0.0000	0.0000	0.0094	0.0000
063-331-270		2249 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,237	892	0.0081	0.0014	0.0000	0.0000	0.0094	0.0000
063-331-280		2245 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,266	897	0.0081	0.0014	0.0000	0.0000	0.0095	0.0000
063-331-290		2239 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,725	1,146	0.0104	0.0018	0.0000	0.0000	0.0121	0.0000
063-331-300		2233 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,807	1,160	0.0105	0.0018	0.0000	0.0000	0.0123	0.0000
063-331-310		2227 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,529	942	0.0085	0.0015	0.0000	0.0000	0.0100	0.0000
063-331-320		2219 CAPITOL AVE, EAST PALO ALTO	E1	0.00	5,464	931	0.0084	0.0014	0.0000	0.0000	0.0098	0.0000
063-331-330		2217 CAPITOL AVE, EAST PALO ALTO	E1	0.00	4,463	760	0.0069	0.0012	0.0000	0.0000	0.0080	0.0000
063-331-340		2205 CAPITOL AVE, EAST PALO ALTO	E1	0.00	6,150	1,048	0.0095	0.0016	0.0000	0.0000	0.0111	0.0000
063-331-350		643 BELL ST, EAST PALO ALTO	E1	0.00	5,923	1,009	0.0091	0.0016	0.0000	0.0000	0.0107	0.0000
063-331-370		2200 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	15,311	2,610	0.0236	0.0040	0.0000	0.0000	0.0276	0.0000
063-331-380		2240 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	9,055	1,543	0.0139	0.0024	0.0000	0.0000	0.0163	0.0000
063-331-410		2220 UNIVERSITY AVE, EAST PALO ALTO	E1	0.00	16,705	2,843	0.0257	0.0044	0.0000	0.0000	0.0301	0.0000
063-442-360	(9)	330 DONOHOE ST, EAST PALO ALTO	E2	0.00	0	4,212	0.0000	0.0065	0.0000	0.0000	0.0065	0.0000
063-473-150	(9)	1995 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	711	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000
063-473-160	(9)	1991 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,616	0.0000	0.0025	0.0000	0.0000	0.0025	0.0000
063-473-170	(9)	1965 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,193	0.0000	0.0018	0.0000	0.0000	0.0018	0.0000
063-473-180	(9)	1955 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,434	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-473-190	(9)	1919 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	1,948	0.0000	0.0030	0.0000	0.0000	0.0030	0.0000
063-473-200	(9)	1901 MANHATTAN AVE, EAST PALO ALTO	E2	0.00	0	2,488	0.0000	0.0038	0.0000	0.0000	0.0038	0.0000
063-481-010		1699 WOODLAND AVE, EAST PALO ALTO	E2	0.00	0	366	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-020		1681 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	344	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-481-030		1671 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	359	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-040		1669 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	395	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-050		1651 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	530	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-481-060		1643 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	402	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-070		1637 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	422	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-080		1629 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	383	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-090		1621 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	362	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-100		644 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	462	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-110		652 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	321	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-481-120		660 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	395	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-130		610 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	395	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-140		620 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	414	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-150		630 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	386	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-160		640 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	398	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-481-170		650 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	460	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-180		1917 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	469	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-190		1909 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	456	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-210		1901 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	440	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-481-220		1905 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	406	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-482-010		641 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	321	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000
063-482-020		621 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	358	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-482-030		611 CIRCLE DR, EAST PALO ALTO	I12	0.00	0	413	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-483-030		1909 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	495	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-483-040		1943 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	1,067	0.0000	0.0016	0.0000	0.0000	0.0016	0.0000
063-483-050		1609 WOODLAND AVE, EAST PALO ALTO	I12	0.00	0	2,168	0.0000	0.0033	0.0000	0.0000	0.0033	0.0000
063-484-010		655 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	406	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-484-020		1902 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	496	0.0000	0.0008	0.0000	0.0000	0.0008	0.0000
063-484-030		1908 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	906	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
063-484-040		1916 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	1,406	0.0000	0.0022	0.0000	0.0000	0.0022	0.0000
063-484-050		1920 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	864	0.0000	0.0013	0.0000	0.0000	0.0013	0.0000
063-484-060		1934 CAPITOL AVE, EAST PALO ALTO	I12	0.00	0	2,326	0.0000	0.0036	0.0000	0.0000	0.0036	0.0000
063-484-090		1949 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	1,318	0.0000	0.0020	0.0000	0.0000	0.0020	0.0000
063-484-100		1941 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	1,463	0.0000	0.0023	0.0000	0.0000	0.0023	0.0000
063-484-110		685 SCOFIELD AVE, EAST PALO ALTO	I12	0.00	0	1,742	0.0000	0.0027	0.0000	0.0000	0.0027	0.0000
063-484-130		1957 COOLEY AVE, EAST PALO ALTO	I12	0.00	0	3,196	0.0000	0.0049	0.0000	0.0000	0.0049	0.0000
063-492-070		1927 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	7,138	1,216	0.0110	0.0019	0.0000	0.0000	0.0129	0.0000
063-492-280		1933 PULGAS AVE, EAST PALO ALTO	K4	0.00	0	4,704	0.0000	0.0072	0.0000	0.0000	0.0072	0.0000
063-492-350	(9)	1805 E BAYSHORE RD #1-94, EAST PALO ALTO	K4	0.00	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
063-492-480		1895 E BAYSHORE RD, EAST PALO ALTO	K4	0.00	9,520	1,623	0.0147	0.0025	0.0000	0.0000	0.0172	0.0000
063-501-020		1874 W BAYSHORE RD, EAST PALO ALTO	K4	0.00	10,817	1,092	0.0167	0.0017	0.0000	0.0000	0.0183	0.0000

Appendix C: Table 6
Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-501-030		1870 W BAYSHORE RD, EAST PALO ALTO	K4	0.00	5,051	509	0.0078	0.0008	0.0000	0.0000	0.0086	0.0000
063-501-040		1879 WOODLAND AVE, EAST PALO ALTO	K4	0.00	5,118	516	0.0079	0.0008	0.0000	0.0000	0.0087	0.0000
063-501-050		1875 WOODLAND AVE, EAST PALO ALTO	K4	0.00	4,455	449	0.0069	0.0007	0.0000	0.0000	0.0076	0.0000
063-511-020		2039 CLARKE AVE, EAST PALO ALTO	K4	0.00	4,697	800	0.0072	0.0012	0.0000	0.0000	0.0085	0.0000
063-511-030		2035 CLARKE AVE, EAST PALO ALTO	I3	0.00	5,093	868	0.0078	0.0013	0.0000	0.0000	0.0092	0.0000
063-511-040		2029 CLARKE AVE, EAST PALO ALTO	I3	0.00	9,896	1,687	0.0152	0.0026	0.0000	0.0000	0.0178	0.0000
063-511-050		2027 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,481	763	0.0069	0.0012	0.0000	0.0000	0.0081	0.0000
063-511-060		2023 CLARKE AVE, EAST PALO ALTO	I3	0.00	5,274	898	0.0081	0.0014	0.0000	0.0000	0.0095	0.0000
063-511-070		2017 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,907	836	0.0076	0.0013	0.0000	0.0000	0.0088	0.0000
063-511-080		2013 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,856	827	0.0075	0.0013	0.0000	0.0000	0.0088	0.0000
063-511-090		2009 CLARKE AVE, EAST PALO ALTO	I3	0.00	4,833	823	0.0074	0.0013	0.0000	0.0000	0.0087	0.0000
063-511-190		872 DONOHOE ST, EAST PALO ALTO	I3	0.00	8,006	1,365	0.0123	0.0021	0.0000	0.0000	0.0144	0.0000
063-511-200		866 DONOHOE ST, EAST PALO ALTO	I3	0.00	6,897	1,175	0.0106	0.0018	0.0000	0.0000	0.0124	0.0000
063-511-210		864 DONOHOE ST, EAST PALO ALTO	I3	0.00	5,843	996	0.0090	0.0015	0.0000	0.0000	0.0105	0.0000
063-511-220		862 DONOHOE ST, EAST PALO ALTO	I3	0.00	4,039	688	0.0062	0.0011	0.0000	0.0000	0.0073	0.0000
063-511-240		896 DONOHOE ST, EAST PALO ALTO	I3	0.00	4,243	723	0.0065	0.0011	0.0000	0.0000	0.0076	0.0000
063-511-250		860 DONOHOE ST, EAST PALO ALTO	I3	0.00	6,144	1,047	0.0095	0.0016	0.0000	0.0000	0.0111	0.0000
063-511-260		890 DONOHOE ST, EAST PALO ALTO	I3	0.00	4,565	778	0.0070	0.0012	0.0000	0.0000	0.0082	0.0000
063-511-490		1731 E BAYSHORE RD, EAST PALO ALTO	I3	0.00	136,864	21,597	0.2108	0.0333	0.0000	0.0000	0.2440	0.0000
063-511-520		1761 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	143,789	22,710	0.2214	0.0350	0.0000	0.0000	0.2564	0.0000
063-511-630		1721 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	36,216	5,703	0.0558	0.0088	0.0000	0.0000	0.0646	0.0000
063-511-660		899 OCONNOR ST, EAST PALO ALTO	I12	0.00	2,871	489	0.0044	0.0008	0.0000	0.0000	0.0052	0.0000
063-511-680		1751 EAST BAYSHORE RD, EAST PALO ALTO	I12	0.00	231,025	36,488	0.3558	0.0562	0.0000	0.0000	0.4120	0.0000
063-511-690		1745 E BAYSHORE BLVD, EAST PALO ALTO	I12	0.00	36,736	5,797	0.0566	0.0089	0.0000	0.0000	0.0655	0.0000
063-511-720		1775 E BAYSHORE RD, EAST PALO ALTO	I12	0.00	333,263	52,631	0.5132	0.0811	0.0000	0.0000	0.5943	0.0000
063-515-060		1821 CLARKE AVE, EAST PALO ALTO	I12	0.00	0	225	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-515-070		1805 CLARKE AVE, EAST PALO ALTO	K4	0.00	0	423	0.0000	0.0007	0.0000	0.0000	0.0007	0.0000
063-515-080		1787 WOODLAND AVE, EAST PALO ALTO	K4	0.00	0	217	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-515-230		1785 WOODLAND AVE, EAST PALO ALTO	K4	0.00	0	422	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000
063-571-060		1985 E BAYSHORE RD, EAST PALO ALTO	K4	0.00	52,596	8,969	0.0810	0.0138	0.0000	0.0000	0.0948	0.0000
063-571-070		1981 E BAYSHORE RD, EAST PALO ALTO	K28	0.00	25,211	4,299	0.0388	0.0066	0.0000	0.0000	0.0454	0.0000
063-571-080		1961 E BAYSHORE RD, EAST PALO ALTO	K28	0.00	54,785	9,342	0.0844	0.0144	0.0000	0.0000	0.0988	0.0000
063-571-090		1905 E BAYSHORE RD, EAST PALO ALTO	K28	0.00	9,438	1,609	0.0145	0.0025	0.0000	0.0000	0.0170	0.0000
063-680-020	(9)	1900 UNIVERSITY AVE, EAST PALO ALTO	K28	0.00	150,722	0	0.2321	0.0000	0.0000	0.0000	0.2321	0.0000
063-680-050	(9)	, NO DATA	E2	0.00	1,551	0	0.0024	0.0000	0.0000	0.0000	0.0024	0.0000
063-680-060	(9)	, NO DATA	E2	0.00	1,551	0	0.0024	0.0000	0.0000	0.0000	0.0024	0.0000
063-680-090	(9)	, EAST PALO ALTO	E2	0.00	8,177	0	0.0126	0.0000	0.0000	0.0000	0.0126	0.0000
063-680-100	(9)	, EAST PALO ALTO	E2	0.00	8,272	0	0.0127	0.0000	0.0000	0.0000	0.0127	0.0000
063-680-110	(9)	, EAST PALO ALTO	E2	0.00	22,594	0	0.0348	0.0000	0.0000	0.0000	0.0348	0.0000
063-680-130	(9)	2000 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	139,566	0	0.2149	0.0000	0.0000	0.0000	0.2149	0.0000
063-680-150	(9)	2050 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	218,918	0	0.3371	0.0000	0.0000	0.0000	0.3371	0.0000
063-680-180	(9)	, EAST PALO ALTO	E2	0.00	533	0	0.0008	0.0000	0.0000	0.0000	0.0008	0.0000
063-680-190	(9)	2000 UNIVERSITY AVE, EAST PALO ALTO	E2	0.00	256,075	0	0.3944	0.0000	0.0000	0.0000	0.3944	0.0000
063-730-010		2477 PULGAS AVE, EAST PALO ALTO	E2	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-020		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-030		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-040		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-050		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-060		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-070		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-080		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-090		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-100		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-110		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-120		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-130		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-140		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-150		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-160		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-170		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-180		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-190		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-200		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-210		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-220		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-230		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-240		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-250		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-260		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-270		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-280		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-290		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-300		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-310		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-320		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-330		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-340		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-350		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-360		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-370		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-380		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-390		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000

Appendix C: Table 6
Scenario 3: 2035 Enhanced Proposed Additional Sanitary Sewer Flows

APN (1)		Address (1)	Sanitary Sewer Sub-Basins	Peaking Factor (2)	Delta Residential Average Daily Flow, GPD (3)	Delta Non-Residential Average Daily Flow, GPD (4)	Residential ADWF, CFS (5)	Non-Residential ADWF, CFS (6)	Residential PDWF, CFS (7)	Non-Residential PDWF, CFS (8)	Total ADWF, CFS	Total PDWF, CFS
063-730-400		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-410		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-420		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-430		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-440		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-450		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-460		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-470		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-480		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-490		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-500		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
063-730-510		2477 PULGAS AVE, EAST PALO ALTO	T20	0.00	0	200	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000
113-530-010 to 113-530-999		2420 GLORIA WAY, EAST PALO ALTO	NEW	0	0	2,029	0.0000	0.0031	0.0000	0.0000	0.0031	0.0000
113-710-010 to 113-710-999		2440 GLORIA WAY, EAST PALO ALTO	NEW	0	0	1,057	0.0000	0.0016	0.0000	0.0000	0.0016	0.0000
113-720-010 to 113-720-999		2460 GLORIA WAY, EAST PALO ALTO	NEW	0	0	890	0.0000	0.0014	0.0000	0.0000	0.0014	0.0000
113-740-010 to 113-740-999		2470 GLORIA WAY, EAST PALO ALTO	NEW	0	0	1,393	0.0000	0.0021	0.0000	0.0000	0.0021	0.0000
114-240-010 to 114-240-300		2330 UNIVERSITY AVE, EAST PALO ALTO	NEW	0	17,563	2,970	0.0270	0.0046	0.0000	0.0000	0.0316	0.0000
114-450-010 to 114-460-300		1765 EAST BAYSHORE RD, EAST PALO ALTO	NEW	0	39,561	6,717	0.0609	0.0103	0.0000	0.0000	0.0713	0.0000
114-590-050		NO DATA, EAST PALO ALTO	T20	0.00	235,877	0	0.3633	0.0000	0.0000	0.0000	0.3633	0.0000

Notes:

(1) Properties that have changed Zoning Figure 4-12: General Plan Land Use and Figure 4-16: Ravenswood / 4 Corners TOP Specific Plan Land Use City of East Palo Alto General Plan "Existing Conditions Report, February 2014" Vs Figure 4-2: General Plan Land Use Designations City of East Palo Alto General Plan "Vista 2035, Final Version: March 2017"

(2) Per Section 5.3.2 of the "East Palo Alto Sanitary District Master Plan Update, March 2015". For modeling scenarios, peak sanitary flows based on the collected data. Collected data for Peaking Factors for each sub-basin are shown in Table 2.

(3) Delta Residential Flows is calculated by taking the Average Daily Flow for Residential areas from Table 3 minus the Average Daily Flow for Residential area from Table 2. If calculation resulted in a decrease of flow, the flow change is shown as "0" because it is not anticipated that the land use changes will result in flow reductions.

(4) Delta Non-Residential Flows is calculated by taking the Average Faily Flow for Non-Residential areas from Table 3 minus the Average Daily Flow for Non-Residential areas from Table 2.

(5) ADWF Residential Dwellings, calculated by multiplying 200 gallons per dwelling unit per day by the total number of units. Based on internal F&L meeting, 2/13/2025. Units converted from GPD (Gallons Per Day) to CFS based off 24 hours in a day, 60 minutes in a hour, and 60 seconds in a minute.

(6) ADWF Non-Residential , calculated by multiplying 0.1 gallons per day per square foot. Based on Section B1.03.3 for Office and Retail of the East Palo Alto Sanitary District Standard Specifications for Design and Construction of Sanitray Collection and Conveyance Facilities dated June 6, 2002. Units converted from GPD (Gallons Per Day) to CFS. Based off 24 hours in a day, 60 minutes in a hour, and 60 seconds in a minute.

(7) PDWF Residential Dwellings, calculated by multiplying Average Dry Weather Flows (5) by the Peaking Factor (2). Units converted from GPD to CFS. Based off 24 hours a day, 60 minutes in a hour, and 60 seconds in a minute.

(8) PDWF Non-Residential, calculated by multiplying Average Dry Weather Flows (6) by the Peaking Factor (2). Units converted from GPD to CFS. Based off 24 hours a day, 60 minutes in a hour, and 60 seconds in a minute.

(9) Number of units planned are approved development projects by the City. Average Daily Flow, Residential is calculated using the known unit count.

Abbreviations

ADWF: Average Dry Weather Flow
APN: Assessors Parcel Number
CFS: Cubic Feet per Second
MGD: Million Gallons Per Day
PDWF: Peak Dry Weather Flow

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
063-103-310		1585 BAY RD, EAST PALO ALTO	Low Density Residential	0	0.0174	0.0277
063-103-360		, EAST PALO ALTO	, EAST PALO ALTO	0	0.0278	0.0443
063-103-370		, EAST PALO ALTO	, EAST PALO ALTO	0	0.0165	0.0263
063-103-380		, EAST PALO ALTO	, EAST PALO ALTO	0	0.0033	0.0052
063-103-390		, EAST PALO ALTO	, EAST PALO ALTO	0	0.0049	0.0078
063-103-440		2400 GLORIA WAY, EAST PALO ALTO	Low Density Residential	0	0.0132	0.0210
063-111-230		BETWEEN 1585 AND 1675 BAY RD, EAST PALO ALTO	Parks/Recreation/Conservation	0	0.0050	0.0079
063-111-250		1675 BAY RD, EAST PALO ALTO	Low Density ResidentialOffice	0	0.1303	0.2076
063-121-030		, EAST PALO ALTO	Industrial Transition	Wholesale/Warehousing	0.0026	0.0039
063-121-040		, EAST PALO ALTO	General Industrial	Wholesale/Warehousing	0.0189	0.0284
063-121-050		TARA RD, EAST PALO ALTO	Industrial Buffer	Wholesale/Warehousing	0.0018	0.0027
063-121-060		264 TARA RD, EAST PALO ALTO	Industrial Buffer	Wholesale/Warehousing	0.0120	0.0180
063-121-070		2081 BAY RD, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0524	0.0786
063-121-110		2077 BAY RD, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0130	0.0195
063-121-120		2005 BAY RD, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0259	0.0388
063-121-150		, EAST PALO ALTO	Industrial Transition	0	0.0030	0.0046
063-121-160		180 TARA ROAD, EAST PALO ALTO	Industrial Transition	0	0.0118	0.0177
063-121-170		240 TARA ROAD, EAST PALO ALTO	Industrial Transition	0	0.0130	0.0195
063-121-190		2560 PULGAS AVE, EAST PALO ALTO	General Industrial	0	0.0031	0.0046
063-121-200		2555 PULGAS AVE, EAST PALO ALTO	General Industrial	0	0.0092	0.0138
063-121-210		2555 PULGAS AVE, EAST PALO ALTO	General Industrial	0	0.0092	0.0138
063-121-240		, EAST PALO ALTO	General Industrial	0	0.0191	0.0304
063-121-290		218 DEMETER ST, EAST PALO ALTO	General Industrial	0	0.0049	0.0078
063-121-320		350 DEMETER ST, EAST PALO ALTO	General Industrial	0	0.0201	0.0320
063-121-330		, EAST PALO ALTO	General Industrial	0	0.0200	0.0319
063-121-350		, EAST PALO ALTO	General Industrial	0	0.0066	0.0099
063-121-360		, EAST PALO ALTO	Industrial Transition	0	0.0004	0.0007
063-121-370		2535 PULGAS AVE, EAST PALO ALTO	General Industrial	0	0.0131	0.0196
063-121-390		, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0063	0.0095
063-121-400		2091 BAY RD, EAST PALO ALTO	Office	Parks/Recreation/Conservation	0.0084	0.0126
063-121-410		2091 BAY RD, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0101	0.0151
063-121-490		, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0198	0.0297
063-121-500		, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0255	0.0382
063-121-510		, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0072	0.0109
063-122-040		1990 BAY RD, EAST PALO ALTO	Office	Wholesale/Warehousing	0.0474	0.0711
063-123-010		351 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0042	0.0063
063-123-030		225 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0027	0.0040
063-123-060		325 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0034	0.0051
063-123-070		245 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0031	0.0046
063-123-080		, EAST PALO ALTO	Industrial Transition	0	0.0003	0.0005
063-131-220	(4)	2519 PULGAS AVE, EAST PALO ALTO	Industrial	0	0.0168	0.0252
063-131-230		, EAST PALO ALTO	Mixed Use Corridor	0	0.0024	0.0036
063-131-240		1885 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0023	0.0035
063-131-250		1861 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0031	0.0046
063-131-260		1879 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0057	0.0086
063-131-270		1873 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0011	0.0016
063-131-290		140 DEMETER ST, EAST PALO ALTO	General Industrial	0	0.0090	0.0143
063-131-300		, EAST PALO ALTO	Mixed Use Corridor	0	0.0010	0.0015
063-131-310		1891 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0015	0.0022
063-131-320		1847 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0022	0.0033
063-131-330		1851 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0012	0.0018
063-131-340		2509 PULGAS AVE, EAST PALO ALTO	Mixed Use Corridor	0	0.0022	0.0033
063-132-020		151 TARA RD, EAST PALO ALTO	General Industrial	0	0.0006	0.0008
063-132-060		150 TARA RD, EAST PALO ALTO	Industrial Buffer	0	0.0034	0.0051
063-132-090		, EAST PALO ALTO	Industrial Buffer	0	0.0003	0.0005
063-132-110		1923 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0099	0.0149
063-132-120		1907 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0016	0.0024
063-132-130		1911 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0013	0.0020
063-132-140		1905 BAY RD, EAST PALO ALTO	Parks/Recreation/Conservation	0	0.0043	0.0064
063-132-150		2520 PULGAS AVE, EAST PALO ALTO	Mixed Use Corridor	0	0.0095	0.0143
063-132-170		, EAST PALO ALTO	General Industrial	0	0.0017	0.0025
063-132-190		2532 PULGAS AVE, EAST PALO ALTO	General Industrial	0	0.0032	0.0047
063-132-210		2524 PULGAS AVE, EAST PALO ALTO	General Industrial	0	0.0030	0.0046
063-132-220		1987 BAY RD, EAST PALO ALTO	Industrial Buffer	0	0.0124	0.0186
063-133-070		195 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0010	0.0017
063-133-080		175 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0011	0.0017
063-133-090		75 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0009	0.0015
063-133-100		215 DEMETER ST, EAST PALO ALTO	Industrial Transition	0	0.0028	0.0045
063-133-110		, EAST PALO ALTO	Mixed Use Corridor	0	0.0089	0.0141
063-133-130		1805 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0107	0.0171
063-151-170		2159 POPLAR AVE, EAST PALO ALTO	Commercial	0	0.0009	0.0017
063-151-200		1001 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0005	0.0010
063-152-230		1199 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0017	0.0032
063-153-010		1205 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0008	0.0015
063-153-250		2119 ADDISON AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0015
063-154-200		2110 ADDISON AVE, EAST PALO ALTO	Commercial	0	0.0010	0.0019
063-154-260		2119 OAKWOOD DR, EAST PALO ALTO	Commercial	0	0.0018	0.0033
063-155-010		2106 OAKWOOD DR, EAST PALO ALTO	Commercial	0	0.0012	0.0017
063-155-180		2123 DUMBARTON AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0011
063-155-190		2109 DUMBARTON AVE, EAST PALO ALTO	Commercial	0	0.0012	0.0017
063-181-010		2110 DUMBARTON AVE, EAST PALO ALTO	Commercial	0	0.0015	0.0021
063-181-220		2111 LINCOLN ST, EAST PALO ALTO	Low Density Residential	0	0.0008	0.0012
063-181-230		2097 LINCOLN ST, EAST PALO ALTO	Low Density Residential	0	0.0008	0.0011
063-181-240		1385 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0007	0.0010
063-183-010		2088 LINCOLN ST, EAST PALO ALTO	Commercial	0	0.0008	0.0013

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
063-183-070		2045 GLEN WAY, EAST PALO ALTO	Commercial	0	0.0012	0.0021
063-183-080		1441 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0016	0.0028
063-183-090		, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-183-110		1401 E BAYSHORE RD 2, EAST PALO ALTO	Commercial	0	0.0014	0.0024
063-184-010		1475 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0016	0.0027
063-184-020		2056 GLEN WAY, EAST PALO ALTO	Low Density Residential	0	0.0014	0.0024
063-184-030		2070 GLEN WAY, EAST PALO ALTO	Low Density Residential	0	0.0012	0.0021
063-184-040		2080 GLEN WAY, EAST PALO ALTO	Low Density Residential	0	0.0013	0.0022
063-201-080		566 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	0	0.0003	0.0006
063-201-090		576 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	0	0.0034	0.0056
063-201-220		2337 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0021	0.0034
063-201-240		2343 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0022	0.0036
063-201-250		RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0055	0.0090
063-201-260		RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0018	0.0029
063-201-270		578 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	0	0.0023	0.0038
063-201-290	(4)	2331 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0071	0.0117
063-202-080		556 WEEKS ST, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-202-090		564 WEEKS ST, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-202-100		566 WEEKS ST, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-202-160		561 SACRAMENTO ST, EAST PALO ALTO	High Density Residential	0	0.0082	0.0135
063-202-280		2361-2369 UNIVERSITY AVE 101-308, EAST PALO ALTO	High Density Residential	0	0.0161	0.0264
063-203-160		2387 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0024	0.0039
063-203-170		2381 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0032	0.0052
063-203-180		2373 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0039	0.0064
063-203-200		593 WEEKS ST, EAST PALO ALTO	Mixed Use High	0	0.0046	0.0075
063-203-210		585 WEEKS ST, EAST PALO ALTO	Commercial	0	0.0032	0.0052
063-203-220		579 WEEKS ST, EAST PALO ALTO	Commercial	0	0.0003	0.0004
063-203-230		563 WEEKS ST, EAST PALO ALTO	Commercial	0	0.0008	0.0013
063-203-240		549 WEEKS ST, EAST PALO ALTO	Commercial	0	0.0003	0.0004
063-203-250		541 WEEKS ST, EAST PALO ALTO	Commercial	0	0.0003	0.0004
063-203-260		533 WEEKS ST, EAST PALO ALTO	Commercial	0	0.0003	0.0004
063-203-270		, EAST PALO ALTO	Commercial	0	0.0002	0.0004
063-203-300		2395 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0038	0.0063
063-203-310		2371 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0014	0.0024
063-203-320		1586 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0038	0.0061
063-203-330		1590 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0060	0.0095
063-203-340		2387 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0043	0.0071
063-203-350		1574 BAY RD, EAST PALO ALTO	Commercial	0	0.0006	0.0009
063-203-360		1546 BAY RD, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-203-370		1508 BAY RD, EAST PALO ALTO	Commercial	0	0.0009	0.0014
063-203-380		, NO DATA	Commercial	0	0.0004	0.0006
063-203-390		1518 BAY RD, EAST PALO ALTO	Commercial	0	0.0011	0.0018
063-203-400		1560 BAY RD, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-203-410		1568 BAY RD, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-203-430		1530 BAY RD, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-203-440		1554 BAY RD, EAST PALO ALTO	Commercial	0	0.0005	0.0007
063-203-450		1538 BAY RD, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-210-310		2346 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0033	0.0054
063-210-340		2369 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0013
063-210-350		2365 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0013
063-210-360		2300 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0032	0.0052
063-210-380		2354 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0027	0.0045
063-210-410		2371 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0018	0.0029
063-210-450		2377 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0014	0.0022
063-210-460		2396 UNIVERSITY AVE, EAST PALO ALTO	Mixed Use High	0	0.0051	0.0084
063-210-470		633 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0018	0.0029
063-210-480		2361 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0010	0.0017
063-210-490		2355 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0011	0.0018
063-210-520		2338 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0034	0.0056
063-210-610		661 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0037	0.0060
063-210-630		2358 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0046
063-221-010		, EAST PALO ALTO	Mixed Use High	0	0.0054	0.0086
063-221-020		1620 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0090	0.0144
063-221-030		, EAST PALO ALTO	Mixed Use High	0	0.0027	0.0043
063-221-040		1640 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0142	0.0226
063-221-050		1650 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0040	0.0063
063-221-060		1660 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0091	0.0144
063-221-070		1670 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0084	0.0134
063-221-100		1760 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0226	0.0361
063-221-110		1796 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0223	0.0355
063-221-140		2397 CLARKE AVE, EAST PALO ALTO	Mixed Use High	0	0.0027	0.0040
063-221-150		2387 CLARKE AVE, EAST PALO ALTO	Mixed Use High	0	0.0029	0.0043
063-221-160		2377 CLARKE AVE, EAST PALO ALTO	Mixed Use High	0	0.0032	0.0048
063-221-170		2373 CLARKE AVE, EAST PALO ALTO	Mixed Use High	0	0.0029	0.0043
063-221-180		2371 CLARKE AVE, EAST PALO ALTO	Low Density Residential	0	0.0009	0.0013
063-221-190		2369 CLARKE AVE, EAST PALO ALTO	Low Density Residential	0	0.0010	0.0015
063-221-200		891 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0019	0.0029
063-221-210		871 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0009	0.0013
063-221-220		867 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0012	0.0018
063-221-230		865 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0013	0.0019
063-221-240		, NO DATA	Low Density Residential	0	0.0043	0.0065
063-221-250		831 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0013	0.0019
063-221-260		819 JAMIE LN, EAST PALO ALTO	Low Density Residential	0	0.0008	0.0011

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
063-221-270		823 JAMIE LN, EAST PALO ALTO	Low Density Residential	0	0.0010	0.0015
063-221-280		827 JAMIE LN, EAST PALO ALTO	Low Density Residential	0	0.0013	0.0019
063-221-290		811 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0008	0.0012
063-221-300		813 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0007	0.0010
063-221-310		815 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0007	0.0011
063-221-320		817 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0007	0.0011
063-221-340		801 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0007	0.0011
063-221-350		803 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0007	0.0011
063-221-360		805 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0006	0.0009
063-221-370		807 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0008	0.0011
063-221-380		809 PAUL ROBESON CT, EAST PALO ALTO	Low Density Residential	0	0.0007	0.0011
063-221-390		791 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0059	0.0088
063-221-410		731 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0020	0.0030
063-221-420		717 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0015	0.0022
063-221-430		2360 COOLEY AVE, EAST PALO ALTO	Low Density Residential	0	0.0010	0.0016
063-221-440		2362-2362 COOLEY AVE, EAST PALO ALTO	Low Density Residential	0	0.0009	0.0015
063-221-450		2364 COOLEY AVE, EAST PALO ALTO	Low Density Residential	0	0.0010	0.0017
063-221-460		2370 COOLEY AVE, EAST PALO ALTO	Mixed Use High	0	0.0144	0.0237
063-221-480		2380 COOLEY AVE, EAST PALO ALTO	Mixed Use High	0	0.0091	0.0150
063-221-490		, EAST PALO ALTO	Mixed Use High	0	0.0066	0.0104
063-221-500		863 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0009	0.0013
063-221-510		761 WEEKS ST, EAST PALO ALTO	Low Density Residential	0	0.0011	0.0017
063-221-520		767 CAROLE CT, EAST PALO ALTO	Low Density Residential	0	0.0010	0.0014
063-221-530		773 CAROLE CT, EAST PALO ALTO	Low Density Residential	0	0.0009	0.0013
063-221-540		779 CAROLE CT, EAST PALO ALTO	Low Density Residential	0	0.0008	0.0013
063-221-550		785 CAROLE CT, EAST PALO ALTO	Low Density Residential	0	0.0009	0.0013
063-221-560		1794 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0045	0.0072
063-221-570		, EAST PALO ALTO	Mixed Use High	0	0.0013	0.0021
063-221-580		, EAST PALO ALTO	Mixed Use High	0	0.0006	0.0009
063-221-590		1730 BAY RD, EAST PALO ALTO	Mixed Use High	0	0.0343	0.0547
063-231-210		2495 PULGAS AVE, EAST PALO ALTO	Mixed Use Corridor	0	0.0032	0.0049
063-231-220		1800 BAY RD, EAST PALO ALTO	Office	0	0.0017	0.0028
063-231-230		1890 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0011	0.0017
063-231-240		1804 BAY RD, EAST PALO ALTO	Office	0	0.0069	0.0111
063-231-250		1798 BAY RD, EAST PALO ALTO	Office	0	0.0106	0.0169
063-231-260		1836 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0110	0.0165
063-231-270		1894 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0007	0.0011
063-231-280		1896 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0007	0.0011
063-231-300		, EAST PALO ALTO	Mixed Use Corridor	0	0.0019	0.0029
063-232-090		1003 WEEKS ST, EAST PALO ALTO	Office	0	0.0038	0.0057
063-232-150		2421 PULGAS AVE, EAST PALO ALTO	Office	0	0.0051	0.0076
063-232-160		2447 PULGAS AVE, EAST PALO ALTO	Office	0	0.0021	0.0032
063-232-200		2373 CLARKE AVE, EAST PALO ALTO	Mixed Use Corridor	0	0.0053	0.0079
063-232-210	(4)	WEEKS ST, EAST PALO ALTO	(4)	(4)	0.0178	0.0267
063-232-220	(4)	WEEKS ST, EAST PALO ALTO	(4)	(4)	0.0101	0.0152
063-232-230	(4)	WEEKS ST, EAST PALO ALTO	(4)	(4)	0.0140	0.0209
063-232-240		1045 WEEKS ST, EAST PALO ALTO	Office	0	0.0065	0.0097
063-232-250		1085 WEEKS ST, EAST PALO ALTO	Office	0	0.0007	0.0011
063-232-260		1001 WEEKS ST, EAST PALO ALTO	Office	0	0.0023	0.0035
063-232-300		1095 WEEKS ST, EAST PALO ALTO	Office	0	0.0014	0.0021
063-232-310		2368 CLARKE AVE, EAST PALO ALTO	Mixed Use High	0	0.0035	0.0052
063-232-340		2386 CLARKE AVE, EAST PALO ALTO	Mixed Use High	0	0.0039	0.0058
063-232-350		901 WEEKS ST, EAST PALO ALTO	Office	0	0.0099	0.0148
063-240-210		NO DATA, EAST PALO ALTO	General Industrial	0	0.0017	0.0025
063-240-220		NO DATA, EAST PALO ALTO	General Industrial	0	0.0016	0.0024
063-240-270		NO DATA, EAST PALO ALTO	General Industrial	0	0.0011	0.0017
063-240-310		NO DATA, EAST PALO ALTO	General Industrial	0	0.0181	0.0272
063-240-320		1950 BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0151	0.0227
063-240-330		BAY RD, EAST PALO ALTO	Mixed Use Corridor	0	0.0044	0.0066
063-240-350		NO DATA, EAST PALO ALTO	General Industrial	0	0.0002	0.0003
063-240-360		NO DATA, EAST PALO ALTO	General Industrial	0	0.0010	0.0016
063-240-370		NO DATA, EAST PALO ALTO	General Industrial	0	0.0012	0.0018
063-240-380		NO DATA, EAST PALO ALTO	General Industrial	0	0.0090	0.0135
063-240-390		NO DATA, EAST PALO ALTO	General Industrial	0	0.0061	0.0092
063-240-420		NO DATA, EAST PALO ALTO	General Industrial	0	0.0282	0.0423
063-240-440		NO DATA, EAST PALO ALTO	General Industrial	0	0.0002	0.0004
063-240-460		NO DATA, EAST PALO ALTO	General Industrial	0	0.0118	0.0178
063-253-320	(4)	NO DATA, EAST PALO ALTO	(4)	(4)	0.0032	0.0048
063-271-070		1275 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0083	0.0124
063-271-090	(4)	1201 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0062	0.0093
063-271-370		1171 RUNNYMEDE ST, EAST PALO ALTO	Low Density Residential	0	0.0059	0.0089
063-271-410		NO DATA, EAST PALO ALTO	Industrial	0	0.0004	0.0006
063-271-420		NO DATA, EAST PALO ALTO	Industrial Transition	0	0.0005	0.0008
063-271-440		1191 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0010	0.0015
063-271-450		1200 WEEKS ST, EAST PALO ALTO	High Density Residential	0	0.0049	0.0074
063-271-470		1249 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0014	0.0022
063-271-480		, EAST PALO ALTO	Parks/Recreation/Conservation	0	0.0071	0.0106
063-271-490		NO DATA, EAST PALO ALTO	Industrial Transition	0	0.0091	0.0137
063-271-500		1269 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0015	0.0023
063-271-510		1265 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0010	0.0015
063-271-520		1261 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0010	0.0015
063-271-530		1257 RUNNYMEDE ST, EAST PALO ALTO	High Density Residential	0	0.0010	0.0015
063-271-540		NO DATA, EAST PALO ALTO	Industrial Transition	0	0.0009	0.0014
063-271-550		NO DATA, EAST PALO ALTO	Industrial Transition	0	0.0004	0.0006
063-271-560		NO DATA, EAST PALO ALTO	Industrial Transition	0	0.0004	0.0006

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
063-271-570		NO DATA, EAST PALO ALTO	Industrial Transition	0	0.0004	0.0000
063-281-020	(4)	2021 EUCLID AVE	(4)	(4)	0.0081	0.0140
063-281-030	(4)	2025 EUCLID AVE	(4)	(4)	0.0066	0.0114
063-281-040	(4)	2031 EUCLID AVE	(4)	(4)	0.0111	0.0191
063-281-100	(4)	2043 EUCLID AVE	(4)	(4)	0.0066	0.0114
063-281-110	(4)	2041 EUCLID AVE	(4)	(4)	0.0064	0.0110
063-282-010	(4)	501 O'CONNOR STREET	(4)	(4)	0.0175	0.0300
063-282-020	(4)	2012 EUCLID AVE	(4)	(4)	0.0183	0.0314
063-282-030	(4)	2032 EUCLID AVE	(4)	(4)	0.0087	0.0150
063-282-040	(4)	2036 EUCLID AVE	(4)	(4)	0.0083	0.0143
063-282-050	(4)	2040/2042 EUCLID AVE	(4)	(4)	0.0075	0.0130
063-282-060	(4)	2044 EUCLID AVE	(4)	(4)	0.0095	0.0164
063-282-070	(4)	2054 EUCLID AVE	(4)	(4)	0.0130	0.0223
063-282-080	(4)	2033 MANHATTAN AVE, EAST PALO ALTO	(4)	(4)	0.0275	0.0473
063-282-090	(4)	2001 MANHATTAN AVE, EAST PALO ALTO	(4)	(4)	0.0373	0.0641
063-291-010		1489 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0030	0.0052
063-292-180		2101 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0071	0.0122
063-292-370	(4)	2117 UNIVERSITY AVE, EAST PALO ALTO	Office, High Density Residential	0	0.0166	0.0285
063-292-380		2160 EUCLID AVE, EAST PALO ALTO	(4)	(4)	0.1659	0.2424
063-302-170		2283 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0038	0.0055
063-302-180		2281 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0033	0.0049
063-302-210		2263 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0074	0.0107
063-302-220		2253 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0033	0.0049
063-302-230		2247 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0047	0.0069
063-302-280		575A BELL ST, EAST PALO ALTO	Office	0	0.0031	0.0046
063-302-290		565 BELL ST, EAST PALO ALTO	Office	0	0.0030	0.0044
063-302-330		2201 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0224	0.0328
063-302-340		584 RUNNYMEDE ST, EAST PALO ALTO	Office	0	0.0062	0.0091
063-302-460		2277 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0057	0.0083
063-302-470		2279 UNIVERSITY AVE, EAST PALO ALTO	Office	0	0.0037	0.0053
063-312-400	(4)	, NO DATA	Commercial	0	0.0035	0.0051
063-321-050		2124 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0044	0.0065
063-321-060		2126 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0036	0.0053
063-321-070		, EAST PALO ALTO	Commercial	0	0.0008	0.0012
063-321-080		2142 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0030	0.0043
063-321-100		2160 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0058	0.0085
063-321-110		2164 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0041
063-321-120		2166 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0041
063-321-130		2172 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0041
063-321-140		2178 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0027	0.0039
063-321-180		612 BELL ST, EAST PALO ALTO	Commercial	0	0.0018	0.0026
063-321-190		616 BELL ST, EAST PALO ALTO	Commercial	0	0.0019	0.0028
063-321-200		644 BELL ST, EAST PALO ALTO	Commercial	0	0.0024	0.0035
063-321-210		2189 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0033
063-321-220		2187 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0018	0.0027
063-321-230		2181 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0040
063-321-240		2171 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0024	0.0035
063-321-250		2165 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0034
063-321-260		2161 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0024	0.0035
063-321-270		2157 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0024	0.0036
063-321-280		2153 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0024	0.0035
063-321-290		2149 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0036
063-321-300		2145 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0036
063-321-310		2141 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0036
063-321-320		2133 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0024	0.0034
063-321-330		2129 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0017	0.0024
063-321-400		2194 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0068	0.0099
063-321-410		2148 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0040	0.0059
063-321-420	(4)	, NO DATA	Commercial	0	0.0165	0.0242
063-322-040		2124 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-322-050		2132 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0009
063-322-060		2134 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-322-070		2138 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-322-080		2142 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-322-090		2144 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0008
063-322-100		2154 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0010
063-322-110		2162 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0011
063-322-130		2184 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0010
063-322-140		2194 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0012
063-322-150		2198 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0007
063-322-160		660 BELL ST, EAST PALO ALTO	Commercial	0	0.0004	0.0006
063-322-340		2169 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0034
063-322-410	(4)	, NO DATA	High Density Residential	0	0.0017	0.0025
063-322-500		2159 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0011
063-322-560	(4)	DONOHOE ST, EAST PALO ALTO	High Density Residential	0	0.0072	0.0106
063-322-580		2118 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0008
063-331-030		2212 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0032	0.0047
063-331-060		2242 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0037
063-331-070		2248 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0037
063-331-080		2252 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0037
063-331-090		2264 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0037
063-331-100		2268 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0037
063-331-110		2272 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0037
063-331-120		2274 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0034	0.0050
063-331-130		2276 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0033

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
063-331-140		2280 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0033
063-331-150		2284 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0033
063-331-190		2291 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0034
063-331-200		2287 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0034
063-331-210		2285 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0034
063-331-220		2277 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0032
063-331-230		2267 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0021	0.0031
063-331-240		2263 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0021	0.0031
063-331-250		2255 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0032
063-331-260		2251 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0032
063-331-270		2249 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0032
063-331-280		2245 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0032
063-331-290		2239 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0041
063-331-300		2233 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0028	0.0041
063-331-310		2227 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0034
063-331-320		2219 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0033
063-331-330		2217 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0019	0.0027
063-331-340		2205 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0026	0.0037
063-331-350		643 BELL ST, EAST PALO ALTO	Commercial	0	0.0025	0.0036
063-331-370		2200 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0064	0.0093
063-331-380		2240 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0038	0.0055
063-331-410		2220 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0070	0.0102
063-442-360	(4)	330 DONOHOE ST, EAST PALO ALTO	Low Density Residential	0	0.0065	0.0112
063-473-150	(4)	1995 MANHATTAN AVE, EAST PALO ALTO	Commercial	0	0.0011	0.0019
063-473-160	(4)	1991 MANHATTAN AVE, EAST PALO ALTO	Commercial	0	0.0025	0.0043
063-473-170	(4)	1965 MANHATTAN AVE, EAST PALO ALTO	Commercial	0	0.0018	0.0032
063-473-180	(4)	1955 MANHATTAN AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0038
063-473-190	(4)	1919 MANHATTAN AVE, EAST PALO ALTO	Commercial	0	0.0030	0.0052
063-473-200	(4)	1901 MANHATTAN AVE, EAST PALO ALTO	Commercial	0	0.0038	0.0066
063-481-010		1699 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-020		1681 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0009
063-481-030		1671 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0009
063-481-040		1669 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-050		1651 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0014
063-481-060		1643 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0011
063-481-070		1637 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0011
063-481-080		1629 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-090		1621 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0009
063-481-100		644 SCOFIELD AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0012
063-481-110		652 SCOFIELD AVE, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-481-120		660 SCOFIELD AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-130		610 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-140		620 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0006	0.0011
063-481-150		630 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-160		640 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0006	0.0010
063-481-170		650 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0007	0.0012
063-481-180		1917 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0012
063-481-190		1909 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0012
063-481-210		1901 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0007	0.0011
063-481-220		1905 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0011
063-482-010		641 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0005	0.0008
063-482-020		621 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0006	0.0009
063-482-030		611 CIRCLE DR, EAST PALO ALTO	Commercial	0	0.0006	0.0011
063-483-030		1909 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0013
063-483-040		1943 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0016	0.0028
063-483-050		1609 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0033	0.0057
063-484-010		655 SCOFIELD AVE, EAST PALO ALTO	Commercial	0	0.0006	0.0011
063-484-020		1902 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0008	0.0013
063-484-030		1908 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0014	0.0024
063-484-040		1916 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0037
063-484-050		1920 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0013	0.0023
063-484-060		1934 CAPITOL AVE, EAST PALO ALTO	Commercial	0	0.0036	0.0061
063-484-090		1949 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0020	0.0034
063-484-100		1941 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0023	0.0038
063-484-110		685 SCOFIELD AVE, EAST PALO ALTO	Commercial	0	0.0027	0.0045
063-484-130		1957 COOLEY AVE, EAST PALO ALTO	Commercial	0	0.0049	0.0083
063-492-070		1927 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0030	0.0050
063-492-280		1933 PULGAS AVE, EAST PALO ALTO	Commercial	0	0.0072	0.0115
063-492-350	(4)	1805 E BAYSHORE RD #1-94, EAST PALO ALTO	(4)	(4)	0.0481	0.0765
063-492-480		1895 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0040	0.0063
063-501-020		1874 W BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0033	0.0053
063-501-030		1870 W BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0016	0.0025
063-501-040		1879 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0016	0.0025
063-501-050		1875 WOODLAND AVE, EAST PALO ALTO	Commercial	0	0.0014	0.0022
063-511-020		2039 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0020	0.0031
063-511-030		2035 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0021	0.0031
063-511-040		2029 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0041	0.0061
063-511-050		2027 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0019	0.0027
063-511-060		2023 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0022	0.0032
063-511-070		2017 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0020	0.0030
063-511-080		2013 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0020	0.0030
063-511-090		2009 CLARKE AVE, EAST PALO ALTO	Commercial	0	0.0020	0.0030
063-511-190		872 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0033	0.0049
063-511-200		866 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0029	0.0042
063-511-210		864 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0024	0.0036

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
063-511-220		862 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0017	0.0025
063-511-240		896 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0018	0.0026
063-511-250		860 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0026	0.0038
063-511-260		890 DONOHOE ST, EAST PALO ALTO	Commercial	0	0.0019	0.0028
063-511-490		1731 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0543	0.0799
063-511-520		1761 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0571	0.0968
063-511-630		1721 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0144	0.0244
063-511-660		899 OCONNOR ST, EAST PALO ALTO	Commercial	0	0.0012	0.0020
063-511-680		1751 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0918	0.1556
063-511-690		1745 E BAYSHORE BLVD, EAST PALO ALTO	Commercial	0	0.0146	0.0247
063-511-720		1775 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.1324	0.2245
063-515-060		1821 CLARKE AVE, EAST PALO ALTO	High Density Residential	0	0.0003	0.0006
063-515-070		1805 CLARKE AVE, EAST PALO ALTO	High Density Residential	0	0.0007	0.0010
063-515-080		1787 WOODLAND AVE, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-515-230		1785 WOODLAND AVE, EAST PALO ALTO	High Density Residential	0	0.0006	0.0010
063-571-060		1985 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0219	0.0349
063-571-070		1981 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0105	0.0162
063-571-080		1961 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0228	0.0353
063-571-090		1905 E BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0039	0.0061
063-680-020	(4)	1900 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0232	0.0358
063-680-050	(4)	, NO DATA	Commercial	0	0.0002	0.0004
063-680-060	(4)	, NO DATA	Commercial	0	0.0002	0.0004
063-680-090	(4)	, EAST PALO ALTO	Commercial	0	0.0013	0.0022
063-680-100	(4)	, EAST PALO ALTO	Commercial	0	0.0013	0.0022
063-680-110	(4)	, EAST PALO ALTO	Commercial	0	0.0035	0.0060
063-680-130	(4)	2000 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0215	0.0369
063-680-150	(4)	2050 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0337	0.0579
063-680-180	(4)	, EAST PALO ALTO	Commercial	0	0.0001	0.0001
063-680-190	(4)	2000 UNIVERSITY AVE, EAST PALO ALTO	Commercial	0	0.0394	0.0678
063-730-010		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-020		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-030		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-040		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-050		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-060		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-070		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-080		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-090		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-100		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-110		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-120		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-130		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-140		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-150		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-160		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-170		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-180		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-190		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-730-200		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-730-210		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-730-220		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	0	0.0003	0.0005
063-730-230		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-240		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-250		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-260		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-270		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-280		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-290		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-300		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-310		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-320		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-330		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-340		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-350		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-360		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-370		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-380		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-390		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-400		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-410		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-420		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-430		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-440		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-450		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-460		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-470		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-480		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-490		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-500		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
063-730-510		2477 PULGAS AVE, EAST PALO ALTO	High Density Residential	Medium Density Residential	0.0003	0.0005
113-530-010 to 113-530-999		2420 GLORIA WAY, EAST PALO ALTO	Low Density Residential	0	0.0031	0.0050
113-710-010 to 113-710-999		2440 GLORIA WAY, EAST PALO ALTO	Low Density Residential	0	0.0016	0.0026

Appendix C: Table 7
Scenario 3: Summary of Additional Sanitary Sewer Flows

APN		Address	2014 Zoning	2035 Zoning	ADWF Increase (CFS) (1) (2)	PDWF Increase (CFS) (1) (2)
113-720-010 to 113-720-999		2460 GLORIA WAY, EAST PALO ALTO	Low Density Residential	0	0.0014	0.0022
113-740-010 to 113-740-999		2470 GLORIA WAY, EAST PALO ALTO	Low Density Residential	0	0.0021	0.0034
114-240-010 to 114-240-300		2330 UNIVERSITY AVE, EAST PALO ALTO	High Density Residential	0	0.0073	0.0120
114-450-010 to 114-460-300		1765 EAST BAYSHORE RD, EAST PALO ALTO	Commercial	0	0.0164	0.0242
114-590-050		NO DATA, EAST PALO ALTO	Office	0	0.0363	0.0545
				Total (CFS)	**2.84**	**4.47**
				Total (MGD) (3)	**1.85**	**2.90**

Notes:
(1) Increase in ADWF and PDWF is the difference between the estimated flows from 2014 presented in Table 2 and the projected flows based on the Vision 2035 General Plan Update presented in Table 3.
(2) ADWF and PDWF assumes that flows are contributed from all land uses over a standard 24-hour day.
(3) Total ADWF Increase in MGD is consistent with the projected increase in water demand in the Year 2040 presented in Section 3 of the City of East Palo Alto's 2015 Urban Water Management Plan date Ju 2016.The City of East Palo Alto water supply allocation from the San Francisco Public Utilities Commission was 1.96 MGD and the General Plan projects a maximum demand of 3.03 MGD in the Year 2040 representing an increase of 1.07 MGD in average day demand.
(4) Flows from parcels based on New Service Applications submitted to the District. Please see Table 6 for calculation of injected flows.

Abbreviations
ADWF: Average Dry Weather Flow
APN: Assessors Parcel Number
CFS: Cubic Feet per Second
MGD: Million Gallons Per Day
PDWF: Peak Dry Weather Flow

APPENDIX D

MODEL OUTPUT AND RESULTS

Scenario 1: 2025 Model Output and Results

Scenario 2: 205 Model Output and Results

Scenario 3: 2035 Enhanced Model Output and Results

Appendix D: Table 1
Scenario 1: 2025 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
A14	Sanitary Pattern Load	Fixed	0.0645
A16	Sanitary Pattern Load	Fixed	0.0465
A17	Sanitary Pattern Load	Fixed	0.0260
A20	Sanitary Pattern Load	Fixed	0.0448
A27	Sanitary Pattern Load	Fixed	0.0399
A30	Sanitary Pattern Load	Fixed	0.0129
A34	Sanitary Pattern Load	Fixed	0.0037
A36	Sanitary Pattern Load	Fixed	0.0028
A38	Sanitary Pattern Load	Fixed	0.0018
A4	Sanitary Pattern Load	Fixed	0.0340
A41	Sanitary Pattern Load	Fixed	0.0008
A42	Sanitary Pattern Load	Fixed	0.0018
A43	Sanitary Pattern Load	Fixed	0.0005
A45	Sanitary Pattern Load	Fixed	0.0009
A46	Sanitary Pattern Load	Fixed	0.0039
A7	Sanitary Pattern Load	Fixed	0.0340
B18	Sanitary Pattern Load	Fixed	0.1020
B20	Sanitary Pattern Load	Fixed	0.1020
B23	Sanitary Pattern Load	Fixed	0.1020
B26	Sanitary Pattern Load	Fixed	0.0666
B28	Sanitary Pattern Load	Fixed	0.0666
B30	Sanitary Pattern Load	Fixed	0.0330
B32	Sanitary Pattern Load	Fixed	0.0330
B33	Sanitary Pattern Load	Fixed	0.0330
B36	Sanitary Pattern Load	Fixed	0.0527
B40	Sanitary Pattern Load	Fixed	0.0360
B42	Sanitary Pattern Load	Fixed	0.0360
B43	Sanitary Pattern Load	Fixed	0.0360
B45	Sanitary Pattern Load	Fixed	0.0343
B47	Sanitary Pattern Load	Fixed	0.0097
B48	Sanitary Pattern Load	Fixed	0.0328
B51	Sanitary Pattern Load	Fixed	0.0260
C13	Sanitary Pattern Load	Fixed	0.0472
C15	Sanitary Pattern Load	Fixed	0.0572
C18	Sanitary Pattern Load	Fixed	0.0572
C20	Sanitary Pattern Load	Fixed	0.0330
C22	Sanitary Pattern Load	Fixed	0.0330
C24	Sanitary Pattern Load	Fixed	0.0283
C25	Sanitary Pattern Load	Fixed	0.0283
C26	Sanitary Pattern Load	Fixed	0.2000
C29	Sanitary Pattern Load	Fixed	0.0195

Appendix D: Table 1
Scenario 1: 2025 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
C31	Sanitary Pattern Load	Fixed	0.0195
C33	Sanitary Pattern Load	Fixed	0.0195
C34	Sanitary Pattern Load	Fixed	0.0095
C37	Sanitary Pattern Load	Fixed	0.0458
C39	Sanitary Pattern Load	Fixed	0.0458
C42	Sanitary Pattern Load	Fixed	0.0458
C43	Sanitary Pattern Load	Fixed	0.0132
C47	Sanitary Pattern Load	Fixed	0.0911
C51	Sanitary Pattern Load	Fixed	0.1755
D1	Sanitary Pattern Load	Fixed	0.0374
D17	Sanitary Pattern Load	Fixed	0.2000
D28	Sanitary Pattern Load	Fixed	0.1700
D31	Sanitary Pattern Load	Fixed	0.0765
D32	Sanitary Pattern Load	Fixed	0.0765
D39	Sanitary Pattern Load	Fixed	0.0100
D40	Sanitary Pattern Load	Fixed	0.0100
D42	Sanitary Pattern Load	Fixed	0.0214
D44	Sanitary Pattern Load	Fixed	0.1500
D50	Sanitary Pattern Load	Fixed	0.3500
D55	Sanitary Pattern Load	Fixed	0.1200
D61	Sanitary Pattern Load	Fixed	0.1336
D62	Sanitary Pattern Load	Fixed	0.0150
D66	Sanitary Pattern Load	Fixed	0.1989
D68	Sanitary Pattern Load	Fixed	0.0300
D69	Sanitary Pattern Load	Fixed	0.0300
D70	Sanitary Pattern Load	Fixed	0.1400
D71	Sanitary Pattern Load	Fixed	0.1200
D74	Sanitary Pattern Load	Fixed	0.0770
E21	Sanitary Pattern Load	Fixed	0.0609
E23	Sanitary Pattern Load	Fixed	0.0609
E26	Sanitary Pattern Load	Fixed	0.0670
E28	Sanitary Pattern Load	Fixed	0.0427
E30	Sanitary Pattern Load	Fixed	0.0670
E32	Sanitary Pattern Load	Fixed	0.0610
E33	Sanitary Pattern Load	Fixed	0.0088
E34	Sanitary Pattern Load	Fixed	0.0400
E35	Sanitary Pattern Load	Fixed	0.0305
E37	Sanitary Pattern Load	Fixed	0.0609
E39	Sanitary Pattern Load	Fixed	0.0609
E40	Sanitary Pattern Load	Fixed	0.0609
E41	Sanitary Pattern Load	Fixed	0.0183

Appendix D: Table 1
Scenario 1: 2025 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
E45	Sanitary Pattern Load	Fixed	0.0609
E47	Sanitary Pattern Load	Fixed	0.0609
E49	Sanitary Pattern Load	Fixed	0.0609
F13	Sanitary Pattern Load	Fixed	0.0260
F14	Sanitary Pattern Load	Fixed	0.0190
F16	Sanitary Pattern Load	Fixed	0.0648
F18	Sanitary Pattern Load	Fixed	0.0260
F21	Sanitary Pattern Load	Fixed	0.0260
F26	Sanitary Pattern Load	Fixed	0.0129
F28	Sanitary Pattern Load	Fixed	0.0129
G11	Sanitary Pattern Load	Fixed	0.0382
G12	Sanitary Pattern Load	Fixed	0.0116
G13	Sanitary Pattern Load	Fixed	0.0190
G16	Sanitary Pattern Load	Fixed	0.0097
G18	Sanitary Pattern Load	Fixed	0.0097
G21	Sanitary Pattern Load	Fixed	0.0050
G22	Sanitary Pattern Load	Fixed	0.0050
G8	Sanitary Pattern Load	Fixed	0.0382
H23	Sanitary Pattern Load	Fixed	0.0100
H27	Sanitary Pattern Load	Fixed	0.0372
H28	Sanitary Pattern Load	Fixed	0.0302
H30	Sanitary Pattern Load	Fixed	0.0529
H31	Sanitary Pattern Load	Fixed	0.0415
H33	Sanitary Pattern Load	Fixed	0.1119
H38	Sanitary Pattern Load	Fixed	0.0792
H39	Sanitary Pattern Load	Fixed	0.1020
H41	Sanitary Pattern Load	Fixed	0.0920
H43	Sanitary Pattern Load	Fixed	0.0920
H44	Sanitary Pattern Load	Fixed	0.1020
H45	Sanitary Pattern Load	Fixed	0.0100
H49	Sanitary Pattern Load	Fixed	0.0100
H51	Sanitary Pattern Load	Fixed	0.0372
H53	Sanitary Pattern Load	Fixed	0.0529
H58	Sanitary Pattern Load	Fixed	0.0406
H61	Sanitary Pattern Load	Fixed	0.0406
H63	Sanitary Pattern Load	Fixed	0.0110
H67	Sanitary Pattern Load	Fixed	0.0100
H69	Sanitary Pattern Load	Fixed	0.0100
H70	Sanitary Pattern Load	Fixed	0.0090
H72	Sanitary Pattern Load	Fixed	0.0090
I16	Sanitary Pattern Load	Fixed	0.0050

Appendix D: Table 1
Scenario 1: 2025 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
I17	Sanitary Pattern Load	Fixed	0.0050
I19	Sanitary Pattern Load	Fixed	0.0050
I20	Sanitary Pattern Load	Fixed	0.0050
I22	Sanitary Pattern Load	Fixed	0.0590
I25	Sanitary Pattern Load	Fixed	0.0789
I26	Sanitary Pattern Load	Fixed	0.0690
I29	Sanitary Pattern Load	Fixed	0.0690
I33	Sanitary Pattern Load	Fixed	0.0050
I34	Sanitary Pattern Load	Fixed	0.0050
J10	Sanitary Pattern Load	Fixed	0.0545
J14	Sanitary Pattern Load	Fixed	0.0290
J7	Sanitary Pattern Load	Fixed	0.0227
K10	Sanitary Pattern Load	Fixed	0.0100
K14	Sanitary Pattern Load	Fixed	0.0205
K15	Sanitary Pattern Load	Fixed	0.0100
K20	Sanitary Pattern Load	Fixed	0.0205
K23	Sanitary Pattern Load	Fixed	0.0050
K24	Sanitary Pattern Load	Fixed	0.0050
K25	Sanitary Pattern Load	Fixed	0.0160
K36	Sanitary Pattern Load	Fixed	0.0595
K37	Sanitary Pattern Load	Fixed	0.0595
L11	Sanitary Pattern Load	Fixed	0.0160
L12	Sanitary Pattern Load	Fixed	0.0536
L19	Sanitary Pattern Load	Fixed	0.1600
L20	Sanitary Pattern Load	Fixed	0.0058
L22	Sanitary Pattern Load	Fixed	0.0255
L29	Sanitary Pattern Load	Fixed	0.0790
L33	Sanitary Pattern Load	Fixed	0.0790
L36	Sanitary Pattern Load	Fixed	0.1100
L38	Sanitary Pattern Load	Fixed	0.1200
L41	Sanitary Pattern Load	Fixed	0.0050
L46	Sanitary Pattern Load	Fixed	0.0128
L51	Sanitary Pattern Load	Fixed	0.0077
L55	Sanitary Pattern Load	Fixed	0.0425
L56	Sanitary Pattern Load	Fixed	0.0510
L60	Sanitary Pattern Load	Fixed	0.1028
L61	Sanitary Pattern Load	Fixed	0.0340
L62	Sanitary Pattern Load	Fixed	0.0140
L8	Sanitary Pattern Load	Fixed	0.0340
M14	Sanitary Pattern Load	Fixed	0.0200
M16	Sanitary Pattern Load	Fixed	0.0100

Appendix D: Table 1
Scenario 1: 2025 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
M23	Sanitary Pattern Load	Fixed	0.2800
M28	Sanitary Pattern Load	Fixed	0.0109
M30	Sanitary Pattern Load	Fixed	0.0109
M32	Sanitary Pattern Load	Fixed	0.0446
M32	Sanitary Pattern Load	Fixed	0.0123
M35	Sanitary Pattern Load	Fixed	0.0123
M36	Sanitary Pattern Load	Fixed	0.0287
M38	Sanitary Pattern Load	Fixed	0.2463
N15	Sanitary Pattern Load	Fixed	0.0123
N18	Sanitary Pattern Load	Fixed	0.0123
N30	Sanitary Pattern Load	Fixed	0.0109
O16	Sanitary Pattern Load	Fixed	0.0279
O20	Sanitary Pattern Load	Fixed	0.0057
O24	Sanitary Pattern Load	Fixed	0.0300
O27	Sanitary Pattern Load	Fixed	0.0066
O28	Sanitary Pattern Load	Fixed	0.0065
O30	Sanitary Pattern Load	Fixed	0.0164
O33	Sanitary Pattern Load	Fixed	0.0164
O36	Sanitary Pattern Load	Fixed	0.0164
O38	Sanitary Pattern Load	Fixed	0.0066
O41	Sanitary Pattern Load	Fixed	0.0066
O44	Sanitary Pattern Load	Fixed	0.0066
O46	Sanitary Pattern Load	Fixed	0.0070
O48	Sanitary Pattern Load	Fixed	0.0070
O50	Sanitary Pattern Load	Fixed	0.0070
O53	Sanitary Pattern Load	Fixed	0.0100
O56	Sanitary Pattern Load	Fixed	0.0672
O58	Sanitary Pattern Load	Fixed	0.0394
O60	Sanitary Pattern Load	Fixed	0.3413
O63	Sanitary Pattern Load	Fixed	0.0136
F8	Sanitary Pattern Load	Fixed	0.0628

Abbreviations

PWWF: Peak Wet Weather Flow

CFS: Cubic Feet per Second

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
A1+A2	A1	16.28	2	A2	15.82	1.92	79.9	0.001	12	1	0.013	1.5360	2.20	2.20	0.83	1.5360	1.1275	136.2	83.3	83.3	FALSE	2.85
A2+A5	A2	15.82	1.82	A5	14.53	1.57	244.2	0.001	12	1	0.013	1.5700	2.21	2.21	0.85	1.5700	1.1400	137.7	84.8	84.8	FALSE	2.79
A3+A2	A3	14.86	8.76	A2	15.82	2.12	287.5	0.023	6	1	0.013	0.0340	1.11	1.11	0.09	0.0340	0.8527	4.0	17.5	17.6	TRUE	8.85
A4+A3	A4	14	9.48	A3	14.86	8.86	312	0.002	6	1	0.013	0.0340	0.62	0.89	0.16	0.0378	0.2501	13.6	32.1	26.8	FALSE	9.66
A5+A8	A5	14.53	1.57	A8	13.85	1.53	124.3	0	15	1	0.013	1.6040	2.35	2.35	0.68	1.6040	1.1588	138.4	54.5	54.5	FALSE	2.35
A6+A5	A6	13.72	7.32	A5	14.53	5.81	286.8	0.005	6	1	0.013	0.0340	0.82	0.85	0.13	0.0344	0.4071	8.4	26.3	26.0	FALSE	7.45
A7+A6	A7	14	8.03	A6	13.72	7.42	306	0.002	6	1	0.013	0.0340	0.63	0.87	0.16	0.0377	0.2505	13.6	32.0	27.2	FALSE	8.21
A8+A9	A8	13.85	1.43	A9	12.82	1.16	61.2	0.004	15	1	0.013	1.6040	3.28	3.28	0.52	1.6040	4.2913	37.4	42.0	42.0	FALSE	1.97
A9+A10	A9	12.82	0.62	A10	11.42	0.57	181.2	0	15	1	0.013	1.6040	2.08	2.08	0.75	1.6040	1.0731	149.5	60.2	60.2	FALSE	1.47
A10+A15	A10	11.42	0.47	A15	9.93	0.03	299.3	0.001	15	1	0.013	1.6688	2.00	2.00	0.80	1.6688	2.4766	67.4	64.3	64.3	FALSE	1.26
A11+A10	A11	11.83	2.53	A10	11.42	1.12	417.5	0.003	6	1	0.013	0.0645	0.95	0.95	0.19	0.0646	0.3260	19.8	37.9	37.8	FALSE	2.72
A12+A11	A12	9.52	4.07	A11	11.83	2.63	485.1	0.003	6	1	0.013	0.0645	0.90	0.90	0.20	0.0645	0.3057	21.1	39.2	39.2	FALSE	4.27
A13+A12	A13	7.19	5.15	A12	9.52	4.07	412.1	0.003	6	1	0.013	0.0645	0.86	0.86	0.20	0.0645	0.2872	22.5	40.6	40.6	FALSE	5.35
A14+A13	A14	8.06	5.91	A13	7.19	5.19	288.3	0.002	6	1	0.013	0.0645	0.84	0.84	0.21	0.0645	0.2804	23.0	41.2	41.2	FALSE	6.13
A15+A16	A15	9.93	-0.03	A16	8.08	-0.17	435.1	0	15	1	0.013	1.6686	1.71	1.71	0.93	1.6686	1.1586	144.0	74.3	74.3	FALSE	1.00
A16+A21	A16	8.08	-0.22	A21	7.13	-0.42	296.3	0.001	15	1	0.013	1.8020	2.08	2.08	0.83	1.8020	1.6783	107.4	66.4	66.4	FALSE	0.69
A17+A31	A17	8.77	1.57	A31	8.39	1.1	235.4	0.002	6	1	0.013	0.0260	0.71	0.71	0.12	0.0261	0.2507	10.4	24.1	24.2	FALSE	1.71
A18+A16	A18	7.05	1.45	A16	8.08	0.73	441.8	0.002	6	1	0.013	0.0448	0.59	0.59	0.20	0.0448	0.2265	19.8	41.0	41.0	FALSE	1.66
A19+A18	A19	6.77	2.98	A18	7.05	1.45	213.5	0.007	6	1	0.013	0.0448	1.01	1.01	0.14	0.0448	0.4749	9.4	27.7	27.7	FALSE	3.13
A20+A19	A20	5.62	3.73	A19	6.77	3.05	339.8	0.002	6	1	0.013	0.0448	0.64	0.64	0.19	0.0448	0.2510	17.8	38.7	38.7	FALSE	3.92
A21+A23	A21	7.13	-0.52	A23	7.01	-0.8	155.1	0.002	15	1	0.013	1.8020	2.68	2.68	0.67	1.8020	2.7445	65.7	53.8	53.8	FALSE	0.20
A22+A29	A22	6.99	-0.92	A29	6.36	-1.21	369.1	0.001	18	1	0.013	1.8419	1.96	1.96	0.79	1.8419	2.9441	62.6	52.5	52.5	FALSE	-0.09
A23+A22	A23	7.01	-0.8	A22	6.99	-0.92	13.8	0.009	15	1	0.013	1.8419	2.32	2.32	0.77	1.8421	6.0236	30.6	61.6	61.6	FALSE	-0.09
A24+A23	A24	7.7	1.62	A23	7.01	0.37	250.6	0.005	6	1	0.013	0.0399	0.81	1.14	0.15	0.0526	0.3962	10.1	29.8	15.2	FALSE	1.77
A25+A24	A25	8.36	2.89	A24	7.7	1.62	253.1	0.005	6	1	0.013	0.0399	0.81	0.84	0.15	0.0419	0.3975	10.0	29.7	30.1	FALSE	3.06
A26+A25	A26	7.42	4.06	A25	8.36	2.89	234.1	0.005	6	1	0.013	0.0399	0.95	0.95	0.13	0.0403	0.3967	10.1	26.7	26.7	FALSE	4.22
A27+A26	A27	6.96	5	A26	7.42	4.06	310.9	0.003	6	1	0.013	0.0399	0.69	0.80	0.17	0.0437	0.3085	12.9	33.5	32.3	FALSE	5.18
A28+A29	A28	6.24	0.21	A29	6.36	-0.25	14.8	0.031	6	1	0.013	0.0129	0.72	0.73	0.03	0.0131	0.9884	1.3	6.4	6.5	FALSE	0.25
A29+T29	A29	6.36	-1.24	T29	4.98	-1.62	345.5	0.001	18	1	0.013	1.8548	2.13	2.13	0.74	1.8548	3.4837	53.2	49.4	49.4	FALSE	-0.46
A30+A28	A30	6.07	1.27	A28	6.24	0.32	301	0.003	6	1	0.013	0.0129	0.83	0.89	0.07	0.0148	0.3152	4.1	13.3	12.5	FALSE	1.34
A31+A16	A31	8.39	1.1	A16	8.08	0.73	187.3	0.002	6	1	0.013	0.0422	0.61	0.70	0.19	0.0540	0.2494	16.9	38.2	41.6	FALSE	1.30
A32+A31	A32	8.62	1.83	A31	8.39	1.1	118.6	0.006	6	1	0.01	0.0162	0.55	1.26	0.10	0.0534	0.5722	2.8	20.8	26.8	FALSE	1.96
A33+A32	A33	9.45	2.67	A32	8.62	1.83	149.8	0.006	6	1	0.01	0.0123	0.83	1.01	0.05	0.0287	0.5462	2.3	10.6	14.8	FALSE	2.72
A34+A33	A34	9.45	2.93	A33	9.45	2.67	55.6	0.005	6	1	0.01	0.0037	0.61	0.61	0.02	0.0037	0.4986	0.7	3.7	3.7	FALSE	2.95
A35+A33	A35	10.05	3.68	A33	9.45	2.67	173.6	0.006	6	1	0.01	0.0086	0.79	0.74	0.05	0.0088	0.5563	1.5	9.9	8.0	FALSE	3.74
A36+A47	A36	10.05	4.57	A47	10.36	4.36	40.9	0.005	6	1	0.01	0.0028	0.54	0.54	0.01	0.0028	0.5228	0.5	1.0	1.0	FALSE	4.59
A37+A35	A37	10.51	4.46	A35	10.05	3.68	182.3	0.004	6	1	0.01	0.0057	0.65	0.65	0.02	0.0057	0.4771	1.2	5.0	5.0	FALSE	4.49
A38+A37	A38	11.26	6.07	A37	10.51	5.37	109	0.006	6	1	0.01	0.0018	0.53	0.53	0.00	0.0018	0.5845	0.3	0.9	0.9	FALSE	6.07
A39+A37	A39	10.5	4.77	A37	10.51	4.46	52.7	0.006	6	1	0.01	0.0040	0.61	0.61	0.02	0.0040	0.5594	0.7	3.6	3.6	FALSE	4.79
A40+A39	A40	10.8	5.24	A39	10.5	4.77	80.2	0.006	6	1	0.01	0.0040	0.61	0.61	0.02	0.0040	0.5583	0.7	3.5	3.5	FALSE	5.26
A41+A40	A41	11.38	5.82	A40	10.8	5.24	79.5	0.007	6	1	0.01	0.0008	0.52	0.52	0.00	0.0008	0.6231	0.1	0.7	0.7	FALSE	5.82
A42+A40	A42	11.13	6.17	A40	10.8	5.49	109.2	0.006	6	1	0.01	0.0018	0.53	0.53	0.00	0.0018	0.5757	0.3	0.9	0.9	FALSE	6.18
A43+A44	A43	12.15	6.64	A44	11.23	6.12	85.9	0.006	6	1	0.01	0.0005	0.47	0.47	0.00	0.0005	0.5675	0.1	0.6	0.6	FALSE	6.64
A44+A40	A44	11.23	6.12	A40	10.8	5.24	146.4	0.006	6	1	0.01	0.0014	0.53	0.53	0.00	0.0014	0.5656	0.2	0.8	0.8	FALSE	6.12
A45+A44	A45	11.14	6.83	A44	11.23	6.12	103.1	0.007	6	1	0.01	0.0009	0.52	0.52	0.00	0.0009	0.6052	0.1	0.7	0.7	FALSE	6.83
A46+A32	A46	9.92	3.47	A32	8.62	1.83	256.9	0.006	6	1	0.01	0.0039	0.55	0.55	0.01	0.0041	0.5828	0.7	1.1	1.2	FALSE	3.48
A47+A35	A47	10.36	4.36	A35	10.05	3.68	100	0.007	6	1	0.01	0.0028	0.54	0.54	0.01	0.0028	0.6014	0.5	1.0	1.0	FALSE	4.37
B2+A1	B2	16	2.46	A1	16.28	2.1	180.8	0.002	12	1	0.013	1.5360	2.50	2.50	0.73	1.5360	1.5899	96.6	72.9	72.9	FALSE	3.25
B3+B2	B3	18.59	2.64	B2	16	2.46	239.4	0.001	12	1	0.013	1.5017	2.10	2.10	0.86	1.5017	0.9769	153.7	85.6	85.6	FALSE	3.61
B4+B3	B4	20.32	3.42	B3	18.59	2.74	464.8	0.001	12	1	0.013	1.5017	2.07	2.07	0.87	1.5017	1.3627	110.2	87.1	87.1	FALSE	4.34
B5+B52	B5	18.61	4.51	B52	20.58	4.29	176.2	0.001	12	1	0.013	1.5017	2.28	2.28	0.78	1.5017	1.2589	119.3	78.2	78.2	FALSE	5.37
B6+B5	B6	18.29	5.6	B5	18.61	4.56	158.4	0.007	12	1	0.013	1.4920	3.57	3.57	0.53	1.4920	2.8864	51.7	52.5	52.5	FALSE	6.14
B7+B6	B7	18.66	5.76	B6	18.29	5.6	380.1	0	12	1	0.013	1.3580	1.83	1.83	0.90	1.3580	0.7309	185.8	89.7	89.7	TRUE	6.84
B8+B7	B8	20.55	6.5	B7	18.66	5.81	371	0.002	12	1	0.013	1.3252	1.96	1.96	0.80	1.3252	1.5364	86.3	80.5	80.5	TRUE	7.28
B9+B8	B9	18.41	7.16	B8	20.55	6.55	350.9	0.002	12	1	0.013	1.2725	2.15	2.15	0.71	1.2725	1.4854	85.7	70.6	70.6	FALSE	7.90
B10+B9	B10	16.86	7.61	B9	18.41	7.16	289.7	0.002	12	1	0.013	1.1735	2.03	2.03	0.69	1.1735	1.4040	83.6	69.1	69.1	FALSE	8.33
B11+B10	B11	16.46	8.71	B10	16.86	7.66	201.4	0.005	12	1	0.013	1.0403	3.03	3.03	0.45	1.0403	2.5723	40.4	45.1	45.1	FALSE	9.18
B12+B11	B12	15.83	9.18	B11	16.46	8.76	277	0.002	10	1	0.013	0.9383	1.97	1.97	0.68	0.9383	0.8530	110.0	81.6	81.6	FALSE	9.92
B13+B12	B13	15.33	9.53	B12	15.83	9.18	262.7	0.001	12	1	0.013	0.8363	1.67	1.67	0.61	0.8363	1.3003	64.3	60.9	60.9	FALSE	10.14
B14+B13	B14	15.47	10.07	B13	15.33	9.53	253.1	0.002	12	1	0.013	0.7343	1.96	1.96	0.48	0.7343	1.6455	44.6	48.2	48.2	FALSE	10.55
B15+B49	B15	20.29	12.19	B49	17.11	11.21	330.9	0.003	8	1	0.013	0.7344	2.12	2.12	0.65	0.7343	0.6575	111.7	96.9	96.9	TRUE	13.01
B16+B15	B16	20.39	13.24	B15	20.29	12.19	327.3	0.003	8	1	0.013	0.7344	2.10	2.10	0.67	0.7344	0.6844	107.3	100.0	100.0	TRUE	14.24
B17+B13	B17	19.31	13.31	B13	15.33	9.73	501.1	0.007	6	1	0.013	0.1020	1.62	1.57	0.18	0.1020	0.4742	21.5	35.7	36.6	FALSE	13.50
B18+B17	B18	22.26	14.3	B17	19.31	13.31	497.2	0.002	6	1	0.013	0.1020	0.97	0.97	0.26	0.1020	0.2504	40.7	52.7	52.7	FALSE	14.56
B19+B12	B19	20.74	14.44	B12	15.83	9.88	499.6	0.009	6	1	0.013	0.1020	1.70	1.70	0.17	0.1020	0.5360	19.0	34.5	34.5	FALSE	14.61
B20+B19	B20	23.22	19.12	B19	20.74	14.44	585	0.008	6	1	0.013	0.1020	1.62	1.62	0.18	0.1021	0.5019	20.3	35.7	35.7	FALSE	19.30

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
B21+B11	B21	18.68	13.54	B11	16.46	9.36	399.6	0.01	6	1	0.013	0.1020	1.78	1.78	0.17	0.1020	0.5739	17.8	33.2	33.2	FALSE	13.71
B22+B21	B22	24.77	18.67	B21	18.68	13.58	399.5	0.013	6	1	0.013	0.1020	1.80	1.80	0.16	0.1020	0.6333	16.1	31.6	31.6	FALSE	18.83
B23+B22	B23	28	23.55	B22	24.77	18.67	380.2	0.013	6	1	0.013	0.1020	1.80	1.80	0.16	0.1020	0.6356	16.0	31.5	31.5	FALSE	23.71
B24+B10	B24	22.52	15.82	B10	16.86	9.61	492.5	0.013	6	1	0.013	0.1332	2.05	2.05	0.18	0.1338	0.6300	21.1	35.3	35.3	FALSE	16.00
B25+B24	B25	27.09	18.84	B24	22.52	15.82	406.2	0.007	6	1	0.013	0.1332	1.77	1.78	0.20	0.1339	0.4838	27.5	40.7	40.8	FALSE	19.06
B26+B25	B26	27.62	21.62	B25	27.09	18.84	401.5	0.007	6	1	0.013	0.0666	1.24	1.24	0.16	0.0666	0.4669	14.3	31.7	31.7	FALSE	21.79
B27+B25	B27	25.46	19.69	B25	27.09	18.99	318	0.002	6	1	0.013	0.0666	0.82	1.21	0.22	0.0945	0.2633	25.3	43.1	41.8	FALSE	19.92
B28+B27	B28	24.83	20.93	B27	25.46	19.69	202	0.006	6	1	0.013	0.0666	1.20	1.21	0.16	0.0667	0.4397	15.1	32.5	32.5	FALSE	21.10
B29+B9	B29	19.43	13.68	B9	18.41	7.61	211.2	0.029	6	1	0.013	0.0990	1.63	1.62	0.13	0.1022	0.9513	10.4	25.3	24.4	FALSE	13.82
B30+B29	B30	23.55	14.31	B29	19.43	13.83	243.2	0.002	6	1	0.013	0.0330	0.66	1.39	0.15	0.0552	0.2493	13.2	30.3	25.5	FALSE	14.48
B31+B29	B31	21.81	15.76	B29	19.43	13.68	256.8	0.008	6	1	0.013	0.0660	1.31	1.31	0.15	0.0660	0.5049	13.1	30.3	30.3	FALSE	15.92
B32+B31	B32	26.3	16.37	B31	21.81	15.86	253.7	0.002	6	1	0.013	0.0330	0.63	0.88	0.16	0.0397	0.2515	13.1	31.1	28.1	FALSE	16.54
B33+B31	B33	25.73	19.18	B31	21.81	15.76	279.8	0.012	6	1	0.013	0.0330	1.16	1.14	0.10	0.0332	0.6204	5.3	19.9	20.5	FALSE	19.28
B34+B8	B34	24.69	15.24	B8	20.55	7.1	251.1	0.032	6	1	0.013	0.0527	1.27	1.27	0.10	0.0527	1.0103	5.2	20.1	20.1	FALSE	15.34
B35+B34	B35	26.3	20	B34	24.69	15.24	363.8	0.013	6	1	0.013	0.0527	1.37	1.37	0.12	0.0527	0.6418	8.2	24.9	24.9	FALSE	20.13
B36+B35	B36	24.45	20.41	B35	26.3	20	207	0.002	6	1	0.013	0.0527	0.70	0.94	0.20	0.0677	0.2497	21.1	40.9	39.3	FALSE	20.63
B37+B6	B37	14.71	7.31	B6	18.29	6.74	262.3	0.002	6	1	0.013	0.1340	1.12	1.12	0.29	0.1340	0.2615	51.2	58.5	58.5	FALSE	7.61
B38+B50	B38	12.43	7.93	B50	13.27	7.77	38.9	0.004	6	1	0.013	0.0720	1.10	1.10	0.18	0.0720	0.3599	20.0	36.7	36.7	FALSE	8.12
B39+B38	B39	13	8.56	B38	12.43	8.03	265.5	0.002	6	1	0.013	0.0360	0.62	0.62	0.17	0.0360	0.2507	14.4	33.7	33.7	FALSE	8.73
B40+B39	B40	13	9.17	B39	13	8.56	306.1	0.002	6	1	0.013	0.0360	0.62	0.90	0.17	0.0416	0.2505	14.4	33.7	28.5	FALSE	9.36
B41+B38	B41	11.68	8.37	B38	12.43	8.03	170	0.002	8	1	0.013	0.0360	0.61	1.06	0.15	0.0573	0.5404	6.7	22.5	21.2	FALSE	8.54
B42+B41	B42	11.68	8.7	B41	11.68	8.37	166.3	0.002	6	1	0.013	0.0360	0.62	0.62	0.17	0.0360	0.2499	14.4	33.8	33.8	FALSE	8.89
B43+B37	B43	15.97	8.74	B37	14.71	8.01	363.4	0.002	6	1	0.013	0.0360	0.62	0.84	0.17	0.0402	0.2515	14.3	33.6	29.2	FALSE	8.93
B44+B2	B44	15.76	9.16	B2	16	2.46	296.4	0.023	6	1	0.013	0.0343	1.11	1.04	0.09	0.0416	0.8436	4.1	17.7	13.4	TRUE	9.25
B45+B44	B45	14.05	9.86	B44	15.76	9.26	301	0.002	6	1	0.013	0.0343	0.62	0.62	0.16	0.0343	0.2505	13.7	32.3	32.3	FALSE	10.04
B46+B5	B46	19	13.75	B5	18.61	12.56	16.9	0.07	6	1	0.013	0.0097	0.63	0.63	0.02	0.0098	1.4875	0.7	3.1	3.1	FALSE	13.77
B47+B46	B47	20.58	14.06	B46	19	13.75	157.8	0.002	6	1	0.013	0.0097	0.80	0.80	0.05	0.0098	0.2486	3.9	10.0	10.0	FALSE	14.12
B48+B7	B48	22.9	7.11	B7	18.66	6.21	450.2	0.002	6	1	0.013	0.0328	0.59	0.63	0.16	0.0328	0.2509	13.1	32.5	31.0	TRUE	7.28
B49+B14	B49	17.11	11.16	B14	15.47	10.07	327.7	0.003	8	1	0.013	0.7343	2.23	2.23	0.60	0.7343	0.6969	105.4	89.4	89.4	FALSE	11.80
B50+B37	B50	13.27	7.77	B37	14.71	7.31	204.7	0.002	6	1	0.013	0.0980	1.00	1.00	0.25	0.0980	0.2659	36.8	50.0	50.0	FALSE	8.02
B51+B50	B51	14.15	9.95	B50	13.27	7.97	281.7	0.007	6	1	0.013	0.0260	1.03	1.03	0.09	0.0317	0.4704	5.5	18.6	15.0	FALSE	10.04
B52+B4	B52	20.58	4.29	B4	20.32	3.57	359.8	0.002	12	1	0.013	1.5017	2.34	2.34	0.76	1.5017	1.5936	94.2	76.1	76.1	FALSE	5.07
C1+B16	C1	23.15	14.77	B16	20.39	13.24	401.9	0.004	8	1	0.013	0.7344	2.10	2.11	0.67	0.7352	0.7455	98.5	100.0	99.4	TRUE	15.78
C2+C1	C2	21.54	15.19	C1	23.15	14.77	204.3	0.002	8	1	0.013	0.5728	1.64	1.64	0.67	0.5728	0.5479	104.5	100.0	100.0	TRUE	16.21
C3+C2	C3	22.97	17.37	C2	21.54	15.24	397.8	0.005	6	1	0.013	0.5068	2.58	2.58	0.50	0.5068	0.4106	123.4	100.0	100.0	TRUE	19.84
C4+C3	C4	25.03	19.53	C3	22.97	17.42	436	0.005	6	1	0.013	0.4502	2.29	2.29	0.50	0.4502	0.3903	115.3	100.0	100.0	TRUE	23.02
C5+C4	C5	25.49	20.95	C4	25.03	19.53	327.7	0.004	6	1	0.013	0.4502	2.29	2.29	0.50	0.4502	0.3693	121.9	100.0	100.0	TRUE	25.39
C6+C5	C6	25.82	21.42	C5	25.49	20.99	87.5	0.005	6	1	0.013	0.3822	1.95	1.95	0.50	0.3822	0.3934	97.2	100.0	100.0	TRUE	25.78
C7+C6	C7	34.43	23.65	C6	25.82	21.42	447.8	0.005	6	1	0.013	0.3822	1.95	1.95	0.50	0.3822	0.3960	96.5	100.0	100.0	TRUE	28.17
C8+C7	C8	29.93	24.33	C7	34.43	23.65	400.9	0.002	6	1	0.013	0.2797	1.42	1.42	0.50	0.2797	0.2311	121.0	100.0	100.0	TRUE	29.34
C9+C8	C9	30	24.55	C8	29.93	24.38	84.1	0.002	6	1	0.013	0.2665	1.36	1.36	0.50	0.2665	0.2522	105.7	100.0	100.0	TRUE	29.49
C10+C9	C10	31.71	25.71	C9	30	24.55	300.8	0.004	6	1	0.013	0.2665	1.36	1.36	0.50	0.2665	0.3484	76.5	100.0	100.0	TRUE	30.26
C11+C10	C11	41.2	28.9	C10	31.71	25.76	508	0.006	6	1	0.013	0.1754	0.89	1.92	0.50	0.1760	0.4411	39.8	100.0	47.4	TRUE	30.88
C12+C1	C12	23.43	14.9	C1	23.15	14.77	264.8	0	6	1	0.01	0.1616	0.82	0.83	0.50	0.1631	0.1616	100.0	100.0	100.0	TRUE	15.93
C13+C12	C13	23	15.99	C12	23.43	15.03	480.7	0.002	6	1	0.013	0.0472	0.31	0.66	0.37	0.0472	0.2507	18.8	73.3	39.3	TRUE	16.20
C14+C12	C14	24.3	15.8	C12	23.43	14.9	282.1	0.003	6	1	0.01	0.1144	0.59	1.53	0.49	0.1145	0.4120	27.8	97.1	40.6	TRUE	16.02
C15+C14	C15	22.5	18.05	C14	24.3	16.1	565.3	0.003	6	1	0.013	0.0572	0.89	0.89	0.18	0.0572	0.3295	17.4	36.1	36.1	FALSE	18.25
C16+C14	C16	26.5	17.4	C14	24.3	15.8	272.9	0.006	6	1	0.01	0.0572	1.30	1.30	0.14	0.0572	0.5585	10.2	27.5	27.5	FALSE	17.54
C17+C16	C17	27.07	19.62	C16	26.5	17.4	332.8	0.007	6	1	0.013	0.0572	1.13	1.13	0.15	0.0572	0.4582	12.5	30.4	30.4	FALSE	19.77
C18+C17	C18	28	20.36	C17	27.07	19.62	369.6	0.002	6	1	0.013	0.0572	0.73	0.73	0.21	0.0572	0.2510	22.8	41.9	41.9	FALSE	20.58
C19+C2	C19	21.59	15.49	C2	21.54	15.24	264.1	0.001	6	1	0.013	0.0660	0.34	0.38	0.50	0.0738	0.1726	38.2	100.0	100.0	TRUE	16.24
C20+C19	C20	23.19	17.64	C19	21.59	15.54	198.5	0.011	6	1	0.013	0.0330	1.16	1.16	0.10	0.0330	0.5771	5.7	20.2	20.2	TRUE	17.74
C21+C19	C21	23.94	17.74	C19	21.59	15.54	284.2	0.008	6	1	0.013	0.0330	0.65	0.72	0.15	0.0331	0.4937	6.7	30.5	2.2	TRUE	17.88
C22+C21	C22	24.43	18.08	C21	23.94	17.79	91.8	0.003	6	1	0.013	0.0330	0.75	0.75	0.14	0.0330	0.3154	10.5	27.5	27.5	FALSE	18.24
C23+C3	C23	23.27	18.07	C3	22.97	17.42	400.5	0.002	6	1	0.013	0.0566	0.29	0.85	0.50	0.0566	0.2260	25.0	100.0	2.6	TRUE	19.89
C24+C23	C24	25.53	18.72	C23	23.27	18.42	151.2	0.002	6	1	0.013	0.0283	0.14	0.66	0.50	0.0284	0.2500	11.3	100.0	27.1	TRUE	19.89
C25+C23	C25	25.08	19.73	C23	23.27	18.17	303.1	0.005	6	1	0.013	0.0283	0.14	0.52	0.50	0.0284	0.4025	7.0	100.0	32.3	TRUE	19.89
C26+D9	C26	29.07	24.47	D9	27.55	21.3	435.8	0.007	6	1	0.013	0.2000	2.06	2.21	0.25	0.2111	0.4785	41.8	49.5	49.0	FALSE	24.72
C27+C5	C27	25	21.41	C5	25.49	20.97	221.6	0.002	6	1	0.013	0.0680	0.35	0.81	0.50	0.0704	0.2500	27.2	100.0	45.4	TRUE	25.41
C28+C27	C28	27.89	23.34	C27	25	21.41	43	0.045	6	1	0.013	0.0195	0.10	0.79	0.50	0.0198	1.1891	1.6	100.0	7.7	TRUE	25.41
C29+C28	C29	32.14	23.94	C28	27.89	23.34	298.4	0.002	6	1	0.013	0.0195	0.10	1.03	0.50	0.0250	0.2516	7.8	100.0	16.3	TRUE	25.41
C30+C27	C30	28.53	23.63	C27	25	21.41	162.9	0.014	6	1	0.013	0.0485	0.25	1.34	0.50	0.0486	0.6551	7.4	100.0	24.0	TRUE	25.41
C31+C30	C31	29.09	23.76	C30	28.53	23.63	67.1	0.002	6	1	0.013	0.0195	0.10	0.10	0.50	0.0195	0.2469	7.9	100.0	100.0	TRUE	25.41
C32+C30	C32	30.12	24.36	C30	28.53	23.63	146.7	0.005	6	1	0.013	0.0290	0.15	1.16	0.50	0.0387	0.3958	7.3	100.0	18.7	TRUE	25.41
C33+C32	C33	31.26	24.53	C32	30.12	24.39	70.7	0.002	6	1	0.013	0.0195	0.10	0.82	0.50	0.0195	0.2497	7.8	100.0	17.8	TRUE	25.41
C34+C32	C34	30	24.5	C32	30.12	24.39	56.9	0.002	6	1	0.013	0.0095	0.05	0.81	0.50	0.0100	0.2468	3.8	100.0	10.5	TRUE	25.41

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
C35+C7	C35	31.98	25.2	C7	34.43	23.65	403.4	0.004	6	1	0.013	0.1025	0.52	1.26	0.50	0.1027	0.3478	29.5	100.0	43.4	TRUE	28.17
C36+C35	C36	32.58	25.7	C35	31.98	25.2	92	0.005	6	1	0.013	0.1025	0.52	0.52	0.50	0.1025	0.4137	24.8	100.0	100.0	TRUE	28.17
C37+C36	C37	34.3	26.67	C36	32.58	25.73	153.2	0.006	6	1	0.013	0.0567	0.29	1.10	0.50	0.0567	0.4394	12.9	100.0	30.9	TRUE	28.17
C39+C37	C39	33.37	27.03	C37	34.3	26.7	164.1	0.002	6	1	0.013	0.0458	0.23	0.65	0.50	0.0458	0.2516	18.2	100.0	39.0	TRUE	28.17
C40+C36	C40	32.93	26.9	C36	32.58	25.83	257.5	0.004	6	1	0.013	0.0458	0.23	0.82	0.50	0.0458	0.3617	12.7	100.0	32.6	TRUE	28.17
C41+C40	C41	33.56	27.26	C40	32.93	26.93	191.4	0.002	6	1	0.013	0.0458	0.23	0.61	0.50	0.0458	0.2330	19.7	100.0	40.7	TRUE	28.17
C42+C41	C42	34.21	27.91	C41	33.56	27.31	300.1	0.002	6	1	0.013	0.0458	0.23	0.65	0.50	0.0458	0.2509	18.3	100.0	39.0	TRUE	28.17
C43+C8	C43	30.16	24.53	C8	29.93	24.33	101	0.002	6	1	0.013	0.0132	0.07	0.84	0.50	0.0134	0.2496	5.3	100.0	13.5	TRUE	29.34
C44+C10	C44	32.45	26.73	C10	31.71	25.76	154.5	0.006	6	1	0.013	0.0911	0.46	1.50	0.50	0.0914	0.4445	20.5	100.0	34.8	TRUE	30.26
C45+C44	C45	33.66	27.91	C44	32.45	26.77	166.1	0.007	6	1	0.013	0.0911	0.46	1.84	0.50	0.1032	0.4648	19.6	100.0	32.8	TRUE	30.26
C46+C45	C46	36.3	29.85	C45	33.66	27.91	255.5	0.008	6	1	0.013	0.0911	0.46	1.51	0.50	0.0911	0.4889	18.6	100.0	34.7	TRUE	30.26
C47+C46	C47	35.05	30.62	C46	36.3	30	309.1	0.002	6	1	0.013	0.0911	0.92	1.00	0.25	0.0924	0.2513	36.3	50.1	47.5	FALSE	30.90
C48+C11	C48	43.08	29.1	C11	41.2	28.98	178.7	0.001	6	1	0.013	0.1755	0.89	1.03	0.50	0.1755	0.1454	120.7	100.0	80.6	TRUE	31.03
C49+C48	C49	41.32	29.82	C48	43.08	29.1	247.7	0.003	6	1	0.013	0.1755	0.89	1.39	0.50	0.1755	0.3025	58.0	100.0	61.4	TRUE	31.28
C50+C49	C50	40.78	30.68	C49	41.32	29.82	361.2	0.002	6	1	0.013	0.1755	0.89	1.28	0.50	0.1755	0.2738	64.1	100.0	65.7	TRUE	31.69
C51+C50	C51	38.55	32.75	C50	40.78	30.68	556.1	0.004	6	1	0.013	0.1755	1.52	1.53	0.28	0.1755	0.3423	51.3	56.8	56.7	TRUE	33.04
D1+E4	D1	17.33	6.83	E4	16.28	6.08	354.5	0.002	12	1	0.013	2.1663	2.76	2.76	1.00	2.1663	1.6388	132.2	100.0	100.0	TRUE	8.91
D2+D1	D2	17.54	6.91	D1	17.33	6.88	53.3	0.001	12	1	0.013	2.1289	2.71	2.71	1.00	2.1289	0.8455	251.8	100.0	100.0	TRUE	9.00
D3+D2	D3	18.91	7.46	D2	17.54	6.99	363.3	0.001	12	1	0.013	2.1289	2.71	2.71	1.00	2.1289	1.2815	166.1	100.0	100.0	TRUE	10.25
D4+D3	D4	19	8.15	D3	18.91	7.56	296.1	0.002	8	1	0.013	0.8389	2.40	2.40	0.67	0.8389	0.5393	155.5	100.0	100.0	TRUE	11.76
D5+D4	D5	19	8.29	D4	19	8.15	69.6	0.002	8	1	0.013	0.8389	2.40	2.40	0.67	0.8389	0.5418	154.8	100.0	100.0	TRUE	12.04
D6+D5	D6	19.87	13.77	D5	19	8.29	246.1	0.022	8	1	0.013	0.5800	1.66	1.66	0.67	0.5800	1.8033	32.2	100.0	100.0	TRUE	14.04
D7+D6	D7	19.85	15.5	D6	19.87	13.82	398	0.004	6	1	0.013	0.5800	2.95	2.95	0.50	0.5800	0.3646	159.1	100.0	100.0	TRUE	19.06
D8+D7	D8	21.51	16.11	D7	19.85	15.5	157.8	0.004	6	1	0.013	0.2000	1.02	1.02	0.50	0.2000	0.3488	57.3	100.0	100.0	TRUE	19.06
D9+D8	D9	27.55	21.3	D8	21.51	16.11	496	0.01	6	1	0.013	0.2000	2.55	2.48	0.21	0.2101	0.5739	34.8	41.9	44.6	TRUE	21.53
D10+D3	D10	21.78	10.58	D3	18.91	7.81	489.1	0.006	10	1	0.013	1.2900	2.36	2.36	0.83	1.2900	1.6487	78.2	100.0	100.0	TRUE	11.93
D16+D20	D16	23	13.91	D20	22	13	453.9	0.002	10	1	0.013	0.2000	1.26	1.26	0.28	0.2005	0.9810	20.4	33.3	33.3	FALSE	14.19
D17+D16	D17	23.1	14.18	D16	23	13.91	136.3	0.002	10	1	0.013	0.2000	1.27	1.31	0.27	0.2010	0.9751	20.5	33.0	32.4	FALSE	14.48
D19+D10	D19	21.54	12.39	D10	21.78	10.63	48.1	0.037	10	1	0.013	1.2900	4.64	4.64	0.42	1.2900	4.1895	30.8	50.8	50.8	TRUE	12.74
D20+D19	D20	22	13	D19	21.54	12.89	52.7	0.002	6	1	0.013	0.2770	1.78	1.78	0.37	0.2770	0.2564	108.0	74.1	74.1	FALSE	13.42
D21+D19	D21	20.93	15.08	D19	21.54	12.84	390.8	0.006	8	1	0.013	1.0130	2.90	2.90	0.67	1.0130	0.9148	110.7	100.0	100.0	TRUE	16.28
D22+D21	D22	22.23	15.84	D21	20.93	15.13	149	0.005	8	1	0.013	1.0130	2.90	2.90	0.67	1.0130	0.8341	121.5	100.0	100.0	TRUE	17.33
D23+D22	D23	22.62	16.12	D22	22.23	15.88	73.3	0.003	8	1	0.013	0.6630	1.90	1.90	0.67	0.6630	0.6914	95.9	100.0	100.0	TRUE	17.48
D24+D23	D24	24.01	17.46	D23	22.62	16.12	349.8	0.004	8	1	0.013	0.6630	1.90	1.90	0.67	0.6630	0.7478	88.7	100.0	100.0	TRUE	18.54
D25+D24	D25	24.45	18.45	D24	24.01	17.56	300.9	0.003	6	1	0.013	0.3230	1.64	1.64	0.50	0.3230	0.3052	105.8	100.0	100.0	TRUE	19.62
D26+D25	D26	24.79	19.26	D25	24.45	18.5	156.7	0.005	6	1	0.013	0.3230	1.64	1.64	0.50	0.3230	0.3907	82.7	100.0	100.0	TRUE	20.17
D27+D26	D27	26.68	20.86	D26	24.79	19.28	392.4	0.004	6	1	0.013	0.1700	1.58	1.56	0.27	0.1700	0.3560	47.7	53.6	54.4	TRUE	21.13
D28+D27	D28	27.45	21.65	D27	26.68	20.9	81.1	0.009	6	1	0.013	0.1700	2.12	2.12	0.21	0.1700	0.5394	31.5	42.7	42.7	FALSE	21.87
D29+C37	D29	34.53	27.53	C37	34.3	26.7	129.5	0.006	6	1	0.013	0.0000	0.00	0.00	0.50	0.0000	0.4492	0.0	100.0	0.0	TRUE	28.17
D29+D28	D29	34.53	27.53	D28	27.45	21.67	465.5	0.013	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.6295	0.0	0.0	0.0	FALSE	27.53
D30+D26	D30	26.26	21.18	D26	24.79	19.29	436.5	0.004	6	1	0.013	0.1530	1.55	1.62	0.25	0.1635	0.3692	41.4	50.1	51.0	TRUE	21.44
D31+D30	D31	26.68	21.76	D30	26.26	21.46	152.5	0.002	6	1	0.013	0.0765	0.85	0.98	0.23	0.0866	0.2488	30.7	46.6	46.1	FALSE	22.02
D32+D30	D32	26.44	21.71	D30	26.26	21.46	126.2	0.002	6	1	0.013	0.0765	0.86	0.94	0.23	0.0840	0.2497	30.6	46.2	46.6	FALSE	21.97
D33+D24	D33	28.14	19.34	D24	24.01	17.51	450.4	0.004	8	1	0.013	0.1686	1.55	1.54	0.23	0.1686	0.7702	21.9	35.0	35.0	TRUE	19.58
D34+D33	D34	34.45	22.3	D33	28.14	19.34	293.3	0.01	8	1	0.013	0.1686	2.14	2.14	0.18	0.1686	1.2139	13.9	27.7	27.7	FALSE	22.49
D35+D34	D35	33.56	22.51	D34	34.45	22.3	177.8	0.001	6	1	0.013	0.1686	1.09	1.09	0.37	0.1686	0.1928	87.4	73.7	73.7	FALSE	22.91
D36+D35	D36	31.3	25.05	D35	33.56	22.56	250.8	0.01	6	1	0.013	0.0200	0.95	0.77	0.07	0.0250	0.5591	3.6	13.9	5.7	FALSE	25.13
D37+D36	D37	31.11	26.01	D36	31.3	25.05	367.8	0.003	6	1	0.013	0.0200	0.81	1.07	0.09	0.0298	0.2866	7.0	18.3	19.9	FALSE	26.17
D38+D37	D38	32	26.64	D37	31.11	26.16	237.7	0.002	6	1	0.013	0.0100	0.76	0.79	0.04	0.0107	0.2521	4.0	8.6	9.5	FALSE	26.76
D39+D38	D39	32.14	26.81	D38	32	26.64	84.1	0.002	6	1	0.013	0.0100	0.80	0.80	0.05	0.0100	0.2522	4.0	10.0	10.1	FALSE	26.87
D40+D37	D40	32	26.6	D37	31.11	26.21	193.6	0.002	6	1	0.013	0.0100	0.79	0.73	0.05	0.0159	0.2518	4.0	9.5	5.9	FALSE	26.66
D41+D24	D41	31.35	25.75	D24	24.01	17.51	190.6	0.043	6	1	0.013	0.1714	2.07	2.07	0.14	0.1714	1.1666	14.7	28.5	28.5	TRUE	25.90
D42+D41	D42	30	26	D41	31.35	25.8	100.2	0.002	6	1	0.013	0.0214	0.72	0.72	0.10	0.0214	0.2506	8.5	20.8	20.8	FALSE	26.11
D43+D41	D43	32	26.89	D41	31.35	25.85	517.4	0.002	6	1	0.013	0.1500	1.14	1.14	0.32	0.1500	0.2516	59.6	63.7	63.7	FALSE	27.21
D44+D43	D44	32	27.12	D43	32	26.89	113	0.002	6	1	0.013	0.1500	1.21	1.21	0.30	0.1500	0.2531	59.3	60.3	60.2	FALSE	27.44
D47+D22	D47	20.69	17.09	D22	22.23	15.86	299.2	0.004	8	1	0.013	0.3500	1.00	1.00	0.67	0.3500	0.7748	45.2	100.0	100.0	TRUE	17.43
D48+D47	D48	22.05	18.7	D47	20.69	17.09	401	0.004	6	1	0.013	0.3500	1.86	1.86	0.46	0.3500	0.3555	98.4	91.2	91.2	FALSE	19.18
D49+D48	D49	27.59	21.99	D48	22.05	18.7	399.7	0.008	6	1	0.013	0.3500	2.59	2.59	0.33	0.3500	0.5090	68.8	65.0	65.0	FALSE	22.32
D50+D49	D50	31.35	22.83	D49	27.59	21.99	421.6	0.002	6	1	0.013	0.3500	1.78	1.78	0.50	0.3500	0.2504	139.8	100.0	100.0	TRUE	24.38
D51+D7	D51	23.54	18.66	D7	19.85	15.5	457.8	0.007	6	1	0.013	0.3800	1.93	1.93	0.50	0.3800	0.4661	81.5	100.0	100.0	TRUE	21.48
D52+D51	D52	27.31	20.31	D51	23.54	18.69	267	0.006	6	1	0.013	0.2400	1.22	2.11	0.50	0.2405	0.4370	54.9	100.0	56.4	TRUE	22.02
D53+D52	D53	29.62	21.22	D52	27.31	20.31	247.8	0.004	6	1	0.013	0.1200	0.61	1.34	0.50	0.1204	0.3400	35.3	100.0	46.6	TRUE	22.11
D54+D53	D54	29.68	21.68	D53	29.62	21.27	74.9	0.005	6	1	0.013	0.1200	0.61	1.52	0.50	0.1206	0.4152	28.9	100.0	42.4	TRUE	22.11
D55+D54	D55	30.37	22.39	D54	29.68	21.88	252.3	0.002	6	1	0.013	0.1200	1.05	1.05	0.28	0.1200	0.2523	47.6	56.6	56.6	FALSE	22.67
D56+D35	D56	35.05	23.65	D35	33.56	22.51	286.3	0.004	6	1	0.013	0.1486	1.48	1.48	0.25	0.1486	0.3540	42.0	51.0	51.0	FALSE	23.91
D57+D56	D57	37.86	26.21	D56	35.05	23.7	197.1	0.013	6	1	0.013	0.1486	2.16	2.16	0.18	0.1486	0.6331	23.5	36.8	36.8	FALSE	26.40

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
D58+D57	D58	37.67	27.07	D57	37.86	26.36	158	0.004	6	1	0.013	0.1486	1.55	1.55	0.25	0.1486	0.3761	39.5	49.1	49.1	FALSE	27.32
D59+D58	D59	37.27	28.53	D58	37.67	27.12	151.4	0.009	6	1	0.013	0.1486	2.02	2.02	0.20	0.1486	0.5414	27.4	40.1	40.1	FALSE	28.74
D60+D59	D60	37.44	29.8	D59	37.27	28.57	112.6	0.011	6	1	0.013	0.1336	2.05	2.05	0.18	0.1336	0.5864	22.8	36.7	36.7	FALSE	29.99
D61+D60	D61	37.37	30.05	D60	37.44	29.84	101	0.002	6	1	0.013	0.1336	1.17	1.17	0.28	0.1336	0.2559	52.2	56.4	56.4	FALSE	30.35
D62+D59	D62	32.76	29.07	D59	37.27	28.57	247.7	0.002	6	1	0.013	0.0150	0.80	0.82	0.08	0.0151	0.2521	6.0	15.2	14.9	FALSE	29.16
D63+D5	D63	19.63	8.6	D5	19	8.29	296.6	0.001	8	1	0.013	0.2589	0.74	0.76	0.67	0.2652	0.3906	66.3	100.0	100.0	TRUE	12.11
D64+D63	D64	24.68	17.38	D63	19.63	8.56	470.5	0.019	6	1	0.013	0.1989	2.08	2.25	0.24	0.1995	0.7682	25.9	49.0	30.1	TRUE	17.61
D65+D64	D65	28.98	20.08	D64	24.68	17.38	448	0.006	6	1	0.013	0.1989	1.92	1.92	0.26	0.1989	0.4356	45.7	52.2	52.2	FALSE	20.34
D66+D65	D66	29.37	20.96	D65	28.98	20.13	412.5	0.002	8	1	0.013	0.1989	1.27	1.27	0.31	0.1989	0.5420	36.7	45.9	45.9	FALSE	21.28
D67+D63	D67	18.77	12.39	D63	19.63	8.6	294.1	0.013	6	1	0.013	0.0597	0.30	1.69	0.50	0.1123	0.6369	9.4	100.0	25.3	TRUE	12.52
D68+D67	D68	19	12.7	D67	18.77	12.42	138.9	0.002	6	1	0.013	0.0299	0.64	0.96	0.14	0.0423	0.2519	11.9	28.7	27.6	FALSE	12.86
D69+D67	D69	19	12.94	D67	18.77	12.42	259	0.002	6	1	0.013	0.0299	0.64	0.66	0.14	0.0303	0.2514	11.9	28.8	28.3	FALSE	13.10
D70+D51	D70	24	18.86	D51	23.54	18.72	70.8	0.002	6	1	0.013	0.1400	0.71	0.71	0.50	0.1400	0.2494	56.1	100.0	100.0	TRUE	21.49
D71+D52	D71	28.07	22.62	D52	27.31	21.11	130	0.012	6	1	0.013	0.1200	1.96	1.96	0.17	0.1200	0.6047	19.8	34.5	34.4	TRUE	22.79
D72+D20	D72	22.5	13.56	D20	22	13	279.6	0.002	10	1	0.013	0.0770	0.82	0.82	0.19	0.0772	0.9806	7.9	22.8	22.9	FALSE	13.75
D73+D72	D73	23	14.16	D72	22.5	13.56	297.4	0.002	8	1	0.013	0.0770	0.84	0.85	0.21	0.0781	0.5428	14.2	30.8	30.9	FALSE	14.37
D74+D73	D74	23.2	14.58	D73	23	14.16	210.2	0.002	8	1	0.013	0.0770	0.84	0.84	0.21	0.0772	0.5401	14.3	30.9	30.9	FALSE	14.81
E1+H9	E1	12.09	3.59	H9	11.84	3.09	269.8	0.002	18	1	0.013	3.0237	2.90	2.90	0.86	3.0237	4.5221	66.9	57.0	57.0	FALSE	4.49
E2+E1	E2	13.48	4.23	E1	12.09	3.64	283.2	0.002	12	1	0.013	2.1663	2.76	2.76	1.00	2.1663	1.6261	133.2	100.0	100.0	TRUE	5.46
E3+E2	E3	15.11	4.76	E2	13.48	4.33	279.6	0.002	12	1	0.013	2.1663	2.76	2.76	1.00	2.1663	1.3970	155.1	100.0	100.0	TRUE	6.42
E4+E3	E4	16.28	6.08	E3	15.11	5.01	356.7	0.003	12	1	0.013	2.1663	2.76	2.76	1.00	2.1663	1.9512	111.0	100.0	100.0	TRUE	7.67
E6+E1	E6	11.14	4.84	E1	12.09	4.04	501	0.002	12	1	0.013	0.8574	1.87	1.87	0.57	0.8574	1.4236	60.2	56.7	56.7	FALSE	5.42
E7+E6	E7	11.77	6.02	E6	11.14	4.84	310.5	0.004	12	1	0.013	0.7965	2.49	2.49	0.43	0.7965	2.1961	36.3	42.7	42.7	FALSE	6.45
E8+E7	E8	13.72	6.77	E7	11.77	6.07	354.7	0.002	12	1	0.013	0.6747	1.87	1.87	0.47	0.6747	1.5826	42.6	46.8	46.8	FALSE	7.25
E9+E8	E9	13.77	7.32	E8	13.72	6.82	341.1	0.001	12	1	0.013	0.5529	1.61	1.61	0.45	0.5529	1.3640	40.5	45.1	45.1	FALSE	7.78
E10+E9	E10	14.53	7.78	E9	13.77	7.32	192.1	0.002	12	1	0.013	0.5529	1.90	1.90	0.40	0.5529	1.7432	31.7	39.8	39.8	FALSE	8.19
E11+E10	E11	14.94	8.04	E10	14.53	7.93	194.9	0.001	12	1	0.013	0.4161	1.30	1.30	0.43	0.4161	0.8465	49.2	42.7	42.7	FALSE	8.51
E12+E11	E12	20.13	9.13	E11	14.94	8.14	494.5	0.002	12	1	0.013	0.4161	1.61	1.61	0.36	0.4161	1.5941	26.1	36.4	36.4	FALSE	9.50
E13+E12	E13	18.72	10	E12	20.13	9.18	450.3	0.002	8	1	0.013	0.2802	1.38	1.38	0.38	0.2802	0.5157	54.3	56.4	56.4	FALSE	10.38
E14+E13	E14	17.24	10.39	E13	18.72	10.12	185.5	0.001	8	1	0.013	0.2315	1.25	1.25	0.35	0.2315	0.4609	50.2	52.3	52.3	FALSE	10.76
E15+E14	E15	15.27	10.72	E14	17.24	10.49	246.2	0.001	8	1	0.013	0.2009	1.04	1.04	0.36	0.2011	0.3693	54.4	54.3	54.3	FALSE	11.10
E20+E7	E20	12.61	7.71	E7	11.77	6.12	504.5	0.003	6	1	0.013	0.0609	0.89	0.90	0.19	0.0613	0.3150	19.3	37.8	37.9	FALSE	7.90
E21+E20	E21	14.72	8.53	E20	12.61	7.76	385.6	0.002	6	1	0.013	0.0609	0.76	0.97	0.21	0.0768	0.2507	24.3	42.9	42.3	FALSE	8.76
E22+E8	E22	15.38	8.48	E8	13.72	6.87	449.9	0.004	6	1	0.013	0.0609	0.93	0.94	0.18	0.0613	0.3356	18.1	36.6	36.6	FALSE	8.67
E23+E22	E23	16.82	10.42	E22	15.38	8.48	438.8	0.004	6	1	0.013	0.0609	1.02	1.02	0.17	0.0614	0.3731	16.3	34.4	34.5	FALSE	10.61
E25+E50	E25	16.75	10.9	E50	16.04	9.64	231.9	0.005	6	1	0.013	0.0670	1.17	1.47	0.17	0.0801	0.4136	16.2	33.3	32.1	FALSE	11.07
E26+E25	E26	19.82	13.82	E25	16.75	10.9	488.2	0.006	6	1	0.013	0.0670	1.18	1.18	0.17	0.0670	0.4339	15.4	33.0	33.0	FALSE	14.00
E27+E12	E27	21.28	15.85	E12	20.13	9.53	576.2	0.011	6	1	0.013	0.0427	1.14	1.14	0.12	0.0428	0.5876	7.3	24.5	24.5	FALSE	15.97
E28+E27	E28	22	15.93	E27	21.28	15.81	61.8	0.002	6	1	0.013	0.0427	0.71	0.71	0.17	0.0427	0.2472	17.3	34.4	34.4	FALSE	16.13
E29+E12	E29	23.08	15.79	E12	20.13	9.58	247	0.025	6	1	0.013	0.0932	1.61	1.61	0.13	0.0932	0.8896	10.5	25.6	25.6	FALSE	15.92
E30+E29	E30	27	20.5	E29	23.08	15.83	502.3	0.009	6	1	0.013	0.0670	1.39	1.39	0.15	0.0670	0.5410	12.4	29.4	29.4	FALSE	20.65
E31+E29	E31	27.93	20.63	E29	23.08	15.83	252.3	0.019	6	1	0.013	0.0610	1.40	1.40	0.12	0.0610	0.7739	7.9	23.8	23.8	FALSE	20.75
E32+E31	E32	28	21.21	E31	27.93	20.68	263.2	0.002	6	1	0.013	0.0610	0.76	0.90	0.21	0.0689	0.2518	24.2	42.8	41.2	FALSE	21.44
E33+E13	E33	21.41	15.78	E13	18.72	10.02	228.9	0.025	8	1	0.013	0.0487	1.21	1.21	0.09	0.0487	1.9166	2.5	14.0	14.0	FALSE	15.87
E33+E29	E33	21.41	17.11	E29	23.08	15.86	455.1	0.003	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.2941	0.0	0.0	0.0	FALSE	17.11
E34+E33	E34	24.94	18.94	E33	21.41	15.83	278.9	0.011	6	1	0.013	0.0400	1.12	1.10	0.12	0.0401	0.5925	6.8	23.7	24.0	FALSE	19.06
E35+E14	E35	19.06	11.41	E14	17.24	10.74	333	0.002	6	1	0.013	0.0305	0.64	1.43	0.15	0.0677	0.2517	12.1	29.1	23.6	FALSE	11.60
E36+E15	E36	17.4	12.35	E15	15.27	10.82	420.2	0.004	6	1	0.013	0.1827	1.54	1.54	0.29	0.1827	0.3385	54.0	58.3	58.3	FALSE	12.65
E37+E36	E37	18	13.11	E36	17.4	12.4	353.2	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2515	24.2	42.8	42.8	FALSE	13.34
E38+E36	E38	18.78	13.33	E36	17.4	12.35	233.6	0.004	6	1	0.013	0.1218	1.41	1.41	0.23	0.1218	0.3634	33.5	45.2	45.2	FALSE	13.56
E39+E38	E39	19	14.13	E38	18.78	13.53	300.6	0.002	6	1	0.013	0.0609	0.76	0.89	0.21	0.0662	0.2507	24.3	42.9	40.5	FALSE	14.36
E40+E38	E40	22.91	14.25	E38	18.78	13.33	458.2	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2514	24.2	42.8	42.8	FALSE	14.48
E41+E15	E41	16	11.07	E15	15.27	10.87	98.3	0.002	6	1	0.013	0.0183	0.44	0.49	0.13	0.0183	0.2530	7.2	26.5	24.4	FALSE	11.17
E42+E10	E42	14.56	10.06	E10	14.53	7.88	550.5	0.004	6	1	0.013	0.0698	1.04	1.04	0.19	0.0699	0.3531	19.8	37.3	37.3	FALSE	10.25
E44+E8	E44	12.57	8.62	E8	13.72	6.82	630.5	0.003	6	1	0.013	0.0609	0.86	0.86	0.19	0.0609	0.2998	20.3	38.9	38.9	FALSE	8.82
E45+E44	E45	13.15	9.55	E44	12.57	8.57	319.4	0.003	6	1	0.013	0.0609	0.88	0.88	0.19	0.0609	0.3108	19.6	38.3	38.3	FALSE	9.76
E46+E7	E46	11	7.4	E7	11.77	6.02	500.5	0.003	6	1	0.013	0.0609	0.85	0.85	0.20	0.0609	0.2946	20.7	39.2	39.2	FALSE	7.60
E47+E46	E47	11.54	8.31	E46	11	7.4	455.2	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2509	24.3	42.9	42.8	FALSE	8.54
E48+E6	E48	11.94	7.54	E6	11.14	5.19	498.5	0.005	6	1	0.013	0.0609	1.04	1.03	0.17	0.0609	0.3852	15.8	33.9	34.0	FALSE	7.71
E49+E48	E49	11.53	8.46	E48	11.94	7.54	457.8	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2515	24.2	42.8	42.8	FALSE	8.69
E50+E10	E50	16.04	9.64	E10	14.53	7.88	217.9	0.008	6	1	0.013	0.0670	1.32	1.55	0.15	0.0783	0.5043	13.3	30.5	26.4	FALSE	9.79
F7+T25	F7	4.65	0.3	T25	3.95	-2.2	477	0.005	6	1	0.013	0.1876	1.78	1.78	0.26	0.1876	0.4062	46.2	52.9	52.8	TRUE	0.57
F8+F7	F8	8.3	1.38	F7	4.65	0.3	356.7	0.003	6	1	0.013	0.1876	1.44	1.44	0.31	0.1876	0.3087	60.8	62.9	62.9	FALSE	1.70
F9+F23	F9	8.21	3.11	F23	8.23	2.7	110	0.004	6	1	0.013	0.1428	1.42	1.42	0.26	0.1428	0.3425	41.7	51.0	51.0	FALSE	3.37
F10+F9	F10	11.76	4.96	F9	8.21	3.21	462.6	0.004	6	1	0.013	0.1428	1.42	1.42	0.25	0.1428	0.3451	41.4	50.9	50.9	FALSE	5.22
F11+F10	F11	13	6.84	F10	11.76	5.06	419.8	0.004	6	1	0.013	0.1428	1.48	1.48	0.25	0.1428	0.3653	39.1	49.2	49.2	FALSE	7.09

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
F12+F11	F12	13	7.65	F11	13	6.94	355.2	0.002	6	1	0.013	0.0780	0.86	0.86	0.24	0.0780	0.2508	31.1	47.0	47.0	FALSE	7.89
F13+F19	F13	15.24	10.24	F19	15.18	10.23	24.2	0	6	1	0.013	0.0260	0.34	0.35	0.21	0.0260	0.1141	22.8	41.1	40.1	FALSE	10.44
F14+F8	F14	9.56	5.64	F8	8.3	1.76	463.1	0.008	6	1	0.013	0.0190	0.94	0.94	0.07	0.0190	0.5136	3.7	13.7	13.7	FALSE	5.71
F15+F11	F15	13.27	7.77	F11	13	7.17	301.1	0.002	6	1	0.013	0.0648	0.78	0.79	0.22	0.0662	0.2505	25.9	43.9	44.1	FALSE	7.99
F16+F15	F16	13.27	8.24	F15	13.27	7.77	238	0.002	6	1	0.013	0.0650	0.78	0.91	0.22	0.0753	0.2494	26.1	43.9	43.6	FALSE	8.48
F17+F22	F17	15.11	8.76	F22	13	8.39	130.3	0.003	6	1	0.013	0.0780	0.98	1.03	0.21	0.0786	0.2990	26.1	42.6	41.3	FALSE	8.98
F18+F17	F18	15.34	9.94	F17	15.11	8.89	197.5	0.005	6	1	0.013	0.0260	1.07	1.07	0.09	0.0260	0.4091	6.4	17.8	17.8	FALSE	10.04
F19+F20	F19	15.18	10.33	F20	15.15	9.7	188.8	0.003	6	1	0.013	0.0260	0.94	0.93	0.10	0.0261	0.3241	8.0	19.8	20.1	FALSE	10.44
F20+F17	F20	15.15	9.7	F17	15.11	8.86	281.2	0.003	6	1	0.013	0.0520	0.80	0.80	0.18	0.0521	0.3067	17.0	36.7	36.7	FALSE	9.89
F21+F20	F21	15.15	10.38	F20	15.15	9.7	136.4	0.005	6	1	0.013	0.0260	0.80	0.80	0.11	0.0260	0.3961	6.6	22.2	22.2	FALSE	10.49
F22+F12	F22	13	8.39	F12	13	7.65	158.8	0.005	6	1	0.013	0.0780	1.19	1.19	0.18	0.0782	0.3830	20.4	36.8	36.8	FALSE	8.58
F23+F8	F23	8.23	2.7	F8	8.3	1.48	327.4	0.004	6	1	0.013	0.1686	1.50	1.50	0.28	0.1686	0.3425	49.2	55.5	55.5	FALSE	2.98
F24+F23	F24	8.23	3.19	F23	8.23	2.7	98	0.005	6	1	0.013	0.0258	1.07	0.94	0.09	0.0259	0.3967	6.5	17.8	19.7	FALSE	3.30
F25+F24	F25	8.73	3.77	F24	8.23	3.19	115	0.005	6	1	0.013	0.0129	0.84	0.84	0.06	0.0129	0.3985	3.2	11.2	11.2	FALSE	3.83
F26+F25	F26	8.73	4.36	F25	8.73	3.77	118	0.005	6	1	0.013	0.0129	0.80	0.75	0.05	0.0129	0.3967	3.3	9.6	7.3	FALSE	4.42
F27+F24	F27	8.73	3.78	F24	8.23	3.19	118	0.005	6	1	0.013	0.0129	0.80	0.80	0.05	0.0129	0.3967	3.3	9.6	9.6	FALSE	3.84
F28+F27	F28	8.73	4.57	F27	8.73	3.78	158	0.005	6	1	0.013	0.0129	0.79	0.79	0.04	0.0129	0.3967	3.3	8.8	8.8	FALSE	4.62
G2+G19	G2	4.2	0.05	G19	2.65	-0.76	154	0.005	6	1	0.013	0.1265	1.54	1.54	0.22	0.1265	0.4069	31.1	43.5	43.5	FALSE	0.27
G3+G14	G3	7	1.85	G14	6.79	1.05	208.1	0.004	6	1	0.013	0.1071	1.28	1.28	0.22	0.1071	0.3479	30.8	44.2	44.2	FALSE	2.08
G4+G3	G4	7.49	2.26	G3	7	1.95	212.7	0.001	6	1	0.013	0.0881	0.82	0.82	0.27	0.0881	0.2142	41.1	53.7	53.7	FALSE	2.53
G6+G4	G6	10.75	5.12	G4	7.49	2.36	387.6	0.007	6	1	0.013	0.0764	1.35	1.35	0.16	0.0765	0.4735	16.1	33.0	33.0	FALSE	5.29
G7+G6	G7	10.12	5.81	G6	10.75	5.22	294.7	0.002	6	1	0.013	0.0383	0.62	1.43	0.18	0.0603	0.2511	15.2	35.4	25.2	FALSE	5.99
G8+G7	G8	10.83	6.45	G7	10.12	5.8	326.8	0.002	6	1	0.013	0.0383	0.61	0.61	0.18	0.0383	0.2502	15.3	35.4	35.4	FALSE	6.64
G9+G6	G9	8.88	5.78	G6	10.75	5.2	290.8	0.002	6	1	0.013	0.0382	0.60	0.61	0.18	0.0383	0.2506	15.2	35.7	35.4	FALSE	5.96
G10+G9	G10	11.09	6.24	G9	8.88	5.78	270.6	0.002	6	1	0.013	0.0382	0.57	1.00	0.19	0.0477	0.2313	16.5	37.3	29.2	FALSE	6.43
G11+G10	G11	11.78	6.87	G10	11.09	6.34	265.7	0.002	6	1	0.013	0.0381	0.61	0.61	0.18	0.0383	0.2506	15.2	35.6	35.4	FALSE	7.06
G12+G4	G12	8.32	3.02	G4	7.49	2.47	277	0.002	6	1	0.013	0.0116	0.83	0.81	0.06	0.0121	0.2500	4.6	12.4	12.9	FALSE	3.10
G13+G3	G13	8.34	2.8	G3	7	1.9	452.5	0.002	6	1	0.013	0.0190	0.73	0.70	0.09	0.0208	0.2502	7.6	19.0	20.8	FALSE	2.90
G14+G17	G14	6.79	1.05	G17	5.65	0.6	151.1	0.003	6	1	0.013	0.1168	1.20	1.20	0.25	0.1168	0.3062	38.1	49.7	49.7	FALSE	1.30
G15+G14	G15	6.2	2.15	G14	6.79	1.05	214.7	0.005	8	1	0.013	0.0097	0.26	0.69	0.11	0.0098	0.8648	1.1	16.3	4.4	FALSE	2.22
G16+G15	G16	6.21	3.21	G15	6.2	2.2	154.5	0.007	8	1	0.013	0.0097	0.72	0.72	0.03	0.0097	0.9771	1.0	5.1	5.1	FALSE	3.24
G17+G2	G17	5.65	0.5	G2	4.2	0.15	143.7	0.002	6	1	0.013	0.1265	1.16	1.16	0.27	0.1265	0.2769	45.7	54.4	54.4	FALSE	0.78
G18+G17	G18	5.86	1.15	G17	5.65	0.57	291.5	0.002	6	1	0.013	0.0097	0.80	0.79	0.05	0.0128	0.2503	3.9	10.2	9.2	FALSE	1.21
G19+T23	G19	2.65	-0.76	T23	6.87	-2.3	290.9	0.005	6	1	0.013	0.1365	1.57	1.57	0.23	0.1365	0.4083	33.4	45.5	45.5	FALSE	-0.53
G20+G19	G20	2.66	0.11	G19	2.65	-0.76	173.9	0.005	6	1	0.013	0.0100	0.29	0.81	0.11	0.0100	0.3968	2.5	22.9	11.3	FALSE	0.18
G21+G20	G21	2.67	0.37	G20	2.66	0.11	51.4	0.005	6	1	0.013	0.0050	0.64	0.64	0.02	0.0050	0.3991	1.3	4.7	4.6	FALSE	0.40
G22+G20	G22	2.67	0.25	G20	2.66	0.11	71.7	0.002	6	1	0.013	0.0050	0.67	0.71	0.04	0.0050	0.2479	2.0	8.0	7.4	FALSE	0.28
H2+I11	H2	7.99	0.59	I11	8.07	-0.03	36.6	0.017	24	1	0.01	3.9436	7.01	7.01	0.47	3.9466	38.2777	10.3	23.5	23.5	FALSE	1.04
H3+H2	H3	8.2	0.7	H2	7.99	0.59	30.8	0.004	24	1	0.01	3.9432	4.13	4.13	0.69	3.9471	17.5858	22.4	34.3	34.3	FALSE	1.41
H4+H3	H4	8.13	0.71	H3	8.2	0.7	7.1	0.001	24	1	0.01	3.0520	3.04	3.04	0.71	3.0555	11.0311	27.7	35.6	35.6	FALSE	1.42
H5+H4	H5	8.95	0.95	H4	8.13	0.71	259.3	0.001	24	1	0.01	3.0481	2.88	2.88	0.74	3.0594	8.9462	34.1	37.1	37.1	FALSE	1.74
H6+H5	H6	8.89	0.99	H5	8.95	0.95	9	0.004	20	1	0.01	3.0211	3.05	3.07	0.77	3.0464	12.0730	25.0	46.4	46.5	FALSE	1.75
H7+H75	H7	10.51	1.76	H75	10.09	1.58	89.8	0.002	20	1	0.013	3.0240	3.31	3.33	0.73	3.0435	6.2294	48.5	43.6	43.6	FALSE	2.53
H8+H7	H8	10.95	2.05	H7	10.51	1.76	233.4	0.001	20	1	0.01	3.0314	3.20	3.20	0.75	3.0361	6.3751	47.6	44.8	44.8	FALSE	2.84
H9+H73	H9	11.84	3.09	H73	11.36	2.56	246.2	0.002	18	1	0.01	3.0337	3.62	3.62	0.72	3.0337	6.3351	47.9	48.0	48.0	FALSE	3.85
H11+H64	H11	9.92	1.44	H64	9.05	0.99	198.2	0.002	14	1	0.01	0.8534	2.55	2.55	0.41	0.8534	3.3286	25.6	35.1	35.1	FALSE	1.86
H12+H11	H12	10.15	2.2	H11	9.92	1.54	333.5	0.002	8	1	0.013	0.7488	2.14	2.14	0.67	0.7488	0.5376	139.3	100.0	100.0	TRUE	3.43
H13+H12	H13	10.85	2.55	H12	10.15	2.3	107.9	0.002	8	1	0.013	0.6430	1.84	1.84	0.67	0.6430	0.5815	110.6	100.0	100.0	TRUE	3.67
H14+H13	H14	11.02	3.54	H13	10.85	2.65	446.5	0.002	8	1	0.013	0.6430	1.84	1.84	0.67	0.6430	0.5395	119.2	100.0	100.0	TRUE	4.99
H15+H62	H15	14.61	5.6	H62	12.95	4.64	201.4	0.005	8	1	0.013	0.5905	1.84	1.84	0.57	0.5905	0.8342	70.8	86.2	86.2	TRUE	6.04
H16+H60	H16	14.43	6.48	H60	14.57	5.9	351.2	0.002	8	1	0.01	0.5499	2.01	2.01	0.49	0.5499	0.6384	86.1	73.2	73.2	FALSE	6.98
H17+H57	H17	12.03	6.83	H57	14.21	6.69	396.8	0	8	1	0.013	0.5093	1.46	1.46	0.67	0.5093	0.2270	224.4	100.0	100.0	TRUE	7.94
H18+H5	H18	8.92	1.27	H5	8.95	1.25	7.9	0.003	6	1	0.013	0.0212	0.11	1.23	0.48	0.0423	0.2825	7.5	95.4	20.7	FALSE	1.74
H19+H18	H19	8.88	2.58	H18	8.92	1.27	386.9	0.003	6	1	0.013	0.0200	0.88	0.71	0.09	0.0283	0.3265	6.1	17.2	2.8	FALSE	2.67
H20+H19	H20	9.1	3.65	H19	8.88	2.63	270.8	0.004	6	1	0.013	0.0200	0.78	0.98	0.09	0.0270	0.3443	5.8	18.8	13.8	FALSE	3.81
H21+H56	H21	9.3	5.04	H56	9.2	4.75	143.8	0.002	6	1	0.013	0.0100	0.81	0.81	0.05	0.0100	0.2520	4.0	10.3	10.3	FALSE	5.09
H22+H21	H22	9.3	5.34	H21	9.3	5.04	151.4	0.002	6	1	0.013	0.0100	0.81	0.59	0.05	0.0100	0.2498	4.0	10.3	1.5	FALSE	5.40
H23+H22	H23	9.4	6.15	H22	9.3	5.34	404.8	0.002	6	1	0.013	0.0100	0.81	0.82	0.05	0.0103	0.2510	4.0	10.4	10.6	FALSE	6.20
H24+H20	H24	10.14	5.82	H20	9.1	3.65	332.8	0.007	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.4530	0.0	0.0	0.0	FALSE	5.82
H25+H11	H25	11.2	3.3	H11	9.92	1.7	378	0.004	6	1	0.013	0.1046	1.30	1.31	0.21	0.1057	0.3650	28.7	42.9	43.0	FALSE	3.52
H26+H25	H26	10.63	4.58	H25	11.2	3.3	412.5	0.003	6	1	0.013	0.1046	1.16	1.17	0.23	0.1062	0.3125	33.5	46.8	47.1	FALSE	4.83
H27+H26	H27	11.38	5.66	H26	10.63	5.43	114.6	0.002	6	1	0.013	0.0372	0.63	0.63	0.17	0.0372	0.2514	14.8	34.2	34.2	FALSE	5.85
H28+H50	H28	10.4	5.41	H50	10.13	5.03	191.6	0.002	6	1	0.013	0.0303	0.66	1.30	0.14	0.0497	0.2499	12.1	28.3	22.2	FALSE	5.57
H29+H12	H29	8.35	5.83	H12	10.15	2.65	550.5	0.006	6	1	0.013	0.1058	1.46	1.46	0.20	0.1059	0.4264	24.8	39.5	39.5	TRUE	6.03
H30+H46	H30	11.57	7.74	H46	11.27	7.47	135.4	0.002	6	1	0.013	0.0529	0.70	0.70	0.20	0.0529	0.2506	21.1	40.7	40.8	FALSE	7.96
H31+H14	H31	13.28	4.5	H14	11.02	3.69	403.7	0.002	6	1	0.013	0.0415	0.21	0.21	0.50	0.0417	0.2513	16.5	100.0	100.0	TRUE	5.01

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H32+H17	H32	16.06	10.26	H17	12.03	6.88	549.9	0.006	6	1	0.013	0.1119	1.50	1.55	0.20	0.1119	0.4399	25.4	40.5	39.4	TRUE	10.46
H33+H32	H33	20	11.29	H32	16.06	10.26	515	0.002	8	1	0.013	0.1119	1.00	1.03	0.24	0.1133	0.5404	20.7	35.6	35.1	FALSE	11.54
H34+H17	H34	12.74	7.69	H17	12.03	6.83	268.6	0.003	6	1	0.013	0.3974	2.02	2.02	0.50	0.3974	0.3175	125.2	100.0	100.0	TRUE	9.44
H35+H34	H35	14.34	9.56	H34	12.74	7.69	321.9	0.006	6	1	0.013	0.3974	2.02	2.02	0.50	0.3974	0.4277	92.9	100.0	100.0	TRUE	11.27
H36+H35	H36	15.37	9.87	H35	14.34	9.56	473.9	0.001	6	1	0.013	0.2860	1.46	1.46	0.50	0.2860	0.1435	199.3	100.0	100.0	TRUE	12.78
H37+H36	H37	17.89	12.09	H36	15.37	9.87	370.1	0.006	6	1	0.013	0.1940	0.99	1.95	0.50	0.1954	0.4346	44.6	100.0	50.7	TRUE	13.30
H38+E42	H38	17.69	11.79	E42	14.56	10.11	518.8	0.003	6	1	0.013	0.0698	0.97	0.97	0.20	0.0699	0.3193	21.9	39.4	39.4	FALSE	11.99
H38+H47	H38	17.69	11.79	H47	15.05	10.1	205.2	0.008	6	1	0.013	0.1114	0.74	1.97	0.36	0.1443	0.5092	21.9	71.3	39.9	TRUE	12.02
H39+H38	H39	18	12.1	H38	17.69	11.84	131.9	0.002	6	1	0.013	0.1020	0.99	0.99	0.26	0.1020	0.2491	40.9	51.8	51.8	FALSE	12.36
H40+H36	H40	22.17	15.97	H36	15.37	9.87	496.1	0.012	6	1	0.013	0.0920	1.73	1.74	0.15	0.0938	0.6221	14.8	30.6	30.9	TRUE	16.12
H41+H40	H41	24.38	16.27	H40	22.17	15.97	150.4	0.002	6	1	0.013	0.0920	0.94	0.94	0.25	0.0922	0.2506	36.7	49.9	50.0	FALSE	16.55
H42+H37	H42	21.01	14.76	H37	17.89	12.19	387.7	0.007	6	1	0.013	0.0920	1.39	1.45	0.19	0.0921	0.4568	20.1	37.0	35.9	TRUE	14.95
H43+H42	H43	22.12	16.57	H42	21.01	14.76	346.3	0.005	6	1	0.013	0.0920	1.30	1.30	0.19	0.0920	0.4056	22.7	38.8	38.8	FALSE	16.79
H44+H37	H44	20.24	14.24	H37	17.89	12.14	272.4	0.008	6	1	0.013	0.1020	1.43	1.79	0.08	0.1024	0.4927	20.7	16.7	33.3	TRUE	14.44
H45+H9	H45	12.4	3.93	H9	11.84	3.49	222.4	0.002	6	1	0.013	0.0100	0.22	0.76	0.14	0.0130	0.2496	4.0	27.7	7.9	FALSE	3.99
H46+H52	H46	11.27	7.47	H52	12.58	6.18	360.9	0.004	6	1	0.013	0.0529	0.87	1.22	0.17	0.0554	0.3355	15.8	34.8	28.1	FALSE	7.65
H47+H35	H47	15.05	10.1	H35	14.34	9.62	192.4	0.002	6	1	0.013	0.1114	0.57	1.07	0.50	0.1133	0.2803	39.7	100.0	53.0	TRUE	11.30
H48+H55	H48	9.12	6.64	H55	9.3	4.32	217.4	0.011	6	1	0.013	0.0100	0.72	0.72	0.03	0.0100	0.5797	1.7	6.9	6.9	FALSE	6.72
H49+H48	H49	8.35	6.77	H48	9.12	6.72	32.6	0.002	6	1	0.013	0.0100	0.66	0.59	0.02	0.0100	0.2199	4.5	4.4	1.5	FALSE	6.81
H50+H26	H50	10.13	5.03	H26	10.63	4.58	154.3	0.003	6	1	0.013	0.0676	0.92	1.02	0.20	0.0757	0.3030	22.3	40.0	40.4	FALSE	5.26
H51+H50	H51	10.5	6.35	H50	10.13	5.13	189.2	0.006	6	1	0.013	0.0372	1.02	1.02	0.12	0.0372	0.4505	8.3	24.0	24.0	FALSE	6.48
H52+H29	H52	12.58	6.18	H29	8.35	5.83	94.4	0.004	6	1	0.013	0.1058	1.25	1.25	0.22	0.1060	0.3416	31.0	44.7	44.7	FALSE	6.41
H53+H52	H53	12.4	8.3	H52	12.58	6.23	233.2	0.009	6	1	0.013	0.0529	1.20	1.20	0.14	0.0529	0.5286	10.0	27.6	27.6	FALSE	8.44
H54+H20	H54	9.2	4	H20	9.1	3.7	152.6	0.002	6	1	0.013	0.0200	0.71	0.98	0.10	0.0200	0.2487	8.0	20.0	15.0	FALSE	4.17
H55+H54	H55	9.3	4.32	H54	9.2	4.22	157.2	0.001	6	1	0.013	0.0200	0.81	1.08	0.09	0.0354	0.1415	14.1	18.3	16.3	FALSE	4.45
H56+H55	H56	9.2	4.75	H55	9.3	4.32	215.8	0.002	6	1	0.013	0.0100	0.78	0.72	0.05	0.0279	0.2505	4.0	9.3	3.2	FALSE	4.81
H57+H16	H57	14.21	6.69	H16	14.43	6.48	40.5	0.005	8	1	0.013	0.5499	2.52	2.52	0.40	0.5499	0.8706	63.2	59.9	59.9	FALSE	7.11
H58+H57	H58	15.13	7.62	H57	14.21	6.69	184.6	0.005	6	1	0.013	0.0406	1.23	0.79	0.11	0.0408	0.3982	10.2	22.4	31.0	FALSE	7.78
H59+H58	H59	16.1	8.59	H58	15.13	7.62	194.6	0.005	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.3962	0.0	0.0	0.0	FALSE	8.59
H59+H61	H59	16.1	8.59	H61	15.42	6.28	194.6	0.012	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.6114	0.0	0.0	0.0	FALSE	8.59
H60+H15	H60	14.57	5.9	H15	14.61	5.6	98.7	0.003	8	1	0.01	0.5905	2.65	2.65	0.41	0.5905	0.8661	68.2	61.0	61.0	FALSE	6.34
H61+H60	H61	15.42	6.28	H60	14.57	5.9	189.5	0.002	6	1	0.013	0.0406	0.42	0.89	0.25	0.0577	0.2513	16.2	49.7	36.4	FALSE	6.49
H62+H14	H62	12.95	4.64	H14	11.02	3.54	232.8	0.005	8	1	0.013	0.6015	1.72	1.72	0.67	0.6015	0.8305	72.4	100.0	100.0	TRUE	5.54
H63+H62	H63	13.79	5.49	H62	12.95	4.64	169.8	0.005	6	1	0.013	0.0110	0.06	0.83	0.48	0.0181	0.3970	2.8	95.1	9.6	TRUE	5.60
H64+H71	H64	9.05	0.99	H71	8.35	0.77	160.6	0.001	14	1	0.01	0.8824	1.84	1.84	0.54	0.8824	2.5853	34.1	46.0	46.0	FALSE	1.49
H65+H64	H65	9.89	1.83	H64	9.05	0.99	168.3	0.005	6	1	0.013	0.0290	1.02	1.08	0.07	0.0292	0.3963	7.3	15.0	17.5	FALSE	1.95
H66+H65	H66	9.89	2.09	H65	9.89	1.83	51.4	0.005	6	1	0.013	0.0290	0.91	0.90	0.11	0.0294	0.3989	7.3	21.9	22.2	FALSE	2.21
H67+H66	H67	9.89	2.32	H66	9.89	2.09	46	0.005	6	1	0.013	0.0100	0.77	0.77	0.04	0.0100	0.3968	2.5	8.7	8.7	FALSE	2.37
H68+H66	H68	9.89	2.42	H66	9.89	2.09	67	0.005	6	1	0.013	0.0190	0.98	1.13	0.08	0.0345	0.3937	4.8	15.3	18.1	FALSE	2.50
H69+H68	H69	9.89	2.64	H68	9.89	2.42	45.6	0.005	6	1	0.013	0.0100	0.77	0.76	0.04	0.0110	0.3898	2.6	8.8	8.2	FALSE	2.69
H70+H68	H70	9.89	2.67	H68	9.89	2.42	51.2	0.005	6	1	0.013	0.0090	0.74	0.74	0.04	0.0179	0.3921	2.3	8.0	6.2	FALSE	2.71
H71+H3	H71	8.35	0.77	H3	8.2	0.7	35	0.002	14	1	0.01	0.8917	1.38	1.38	0.68	0.8917	3.1237	28.5	58.1	58.1	FALSE	1.42
H72+H71	H72	9.26	1.54	H71	8.35	0.77	182.4	0.004	6	1	0.013	0.0090	0.09	0.69	0.26	0.0095	0.3646	2.5	52.0	5.9	TRUE	1.62
H73+H74	H73	11.36	2.56	H74	11.16	2.34	101	0.002	20	1	0.01	3.0310	3.70	3.71	0.67	3.0365	8.4400	35.9	40.2	40.1	FALSE	3.25
H74+H8	H74	11.16	2.34	H8	10.95	2.05	112.9	0.003	20	1	0.01	3.0269	3.76	3.77	0.66	3.0406	9.1668	33.0	39.6	39.7	FALSE	3.01
H75+H6	H75	10.09	1.58	H6	8.89	0.99	259.7	0.002	20	1	0.01	3.0270	3.61	3.62	0.68	3.0405	8.6193	35.1	40.9	40.9	FALSE	2.27
I3+I35	I3	1.69	-3.99	I35	1.2	-4.42	133	0.003	30	1	0.01	4.8589	1.31	1.31	1.77	4.8592	30.3207	16.0	70.8	70.7	FALSE	-2.43
I4+I3	I4	1.84	-3.31	I3	1.69	-3.56	242.6	0.001	18	1	0.013	4.8589	3.32	3.32	1.16	4.8591	3.3716	144.1	77.2	77.2	FALSE	-1.99
I5+I31	I5	3.41	-3.19	I31	2.94	-3.23	135	0	18	1	0.013	4.8484	2.74	2.74	1.50	4.8495	1.8081	268.2	100.0	100.0	TRUE	-1.27
I6+I5	I6	4.62	-3.08	I5	3.41	-3.19	410.7	0	18	1	0.013	4.8483	2.74	2.74	1.50	4.8496	1.7191	282.0	100.0	100.0	TRUE	-0.50
I7+I37	I7	5.18	-2.32	I37	4.72	-2.94	210.5	0.003	30	1	0.01	3.9795	0.87	0.87	2.20	3.9795	28.9378	13.8	87.9	87.9	TRUE	-0.42
I8+I7	I8	6.15	-1.45	I7	5.18	-2.32	238.1	0.004	30	1	0.01	3.9739	1.33	1.33	1.47	3.9739	32.2300	12.3	58.8	58.8	FALSE	-0.41
I9+I8	I9	5.69	-1.31	I8	6.15	-1.45	154.7	0.001	30	1	0.01	3.9710	2.23	2.23	0.98	3.9710	16.0402	24.8	39.2	39.2	FALSE	-0.39
I10+I9	I10	7.26	-0.74	I9	5.69	-1.31	221.1	0.003	24	1	0.01	3.9451	3.99	3.99	0.70	3.9452	14.9310	26.4	35.2	35.2	FALSE	-0.03
I11+I10	I11	8.07	-0.03	I10	7.26	-0.74	379.8	0.002	24	1	0.01	3.9447	3.59	3.59	0.76	3.9456	12.7144	31.0	38.1	38.1	FALSE	0.74
I12+I6	I12	4.46	-2.19	I6	4.62	-2.83	338.5	0.002	12	1	0.013	0.8460	1.08	1.08	1.00	0.8460	1.5492	54.6	100.0	100.0	TRUE	-0.36
I13+I12	I13	5.54	-1.56	I12	4.46	-2.14	319.8	0.002	12	1	0.013	0.8460	1.08	1.08	1.00	0.8460	1.5173	55.8	100.0	100.0	TRUE	-0.27
I14+I13	I14	4.22	-0.83	I13	5.54	-1.51	443.5	0.002	12	1	0.013	0.5698	0.76	0.76	0.90	0.5703	1.3950	40.8	90.4	90.3	TRUE	-0.23
I15+I14	I15	5.32	-0.53	I14	4.22	-0.78	386	0.001	12	1	0.013	0.5701	1.28	1.28	0.55	0.5701	0.9066	62.9	55.1	55.1	FALSE	0.05
I16+I6	I16	4.85	0.96	I6	4.62	-2.38	492.8	0.007	8	1	0.013	0.0097	0.67	0.67	0.03	0.0097	0.9948	1.0	3.8	3.8	TRUE	1.02
I17+I7	I17	5.54	1.51	I7	5.18	-1.27	525.8	0.005	6	1	0.013	0.0050	0.39	0.60	0.06	0.0051	0.4080	1.2	11.7	2.8	TRUE	1.54
I18+I8	I18	5.2	1.01	I8	6.15	-0.65	236.8	0.007	6	1	0.013	0.0050	0.63	0.70	0.02	0.0064	0.4697	1.1	4.3	6.7	FALSE	1.12
I19+I18	I19	6.48	1.59	I18	5.2	1.11	238.8	0.002	6	1	0.013	0.0050	0.61	0.61	0.02	0.0052	0.2516	2.0	3.2	3.5	FALSE	1.63
I20+I9	I20	5.86	1.26	I9	5.69	-0.81	278.4	0.007	6	1	0.013	0.0050	0.56	0.57	0.01	0.0078	0.4838	1.0	1.2	1.4	FALSE	1.28
I21+I24	I21	7.17	1.52	I24	7	-0.08	364.1	0.004	6	1	0.013	0.1970	1.70	1.70	0.29	0.1970	0.3719	53.0	57.2	57.2	TRUE	1.81
I22+I23	I22	8.69	3.44	I23	8.52	3.17	44.5	0.006	6	1	0.013	0.0590	1.11	1.11	0.16	0.0590	0.4372	13.5	31.5	31.5	FALSE	3.61

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
I23+I27	I23	8.52	3.12	I27	8.3	2.86	80.1	0.003	6	1	0.013	0.1280	1.31	1.31	0.25	0.1283	0.3197	40.0	49.8	49.8	FALSE	3.38
I24+I13	I24	7	-0.08	I13	5.54	-0.56	236.9	0.002	6	1	0.013	0.2774	1.44	1.44	0.48	0.2774	0.2526	109.8	95.5	95.5	TRUE	0.53
I25+I24	I25	7	0.22	I24	7	-0.08	153.5	0.002	6	1	0.013	0.0763	0.41	0.45	0.46	0.0816	0.2480	30.8	91.1	87.7	TRUE	0.53
I26+I23	I26	9.29	4.04	I23	8.52	3.27	153.5	0.005	6	1	0.013	0.0690	1.15	1.15	0.17	0.0690	0.3974	17.4	34.5	34.5	FALSE	4.23
I27+I28	I27	8.3	2.86	I28	8.04	2.57	89.9	0.003	6	1	0.013	0.1280	1.29	1.30	0.25	0.1290	0.3188	40.2	50.2	50.3	FALSE	3.12
I28+I21	I28	8.04	2.57	I21	7.17	1.57	311.5	0.003	6	1	0.013	0.1970	1.50	1.50	0.32	0.1970	0.3179	62.0	63.4	63.4	FALSE	2.89
I29+I28	I29	8.81	3.34	I28	8.04	2.57	153.5	0.005	6	1	0.013	0.0690	1.09	1.12	0.18	0.0704	0.3974	17.4	35.7	35.7	FALSE	3.53
I31+I4	I31	2.94	-3.23	I4	1.84	-3.31	321.1	0	18	1	0.013	4.8585	2.76	2.76	1.48	4.8595	1.6581	293.0	98.4	98.4	TRUE	-1.42
I32+I31	I32	3.97	-2.18	I31	2.94	-3.23	207.6	0.005	6	1	0.013	0.0100	0.05	0.59	0.50	0.0110	0.3990	2.5	100.0	1.6	TRUE	-1.42
I33+I32	I33	4.43	-1.73	I32	3.97	-2.18	90.2	0.005	6	1	0.013	0.0050	0.03	0.60	0.50	0.0050	0.3963	1.3	100.0	3.1	TRUE	-1.42
I34+I32	I34	4.56	-1.6	I32	3.97	-2.18	117.2	0.005	6	1	0.013	0.0050	0.03	0.63	0.47	0.0050	0.3947	1.3	94.8	4.2	TRUE	-1.42
I35+I36	I35	1.2	-4.42	I36	1.7	-4.47	11.4	0.004	24	1	0.01	2.2865	0.73	0.73	1.97	2.2865	19.4782	11.7	98.5	98.5	FALSE	-2.47
I35+T19	I35	1.2	-4.42	T19	2.23	-4.72	55.4	0.005	24	1	0.01	2.5724	0.82	0.85	2.00	2.6527	21.6427	11.9	100.0	96.6	TRUE	-2.45
I36+T36	I36	1.7	-4.47	T36	2.125	-4.74	47.3	0.006	24	1	0.01	2.2865	0.73	0.73	2.00	2.2865	22.2278	10.3	100.0	100.0	TRUE	-2.47
I37+I6	I37	4.72	-2.94	I6	4.62	-3.08	48.5	0.003	15	1	0.013	3.9809	3.24	3.24	1.25	3.9809	3.4711	114.7	100.0	100.0	TRUE	-0.44
J5+J16	J5	4.44	-1.06	J16	3.8	-2.17	275.2	0.004	8	1	0.01	0.0772	1.30	1.30	0.15	0.0772	0.9977	7.7	22.6	22.6	FALSE	-0.91
J6+J5	J6	5.85	0.6	J5	4.44	-0.96	558.5	0.003	6	1	0.013	0.0772	0.97	0.97	0.21	0.0772	0.2965	26.0	42.6	42.6	FALSE	0.82
J7+J6	J7	5.96	1.9	J6	5.85	1.02	441.1	0.002	6	1	0.013	0.0227	0.70	0.70	0.11	0.0230	0.2506	9.1	22.3	22.5	FALSE	2.02
J8+J6	J8	7.5	2.81	J6	5.85	0.7	442.1	0.005	6	1	0.013	0.0545	0.99	0.99	0.16	0.0545	0.3876	14.1	32.4	32.4	FALSE	2.97
J9+J8	J9	8.19	3.23	J8	7.5	2.81	400.5	0.001	6	1	0.013	0.0545	0.56	0.71	0.25	0.0562	0.1817	30.0	49.3	42.4	FALSE	3.48
J10+J9	J10	9.91	4.26	J9	8.19	3.34	299.8	0.003	6	1	0.013	0.0545	0.83	0.94	0.18	0.0594	0.3108	17.5	36.9	35.7	FALSE	4.46
J11+J15	J11	1.31	-2.3	J15	2.31	-3.24	199.7	0.005	8	1	0.013	0.0292	0.17	0.17	0.33	0.0292	0.8290	3.5	49.4	49.1	TRUE	-2.20
J12+J11	J12	1.94	-1.61	J11	1.31	-2.2	299.4	0.002	8	1	0.013	0.0290	0.62	0.63	0.13	0.0291	0.5364	5.4	19.2	19.1	FALSE	-1.47
J13+J12	J13	2.73	-0.51	J12	1.94	-1.51	298.6	0.003	8	1	0.013	0.0291	0.72	0.72	0.11	0.0291	0.6993	4.2	17.2	17.2	FALSE	-0.40
J14+J13	J14	3.27	-0.03	J13	2.73	-0.41	190	0.002	8	1	0.013	0.0290	0.66	0.66	0.12	0.0290	0.5404	5.4	18.4	18.4	FALSE	0.11
J15+T20	J15	2.31	-3.49	T20	2.72	-4.06	82.7	0.007	7.6	1	0.01	0.0296	0.10	0.10	0.63	0.0296	1.1178	2.6	100.0	100.0	TRUE	-2.44
J16+J17	J16	3.8	-2.17	J17	3.3	-3.02	210.2	0.004	7.6	1	0.01	0.0772	1.15	1.25	0.17	0.0772	0.8560	9.0	26.7	25.3	FALSE	-2.02
J17+J18	J17	3.3	-3.02	J18	2.4	-3.24	45	0.005	8	1	0.01	0.0772	0.22	0.32	0.67	0.0772	1.0983	7.0	100.0	65.8	TRUE	-2.43
J18+T21	J18	2.4	-3.24	T21	3.07	-3.99	63	0.012	8	1	0.01	0.0772	0.22	0.22	0.67	0.0772	1.7140	4.5	100.0	100.0	TRUE	-2.43
K1+T16	K1	2.25	-6.28	T16	2.25	-6.5	30.8	0.007	18	1	0.01	1.8542	1.71	1.71	0.89	1.8545	11.5437	16.1	59.0	59.0	TRUE	-3.90
K2+K38	K2	3.35	-5.2	K38	2.67	-5.61	193.7	0.002	18	1	0.01	1.8496	3.12	3.12	0.55	1.8496	6.2817	29.4	36.9	36.9	TRUE	-3.90
K3+K2	K3	4.05	-4.8	K2	3.35	-5.2	189.7	0.002	18	1	0.01	1.8463	3.12	3.12	0.55	1.8463	6.2704	29.4	36.9	36.9	FALSE	-3.90
K4+K43	K4	3.55	-4.28	K43	3.81	-4.75	204.6	0.002	18	1	0.01	1.8369	3.18	3.18	0.54	1.8369	6.5448	28.1	36.2	36.2	FALSE	-3.73
K5+K4	K5	3.31	-3.71	K4	3.55	-4.28	248.1	0.002	18	1	0.01	0.7401	2.36	2.36	0.35	0.7401	6.5445	11.3	23.4	23.4	FALSE	-3.36
K6+K5	K6	4.44	-2.86	K5	3.31	-3.71	251.1	0.003	18	1	0.01	0.7036	2.68	2.68	0.31	0.7036	7.9454	8.9	20.6	20.6	FALSE	-2.54
K7+K6	K7	3.35	-1.85	K6	4.44	-2.66	362.1	0.002	8	1	0.013	0.0200	0.72	0.71	0.09	0.0200	0.5715	3.5	13.4	13.4	FALSE	-1.76
K8+K7	K8	2.87	-1.18	K7	3.35	-1.85	355.5	0.002	8	1	0.013	0.0200	0.67	0.66	0.09	0.0202	0.5246	3.8	14.0	14.2	FALSE	-1.08
K9+K8	K9	3.87	-0.58	K8	2.87	-1.18	355.9	0.002	8	1	0.013	0.0200	0.64	0.71	0.10	0.0222	0.4961	4.0	14.4	14.4	FALSE	-0.47
K10+K9	K10	4.11	0.11	K9	3.87	-0.48	155.5	0.004	6	1	0.013	0.0100	0.73	0.73	0.04	0.0100	0.3456	2.9	7.3	7.4	FALSE	0.16
K11+K5	K11	3.67	-2.23	K5	3.31	-2.99	369.8	0.002	6	1	0.013	0.0205	0.72	0.72	0.10	0.0217	0.2544	8.1	20.1	21.1	FALSE	-2.12
K12+K11	K12	3.54	-0.86	K11	3.67	-2.08	353.5	0.003	6	1	0.013	0.0205	0.91	0.92	0.09	0.0255	0.3296	6.2	17.1	11.7	FALSE	-0.73
K13+K12	K13	2.97	0.27	K12	3.54	-0.86	362	0.003	6	1	0.013	0.0205	0.87	0.90	0.09	0.0214	0.3135	6.5	17.7	17.8	FALSE	0.37
K14+K13	K14	3.19	0.45	K13	2.97	0.27	90.4	0.002	6	1	0.013	0.0205	0.75	0.77	0.10	0.0216	0.2503	8.2	19.7	19.9	FALSE	0.58
K15+K9	K15	3.43	-0.33	K9	3.87	-0.48	73.9	0.002	6	1	0.013	0.0100	0.79	0.79	0.05	0.0100	0.2528	4.0	9.7	9.7	FALSE	-0.27
K16+K4	K16	3.55	-2.65	K4	3.55	-3.45	273.7	0.003	6	1	0.013	0.0205	0.75	1.06	0.10	0.0456	0.3033	6.8	19.7	13.3	FALSE	-2.53
K17+K16	K17	2.92	-1.88	K16	3.55	-2.6	267.2	0.003	6	1	0.013	0.0205	0.75	0.65	0.10	0.0205	0.2912	7.0	19.7	1.9	FALSE	-1.75
K18+K17	K18	3.64	-1.31	K17	2.92	-1.88	268.7	0.002	6	1	0.013	0.0205	0.72	1.03	0.10	0.0341	0.2584	7.9	20.3	14.4	FALSE	-1.21
K19+K18	K19	3.25	-0.65	K18	3.64	-1.31	272	0.002	6	1	0.013	0.0205	0.73	0.73	0.10	0.0205	0.2764	7.4	20.0	20.0	FALSE	-0.52
K20+K19	K20	2.67	-0.53	K19	3.25	-0.6	134.6	0.001	6	1	0.013	0.0205	0.94	0.94	0.07	0.0205	0.1279	16.0	13.5	13.5	FALSE	-0.42
K21+K3	K21	3.15	-2.1	K3	4.05	-4.25	246.4	0.009	6	1	0.013	0.0100	0.73	0.65	0.04	0.0207	0.5241	1.9	7.3	1.9	FALSE	-2.06
K22+K21	K22	3.29	-1.16	K21	3.15	-2.05	256.2	0.003	6	1	0.013	0.0050	0.69	0.69	0.03	0.0050	0.3307	1.5	6.7	6.7	FALSE	-1.13
K23+K22	K23	3.52	-0.91	K22	3.29	-1.11	99.5	0.002	6	1	0.013	0.0050	0.66	0.66	0.03	0.0050	0.2515	2.0	5.4	5.4	FALSE	-0.88
K24+K21	K24	3.55	-1.7	K21	3.15	-2	148.6	0.002	6	1	0.013	0.0050	0.65	0.65	0.03	0.0050	0.2521	2.0	5.1	5.1	FALSE	-1.67
K25+K44	K25	3.6	-1.7	K44	3.23	-2.92	346.2	0.004	6	1	0.01	0.0160	0.90	0.93	0.06	0.0186	0.4330	3.7	12.9	13.5	FALSE	-1.64
K26+K6	K26	4.36	-1.29	K6	4.44	-2.76	293.6	0.005	6	1	0.013	0.0000	0.00	0.44	0.00	0.0172	0.3970	0.0	0.0	25.4	FALSE	-1.18
K27+K26	K27	3.95	-0.6	K26	4.36	-1.29	199.5	0.003	6	1	0.013	0.0000	0.00	0.53	0.00	0.0246	0.3300	0.0	0.0	28.6	FALSE	-0.46
K28+K4	K28	3.27	-4	K4	3.55	-4.1	242	0	10	1	0.013	1.0749	1.98	1.98	0.81	1.0750	0.4454	241.4	97.7	97.7	TRUE	-2.93
K30+K31	K30	3.78	-3.21	K31	3.08	-3.43	108.2	0.002	8	1	0.013	0.1208	0.35	0.35	0.67	0.1208	0.5449	22.2	100.0	100.0	TRUE	-2.38
K31+L1	K31	3.08	-3.43	L1	2.82	-3.73	147.8	0.002	8	1	0.013	0.1208	0.35	0.35	0.67	0.1208	0.5443	22.2	100.0	100.0	TRUE	-2.38
K32+K30	K32	3.16	-2.76	K30	3.78	-3.21	226.9	0.002	8	1	0.013	0.1190	0.36	0.73	0.61	0.1190	0.5381	22.1	91.1	47.6	TRUE	-2.38
K33+K32	K33	2.74	-2.37	K32	3.16	-2.76	130.8	0.003	6	1	0.013	0.0595	0.87	0.87	0.19	0.0595	0.3064	19.4	38.1	38.1	FALSE	-2.18
K34+K33	K34	3.08	-1.54	K33	2.74	-2.37	278.4	0.003	6	1	0.013	0.0595	0.86	0.86	0.19	0.0596	0.3064	19.4	38.3	38.3	FALSE	-1.34
K35+K34	K35	2.78	-0.7	K34	3.08	-1.54	279.8	0.003	6	1	0.013	0.0595	0.86	1.34	0.19	0.0859	0.3074	19.4	38.2	36.2	FALSE	-0.51
K36+K35	K36	2.75	0.15	K35	2.78	-0.7	281.5	0.003	6	1	0.013	0.0595	0.86	0.86	0.19	0.0598	0.3083	19.3	38.2	38.2	FALSE	0.36
K37+K32	K37	2.51	-1.01	K32	3.16	-2.76	350.2	0.005	6	1	0.013	0.0595	1.02	1.03	0.17	0.0595	0.3966	15.0	33.7	33.6	FALSE	-0.83
K38+K39	K38	2.67	-5.61	K39	2.49	-5.63	7.8	0.003	18	1	0.01	1.8565	3.25	3.25	0.54	1.8565	6.9194	26.8	36.0	36.0	TRUE	-3.90

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
K39+K40	K39	2.49	-5.63	K40	2.25	-6.24	249.4	0.002	18	1	0.01	1.8507	3.23	3.23	0.54	1.8507	6.7531	27.4	36.0	36.0	TRUE	-3.90
K40+K1	K40	2.25	-6.24	K1	2.25	-6.28	5.6	0.007	18	1	0.01	1.8552	2.06	2.06	0.76	1.8552	11.4992	16.1	50.8	50.8	TRUE	-3.90
K41+K42	K41	5.23	-2.2	K42	7.35	-2.73	191.9	0.003	18	1	0.01	0.6820	2.47	2.47	0.32	0.6820	7.1761	9.5	21.3	21.3	FALSE	-1.88
K42+K6	K42	7.35	-2.73	K6	4.44	-2.86	36.7	0.004	12	2	0.01	0.6820	2.19	2.19	0.25	0.6820	5.5095	12.4	25.2	25.2	FALSE	-2.48
K43+K3	K43	3.81	-4.75	K3	4.05	-4.8	23.5	0.002	18	1	0.01	1.8362	3.08	3.08	0.56	1.8362	6.2985	29.2	37.1	37.1	FALSE	-3.90
K44+K5	K44	3.23	-2.92	K5	3.31	-3.09	30	0.006	6	1	0.013	0.0160	0.90	1.00	0.06	0.0376	0.4224	3.8	12.8	24.7	FALSE	-2.81
L1+L21	L1	2.82	-3.73	L21	2.74	-3.95	223.2	0.001	10	1	0.013	1.0749	1.97	1.97	0.83	1.0749	0.6879	156.3	100.0	100.0	TRUE	-2.38
L2+L1	L2	2.72	-3.28	L1	2.82	-3.73	178.7	0.003	10	1	0.013	0.9542	1.75	1.75	0.83	0.9542	1.0993	86.8	100.0	100.0	TRUE	-2.12
L3+L2	L3	2.93	-3.17	L2	2.72	-3.28	83.4	0.001	10	1	0.013	0.9542	1.75	1.75	0.83	0.9542	0.7957	119.9	100.0	100.0	TRUE	-2.05
L4+L3	L4	3.39	-2.3	L3	2.93	-3.12	247.6	0.003	10	1	0.013	0.5072	1.26	1.26	0.58	0.5072	1.2607	40.2	69.3	69.3	TRUE	-1.90
L5+L47	L5	4.17	-1.38	L47	3.21	-2.04	276.3	0.002	6	1	0.013	0.0680	0.86	0.86	0.21	0.0680	0.2742	24.8	42.5	42.5	FALSE	-1.17
L6+L5	L6	4.69	-0.51	L5	4.17	-1.38	214.9	0.004	6	1	0.013	0.0340	0.95	0.95	0.12	0.0340	0.3570	9.5	23.7	23.7	FALSE	-0.38
L7+L6	L7	5.31	-0.39	L6	4.69	-0.51	260.6	0	6	1	0.013	0.0340	0.47	0.47	0.20	0.0340	0.1204	28.2	39.5	39.5	FALSE	-0.16
L8+L7	L8	5.39	-0.24	L7	5.31	-0.39	72.8	0.002	6	1	0.013	0.0340	0.64	0.64	0.16	0.0340	0.2547	13.4	31.5	31.5	FALSE	-0.07
L9+L4	L9	3.42	-1.78	L4	3.39	-2.05	162.3	0.002	6	1	0.013	0.2352	1.36	1.36	0.41	0.2352	0.2288	102.8	82.6	82.6	FALSE	-1.32
L10+K27	L10	3.59	0.24	K27	3.95	-0.55	197.2	0.004	6	1	0.013	0.0000	0.00	0.49	0.00	0.0250	0.3551	0.0	0.0	30.7	FALSE	0.24
L10+L9	L10	3.59	-0.76	L9	3.42	-1.78	274.7	0.004	6	1	0.013	0.0694	1.00	1.03	0.19	0.0696	0.3419	20.3	38.3	37.6	FALSE	-0.57
L11+L10	L11	4.97	0.57	L10	3.59	-0.56	359.8	0.003	6	1	0.013	0.0696	0.96	0.96	0.20	0.0696	0.3144	22.1	39.7	39.7	FALSE	0.77
L12+L11	L12	4.97	0.62	L11	4.97	0.57	81.8	0.001	6	1	0.013	0.0536	0.88	0.88	0.17	0.0536	0.1387	38.7	34.9	34.9	FALSE	0.88
L13+L9	L13	4.47	-0.58	L9	3.42	-1.73	310.9	0.004	6	1	0.013	0.1658	1.49	1.49	0.28	0.1658	0.3412	48.6	55.2	55.2	FALSE	-0.30
L14+L13	L14	5.25	0.6	L13	4.47	-0.58	301.6	0.004	6	1	0.013	0.1658	1.52	1.52	0.27	0.1658	0.3509	47.2	54.2	54.2	FALSE	0.87
L15+L14	L15	6.17	1.92	L14	5.25	0.6	310.2	0.004	6	1	0.013	0.1658	1.57	1.57	0.26	0.1658	0.3660	45.3	52.9	52.9	FALSE	2.19
L16+L15	L16	7.37	2.67	L15	6.17	1.92	311.1	0.002	6	1	0.013	0.1658	1.26	1.26	0.32	0.1658	0.2755	60.2	63.3	63.3	FALSE	2.99
L17+L16	L17	7.38	3.53	L16	7.37	2.67	236.3	0.004	6	1	0.013	0.1600	1.48	1.48	0.27	0.1600	0.3385	47.3	54.1	54.1	FALSE	3.80
L18+L17	L18	8.22	4.37	L17	7.38	3.53	330.9	0.003	6	1	0.013	0.1600	1.27	1.27	0.31	0.1600	0.2827	56.6	61.0	61.0	FALSE	4.68
L19+L18	L19	9.56	5.51	L18	8.22	4.37	332.7	0.003	6	1	0.013	0.1600	1.43	1.45	0.28	0.1610	0.3284	48.7	55.5	55.3	FALSE	5.80
L20+L16	L20	8.52	2.97	L16	7.37	2.77	101.4	0.002	6	1	0.013	0.0058	0.15	0.69	0.12	0.0058	0.2492	2.3	24.5	6.3	FALSE	3.01
L21+K28	L21	2.74	-3.95	K28	3.27	-4	68.3	0.001	10	1	0.013	1.0749	1.97	1.97	0.83	1.0749	0.5929	181.3	100.0	100.0	TRUE	-2.86
L22+L3	L22	3.32	-0.13	L3	2.93	-2.72	365.6	0.007	6	1	0.013	0.0255	0.68	0.54	0.01	0.0256	0.4722	5.4	2.0	29.1	TRUE	0.00
L23+L3	L23	3.05	-2.75	L3	2.93	-3.17	351.1	0.001	8	1	0.01	0.4198	1.20	1.20	0.67	0.4198	0.5433	77.3	100.0	100.0	TRUE	-1.81
L24+L23	L24	2.38	-2.17	L23	3.05	-2.75	386.3	0.002	8	1	0.01	0.4198	1.20	1.20	0.67	0.4198	0.6087	69.0	100.0	100.0	TRUE	-1.60
L25+L24	L25	3.54	-1.91	L24	2.38	-2.17	342	0.001	8	1	0.01	0.4198	1.45	1.45	0.52	0.4198	0.4331	96.9	77.5	77.5	FALSE	-1.36
L26+L25	L26	3.77	-1.38	L25	3.54	-1.91	215.6	0.002	8	1	0.013	0.2820	1.50	1.50	0.35	0.2820	0.5991	47.1	53.0	53.0	FALSE	-1.03
L27+L26	L27	3.7	-0.86	L26	3.77	-1.38	260.1	0.002	8	1	0.013	0.1580	1.16	1.16	0.28	0.1580	0.5403	29.2	41.3	41.3	FALSE	-0.58
L28+L27	L28	3.81	0.26	L27	3.7	-0.86	362.9	0.003	6	1	0.013	0.0790	1.01	1.01	0.21	0.0790	0.3117	25.3	41.8	41.8	FALSE	0.47
L29+L28	L29	4.59	1.14	L28	3.81	0.26	366	0.002	6	1	0.013	0.0790	0.92	0.92	0.22	0.0790	0.2751	28.7	44.8	44.8	FALSE	1.39
L30+L27	L30	3.71	-0.19	L27	3.7	-0.86	236	0.003	6	1	0.013	0.0790	0.98	0.99	0.21	0.0798	0.2989	26.4	42.9	43.0	FALSE	0.03
L31+L30	L31	4.39	0.64	L30	3.71	-0.19	178.8	0.005	6	1	0.013	0.0790	1.20	1.41	0.18	0.0902	0.3823	20.7	36.9	36.1	FALSE	0.84
L32+L31	L32	5.42	1.62	L31	4.39	0.64	293.5	0.003	6	1	0.013	0.0790	1.04	1.04	0.21	0.0790	0.3242	24.4	41.2	41.2	FALSE	1.83
L33+L32	L33	5.85	1.8	L32	5.42	1.62	90.7	0.002	6	1	0.013	0.0790	0.90	0.90	0.23	0.0790	0.2500	31.6	45.8	45.8	FALSE	2.06
L34+L26	L34	4.66	-0.24	L26	3.77	-1.28	287.3	0.004	6	1	0.013	0.1240	1.32	1.32	0.24	0.1240	0.3376	36.7	48.4	48.4	FALSE	0.01
L35+L34	L35	5.3	0.7	L34	4.66	-0.24	253.5	0.004	6	1	0.013	0.1100	1.26	1.26	0.23	0.1100	0.3417	32.2	45.6	45.6	FALSE	0.93
L36+L35	L36	5.75	1.65	L35	5.3	0.7	277.7	0.003	6	1	0.013	0.1100	1.22	1.27	0.23	0.1126	0.3282	33.5	46.6	46.1	FALSE	1.89
L37+L36	L37	6.21	2.76	L36	5.75	1.65	322.8	0.003	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.3290	0.0	0.0	0.0	FALSE	2.76
L37+L38	L37	6.21	2.76	L38	5.64	2.24	210.4	0.002	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.2789	0.0	0.0	0.0	FALSE	2.76
L38+L39	L38	5.64	2.24	L39	4.89	1.54	215.2	0.003	6	1	0.013	0.1200	1.26	1.42	0.24	0.1326	0.3200	37.5	48.8	48.2	FALSE	2.49
L39+L40	L39	4.89	1.54	L40	4.16	0.81	345.7	0.002	6	1	0.013	0.1200	1.06	1.06	0.28	0.1200	0.2578	46.6	55.9	55.9	FALSE	1.82
L40+L42	L40	4.16	0.61	L42	3.25	0.2	345.8	0.001	8	1	0.013	0.1250	0.88	0.88	0.29	0.1250	0.4161	30.0	42.8	42.8	FALSE	0.90
L41+L40	L41	6.09	0.95	L40	4.16	0.81	70.6	0.002	6	1	0.013	0.0050	0.64	0.64	0.02	0.0050	0.2499	2.0	4.7	4.7	FALSE	0.98
L42+L43	L42	3.25	0.2	L43	2.56	-0.34	330.1	0.002	8	1	0.013	0.1250	0.98	0.98	0.26	0.1250	0.4887	25.6	39.3	39.3	FALSE	0.46
L43+L44	L43	2.56	-0.34	L44	3.5	-0.85	334.4	0.002	8	1	0.013	0.1250	0.96	0.96	0.27	0.1250	0.4719	26.5	40.1	40.1	FALSE	-0.07
L44+L45	L44	3.5	-0.85	L45	2.57	-1.33	238.4	0.002	8	1	0.013	0.1250	1.06	1.06	0.25	0.1250	0.5422	23.1	37.2	37.2	FALSE	-0.60
L45+L25	L45	2.57	-1.38	L25	3.54	-1.76	201.8	0.002	8	1	0.013	0.1378	1.03	1.03	0.27	0.1378	0.5244	26.3	40.6	40.6	FALSE	-1.11
L46+L45	L46	2.92	-0.93	L45	2.57	-1.23	136	0.002	6	1	0.013	0.0128	0.88	0.95	0.06	0.0221	0.2635	4.9	12.7	13.5	FALSE	-0.85
L47+L4	L47	3.21	-2.04	L4	3.39	-2.3	88	0.003	8	1	0.013	0.2720	1.66	1.66	0.32	0.2720	0.6568	41.4	47.6	47.6	FALSE	-1.71
L48+L47	L48	3.22	-1.35	L47	3.21	-2.04	228.9	0.003	8	1	0.013	0.2040	1.50	1.50	0.28	0.2040	0.6635	30.7	41.4	41.4	FALSE	-1.07
L49+L48	L49	4.08	-1.2	L48	3.22	-1.35	233.3	0.001	8	1	0.013	0.2040	0.99	0.99	0.38	0.2040	0.3064	66.6	56.9	56.9	FALSE	-0.79
L50+L49	L50	4.26	-0.68	L49	4.08	-1.2	223.6	0.002	8	1	0.013	0.2040	1.35	1.35	0.30	0.2040	0.5827	35.0	44.6	44.6	FALSE	-0.38
L51+L50	L51	3.85	-0.28	L50	4.26	-0.68	79.7	0.005	6	1	0.013	0.0077	0.27	0.69	0.10	0.0085	0.3975	1.9	20.3	5.7	FALSE	-0.24
L52+L50	L52	4.54	-0.36	L50	4.26	-0.68	223.9	0.001	6	1	0.013	0.1963	1.17	1.17	0.40	0.1963	0.2121	92.5	79.9	79.9	FALSE	0.07
L53+L52	L53	5.4	0.6	L52	4.54	-0.36	218.4	0.004	6	1	0.013	0.1963	1.69	1.69	0.29	0.1963	0.3720	52.8	57.2	57.2	FALSE	0.89
L54+L53	L54	6.47	2.07	L53	5.4	0.6	369.4	0.004	6	1	0.013	0.0935	1.21	1.21	0.21	0.0935	0.3539	26.4	41.6	41.6	FALSE	2.28
L55+L54	L55	6.53	2.37	L54	6.47	2.07	148.7	0.002	6	1	0.013	0.0425	0.62	0.62	0.19	0.0425	0.2520	16.9	38.0	38.0	FALSE	2.57
L56+L54	L56	7.59	3.34	L54	6.47	2.17	326.7	0.004	6	1	0.013	0.0510	0.84	0.84	0.17	0.0510	0.3357	15.2	34.8	34.8	FALSE	3.52
L57+L53	L57	5.49	1.29	L53	5.4	0.65	202.8	0.003	6	1	0.013	0.1028	1.16	1.16	0.23	0.1028	0.3152	32.6	46.0	46.0	FALSE	1.52
L58+L57	L58	6.75	2.35	L57	5.49	1.29	295.3	0.004	6	1	0.013	0.1028	1.21	1.34	0.22	0.1060	0.3361	30.6	44.8	42.2	FALSE	2.57

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
L59+L58	L59	7.91	3.31	L58	6.75	2.35	250	0.004	6	1	0.013	0.1028	1.24	1.24	0.22	0.1028	0.3477	29.6	43.9	43.9	FALSE	3.53
L60+L59	L60	8.08	3.53	L59	7.91	3.31	108.8	0.002	6	1	0.013	0.1028	1.02	1.02	0.26	0.1028	0.2523	40.7	51.1	51.1	FALSE	3.79
L61+L5	L61	4.57	-0.73	L5	4.17	-1.13	152.5	0.003	6	1	0.013	0.0340	0.71	0.71	0.15	0.0340	0.2874	11.8	29.3	29.3	FALSE	-0.56
L62+L34	L62	4.95	0.45	L34	4.66	-0.19	146.7	0.004	6	1	0.013	0.0140	0.66	0.75	0.08	0.0157	0.3705	3.8	16.4	16.2	FALSE	0.52
M2+M44	M2	5.62	0.3	M44	5.62	0.22	42.2	0.002	8	1	0.013	0.5701	2.32	2.32	0.44	0.5701	0.5262	108.3	66.2	66.2	FALSE	0.80
M2+N1	M2	5.62	2.62	N1	5.32	2.32	82	0.004	12	1	0.013	0.0000	0.00	0.00	0.03	0.0000	2.1554	0.0	2.5	0.0	FALSE	2.66
M3+M2	M3	6.98	1.33	M2	5.62	0.3	379.8	0.003	8	1	0.013	0.5704	1.95	1.95	0.52	0.5704	0.6293	90.7	78.1	78.1	FALSE	1.86
M4+M31	M4	9.9	3	M31	7	2.52	142.5	0.003	8	1	0.013	0.2904	1.73	1.73	0.32	0.2904	0.7012	41.4	48.6	48.6	FALSE	3.32
M5+M4	M5	11.95	3.9	M4	9.9	3.05	372.5	0.002	8	1	0.013	0.2904	1.52	1.52	0.36	0.2905	0.5772	50.3	53.7	53.7	FALSE	4.26
M6+M46	M6	12.3	6.22	M46	12.8	6.1	50.4	0.002	16	1	0.01	0.1751	1.48	1.48	0.19	0.1754	4.8649	3.6	13.9	13.9	FALSE	6.41
M7+M36	M7	12.4	6.45	M36	7.3	3.24	79.9	0.04	10	1	0.01	0.3390	2.91	2.91	0.14	0.3390	5.7102	5.9	17.1	17.1	FALSE	6.59
M7+M45	M7	12.4	6.45	M45	12.36	6.35	46.6	0.002	12	2	0.01	0.1751	1.22	1.22	0.15	0.1754	4.2891	4.1	14.7	14.7	FALSE	6.60
M8+M7	M8	14.41	7.71	M7	12.4	6.45	192.5	0.007	16	1	0.01	0.5141	3.11	3.11	0.23	0.5141	8.0706	6.4	17.6	17.6	FALSE	7.95
M12+M40	M12	14.95	7.4	M40	13.27	5.72	338.1	0.005	8	1	0.013	0.2462	1.91	1.91	0.26	0.2464	0.8518	28.9	39.7	39.6	FALSE	7.67
M13+M12	M13	16.33	8.78	M12	14.95	7.4	276	0.005	8	1	0.013	0.2461	1.91	1.92	0.26	0.2465	0.8544	28.8	39.6	39.6	FALSE	9.05
M14+M5	M14	10.14	5.82	M5	11.95	3.95	327.8	0.006	10	1	0.013	0.0200	0.65	0.65	0.01	0.0201	1.6547	1.2	1.1	1.1	FALSE	5.91
M16+M8	M16	14.85	8.05	M8	14.41	7.81	19.7	0.012	6	1	0.013	0.0100	0.42	0.79	0.09	0.0100	0.6193	1.6	18.0	9.5	FALSE	8.09
M18+M5	M18	12	4.51	M5	11.95	4.2	153.9	0.002	10	1	0.013	0.0171	0.32	0.32	0.13	0.0171	0.9833	1.7	15.5	15.5	FALSE	4.64
M19+M18	M19	12.1	4.7	M18	12	4.51	94.8	0.002	10	1	0.013	0.0171	0.31	0.31	0.13	0.0171	0.9807	1.7	15.6	15.6	FALSE	4.83
M20+M19	M20	12.2	4.86	M19	12.1	4.7	78	0.002	10	1	0.013	0.0171	0.32	0.32	0.13	0.0171	0.9925	1.7	15.5	15.5	FALSE	4.99
M21+M20	M21	12.3	5.45	M20	12.2	4.86	296.6	0.002	10	1	0.013	0.0171	0.31	0.31	0.13	0.0171	0.9772	1.7	15.8	15.8	FALSE	5.58
M22+M21	M22	12.3	5.54	M21	12.3	5.45	43.3	0.002	10	1	0.013	0.0171	0.33	0.33	0.13	0.0171	0.9992	1.7	15.1	15.1	FALSE	5.67
M23+M24	M23	7.5	4.92	M24	7.4	4.53	195	0.002	8	1	0.013	0.2800	1.45	1.45	0.36	0.2800	0.5404	51.8	54.1	54.1	FALSE	5.30
M24+M25	M24	7.4	4.56	M25	7.3	4.04	260	0.002	8	1	0.013	0.2800	1.44	1.44	0.36	0.2800	0.5404	51.8	54.6	54.6	FALSE	4.93
M25+M26	M25	7.3	4.04	M26	7.3	3.5	270	0.002	8	1	0.013	0.2800	1.43	1.43	0.36	0.2800	0.5404	51.8	54.7	54.7	FALSE	4.41
M26+M27	M26	7.3	3.5	M27	7.2	3.25	124.9	0.002	8	1	0.013	0.2800	1.52	1.52	0.35	0.2800	0.5406	51.8	52.3	52.3	FALSE	3.86
M27+M29	M27	7.2	3.25	M29	7.1	3.18	35.2	0.002	8	1	0.013	0.2815	1.78	1.78	0.31	0.2815	0.5385	52.3	46.2	46.2	FALSE	3.58
M28+N11	M28	7.3	0.37	N11	7.2	-0.1	236.4	0.002	8	1	0.013	0.0109	0.78	0.78	0.04	0.0111	0.5388	2.0	6.7	6.8	FALSE	0.44
M29+M31	M29	7.1	3.18	M31	7	2.52	328.8	0.002	8	1	0.01	0.2802	1.71	1.71	0.32	0.2802	0.7038	39.8	47.5	47.5	FALSE	3.50
M30+N29	M30	7.3	0.64	N29	7.2	0.13	255.2	0.002	8	1	0.013	0.0109	0.74	0.84	0.06	0.0127	0.5402	2.0	8.7	8.4	FALSE	0.71
M31+M3	M31	7	2.52	M3	6.98	1.33	357.1	0.003	8	1	0.013	0.5704	2.12	2.12	0.48	0.5704	0.6975	81.8	71.9	71.9	FALSE	3.01
M32+M33	M32	7.3	2.88	M33	7.3	2.49	195	0.002	8	1	0.013	0.2149	1.32	1.32	0.32	0.2151	0.5403	39.8	47.4	47.4	FALSE	3.20
M33+M34	M33	7.3	2.49	M34	7.2	1.91	257.5	0.002	8	1	0.013	0.2149	1.36	1.36	0.31	0.2150	0.5735	37.5	46.2	46.2	FALSE	2.80
M34+N22	M34	7.2	1.91	N22	7.1	1.4	283.5	0.002	8	1	0.013	0.2272	1.28	1.28	0.34	0.2272	0.5125	44.3	50.6	50.6	FALSE	2.25
M35+M34	M35	7.2	2.16	M34	7.2	1.91	124.1	0.002	8	1	0.013	0.0123	0.12	0.75	0.22	0.0124	0.5423	2.3	32.6	9.3	FALSE	2.25
M36+M37	M36	7.3	3.24	M37	7.4	2.73	256.7	0.002	8	1	0.013	0.3677	1.57	1.57	0.42	0.3677	0.5386	68.3	63.7	63.7	FALSE	3.67
M37+N24	M37	7.4	2.73	N24	7.3	2.21	259.3	0.002	8	1	0.013	0.3677	1.57	1.57	0.42	0.3677	0.5411	67.9	63.5	63.5	FALSE	3.16
M38+M39	M38	19.58	12.03	M39	18.79	11.24	157.5	0.005	8	1	0.013	0.2463	1.93	1.96	0.26	0.2498	0.8558	28.8	39.4	39.3	FALSE	12.32
M39+M43	M39	18.79	11.24	M43	17.59	10.04	240.5	0.005	8	1	0.013	0.2463	1.94	2.11	0.26	0.2666	0.8535	28.9	39.2	39.0	FALSE	11.51
M40+M5	M40	13.27	5.72	M5	11.95	4.4	263	0.005	8	1	0.013	0.2465	1.92	1.92	0.26	0.2465	0.8561	28.8	39.6	39.6	FALSE	5.99
M41+M13	M41	16.89	9.34	M13	16.33	8.78	111	0.005	8	1	0.013	0.2463	1.93	1.92	0.26	0.2466	0.8583	28.7	39.4	39.5	FALSE	9.61
M42+M41	M42	17.07	9.82	M41	16.89	9.34	37.3	0.013	8	1	0.013	0.2463	2.70	2.70	0.20	0.2463	1.3699	18.0	30.7	30.7	FALSE	10.03
M43+M42	M43	17.59	10.04	M42	17.07	9.82	103.8	0.002	8	1	0.013	0.2463	1.48	1.55	0.32	0.2556	0.5563	44.3	48.1	47.8	FALSE	10.38
M44+I15	M44	5.62	0.12	I15	5.32	-0.53	61.7	0.011	12	1	0.013	0.5701	3.16	3.16	0.28	0.5701	3.6568	15.6	28.0	28.0	FALSE	0.40
M45+M6	M45	12.36	6.35	M6	12.3	6.22	63.5	0.002	16	1	0.01	0.1751	1.41	1.41	0.19	0.1754	4.5115	3.9	14.4	14.4	FALSE	6.55
M46+M22	M46	12.8	6.12	M22	12.3	5.54	290.6	0.002	10	1	0.013	0.0171	0.31	0.31	0.13	0.0171	0.9788	1.7	15.8	15.8	FALSE	6.21
M46+M32	M46	12.8	6.1	M32	7.3	2.88	76	0.042	10	1	0.01	0.1581	1.81	1.81	0.10	0.1589	5.8625	2.7	12.4	12.3	FALSE	6.21
METERING STATION+T2	METERING STATION	0	-14.66	T2	3.04	-14.76	444.9	0	24	1	0.013	8.9898	3.05	3.05	1.78	8.9898	3.3913	265.1	88.9	88.9	TRUE	-12.59
N1+K41	N1	5.32	-2.08	K41	5.23	-2.2	30.8	0.004	18	1	0.01	0.6820	2.67	2.67	0.30	0.6820	8.5232	8.0	20.2	20.2	FALSE	-1.77
N2+N1	N2	5.71	-1.39	N1	5.32	-2.08	295.7	0.002	16	1	0.01	0.7165	2.39	2.39	0.36	0.7165	4.8180	14.9	26.7	26.7	FALSE	-1.03
N3+N21	N3	6	-0.64	N21	6	-0.82	88.8	0.002	16	1	0.01	0.6592	2.31	2.31	0.34	0.6592	4.4899	14.7	25.8	25.8	FALSE	-0.29
N4+N3	N4	6.14	0.24	N3	6	-0.64	334.7	0.003	16	1	0.01	0.6592	2.43	2.43	0.33	0.6592	5.1141	12.9	24.9	24.9	FALSE	0.58
N5+N4	N5	7.28	1.13	N4	6.14	0.29	332.5	0.003	10	1	0.013	0.0643	0.81	0.81	0.17	0.0643	1.1012	5.8	20.4	20.4	FALSE	1.30
N6+N5	N6	8.64	1.99	N5	7.28	1.13	332.5	0.003	10	1	0.013	0.0643	0.81	0.81	0.17	0.0643	1.1142	5.8	20.3	20.3	FALSE	2.16
N7+N6	N7	9.69	2.84	N6	8.64	1.99	332.7	0.003	10	1	0.013	0.0643	0.81	0.81	0.17	0.0643	1.1074	5.8	20.4	20.4	FALSE	3.01
N8+N9	N8	13.8	4.05	N9	11.48	3.68	118.7	0.003	10	1	0.013	0.0643	0.88	0.88	0.16	0.0643	1.2230	5.3	19.2	19.2	FALSE	4.21
N9+N7	N9	11.48	3.68	N7	9.69	2.84	284	0.003	10	1	0.013	0.0643	0.84	0.84	0.16	0.0643	1.1916	5.4	19.7	19.7	FALSE	3.84
N10+N13	N10	7.1	-0.52	N13	7	-0.88	176	0.002	8	1	0.013	0.0109	0.78	0.78	0.06	0.0109	0.5465	2.0	8.4	8.4	FALSE	-0.46
N11+N12	N11	7.2	-0.1	N12	7.1	-0.56	227.2	0.002	8	1	0.013	0.0218	0.77	1.14	0.09	0.0391	0.5437	4.0	13.6	13.3	FALSE	0.00
N12+N13	N12	7.1	-0.56	N13	7	-0.88	157.9	0.002	8	1	0.013	0.0218	0.69	0.70	0.10	0.0231	0.5440	4.0	14.6	15.1	FALSE	-0.42
N13+N14	N13	7	-0.88	N14	6	-1.21	167	0.002	8	1	0.013	0.0327	0.35	0.61	0.21	0.0328	0.5371	6.1	31.3	21.1	FALSE	-0.74
N14+N2	N14	6	-1.21	N2	5.71	-1.39	88.4	0.002	16	1	0.01	0.7165	2.39	2.39	0.36	0.7165	4.5003	15.9	26.8	26.8	FALSE	-0.84
N15+N16	N15	7.3	0.75	N16	7.2	0.25	251.8	0.002	8	1	0.013	0.0123	0.72	0.96	0.06	0.0360	0.5384	2.3	9.5	8.3	FALSE	0.83
N16+N17	N16	7.2	0.25	N17	7.1	-0.21	228.2	0.002	8	1	0.013	0.0123	0.81	0.63	0.05	0.0174	0.5426	2.3	7.6	1.3	FALSE	0.36
N17+N20	N17	7.1	-0.27	N20	7	-0.67	197	0.002	8	1	0.013	0.0123	0.70	0.82	0.06	0.0178	0.5445	2.3	9.7	11.3	FALSE	-0.18
N18+N19	N18	7.2	0.29	N19	7.1	-0.22	255.9	0.002	8	1	0.013	0.0123	0.72	0.87	0.06	0.0235	0.5394	2.3	9.5	7.7	FALSE	0.36

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
N19+N20	N19	7.1	-0.22	N20	7	-0.67	224.1	0.002	8	1	0.013	0.0123	0.83	0.82	0.05	0.0136	0.5415	2.3	8.1	7.7	FALSE	-0.10
N20+N21	N20	7	-0.67	N21	6	-0.82	72	0.002	8	1	0.013	0.0246	0.17	0.72	0.29	0.0322	0.5516	4.5	44.2	18.5	FALSE	-0.45
N21+N14	N21	6	-0.82	N14	6	-1.21	195.8	0.002	16	1	0.01	0.6838	2.25	2.25	0.36	0.6838	4.4512	15.4	27.0	27.0	FALSE	-0.45
N22+N23	N22	7.1	1.4	N23	7.1	0.98	212	0.002	8	1	0.013	0.2272	1.34	1.34	0.33	0.2272	0.5378	42.3	49.0	49.0	FALSE	1.73
N23+N28	N23	7.1	0.98	N28	7	0.59	193.2	0.002	8	1	0.013	0.2272	1.35	1.35	0.32	0.2272	0.5430	41.9	48.6	48.6	FALSE	1.31
N24+N25	N24	7.3	2.21	N25	7.3	1.98	116.3	0.002	8	1	0.013	0.3677	1.67	1.67	0.40	0.3677	0.5374	68.4	60.2	60.2	FALSE	2.63
N25+N26	N25	7.3	1.98	N26	7.2	1.46	262.5	0.002	8	1	0.013	0.3677	1.56	1.56	0.43	0.3677	0.5379	68.4	63.8	63.8	FALSE	2.41
N26+N27	N26	7.2	1.46	N27	7.1	0.96	247.5	0.002	8	1	0.013	0.3677	1.58	1.58	0.42	0.3677	0.5431	67.7	63.3	63.3	FALSE	1.89
N27+N28	N27	7.1	0.96	N28	7	0.59	183	0.002	8	1	0.013	0.3677	1.63	1.63	0.41	0.3677	0.5433	67.7	61.7	61.7	FALSE	1.39
N28+N31	N28	7	0.59	N31	6.87	0.54	21.4	0.002	6	2	0.01	0.5949	2.08	2.08	0.34	0.5949	0.7050	84.4	68.2	68.2	FALSE	0.93
N29+N10	N29	7.2	0.13	N10	7.1	-0.52	325.6	0.002	8	1	0.013	0.0109	0.72	0.72	0.06	0.0109	0.5399	2.0	8.8	8.8	FALSE	0.19
N30+N11	N30	7.3	0.17	N11	7.2	-0.1	134	0.002	8	1	0.013	0.0109	0.79	0.82	0.06	0.0113	0.5424	2.0	8.3	7.9	FALSE	0.24
N31+N4	N31	6.87	0.54	N4	6.14	0.24	128.8	0.002	12	1	0.01	0.5949	2.35	2.35	0.36	0.5949	2.2348	26.6	35.8	35.8	FALSE	0.91
O3+N8	O3	17.6	8.2	N8	13.8	4.1	205.1	0.02	8	1	0.013	0.0643	1.36	1.36	0.11	0.0643	1.7083	3.8	16.1	16.1	FALSE	8.31
O4+O3	O4	15.39	9.13	O3	17.6	8.3	277.4	0.003	8	1	0.013	0.0329	1.03	0.72	0.07	0.0329	0.6609	5.0	11.0	1.6	FALSE	9.20
O5+O4	O5	14.73	10.25	O4	15.39	9.13	398.6	0.003	8	1	0.013	0.0329	0.99	0.72	0.06	0.0329	0.6405	5.1	9.7	1.6	FALSE	10.34
O6+O5	O6	13.82	11.05	O5	14.73	10.25	399.4	0.002	8	1	0.013	0.0329	1.03	0.72	0.07	0.0329	0.5408	6.1	10.8	1.6	FALSE	11.13
O7+O6	O7	15.16	11.56	O6	13.82	11.05	426.9	0.001	8	1	0.013	0.0329	1.07	0.72	0.08	0.0329	0.4177	7.9	12.2	1.6	FALSE	11.64
O8+O59	O8	16.28	12.23	O59	16.36	11.92	102.7	0.003	8	1	0.013	0.1798	1.43	1.43	0.26	0.1798	0.6639	27.1	38.9	38.9	FALSE	12.50
O9+O8	O9	17.01	12.76	O8	16.28	12.23	139.7	0.004	8	1	0.013	0.1588	1.47	1.47	0.23	0.1588	0.7443	21.3	34.8	34.8	FALSE	12.99
O10+O9	O10	17.95	13.1	O9	17.01	12.76	156.6	0.002	8	1	0.013	0.1588	1.21	1.21	0.27	0.1588	0.5631	28.2	40.3	40.3	FALSE	13.37
O11+O10	O11	19.41	14.01	O10	17.95	13.15	259.2	0.003	8	1	0.013	0.1445	1.34	1.34	0.23	0.1445	0.6960	20.8	34.7	34.7	FALSE	14.24
O12+O11	O12	19.9	14.5	O11	19.41	14.01	394.2	0.001	8	1	0.013	0.1445	0.94	0.94	0.30	0.1445	0.4260	33.9	45.2	45.2	FALSE	14.80
O13+O12	O13	22.22	16.47	O12	19.9	14.5	414.6	0.005	8	1	0.013	0.1445	1.53	1.53	0.21	0.1445	0.8329	17.3	31.5	31.5	FALSE	16.68
O14+O13	O14	21.75	17.35	O13	22.22	16.87	129.7	0.004	8	1	0.013	0.0279	0.88	0.69	0.10	0.0279	0.7351	3.8	14.6	1.6	FALSE	17.45
O15+O14	O15	24.85	19.05	O14	21.75	17.35	307.9	0.006	8	1	0.013	0.0279	0.87	0.87	0.10	0.0279	0.8978	3.1	14.8	14.8	FALSE	19.14
O16+O15	O16	28.01	22.56	O15	24.85	19.2	234.7	0.014	6	1	0.013	0.0279	1.04	1.04	0.08	0.0279	0.6714	4.2	15.9	15.9	FALSE	22.64
O17+O3	O17	10.93	8.62	O3	17.6	8.3	161.2	0.002	8	1	0.013	0.0493	0.66	0.66	0.18	0.0498	0.5383	9.2	26.7	26.8	FALSE	8.80
O18+O17	O18	15.83	11.93	O17	10.93	8.62	264	0.013	8	1	0.013	0.0136	0.74	0.76	0.04	0.0147	1.3530	1.0	5.3	5.5	FALSE	11.97
O19+O17	O19	17.6	10.75	O17	10.93	8.62	85.9	0.025	6	1	0.013	0.0357	1.09	1.11	0.08	0.0363	0.8837	4.0	16.6	17.0	FALSE	10.84
O20+O19	O20	17	10.98	O19	17.6	10.75	115.6	0.002	6	1	0.013	0.0057	0.68	0.56	0.03	0.0057	0.2503	2.3	6.2	1.3	FALSE	11.02
O21+O19	O21	20.09	12.64	O19	17.6	10.75	393.6	0.005	6	1	0.013	0.0300	0.92	0.92	0.11	0.0307	0.3888	7.7	22.2	22.5	FALSE	12.76
O22+O21	O22	20	13.27	O21	20.09	12.64	318.2	0.002	6	1	0.013	0.0300	0.64	0.64	0.14	0.0315	0.2497	12.0	28.8	29.9	FALSE	13.42
O23+O22	O23	21.65	15.65	O22	20	13.27	469.8	0.005	6	1	0.013	0.0301	0.89	0.78	0.11	0.0319	0.3993	7.5	22.8	26.2	FALSE	15.78
O24+O23	O24	21.18	15.84	O23	21.65	15.65	96.7	0.002	6	1	0.013	0.0300	0.67	0.70	0.14	0.0334	0.2488	12.1	27.8	29.1	FALSE	16.00
O25+O7	O25	16.12	12.07	O7	15.16	11.61	177.4	0.003	6	1	0.013	0.0329	0.73	0.73	0.14	0.0329	0.2857	11.5	28.1	28.1	FALSE	12.22
O26+O25	O26	18.86	13.26	O25	16.12	12.12	332.8	0.003	6	1	0.013	0.0131	0.80	0.80	0.07	0.0131	0.3284	4.0	13.8	13.8	FALSE	13.32
O27+O26	O27	19.94	13.44	O26	18.86	13.31	65.4	0.002	6	1	0.013	0.0066	0.68	0.68	0.03	0.0066	0.2501	2.6	6.0	6.0	FALSE	13.48
O28+O26	O28	19	14.28	O26	18.86	13.41	434.3	0.002	6	1	0.013	0.0065	0.70	0.70	0.03	0.0065	0.2511	2.6	6.8	6.8	FALSE	14.32
O29+O28	O29	23	19.53	O28	19	14.28	174	0.03	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.9746	0.0	0.0	0.0	FALSE	19.53
O29+O30	O29	23	19.53	O30	22.78	19.08	226	0.002	6	1	0.013	0.0000	0.00	0.00	0.04	0.0000	0.2504	0.0	7.4	0.0	FALSE	19.59
O30+O35	O30	22.78	17.63	O35	21.74	16.44	175.9	0.007	6	1	0.013	0.0492	0.99	1.01	0.05	0.0492	0.4615	10.7	9.8	10.7	FALSE	17.74
O31+O30	O31	23	18.76	O30	22.78	18.58	89.5	0.002	6	1	0.013	0.0164	0.80	0.79	0.08	0.0190	0.2516	6.5	16.1	18.0	FALSE	18.91
O32+O31	O32	24	19.18	O31	23	18.76	210.5	0.002	6	1	0.013	0.0164	0.83	0.67	0.08	0.0181	0.2506	6.5	15.6	3.3	FALSE	19.33
O33+O32	O33	25	19.71	O32	24	19.18	262.5	0.002	6	1	0.013	0.0164	0.76	0.92	0.08	0.0170	0.2521	6.5	16.7	15.0	FALSE	19.80
O34+O10	O34	23.33	14.69	O10	17.95	13.35	267.7	0.005	6	1	0.013	0.0492	1.09	0.81	0.07	0.0492	0.3970	12.4	13.9	2.5	FALSE	14.80
O35+O34	O35	21.74	16.44	O34	23.33	14.69	316.4	0.006	6	1	0.013	0.0492	1.08	0.81	0.07	0.0492	0.4173	11.8	13.5	2.5	FALSE	16.53
O36+O30	O36	24.12	18.01	O30	22.78	17.68	164.4	0.002	6	1	0.013	0.0164	0.78	0.78	0.08	0.0164	0.2514	6.5	16.3	16.3	FALSE	18.10
O37+O25	O37	16.63	12.23	O25	16.12	12.07	80.9	0.002	6	1	0.013	0.0198	0.71	0.71	0.10	0.0198	0.2495	7.9	19.9	19.9	FALSE	12.33
O38+O37	O38	17.23	12.46	O37	16.63	12.23	117.5	0.002	6	1	0.013	0.0066	0.71	0.71	0.04	0.0067	0.2482	2.7	7.1	7.0	FALSE	12.50
O39+O37	O39	16.48	12.31	O37	16.63	12.23	40.8	0.002	6	1	0.013	0.0132	0.89	0.89	0.06	0.0132	0.2486	5.3	12.8	12.8	FALSE	12.38
O40+O39	O40	16.65	12.38	O39	16.48	12.31	37.3	0.002	6	1	0.013	0.0066	0.28	0.28	0.09	0.0066	0.2431	2.7	17.7	17.7	FALSE	12.43
O41+O40	O41	16.5	12.47	O40	16.65	12.38	44.5	0.002	6	1	0.013	0.0066	0.64	0.64	0.02	0.0066	0.2523	2.6	4.2	4.2	FALSE	12.51
O42+O39	O42	16.78	12.41	O39	16.48	12.31	47.6	0.002	6	1	0.013	0.0066	0.65	0.65	0.02	0.0066	0.2572	2.6	4.8	4.8	FALSE	12.45
O43+O42	O43	17.92	13.6	O42	16.78	12.41	181.9	0.007	6	1	0.013	0.0066	0.65	0.65	0.02	0.0067	0.4538	1.5	4.5	4.8	FALSE	13.63
O44+O43	O44	18.13	13.78	O43	17.92	13.64	69.2	0.002	6	1	0.013	0.0066	0.69	0.69	0.03	0.0066	0.2524	2.6	6.3	6.3	FALSE	13.82
O45+O8	O45	17.06	12.55	O8	16.28	12.23	65.8	0.005	6	1	0.013	0.0210	0.69	0.98	0.11	0.0210	0.3912	5.4	21.2	16.6	FALSE	12.64
O46+O45	O46	18	13.61	O45	17.06	12.55	212.5	0.005	6	1	0.013	0.0070	0.75	0.75	0.04	0.0070	0.3963	1.8	8.5	8.5	FALSE	13.65
O47+O45	O47	16.84	12.91	O45	17.06	12.55	71.5	0.005	6	1	0.013	0.0140	0.85	0.85	0.06	0.0140	0.3981	3.5	11.3	11.3	FALSE	12.97
O48+O47	O48	17.43	13.52	O47	16.84	12.91	122	0.005	6	1	0.013	0.0070	0.69	0.69	0.03	0.0070	0.3968	1.8	6.3	6.3	FALSE	13.55
O49+O47	O49	17.41	13.27	O47	16.84	12.91	72.6	0.005	6	1	0.013	0.0070	0.68	0.68	0.03	0.0070	0.3952	1.8	5.9	5.9	FALSE	13.30
O50+O49	O50	17.95	14.13	O49	17.41	13.27	172.1	0.005	6	1	0.013	0.0070	0.63	0.63	0.02	0.0070	0.3967	1.8	3.9	3.9	FALSE	14.16
O51+O13	O51	24.5	18.4	O13	22.22	16.57	467.6	0.004	6	1	0.013	0.1166	1.32	1.32	0.23	0.1166	0.3510	33.2	45.9	45.9	FALSE	18.63
O52+O51	O52	26.81	19.11	O51	24.5	18.4	213.3	0.003	6	1	0.013	0.0772	1.04	1.04	0.20	0.0772	0.3237	23.8	40.3	40.3	FALSE	19.32
O53+O52	O53	27	19.48	O52	26.81	19.11	188.5	0.002	6	1	0.013	0.0100	0.81	0.84	0.05	0.0150	0.2486	4.0	10.5	10.5	FALSE	19.54
O54+O52	O54	31.19	20.39	O52	26.81	19.11	380.1	0.003	6	1	0.013	0.0672	0.97	0.97	0.19	0.0672	0.3256	20.6	38.4	38.4	FALSE	20.58

Appendix D: Table 2
Scenario 1: 2025 PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
O55+O54	O55	28.75	20.95	O54	31.19	20.44	399.4	0.001	6	1	0.013	0.0672	0.68	0.68	0.25	0.0672	0.2005	33.5	50.4	50.4	FALSE	21.20
O56+O55	O56	27.04	22.24	O55	28.75	20.95	376.5	0.003	6	1	0.013	0.0672	0.97	0.99	0.19	0.0681	0.3284	20.5	38.2	38.1	FALSE	22.45
O57+O51	O57	25.61	19.76	O51	24.5	18.4	365.2	0.004	6	1	0.013	0.0394	0.78	0.78	0.15	0.0394	0.3424	11.5	30.3	30.3	FALSE	19.92
O58+O57	O58	26.81	20.57	O57	25.61	19.76	403.4	0.002	6	1	0.013	0.0394	0.61	0.62	0.18	0.0396	0.2514	15.7	36.4	36.2	FALSE	20.76
O59+O60	O59	16.36	11.92	O60	15.68	9.18	24.1	0.114	12	1	0.013	0.1628	1.75	1.75	0.09	0.1628	12.0125	1.4	8.8	8.8	FALSE	12.06
O59+O7	O59	16.36	11.92	O7	15.16	11.56	182.3	0.002	8	1	0.013	0.0000	0.00	0.00	0.13	0.0000	0.5370	0.0	19.2	0.0	FALSE	12.06
O60+O61	O60	15.68	9.18	O61	14.55	7.85	199	0.007	14	1	0.013	0.5041	2.61	2.61	0.28	0.5041	4.3937	11.5	23.6	23.6	FALSE	9.49
O61+M8	O61	14.55	7.85	M8	14.41	7.81	11.8	0.003	16	1	0.01	0.5041	2.39	2.39	0.28	0.5041	5.8139	8.7	20.8	20.8	FALSE	8.13
O62+O18	O62	17.08	13.18	O18	15.83	11.93	249	0.005	6	1	0.013	0.0136	0.89	0.82	0.07	0.0198	0.3975	3.4	13.1	8.8	FALSE	13.24
O63+O62	O63	17.27	13.37	O62	17.08	13.18	38	0.005	6	1	0.013	0.0136	0.85	0.84	0.06	0.0136	0.3968	3.4	11.4	10.8	FALSE	13.43
T1+T0	T1	4.57	-15.43	T0	#N/A	-17.68	329.2	0.007	24	1	0.013	8.9898	5.87	5.87	0.98	8.9898	18.7022	48.1	49.0	49.0	FALSE	-14.44
T2+T1	T2	3.04	-14.76	T1	4.57	-15.43	505.8	0.001	24	1	0.013	8.9898	3.62	3.62	1.47	8.9898	8.2329	109.2	73.6	73.6	FALSE	-13.15
T3+METERING STATION	T3	2.52	-14.63	METERING STATION	0	-14.66	55	0.001	24	1	0.013	8.9898	2.86	2.86	2.00	8.9898	5.2820	170.2	100.0	100.0	TRUE	-12.56
T4+T3	T4	1.41	-12.09	T3	2.52	-14.63	474.9	0.005	24	1	0.013	8.9898	5.17	5.17	1.08	8.9899	16.5440	54.3	54.2	54.2	TRUE	-11.03
T5+T4	T5	0.16	-11.76	T4	1.41	-11.99	352.3	0.001	24	1	0.013	8.9898	3.50	3.50	1.52	8.9899	5.7802	155.5	76.1	76.1	FALSE	-10.07
T6+T5	T6	0.17	-11.38	T5	0.16	-11.66	359.1	0.001	24	1	0.013	8.9897	3.25	3.25	1.65	8.9898	6.3165	142.3	82.3	82.3	FALSE	-9.61
T7+T6	T7	-0.07	-10.42	T6	0.17	-11.38	503.8	0.002	24	1	0.013	8.9897	3.46	3.46	1.54	8.9899	9.8749	91.0	77.0	77.0	FALSE	-8.90
T8+T7	T8	0.14	-10.08	T7	-0.07	-10.32	501.9	0	24	1	0.013	8.9898	3.20	3.20	1.67	8.9900	4.9469	181.7	83.6	83.6	FALSE	-8.15
T9+T8	T9	0.14	-9.67	T8	0.14	-9.98	497.7	0.001	24	1	0.013	8.9900	2.95	2.95	1.86	8.9894	5.6455	159.2	93.1	93.1	TRUE	-7.59
T10+T9	T10	0.07	-9.12	T9	0.14	-9.57	446.9	0.001	24	1	0.013	8.9904	2.93	2.93	1.88	8.9892	7.1784	125.2	94.2	94.1	FALSE	-7.14
T11+T10	T11	-0.24	-8.44	T10	0.07	-9.02	325.8	0.002	24	1	0.013	8.9913	3.25	3.25	1.65	8.9890	9.5439	94.2	82.4	82.4	FALSE	-6.82
T12+T11	T12	0.55	-8.25	T11	-0.24	-8.49	482.2	0	24	1	0.013	8.9922	3.01	3.01	1.80	8.9897	5.0468	178.2	90.2	90.2	TRUE	-6.24
T16+T33	T16	2.25	-6.5	T33	2.25	-6.55	66.2	0.001	17.8	1	0.01	1.8507	1.48	1.48	1.01	1.8528	3.6203	51.1	68.4	68.4	TRUE	-3.90
T17+T34	T17	0.96	-5.84	T34	1.75	-6.3	407.1	0.001	21	1	0.013	7.1443	3.46	3.46	1.40	7.1443	5.3261	134.1	80.2	80.2	TRUE	-3.90
T18+T17	T18	1.12	-5.23	T17	0.96	-5.79	540.4	0.001	21	1	0.013	7.1441	3.06	3.06	1.63	7.1441	5.1005	140.1	93.1	93.1	TRUE	-3.35
T19+T36	T19	2.23	-4.72	T36	2.125	-4.74	6.3	0.003	21	1	0.013	4.8577	2.02	2.02	1.75	4.8585	8.9021	54.6	100.0	100.0	TRUE	-2.46
T20+T19	T20	2.72	-4.06	T19	2.23	-4.62	331.9	0.002	18	1	0.013	2.2850	1.29	1.29	1.50	2.2850	4.3143	53.0	100.0	100.0	TRUE	-2.44
T21+T20	T21	3.07	-3.99	T20	2.72	-4.06	338.4	0	21	1	0.013	2.2562	0.98	0.98	1.59	2.2562	2.2788	99.0	90.9	90.9	FALSE	-2.43
T22+T37	T22	2.81	-3.24	T37	3	-3.63	191.4	0.002	21	1	0.01	2.1789	1.50	1.50	1.02	2.1789	9.2972	23.4	58.3	58.3	FALSE	-2.41
T23+T22	T23	6.87	-3.03	T22	2.81	-3.24	373	0.001	18	1	0.013	2.1789	2.06	2.06	0.87	2.1789	2.4921	87.4	57.8	57.8	FALSE	-2.08
T24+T23	T24	3.66	-2.69	T23	6.87	-2.93	316.7	0.001	18	1	0.013	2.0425	2.03	2.03	0.83	2.0424	2.8914	70.6	55.5	55.5	FALSE	-1.81
T25+T24	T25	3.95	-2.59	T24	3.66	-2.62	282.2	0	18	1	0.013	2.0425	1.84	1.84	0.90	2.0424	1.0830	188.6	60.2	60.2	FALSE	-1.60
T26+T25	T26	7.03	-2.32	T25	3.95	-2.52	305.6	0.001	18	1	0.013	1.8548	1.80	1.80	0.85	1.8548	2.6873	69.0	56.6	56.6	FALSE	-1.44
T27+T26	T27	7.85	-2.05	T26	7.03	-2.22	355.8	0	18	1	0.013	1.8548	1.83	1.83	0.84	1.8548	2.2958	80.8	55.7	55.7	FALSE	-1.16
T28+T27	T28	8.67	-1.93	T27	7.85	-1.95	162.1	0	18	1	0.013	1.8548	1.97	1.97	0.79	1.8548	1.1667	159.0	52.6	52.6	FALSE	-1.07
T29+T28	T29	4.98	-1.62	T28	8.67	-1.93	233.8	0.001	18	1	0.013	1.8548	2.12	2.12	0.74	1.8548	3.8245	48.5	49.7	49.7	FALSE	-0.87
T30+T12	T30	0.25	-7.24	T12	0.55	-8.25	285.1	0.004	24	1	0.01	8.9921	3.73	3.73	1.44	8.9922	17.5030	51.4	71.8	71.8	TRUE	-6.07
T31+T30	T31	2.05	-7.15	T30	0.25	-7.24	350.8	0	24.2	1	0.01	8.9909	3.78	4.25	1.41	9.6219	4.8253	186.3	69.7	66.7	FALSE	-5.55
T32+T31	T32	1.25	-7.11	T31	2.05	-7.15	125.2	0	24.2	1	0.01	8.9931	3.39	5.06	1.56	13.8287	5.3740	167.3	77.4	79.8	FALSE	-5.40
T33+Transition 1	T33	2.25	-6.55	Transition 1	#N/A	-24.75	157	0.116	17.8	2	0.01	8.9983	2.62	2.62	1.48	9.0058	89.7137	10.0	100.0	100.0	TRUE	-3.90
T34+T33	T34	1.75	-6.3	T33	2.25	-6.55	76.4	0.003	17.8	1	0.01	7.1518	5.33	5.33	1.08	7.1518	7.5365	94.9	72.7	72.7	TRUE	-3.90
T36+T18	T36	2.125	-4.74	T18	1.12	-5.23	493.7	0.001	21	1	0.013	7.1441	2.97	2.97	1.75	7.1441	4.9915	143.1	100.0	100.0	TRUE	-2.47
T37+T21	T37	3	-3.63	T21	3.07	-3.99	83.4	0.004	21	1	0.01	2.1789	1.07	1.07	1.39	2.1789	13.5420	16.1	79.2	79.2	FALSE	-2.42
Transition 1+Transition 2	Transition 1	#N/A	-24.75	Transition 2	#N/A	-24.75	143	0	17.8	2	0.01	8.9981	2.62	5.07	1.48	17.4335	0.2635	3414.9	100.0	100.0	TRUE	-3.91
Transition 2+Transition 3	Transition 2	#N/A	-24.75	Transition 3	#N/A	-15.75	99	-0.091	17.8	2	0.01	8.9971	2.61	5.00	1.48	17.1900	79.4468	11.3	100.0	100.0	TRUE	-4.56
Transition 3+T32	Transition 3	#N/A	-15.75	T32	1.25	-7.11	117.6	-0.073	17.8	2	0.01	8.9965	2.61	4.70	1.48	16.1870	71.4274	12.6	100.0	100.0	TRUE	-4.91

Abbreviations
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
ft: Feet
s: Seconds
in: Inches

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
A10	Sanitary Pattern Load	Fixed	0.0267
A11	Sanitary Pattern Load	Fixed	0.0230
A12	Sanitary Pattern Load	Fixed	0.0151
A13	Sanitary Pattern Load	Fixed	0.0051
A14	Sanitary Pattern Load	Fixed	0.1000
A14	Sanitary Pattern Load	Fixed	0.0645
A15	Sanitary Pattern Load	Fixed	0.0102
A16	Sanitary Pattern Load	Fixed	0.0577
A17	Sanitary Pattern Load	Fixed	0.0048
A17	Sanitary Pattern Load	Fixed	0.0260
A18	Sanitary Pattern Load	Fixed	0.0286
A19	Sanitary Pattern Load	Fixed	0.0268
A2	Sanitary Pattern Load	Fixed	0.0079
A20	Sanitary Pattern Load	Fixed	0.0271
A20	Sanitary Pattern Load	Fixed	0.0448
A21	Sanitary Pattern Load	Fixed	0.0475
A23	Sanitary Pattern Load	Fixed	0.0190
A24	Sanitary Pattern Load	Fixed	0.0068
A25	Sanitary Pattern Load	Fixed	0.0229
A26	Sanitary Pattern Load	Fixed	0.0295
A27	Sanitary Pattern Load	Fixed	0.0530
A27	Sanitary Pattern Load	Fixed	0.0399
A28	Sanitary Pattern Load	Fixed	0.0388
A30	Sanitary Pattern Load	Fixed	0.2830
A30	Sanitary Pattern Load	Fixed	0.0129
A31	Sanitary Pattern Load	Fixed	0.0041
A34	Sanitary Pattern Load	Fixed	0.0021
A36	Sanitary Pattern Load	Fixed	0.0028
A38	Sanitary Pattern Load	Fixed	0.0018
A4	Sanitary Pattern Load	Fixed	0.0340
A41	Sanitary Pattern Load	Fixed	0.0036
A42	Sanitary Pattern Load	Fixed	0.0018
A43	Sanitary Pattern Load	Fixed	0.0005
A45	Sanitary Pattern Load	Fixed	0.0009
A46	Sanitary Pattern Load	Fixed	0.0039
A5	Sanitary Pattern Load	Fixed	0.0349
A7	Sanitary Pattern Load	Fixed	0.0340
A8	Sanitary Pattern Load	Fixed	0.0356
B18	Sanitary Pattern Load	Fixed	0.1020

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
B2	Sanitary Pattern Load	Fixed	0.0129
B20	Sanitary Pattern Load	Fixed	0.1020
B23	Sanitary Pattern Load	Fixed	0.1020
B26	Sanitary Pattern Load	Fixed	0.0666
B28	Sanitary Pattern Load	Fixed	0.0666
B3	Sanitary Pattern Load	Fixed	0.0490
B30	Sanitary Pattern Load	Fixed	0.0330
B32	Sanitary Pattern Load	Fixed	0.0330
B33	Sanitary Pattern Load	Fixed	0.0330
B36	Sanitary Pattern Load	Fixed	0.0527
B4	Sanitary Pattern Load	Fixed	0.2612
B40	Sanitary Pattern Load	Fixed	0.0752
B40	Sanitary Pattern Load	Fixed	0.0360
B42	Sanitary Pattern Load	Fixed	0.0360
B43	Sanitary Pattern Load	Fixed	0.0360
B45	Sanitary Pattern Load	Fixed	0.0343
B47	Sanitary Pattern Load	Fixed	0.0097
B48	Sanitary Pattern Load	Fixed	0.0328
B51	Sanitary Pattern Load	Fixed	0.0260
C13	Sanitary Pattern Load	Fixed	0.0472
C15	Sanitary Pattern Load	Fixed	0.0572
C16	Sanitary Pattern Load	Fixed	0.0100
C18	Sanitary Pattern Load	Fixed	0.0572
C20	Sanitary Pattern Load	Fixed	0.0330
C22	Sanitary Pattern Load	Fixed	0.0330
C24	Sanitary Pattern Load	Fixed	0.0283
C25	Sanitary Pattern Load	Fixed	0.0283
C26	Sanitary Pattern Load	Fixed	0.2000
C29	Sanitary Pattern Load	Fixed	0.0195
C31	Sanitary Pattern Load	Fixed	0.0195
C33	Sanitary Pattern Load	Fixed	0.0195
C34	Sanitary Pattern Load	Fixed	0.0095
C37	Sanitary Pattern Load	Fixed	0.0458
C39	Sanitary Pattern Load	Fixed	0.0458
C42	Sanitary Pattern Load	Fixed	0.0458
C43	Sanitary Pattern Load	Fixed	0.0132
C47	Sanitary Pattern Load	Fixed	0.0911
C51	Sanitary Pattern Load	Fixed	0.1755
D1	Sanitary Pattern Load	Fixed	0.0842

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
D17	Sanitary Pattern Load	Fixed	0.1131
D17	Sanitary Pattern Load	Fixed	0.2000
D22	Sanitary Pattern Load	Fixed	0.1082
D28	Sanitary Pattern Load	Fixed	0.1700
D31	Sanitary Pattern Load	Fixed	0.0765
D32	Sanitary Pattern Load	Fixed	0.0765
D39	Sanitary Pattern Load	Fixed	0.0100
D40	Sanitary Pattern Load	Fixed	0.0100
D42	Sanitary Pattern Load	Fixed	0.0214
D44	Sanitary Pattern Load	Fixed	0.1500
D5	Sanitary Pattern Load	Fixed	0.0216
D50	Sanitary Pattern Load	Fixed	0.3500
D55	Sanitary Pattern Load	Fixed	0.1200
D61	Sanitary Pattern Load	Fixed	0.1336
D62	Sanitary Pattern Load	Fixed	0.0150
D66	Sanitary Pattern Load	Fixed	0.1989
D68	Sanitary Pattern Load	Fixed	0.0300
D69	Sanitary Pattern Load	Fixed	0.0300
D70	Sanitary Pattern Load	Fixed	0.1400
D71	Sanitary Pattern Load	Fixed	0.1200
D73	Sanitary Pattern Load	Fixed	0.0249
D74	Sanitary Pattern Load	Fixed	0.0399
D74	Sanitary Pattern Load	Fixed	0.0770
D8	Sanitary Pattern Load	Fixed	0.0105
E1	Sanitary Pattern Load	Fixed	0.0006
E20	Sanitary Pattern Load	Fixed	0.0497
E21	Sanitary Pattern Load	Fixed	0.0609
E22	Sanitary Pattern Load	Fixed	0.0546
E23	Sanitary Pattern Load	Fixed	0.0609
E25	Sanitary Pattern Load	Fixed	0.0849
E26	Sanitary Pattern Load	Fixed	0.0670
E28	Sanitary Pattern Load	Fixed	0.0427
E30	Sanitary Pattern Load	Fixed	0.0067
E30	Sanitary Pattern Load	Fixed	0.0670
E32	Sanitary Pattern Load	Fixed	0.0610
E33	Sanitary Pattern Load	Fixed	0.0088
E34	Sanitary Pattern Load	Fixed	0.0400
E35	Sanitary Pattern Load	Fixed	0.0305
E37	Sanitary Pattern Load	Fixed	0.0609

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
E39	Sanitary Pattern Load	Fixed	0.0609
E40	Sanitary Pattern Load	Fixed	0.0609
E41	Sanitary Pattern Load	Fixed	0.0183
E45	Sanitary Pattern Load	Fixed	0.1471
E45	Sanitary Pattern Load	Fixed	0.0609
E47	Sanitary Pattern Load	Fixed	0.0483
E47	Sanitary Pattern Load	Fixed	0.0609
E49	Sanitary Pattern Load	Fixed	0.0609
F11	Sanitary Pattern Load	Fixed	0.0377
F13	Sanitary Pattern Load	Fixed	0.0260
F14	Sanitary Pattern Load	Fixed	0.0172
F14	Sanitary Pattern Load	Fixed	0.0190
F15	Sanitary Pattern Load	Fixed	0.0127
F16	Sanitary Pattern Load	Fixed	0.0648
F18	Sanitary Pattern Load	Fixed	0.0260
F20	Sanitary Pattern Load	Fixed	0.0190
F21	Sanitary Pattern Load	Fixed	0.0260
F26	Sanitary Pattern Load	Fixed	0.0129
F28	Sanitary Pattern Load	Fixed	0.0129
F7	Sanitary Pattern Load	Fixed	0.0153
F8	Sanitary Pattern Load	Fixed	0.1373
G11	Sanitary Pattern Load	Fixed	0.0382
G12	Sanitary Pattern Load	Fixed	0.0116
G13	Sanitary Pattern Load	Fixed	0.0190
G14	Sanitary Pattern Load	Fixed	0.0083
G16	Sanitary Pattern Load	Fixed	0.0097
G17	Sanitary Pattern Load	Fixed	0.0083
G18	Sanitary Pattern Load	Fixed	0.0097
G19	Sanitary Pattern Load	Fixed	0.0034
G2	Sanitary Pattern Load	Fixed	0.0081
G20	Sanitary Pattern Load	Fixed	0.0010
G21	Sanitary Pattern Load	Fixed	0.0009
G21	Sanitary Pattern Load	Fixed	0.0050
G22	Sanitary Pattern Load	Fixed	0.0010
G22	Sanitary Pattern Load	Fixed	0.0050
G8	Sanitary Pattern Load	Fixed	0.0382
H23	Sanitary Pattern Load	Fixed	0.0100
H24	Sanitary Pattern Load	Fixed	0.0479
H27	Sanitary Pattern Load	Fixed	0.0372

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
H28	Sanitary Pattern Load	Fixed	0.0302
H30	Sanitary Pattern Load	Fixed	0.0529
H31	Sanitary Pattern Load	Fixed	0.0415
H32	Sanitary Pattern Load	Fixed	0.0161
H33	Sanitary Pattern Load	Fixed	0.0117
H33	Sanitary Pattern Load	Fixed	0.1119
H36	Sanitary Pattern Load	Fixed	0.1046
H37	Sanitary Pattern Load	Fixed	0.0264
H38	Sanitary Pattern Load	Fixed	0.0792
H39	Sanitary Pattern Load	Fixed	0.1020
H41	Sanitary Pattern Load	Fixed	0.0920
H42	Sanitary Pattern Load	Fixed	0.0078
H43	Sanitary Pattern Load	Fixed	0.0920
H44	Sanitary Pattern Load	Fixed	0.0027
H44	Sanitary Pattern Load	Fixed	0.1020
H45	Sanitary Pattern Load	Fixed	0.0100
H49	Sanitary Pattern Load	Fixed	0.0100
H51	Sanitary Pattern Load	Fixed	0.0372
H53	Sanitary Pattern Load	Fixed	0.0529
H58	Sanitary Pattern Load	Fixed	0.0406
H61	Sanitary Pattern Load	Fixed	0.0406
H63	Sanitary Pattern Load	Fixed	0.0110
H67	Sanitary Pattern Load	Fixed	0.0100
H69	Sanitary Pattern Load	Fixed	0.0100
H70	Sanitary Pattern Load	Fixed	0.0090
H72	Sanitary Pattern Load	Fixed	0.0090
I16	Sanitary Pattern Load	Fixed	0.0050
I17	Sanitary Pattern Load	Fixed	0.0050
I19	Sanitary Pattern Load	Fixed	0.0050
I20	Sanitary Pattern Load	Fixed	0.0050
I22	Sanitary Pattern Load	Fixed	0.0590
I25	Sanitary Pattern Load	Fixed	0.0789
I26	Sanitary Pattern Load	Fixed	0.0690
I29	Sanitary Pattern Load	Fixed	0.0690
I33	Sanitary Pattern Load	Fixed	0.0050
I34	Sanitary Pattern Load	Fixed	0.0050
J10	Sanitary Pattern Load	Fixed	0.0545
J14	Sanitary Pattern Load	Fixed	0.0290
J7	Sanitary Pattern Load	Fixed	0.0227

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
K10	Sanitary Pattern Load	Fixed	0.0100
K14	Sanitary Pattern Load	Fixed	0.0205
K15	Sanitary Pattern Load	Fixed	0.0100
K20	Sanitary Pattern Load	Fixed	0.0205
K23	Sanitary Pattern Load	Fixed	0.0050
K24	Sanitary Pattern Load	Fixed	0.0050
K25	Sanitary Pattern Load	Fixed	0.0160
K36	Sanitary Pattern Load	Fixed	0.0595
K37	Sanitary Pattern Load	Fixed	0.0595
L11	Sanitary Pattern Load	Fixed	0.0160
L12	Sanitary Pattern Load	Fixed	0.0536
L19	Sanitary Pattern Load	Fixed	0.1600
L20	Sanitary Pattern Load	Fixed	0.0058
L22	Sanitary Pattern Load	Fixed	0.0255
L29	Sanitary Pattern Load	Fixed	0.0790
L33	Sanitary Pattern Load	Fixed	0.0790
L36	Sanitary Pattern Load	Fixed	0.1100
L38	Sanitary Pattern Load	Fixed	0.1200
L41	Sanitary Pattern Load	Fixed	0.0050
L46	Sanitary Pattern Load	Fixed	0.0128
L51	Sanitary Pattern Load	Fixed	0.0077
L55	Sanitary Pattern Load	Fixed	0.0425
L56	Sanitary Pattern Load	Fixed	0.0510
L60	Sanitary Pattern Load	Fixed	0.1028
L61	Sanitary Pattern Load	Fixed	0.0340
L62	Sanitary Pattern Load	Fixed	0.0140
L8	Sanitary Pattern Load	Fixed	0.0340
M14	Sanitary Pattern Load	Fixed	0.0200
M16	Sanitary Pattern Load	Fixed	0.0100
M23	Sanitary Pattern Load	Fixed	0.2800
M28	Sanitary Pattern Load	Fixed	0.0109
M30	Sanitary Pattern Load	Fixed	0.0109
M32	Sanitary Pattern Load	Fixed	0.0765
M32	Sanitary Pattern Load	Fixed	0.0123
M35	Sanitary Pattern Load	Fixed	0.0123
M36	Sanitary Pattern Load	Fixed	0.0287
M38	Sanitary Pattern Load	Fixed	0.5832
M38	Sanitary Pattern Load	Fixed	0.2463
N15	Sanitary Pattern Load	Fixed	0.0123

Appendix D: Table 3
Scenario 3: 2035 PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
N18	Sanitary Pattern Load	Fixed	0.0123
N30	Sanitary Pattern Load	Fixed	0.0109
N8	Sanitary Pattern Load	Fixed	0.1105
O16	Sanitary Pattern Load	Fixed	0.0208
O16	Sanitary Pattern Load	Fixed	0.0279
O20	Sanitary Pattern Load	Fixed	0.0057
O24	Sanitary Pattern Load	Fixed	0.0300
O27	Sanitary Pattern Load	Fixed	0.0009
O27	Sanitary Pattern Load	Fixed	0.0066
O28	Sanitary Pattern Load	Fixed	0.0065
O3	Sanitary Pattern Load	Fixed	0.0102
O30	Sanitary Pattern Load	Fixed	0.0164
O33	Sanitary Pattern Load	Fixed	0.0164
O36	Sanitary Pattern Load	Fixed	0.0164
O38	Sanitary Pattern Load	Fixed	0.0066
O41	Sanitary Pattern Load	Fixed	0.0066
O44	Sanitary Pattern Load	Fixed	0.0066
O46	Sanitary Pattern Load	Fixed	0.0070
O48	Sanitary Pattern Load	Fixed	0.0070
O50	Sanitary Pattern Load	Fixed	0.0070
O51	Sanitary Pattern Load	Fixed	0.0186
O53	Sanitary Pattern Load	Fixed	0.0100
O56	Sanitary Pattern Load	Fixed	0.0672
O58	Sanitary Pattern Load	Fixed	0.0093
O58	Sanitary Pattern Load	Fixed	0.0394
O60	Sanitary Pattern Load	Fixed	0.3413
O63	Sanitary Pattern Load	Fixed	0.0136
T23	Sanitary Pattern Load	Fixed	0.0107
T25	Sanitary Pattern Load	Fixed	0.0661

Abbreviations
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
A1+A2	A1	16.28	2	A2	15.82	1.92	79.9	0.001	12	1	0.013	1.9498	2.48	2.48	1.00	1.9498	1.1275	172.9	100.0	100.0	TRUE	4.15
A2+A5	A2	15.82	1.82	A5	14.53	1.57	244.2	0.001	12	1	0.013	1.9917	2.54	2.54	1.00	1.9917	1.1400	174.7	100.0	100.0	TRUE	4.01
A3+A2	A3	14.86	8.76	A2	15.82	2.12	287.5	0.023	6	1	0.013	0.0340	1.11	1.11	0.09	0.0340	0.8527	4.0	17.5	17.6	TRUE	8.85
A4+A3	A4	14	9.48	A3	14.86	8.86	312	0.002	6	1	0.013	0.0340	0.62	0.89	0.16	0.0378	0.2501	13.6	32.1	26.8	FALSE	9.66
A5+A8	A5	14.53	1.57	A8	13.85	1.53	124.3	0	15	1	0.013	2.0606	1.68	1.68	1.25	2.0606	1.1588	177.8	100.0	100.0	TRUE	3.36
A6+A5	A6	13.72	7.32	A5	14.53	5.81	286.8	0.005	6	1	0.013	0.0340	0.82	0.85	0.13	0.0344	0.4071	8.4	26.3	26.0	FALSE	7.45
A7+A6	A7	14	8.03	A6	13.72	7.42	306	0.002	6	1	0.013	0.0340	0.63	0.87	0.16	0.0377	0.2505	13.6	32.0	27.2	FALSE	8.21
A8+A9	A8	13.85	1.43	A9	12.82	1.16	61.2	0.004	15	1	0.013	2.0962	1.71	1.71	1.25	2.0962	4.2913	48.8	100.0	100.0	TRUE	3.35
A9+A10	A9	12.82	0.62	A10	11.42	0.57	181.2	0	15	1	0.013	2.0962	1.71	1.71	1.25	2.0962	1.0731	195.4	100.0	100.0	TRUE	3.34
A10+A15	A10	11.42	0.47	A15	9.93	0.03	299.3	0.001	15	1	0.013	2.3306	1.90	1.90	1.25	2.3306	2.4766	94.1	100.0	100.0	TRUE	3.26
A11+A10	A11	11.83	2.53	A10	11.42	1.12	417.5	0.003	6	1	0.013	0.2077	1.06	1.56	0.50	0.2078	0.3260	63.7	100.0	64.2	TRUE	3.27
A12+A11	A12	9.52	4.07	A11	11.83	2.63	485.1	0.003	6	1	0.013	0.1846	1.42	1.42	0.31	0.1847	0.3057	60.4	62.7	62.7	TRUE	4.39
A13+A12	A13	7.19	5.15	A12	9.52	4.07	412.1	0.003	6	1	0.013	0.1696	1.32	1.32	0.31	0.1696	0.2872	59.1	62.4	62.4	FALSE	5.46
A14+A13	A14	8.06	5.91	A13	7.19	5.19	288.3	0.002	6	1	0.013	0.1645	1.28	1.35	0.31	0.1714	0.2804	58.7	62.3	61.7	FALSE	6.22
A15+A16	A15	9.93	-0.03	A16	8.08	-0.17	435.1	0	15	1	0.013	2.3408	1.91	1.91	1.25	2.3408	1.1586	202.0	100.0	100.0	TRUE	2.97
A16+A21	A16	8.08	-0.22	A21	7.13	-0.42	296.3	0.001	15	1	0.013	2.5782	2.10	2.10	1.25	2.5782	1.6783	153.6	100.0	100.0	TRUE	2.50
A17+A31	A17	8.77	1.57	A31	8.39	1.1	235.4	0.002	6	1	0.013	0.0308	0.16	0.66	0.50	0.0311	0.2507	12.3	100.0	28.9	TRUE	2.50
A18+A16	A18	7.05	1.45	A16	8.08	0.73	441.8	0.002	6	1	0.013	0.1273	0.65	0.99	0.50	0.1273	0.2265	56.2	100.0	62.5	TRUE	2.81
A19+A18	A19	6.77	2.98	A18	7.05	1.45	213.5	0.007	6	1	0.013	0.0986	0.50	1.64	0.50	0.1065	0.4749	20.8	100.0	36.5	TRUE	3.20
A20+A19	A20	5.62	3.73	A19	6.77	3.05	339.8	0.002	6	1	0.013	0.0719	0.82	0.82	0.23	0.0719	0.2510	28.6	45.5	45.5	FALSE	3.96
A21+A23	A21	7.13	-0.52	A23	7.01	-0.8	155.1	0.002	15	1	0.013	2.6257	2.14	2.14	1.25	2.6257	2.7445	95.7	100.0	100.0	TRUE	2.12
A22+A29	A22	6.99	-0.92	A29	6.36	-1.21	369.1	0.001	18	1	0.013	2.7967	1.58	1.58	1.50	2.7967	2.9441	95.0	100.0	100.0	TRUE	2.06
A23+A22	A23	7.01	-0.8	A22	6.99	-0.92	13.8	0.009	15	1	0.013	2.7967	2.28	2.28	1.25	2.7967	6.0236	46.4	100.0	100.0	TRUE	2.07
A24+A23	A24	7.7	1.62	A23	7.01	0.37	250.6	0.005	6	1	0.013	0.1520	0.77	1.67	0.50	0.1522	0.3962	38.4	100.0	47.1	TRUE	2.07
A25+A24	A25	8.36	2.89	A24	7.7	1.62	253.1	0.005	6	1	0.013	0.1453	1.58	1.58	0.24	0.1453	0.3975	36.5	47.4	47.4	FALSE	3.13
A26+A25	A26	7.42	4.06	A25	8.36	2.89	234.1	0.005	6	1	0.013	0.1224	1.51	1.51	0.22	0.1224	0.3967	30.8	43.1	43.1	FALSE	4.28
A27+A26	A27	6.96	5	A26	7.42	4.06	310.9	0.003	6	1	0.013	0.0929	1.09	1.09	0.22	0.0929	0.3085	30.1	44.9	44.9	FALSE	5.26
A28+A29	A28	6.24	0.21	A29	6.36	-0.25	14.8	0.031	6	1	0.013	0.3347	1.70	3.23	0.50	0.3347	0.9884	33.9	100.0	42.4	TRUE	1.92
A29+T29	A29	6.36	-1.24	T29	4.98	-1.62	345.5	0.001	18	1	0.013	3.1314	1.77	1.77	1.50	3.1314	3.4837	89.9	100.0	100.0	TRUE	1.92
A30+A28	A30	6.07	1.27	A28	6.24	0.32	301	0.003	6	1	0.013	0.2959	1.51	1.51	0.50	0.2959	0.3152	93.9	100.0	100.0	TRUE	1.92
A31+A16	A31	8.39	1.1	A16	8.08	0.73	187.3	0.002	6	1	0.013	0.0523	0.27	0.78	0.50	0.0642	0.2494	21.0	100.0	43.4	TRUE	2.50
A32+A31	A32	8.62	1.83	A31	8.39	1.1	118.6	0.006	6	1	0.01	0.0174	0.09	0.90	0.50	0.0315	0.5722	3.0	100.0	23.4	TRUE	2.50
A33+A32	A33	9.45	2.67	A32	8.62	1.83	149.8	0.006	6	1	0.01	0.0136	0.14	0.98	0.25	0.0537	0.5462	2.5	50.3	8.6	TRUE	2.76
A34+A33	A34	9.45	2.93	A33	9.45	2.67	55.6	0.005	6	1	0.01	0.0021	0.53	0.58	0.00	0.0044	0.4986	0.4	0.9	2.5	FALSE	2.94
A35+A33	A35	10.05	3.68	A33	9.45	2.67	173.6	0.006	6	1	0.01	0.0114	0.83	0.85	0.05	0.0132	0.5563	2.1	10.8	11.3	FALSE	3.74
A36+A47	A36	10.05	4.57	A47	10.36	4.36	40.9	0.005	6	1	0.01	0.0028	0.54	0.54	0.01	0.0028	0.5228	0.5	1.0	1.0	FALSE	4.59
A37+A35	A37	10.51	4.46	A35	10.05	3.68	182.3	0.004	6	1	0.01	0.0086	0.74	0.74	0.04	0.0086	0.4771	1.8	7.9	7.9	FALSE	4.50
A38+A37	A38	11.26	6.07	A37	10.51	5.37	109	0.006	6	1	0.01	0.0018	0.53	0.53	0.00	0.0018	0.5845	0.3	0.9	0.9	FALSE	6.07
A39+A37	A39	10.5	4.77	A37	10.51	4.46	52.7	0.006	6	1	0.01	0.0068	0.67	0.67	0.03	0.0068	0.5594	1.2	5.5	5.5	FALSE	4.80
A40+A39	A40	10.8	5.24	A39	10.5	4.77	80.2	0.006	6	1	0.01	0.0068	0.67	0.67	0.03	0.0068	0.5583	1.2	5.4	5.4	FALSE	5.27
A41+A40	A41	11.38	5.82	A40	10.8	5.24	79.5	0.007	6	1	0.01	0.0036	0.66	0.63	0.03	0.0037	0.6231	0.6	5.8	4.3	FALSE	5.84
A42+A40	A42	11.13	6.17	A40	10.8	5.49	109.2	0.006	6	1	0.01	0.0018	0.53	0.53	0.00	0.0018	0.5757	0.3	0.9	0.9	FALSE	6.18
A43+A44	A43	12.15	6.64	A44	11.23	6.12	85.9	0.006	6	1	0.01	0.0005	0.47	0.47	0.00	0.0005	0.5675	0.1	0.6	0.6	FALSE	6.64
A44+A40	A44	11.23	6.12	A40	10.8	5.24	146.4	0.006	6	1	0.01	0.0014	0.53	0.53	0.00	0.0014	0.5656	0.2	0.8	0.8	FALSE	6.12
A45+A44	A45	11.14	6.83	A44	11.23	6.12	103.1	0.007	6	1	0.01	0.0009	0.52	0.52	0.00	0.0009	0.6052	0.1	0.7	0.7	FALSE	6.83
A46+A32	A46	9.92	3.47	A32	8.62	1.83	256.9	0.006	6	1	0.01	0.0039	0.55	0.55	0.01	0.0041	0.5828	0.7	1.1	1.2	TRUE	3.48
A47+A35	A47	10.36	4.36	A35	10.05	3.68	100	0.007	6	1	0.01	0.0028	0.54	0.54	0.01	0.0028	0.6014	0.5	1.0	1.0	FALSE	4.37
B2+A1	B2	16	2.46	A1	16.28	2.1	180.8	0.002	12	1	0.013	1.9498	2.48	2.48	1.00	1.9498	1.5899	122.6	100.0	100.0	TRUE	4.62
B3+B2	B3	18.59	2.64	B2	16	2.46	239.4	0.001	12	1	0.013	1.9026	2.42	2.42	1.00	1.9026	0.9769	194.8	100.0	100.0	TRUE	5.22
B4+B3	B4	20.32	3.42	B3	18.59	2.74	464.8	0.001	12	1	0.013	1.8536	2.36	2.36	1.00	1.8536	1.3627	136.0	100.0	100.0	TRUE	6.41
B5+B52	B5	18.61	4.51	B52	20.58	4.29	176.2	0.001	12	1	0.013	1.5924	2.03	2.03	1.00	1.5924	1.2589	126.5	100.0	100.0	TRUE	7.33
B6+B5	B6	18.29	5.6	B5	18.61	4.56	158.4	0.007	12	1	0.013	1.5827	2.01	2.01	1.00	1.5827	2.8864	54.8	100.0	100.0	TRUE	7.55
B7+B6	B7	18.66	5.76	B6	18.29	5.6	380.1	0	12	1	0.013	1.3735	1.75	1.75	1.00	1.3735	0.7309	187.9	100.0	100.0	TRUE	8.05
B8+B7	B8	20.55	6.5	B7	18.66	5.81	371	0.002	12	1	0.013	1.3407	1.71	1.71	1.00	1.3407	1.5364	87.3	100.0	100.0	TRUE	8.50
B9+B8	B9	18.41	7.16	B8	20.55	6.55	350.9	0.002	12	1	0.013	1.2880	1.64	1.64	1.00	1.2880	1.4854	86.7	100.0	100.0	TRUE	8.88
B10+B9	B10	16.86	7.61	B9	18.41	7.16	289.7	0.002	12	1	0.013	1.1890	1.51	1.51	1.00	1.1890	1.4040	84.7	100.0	100.0	TRUE	9.12
B11+B10	B11	16.46	8.71	B10	16.86	7.66	201.4	0.005	12	1	0.013	1.0558	1.38	1.38	0.94	1.0558	2.5723	41.0	93.8	93.8	TRUE	9.25
B12+B11	B12	15.83	9.18	B11	16.46	8.76	277	0.002	10	1	0.013	0.9538	1.98	1.98	0.69	0.9538	0.8530	111.8	82.5	82.5	FALSE	9.93
B13+B12	B13	15.33	9.53	B12	15.83	9.18	262.7	0.001	12	1	0.013	0.8518	1.67	1.67	0.62	0.8518	1.3003	65.5	61.8	61.8	FALSE	10.15
B14+B13	B14	15.47	10.07	B13	15.33	9.53	253.1	0.002	12	1	0.013	0.7498	1.97	1.97	0.49	0.7499	1.6455	45.6	48.8	48.8	FALSE	10.56
B15+B49	B15	20.29	12.19	B49	17.11	11.21	330.9	0.003	8	1	0.013	0.7498	2.15	2.15	0.67	0.7502	0.6575	114.0	100.0	100.0	TRUE	13.12

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
B16+B15	B16	20.39	13.24	B15	20.29	12.19	327.3	0.003	8	1	0.013	0.7498	2.15	2.15	0.67	0.7500	0.6844	109.6	100.0	100.0	TRUE	14.41
B17+B13	B17	19.31	13.31	B13	15.33	9.73	501.1	0.007	6	1	0.013	0.1020	1.62	1.57	0.18	0.1020	0.4742	21.5	35.7	36.5	FALSE	13.50
B18+B17	B18	22.26	14.3	B17	19.31	13.31	497.2	0.002	6	1	0.013	0.1020	0.97	0.97	0.26	0.1020	0.2504	40.7	52.7	52.7	FALSE	14.56
B19+B12	B19	20.74	14.44	B12	15.83	9.88	499.6	0.009	6	1	0.013	0.1020	1.70	1.70	0.17	0.1020	0.5360	19.0	34.5	34.5	FALSE	14.61
B20+B19	B20	23.22	19.12	B19	20.74	14.44	585	0.008	6	1	0.013	0.1020	1.62	1.62	0.18	0.1021	0.5019	20.3	35.7	35.7	FALSE	19.30
B21+B11	B21	18.68	13.54	B11	16.46	9.36	399.6	0.01	6	1	0.013	0.1020	1.78	1.78	0.17	0.1020	0.5739	17.8	33.2	33.2	FALSE	13.71
B22+B21	B22	24.77	18.67	B21	18.68	13.58	399.5	0.013	6	1	0.013	0.1020	1.80	1.80	0.16	0.1020	0.6333	16.1	31.6	31.6	FALSE	18.83
B23+B22	B23	28	23.55	B22	24.77	18.67	380.2	0.013	6	1	0.013	0.1020	1.80	1.80	0.16	0.1020	0.6356	16.0	31.5	31.5	FALSE	23.71
B24+B10	B24	22.52	15.82	B10	16.86	9.61	492.5	0.013	6	1	0.013	0.1332	2.05	2.05	0.18	0.1338	0.6300	21.1	35.3	35.3	FALSE	16.00
B25+B24	B25	27.09	18.84	B24	22.52	15.82	406.2	0.007	6	1	0.013	0.1332	1.77	1.78	0.20	0.1339	0.4838	27.5	40.7	40.8	FALSE	19.06
B26+B25	B26	27.62	21.62	B25	27.09	18.84	401.5	0.007	6	1	0.013	0.0666	1.24	1.24	0.16	0.0666	0.4669	14.3	31.7	31.7	FALSE	21.79
B27+B25	B27	25.46	19.69	B25	27.09	18.99	318	0.002	6	1	0.013	0.0666	0.82	1.21	0.22	0.0945	0.2633	25.3	43.1	41.8	FALSE	19.92
B28+B27	B28	24.83	20.93	B27	25.46	19.69	202	0.006	6	1	0.013	0.0666	1.20	1.21	0.16	0.0667	0.4397	15.1	32.5	32.5	FALSE	21.10
B29+B9	B29	19.43	13.68	B9	18.41	7.61	211.2	0.029	6	1	0.013	0.0990	1.63	1.62	0.13	0.1022	0.9513	10.4	25.3	24.4	TRUE	13.82
B30+B29	B30	23.55	14.31	B29	19.43	13.83	243.2	0.002	6	1	0.013	0.0330	0.66	1.39	0.15	0.0552	0.2493	13.2	30.3	25.5	FALSE	14.48
B31+B29	B31	21.81	15.76	B29	19.43	13.68	256.8	0.008	6	1	0.013	0.0660	1.31	1.31	0.15	0.0660	0.5049	13.1	30.3	30.3	FALSE	15.92
B32+B31	B32	26.3	16.37	B31	21.81	15.86	253.7	0.002	6	1	0.013	0.0330	0.63	0.88	0.16	0.0397	0.2515	13.1	31.1	28.1	FALSE	16.54
B33+B31	B33	25.73	19.18	B31	21.81	15.76	279.8	0.012	6	1	0.013	0.0330	1.16	1.14	0.10	0.0332	0.6204	5.3	19.9	20.5	FALSE	19.28
B34+B8	B34	24.69	15.24	B8	20.55	7.1	251.1	0.032	6	1	0.013	0.0527	1.27	1.27	0.10	0.0527	1.0103	5.2	20.1	20.1	TRUE	15.34
B35+B34	B35	26.3	20	B34	24.69	15.24	363.8	0.013	6	1	0.013	0.0527	1.37	1.37	0.12	0.0527	0.6418	8.2	24.9	24.9	FALSE	20.13
B36+B35	B36	24.45	20.41	B35	26.3	20	207	0.002	6	1	0.013	0.0527	0.70	0.94	0.20	0.0677	0.2497	21.1	40.9	39.3	FALSE	20.63
B37+B6	B37	14.71	7.31	B6	18.29	6.74	262.3	0.002	6	1	0.013	0.2092	1.07	1.31	0.50	0.2092	0.2615	80.0	100.0	75.6	TRUE	8.00
B38+B50	B38	12.43	7.93	B50	13.27	7.77	38.9	0.004	6	1	0.013	0.1472	1.10	1.43	0.32	0.1472	0.3599	40.9	64.4	51.8	FALSE	8.20
B39+B38	B39	13	8.56	B38	12.43	8.03	265.5	0.002	6	1	0.013	0.1112	1.01	1.01	0.27	0.1112	0.2507	44.4	54.8	54.8	FALSE	8.84
B40+B39	B40	13	9.17	B39	13	8.56	306.1	0.002	6	1	0.013	0.1112	1.01	1.04	0.27	0.1134	0.2505	44.4	54.8	54.2	FALSE	9.45
B41+B38	B41	11.68	8.37	B38	12.43	8.03	170	0.002	8	1	0.013	0.0360	0.61	0.70	0.15	0.0407	0.5404	6.7	22.5	22.3	FALSE	8.54
B42+B41	B42	11.68	8.7	B41	11.68	8.37	166.3	0.002	6	1	0.013	0.0360	0.62	0.62	0.17	0.0360	0.2499	14.4	33.8	33.8	FALSE	8.89
B43+B37	B43	15.97	8.74	B37	14.71	8.01	363.4	0.002	6	1	0.013	0.0360	0.62	0.84	0.17	0.0402	0.2515	14.3	33.6	29.2	FALSE	8.93
B44+B2	B44	15.76	9.16	B2	16	2.46	296.4	0.023	6	1	0.013	0.0343	1.11	1.04	0.09	0.0416	0.8436	4.1	17.7	13.4	TRUE	9.25
B45+B44	B45	14.05	9.86	B44	15.76	9.26	301	0.002	6	1	0.013	0.0343	0.62	0.62	0.16	0.0343	0.2505	13.7	32.3	32.3	FALSE	10.04
B46+B5	B46	19	13.75	B5	18.61	12.56	16.9	0.07	6	1	0.013	0.0097	0.63	0.63	0.02	0.0098	1.4875	0.7	3.1	3.1	FALSE	13.77
B47+B46	B47	20.58	14.06	B46	19	13.75	157.8	0.002	6	1	0.013	0.0097	0.80	0.80	0.05	0.0098	0.2486	3.9	10.0	10.0	FALSE	14.12
B48+B7	B48	22.9	7.11	B7	18.66	6.21	450.2	0.002	6	1	0.013	0.0328	0.17	0.63	0.50	0.0328	0.2509	13.1	100.0	31.0	TRUE	8.06
B49+B14	B49	17.11	11.16	B14	15.47	10.07	327.7	0.003	8	1	0.013	0.7498	2.24	2.24	0.61	0.7499	0.6969	107.6	91.7	91.7	TRUE	11.87
B50+B37	B50	13.27	7.77	B37	14.71	7.31	204.7	0.002	6	1	0.013	0.1732	0.88	1.26	0.50	0.1732	0.2659	65.1	99.3	66.1	TRUE	8.17
B51+B50	B51	14.15	9.95	B50	13.27	7.97	281.7	0.007	6	1	0.013	0.0260	0.91	1.03	0.06	0.0317	0.4704	5.5	11.2	15.0	FALSE	10.04
B52+B4	B52	20.58	4.29	B4	20.32	3.57	359.8	0.002	12	1	0.013	1.5924	2.03	2.03	1.00	1.5924	1.5936	99.9	100.0	100.0	TRUE	7.06
C1+B16	C1	23.15	14.77	B16	20.39	13.24	401.9	0.004	8	1	0.013	0.7498	2.15	2.15	0.67	0.7500	0.7455	100.6	100.0	100.0	TRUE	16.01
C2+C1	C2	21.54	15.19	C1	23.15	14.77	204.3	0.002	8	1	0.013	0.5783	1.66	1.66	0.67	0.5784	0.5479	105.5	100.0	100.0	TRUE	16.45
C3+C2	C3	22.97	17.37	C2	21.54	15.24	397.8	0.005	6	1	0.013	0.5066	2.58	2.58	0.50	0.5066	0.4106	123.4	100.0	100.0	TRUE	20.08
C4+C3	C4	25.03	19.53	C3	22.97	17.42	436	0.005	6	1	0.013	0.4500	2.29	2.29	0.50	0.4500	0.3903	115.3	100.0	100.0	TRUE	23.25
C5+C4	C5	25.49	20.95	C4	25.03	19.53	327.7	0.004	6	1	0.013	0.4500	2.29	2.29	0.50	0.4500	0.3693	121.9	100.0	100.0	TRUE	25.62
C6+C5	C6	25.82	21.42	C5	25.49	20.99	87.5	0.005	6	1	0.013	0.3821	1.95	1.95	0.50	0.3821	0.3934	97.1	100.0	100.0	TRUE	26.02
C7+C6	C7	34.43	23.65	C6	25.82	21.42	447.8	0.005	6	1	0.013	0.3822	1.95	1.95	0.50	0.3821	0.3960	96.5	100.0	100.0	TRUE	28.41
C8+C7	C8	29.93	24.33	C7	34.43	23.65	400.9	0.002	6	1	0.013	0.2797	1.42	1.42	0.50	0.2797	0.2311	121.0	100.0	100.0	TRUE	29.57
C9+C8	C9	30	24.55	C8	29.93	24.38	84.1	0.002	6	1	0.013	0.2665	1.36	1.36	0.50	0.2665	0.2522	105.6	100.0	100.0	TRUE	29.72
C10+C9	C10	31.71	25.71	C9	30	24.55	300.8	0.004	6	1	0.013	0.2665	1.36	1.36	0.50	0.2665	0.3484	76.5	100.0	100.0	TRUE	30.50
C11+C10	C11	41.2	28.9	C10	31.71	25.76	508	0.006	6	1	0.013	0.1754	0.89	1.92	0.50	0.1760	0.4411	39.8	100.0	47.4	TRUE	31.11
C12+C1	C12	23.43	14.9	C1	23.15	14.77	264.8	0	6	1	0.01	0.1715	0.87	0.87	0.50	0.1716	0.1616	106.2	100.0	100.0	TRUE	16.18
C13+C12	C13	23	15.99	C12	23.43	15.03	480.7	0.002	6	1	0.013	0.0472	0.24	0.24	0.50	0.0472	0.2507	18.8	100.0	100.0	TRUE	16.24
C14+C12	C14	24.3	15.8	C12	23.43	14.9	282.1	0.003	6	1	0.01	0.1244	0.63	0.63	0.50	0.1244	0.4120	30.2	100.0	100.0	TRUE	16.21
C15+C14	C15	22.5	18.05	C14	24.3	16.1	565.3	0.003	6	1	0.013	0.0572	0.89	0.89	0.18	0.0572	0.3295	17.4	36.1	36.1	FALSE	18.25
C16+C14	C16	26.5	17.4	C14	24.3	15.8	272.9	0.006	6	1	0.01	0.0672	1.41	1.51	0.11	0.0672	0.5585	12.0	22.8	27.1	FALSE	17.55
C17+C16	C17	27.07	19.62	C16	26.5	17.4	332.8	0.007	6	1	0.013	0.0572	1.13	1.46	0.15	0.0661	0.4582	12.5	30.4	28.0	FALSE	19.78
C18+C17	C18	28	20.36	C17	27.07	19.62	369.6	0.002	6	1	0.013	0.0572	0.73	0.73	0.21	0.0572	0.2510	22.8	41.9	41.9	FALSE	20.58
C19+C2	C19	21.59	15.49	C2	21.54	15.24	264.1	0.001	6	1	0.013	0.0716	0.36	0.39	0.50	0.0769	0.1726	41.5	100.0	100.0	TRUE	16.49
C20+C19	C20	23.19	17.64	C19	21.59	15.54	198.5	0.011	6	1	0.013	0.0330	1.16	1.16	0.10	0.0330	0.5771	5.7	20.2	20.2	TRUE	17.74
C21+C19	C21	23.94	17.74	C19	21.59	15.54	284.2	0.008	6	1	0.013	0.0330	0.52	0.72	0.18	0.0331	0.4937	6.7	35.7	2.2	TRUE	17.90
C22+C21	C22	24.43	18.08	C21	23.94	17.79	91.8	0.003	6	1	0.013	0.0330	0.75	0.75	0.14	0.0330	0.3154	10.5	27.5	27.5	FALSE	18.24
C23+C3	C23	23.27	18.07	C3	22.97	17.42	400.5	0.002	6	1	0.013	0.0566	0.29	0.85	0.50	0.0566	0.2260	25.0	100.0	2.6	TRUE	20.13
C24+C23	C24	25.53	18.72	C23	23.27	18.42	151.2	0.002	6	1	0.013	0.0283	0.14	0.66	0.50	0.0283	0.2500	11.3	100.0	27.1	TRUE	20.13

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
C25+C23	C25	25.08	19.73	C23	23.27	18.17	303.1	0.005	6	1	0.013	0.0283	0.14	0.61	0.50	0.0284	0.4025	7.0	100.0	28.5	TRUE	20.13
C26+D9	C26	29.07	24.47	D9	27.55	21.3	435.8	0.007	6	1	0.013	0.2000	2.06	2.21	0.25	0.2111	0.4785	41.8	49.5	49.0	FALSE	24.72
C27+C5	C27	25	21.41	C5	25.49	20.97	221.6	0.002	6	1	0.013	0.0680	0.35	0.81	0.50	0.0706	0.2500	27.2	100.0	45.4	TRUE	25.65
C28+C27	C28	27.89	23.34	C27	25	21.41	43	0.045	6	1	0.013	0.0195	0.10	0.79	0.50	0.0198	1.1891	1.6	100.0	7.7	TRUE	25.65
C29+C28	C29	32.14	23.94	C28	27.89	23.34	298.4	0.002	6	1	0.013	0.0195	0.10	1.03	0.50	0.0250	0.2516	7.8	100.0	16.3	TRUE	25.65
C30+C27	C30	28.53	23.63	C27	25	21.41	162.9	0.014	6	1	0.013	0.0485	0.25	1.34	0.50	0.0486	0.6551	7.4	100.0	24.0	TRUE	25.65
C31+C30	C31	29.09	23.76	C30	28.53	23.63	67.1	0.002	6	1	0.013	0.0195	0.10	0.10	0.50	0.0195	0.2469	7.9	100.0	100.0	TRUE	25.65
C32+C30	C32	30.12	24.36	C30	28.53	23.63	146.7	0.005	6	1	0.013	0.0290	0.15	1.16	0.50	0.0387	0.3958	7.3	100.0	18.7	TRUE	25.65
C33+C32	C33	31.26	24.53	C32	30.12	24.39	70.7	0.002	6	1	0.013	0.0195	0.10	0.82	0.50	0.0195	0.2497	7.8	100.0	17.8	TRUE	25.65
C34+C32	C34	30	24.5	C32	30.12	24.39	56.9	0.002	6	1	0.013	0.0095	0.05	0.81	0.50	0.0100	0.2468	3.8	100.0	10.5	TRUE	25.65
C35+C7	C35	31.98	25.2	C7	34.43	23.65	403.4	0.004	6	1	0.013	0.1025	0.52	1.25	0.50	0.1026	0.3478	29.5	100.0	43.5	TRUE	28.41
C36+C35	C36	32.58	25.7	C35	31.98	25.2	92	0.005	6	1	0.013	0.1025	0.52	0.52	0.50	0.1025	0.4137	24.8	100.0	100.0	TRUE	28.41
C37+C36	C37	34.3	26.67	C36	32.58	25.73	153.2	0.006	6	1	0.013	0.0567	0.29	1.10	0.50	0.0567	0.4394	12.9	100.0	30.9	TRUE	28.41
C39+C37	C39	33.37	27.03	C37	34.3	26.7	164.1	0.002	6	1	0.013	0.0458	0.23	0.65	0.50	0.0458	0.2516	18.2	100.0	39.0	TRUE	28.41
C40+C36	C40	32.93	26.9	C36	32.58	25.83	257.5	0.004	6	1	0.013	0.0458	0.23	0.82	0.50	0.0458	0.3617	12.7	100.0	32.6	TRUE	28.41
C41+C40	C41	33.56	27.26	C40	32.93	26.93	191.4	0.002	6	1	0.013	0.0458	0.23	0.61	0.50	0.0458	0.2330	19.7	100.0	40.7	TRUE	28.41
C42+C41	C42	34.21	27.91	C41	33.56	27.31	300.1	0.002	6	1	0.013	0.0458	0.23	0.65	0.50	0.0458	0.2509	18.3	100.0	39.0	TRUE	28.41
C43+C8	C43	30.16	24.53	C8	29.93	24.33	101	0.002	6	1	0.013	0.0132	0.07	0.83	0.50	0.0133	0.2496	5.3	100.0	13.5	TRUE	29.57
C44+C10	C44	32.45	26.73	C10	31.71	25.76	154.5	0.006	6	1	0.013	0.0911	0.46	1.51	0.50	0.0914	0.4445	20.5	100.0	34.7	TRUE	30.50
C45+C44	C45	33.66	27.91	C44	32.45	26.77	166.1	0.007	6	1	0.013	0.0911	0.46	1.84	0.50	0.1032	0.4648	19.6	100.0	32.8	TRUE	30.50
C46+C45	C46	36.3	29.85	C45	33.66	27.91	255.5	0.008	6	1	0.013	0.0911	0.46	0.46	0.50	0.0911	0.4889	18.6	100.0	100.0	TRUE	30.50
C47+C46	C47	35.05	30.62	C46	36.3	30	309.1	0.002	6	1	0.013	0.0911	0.92	1.00	0.25	0.0924	0.2513	36.3	50.1	47.5	FALSE	30.90
C48+C11	C48	43.08	29.1	C11	41.2	28.98	178.7	0.001	6	1	0.013	0.1754	0.89	1.03	0.50	0.1755	0.1454	120.6	100.0	80.6	TRUE	31.27
C49+C48	C49	41.32	29.82	C48	43.08	29.1	247.7	0.003	6	1	0.013	0.1754	0.89	1.39	0.50	0.1755	0.3025	58.0	100.0	61.4	TRUE	31.52
C50+C49	C50	40.78	30.68	C49	41.32	29.82	361.2	0.002	6	1	0.013	0.1755	0.89	1.28	0.50	0.1755	0.2738	64.1	100.0	65.7	TRUE	31.93
C51+C50	C51	38.55	32.75	C50	40.78	30.68	556.1	0.004	6	1	0.013	0.1755	0.97	1.53	0.44	0.1755	0.3423	51.3	87.2	56.5	TRUE	33.04
D1+E4	D1	17.33	6.83	E4	16.28	6.08	354.5	0.002	12	1	0.013	2.5313	3.22	3.22	1.00	2.5313	1.6388	154.5	100.0	100.0	TRUE	10.81
D2+D1	D2	17.54	6.91	D1	17.33	6.88	53.3	0.001	12	1	0.013	2.4471	3.12	3.12	1.00	2.4471	0.8455	289.4	100.0	100.0	TRUE	10.96
D3+D2	D3	18.91	7.46	D2	17.54	6.99	363.3	0.001	12	1	0.013	2.4471	3.12	3.12	1.00	2.4471	1.2815	191.0	100.0	100.0	TRUE	12.64
D4+D3	D4	19	8.15	D3	18.91	7.56	296.1	0.002	8	1	0.013	0.8711	2.49	2.51	0.67	0.8753	0.5393	161.5	100.0	100.0	TRUE	14.27
D5+D4	D5	19	8.29	D4	19	8.15	69.6	0.002	8	1	0.013	0.8711	2.49	2.51	0.67	0.8776	0.5418	160.8	100.0	100.0	TRUE	14.58
D6+D5	D6	19.87	13.77	D5	19	8.29	246.1	0.022	8	1	0.013	0.5905	1.69	1.69	0.67	0.5905	1.8033	32.7	100.0	100.0	TRUE	14.58
D7+D6	D7	19.85	15.5	D6	19.87	13.82	398	0.004	6	1	0.013	0.5905	3.01	3.01	0.50	0.5905	0.3646	162.0	100.0	100.0	TRUE	19.22
D8+D7	D8	21.51	16.11	D7	19.85	15.5	157.8	0.004	6	1	0.013	0.2105	1.07	1.07	0.50	0.2105	0.3488	60.4	100.0	100.0	TRUE	19.22
D9+D8	D9	27.55	21.3	D8	21.51	16.11	496	0.01	6	1	0.013	0.2000	2.27	2.48	0.23	0.2101	0.5739	34.8	45.9	44.6	TRUE	21.53
D10+D3	D10	21.78	10.58	D3	18.91	7.81	489.1	0.006	10	1	0.013	1.5760	2.89	2.89	0.83	1.5760	1.6487	95.6	100.0	100.0	TRUE	15.19
D16+D20	D16	23	13.91	D20	22	13	453.9	0.002	10	1	0.013	0.3131	0.57	0.57	0.83	0.3131	0.9810	31.9	100.0	100.0	TRUE	15.79
D17+D16	D17	23.1	14.18	D16	23	13.91	136.3	0.002	10	1	0.013	0.3131	0.57	0.57	0.83	0.3131	0.9751	32.1	100.0	100.0	TRUE	15.79
D19+D10	D19	21.54	12.39	D10	21.78	10.63	48.1	0.037	10	1	0.013	1.5760	2.89	2.89	0.83	1.5760	4.1895	37.6	100.0	100.0	TRUE	15.37
D20+D19	D20	22	13	D19	21.54	12.89	52.7	0.002	6	1	0.013	0.4548	2.32	2.32	0.50	0.4548	0.2564	177.4	100.0	100.0	TRUE	15.73
D21+D19	D21	20.93	15.08	D19	21.54	12.84	390.8	0.006	8	1	0.013	1.1212	3.21	3.21	0.67	1.1212	0.9148	122.6	100.0	100.0	TRUE	18.87
D22+D21	D22	22.23	15.84	D21	20.93	15.13	149	0.005	8	1	0.013	1.1212	3.21	3.21	0.67	1.1212	0.8341	134.4	100.0	100.0	TRUE	20.16
D23+D22	D23	22.62	16.12	D22	22.23	15.88	73.3	0.003	8	1	0.013	0.6630	1.90	1.90	0.67	0.6630	0.6914	95.9	100.0	100.0	TRUE	20.31
D24+D23	D24	24.01	17.46	D23	22.62	16.12	349.8	0.004	8	1	0.013	0.6630	1.90	1.90	0.67	0.6630	0.7478	88.7	100.0	100.0	TRUE	21.38
D25+D24	D25	24.45	18.45	D24	24.01	17.56	300.9	0.003	6	1	0.013	0.3230	1.64	1.64	0.50	0.3230	0.3052	105.8	100.0	100.0	TRUE	21.38
D26+D25	D26	24.79	19.26	D25	24.45	18.5	156.7	0.005	6	1	0.013	0.3230	1.64	1.64	0.50	0.3230	0.3907	82.7	100.0	100.0	TRUE	21.38
D27+D26	D27	26.68	20.86	D26	24.79	19.28	392.4	0.004	6	1	0.013	0.1700	0.87	1.56	0.50	0.1701	0.3560	47.7	100.0	54.2	TRUE	21.39
D28+D27	D28	27.45	21.65	D27	26.68	20.9	81.1	0.009	6	1	0.013	0.1700	2.12	2.12	0.21	0.1700	0.5394	31.5	42.7	42.7	FALSE	21.87
D29+C37	D29	34.53	27.53	C37	34.3	26.7	129.5	0.006	6	1	0.013	0.0000	0.00	0.00	0.50	0.0000	0.4492	0.0	100.0	0.0	TRUE	28.41
D29+D28	D29	34.53	27.53	D28	27.45	21.67	465.5	0.013	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.6295	0.0	0.0	0.0	FALSE	27.53
D30+D26	D30	26.26	21.18	D26	24.79	19.29	436.5	0.004	6	1	0.013	0.1530	0.78	1.62	0.50	0.1635	0.3692	41.4	100.0	51.0	TRUE	21.44
D31+D30	D31	26.68	21.76	D30	26.26	21.46	152.5	0.002	6	1	0.013	0.0765	0.85	0.98	0.23	0.0866	0.2488	30.7	46.6	46.1	FALSE	22.02
D32+D30	D32	26.44	21.71	D30	26.26	21.46	126.2	0.002	6	1	0.013	0.0765	0.86	0.94	0.23	0.0840	0.2497	30.6	46.2	46.6	FALSE	21.97
D33+D24	D33	28.14	19.34	D24	24.01	17.51	450.4	0.004	8	1	0.013	0.1686	0.48	0.48	0.67	0.1690	0.7702	21.9	100.0	100.0	TRUE	21.41
D34+D33	D34	34.45	22.3	D33	28.14	19.34	293.3	0.01	8	1	0.013	0.1686	1.15	1.37	0.29	0.1748	1.2139	13.9	43.7	0.0	TRUE	22.53
D35+D34	D35	33.56	22.51	D34	34.45	22.3	177.8	0.001	6	1	0.013	0.1686	1.09	1.09	0.37	0.1686	0.1928	87.4	73.7	73.7	FALSE	22.91
D36+D35	D36	31.3	25.05	D35	33.56	22.56	250.8	0.01	6	1	0.013	0.0200	0.95	0.77	0.07	0.0250	0.5591	3.6	13.9	5.7	FALSE	25.13
D37+D36	D37	31.11	26.01	D36	31.3	25.05	367.8	0.003	6	1	0.013	0.0200	0.81	1.07	0.09	0.0298	0.2866	7.0	18.3	19.9	FALSE	26.17
D38+D37	D38	32	26.64	D37	31.11	26.16	237.7	0.002	6	1	0.013	0.0100	0.76	0.79	0.04	0.0107	0.2521	4.0	8.6	9.5	FALSE	26.76
D39+D38	D39	32.14	26.81	D38	32	26.64	84.1	0.002	6	1	0.013	0.0100	0.80	0.80	0.05	0.0100	0.2522	4.0	10.0	10.1	FALSE	26.87
D40+D37	D40	32	26.6	D37	31.11	26.21	193.6	0.002	6	1	0.013	0.0100	0.79	0.73	0.05	0.0159	0.2518	4.0	9.5	5.9	FALSE	26.66

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
D41+D24	D41	31.35	25.75	D24	24.01	17.51	190.6	0.043	6	1	0.013	0.1714	2.07	2.07	0.14	0.1714	1.1666	14.7	28.5	28.5	TRUE	25.90
D42+D41	D42	30	26	D41	31.35	25.8	100.2	0.002	6	1	0.013	0.0214	0.72	0.72	0.10	0.0214	0.2506	8.5	20.8	20.8	FALSE	26.11
D43+D41	D43	32	26.89	D41	31.35	25.85	517.4	0.002	6	1	0.013	0.1500	1.14	1.14	0.32	0.1500	0.2516	59.6	63.7	63.7	FALSE	27.21
D44+D43	D44	32	27.12	D43	32	26.89	113	0.002	6	1	0.013	0.1500	1.21	1.21	0.30	0.1500	0.2531	59.3	60.3	60.2	FALSE	27.44
D47+D22	D47	20.69	17.09	D22	22.23	15.86	299.2	0.004	8	1	0.013	0.3500	1.00	1.00	0.67	0.3500	0.7748	45.2	100.0	100.0	TRUE	20.17
D48+D47	D48	22.05	18.7	D47	20.69	17.09	401	0.004	6	1	0.013	0.3500	1.78	1.86	0.50	0.3500	0.3555	98.4	100.0	91.2	TRUE	20.17
D49+D48	D49	27.59	21.99	D48	22.05	18.7	399.7	0.008	6	1	0.013	0.3500	2.59	2.59	0.33	0.3500	0.5090	68.8	65.0	65.0	TRUE	22.32
D50+D49	D50	31.35	22.83	D49	27.59	21.99	421.6	0.002	6	1	0.013	0.3500	1.78	1.78	0.50	0.3500	0.2504	139.8	100.0	100.0	TRUE	24.38
D51+D7	D51	23.54	18.66	D7	19.85	15.5	457.8	0.007	6	1	0.013	0.3800	1.93	1.93	0.50	0.3800	0.4661	81.5	100.0	100.0	TRUE	21.64
D52+D51	D52	27.31	20.31	D51	23.54	18.69	267	0.006	6	1	0.013	0.2400	1.22	2.05	0.50	0.2410	0.4370	54.9	100.0	57.7	TRUE	22.19
D53+D52	D53	29.62	21.22	D52	27.31	20.31	247.8	0.004	6	1	0.013	0.1200	0.61	1.34	0.50	0.1205	0.3400	35.3	100.0	46.7	TRUE	22.28
D54+D53	D54	29.68	21.68	D53	29.62	21.27	74.9	0.005	6	1	0.013	0.1200	0.61	1.52	0.50	0.1200	0.4152	28.9	100.0	42.3	TRUE	22.28
D55+D54	D55	30.37	22.39	D54	29.68	21.88	252.3	0.002	6	1	0.013	0.1200	1.05	1.05	0.28	0.1202	0.2523	47.6	56.6	56.5	FALSE	22.67
D56+D35	D56	35.05	23.65	D35	33.56	22.51	286.3	0.004	6	1	0.013	0.1486	1.48	1.48	0.25	0.1486	0.3540	42.0	51.0	51.0	FALSE	23.91
D57+D56	D57	37.86	26.21	D56	35.05	23.7	197.1	0.013	6	1	0.013	0.1486	2.16	2.16	0.18	0.1486	0.6331	23.5	36.8	36.8	FALSE	26.40
D58+D57	D58	37.67	27.07	D57	37.86	26.36	158	0.004	6	1	0.013	0.1486	1.55	1.55	0.25	0.1486	0.3761	39.5	49.1	49.1	FALSE	27.32
D59+D58	D59	37.27	28.53	D58	37.67	27.12	151.4	0.009	6	1	0.013	0.1486	2.02	2.02	0.20	0.1486	0.5414	27.4	40.1	40.1	FALSE	28.74
D60+D59	D60	37.44	29.8	D59	37.27	28.57	112.6	0.011	6	1	0.013	0.1336	2.05	2.05	0.18	0.1336	0.5864	22.8	36.7	36.7	FALSE	29.99
D61+D60	D61	37.37	30.05	D60	37.44	29.84	101	0.002	6	1	0.013	0.1336	1.17	1.17	0.28	0.1336	0.2559	52.2	56.4	56.4	FALSE	30.35
D62+D59	D62	32.76	29.07	D59	37.27	28.57	247.7	0.002	6	1	0.013	0.0150	0.80	0.82	0.08	0.0151	0.2521	6.0	15.2	14.9	FALSE	29.16
D63+D5	D63	19.63	8.6	D5	19	8.29	296.6	0.001	8	1	0.013	0.2589	0.74	0.77	0.67	0.2695	0.3906	66.3	100.0	100.0	TRUE	14.65
D64+D63	D64	24.68	17.38	D63	19.63	8.56	470.5	0.019	6	1	0.013	0.1989	1.01	1.16	0.50	0.2147	0.7682	25.9	100.0	89.1	TRUE	17.64
D65+D64	D65	28.98	20.08	D64	24.68	17.38	448	0.006	6	1	0.013	0.1989	1.92	1.92	0.26	0.1989	0.4356	45.7	52.2	52.2	FALSE	20.34
D66+D65	D66	29.37	20.96	D65	28.98	20.13	412.5	0.002	8	1	0.013	0.1989	1.27	1.27	0.31	0.1989	0.5420	36.7	45.9	45.9	FALSE	21.28
D67+D63	D67	18.77	12.39	D63	19.63	8.6	294.1	0.013	6	1	0.013	0.0597	0.30	1.69	0.50	0.1123	0.6369	9.4	100.0	25.3	TRUE	14.65
D68+D67	D68	19	12.7	D67	18.77	12.42	138.9	0.002	6	1	0.013	0.0299	0.15	0.96	0.50	0.0423	0.2519	11.9	100.0	27.6	TRUE	14.65
D69+D67	D69	19	12.94	D67	18.77	12.42	259	0.002	6	1	0.013	0.0299	0.15	0.66	0.50	0.0303	0.2514	11.9	100.0	28.3	TRUE	14.65
D70+D51	D70	24	18.86	D51	23.54	18.72	70.8	0.002	6	1	0.013	0.1400	0.71	0.71	0.50	0.1400	0.2494	56.1	100.0	100.0	TRUE	21.66
D71+D52	D71	28.07	22.62	D52	27.31	21.11	130	0.012	6	1	0.013	0.1200	0.90	1.96	0.32	0.1200	0.6047	19.8	64.2	34.4	TRUE	22.79
D72+D20	D72	22.5	13.56	D20	22	13	279.6	0.002	10	1	0.013	0.1417	0.26	0.26	0.83	0.1417	0.9806	14.5	100.0	100.0	TRUE	15.73
D73+D72	D73	23	14.16	D72	22.5	13.56	297.4	0.002	8	1	0.013	0.1417	0.41	1.40	0.67	0.1689	0.5428	26.1	100.0	37.6	TRUE	15.73
D74+D73	D74	23.2	14.58	D73	23	14.16	210.2	0.002	8	1	0.013	0.1169	0.33	1.03	0.67	0.1172	0.5401	21.6	100.0	36.2	TRUE	15.73
E1+H9	E1	12.09	3.59	H9	11.84	3.09	269.8	0.002	18	1	0.013	3.7805	3.13	3.13	0.97	3.7805	4.5221	83.6	64.7	64.7	FALSE	4.63
E2+E1	E2	13.48	4.23	E1	12.09	3.64	283.2	0.002	12	1	0.013	2.5313	3.22	3.22	1.00	2.5313	1.6261	155.7	100.0	100.0	TRUE	5.99
E3+E2	E3	15.11	4.76	E2	13.48	4.33	279.6	0.002	12	1	0.013	2.5313	3.22	3.22	1.00	2.5313	1.3970	181.2	100.0	100.0	TRUE	7.33
E4+E3	E4	16.28	6.08	E3	15.11	5.01	356.7	0.003	12	1	0.013	2.5313	3.22	3.22	1.00	2.5313	1.9512	129.7	100.0	100.0	TRUE	9.07
E6+E1	E6	11.14	4.84	E1	12.09	4.04	501	0.002	12	1	0.013	1.2486	2.08	2.08	0.71	1.2486	1.4236	87.7	71.4	71.4	FALSE	5.59
E7+E6	E7	11.77	6.02	E6	11.14	4.84	310.5	0.004	12	1	0.013	1.1877	2.78	2.78	0.53	1.1877	2.1961	54.1	53.5	53.5	FALSE	6.57
E8+E7	E8	13.72	6.77	E7	11.77	6.07	354.7	0.002	12	1	0.013	0.9680	2.09	2.09	0.57	0.9680	1.5826	61.2	57.1	57.1	FALSE	7.35
E9+E8	E9	13.77	7.32	E8	13.72	6.82	341.1	0.001	12	1	0.013	0.6445	1.68	1.68	0.49	0.6445	1.3640	47.3	49.2	49.2	FALSE	7.82
E10+E9	E10	14.53	7.78	E9	13.77	7.32	192.1	0.002	12	1	0.013	0.6445	1.99	1.99	0.43	0.6445	1.7432	37.0	43.1	43.1	FALSE	8.22
E11+E10	E11	14.94	8.04	E10	14.53	7.93	194.9	0.001	12	1	0.013	0.4228	1.31	1.31	0.43	0.4228	0.8465	50.0	43.0	43.0	FALSE	8.51
E12+E11	E12	20.13	9.13	E11	14.94	8.14	494.5	0.002	12	1	0.013	0.4228	1.62	1.62	0.37	0.4228	1.5941	26.5	36.7	36.7	FALSE	9.50
E13+E12	E13	18.72	10	E12	20.13	9.18	450.3	0.002	8	1	0.013	0.2802	1.38	1.38	0.38	0.2802	0.5157	54.3	56.4	56.4	FALSE	10.38
E14+E13	E14	17.24	10.39	E13	18.72	10.12	185.5	0.001	8	1	0.013	0.2315	1.25	1.25	0.35	0.2315	0.4609	50.2	52.3	52.3	FALSE	10.76
E15+E14	E15	15.27	10.72	E14	17.24	10.49	246.2	0.001	8	1	0.013	0.2009	1.04	1.04	0.36	0.2011	0.3693	54.4	54.3	54.3	FALSE	11.10
E20+E7	E20	12.61	7.71	E7	11.77	6.12	504.5	0.003	6	1	0.013	0.1106	1.19	1.20	0.24	0.1112	0.3150	35.1	47.7	47.8	FALSE	7.96
E21+E20	E21	14.72	8.53	E20	12.61	7.76	385.6	0.002	6	1	0.013	0.0609	0.76	0.99	0.21	0.0778	0.2507	24.3	42.9	42.0	FALSE	8.76
E22+E8	E22	15.38	8.48	E8	13.72	6.87	449.9	0.004	6	1	0.013	0.1155	1.28	1.43	0.23	0.1201	0.3356	34.4	46.9	44.3	FALSE	8.72
E23+E22	E23	16.82	10.42	E22	15.38	8.48	438.8	0.004	6	1	0.013	0.0609	1.02	1.12	0.17	0.0636	0.3731	16.3	34.4	33.2	FALSE	10.61
E25+E50	E25	16.75	10.9	E50	16.04	9.64	231.9	0.005	6	1	0.013	0.1519	1.70	1.70	0.23	0.1519	0.4136	36.7	46.4	46.4	FALSE	11.14
E26+E25	E26	19.82	13.82	E25	16.75	10.9	488.2	0.006	6	1	0.013	0.0670	1.18	1.21	0.17	0.0682	0.4339	15.4	33.0	33.0	FALSE	14.00
E27+E12	E27	21.28	15.85	E12	20.13	9.53	576.2	0.011	6	1	0.013	0.0427	1.14	1.14	0.12	0.0428	0.5876	7.3	24.5	24.5	FALSE	15.97
E28+E27	E28	22	15.93	E27	21.28	15.81	61.8	0.002	6	1	0.013	0.0427	0.71	0.71	0.17	0.0427	0.2472	17.3	34.4	34.4	FALSE	16.13
E29+E12	E29	23.08	15.79	E12	20.13	9.58	247	0.025	6	1	0.013	0.1000	1.66	1.66	0.13	0.1000	0.8896	11.2	26.3	26.3	FALSE	15.92
E30+E29	E30	27	20.5	E29	23.08	15.83	502.3	0.009	6	1	0.013	0.0737	1.46	1.46	0.15	0.0737	0.5410	13.6	30.4	30.4	FALSE	20.66
E31+E29	E31	27.93	20.63	E29	23.08	15.83	252.3	0.019	6	1	0.013	0.0610	1.40	1.40	0.12	0.0610	0.7739	7.9	23.8	23.8	FALSE	20.75
E32+E31	E32	28	21.21	E31	27.93	20.68	263.2	0.002	6	1	0.013	0.0610	0.76	0.90	0.21	0.0689	0.2518	24.2	42.8	41.2	FALSE	21.44
E33+E13	E33	21.41	15.78	E13	18.72	10.02	228.9	0.025	8	1	0.013	0.0487	1.21	1.21	0.09	0.0487	1.9166	2.5	14.0	14.0	FALSE	15.87
E33+E29	E33	21.41	17.11	E29	23.08	15.86	455.1	0.003	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.2941	0.0	0.0	0.0	FALSE	17.11
E34+E33	E34	24.94	18.94	E33	21.41	15.83	278.9	0.011	6	1	0.013	0.0400	1.12	1.10	0.12	0.0401	0.5925	6.8	23.7	24.0	FALSE	19.06

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
E35+E14	E35	19.06	11.41	E14	17.24	10.74	333	0.002	6	1	0.013	0.0305	0.64	1.43	0.15	0.0677	0.2517	12.1	29.1	23.6	FALSE	11.60
E36+E15	E36	17.4	12.35	E15	15.27	10.82	420.2	0.004	6	1	0.013	0.1827	1.54	1.54	0.29	0.1827	0.3385	54.0	58.3	58.3	FALSE	12.65
E37+E36	E37	18	13.11	E36	17.4	12.4	353.2	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2515	24.2	42.8	42.8	FALSE	13.34
E38+E36	E38	18.78	13.33	E36	17.4	12.35	233.6	0.004	6	1	0.013	0.1218	1.41	1.41	0.23	0.1218	0.3634	33.5	45.2	45.2	FALSE	13.56
E39+E38	E39	19	14.13	E38	18.78	13.53	300.6	0.002	6	1	0.013	0.0609	0.76	0.89	0.21	0.0662	0.2507	24.3	42.9	40.5	FALSE	14.36
E40+E38	E40	22.91	14.25	E38	18.78	13.33	458.2	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2514	24.2	42.8	42.8	FALSE	14.48
E41+E15	E41	16	11.07	E15	15.27	10.87	98.3	0.002	6	1	0.013	0.0183	0.44	0.44	0.13	0.0183	0.2530	7.2	26.5	26.5	FALSE	11.17
E42+E10	E42	14.56	10.06	E10	14.53	7.88	550.5	0.004	6	1	0.013	0.0698	1.04	1.04	0.19	0.0699	0.3531	19.8	37.3	37.3	FALSE	10.25
E44+E8	E44	12.57	8.62	E8	13.72	6.82	630.5	0.003	6	1	0.013	0.2080	1.45	1.45	0.34	0.2080	0.2998	69.4	68.3	68.3	TRUE	8.97
E45+E44	E45	13.15	9.55	E44	12.57	8.57	319.4	0.003	6	1	0.013	0.2080	1.50	1.50	0.33	0.2080	0.3108	66.9	66.5	66.5	FALSE	9.89
E46+E7	E46	11	7.4	E7	11.77	6.02	500.5	0.003	6	1	0.013	0.1092	1.13	1.13	0.25	0.1092	0.2946	37.1	49.4	49.4	TRUE	7.65
E47+E46	E47	11.54	8.31	E46	11	7.4	455.2	0.002	6	1	0.013	0.1092	1.00	1.00	0.27	0.1092	0.2509	43.5	54.3	54.3	FALSE	8.58
E48+E6	E48	11.94	7.54	E6	11.14	5.19	498.5	0.005	6	1	0.013	0.0609	1.04	1.04	0.17	0.0609	0.3852	15.8	33.9	34.0	FALSE	7.71
E49+E48	E49	11.53	8.46	E48	11.94	7.54	457.8	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2515	24.2	42.8	42.8	FALSE	8.69
E50+E10	E50	16.04	9.64	E10	14.53	7.88	217.9	0.008	6	1	0.013	0.1519	1.94	1.94	0.21	0.1523	0.5043	30.1	42.1	42.1	FALSE	9.85
F7+T25	F7	4.65	0.3	T25	3.95	-2.2	477	0.005	6	1	0.013	0.4269	2.17	2.17	0.50	0.4269	0.4062	105.1	100.0	100.0	TRUE	1.99
F8+F7	F8	8.3	1.38	F7	4.65	0.3	356.7	0.003	6	1	0.013	0.4115	2.09	2.09	0.50	0.4115	0.3087	133.3	100.0	100.0	TRUE	4.17
F9+F23	F9	8.21	3.11	F23	8.23	2.7	110	0.004	6	1	0.013	0.2123	1.08	1.08	0.50	0.2123	0.3425	62.0	100.0	100.0	TRUE	4.96
F10+F9	F10	11.76	4.96	F9	8.21	3.21	462.6	0.004	6	1	0.013	0.2123	1.08	1.08	0.50	0.2123	0.3451	61.5	100.0	100.0	TRUE	5.76
F11+F10	F11	13	6.84	F10	11.76	5.06	419.8	0.004	6	1	0.013	0.2123	1.72	1.71	0.30	0.2123	0.3653	58.1	60.3	60.3	TRUE	7.15
F12+F11	F12	13	7.65	F11	13	6.94	355.2	0.002	6	1	0.013	0.0970	0.95	0.95	0.26	0.0970	0.2508	38.7	51.5	51.5	FALSE	7.91
F13+F19	F13	15.24	10.24	F19	15.18	10.23	24.2	0	6	1	0.013	0.0260	0.34	0.38	0.21	0.0262	0.1141	22.8	41.1	38.1	FALSE	10.44
F14+F8	F14	9.56	5.64	F8	8.3	1.76	463.1	0.008	6	1	0.013	0.0362	0.37	1.03	0.25	0.0362	0.5136	7.1	50.1	23.4	TRUE	5.76
F15+F11	F15	13.27	7.77	F11	13	7.17	301.1	0.002	6	1	0.013	0.0775	0.86	0.96	0.23	0.0822	0.2505	31.0	47.0	45.1	FALSE	8.01
F16+F15	F16	13.27	8.24	F15	13.27	7.77	238	0.002	6	1	0.013	0.0650	0.78	0.78	0.22	0.0650	0.2494	26.1	43.9	43.9	FALSE	8.48
F17+F22	F17	15.11	8.76	F22	13	8.39	130.3	0.003	6	1	0.013	0.0970	1.09	1.09	0.23	0.0970	0.2990	32.4	46.4	46.4	FALSE	9.00
F18+F17	F18	15.34	9.94	F17	15.11	8.89	197.5	0.005	6	1	0.013	0.0260	1.07	1.07	0.09	0.0260	0.4091	6.4	17.8	17.8	FALSE	10.04
F19+F20	F19	15.18	10.33	F20	15.15	9.7	188.8	0.003	6	1	0.013	0.0260	0.94	1.07	0.10	0.0330	0.3241	8.0	19.8	16.4	FALSE	10.44
F20+F17	F20	15.15	9.7	F17	15.11	8.86	281.2	0.003	6	1	0.013	0.0710	0.95	1.05	0.20	0.0759	0.3067	23.2	40.7	39.6	FALSE	9.91
F21+F20	F21	15.15	10.38	F20	15.15	9.7	136.4	0.005	6	1	0.013	0.0260	0.75	0.82	0.12	0.0270	0.3961	6.6	23.2	22.4	FALSE	10.49
F22+F12	F22	13	8.39	F12	13	7.65	158.8	0.005	6	1	0.013	0.0970	1.31	1.31	0.20	0.0970	0.3830	25.3	40.2	40.2	FALSE	8.60
F23+F8	F23	8.23	2.7	F8	8.3	1.48	327.4	0.004	6	1	0.013	0.2381	1.21	1.21	0.50	0.2381	0.3425	69.5	100.0	100.0	TRUE	4.85
F24+F23	F24	8.23	3.19	F23	8.23	2.7	98	0.005	6	1	0.013	0.0258	0.13	1.00	0.50	0.0270	0.3967	6.5	100.0	19.4	TRUE	4.85
F25+F24	F25	8.73	3.77	F24	8.23	3.19	115	0.005	6	1	0.013	0.0129	0.07	0.33	0.50	0.0130	0.3985	3.2	100.0	25.6	TRUE	4.85
F26+F25	F26	8.73	4.36	F25	8.73	3.77	118	0.005	6	1	0.013	0.0129	0.07	0.75	0.50	0.0129	0.3967	3.3	100.0	7.3	TRUE	4.85
F27+F24	F27	8.73	3.78	F24	8.23	3.19	118	0.005	6	1	0.013	0.0129	0.07	0.19	0.50	0.0129	0.3967	3.3	100.0	37.4	TRUE	4.85
F28+F27	F28	8.73	4.57	F27	8.73	3.78	158	0.005	6	1	0.013	0.0129	0.07	0.79	0.50	0.0129	0.3967	3.3	100.0	8.8	TRUE	4.85
G2+G19	G2	4.2	0.05	G19	2.65	-0.76	154	0.005	6	1	0.013	0.1513	0.77	1.65	0.50	0.1513	0.4069	37.2	100.0	47.3	TRUE	0.80
G3+G14	G3	7	1.85	G14	6.79	1.05	208.1	0.004	6	1	0.013	0.1071	1.27	1.27	0.22	0.1071	0.3479	30.8	44.3	44.3	FALSE	2.08
G4+G3	G4	7.49	2.26	G3	7	1.95	212.7	0.001	6	1	0.013	0.0881	0.82	0.82	0.27	0.0881	0.2142	41.1	53.7	53.7	FALSE	2.53
G6+G4	G6	10.75	5.12	G4	7.49	2.36	387.6	0.007	6	1	0.013	0.0764	1.35	1.35	0.16	0.0765	0.4735	16.1	33.0	33.0	FALSE	5.29
G7+G6	G7	10.12	5.81	G6	10.75	5.22	294.7	0.002	6	1	0.013	0.0383	0.62	1.43	0.18	0.0603	0.2511	15.2	35.4	25.2	FALSE	5.99
G8+G7	G8	10.83	6.45	G7	10.12	5.8	326.8	0.002	6	1	0.013	0.0383	0.61	0.61	0.18	0.0383	0.2502	15.3	35.4	35.4	FALSE	6.64
G9+G6	G9	8.88	5.78	G6	10.75	5.2	290.8	0.002	6	1	0.013	0.0382	0.60	0.61	0.18	0.0383	0.2506	15.2	35.7	35.4	FALSE	5.96
G10+G9	G10	11.09	6.24	G9	8.88	5.78	270.6	0.002	6	1	0.013	0.0382	0.57	1.00	0.19	0.0477	0.2313	16.5	37.3	29.2	FALSE	6.43
G11+G10	G11	11.78	6.87	G10	11.09	6.34	265.7	0.002	6	1	0.013	0.0381	0.61	0.61	0.18	0.0383	0.2506	15.2	35.6	35.4	FALSE	7.06
G12+G4	G12	8.32	3.02	G4	7.49	2.47	277	0.002	6	1	0.013	0.0116	0.83	0.81	0.06	0.0121	0.2500	4.6	12.4	12.9	FALSE	3.10
G13+G3	G13	8.34	2.8	G3	7	1.9	452.5	0.002	6	1	0.013	0.0190	0.73	0.70	0.09	0.0207	0.2502	7.6	19.0	20.8	FALSE	2.90
G14+G17	G14	6.79	1.05	G17	5.65	0.6	151.1	0.003	6	1	0.013	0.1251	1.23	1.23	0.26	0.1251	0.3062	40.9	51.3	51.3	FALSE	1.31
G15+G14	G15	6.2	2.15	G14	6.79	1.05	214.7	0.005	8	1	0.013	0.0097	0.23	0.69	0.12	0.0097	0.8648	1.1	17.9	4.3	FALSE	2.23
G16+G15	G16	6.21	3.21	G15	6.2	2.2	154.5	0.007	8	1	0.013	0.0097	0.72	0.72	0.03	0.0097	0.9771	1.0	5.1	5.1	FALSE	3.24
G17+G2	G17	5.65	0.5	G2	4.2	0.15	143.7	0.002	6	1	0.013	0.1431	0.74	1.22	0.47	0.1431	0.2769	51.7	94.9	57.6	TRUE	0.80
G18+G17	G18	5.86	1.15	G17	5.65	0.57	291.5	0.002	6	1	0.013	0.0097	0.81	0.80	0.05	0.0103	0.2503	3.9	10.4	9.9	FALSE	1.21
G19+T23	G19	2.65	-0.76	T23	6.87	-2.3	290.9	0.005	6	1	0.013	0.1675	0.85	1.88	0.50	0.1683	0.4083	41.0	100.0	46.5	TRUE	0.80
G20+G19	G20	2.66	0.11	G19	2.65	-0.76	173.9	0.005	6	1	0.013	0.0128	0.07	0.34	0.50	0.0129	0.3968	3.2	100.0	24.6	TRUE	0.80
G21+G20	G21	2.67	0.37	G20	2.66	0.11	51.4	0.005	6	1	0.013	0.0059	0.03	0.67	0.50	0.0059	0.3991	1.5	100.0	5.5	TRUE	0.80
G22+G20	G22	2.67	0.25	G20	2.66	0.11	71.7	0.002	6	1	0.013	0.0060	0.03	0.73	0.50	0.0060	0.2479	2.4	100.0	8.0	TRUE	0.80
H2+I11	H2	7.99	0.59	I11	8.07	-0.03	36.6	0.017	24	1	0.01	4.9266	1.57	1.57	2.00	4.9266	38.2777	12.9	100.0	100.0	TRUE	3.14
H3+H2	H3	8.2	0.7	H2	7.99	0.59	30.8	0.004	24	1	0.01	4.9262	1.57	1.57	2.00	4.9262	17.5858	28.0	100.0	100.0	TRUE	3.16
H4+H3	H4	8.13	0.71	H3	8.2	0.7	7.1	0.001	24	1	0.01	3.8592	1.23	1.23	2.00	3.8686	11.0311	35.0	100.0	100.0	TRUE	3.18
H5+H4	H5	8.95	0.95	H4	8.13	0.71	259.3	0.001	24	1	0.01	3.8584	1.23	1.23	2.00	3.8584	8.9462	43.1	100.0	100.0	TRUE	3.20

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H6+H5	H6	8.89	0.99	H5	8.95	0.95	9	0.004	20	1	0.01	3.7905	1.74	1.74	1.67	3.7918	12.0730	31.4	100.0	100.0	TRUE	3.21
H7+H75	H7	10.51	1.76	H75	10.09	1.58	89.8	0.002	20	1	0.013	3.7905	1.78	1.78	1.57	3.7905	6.2294	60.8	94.2	94.2	FALSE	3.25
H8+H7	H8	10.95	2.05	H7	10.51	1.76	233.4	0.001	20	1	0.01	3.7905	2.00	2.00	1.35	3.7905	6.3751	59.5	81.0	81.0	FALSE	3.26
H9+H73	H9	11.84	3.09	H73	11.36	2.56	246.2	0.002	18	1	0.01	3.7905	3.87	3.87	0.81	3.7905	6.3351	59.8	54.2	54.2	FALSE	3.96
H11+H64	H11	9.92	1.44	H64	9.05	0.99	198.2	0.002	14	1	0.01	1.0264	0.96	0.96	1.17	1.0264	3.3286	30.8	100.0	100.0	TRUE	3.18
H12+H11	H12	10.15	2.2	H11	9.92	1.54	333.5	0.002	8	1	0.013	0.9217	2.64	2.64	0.67	0.9217	0.5376	171.5	100.0	100.0	TRUE	4.20
H13+H12	H13	10.85	2.55	H12	10.15	2.3	107.9	0.002	8	1	0.013	0.8159	2.34	2.34	0.67	0.8159	0.5815	140.3	100.0	100.0	TRUE	4.64
H14+H13	H14	11.02	3.54	H13	10.85	2.65	446.5	0.002	8	1	0.013	0.8159	2.34	2.34	0.67	0.8159	0.5395	151.2	100.0	100.0	TRUE	6.77
H15+H62	H15	14.61	5.6	H62	12.95	4.64	201.4	0.005	8	1	0.013	0.7634	2.19	2.19	0.67	0.7634	0.8342	91.5	100.0	100.0	TRUE	8.51
H16+H60	H16	14.43	6.48	H60	14.57	5.9	351.2	0.002	8	1	0.01	0.7184	2.06	2.06	0.67	0.7184	0.6384	112.5	100.0	100.0	TRUE	9.40
H17+H57	H17	12.03	6.83	H57	14.21	6.69	396.8	0	8	1	0.013	0.6778	1.94	1.94	0.67	0.6778	0.2270	298.7	100.0	100.0	TRUE	10.76
H18+H5	H18	8.92	1.27	H5	8.95	1.25	7.9	0.003	6	1	0.013	0.0679	0.35	0.35	0.50	0.0691	0.2825	24.0	100.0	100.0	TRUE	3.20
H19+H18	H19	8.88	2.58	H18	8.92	1.27	386.9	0.003	6	1	0.013	0.0679	0.35	0.97	0.50	0.0679	0.3265	20.8	100.0	38.5	TRUE	3.20
H20+H19	H20	9.1	3.65	H19	8.88	2.63	270.8	0.004	6	1	0.013	0.0679	1.00	1.00	0.19	0.0679	0.3443	19.7	37.7	37.7	TRUE	3.84
H21+H56	H21	9.3	5.04	H56	9.2	4.75	143.8	0.002	6	1	0.013	0.0100	0.81	0.81	0.05	0.0100	0.2520	4.0	10.3	10.3	FALSE	5.09
H22+H21	H22	9.3	5.34	H21	9.3	5.04	151.4	0.002	6	1	0.013	0.0100	0.81	0.59	0.05	0.0100	0.2498	4.0	10.3	1.5	FALSE	5.40
H23+H22	H23	9.4	6.15	H22	9.3	5.34	404.8	0.002	6	1	0.013	0.0100	0.81	0.82	0.05	0.0103	0.2510	4.0	10.4	10.6	FALSE	6.20
H24+H20	H24	10.14	5.82	H20	9.1	3.65	332.8	0.007	6	1	0.013	0.0479	1.01	1.01	0.14	0.0479	0.4530	10.6	29.0	29.0	FALSE	5.97
H25+H11	H25	11.2	3.3	H11	9.92	1.7	378	0.004	6	1	0.013	0.1046	0.53	1.31	0.50	0.1057	0.3650	28.7	100.0	43.0	TRUE	3.52
H26+H25	H26	10.63	4.58	H25	11.2	3.3	412.5	0.003	6	1	0.013	0.1046	1.16	1.17	0.23	0.1062	0.3125	33.5	46.8	47.1	FALSE	4.83
H27+H26	H27	11.38	5.66	H26	10.63	5.43	114.6	0.002	6	1	0.013	0.0372	0.63	0.63	0.17	0.0372	0.2514	14.8	34.2	34.2	FALSE	5.85
H28+H50	H28	10.4	5.41	H50	10.13	5.03	191.6	0.002	6	1	0.013	0.0303	0.66	1.30	0.14	0.0497	0.2499	12.1	28.3	22.2	FALSE	5.57
H29+H12	H29	8.35	5.83	H12	10.15	2.65	550.5	0.006	6	1	0.013	0.1058	1.44	1.46	0.20	0.1059	0.4264	24.8	40.1	39.5	TRUE	6.03
H30+H46	H30	11.57	7.74	H46	11.27	7.47	135.4	0.002	6	1	0.013	0.0529	0.70	0.70	0.20	0.0529	0.2506	21.1	40.7	40.8	FALSE	7.96
H31+H14	H31	13.28	4.5	H14	11.02	3.69	403.7	0.002	6	1	0.013	0.0415	0.21	0.61	0.50	0.0415	0.2513	16.5	100.0	37.8	TRUE	6.79
H32+H17	H32	16.06	10.26	H17	12.03	6.88	549.9	0.006	6	1	0.013	0.1397	0.71	1.67	0.50	0.1397	0.4399	31.8	100.0	44.2	TRUE	10.76
H33+H32	H33	20	11.29	H32	16.06	10.26	515	0.002	8	1	0.013	0.1236	1.05	1.15	0.25	0.1304	0.5404	22.9	37.1	36.1	FALSE	11.55
H34+H17	H34	12.74	7.69	H17	12.03	6.83	268.6	0.003	6	1	0.013	0.5382	2.74	2.74	0.50	0.5382	0.3175	169.5	100.0	100.0	TRUE	13.48
H35+H34	H35	14.34	9.56	H34	12.74	7.69	321.9	0.006	6	1	0.013	0.5382	2.74	2.74	0.50	0.5382	0.4277	125.9	100.0	100.0	TRUE	16.77
H36+H35	H36	15.37	9.87	H35	14.34	9.56	473.9	0.001	6	1	0.013	0.4272	2.17	2.17	0.50	0.4272	0.1435	297.7	100.0	100.0	TRUE	19.96
H37+H36	H37	17.89	12.09	H36	15.37	9.87	370.1	0.006	6	1	0.013	0.2307	1.17	1.17	0.50	0.2307	0.4346	53.1	100.0	100.0	TRUE	20.69
H38+E42	H38	17.69	11.79	E42	14.56	10.11	518.8	0.003	6	1	0.013	0.0698	0.97	0.97	0.20	0.0699	0.3193	21.9	39.4	39.4	FALSE	11.99
H38+H47	H38	17.69	11.79	H47	15.05	10.1	205.2	0.008	6	1	0.013	0.1112	0.57	1.97	0.50	0.1443	0.5092	21.8	100.0	39.9	TRUE	16.84
H39+H38	H39	18	12.1	H38	17.69	11.84	131.9	0.002	6	1	0.013	0.1020	0.52	0.99	0.50	0.1020	0.2491	40.9	100.0	51.8	TRUE	16.84
H40+H36	H40	22.17	15.97	H36	15.37	9.87	496.1	0.012	6	1	0.013	0.0920	0.47	1.74	0.50	0.0938	0.6221	14.8	100.0	30.9	TRUE	19.96
H41+H40	H41	24.38	16.27	H40	22.17	15.97	150.4	0.002	6	1	0.013	0.0920	0.47	0.94	0.50	0.0922	0.2506	36.7	100.0	50.0	TRUE	19.96
H42+H37	H42	21.01	14.76	H37	17.89	12.19	387.7	0.007	6	1	0.013	0.0998	0.51	1.50	0.50	0.1008	0.4568	21.8	100.0	37.5	TRUE	20.70
H43+H42	H43	22.12	16.57	H42	21.01	14.76	346.3	0.005	6	1	0.013	0.0920	0.47	1.30	0.50	0.0920	0.4056	22.7	100.0	38.8	TRUE	20.70
H44+H37	H44	20.24	14.24	H37	17.89	12.14	272.4	0.008	6	1	0.013	0.1046	0.53	1.40	0.50	0.1143	0.4927	21.2	100.0	43.3	TRUE	20.76
H45+H9	H45	12.4	3.93	H9	11.84	3.49	222.4	0.002	6	1	0.013	0.0100	0.10	0.76	0.25	0.0130	0.2496	4.0	49.2	7.9	FALSE	3.99
H46+H52	H46	11.27	7.47	H52	12.58	6.18	360.9	0.004	6	1	0.013	0.0529	0.87	1.22	0.17	0.0554	0.3355	15.8	34.8	28.1	FALSE	7.65
H47+H35	H47	15.05	10.1	H35	14.34	9.62	192.4	0.002	6	1	0.013	0.1111	0.57	1.07	0.50	0.1133	0.2803	39.7	100.0	53.0	TRUE	16.80
H48+H55	H48	9.12	6.64	H55	9.3	4.32	217.4	0.011	6	1	0.013	0.0100	0.72	0.72	0.03	0.0100	0.5797	1.7	6.9	6.9	FALSE	6.72
H49+H48	H49	8.35	6.77	H48	9.12	6.72	32.6	0.002	6	1	0.013	0.0100	0.66	0.59	0.02	0.0100	0.2199	4.5	4.4	1.5	FALSE	6.81
H50+H26	H50	10.13	5.03	H26	10.63	4.58	154.3	0.003	6	1	0.013	0.0676	0.92	1.02	0.20	0.0757	0.3030	22.3	40.0	40.4	FALSE	5.26
H51+H50	H51	10.5	6.35	H50	10.13	5.13	189.2	0.006	6	1	0.013	0.0372	1.02	1.02	0.12	0.0372	0.4505	8.3	24.0	24.0	FALSE	6.48
H52+H29	H52	12.58	6.18	H29	8.35	5.83	94.4	0.004	6	1	0.013	0.1058	1.25	1.25	0.22	0.1060	0.3416	31.0	44.7	44.7	FALSE	6.41
H53+H52	H53	12.4	8.3	H52	12.58	6.23	233.2	0.009	6	1	0.013	0.0529	1.20	1.20	0.14	0.0529	0.5286	10.0	27.6	27.6	FALSE	8.44
H54+H20	H54	9.2	4	H20	9.1	3.7	152.6	0.002	6	1	0.013	0.0200	0.72	0.96	0.10	0.0220	0.2487	8.0	20.0	14.0	FALSE	4.15
H55+H54	H55	9.3	4.32	H54	9.2	4.22	157.2	0.001	6	1	0.013	0.0200	0.81	1.08	0.09	0.0354	0.1415	14.1	18.3	16.3	FALSE	4.45
H56+H55	H56	9.2	4.75	H55	9.3	4.32	215.8	0.002	6	1	0.013	0.0100	0.78	0.72	0.05	0.0279	0.2505	4.0	9.3	3.2	FALSE	4.81
H57+H16	H57	14.21	6.69	H16	14.43	6.48	40.5	0.005	8	1	0.013	0.7184	2.06	2.06	0.67	0.7184	0.8706	82.5	100.0	100.0	TRUE	9.47
H58+H57	H58	15.13	7.62	H57	14.21	6.69	184.6	0.005	6	1	0.013	0.0406	0.21	0.75	0.50	0.0409	0.3982	10.2	100.0	32.3	TRUE	9.47
H59+H58	H59	16.1	8.59	H58	15.13	7.62	194.6	0.005	6	1	0.013	0.0000	0.00	0.00	0.50	0.0000	0.3962	0.0	100.0	0.0	TRUE	9.47
H59+H61	H59	16.1	8.59	H61	15.42	6.28	194.6	0.012	6	1	0.013	0.0044	0.02	0.17	0.50	0.0307	0.6114	0.7	100.0	87.2	TRUE	8.68
H60+H15	H60	14.57	5.9	H15	14.61	5.6	98.7	0.003	8	1	0.01	0.7634	2.19	2.19	0.67	0.7634	0.8661	88.2	100.0	100.0	TRUE	8.68
H61+H60	H61	15.42	6.28	H60	14.57	5.9	189.5	0.002	6	1	0.013	0.0450	0.23	0.37	0.50	0.0735	0.2513	17.9	100.0	100.0	TRUE	8.68
H62+H14	H62	12.95	4.64	H14	11.02	3.54	232.8	0.005	8	1	0.013	0.7744	2.22	2.22	0.67	0.7744	0.8305	93.2	100.0	100.0	TRUE	7.73
H63+H62	H63	13.79	5.49	H62	12.95	4.64	169.8	0.005	6	1	0.013	0.0110	0.06	0.83	0.50	0.0181	0.3970	2.8	100.0	9.6	TRUE	7.73
H64+H71	H64	9.05	0.99	H71	8.35	0.77	160.6	0.001	14	1	0.01	1.0582	0.99	0.99	1.17	1.0582	2.5853	40.9	100.0	100.0	TRUE	3.17
H65+H64	H65	9.89	1.83	H64	9.05	0.99	168.3	0.005	6	1	0.013	0.0290	0.15	0.15	0.50	0.0294	0.3963	7.3	100.0	100.0	TRUE	3.17

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H66+H65	H66	9.89	2.09	H65	9.89	1.83	51.4	0.005	6	1	0.013	0.0290	0.15	0.90	0.50	0.0294	0.3989	7.3	100.0	22.2	TRUE	3.17
H67+H66	H67	9.89	2.32	H66	9.89	2.09	46	0.005	6	1	0.013	0.0100	0.05	0.77	0.50	0.0100	0.3968	2.5	100.0	8.7	TRUE	3.17
H68+H66	H68	9.89	2.42	H66	9.89	2.09	67	0.005	6	1	0.013	0.0190	0.10	1.13	0.50	0.0345	0.3937	4.8	100.0	18.1	TRUE	3.17
H69+H68	H69	9.89	2.64	H68	9.89	2.42	45.6	0.005	6	1	0.013	0.0100	0.05	0.76	0.50	0.0110	0.3898	2.6	100.0	8.2	TRUE	3.17
H70+H68	H70	9.89	2.67	H68	9.89	2.42	51.2	0.005	6	1	0.013	0.0090	0.05	0.74	0.50	0.0179	0.3921	2.3	100.0	6.2	TRUE	3.17
H71+H3	H71	8.35	0.77	H3	8.2	0.7	35	0.002	14	1	0.01	1.0673	1.00	1.00	1.17	1.0672	3.1237	34.2	100.0	100.0	TRUE	3.17
H72+H71	H72	9.26	1.54	H71	8.35	0.77	182.4	0.004	6	1	0.013	0.0090	0.05	0.58	0.50	0.0095	0.3646	2.5	100.0	1.5	TRUE	3.17
H73+H74	H73	11.36	2.56	H74	11.16	2.34	101	0.002	20	1	0.01	3.7905	3.46	3.46	0.84	3.7905	8.4400	44.9	50.1	50.1	FALSE	3.33
H74+H8	H74	11.16	2.34	H8	10.95	2.05	112.9	0.003	20	1	0.01	3.7905	2.55	2.55	1.08	3.7905	9.1668	41.4	64.5	64.5	FALSE	3.28
H75+H6	H75	10.09	1.58	H6	8.89	0.99	259.7	0.002	20	1	0.01	3.7905	1.74	1.74	1.67	3.7905	8.6193	44.0	100.0	100.0	TRUE	3.23
I3+I35	I3	1.69	-3.99	I35	1.2	-4.42	133	0.003	30	1	0.01	5.9131	1.20	1.20	2.50	5.9131	30.3207	19.5	100.0	100.0	TRUE	0.55
I4+I3	I4	1.84	-3.31	I3	1.69	-3.56	242.6	0.001	18	1	0.013	5.9131	3.35	3.35	1.50	5.9131	3.3716	175.4	100.0	100.0	TRUE	0.57
I5+I31	I5	3.41	-3.19	I31	2.94	-3.23	135	0	18	1	0.013	5.9028	3.34	3.34	1.50	5.9028	1.8081	326.5	100.0	100.0	TRUE	1.66
I6+I5	I6	4.62	-3.08	I5	3.41	-3.19	410.7	0	18	1	0.013	5.9025	3.34	3.34	1.50	5.9025	1.7191	343.4	100.0	100.0	TRUE	2.86
I7+I37	I7	5.18	-2.32	I37	4.72	-2.94	210.5	0.003	30	1	0.01	4.9593	1.01	1.01	2.50	4.9593	28.9378	17.1	100.0	100.0	TRUE	3.03
I8+I7	I8	6.15	-1.45	I7	5.18	-2.32	238.1	0.004	30	1	0.01	4.9522	1.01	1.01	2.50	4.9522	32.2300	15.4	100.0	100.0	TRUE	3.05
I9+I8	I9	5.69	-1.31	I8	6.15	-1.45	154.7	0.001	30	1	0.01	4.9392	1.01	1.01	2.50	4.9392	16.0402	30.8	100.0	100.0	TRUE	3.07
I10+I9	I10	7.26	-0.74	I9	5.69	-1.31	221.1	0.003	24	1	0.01	4.9268	1.57	1.57	2.00	4.9268	14.9310	33.0	100.0	100.0	TRUE	3.09
I11+I10	I11	8.07	-0.03	I10	7.26	-0.74	379.8	0.002	24	1	0.01	4.9266	1.57	1.57	2.00	4.9266	12.7144	38.7	100.0	100.0	TRUE	3.12
I12+I6	I12	4.46	-2.19	I6	4.62	-2.83	338.5	0.002	12	1	0.013	0.9212	1.17	1.41	1.00	1.1089	1.5492	59.5	100.0	100.0	TRUE	3.04
I13+I12	I13	5.54	-1.56	I12	4.46	-2.14	319.8	0.002	12	1	0.013	0.9209	1.17	1.42	1.00	1.1138	1.5173	60.7	100.0	100.0	TRUE	3.16
I14+I13	I14	4.22	-0.83	I13	5.54	-1.51	443.5	0.002	12	1	0.013	0.6449	0.82	1.11	1.00	0.8729	1.3950	46.2	100.0	100.0	TRUE	3.22
I15+I14	I15	5.32	-0.53	I14	4.22	-0.78	386	0.001	12	1	0.013	0.6448	0.82	1.12	1.00	0.8781	0.9066	71.1	100.0	100.0	TRUE	3.25
I16+I6	I16	4.85	0.96	I6	4.62	-2.38	492.8	0.007	8	1	0.013	0.0097	0.03	0.03	0.67	0.0097	0.9948	1.0	100.0	100.0	TRUE	2.86
I17+I7	I17	5.54	1.51	I7	5.18	-1.27	525.8	0.005	6	1	0.013	0.0050	0.03	0.56	0.50	0.0054	0.4080	1.2	100.0	1.3	TRUE	3.03
I18+I8	I18	5.2	1.01	I8	6.15	-0.65	236.8	0.007	6	1	0.013	0.0088	0.05	0.12	0.50	0.0147	0.4697	1.9	100.0	60.2	TRUE	3.05
I19+I18	I19	6.48	1.59	I18	5.2	1.11	238.8	0.002	6	1	0.013	0.0050	0.03	0.61	0.50	0.0052	0.2516	2.0	100.0	3.5	TRUE	3.05
I20+I9	I20	5.86	1.26	I9	5.69	-0.81	278.4	0.007	6	1	0.013	0.0050	0.03	0.57	0.50	0.0075	0.4838	1.0	100.0	1.4	TRUE	3.07
I21+I24	I21	7.17	1.52	I24	7	-0.08	364.1	0.004	6	1	0.013	0.1970	1.00	1.01	0.50	0.1985	0.3719	53.0	100.0	100.0	TRUE	4.37
I22+I23	I22	8.69	3.44	I23	8.52	3.17	44.5	0.006	6	1	0.013	0.0590	0.30	0.30	0.50	0.0593	0.4372	13.5	100.0	100.0	TRUE	4.81
I23+I27	I23	8.52	3.12	I27	8.3	2.86	80.1	0.003	6	1	0.013	0.1280	0.65	0.65	0.50	0.1286	0.3197	40.0	100.0	100.0	TRUE	4.81
I24+I13	I24	7	-0.08	I13	5.54	-0.56	236.9	0.002	6	1	0.013	0.2759	1.40	1.42	0.50	0.2791	0.2526	109.3	100.0	100.0	TRUE	3.85
I25+I24	I25	7	0.22	I24	7	-0.08	153.5	0.002	6	1	0.013	0.0789	0.40	0.45	0.50	0.0816	0.2480	31.8	100.0	87.6	TRUE	3.86
I26+I23	I26	9.29	4.04	I23	8.52	3.27	153.5	0.005	6	1	0.013	0.0690	0.35	1.19	0.50	0.0692	0.3974	17.4	100.0	33.7	TRUE	4.81
I27+I28	I27	8.3	2.86	I28	8.04	2.57	89.9	0.003	6	1	0.013	0.1280	0.65	1.30	0.50	0.1290	0.3188	40.2	100.0	50.3	TRUE	4.81
I28+I21	I28	8.04	2.57	I21	7.17	1.57	311.5	0.003	6	1	0.013	0.1970	1.00	1.01	0.50	0.1982	0.3179	62.0	100.0	100.0	TRUE	4.81
I29+I28	I29	8.81	3.34	I28	8.04	2.57	153.5	0.005	6	1	0.013	0.0690	0.35	1.12	0.50	0.0704	0.3974	17.4	100.0	35.7	TRUE	4.81
I31+I4	I31	2.94	-3.23	I4	1.84	-3.31	321.1	0	18	1	0.013	5.9130	3.35	3.35	1.50	5.9130	1.6581	356.6	100.0	100.0	TRUE	1.38
I32+I31	I32	3.97	-2.18	I31	2.94	-3.23	207.6	0.005	6	1	0.013	0.0100	0.05	0.60	0.50	0.0114	0.3990	2.5	100.0	1.6	TRUE	1.38
I33+I32	I33	4.43	-1.73	I32	3.97	-2.18	90.2	0.005	6	1	0.013	0.0050	0.03	0.60	0.50	0.0050	0.3963	1.3	100.0	3.1	TRUE	1.38
I34+I32	I34	4.56	-1.6	I32	3.97	-2.18	117.2	0.005	6	1	0.013	0.0050	0.03	0.62	0.50	0.0051	0.3947	1.3	100.0	3.6	TRUE	1.38
I35+I36	I35	1.2	-4.42	I36	1.7	-4.47	11.4	0.004	24	1	0.01	2.8014	0.89	0.89	2.00	2.8014	19.4782	14.4	100.0	100.0	TRUE	0.49
I35+T19	I35	1.2	-4.42	T19	2.23	-4.72	55.4	0.005	24	1	0.01	3.1121	0.99	0.99	2.00	3.1121	21.6427	14.4	100.0	100.0	TRUE	0.53
I36+T36	I36	1.7	-4.47	T36	2.125	-4.74	47.3	0.006	24	1	0.01	2.8014	0.89	0.89	2.00	2.8014	22.2278	12.6	100.0	100.0	TRUE	0.49
I37+I6	I37	4.72	-2.94	I6	4.62	-3.08	48.5	0.003	15	1	0.013	4.9596	4.04	4.04	1.25	4.9596	3.4711	142.9	100.0	100.0	TRUE	3.01
J5+J16	J5	4.44	-1.06	J16	3.8	-2.17	275.2	0.004	8	1	0.01	0.0772	0.22	0.22	0.67	0.0772	0.9977	7.7	100.0	100.0	TRUE	0.60
J6+J5	J6	5.85	0.6	J5	4.44	-0.96	558.5	0.003	6	1	0.013	0.0772	0.39	0.97	0.50	0.0772	0.2965	26.0	100.0	42.6	TRUE	0.82
J7+J6	J7	5.96	1.9	J6	5.85	1.02	441.1	0.002	6	1	0.013	0.0227	0.70	0.70	0.11	0.0230	0.2506	9.1	22.3	22.5	FALSE	2.02
J8+J6	J8	7.5	2.81	J6	5.85	0.7	442.1	0.005	6	1	0.013	0.0545	0.99	0.99	0.16	0.0545	0.3876	14.1	32.4	32.4	FALSE	2.97
J9+J8	J9	8.19	3.23	J8	7.5	2.81	400.5	0.001	6	1	0.013	0.0545	0.56	0.71	0.25	0.0562	0.1817	30.0	49.3	42.4	FALSE	3.48
J10+J9	J10	9.91	4.26	J9	8.19	3.34	299.8	0.003	6	1	0.013	0.0545	0.83	0.94	0.18	0.0594	0.3108	17.5	36.9	35.7	FALSE	4.46
J11+J15	J11	1.31	-2.3	J15	2.31	-3.24	199.7	0.005	8	1	0.013	0.0292	0.08	0.08	0.67	0.0292	0.8290	3.5	100.0	100.0	TRUE	0.54
J12+J11	J12	1.94	-1.61	J11	1.31	-2.2	299.4	0.002	8	1	0.013	0.0290	0.08	0.63	0.67	0.0291	0.5364	5.4	100.0	19.1	TRUE	0.54
J13+J12	J13	2.73	-0.51	J12	1.94	-1.51	298.6	0.003	8	1	0.013	0.0291	0.08	0.08	0.67	0.0291	0.6993	4.2	100.0	100.0	TRUE	0.54
J14+J13	J14	3.27	-0.03	J13	2.73	-0.41	190	0.002	8	1	0.013	0.0290	0.08	0.08	0.67	0.0290	0.5404	5.4	100.0	100.0	TRUE	0.54
J15+T20	J15	2.31	-3.49	T20	2.72	-4.06	82.7	0.007	7.6	1	0.01	0.0296	0.10	0.10	0.63	0.0296	1.1178	2.6	100.0	100.0	TRUE	0.54
J16+J17	J16	3.8	-2.17	J17	3.3	-3.02	210.2	0.004	7.6	1	0.01	0.0772	0.25	0.25	0.63	0.0772	0.8560	9.0	100.0	100.0	TRUE	0.60
J17+J18	J17	3.3	-3.02	J18	2.4	-3.24	45	0.005	8	1	0.01	0.0772	0.22	0.22	0.67	0.0772	1.0983	7.0	100.0	100.0	TRUE	0.60
J18+T21	J18	2.4	-3.24	T21	3.07	-3.99	63	0.012	8	1	0.01	0.0772	0.22	0.22	0.67	0.0772	1.7140	4.5	100.0	100.0	TRUE	0.60
K1+T16	K1	2.25	-6.28	T16	2.25	-6.5	30.8	0.007	18	1	0.01	2.5500	1.44	1.66	1.50	2.9331	11.5437	22.1	100.0	100.0	TRUE	0.21
K2+K38	K2	3.35	-5.2	K38	2.67	-5.61	193.7	0.002	18	1	0.01	2.5498	1.44	1.66	1.50	2.9334	6.2817	40.6	100.0	100.0	TRUE	0.26

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
K3+K2	K3	4.05	-4.8	K2	3.35	-5.2	189.7	0.002	18	1	0.01	2.5498	1.44	1.66	1.50	2.9338	6.2704	40.7	100.0	100.0	TRUE	0.27
K4+K43	K4	3.55	-4.28	K43	3.81	-4.75	204.6	0.002	18	1	0.01	2.5398	1.44	1.65	1.50	2.9242	6.5448	38.8	100.0	100.0	TRUE	0.29
K5+K4	K5	3.31	-3.71	K4	3.55	-4.28	248.1	0.002	18	1	0.01	1.4440	0.82	1.04	1.50	1.8303	6.5445	22.1	100.0	100.0	TRUE	0.30
K6+K5	K6	4.44	-2.86	K5	3.31	-3.71	251.1	0.003	18	1	0.01	1.4053	0.80	1.02	1.50	1.7965	7.9454	17.7	100.0	100.0	TRUE	0.31
K7+K6	K7	3.35	-1.85	K6	4.44	-2.66	362.1	0.002	8	1	0.013	0.0200	0.06	0.06	0.67	0.0201	0.5715	3.5	100.0	100.0	TRUE	0.31
K8+K7	K8	2.87	-1.18	K7	3.35	-1.85	355.5	0.002	8	1	0.013	0.0200	0.06	0.66	0.67	0.0202	0.5246	3.8	100.0	14.2	TRUE	0.31
K9+K8	K9	3.87	-0.58	K8	2.87	-1.18	355.9	0.002	8	1	0.013	0.0200	0.09	0.71	0.40	0.0222	0.4961	4.0	59.6	14.4	TRUE	0.31
K10+K9	K10	4.11	0.11	K9	3.87	-0.48	155.5	0.004	6	1	0.013	0.0100	0.73	0.73	0.04	0.0100	0.3456	2.9	7.3	7.4	TRUE	0.31
K11+K5	K11	3.67	-2.23	K5	3.31	-2.99	369.8	0.002	6	1	0.013	0.0205	0.10	0.72	0.50	0.0217	0.2544	8.1	100.0	21.1	TRUE	0.30
K12+K11	K12	3.54	-0.86	K11	3.67	-2.08	353.5	0.003	6	1	0.013	0.0205	0.10	0.92	0.50	0.0255	0.3296	6.2	100.0	11.7	TRUE	0.30
K13+K12	K13	2.97	0.27	K12	3.54	-0.86	362	0.003	6	1	0.013	0.0205	0.87	0.90	0.09	0.0214	0.3135	6.5	17.7	17.8	TRUE	0.37
K14+K13	K14	3.19	0.45	K13	2.97	0.27	90.4	0.002	6	1	0.013	0.0205	0.75	0.77	0.10	0.0216	0.2503	8.2	19.7	19.9	FALSE	0.58
K15+K9	K15	3.43	-0.33	K9	3.87	-0.48	73.9	0.002	6	1	0.013	0.0100	0.79	0.79	0.05	0.0100	0.2528	4.0	9.7	9.7	TRUE	0.31
K16+K4	K16	3.55	-2.65	K4	3.55	-3.45	273.7	0.003	6	1	0.013	0.0205	0.10	1.06	0.50	0.0456	0.3033	6.8	100.0	13.3	TRUE	0.29
K17+K16	K17	2.92	-1.88	K16	3.55	-2.6	267.2	0.003	6	1	0.013	0.0205	0.10	0.65	0.50	0.0205	0.2912	7.0	100.0	1.9	TRUE	0.29
K18+K17	K18	3.64	-1.31	K17	2.92	-1.88	268.7	0.002	6	1	0.013	0.0205	0.10	1.03	0.50	0.0341	0.2584	7.9	100.0	14.4	TRUE	0.29
K19+K18	K19	3.25	-0.65	K18	3.64	-1.31	272	0.002	6	1	0.013	0.0205	0.11	0.73	0.46	0.0205	0.2764	7.4	92.0	20.0	TRUE	0.29
K20+K19	K20	2.67	-0.53	K19	3.25	-0.6	134.6	0.001	6	1	0.013	0.0205	0.63	0.94	0.11	0.0205	0.1279	16.0	22.3	13.5	TRUE	0.29
K21+K3	K21	3.15	-2.1	K3	4.05	-4.25	246.4	0.009	6	1	0.013	0.0100	0.05	0.65	0.50	0.0207	0.5241	1.9	100.0	1.9	TRUE	0.27
K22+K21	K22	3.29	-1.16	K21	3.15	-2.05	256.2	0.003	6	1	0.013	0.0050	0.03	0.69	0.50	0.0050	0.3307	1.5	100.0	6.7	TRUE	0.27
K23+K22	K23	3.52	-0.91	K22	3.29	-1.11	99.5	0.002	6	1	0.013	0.0050	0.03	0.66	0.50	0.0050	0.2515	2.0	100.0	5.4	TRUE	0.27
K24+K21	K24	3.55	-1.7	K21	3.15	-2	148.6	0.002	6	1	0.013	0.0050	0.03	0.65	0.50	0.0050	0.2521	2.0	100.0	5.1	TRUE	0.27
K25+K44	K25	3.6	-1.7	K44	3.23	-2.92	346.2	0.004	6	1	0.01	0.0160	0.08	0.93	0.50	0.0186	0.4330	3.7	100.0	13.5	TRUE	0.30
K26+K6	K26	4.36	-1.29	K6	4.44	-2.76	293.6	0.005	6	1	0.013	0.0000	0.00	0.44	0.50	0.0172	0.3970	0.0	100.0	25.4	TRUE	0.31
K27+K26	K27	3.95	-0.6	K26	4.36	-1.29	199.5	0.003	6	1	0.013	0.0000	0.00	0.53	0.50	0.0246	0.3300	0.0	100.0	28.6	TRUE	0.31
K28+K4	K28	3.27	-4	K4	3.55	-4.1	242	0	10	1	0.013	1.0751	1.97	1.97	0.83	1.0756	0.4454	241.4	100.0	100.0	TRUE	0.30
K30+K31	K30	3.78	-3.21	K31	3.08	-3.43	108.2	0.002	8	1	0.013	0.1208	0.35	0.35	0.67	0.1210	0.5449	22.2	100.0	100.0	TRUE	0.30
K31+L1	K31	3.08	-3.43	L1	2.82	-3.73	147.8	0.002	8	1	0.013	0.1208	0.35	0.35	0.67	0.1210	0.5443	22.2	100.0	100.0	TRUE	0.30
K32+K30	K32	3.16	-2.76	K30	3.78	-3.21	226.9	0.002	8	1	0.013	0.1190	0.34	0.34	0.67	0.1191	0.5381	22.1	100.0	100.0	TRUE	0.31
K33+K32	K33	2.74	-2.37	K32	3.16	-2.76	130.8	0.003	6	1	0.013	0.0595	0.30	0.87	0.50	0.0595	0.3064	19.4	100.0	38.1	TRUE	0.31
K34+K33	K34	3.08	-1.54	K33	2.74	-2.37	278.4	0.003	6	1	0.013	0.0595	0.30	0.86	0.50	0.0596	0.3064	19.4	100.0	38.3	TRUE	0.31
K35+K34	K35	2.78	-0.7	K34	3.08	-1.54	279.8	0.003	6	1	0.013	0.0595	0.30	1.34	0.50	0.0859	0.3074	19.4	100.0	36.2	TRUE	0.31
K36+K35	K36	2.75	0.15	K35	2.78	-0.7	281.5	0.003	6	1	0.013	0.0595	0.86	0.86	0.19	0.0598	0.3083	19.3	38.2	38.2	TRUE	0.36
K37+K32	K37	2.51	-1.01	K32	3.16	-2.76	350.2	0.005	6	1	0.013	0.0595	0.30	1.03	0.50	0.0595	0.3966	15.0	100.0	33.6	TRUE	0.31
K38+K39	K38	2.67	-5.61	K39	2.49	-5.63	7.8	0.003	18	1	0.01	2.5499	1.44	1.66	1.50	2.9333	6.9194	36.9	100.0	100.0	TRUE	0.25
K39+K40	K39	2.49	-5.63	K40	2.25	-6.24	249.4	0.002	18	1	0.01	2.5499	1.44	1.66	1.50	2.9332	6.7531	37.8	100.0	100.0	TRUE	0.23
K40+K1	K40	2.25	-6.24	K1	2.25	-6.28	5.6	0.007	18	1	0.01	2.5499	1.44	1.66	1.50	2.9330	11.4992	22.2	100.0	100.0	TRUE	0.22
K41+K42	K41	5.23	-2.2	K42	7.35	-2.73	191.9	0.003	18	1	0.01	1.3857	0.78	1.00	1.50	1.7739	7.1761	19.3	100.0	100.0	TRUE	0.32
K42+K6	K42	7.35	-2.73	K6	4.44	-2.86	36.7	0.004	12	2	0.01	1.3840	0.88	1.13	1.00	1.7761	5.5095	25.1	100.0	100.0	TRUE	0.31
K43+K3	K43	3.81	-4.75	K3	4.05	-4.8	23.5	0.002	18	1	0.01	2.5398	1.44	1.65	1.50	2.9240	6.2985	40.3	100.0	100.0	TRUE	0.28
K44+K5	K44	3.23	-2.92	K5	3.31	-3.09	30	0.006	6	1	0.013	0.0160	0.08	1.00	0.50	0.0376	0.4224	3.8	100.0	24.7	TRUE	0.30
L1+L21	L1	2.82	-3.73	L21	2.74	-3.95	223.2	0.001	10	1	0.013	1.0751	1.97	1.97	0.83	1.0757	0.6879	156.3	100.0	100.0	TRUE	0.30
L2+L1	L2	2.72	-3.28	L1	2.82	-3.73	178.7	0.003	10	1	0.013	0.9543	1.75	1.75	0.83	0.9547	1.0993	86.8	100.0	100.0	TRUE	0.31
L3+L2	L3	2.93	-3.17	L2	2.72	-3.28	83.4	0.001	10	1	0.013	0.9543	1.75	1.75	0.83	0.9547	0.7957	119.9	100.0	100.0	TRUE	0.31
L4+L3	L4	3.39	-2.3	L3	2.93	-3.12	247.6	0.003	10	1	0.013	0.5072	0.93	0.93	0.83	0.5074	1.2607	40.2	100.0	100.0	TRUE	0.31
L5+L47	L5	4.17	-1.38	L47	3.21	-2.04	276.3	0.002	6	1	0.013	0.0680	0.35	0.86	0.50	0.0680	0.2742	24.8	100.0	42.5	TRUE	0.32
L6+L5	L6	4.69	-0.51	L5	4.17	-1.38	214.9	0.004	6	1	0.013	0.0340	0.17	0.95	0.50	0.0340	0.3570	9.5	100.0	23.7	TRUE	0.32
L7+L6	L7	5.31	-0.39	L6	4.69	-0.51	260.6	0	6	1	0.013	0.0340	0.47	0.47	0.20	0.0340	0.1204	28.2	39.5	39.5	TRUE	0.32
L8+L7	L8	5.39	-0.24	L7	5.31	-0.39	72.8	0.002	6	1	0.013	0.0340	0.64	0.64	0.16	0.0340	0.2547	13.4	31.5	31.5	TRUE	0.32
L9+L4	L9	3.42	-1.78	L4	3.39	-2.05	162.3	0.002	6	1	0.013	0.2352	1.20	1.20	0.50	0.2353	0.2288	102.8	100.0	100.0	TRUE	0.31
L10+K27	L10	3.59	0.24	K27	3.95	-0.55	197.2	0.004	6	1	0.013	0.0000	0.00	0.49	0.00	0.0250	0.3551	0.0	0.0	30.7	TRUE	0.31
L10+L9	L10	3.59	-0.76	L9	3.42	-1.78	274.7	0.004	6	1	0.013	0.0694	0.35	1.03	0.50	0.0696	0.3419	20.3	100.0	37.6	TRUE	0.32
L11+L10	L11	4.97	0.57	L10	3.59	-0.56	359.8	0.003	6	1	0.013	0.0696	0.96	0.96	0.20	0.0696	0.3144	22.1	39.7	39.7	TRUE	0.77
L12+L11	L12	4.97	0.62	L11	4.97	0.57	81.8	0.001	6	1	0.013	0.0536	0.88	0.88	0.17	0.0536	0.1387	38.7	34.9	34.9	FALSE	0.88
L13+L9	L13	4.47	-0.58	L9	3.42	-1.73	310.9	0.004	6	1	0.013	0.1658	0.84	0.84	0.50	0.1658	0.3412	48.6	100.0	100.0	TRUE	0.32
L14+L13	L14	5.25	0.6	L13	4.47	-0.58	301.6	0.004	6	1	0.013	0.1658	1.52	1.52	0.27	0.1658	0.3509	47.2	54.2	54.2	TRUE	0.87
L15+L14	L15	6.17	1.92	L14	5.25	0.6	310.2	0.004	6	1	0.013	0.1658	1.57	1.57	0.26	0.1658	0.3660	45.3	52.9	52.9	FALSE	2.19
L16+L15	L16	7.37	2.67	L15	6.17	1.92	311.1	0.002	6	1	0.013	0.1658	1.26	1.26	0.32	0.1658	0.2755	60.2	63.3	63.3	FALSE	2.99
L17+L16	L17	7.38	3.53	L16	7.37	2.67	236.3	0.004	6	1	0.013	0.1600	1.48	1.48	0.27	0.1600	0.3385	47.3	54.1	54.1	FALSE	3.80
L18+L17	L18	8.22	4.37	L17	7.38	3.53	330.9	0.003	6	1	0.013	0.1600	1.27	1.27	0.31	0.1600	0.2827	56.6	61.0	61.0	FALSE	4.68
L19+L18	L19	9.56	5.51	L18	8.22	4.37	332.7	0.003	6	1	0.013	0.1600	1.43	1.45	0.28	0.1610	0.3284	48.7	55.5	55.3	FALSE	5.80

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
L20+L16	L20	8.52	2.97	L16	7.37	2.77	101.4	0.002	6	1	0.013	0.0058	0.15	0.69	0.12	0.0058	0.2492	2.3	24.5	6.3	FALSE	3.01
L21+K28	L21	2.74	-3.95	K28	3.27	-4	68.3	0.001	10	1	0.013	1.0751	1.97	1.97	0.83	1.0757	0.5929	181.3	100.0	100.0	TRUE	0.30
L22+L3	L22	3.32	-0.13	L3	2.93	-2.72	365.6	0.007	6	1	0.013	0.0255	0.13	0.54	0.50	0.0256	0.4722	5.4	100.0	29.1	TRUE	0.31
L23+L3	L23	3.05	-2.75	L3	2.93	-3.17	351.1	0.001	8	1	0.01	0.4198	1.20	1.20	0.67	0.4199	0.5433	77.3	100.0	100.0	TRUE	0.31
L24+L23	L24	2.38	-2.17	L23	3.05	-2.75	386.3	0.002	8	1	0.01	0.4198	1.20	1.20	0.67	0.4199	0.6087	69.0	100.0	100.0	TRUE	0.32
L25+L24	L25	3.54	-1.91	L24	2.38	-2.17	342	0.001	8	1	0.01	0.4198	1.20	1.20	0.67	0.4198	0.4331	96.9	100.0	100.0	TRUE	0.32
L26+L25	L26	3.77	-1.38	L25	3.54	-1.91	215.6	0.002	8	1	0.013	0.2820	0.81	0.81	0.67	0.2820	0.5991	47.1	100.0	100.0	TRUE	0.32
L27+L26	L27	3.7	-0.86	L26	3.77	-1.38	260.1	0.002	8	1	0.013	0.1580	0.46	0.46	0.64	0.1580	0.5403	29.2	96.4	96.4	TRUE	0.32
L28+L27	L28	3.81	0.26	L27	3.7	-0.86	362.9	0.003	6	1	0.013	0.0790	1.01	1.01	0.21	0.0790	0.3117	25.3	41.8	41.8	TRUE	0.47
L29+L28	L29	4.59	1.14	L28	3.81	0.26	366	0.002	6	1	0.013	0.0790	0.92	0.92	0.22	0.0790	0.2751	28.7	44.8	44.8	FALSE	1.39
L30+L27	L30	3.71	-0.19	L27	3.7	-0.86	236	0.003	6	1	0.013	0.0790	0.98	0.99	0.21	0.0798	0.2989	26.4	42.9	43.0	TRUE	0.32
L31+L30	L31	4.39	0.64	L30	3.71	-0.19	178.8	0.005	6	1	0.013	0.0790	1.20	1.41	0.18	0.0902	0.3823	20.7	36.9	36.1	TRUE	0.84
L32+L31	L32	5.42	1.62	L31	4.39	0.64	293.5	0.003	6	1	0.013	0.0790	1.04	1.04	0.21	0.0790	0.3242	24.4	41.2	41.2	FALSE	1.83
L33+L32	L33	5.85	1.8	L32	5.42	1.62	90.7	0.002	6	1	0.013	0.0790	0.90	0.90	0.23	0.0790	0.2500	31.6	45.8	45.8	FALSE	2.06
L34+L26	L34	4.66	-0.24	L26	3.77	-1.28	287.3	0.004	6	1	0.013	0.1240	1.32	1.32	0.24	0.1240	0.3376	36.7	48.4	48.4	TRUE	0.32
L35+L34	L35	5.3	0.7	L34	4.66	-0.24	253.5	0.004	6	1	0.013	0.1100	1.26	1.26	0.23	0.1100	0.3417	32.2	45.6	45.6	TRUE	0.93
L36+L35	L36	5.75	1.65	L35	5.3	0.7	277.7	0.003	6	1	0.013	0.1100	1.22	1.27	0.23	0.1126	0.3282	33.5	46.6	46.1	FALSE	1.89
L37+L36	L37	6.21	2.76	L36	5.75	1.65	322.8	0.003	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.3290	0.0	0.0	0.0	FALSE	2.76
L37+L38	L37	6.21	2.76	L38	5.64	2.24	210.4	0.002	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.2789	0.0	0.0	0.0	FALSE	2.76
L38+L39	L38	5.64	2.24	L39	4.89	1.54	215.2	0.003	6	1	0.013	0.1200	1.26	1.42	0.24	0.1326	0.3200	37.5	48.8	48.2	FALSE	2.49
L39+L40	L39	4.89	1.54	L40	4.16	0.81	345.7	0.002	6	1	0.013	0.1200	1.06	1.06	0.28	0.1200	0.2578	46.6	55.9	55.9	FALSE	1.82
L40+L42	L40	4.16	0.61	L42	3.25	0.2	345.8	0.001	8	1	0.013	0.1250	0.88	0.88	0.29	0.1250	0.4161	30.0	42.8	42.8	FALSE	0.90
L41+L40	L41	6.09	0.95	L40	4.16	0.81	70.6	0.002	6	1	0.013	0.0050	0.64	0.64	0.02	0.0050	0.2499	2.0	4.7	4.7	FALSE	0.98
L42+L43	L42	3.25	0.2	L43	2.56	-0.34	330.1	0.002	8	1	0.013	0.1250	0.98	0.98	0.26	0.1250	0.4887	25.6	39.3	39.3	FALSE	0.46
L43+L44	L43	2.56	-0.34	L44	3.5	-0.85	334.4	0.002	8	1	0.013	0.1250	0.96	0.96	0.27	0.1250	0.4719	26.5	40.1	40.1	TRUE	0.32
L44+L45	L44	3.5	-0.85	L45	2.57	-1.33	238.4	0.002	8	1	0.013	0.1250	0.36	1.06	0.66	0.1250	0.5422	23.1	99.6	37.2	TRUE	0.32
L45+L25	L45	2.57	-1.38	L25	3.54	-1.76	201.8	0.002	8	1	0.013	0.1378	0.39	0.39	0.67	0.1378	0.5244	26.3	100.0	100.0	TRUE	0.32
L46+L45	L46	2.92	-0.93	L45	2.57	-1.23	136	0.002	6	1	0.013	0.0128	0.07	0.95	0.50	0.0221	0.2635	4.9	100.0	13.5	TRUE	0.32
L47+L4	L47	3.21	-2.04	L4	3.39	-2.3	88	0.003	8	1	0.013	0.2720	0.78	0.78	0.67	0.2720	0.6568	41.4	100.0	100.0	TRUE	0.31
L48+L47	L48	3.22	-1.35	L47	3.21	-2.04	228.9	0.003	8	1	0.013	0.2040	0.58	1.50	0.67	0.2040	0.6635	30.7	100.0	41.4	TRUE	0.32
L49+L48	L49	4.08	-1.2	L48	3.22	-1.35	233.3	0.001	8	1	0.013	0.2040	0.58	0.99	0.67	0.2040	0.3064	66.6	100.0	56.9	TRUE	0.32
L50+L49	L50	4.26	-0.68	L49	4.08	-1.2	223.6	0.002	8	1	0.013	0.2040	0.71	1.35	0.51	0.2040	0.5827	35.0	76.6	44.6	TRUE	0.32
L51+L50	L51	3.85	-0.28	L50	4.26	-0.68	79.7	0.005	6	1	0.013	0.0077	0.27	0.69	0.10	0.0085	0.3975	1.9	20.3	5.7	TRUE	0.32
L52+L50	L52	4.54	-0.36	L50	4.26	-0.68	223.9	0.001	6	1	0.013	0.1963	1.17	1.17	0.40	0.1963	0.2121	92.5	79.9	79.9	TRUE	0.32
L53+L52	L53	5.4	0.6	L52	4.54	-0.36	218.4	0.004	6	1	0.013	0.1963	1.69	1.69	0.29	0.1963	0.3720	52.8	57.2	57.2	TRUE	0.89
L54+L53	L54	6.47	2.07	L53	5.4	0.6	369.4	0.004	6	1	0.013	0.0935	1.21	1.21	0.21	0.0935	0.3539	26.4	41.6	41.6	FALSE	2.28
L55+L54	L55	6.53	2.37	L54	6.47	2.07	148.7	0.002	6	1	0.013	0.0425	0.62	0.62	0.19	0.0425	0.2520	16.9	38.0	38.0	FALSE	2.57
L56+L54	L56	7.59	3.34	L54	6.47	2.17	326.7	0.004	6	1	0.013	0.0510	0.84	0.84	0.17	0.0510	0.3357	15.2	34.8	34.8	FALSE	3.52
L57+L53	L57	5.49	1.29	L53	5.4	0.65	202.8	0.003	6	1	0.013	0.1028	1.16	1.16	0.23	0.1028	0.3152	32.6	46.0	46.0	FALSE	1.52
L58+L57	L58	6.75	2.35	L57	5.49	1.29	295.3	0.004	6	1	0.013	0.1028	1.21	1.34	0.22	0.1060	0.3361	30.6	44.8	42.2	FALSE	2.57
L59+L58	L59	7.91	3.31	L58	6.75	2.35	250	0.004	6	1	0.013	0.1028	1.24	1.24	0.22	0.1028	0.3477	29.6	43.9	43.9	FALSE	3.53
L60+L59	L60	8.08	3.53	L59	7.91	3.31	108.8	0.002	6	1	0.013	0.1028	1.02	1.02	0.26	0.1028	0.2523	40.7	51.1	51.1	FALSE	3.79
L61+L5	L61	4.57	-0.73	L5	4.17	-1.13	152.5	0.003	6	1	0.013	0.0340	0.17	0.71	0.50	0.0340	0.2874	11.8	99.8	29.3	TRUE	0.32
L62+L34	L62	4.95	0.45	L34	4.66	-0.19	146.7	0.004	6	1	0.013	0.0140	0.66	0.75	0.08	0.0157	0.3705	3.8	16.4	16.2	TRUE	0.52
M2+M44	M2	5.62	0.3	M44	5.62	0.22	42.2	0.002	8	1	0.013	0.6448	1.85	2.84	0.67	0.9005	0.5262	122.5	100.0	85.1	TRUE	3.26
M2+N1	M2	5.62	2.62	N1	5.32	2.32	82	0.004	12	1	0.013	0.2028	0.63	1.65	0.43	0.5982	2.1554	9.4	43.1	46.9	FALSE	3.26
M3+M2	M3	6.98	1.33	M2	5.62	0.3	379.8	0.003	8	1	0.013	0.8823	2.53	2.62	0.67	0.9165	0.6293	140.2	100.0	100.0	TRUE	5.31
M4+M31	M4	9.9	3	M31	7	2.52	142.5	0.003	8	1	0.013	0.6022	1.72	1.98	0.67	0.6931	0.7012	85.9	100.0	100.0	TRUE	7.59
M5+M4	M5	11.95	3.9	M4	9.9	3.05	372.5	0.002	8	1	0.013	0.6022	1.72	2.00	0.67	0.6993	0.5772	104.3	100.0	100.0	TRUE	8.52
M6+M46	M6	12.3	6.22	M46	12.8	6.1	50.4	0.002	16	1	0.01	0.1903	1.54	1.54	0.19	0.1906	4.8649	3.9	14.4	14.4	FALSE	6.42
M7+M36	M7	12.4	6.45	M36	7.3	3.24	79.9	0.04	10	1	0.01	0.3680	3.08	3.08	0.15	0.3681	5.7102	6.4	17.8	17.8	FALSE	6.60
M7+M45	M7	12.4	6.45	M45	12.36	6.35	46.6	0.002	12	2	0.01	0.1903	1.25	1.25	0.15	0.1905	4.2891	4.4	15.3	15.3	FALSE	6.61
M8+M7	M8	14.41	7.71	M7	12.4	6.45	192.5	0.007	16	1	0.01	0.5583	3.19	3.19	0.24	0.5584	8.0706	6.9	18.3	18.3	FALSE	7.96
M12+M40	M12	14.95	7.4	M40	13.27	5.72	338.1	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8518	97.4	100.0	100.0	TRUE	8.62
M13+M12	M13	16.33	8.78	M12	14.95	7.4	276	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8544	97.1	100.0	100.0	TRUE	9.94
M14+M5	M14	10.14	5.82	M5	11.95	3.95	327.8	0.006	10	1	0.013	0.0200	0.04	0.88	0.83	0.0263	1.6547	1.2	100.0	10.3	TRUE	8.52
M16+M8	M16	14.85	8.05	M8	14.41	7.81	19.7	0.012	6	1	0.013	0.0100	0.34	0.80	0.10	0.0100	0.6193	1.6	20.5	9.8	FALSE	8.09
M18+M5	M18	12	4.51	M5	11.95	4.2	153.9	0.002	10	1	0.013	-0.2472	-0.45	0.00	0.83	0.0000	0.9833	-25.1	100.0	0.0	TRUE	8.52
M19+M18	M19	12.1	4.7	M18	12	4.51	94.8	0.002	10	1	0.013	-0.2472	-0.45	0.09	0.83	0.0116	0.9807	-25.2	100.0	28.2	TRUE	8.52
M20+M19	M20	12.2	4.86	M19	12.1	4.7	78	0.002	10	1	0.013	-0.2472	-0.45	0.07	0.83	0.0125	0.9925	-24.9	100.0	37.0	TRUE	8.52
M21+M20	M21	12.3	5.45	M20	12.2	4.86	296.6	0.002	10	1	0.013	-0.2472	-0.45	0.06	0.83	0.0180	0.9772	-25.3	100.0	52.9	TRUE	8.52

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
M22+M21	M22	12.3	5.54	M21	12.3	5.45	43.3	0.002	10	1	0.013	-0.2472	-0.45	0.06	0.83	0.0188	0.9992	-24.7	100.0	53.2	TRUE	8.52
M23+M24	M23	7.5	4.92	M24	7.4	4.53	195	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2802	0.5404	51.8	100.0	100.0	TRUE	7.46
M24+M25	M24	7.4	4.56	M25	7.3	4.04	260	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2805	0.5404	51.8	100.0	100.0	TRUE	7.43
M25+M26	M25	7.3	4.04	M26	7.3	3.5	270	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2807	0.5404	51.8	100.0	100.0	TRUE	7.37
M26+M27	M26	7.3	3.5	M27	7.2	3.25	124.9	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2811	0.5406	51.8	100.0	100.0	TRUE	7.37
M27+M29	M27	7.2	3.25	M29	7.1	3.18	35.2	0.002	8	1	0.013	0.2800	0.80	0.81	0.67	0.2815	0.5385	52.0	100.0	100.0	TRUE	7.37
M28+N11	M28	7.3	0.37	N11	7.2	-0.1	236.4	0.002	8	1	0.013	0.0109	0.78	0.78	0.04	0.0111	0.5388	2.0	6.7	6.8	FALSE	0.44
M29+M31	M29	7.1	3.18	M31	7	2.52	328.8	0.002	8	1	0.01	0.2800	0.80	0.81	0.67	0.2834	0.7038	39.8	100.0	100.0	TRUE	7.37
M30+N29	M30	7.3	0.64	N29	7.2	0.13	255.2	0.002	8	1	0.013	0.0109	0.74	0.84	0.06	0.0127	0.5402	2.0	8.7	8.4	FALSE	0.71
M31+M3	M31	7	2.52	M3	6.98	1.33	357.1	0.003	8	1	0.013	0.8822	2.53	2.64	0.67	0.9223	0.6975	126.5	100.0	100.0	TRUE	7.29
M32+M33	M32	7.3	2.88	M33	7.3	2.49	195	0.002	8	1	0.013	0.5263	1.80	1.80	0.52	0.5263	0.5403	97.4	78.2	78.2	FALSE	3.43
M33+M34	M33	7.3	2.49	M34	7.2	1.91	257.5	0.002	8	1	0.013	0.5263	1.77	1.77	0.53	0.5263	0.5735	91.8	79.3	79.3	FALSE	3.03
M34+N22	M34	7.2	1.91	N22	7.1	1.4	283.5	0.002	8	1	0.013	0.5386	1.68	1.68	0.58	0.5386	0.5125	105.1	86.6	86.6	FALSE	2.53
M35+M34	M35	7.2	2.16	M34	7.2	1.91	124.1	0.002	8	1	0.013	0.0123	0.04	0.74	0.49	0.0123	0.5423	2.3	73.6	9.4	FALSE	2.53
M36+M37	M36	7.3	3.24	M37	7.4	2.73	256.7	0.002	8	1	0.013	0.3967	1.60	1.60	0.44	0.3967	0.5386	73.7	66.7	66.7	FALSE	3.69
M37+N24	M37	7.4	2.73	N24	7.3	2.21	259.3	0.002	8	1	0.013	0.3967	1.61	1.61	0.44	0.3967	0.5411	73.3	66.5	66.5	FALSE	3.18
M38+M39	M38	19.58	12.03	M39	18.79	11.24	157.5	0.005	8	1	0.013	0.8295	2.38	2.42	0.67	0.8404	0.8558	96.9	100.0	97.6	TRUE	12.75
M39+M43	M39	18.79	11.24	M43	17.59	10.04	240.5	0.005	8	1	0.013	0.8295	2.38	2.44	0.67	0.8432	0.8535	97.2	100.0	97.1	TRUE	12.05
M40+M5	M40	13.27	5.72	M5	11.95	4.4	263	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8561	96.9	100.0	100.0	TRUE	8.52
M41+M13	M41	16.89	9.34	M13	16.33	8.78	111	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8583	96.6	100.0	100.0	TRUE	10.41
M42+M41	M42	17.07	9.82	M41	16.89	9.34	37.3	0.013	8	1	0.013	0.8295	2.38	3.86	0.67	0.8317	1.3699	60.6	100.0	59.2	TRUE	10.50
M43+M42	M43	17.59	10.04	M42	17.07	9.82	103.8	0.002	8	1	0.013	0.8295	2.38	2.45	0.67	0.8335	0.5563	149.1	100.0	94.0	TRUE	10.92
M44+I15	M44	5.62	0.12	I15	5.32	-0.53	61.7	0.011	12	1	0.013	0.6448	0.82	1.12	1.00	0.8829	3.6568	17.6	100.0	100.0	TRUE	3.26
M45+M6	M45	12.36	6.35	M6	12.3	6.22	63.5	0.002	16	1	0.01	0.1903	1.47	1.47	0.20	0.1905	4.5115	4.2	14.9	14.9	FALSE	6.55
M46+M22	M46	12.8	6.12	M22	12.3	5.54	290.6	0.002	10	1	0.013	-0.2472	-0.45	0.04	0.83	0.0191	0.9788	-25.3	100.0	75.2	TRUE	8.52
M46+M32	M46	12.8	6.1	M32	7.3	2.88	76	0.042	10	1	0.01	0.4375	3.48	3.48	0.16	0.4375	5.8625	7.5	19.0	19.0	FALSE	6.27
METERING STATION+T2	METERING STATION	0	-14.66	T2	3.04	-14.76	444.9	0	24	1	0.013	12.3724	3.94	4.02	2.00	12.6396	3.3913	364.8	100.0	100.0	TRUE	-11.28
N1+K41	N1	5.32	-2.08	K41	5.23	-2.2	30.8	0.004	18	1	0.01	1.3856	0.78	1.01	1.50	1.7778	8.5232	16.3	100.0	100.0	TRUE	0.32
N2+N1	N2	5.71	-1.39	N1	5.32	-2.08	295.7	0.002	16	1	0.01	1.1831	0.87	0.87	1.24	1.1831	4.8180	24.6	93.4	93.4	TRUE	0.33
N3+N21	N3	6	-0.64	N21	6	-0.82	88.8	0.002	16	1	0.01	1.1258	2.78	2.78	0.44	1.1258	4.4899	25.1	33.2	33.2	FALSE	0.34
N4+N3	N4	6.14	0.24	N3	6	-0.64	334.7	0.003	16	1	0.01	1.1258	2.87	2.87	0.43	1.1258	5.1141	22.0	32.4	32.4	FALSE	0.68
N5+N4	N5	7.28	1.13	N4	6.14	0.29	332.5	0.003	10	1	0.013	0.1905	1.34	1.34	0.26	0.1905	1.1012	17.3	30.7	30.7	FALSE	1.39
N6+N5	N6	8.64	1.99	N5	7.28	1.13	332.5	0.003	10	1	0.013	0.1905	1.35	1.35	0.25	0.1905	1.1142	17.1	30.5	30.5	FALSE	2.25
N7+N6	N7	9.69	2.84	N6	8.64	1.99	332.7	0.003	10	1	0.013	0.1905	1.35	1.35	0.26	0.1905	1.1074	17.2	30.6	30.6	FALSE	3.10
N8+N9	N8	13.8	4.05	N9	11.48	3.68	118.7	0.003	10	1	0.013	0.1905	1.45	1.45	0.24	0.1905	1.2230	15.6	29.1	29.1	FALSE	4.29
N9+N7	N9	11.48	3.68	N7	9.69	2.84	284	0.003	10	1	0.013	0.1905	1.42	1.42	0.25	0.1905	1.1916	16.0	29.5	29.5	FALSE	3.93
N10+N13	N10	7.1	-0.52	N13	7	-0.88	176	0.002	8	1	0.013	0.0109	0.08	0.78	0.29	0.0109	0.5465	2.0	43.0	8.4	TRUE	0.33
N11+N12	N11	7.2	-0.1	N12	7.1	-0.56	227.2	0.002	8	1	0.013	0.0218	0.77	1.14	0.09	0.0391	0.5437	4.0	13.6	13.3	TRUE	0.33
N12+N13	N12	7.1	-0.56	N13	7	-0.88	157.9	0.002	8	1	0.013	0.0218	0.14	0.70	0.31	0.0231	0.5440	4.0	46.0	15.1	TRUE	0.33
N13+N14	N13	7	-0.88	N14	6	-1.21	167	0.002	8	1	0.013	0.0327	0.10	0.22	0.63	0.0329	0.5371	6.1	94.6	44.8	TRUE	0.33
N14+N2	N14	6	-1.21	N2	5.71	-1.39	88.4	0.002	16	1	0.01	1.1831	1.20	1.20	0.88	1.1831	4.5003	26.3	66.3	66.3	TRUE	0.33
N15+N16	N15	7.3	0.75	N16	7.2	0.25	251.8	0.002	8	1	0.013	0.0123	0.72	0.96	0.06	0.0360	0.5384	2.3	9.5	8.3	FALSE	0.83
N16+N17	N16	7.2	0.25	N17	7.1	-0.21	228.2	0.002	8	1	0.013	0.0123	0.81	0.63	0.05	0.0174	0.5426	2.3	7.6	1.3	FALSE	0.36
N17+N20	N17	7.1	-0.27	N20	7	-0.67	197	0.002	8	1	0.013	0.0123	0.25	0.82	0.13	0.0178	0.5445	2.3	19.7	11.3	TRUE	0.34
N18+N19	N18	7.2	0.29	N19	7.1	-0.22	255.9	0.002	8	1	0.013	0.0123	0.72	0.87	0.06	0.0235	0.5394	2.3	9.5	7.7	FALSE	0.36
N19+N20	N19	7.1	-0.22	N20	7	-0.67	224.1	0.002	8	1	0.013	0.0123	0.34	0.82	0.11	0.0136	0.5415	2.3	15.9	7.7	TRUE	0.34
N20+N21	N20	7	-0.67	N21	6	-0.82	72	0.002	8	1	0.013	0.0246	0.11	0.73	0.41	0.0326	0.5516	4.5	60.9	18.5	TRUE	0.34
N21+N14	N21	6	-0.82	N14	6	-1.21	195.8	0.002	16	1	0.01	1.1504	1.87	1.87	0.60	1.1504	4.4512	25.8	45.2	45.2	TRUE	0.34
N22+N23	N22	7.1	1.4	N23	7.1	0.98	212	0.002	8	1	0.013	0.5386	1.78	1.78	0.54	0.5386	0.5378	100.1	80.7	80.7	FALSE	1.97
N23+N28	N23	7.1	0.98	N28	7	0.59	193.2	0.002	8	1	0.013	0.5386	1.86	1.86	0.52	0.5386	0.5430	99.2	77.5	77.5	FALSE	1.54
N24+N25	N24	7.3	2.21	N25	7.3	1.98	116.3	0.002	8	1	0.013	0.3967	1.71	1.71	0.42	0.3967	0.5374	73.8	62.9	62.9	FALSE	2.65
N25+N26	N25	7.3	1.98	N26	7.2	1.46	262.5	0.002	8	1	0.013	0.3967	1.60	1.60	0.45	0.3967	0.5379	73.8	66.8	66.8	FALSE	2.43
N26+N27	N26	7.2	1.46	N27	7.1	0.96	247.5	0.002	8	1	0.013	0.3967	1.61	1.61	0.44	0.3967	0.5431	73.1	66.3	66.3	FALSE	1.91
N27+N28	N27	7.1	0.96	N28	7	0.59	183	0.002	8	1	0.013	0.3967	1.63	1.63	0.44	0.3967	0.5433	73.0	65.8	65.7	FALSE	1.41
N28+N31	N28	7	0.59	N31	6.87	0.54	21.4	0.002	6	2	0.01	0.9353	2.56	2.56	0.44	0.9353	0.7050	132.7	87.6	87.6	FALSE	1.03
N29+N10	N29	7.2	0.13	N10	7.1	-0.52	325.6	0.002	8	1	0.013	0.0109	0.72	0.72	0.06	0.0109	0.5399	2.0	8.8	8.8	TRUE	0.33
N30+N11	N30	7.3	0.17	N11	7.2	-0.1	134	0.002	8	1	0.013	0.0109	0.79	0.82	0.06	0.0113	0.5424	2.0	8.3	7.9	FALSE	0.33
N31+N4	N31	6.87	0.54	N4	6.14	0.24	128.8	0.002	12	1	0.01	0.9353	2.74	2.74	0.45	0.9353	2.2348	41.9	44.8	44.8	FALSE	1.00
O3+N8	O3	17.6	8.2	N8	13.8	4.1	205.1	0.02	8	1	0.013	0.0799	1.48	1.48	0.12	0.0799	1.7083	4.7	17.3	17.3	FALSE	8.32
O4+O3	O4	15.39	9.13	O3	17.6	8.3	277.4	0.003	8	1	0.013	0.0338	1.13	0.72	0.09	0.0338	0.6609	5.1	13.8	1.7	FALSE	9.22
O5+O4	O5	14.73	10.25	O4	15.39	9.13	398.6	0.003	8	1	0.013	0.0338	1.09	0.72	0.08	0.0338	0.6405	5.3	12.6	1.7	FALSE	10.34

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
O6+O5	O6	13.82	11.05	O5	14.73	10.25	399.4	0.002	8	1	0.013	0.0338	1.13	0.72	0.09	0.0338	0.5408	6.2	14.1	1.7	FALSE	11.15
O7+O6	O7	15.16	11.56	O6	13.82	11.05	426.9	0.001	8	1	0.013	0.0338	0.94	0.72	0.11	0.0338	0.4177	8.1	15.9	1.7	FALSE	11.67
O8+O59	O8	16.28	12.23	O59	16.36	11.92	102.7	0.003	8	1	0.013	0.2285	1.58	1.58	0.29	0.2285	0.6639	34.4	43.3	43.3	FALSE	12.53
O9+O8	O9	17.01	12.76	O8	16.28	12.23	139.7	0.004	8	1	0.013	0.2075	1.63	1.63	0.26	0.2075	0.7443	27.9	39.3	39.3	FALSE	13.02
O10+O9	O10	17.95	13.1	O9	17.01	12.76	156.6	0.002	8	1	0.013	0.2075	1.35	1.35	0.30	0.2075	0.5631	36.9	45.4	45.4	FALSE	13.41
O11+O10	O11	19.41	14.01	O10	17.95	13.15	259.2	0.003	8	1	0.013	0.1932	1.51	1.51	0.26	0.1932	0.6960	27.8	39.4	39.4	FALSE	14.27
O12+O11	O12	19.9	14.5	O11	19.41	14.01	394.2	0.001	8	1	0.013	0.1932	1.06	1.06	0.35	0.1932	0.4260	45.4	51.8	51.8	FALSE	14.85
O13+O12	O13	22.22	16.47	O12	19.9	14.5	414.6	0.005	8	1	0.013	0.1932	1.72	1.72	0.24	0.1932	0.8329	23.2	35.8	35.8	FALSE	16.71
O14+O13	O14	21.75	17.35	O13	22.22	16.87	129.7	0.004	8	1	0.013	0.0487	0.82	0.82	0.15	0.0487	0.7351	6.6	22.6	22.6	FALSE	17.50
O15+O14	O15	24.85	19.05	O14	21.75	17.35	307.9	0.006	8	1	0.013	0.0487	0.93	0.93	0.14	0.0487	0.8978	5.4	20.8	20.8	FALSE	19.19
O16+O15	O16	28.01	22.56	O15	24.85	19.2	234.7	0.014	6	1	0.013	0.0487	1.34	0.93	0.12	0.0487	0.6714	7.3	23.8	7.5	FALSE	22.68
O17+O3	O17	10.93	8.62	O3	17.6	8.3	161.2	0.002	8	1	0.013	0.0493	0.66	0.66	0.18	0.0498	0.5383	9.2	26.7	26.8	FALSE	8.80
O18+O17	O18	15.83	11.93	O17	10.93	8.62	264	0.013	8	1	0.013	0.0136	0.74	0.74	0.04	0.0136	1.3530	1.0	5.3	5.3	FALSE	11.97
O19+O17	O19	17.6	10.75	O17	10.93	8.62	85.9	0.025	6	1	0.013	0.0357	1.09	1.11	0.08	0.0363	0.8837	4.0	16.6	17.0	FALSE	10.84
O20+O19	O20	17	10.98	O19	17.6	10.75	115.6	0.002	6	1	0.013	0.0057	0.68	0.56	0.03	0.0057	0.2503	2.3	6.2	1.3	FALSE	11.02
O21+O19	O21	20.09	12.64	O19	17.6	10.75	393.6	0.005	6	1	0.013	0.0300	0.92	0.92	0.11	0.0307	0.3888	7.7	22.2	22.5	FALSE	12.76
O22+O21	O22	20	13.27	O21	20.09	12.64	318.2	0.002	6	1	0.013	0.0300	0.64	0.64	0.14	0.0315	0.2497	12.0	28.8	29.9	FALSE	13.42
O23+O22	O23	21.65	15.65	O22	20	13.27	469.8	0.005	6	1	0.013	0.0301	0.89	0.78	0.11	0.0319	0.3993	7.5	22.8	26.2	FALSE	15.78
O24+O23	O24	21.18	15.84	O23	21.65	15.65	96.7	0.002	6	1	0.013	0.0300	0.67	0.70	0.14	0.0334	0.2488	12.1	27.8	29.1	FALSE	16.00
O25+O7	O25	16.12	12.07	O7	15.16	11.61	177.4	0.003	6	1	0.013	0.0338	0.72	1.20	0.14	0.0529	0.2857	11.8	28.8	17.3	FALSE	12.22
O26+O25	O26	18.86	13.26	O25	16.12	12.12	332.8	0.003	6	1	0.013	0.0140	0.79	0.73	0.07	0.0142	0.3284	4.3	14.6	6.5	FALSE	13.32
O27+O26	O27	19.94	13.44	O26	18.86	13.31	65.4	0.002	6	1	0.013	0.0075	0.71	0.71	0.03	0.0075	0.2501	3.0	6.8	6.9	FALSE	13.49
O28+O26	O28	19	14.28	O26	18.86	13.41	434.3	0.002	6	1	0.013	0.0065	0.70	0.70	0.03	0.0065	0.2511	2.6	6.8	6.8	FALSE	14.32
O29+O28	O29	23	19.53	O28	19	14.28	174	0.03	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.9746	0.0	0.0	0.0	FALSE	19.53
O29+O30	O29	23	19.53	O30	22.78	19.08	226	0.002	6	1	0.013	0.0000	0.00	0.00	0.04	0.0000	0.2504	0.0	7.4	0.0	FALSE	19.59
O30+O35	O30	22.78	17.63	O35	21.74	16.44	175.9	0.007	6	1	0.013	0.0492	0.99	1.01	0.05	0.0492	0.4615	10.7	9.8	10.7	FALSE	17.74
O31+O30	O31	23	18.76	O30	22.78	18.58	89.5	0.002	6	1	0.013	0.0164	0.80	0.79	0.08	0.0190	0.2516	6.5	16.1	18.0	FALSE	18.91
O32+O31	O32	24	19.18	O31	23	18.76	210.5	0.002	6	1	0.013	0.0164	0.83	0.67	0.08	0.0181	0.2506	6.5	15.6	3.3	FALSE	19.33
O33+O32	O33	25	19.71	O32	24	19.18	262.5	0.002	6	1	0.013	0.0164	0.76	0.92	0.08	0.0170	0.2521	6.5	16.7	15.0	FALSE	19.80
O34+O10	O34	23.33	14.69	O10	17.95	13.35	267.7	0.005	6	1	0.013	0.0492	1.09	0.81	0.07	0.0492	0.3970	12.4	13.9	2.5	FALSE	14.80
O35+O34	O35	21.74	16.44	O34	23.33	14.69	316.4	0.006	6	1	0.013	0.0492	1.08	0.81	0.07	0.0492	0.4173	11.8	13.5	2.5	FALSE	16.53
O36+O30	O36	24.12	18.01	O30	22.78	17.68	164.4	0.002	6	1	0.013	0.0164	0.78	0.78	0.08	0.0164	0.2514	6.5	16.3	16.3	FALSE	18.10
O37+O25	O37	16.63	12.23	O25	16.12	12.07	80.9	0.002	6	1	0.013	0.0198	0.71	0.96	0.10	0.0216	0.2495	7.9	19.9	17.2	FALSE	12.33
O38+O37	O38	17.23	12.46	O37	16.63	12.23	117.5	0.002	6	1	0.013	0.0066	0.71	0.71	0.04	0.0067	0.2482	2.7	7.1	7.0	FALSE	12.50
O39+O37	O39	16.48	12.31	O37	16.63	12.23	40.8	0.002	6	1	0.013	0.0132	0.89	0.89	0.06	0.0132	0.2486	5.3	12.8	12.8	FALSE	12.38
O40+O39	O40	16.65	12.38	O39	16.48	12.31	37.3	0.002	6	1	0.013	0.0066	0.28	0.28	0.09	0.0066	0.2431	2.7	17.7	17.7	FALSE	12.43
O41+O40	O41	16.5	12.47	O40	16.65	12.38	44.5	0.002	6	1	0.013	0.0066	0.64	0.64	0.02	0.0066	0.2523	2.6	4.2	4.2	FALSE	12.51
O42+O39	O42	16.78	12.41	O39	16.48	12.31	47.6	0.002	6	1	0.013	0.0066	0.65	0.65	0.02	0.0066	0.2572	2.6	4.8	4.8	FALSE	12.45
O43+O42	O43	17.92	13.6	O42	16.78	12.41	181.9	0.007	6	1	0.013	0.0066	0.65	0.65	0.02	0.0067	0.4538	1.5	4.5	4.8	FALSE	13.63
O44+O43	O44	18.13	13.78	O43	17.92	13.64	69.2	0.002	6	1	0.013	0.0066	0.69	0.69	0.03	0.0066	0.2524	2.6	6.3	6.3	FALSE	13.82
O45+O8	O45	17.06	12.55	O8	16.28	12.23	65.8	0.005	6	1	0.013	0.0210	0.47	1.01	0.14	0.0210	0.3912	5.4	27.7	16.3	FALSE	12.64
O46+O45	O46	18	13.61	O45	17.06	12.55	212.5	0.005	6	1	0.013	0.0070	0.75	0.75	0.04	0.0070	0.3963	1.8	8.5	8.5	FALSE	13.65
O47+O45	O47	16.84	12.91	O45	17.06	12.55	71.5	0.005	6	1	0.013	0.0140	0.85	0.85	0.06	0.0140	0.3981	3.5	11.3	11.3	FALSE	12.97
O48+O47	O48	17.43	13.52	O47	16.84	12.91	122	0.005	6	1	0.013	0.0070	0.69	0.69	0.03	0.0070	0.3968	1.8	6.3	6.3	FALSE	13.55
O49+O47	O49	17.41	13.27	O47	16.84	12.91	72.6	0.005	6	1	0.013	0.0070	0.68	0.68	0.03	0.0070	0.3952	1.8	5.9	5.9	FALSE	13.30
O50+O49	O50	17.95	14.13	O49	17.41	13.27	172.1	0.005	6	1	0.013	0.0070	0.63	0.63	0.02	0.0070	0.3967	1.8	3.9	3.9	FALSE	14.16
O51+O13	O51	24.5	18.4	O13	22.22	16.57	467.6	0.004	6	1	0.013	0.1445	1.45	1.45	0.25	0.1445	0.3510	41.2	50.7	50.7	FALSE	18.66
O52+O51	O52	26.81	19.11	O51	24.5	18.4	213.3	0.003	6	1	0.013	0.0772	1.03	1.03	0.20	0.0772	0.3237	23.8	40.7	40.7	FALSE	19.32
O53+O52	O53	27	19.48	O52	26.81	19.11	188.5	0.002	6	1	0.013	0.0100	0.81	0.84	0.05	0.0116	0.2486	4.0	10.5	11.4	FALSE	19.54
O54+O52	O54	31.19	20.39	O52	26.81	19.11	380.1	0.003	6	1	0.013	0.0672	0.97	0.97	0.19	0.0672	0.3256	20.6	38.4	38.4	FALSE	20.58
O55+O54	O55	28.75	20.95	O54	31.19	20.44	399.4	0.001	6	1	0.013	0.0672	0.68	0.68	0.25	0.0672	0.2005	33.5	50.4	50.4	FALSE	21.21
O56+O55	O56	27.04	22.24	O55	28.75	20.95	376.5	0.003	6	1	0.013	0.0672	0.97	0.97	0.19	0.0672	0.3284	20.5	38.2	38.2	FALSE	22.45
O57+O51	O57	25.61	19.76	O51	24.5	18.4	365.2	0.004	6	1	0.013	0.0487	0.84	0.84	0.17	0.0487	0.3424	14.2	33.6	33.6	FALSE	19.93
O58+O57	O58	26.81	20.57	O57	25.61	19.76	403.4	0.002	6	1	0.013	0.0487	0.67	0.67	0.20	0.0489	0.2514	19.4	39.7	39.7	FALSE	20.78
O59+O60	O59	16.36	11.92	O60	15.68	9.18	24.1	0.114	12	1	0.013	0.2070	2.05	2.05	0.10	0.2070	12.0125	1.7	10.3	10.3	FALSE	12.02
O59+O7	O59	16.36	11.92	O7	15.16	11.56	182.3	0.002	8	1	0.013	0.0000	0.00	0.00	0.14	0.0000	0.5370	0.0	20.6	0.0	FALSE	12.02
O60+O61	O60	15.68	9.18	O61	14.55	7.85	199	0.007	14	1	0.013	0.5483	2.68	2.68	0.29	0.5487	4.3937	12.5	24.6	24.6	FALSE	9.49
O61+M8	O61	14.55	7.85	M8	14.41	7.81	11.8	0.003	16	1	0.01	0.5483	2.42	2.42	0.29	0.5483	5.8139	9.4	21.9	21.9	FALSE	8.14
O62+O18	O62	17.08	13.18	O18	15.83	11.93	249	0.005	6	1	0.013	0.0136	0.89	0.89	0.07	0.0136	0.3975	3.4	13.1	13.1	FALSE	13.25
O63+O62	O63	17.27	13.37	O62	17.08	13.18	38	0.005	6	1	0.013	0.0136	0.85	0.82	0.06	0.0136	0.3968	3.4	11.4	9.9	FALSE	13.43
T1+T0	T1	4.57	-15.43	T0	#N/A	-17.68	329.2	0.007	24	1	0.013	12.3724	6.32	6.35	1.19	12.6349	18.7022	66.2	59.7	60.5	FALSE	-14.21

Appendix D: Table 4
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
T2+T1	T2	3.04	-14.76	T1	4.57	-15.43	505.8	0.001	24	1	0.013	12.3724	4.12	4.16	1.82	12.6396	8.2329	150.3	91.2	92.6	TRUE	-12.46
T3+METERING STATION	T3	2.52	-14.63	METERING STATION	0	-14.66	55	0.001	24	1	0.013	12.3724	3.94	4.02	2.00	12.6398	5.2820	234.2	100.0	100.0	TRUE	-11.23
T4+T3	T4	1.41	-12.09	T3	2.52	-14.63	474.9	0.005	24	1	0.013	12.3724	3.94	4.02	2.00	12.6400	16.5440	74.8	100.0	100.0	TRUE	-10.05
T5+T4	T5	0.16	-11.76	T4	1.41	-11.99	352.3	0.001	24	1	0.013	12.3724	3.96	4.02	1.97	12.6405	5.7802	214.0	98.5	100.0	TRUE	-9.19
T6+T5	T6	0.17	-11.38	T5	0.16	-11.66	359.1	0.001	24	1	0.013	12.3724	3.94	4.02	2.00	12.6410	6.3165	195.9	100.0	100.0	TRUE	-8.28
T7+T6	T7	-0.07	-10.42	T6	0.17	-11.38	503.8	0.002	24	1	0.013	12.3724	3.94	4.02	2.00	12.6421	9.8749	125.3	100.0	100.0	TRUE	-6.91
T8+T7	T8	0.14	-10.08	T7	-0.07	-10.32	501.9	0	24	1	0.013	12.3724	3.94	4.02	2.00	12.6434	4.9469	250.1	100.0	100.0	TRUE	-5.55
T9+T8	T9	0.14	-9.67	T8	0.14	-9.98	497.7	0.001	24	1	0.013	12.3724	3.94	4.02	2.00	12.6450	5.6455	219.2	100.0	100.0	TRUE	-4.20
T10+T9	T10	0.07	-9.12	T9	0.14	-9.57	446.9	0.001	24	1	0.013	12.3724	3.94	4.03	2.00	12.6468	7.1784	172.4	100.0	100.0	TRUE	-3.01
T11+T10	T11	-0.24	-8.44	T10	0.07	-9.02	325.8	0.002	24	1	0.013	12.3724	3.94	4.03	2.00	12.6488	9.5439	129.6	100.0	100.0	TRUE	-2.20
T12+T11	T12	0.55	-8.25	T11	-0.24	-8.49	482.2	0	24	1	0.013	12.3724	3.94	4.03	2.00	12.6510	5.0468	245.2	100.0	100.0	TRUE	-0.89
T16+T33	T16	2.25	-6.5	T33	2.25	-6.55	66.2	0.001	17.8	1	0.01	2.5500	1.48	1.70	1.48	2.9330	3.6203	70.4	100.0	100.0	TRUE	0.20
T17+T34	T17	0.96	-5.84	T34	1.75	-6.3	407.1	0.001	21	1	0.013	9.8224	4.08	4.08	1.75	9.8224	5.3261	184.4	100.0	100.0	TRUE	0.30
T18+T17	T18	1.12	-5.23	T17	0.96	-5.79	540.4	0.001	21	1	0.013	9.8224	4.08	4.08	1.75	9.8224	5.1005	192.6	100.0	100.0	TRUE	0.40
T19+T36	T19	2.23	-4.72	T36	2.125	-4.74	6.3	0.003	21	1	0.013	7.0214	2.92	2.92	1.75	7.0214	8.9021	78.9	100.0	100.0	TRUE	0.51
T20+T19	T20	2.72	-4.06	T19	2.23	-4.62	331.9	0.002	18	1	0.013	3.9085	2.21	2.21	1.50	3.9085	4.3143	90.6	100.0	100.0	TRUE	0.54
T21+T20	T21	3.07	-3.99	T20	2.72	-4.06	338.4	0	21	1	0.013	3.8800	1.61	1.61	1.75	3.8800	2.2788	170.3	100.0	100.0	TRUE	0.60
T22+T37	T22	2.81	-3.24	T37	3	-3.63	191.4	0.002	21	1	0.01	3.8027	1.58	1.58	1.75	3.8027	9.2972	40.9	100.0	100.0	TRUE	0.63
T23+T22	T23	6.87	-3.03	T22	2.81	-3.24	373	0.001	18	1	0.013	3.8027	2.15	2.15	1.50	3.8027	2.4921	152.6	100.0	100.0	TRUE	0.80
T24+T23	T24	3.66	-2.69	T23	6.87	-2.93	316.7	0.001	18	1	0.013	3.6244	2.05	2.05	1.50	3.6244	2.8914	125.4	100.0	100.0	TRUE	1.05
T25+T24	T25	3.95	-2.59	T24	3.66	-2.62	282.2	0	18	1	0.013	3.6244	2.05	2.05	1.50	3.6244	1.0830	334.7	100.0	100.0	TRUE	1.27
T26+T25	T26	7.03	-2.32	T25	3.95	-2.52	305.6	0.001	18	1	0.013	3.1314	1.77	1.77	1.50	3.1314	2.6873	116.5	100.0	100.0	TRUE	1.42
T27+T26	T27	7.85	-2.05	T26	7.03	-2.22	355.8	0	18	1	0.013	3.1314	1.77	1.77	1.50	3.1314	2.2958	136.4	100.0	100.0	TRUE	1.62
T28+T27	T28	8.67	-1.93	T27	7.85	-1.95	162.1	0	18	1	0.013	3.1314	1.77	1.77	1.50	3.1314	1.1667	268.4	100.0	100.0	TRUE	1.64
T29+T28	T29	4.98	-1.62	T28	8.67	-1.93	233.8	0.001	18	1	0.013	3.1314	1.77	1.77	1.50	3.1314	3.8245	81.9	100.0	100.0	TRUE	1.72
T30+T12	T30	0.25	-7.24	T12	0.55	-8.25	285.1	0.004	24	1	0.01	12.3724	3.94	4.03	2.00	12.6533	17.5030	70.7	100.0	100.0	TRUE	-0.56
T31+T30	T31	2.05	-7.15	T30	0.25	-7.24	350.8	0	24.2	1	0.01	12.3724	3.87	3.96	2.02	12.6608	4.8253	256.4	100.0	100.0	TRUE	-0.15
T32+T31	T32	1.25	-7.11	T31	2.05	-7.15	125.2	0	24.2	1	0.01	12.3724	3.87	5.06	2.02	13.8287	5.3740	230.2	100.0	79.8	TRUE	-0.09
T33+Transition 1	T33	2.25	-6.55	Transition 1	#N/A	-24.75	157	0.116	17.8	2	0.01	12.3724	3.60	3.68	1.48	12.6763	89.7137	13.8	100.0	100.0	TRUE	0.18
T34+T33	T34	1.75	-6.3	T33	2.25	-6.55	76.4	0.003	17.8	1	0.01	9.8224	5.71	5.71	1.48	9.8224	7.5365	130.3	100.0	100.0	TRUE	0.22
T36+T18	T36	2.125	-4.74	T18	1.12	-5.23	493.7	0.001	21	1	0.013	9.8224	4.08	4.08	1.75	9.8224	4.9915	196.8	100.0	100.0	TRUE	0.49
T37+T21	T37	3	-3.63	T21	3.07	-3.99	83.4	0.004	21	1	0.01	3.8028	1.58	1.58	1.75	3.8028	13.5420	28.1	100.0	100.0	TRUE	0.61
Transition 1+Transition 2	Transition 1	#N/A	-24.75	Transition 2	#N/A	-24.75	143	0	17.8	2	0.01	12.3724	3.60	5.07	1.48	17.4335	0.2635	4695.5	100.0	100.0	TRUE	0.13
Transition 2+Transition 3	Transition 2	#N/A	-24.75	Transition 3	#N/A	-15.75	99	-0.091	17.8	2	0.01	12.3724	3.60	5.00	1.48	17.1900	79.4468	15.6	100.0	100.0	TRUE	0.01
Transition 3+T32	Transition 3	#N/A	-15.75	T32	1.25	-7.11	117.6	-0.073	17.8	2	0.01	12.3724	3.60	4.70	1.48	16.1870	71.4274	17.3	100.0	100.0	TRUE	-0.02

Abbreviations
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
ft: Feet
s: Seconds
in: Inches

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
A10	Sanitary Pattern Load	Fixed	0.0267
A11	Sanitary Pattern Load	Fixed	0.0230
A12	Sanitary Pattern Load	Fixed	0.0151
A13	Sanitary Pattern Load	Fixed	0.0051
A14	Sanitary Pattern Load	Fixed	0.1000
A14	Sanitary Pattern Load	Fixed	0.0645
A15	Sanitary Pattern Load	Fixed	0.0102
A16	Sanitary Pattern Load	Fixed	0.0577
A17	Sanitary Pattern Load	Fixed	0.0048
A17	Sanitary Pattern Load	Fixed	0.0260
A18	Sanitary Pattern Load	Fixed	0.0286
A19	Sanitary Pattern Load	Fixed	0.0268
A2	Sanitary Pattern Load	Fixed	0.0079
A20	Sanitary Pattern Load	Fixed	0.0271
A20	Sanitary Pattern Load	Fixed	0.0448
A21	Sanitary Pattern Load	Fixed	0.0475
A23	Sanitary Pattern Load	Fixed	0.0190
A24	Sanitary Pattern Load	Fixed	0.0068
A25	Sanitary Pattern Load	Fixed	0.0229
A26	Sanitary Pattern Load	Fixed	0.0295
A27	Sanitary Pattern Load	Fixed	0.0530
A27	Sanitary Pattern Load	Fixed	0.0399
A28	Sanitary Pattern Load	Fixed	0.0388
A30	Sanitary Pattern Load	Fixed	0.2830
A30	Sanitary Pattern Load	Fixed	0.0129
A31	Sanitary Pattern Load	Fixed	0.0041
A34	Sanitary Pattern Load	Fixed	0.0021
A36	Sanitary Pattern Load	Fixed	0.0028
A38	Sanitary Pattern Load	Fixed	0.0018
A4	Sanitary Pattern Load	Fixed	0.0340
A41	Sanitary Pattern Load	Fixed	0.0036
A42	Sanitary Pattern Load	Fixed	0.0018
A43	Sanitary Pattern Load	Fixed	0.0005
A45	Sanitary Pattern Load	Fixed	0.0009
A46	Sanitary Pattern Load	Fixed	0.0039
A5	Sanitary Pattern Load	Fixed	0.0349
A7	Sanitary Pattern Load	Fixed	0.0340
A8	Sanitary Pattern Load	Fixed	0.0356
B18	Sanitary Pattern Load	Fixed	0.1020

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
B2	Sanitary Pattern Load	Fixed	0.0129
B20	Sanitary Pattern Load	Fixed	0.1020
B23	Sanitary Pattern Load	Fixed	0.1020
B26	Sanitary Pattern Load	Fixed	0.0666
B28	Sanitary Pattern Load	Fixed	0.0666
B3	Sanitary Pattern Load	Fixed	0.0490
B30	Sanitary Pattern Load	Fixed	0.0330
B32	Sanitary Pattern Load	Fixed	0.0330
B33	Sanitary Pattern Load	Fixed	0.0330
B36	Sanitary Pattern Load	Fixed	0.0527
B4	Sanitary Pattern Load	Fixed	0.2612
B40	Sanitary Pattern Load	Fixed	0.0752
B40	Sanitary Pattern Load	Fixed	0.0360
B42	Sanitary Pattern Load	Fixed	0.0360
B43	Sanitary Pattern Load	Fixed	0.0360
B45	Sanitary Pattern Load	Fixed	0.0343
B47	Sanitary Pattern Load	Fixed	0.0097
B48	Sanitary Pattern Load	Fixed	0.0328
B51	Sanitary Pattern Load	Fixed	0.0260
C13	Sanitary Pattern Load	Fixed	0.0472
C15	Sanitary Pattern Load	Fixed	0.0572
C16	Sanitary Pattern Load	Fixed	0.0100
C18	Sanitary Pattern Load	Fixed	0.0572
C20	Sanitary Pattern Load	Fixed	0.0330
C22	Sanitary Pattern Load	Fixed	0.0330
C24	Sanitary Pattern Load	Fixed	0.0283
C25	Sanitary Pattern Load	Fixed	0.0283
C26	Sanitary Pattern Load	Fixed	0.2000
C29	Sanitary Pattern Load	Fixed	0.0195
C31	Sanitary Pattern Load	Fixed	0.0195
C33	Sanitary Pattern Load	Fixed	0.0195
C34	Sanitary Pattern Load	Fixed	0.0095
C37	Sanitary Pattern Load	Fixed	0.0458
C39	Sanitary Pattern Load	Fixed	0.0458
C42	Sanitary Pattern Load	Fixed	0.0458
C43	Sanitary Pattern Load	Fixed	0.0132
C47	Sanitary Pattern Load	Fixed	0.0911
C51	Sanitary Pattern Load	Fixed	0.1755
D1	Sanitary Pattern Load	Fixed	0.0842

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
D17	Sanitary Pattern Load	Fixed	0.1131
D17	Sanitary Pattern Load	Fixed	0.2000
D22	Sanitary Pattern Load	Fixed	0.3119
D28	Sanitary Pattern Load	Fixed	0.1700
D31	Sanitary Pattern Load	Fixed	0.0765
D32	Sanitary Pattern Load	Fixed	0.0765
D39	Sanitary Pattern Load	Fixed	0.0100
D40	Sanitary Pattern Load	Fixed	0.0100
D42	Sanitary Pattern Load	Fixed	0.0214
D44	Sanitary Pattern Load	Fixed	0.1500
D5	Sanitary Pattern Load	Fixed	0.0216
D50	Sanitary Pattern Load	Fixed	0.3500
D55	Sanitary Pattern Load	Fixed	0.1200
D61	Sanitary Pattern Load	Fixed	0.1336
D62	Sanitary Pattern Load	Fixed	0.0150
D66	Sanitary Pattern Load	Fixed	0.1989
D68	Sanitary Pattern Load	Fixed	0.0300
D69	Sanitary Pattern Load	Fixed	0.0300
D70	Sanitary Pattern Load	Fixed	0.1400
D71	Sanitary Pattern Load	Fixed	0.1200
D73	Sanitary Pattern Load	Fixed	0.0249
D74	Sanitary Pattern Load	Fixed	0.0399
D74	Sanitary Pattern Load	Fixed	0.0770
D8	Sanitary Pattern Load	Fixed	0.0105
E1	Sanitary Pattern Load	Fixed	0.0006
E20	Sanitary Pattern Load	Fixed	0.0497
E21	Sanitary Pattern Load	Fixed	0.0609
E22	Sanitary Pattern Load	Fixed	0.0546
E23	Sanitary Pattern Load	Fixed	0.0609
E25	Sanitary Pattern Load	Fixed	0.2397
E26	Sanitary Pattern Load	Fixed	0.0670
E28	Sanitary Pattern Load	Fixed	0.0427
E30	Sanitary Pattern Load	Fixed	0.0067
E30	Sanitary Pattern Load	Fixed	0.0670
E32	Sanitary Pattern Load	Fixed	0.0610
E33	Sanitary Pattern Load	Fixed	0.0088
E34	Sanitary Pattern Load	Fixed	0.0400
E35	Sanitary Pattern Load	Fixed	0.0305
E37	Sanitary Pattern Load	Fixed	0.0609

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
E39	Sanitary Pattern Load	Fixed	0.0609
E40	Sanitary Pattern Load	Fixed	0.0609
E41	Sanitary Pattern Load	Fixed	0.0183
E45	Sanitary Pattern Load	Fixed	0.1471
E45	Sanitary Pattern Load	Fixed	0.0609
E47	Sanitary Pattern Load	Fixed	0.0483
E47	Sanitary Pattern Load	Fixed	0.0609
E49	Sanitary Pattern Load	Fixed	0.0609
F11	Sanitary Pattern Load	Fixed	0.0377
F13	Sanitary Pattern Load	Fixed	0.0260
F14	Sanitary Pattern Load	Fixed	0.0172
F14	Sanitary Pattern Load	Fixed	0.0190
F15	Sanitary Pattern Load	Fixed	0.0127
F16	Sanitary Pattern Load	Fixed	0.0648
F18	Sanitary Pattern Load	Fixed	0.0260
F20	Sanitary Pattern Load	Fixed	0.0214
F21	Sanitary Pattern Load	Fixed	0.0260
F26	Sanitary Pattern Load	Fixed	0.0129
F28	Sanitary Pattern Load	Fixed	0.0129
F7	Sanitary Pattern Load	Fixed	0.0153
F8	Sanitary Pattern Load	Fixed	0.1373
G11	Sanitary Pattern Load	Fixed	0.0382
G12	Sanitary Pattern Load	Fixed	0.0116
G13	Sanitary Pattern Load	Fixed	0.0190
G14	Sanitary Pattern Load	Fixed	0.0083
G16	Sanitary Pattern Load	Fixed	0.0097
G17	Sanitary Pattern Load	Fixed	0.0083
G18	Sanitary Pattern Load	Fixed	0.0097
G19	Sanitary Pattern Load	Fixed	0.0034
G2	Sanitary Pattern Load	Fixed	0.0081
G20	Sanitary Pattern Load	Fixed	0.0010
G21	Sanitary Pattern Load	Fixed	0.0009
G21	Sanitary Pattern Load	Fixed	0.0050
G22	Sanitary Pattern Load	Fixed	0.0010
G22	Sanitary Pattern Load	Fixed	0.0050
G8	Sanitary Pattern Load	Fixed	0.0382
H23	Sanitary Pattern Load	Fixed	0.0100
H24	Sanitary Pattern Load	Fixed	0.0479
H27	Sanitary Pattern Load	Fixed	0.0372

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
H28	Sanitary Pattern Load	Fixed	0.0302
H30	Sanitary Pattern Load	Fixed	0.0529
H31	Sanitary Pattern Load	Fixed	0.0415
H32	Sanitary Pattern Load	Fixed	0.0161
H33	Sanitary Pattern Load	Fixed	0.0117
H33	Sanitary Pattern Load	Fixed	0.1119
H36	Sanitary Pattern Load	Fixed	0.1046
H37	Sanitary Pattern Load	Fixed	0.0264
H38	Sanitary Pattern Load	Fixed	0.0792
H39	Sanitary Pattern Load	Fixed	0.1020
H41	Sanitary Pattern Load	Fixed	0.0920
H42	Sanitary Pattern Load	Fixed	0.0078
H43	Sanitary Pattern Load	Fixed	0.0920
H44	Sanitary Pattern Load	Fixed	0.0027
H44	Sanitary Pattern Load	Fixed	0.1020
H45	Sanitary Pattern Load	Fixed	0.0100
H49	Sanitary Pattern Load	Fixed	0.0100
H51	Sanitary Pattern Load	Fixed	0.0372
H53	Sanitary Pattern Load	Fixed	0.0529
H58	Sanitary Pattern Load	Fixed	0.0406
H61	Sanitary Pattern Load	Fixed	0.0406
H63	Sanitary Pattern Load	Fixed	0.0110
H67	Sanitary Pattern Load	Fixed	0.0100
H69	Sanitary Pattern Load	Fixed	0.0100
H70	Sanitary Pattern Load	Fixed	0.0090
H72	Sanitary Pattern Load	Fixed	0.0090
I16	Sanitary Pattern Load	Fixed	0.0050
I17	Sanitary Pattern Load	Fixed	0.0050
I19	Sanitary Pattern Load	Fixed	0.0050
I20	Sanitary Pattern Load	Fixed	0.0050
I22	Sanitary Pattern Load	Fixed	0.0590
I25	Sanitary Pattern Load	Fixed	0.0789
I26	Sanitary Pattern Load	Fixed	0.0690
I29	Sanitary Pattern Load	Fixed	0.0690
I33	Sanitary Pattern Load	Fixed	0.0050
I34	Sanitary Pattern Load	Fixed	0.0050
J10	Sanitary Pattern Load	Fixed	0.0545
J14	Sanitary Pattern Load	Fixed	0.0290
J7	Sanitary Pattern Load	Fixed	0.0227

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
K10	Sanitary Pattern Load	Fixed	0.0100
K14	Sanitary Pattern Load	Fixed	0.0205
K15	Sanitary Pattern Load	Fixed	0.0100
K20	Sanitary Pattern Load	Fixed	0.0205
K23	Sanitary Pattern Load	Fixed	0.0050
K24	Sanitary Pattern Load	Fixed	0.0050
K25	Sanitary Pattern Load	Fixed	0.0160
K36	Sanitary Pattern Load	Fixed	0.0595
K37	Sanitary Pattern Load	Fixed	0.0595
L11	Sanitary Pattern Load	Fixed	0.0160
L12	Sanitary Pattern Load	Fixed	0.0536
L19	Sanitary Pattern Load	Fixed	0.1600
L20	Sanitary Pattern Load	Fixed	0.0058
L22	Sanitary Pattern Load	Fixed	0.0255
L29	Sanitary Pattern Load	Fixed	0.0790
L33	Sanitary Pattern Load	Fixed	0.0790
L36	Sanitary Pattern Load	Fixed	0.1100
L38	Sanitary Pattern Load	Fixed	0.1200
L41	Sanitary Pattern Load	Fixed	0.0050
L46	Sanitary Pattern Load	Fixed	0.0128
L51	Sanitary Pattern Load	Fixed	0.0077
L55	Sanitary Pattern Load	Fixed	0.0425
L56	Sanitary Pattern Load	Fixed	0.0510
L60	Sanitary Pattern Load	Fixed	0.1028
L61	Sanitary Pattern Load	Fixed	0.0340
L62	Sanitary Pattern Load	Fixed	0.0140
L8	Sanitary Pattern Load	Fixed	0.0340
M14	Sanitary Pattern Load	Fixed	0.0200
M16	Sanitary Pattern Load	Fixed	0.0100
M23	Sanitary Pattern Load	Fixed	0.2800
M28	Sanitary Pattern Load	Fixed	0.0109
M30	Sanitary Pattern Load	Fixed	0.0109
M32	Sanitary Pattern Load	Fixed	0.0765
M32	Sanitary Pattern Load	Fixed	0.0123
M35	Sanitary Pattern Load	Fixed	0.0123
M36	Sanitary Pattern Load	Fixed	0.0287
M38	Sanitary Pattern Load	Fixed	0.5832
M38	Sanitary Pattern Load	Fixed	0.2463
N15	Sanitary Pattern Load	Fixed	0.0123

Appendix D: Table 5
Scenario 3: 2035 Enhanced PWWF Loadings

MH	Load Definition	Pattern	Base Flow (cfs)
N18	Sanitary Pattern Load	Fixed	0.0123
N30	Sanitary Pattern Load	Fixed	0.0109
N8	Sanitary Pattern Load	Fixed	0.1105
O16	Sanitary Pattern Load	Fixed	0.0208
O16	Sanitary Pattern Load	Fixed	0.0279
O20	Sanitary Pattern Load	Fixed	0.0057
O24	Sanitary Pattern Load	Fixed	0.0300
O27	Sanitary Pattern Load	Fixed	0.0009
O27	Sanitary Pattern Load	Fixed	0.0066
O28	Sanitary Pattern Load	Fixed	0.0065
O3	Sanitary Pattern Load	Fixed	0.0102
O30	Sanitary Pattern Load	Fixed	0.0164
O33	Sanitary Pattern Load	Fixed	0.0164
O36	Sanitary Pattern Load	Fixed	0.0164
O38	Sanitary Pattern Load	Fixed	0.0066
O41	Sanitary Pattern Load	Fixed	0.0066
O44	Sanitary Pattern Load	Fixed	0.0066
O46	Sanitary Pattern Load	Fixed	0.0070
O48	Sanitary Pattern Load	Fixed	0.0070
O50	Sanitary Pattern Load	Fixed	0.0070
O51	Sanitary Pattern Load	Fixed	0.0186
O53	Sanitary Pattern Load	Fixed	0.0100
O56	Sanitary Pattern Load	Fixed	0.0672
O58	Sanitary Pattern Load	Fixed	0.0093
O58	Sanitary Pattern Load	Fixed	0.0394
O60	Sanitary Pattern Load	Fixed	0.3413
O63	Sanitary Pattern Load	Fixed	0.0136
T23	Sanitary Pattern Load	Fixed	0.0107
T25	Sanitary Pattern Load	Fixed	0.0661

Abbreviations
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
A1+A2	A1	16.28	2	A2	15.82	1.92	79.9	0.001	12	1	0.013	1.9510	2.48	2.48	1.00	1.9510	1.1275	173.0	100.0	100.0	TRUE	4.37
A2+A5	A2	15.82	1.82	A5	14.53	1.57	244.2	0.001	12	1	0.013	1.9929	2.54	2.54	1.00	1.9929	1.1400	174.8	100.0	100.0	TRUE	4.23
A3+A2	A3	14.86	8.76	A2	15.82	2.12	287.5	0.023	6	1	0.013	0.0340	1.11	1.11	0.09	0.0340	0.8527	4.0	17.5	17.5	TRUE	8.85
A4+A3	A4	14	9.48	A3	14.86	8.86	312	0.002	6	1	0.013	0.0340	0.62	0.62	0.16	0.0340	0.2501	13.6	32.1	32.1	FALSE	9.66
A5+A8	A5	14.53	1.57	A8	13.85	1.53	124.3	0	15	1	0.013	2.0618	1.68	1.68	1.25	2.0618	1.1588	177.9	100.0	100.0	TRUE	3.58
A6+A5	A6	13.72	7.32	A5	14.53	5.81	286.8	0.005	6	1	0.013	0.0340	0.82	0.82	0.13	0.0340	0.4071	8.4	26.3	26.3	FALSE	7.45
A7+A6	A7	14	8.03	A6	13.72	7.42	306	0.002	6	1	0.013	0.0340	0.63	0.67	0.16	0.0342	0.2505	13.6	32.0	30.7	FALSE	8.21
A8+A9	A8	13.85	1.43	A9	12.82	1.16	61.2	0.004	15	1	0.013	2.0974	1.71	1.71	1.25	2.0974	4.2913	48.9	100.0	100.0	TRUE	3.57
A9+A10	A9	12.82	0.62	A10	11.42	0.57	181.2	0	15	1	0.013	2.0974	1.71	1.71	1.25	2.0974	1.0731	195.5	100.0	100.0	TRUE	3.56
A10+A15	A10	11.42	0.47	A15	9.93	0.03	299.3	0.001	15	1	0.013	2.3317	1.90	1.90	1.25	2.3318	2.4766	94.2	100.0	100.0	TRUE	3.48
A11+A10	A11	11.83	2.53	A10	11.42	1.12	417.5	0.003	6	1	0.013	0.2077	1.06	1.56	0.50	0.2077	0.3260	63.7	100.0	64.3	TRUE	3.48
A12+A11	A12	9.52	4.07	A11	11.83	2.63	485.1	0.003	6	1	0.013	0.1846	1.42	1.42	0.31	0.1847	0.3057	60.4	62.7	62.7	TRUE	4.39
A13+A12	A13	7.19	5.15	A12	9.52	4.07	412.1	0.003	6	1	0.013	0.1696	1.32	1.32	0.31	0.1697	0.2872	59.1	62.4	62.2	FALSE	5.46
A14+A13	A14	8.06	5.91	A13	7.19	5.19	288.3	0.002	6	1	0.013	0.1645	1.28	1.29	0.31	0.1647	0.2804	58.7	62.3	62.1	FALSE	6.22
A15+A16	A15	9.93	-0.03	A16	8.08	-0.17	435.1	0	15	1	0.013	2.3420	1.91	1.91	1.25	2.3420	1.1586	202.1	100.0	100.0	TRUE	3.19
A16+A21	A16	8.08	-0.22	A21	7.13	-0.42	296.3	0.001	15	1	0.013	2.5793	2.10	2.10	1.25	2.5793	1.6783	153.7	100.0	100.0	TRUE	2.72
A17+A31	A17	8.77	1.57	A31	8.39	1.1	235.4	0.002	6	1	0.013	0.0308	0.16	1.07	0.50	0.0371	0.2507	12.3	100.0	23.3	TRUE	2.72
A18+A16	A18	7.05	1.45	A16	8.08	0.73	441.8	0.002	6	1	0.013	0.1273	0.65	0.99	0.50	0.1273	0.2265	56.2	100.0	62.5	TRUE	3.03
A19+A18	A19	6.77	2.98	A18	7.05	1.45	213.5	0.007	6	1	0.013	0.0986	0.50	1.52	0.50	0.0993	0.4749	20.8	100.0	36.7	TRUE	3.20
A20+A19	A20	5.62	3.73	A19	6.77	3.05	339.8	0.002	6	1	0.013	0.0719	0.82	0.84	0.23	0.0727	0.2510	28.6	45.5	45.2	FALSE	3.96
A21+A23	A21	7.13	-0.52	A23	7.01	-0.8	155.1	0.002	15	1	0.013	2.6268	2.14	2.14	1.25	2.6268	2.7445	95.7	100.0	100.0	TRUE	2.34
A22+A29	A22	6.99	-0.92	A29	6.36	-1.21	369.1	0.001	18	1	0.013	2.7979	1.58	1.58	1.50	2.7979	2.9441	95.0	100.0	100.0	TRUE	2.28
A23+A22	A23	7.01	-0.8	A22	6.99	-0.92	13.8	0.009	15	1	0.013	2.7979	2.28	2.28	1.25	2.7979	6.0236	46.4	100.0	100.0	TRUE	2.29
A24+A23	A24	7.7	1.62	A23	7.01	0.37	250.6	0.005	6	1	0.013	0.1520	0.77	1.62	0.50	0.1523	0.3962	38.4	100.0	48.3	TRUE	2.29
A25+A24	A25	8.36	2.89	A24	7.7	1.62	253.1	0.005	6	1	0.013	0.1453	1.58	1.58	0.24	0.1453	0.3975	36.5	47.4	47.4	TRUE	3.13
A26+A25	A26	7.42	4.06	A25	8.36	2.89	234.1	0.005	6	1	0.013	0.1224	1.51	1.51	0.22	0.1224	0.3967	30.8	43.1	43.1	FALSE	4.28
A27+A26	A27	6.96	5	A26	7.42	4.06	310.9	0.003	6	1	0.013	0.0929	1.09	1.09	0.22	0.0932	0.3085	30.1	44.9	44.8	FALSE	5.26
A28+A29	A28	6.24	0.21	A29	6.36	-0.25	14.8	0.031	6	1	0.013	0.3347	1.70	3.23	0.50	0.3347	0.9884	33.9	100.0	42.4	TRUE	2.13
A29+T29	A29	6.36	-1.24	T29	4.98	-1.62	345.5	0.001	18	1	0.013	3.1325	1.77	1.77	1.50	3.1325	3.4837	89.9	100.0	100.0	TRUE	2.13
A30+A28	A30	6.07	1.27	A28	6.24	0.32	301	0.003	6	1	0.013	0.2959	1.51	1.66	0.50	0.2959	0.3152	93.9	100.0	85.3	TRUE	2.14
A31+A16	A31	8.39	1.1	A16	8.08	0.73	187.3	0.002	6	1	0.013	0.0523	0.27	0.69	0.50	0.0524	0.2494	21.0	100.0	40.9	TRUE	2.72
A32+A31	A32	8.62	1.83	A31	8.39	1.1	118.6	0.006	6	1	0.01	0.0174	0.09	0.86	0.50	0.0182	0.5722	3.0	100.0	10.9	TRUE	2.72
A33+A32	A33	9.45	2.67	A32	8.62	1.83	149.8	0.006	6	1	0.01	0.0136	0.07	0.08	0.47	0.0136	0.5462	2.5	93.6	79.2	TRUE	2.73
A34+A33	A34	9.45	2.93	A33	9.45	2.67	55.6	0.005	6	1	0.01	0.0021	0.53	0.53	0.00	0.0021	0.4986	0.4	0.9	0.9	FALSE	2.94
A35+A33	A35	10.05	3.68	A33	9.45	2.67	173.6	0.006	6	1	0.01	0.0114	0.83	0.84	0.05	0.0121	0.5563	2.1	10.8	11.2	FALSE	3.74
A36+A47	A36	10.05	4.57	A47	10.36	4.36	40.9	0.005	6	1	0.01	0.0028	0.54	0.58	0.01	0.0030	0.5228	0.5	1.0	2.7	FALSE	4.58
A37+A35	A37	10.51	4.46	A35	10.05	3.68	182.3	0.004	6	1	0.01	0.0086	0.74	0.74	0.04	0.0086	0.4771	1.8	7.9	7.9	FALSE	4.50
A38+A37	A38	11.26	6.07	A37	10.51	5.37	109	0.006	6	1	0.01	0.0018	0.53	0.53	0.00	0.0018	0.5845	0.3	0.9	0.9	FALSE	6.07
A39+A37	A39	10.5	4.77	A37	10.51	4.46	52.7	0.006	6	1	0.01	0.0068	0.67	0.67	0.03	0.0068	0.5594	1.2	5.5	5.5	FALSE	4.80
A40+A39	A40	10.8	5.24	A39	10.5	4.77	80.2	0.006	6	1	0.01	0.0068	0.67	0.67	0.03	0.0068	0.5583	1.2	5.4	5.4	FALSE	5.27
A41+A40	A41	11.38	5.82	A40	10.8	5.24	79.5	0.007	6	1	0.01	0.0036	0.66	0.63	0.03	0.0037	0.6231	0.6	5.8	4.3	FALSE	5.84
A42+A40	A42	11.13	6.17	A40	10.8	5.49	109.2	0.006	6	1	0.01	0.0018	0.53	0.53	0.00	0.0018	0.5757	0.3	0.9	0.9	FALSE	6.18
A43+A44	A43	12.15	6.64	A44	11.23	6.12	85.9	0.006	6	1	0.01	0.0005	0.47	0.47	0.00	0.0005	0.5675	0.1	0.6	0.6	FALSE	6.64
A44+A40	A44	11.23	6.12	A40	10.8	5.24	146.4	0.006	6	1	0.01	0.0014	0.53	0.53	0.00	0.0014	0.5656	0.2	0.8	0.8	FALSE	6.12
A45+A44	A45	11.14	6.83	A44	11.23	6.12	103.1	0.007	6	1	0.01	0.0009	0.52	0.52	0.00	0.0009	0.6052	0.1	0.7	0.7	FALSE	6.83
A46+A32	A46	9.92	3.47	A32	8.62	1.83	256.9	0.006	6	1	0.01	0.0039	0.55	0.55	0.01	0.0041	0.5828	0.7	1.1	1.2	TRUE	3.48
A47+A35	A47	10.36	4.36	A35	10.05	3.68	100	0.007	6	1	0.01	0.0028	0.54	0.58	0.01	0.0038	0.6014	0.5	1.0	2.3	FALSE	4.38
B2+A1	B2	16	2.46	A1	16.28	2.1	180.8	0.002	12	1	0.013	1.9510	2.48	2.48	1.00	1.9510	1.5899	122.7	100.0	100.0	TRUE	4.84
B3+B2	B3	18.59	2.64	B2	16	2.46	239.4	0.001	12	1	0.013	1.9037	2.42	2.42	1.00	1.9038	0.9769	194.9	100.0	100.0	TRUE	5.44
B4+B3	B4	20.32	3.42	B3	18.59	2.74	464.8	0.001	12	1	0.013	1.8548	2.36	2.36	1.00	1.8548	1.3627	136.1	100.0	100.0	TRUE	6.64
B5+B52	B5	18.61	4.51	B52	20.58	4.29	176.2	0.001	12	1	0.013	1.5936	2.03	2.03	1.00	1.5936	1.2589	126.6	100.0	100.0	TRUE	7.55
B6+B5	B6	18.29	5.6	B5	18.61	4.56	158.4	0.007	12	1	0.013	1.5839	2.02	2.02	1.00	1.5839	2.8864	54.9	100.0	100.0	TRUE	7.78
B7+B6	B7	18.66	5.76	B6	18.29	5.6	380.1	0	12	1	0.013	1.3735	1.75	1.75	1.00	1.3735	0.7309	187.9	100.0	100.0	TRUE	8.27
B8+B7	B8	20.55	6.5	B7	18.66	5.81	371	0.002	12	1	0.013	1.3407	1.71	1.71	1.00	1.3407	1.5364	87.3	100.0	100.0	TRUE	8.73
B9+B8	B9	18.41	7.16	B8	20.55	6.55	350.9	0.002	12	1	0.013	1.2880	1.64	1.64	1.00	1.2880	1.4854	86.7	100.0	100.0	TRUE	9.11
B10+B9	B10	16.86	7.61	B9	18.41	7.16	289.7	0.002	12	1	0.013	1.1890	1.51	1.51	1.00	1.1890	1.4040	84.7	100.0	100.0	TRUE	9.35
B11+B10	B11	16.46	8.71	B10	16.86	7.66	201.4	0.005	12	1	0.013	1.0558	1.34	1.34	1.00	1.0558	2.5723	41.0	100.0	100.0	TRUE	9.42
B12+B11	B12	15.83	9.18	B11	16.46	8.76	277	0.002	10	1	0.013	0.9538	1.94	1.94	0.71	0.9538	0.8530	111.8	84.7	84.6	FALSE	9.94
B13+B12	B13	15.33	9.53	B12	15.83	9.18	262.7	0.001	12	1	0.013	0.8518	1.66	1.66	0.62	0.8518	1.3003	65.5	62.2	62.2	FALSE	10.15
B14+B13	B14	15.47	10.07	B13	15.33	9.53	253.1	0.002	12	1	0.013	0.7498	1.97	1.97	0.49	0.7499	1.6455	45.6	48.8	48.8	FALSE	10.56
B15+B49	B15	20.29	12.19	B49	17.11	11.21	330.9	0.003	8	1	0.013	0.7498	2.15	2.15	0.67	0.7502	0.6575	114.0	100.0	100.0	TRUE	13.12

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
B16+B15	B16	20.39	13.24	B15	20.29	12.19	327.3	0.003	8	1	0.013	0.7498	2.15	2.15	0.67	0.7500	0.6844	109.6	100.0	100.0	TRUE	14.41
B17+B13	B17	19.31	13.31	B13	15.33	9.73	501.1	0.007	6	1	0.013	0.1020	1.62	1.57	0.18	0.1020	0.4742	21.5	35.7	36.6	FALSE	13.50
B18+B17	B18	22.26	14.3	B17	19.31	13.31	497.2	0.002	6	1	0.013	0.1020	0.97	0.97	0.26	0.1020	0.2504	40.7	52.7	52.7	FALSE	14.56
B19+B12	B19	20.74	14.44	B12	15.83	9.88	499.6	0.009	6	1	0.013	0.1020	1.70	1.69	0.17	0.1021	0.5360	19.0	34.5	34.6	FALSE	14.61
B20+B19	B20	23.22	19.12	B19	20.74	14.44	585	0.008	6	1	0.013	0.1020	1.62	1.62	0.18	0.1020	0.5019	20.3	35.7	35.7	FALSE	19.30
B21+B11	B21	18.68	13.54	B11	16.46	9.36	399.6	0.01	6	1	0.013	0.1020	1.78	1.80	0.17	0.1021	0.5739	17.8	33.2	33.0	FALSE	13.71
B22+B21	B22	24.77	18.67	B21	18.68	13.58	399.5	0.013	6	1	0.013	0.1020	1.80	1.80	0.16	0.1020	0.6333	16.1	31.6	31.6	FALSE	18.83
B23+B22	B23	28	23.55	B22	24.77	18.67	380.2	0.013	6	1	0.013	0.1020	1.80	1.80	0.16	0.1020	0.6356	16.0	31.5	31.5	FALSE	23.71
B24+B10	B24	22.52	15.82	B10	16.86	9.61	492.5	0.013	6	1	0.013	0.1332	2.05	2.05	0.18	0.1332	0.6300	21.1	35.3	35.3	FALSE	16.00
B25+B24	B25	27.09	18.84	B24	22.52	15.82	406.2	0.007	6	1	0.013	0.1332	1.77	1.77	0.20	0.1332	0.4838	27.5	40.7	40.7	FALSE	19.05
B26+B25	B26	27.62	21.62	B25	27.09	18.84	401.5	0.007	6	1	0.013	0.0666	1.24	1.24	0.16	0.0666	0.4669	14.3	31.7	31.7	FALSE	21.79
B27+B25	B27	25.46	19.69	B25	27.09	18.99	318	0.002	6	1	0.013	0.0666	0.82	0.84	0.22	0.0673	0.2633	25.3	43.1	42.8	FALSE	19.91
B28+B27	B28	24.83	20.93	B27	25.46	19.69	202	0.006	6	1	0.013	0.0666	1.20	1.27	0.16	0.0681	0.4397	15.1	32.5	31.8	FALSE	21.09
B29+B9	B29	19.43	13.68	B9	18.41	7.61	211.2	0.029	6	1	0.013	0.0990	1.63	1.63	0.13	0.0996	0.9513	10.4	25.3	25.3	TRUE	13.81
B30+B29	B30	23.55	14.31	B29	19.43	13.83	243.2	0.002	6	1	0.013	0.0330	0.66	0.67	0.15	0.0344	0.2493	13.2	30.3	30.6	FALSE	14.49
B31+B29	B31	21.81	15.76	B29	19.43	13.68	256.8	0.008	6	1	0.013	0.0660	1.31	1.31	0.15	0.0662	0.5049	13.1	30.3	30.3	FALSE	15.92
B32+B31	B32	26.3	16.37	B31	21.81	15.86	253.7	0.002	6	1	0.013	0.0330	0.63	0.65	0.16	0.0338	0.2515	13.1	31.1	31.1	FALSE	16.54
B33+B31	B33	25.73	19.18	B31	21.81	15.76	279.8	0.012	6	1	0.013	0.0330	1.16	1.13	0.10	0.0332	0.6204	5.3	19.9	20.6	FALSE	19.28
B34+B8	B34	24.69	15.24	B8	20.55	7.1	251.1	0.032	6	1	0.013	0.0527	1.27	1.27	0.10	0.0535	1.0103	5.2	20.1	20.2	TRUE	15.35
B35+B34	B35	26.3	20	B34	24.69	15.24	363.8	0.013	6	1	0.013	0.0527	1.37	1.38	0.12	0.0530	0.6418	8.2	24.9	24.6	FALSE	20.13
B36+B35	B36	24.45	20.41	B35	26.3	20	207	0.002	6	1	0.013	0.0527	0.70	0.73	0.20	0.0548	0.2497	21.1	40.9	40.9	FALSE	20.63
B37+B6	B37	14.71	7.31	B6	18.29	6.74	262.3	0.002	6	1	0.013	0.2104	1.07	1.10	0.50	0.2154	0.2615	80.4	100.0	100.0	TRUE	8.23
B38+B50	B38	12.43	7.93	B50	13.27	7.77	38.9	0.004	6	1	0.013	0.1472	0.75	1.43	0.50	0.1472	0.3599	40.9	100.0	51.8	TRUE	8.42
B39+B38	B39	13	8.56	B38	12.43	8.03	265.5	0.002	6	1	0.013	0.1112	1.01	1.01	0.27	0.1112	0.2507	44.4	54.8	54.8	FALSE	8.84
B40+B39	B40	13	9.17	B39	13	8.56	306.1	0.002	6	1	0.013	0.1112	1.01	1.01	0.27	0.1114	0.2505	44.4	54.8	54.9	FALSE	9.44
B41+B38	B41	11.68	8.37	B38	12.43	8.03	170	0.002	8	1	0.013	0.0360	0.36	0.63	0.22	0.0366	0.5404	6.7	32.8	22.4	FALSE	8.52
B42+B41	B42	11.68	8.7	B41	11.68	8.37	166.3	0.002	6	1	0.013	0.0360	0.62	0.62	0.17	0.0360	0.2499	14.4	33.8	33.8	FALSE	8.89
B43+B37	B43	15.97	8.74	B37	14.71	8.01	363.4	0.002	6	1	0.013	0.0360	0.62	0.62	0.17	0.0360	0.2515	14.3	33.6	33.6	FALSE	8.93
B44+B2	B44	15.76	9.16	B2	16	2.46	296.4	0.023	6	1	0.013	0.0343	1.11	1.11	0.09	0.0343	0.8436	4.1	17.7	17.7	TRUE	9.25
B45+B44	B45	14.05	9.86	B44	15.76	9.26	301	0.002	6	1	0.013	0.0343	0.62	0.85	0.16	0.0369	0.2505	13.7	32.3	27.3	FALSE	10.04
B46+B5	B46	19	13.75	B5	18.61	12.56	16.9	0.07	6	1	0.013	0.0097	0.63	0.63	0.02	0.0104	1.4875	0.7	3.1	3.3	FALSE	13.78
B47+B46	B47	20.58	14.06	B46	19	13.75	157.8	0.002	6	1	0.013	0.0097	0.80	0.79	0.05	0.0112	0.2486	3.9	10.0	9.2	FALSE	14.12
B48+B7	B48	22.9	7.11	B7	18.66	6.21	450.2	0.002	6	1	0.013	0.0328	0.17	0.63	0.50	0.0328	0.2509	13.1	100.0	30.9	TRUE	8.28
B49+B14	B49	17.11	11.16	B14	15.47	10.07	327.7	0.003	8	1	0.013	0.7498	2.24	2.24	0.61	0.7499	0.6969	107.6	91.7	91.7	TRUE	11.87
B50+B37	B50	13.27	7.77	B37	14.71	7.31	204.7	0.002	6	1	0.013	0.1744	0.89	0.92	0.50	0.1798	0.2659	65.6	100.0	100.0	TRUE	8.42
B51+B50	B51	14.15	9.95	B50	13.27	7.97	281.7	0.007	6	1	0.013	0.0260	0.68	0.68	0.01	0.0261	0.4704	5.5	2.0	2.0	FALSE	10.05
B52+B4	B52	20.58	4.29	B4	20.32	3.57	359.8	0.002	12	1	0.013	1.5936	2.03	2.03	1.00	1.5936	1.5936	100.0	100.0	100.0	TRUE	7.28
C1+B16	C1	23.15	14.77	B16	20.39	13.24	401.9	0.004	8	1	0.013	0.7498	2.15	2.15	0.67	0.7500	0.7455	100.6	100.0	100.0	TRUE	16.01
C2+C1	C2	21.54	15.19	C1	23.15	14.77	204.3	0.002	8	1	0.013	0.5783	1.66	1.66	0.67	0.5784	0.5479	105.5	100.0	100.0	TRUE	16.45
C3+C2	C3	22.97	17.37	C2	21.54	15.24	397.8	0.005	6	1	0.013	0.5066	2.58	2.58	0.50	0.5066	0.4106	123.4	100.0	100.0	TRUE	20.08
C4+C3	C4	25.03	19.53	C3	22.97	17.42	436	0.005	6	1	0.013	0.4501	2.29	2.29	0.50	0.4500	0.3903	115.3	100.0	100.0	TRUE	23.25
C5+C4	C5	25.49	20.95	C4	25.03	19.53	327.7	0.004	6	1	0.013	0.4501	2.29	2.29	0.50	0.4501	0.3693	121.9	100.0	100.0	TRUE	25.62
C6+C5	C6	25.82	21.42	C5	25.49	20.99	87.5	0.005	6	1	0.013	0.3821	1.95	1.95	0.50	0.3821	0.3934	97.1	100.0	100.0	TRUE	26.02
C7+C6	C7	34.43	23.65	C6	25.82	21.42	447.8	0.005	6	1	0.013	0.3822	1.95	1.95	0.50	0.3822	0.3960	96.5	100.0	100.0	TRUE	28.41
C8+C7	C8	29.93	24.33	C7	34.43	23.65	400.9	0.002	6	1	0.013	0.2797	1.42	1.42	0.50	0.2797	0.2311	121.0	100.0	100.0	TRUE	29.57
C9+C8	C9	30	24.55	C8	29.93	24.38	84.1	0.002	6	1	0.013	0.2665	1.36	1.36	0.50	0.2665	0.2522	105.6	100.0	100.0	TRUE	29.72
C10+C9	C10	31.71	25.71	C9	30	24.55	300.8	0.004	6	1	0.013	0.2665	1.36	1.36	0.50	0.2665	0.3484	76.5	100.0	100.0	TRUE	30.50
C11+C10	C11	41.2	28.9	C10	31.71	25.76	508	0.006	6	1	0.013	0.1754	0.89	1.91	0.50	0.1760	0.4411	39.8	100.0	47.5	TRUE	31.11
C12+C1	C12	23.43	14.9	C1	23.15	14.77	264.8	0	6	1	0.01	0.1716	0.87	0.87	0.50	0.1716	0.1616	106.2	100.0	100.0	TRUE	16.18
C13+C12	C13	23	15.99	C12	23.43	15.03	480.7	0.002	6	1	0.013	0.0472	0.24	0.24	0.50	0.0472	0.2507	18.8	100.0	100.0	TRUE	16.24
C14+C12	C14	24.3	15.8	C12	23.43	14.9	282.1	0.003	6	1	0.01	0.1244	0.63	0.63	0.50	0.1244	0.4120	30.2	100.0	100.0	TRUE	16.21
C15+C14	C15	22.5	18.05	C14	24.3	16.1	565.3	0.003	6	1	0.013	0.0572	0.89	0.89	0.18	0.0572	0.3295	17.4	36.1	36.1	FALSE	18.25
C16+C14	C16	26.5	17.4	C14	24.3	15.8	272.9	0.006	6	1	0.01	0.0672	1.41	1.42	0.11	0.0675	0.5585	12.0	22.9	29.0	FALSE	17.55
C17+C16	C17	27.07	19.62	C16	26.5	17.4	332.8	0.007	6	1	0.013	0.0572	1.13	1.13	0.15	0.0572	0.4582	12.5	30.4	30.4	FALSE	19.77
C18+C17	C18	28	20.36	C17	27.07	19.62	369.6	0.002	6	1	0.013	0.0572	0.73	0.74	0.21	0.0575	0.2510	22.8	41.9	41.8	FALSE	20.58
C19+C2	C19	21.59	15.49	C2	21.54	15.24	264.1	0.001	6	1	0.013	0.0716	0.36	0.39	0.50	0.0769	0.1726	41.5	100.0	100.0	TRUE	16.49
C20+C19	C20	23.19	17.64	C19	21.59	15.54	198.5	0.011	6	1	0.013	0.0330	1.16	1.16	0.10	0.0330	0.5771	5.7	20.2	20.2	TRUE	17.74
C21+C19	C21	23.94	17.74	C19	21.59	15.54	284.2	0.008	6	1	0.013	0.0330	0.52	1.03	0.18	0.0332	0.4937	6.7	35.7	22.1	TRUE	17.90
C22+C21	C22	24.43	18.08	C21	23.94	17.79	91.8	0.003	6	1	0.013	0.0330	0.75	0.75	0.14	0.0330	0.3154	10.5	27.5	27.5	FALSE	18.24
C23+C3	C23	23.27	18.07	C3	22.97	17.42	400.5	0.002	6	1	0.013	0.0566	0.29	0.68	0.50	0.0568	0.2260	25.0	100.0	44.1	TRUE	20.13
C24+C23	C24	25.53	18.72	C23	23.27	18.42	151.2	0.002	6	1	0.013	0.0283	0.14	0.65	0.50	0.0283	0.2500	11.3	100.0	27.2	TRUE	20.13

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
C25+C23	C25	25.08	19.73	C23	23.27	18.17	303.1	0.005	6	1	0.013	0.0283	0.14	0.61	0.50	0.0284	0.4025	7.0	100.0	28.6	TRUE	20.13
C26+D9	C26	29.07	24.47	D9	27.55	21.3	435.8	0.007	6	1	0.013	0.2000	2.06	2.06	0.25	0.2000	0.4785	41.8	49.5	49.5	FALSE	24.72
C27+C5	C27	25	21.41	C5	25.49	20.97	221.6	0.002	6	1	0.013	0.0680	0.35	0.83	0.50	0.0691	0.2500	27.2	100.0	44.0	TRUE	25.65
C28+C27	C28	27.89	23.34	C27	25	21.41	43	0.045	6	1	0.013	0.0195	0.10	0.64	0.50	0.0195	1.1891	1.6	100.0	1.9	TRUE	25.65
C29+C28	C29	32.14	23.94	C28	27.89	23.34	298.4	0.002	6	1	0.013	0.0195	0.10	0.76	0.50	0.0195	0.2516	7.8	100.0	18.8	TRUE	25.65
C30+C27	C30	28.53	23.63	C27	25	21.41	162.9	0.014	6	1	0.013	0.0485	0.25	1.33	0.50	0.0485	0.6551	7.4	100.0	24.1	TRUE	25.65
C31+C30	C31	29.09	23.76	C30	28.53	23.63	67.1	0.002	6	1	0.013	0.0195	0.10	0.84	0.50	0.0195	0.2469	7.9	100.0	17.5	TRUE	25.65
C32+C30	C32	30.12	24.36	C30	28.53	23.63	146.7	0.005	6	1	0.013	0.0290	0.15	1.12	0.50	0.0313	0.3958	7.3	100.0	18.4	TRUE	25.65
C33+C32	C33	31.26	24.53	C32	30.12	24.39	70.7	0.002	6	1	0.013	0.0195	0.10	0.87	0.50	0.0200	0.2497	7.8	100.0	17.4	TRUE	25.65
C34+C32	C34	30	24.5	C32	30.12	24.39	56.9	0.002	6	1	0.013	0.0095	0.05	0.82	0.50	0.0095	0.2468	3.8	100.0	10.9	TRUE	25.65
C35+C7	C35	31.98	25.2	C7	34.43	23.65	403.4	0.004	6	1	0.013	0.1025	0.52	1.25	0.50	0.1027	0.3478	29.5	100.0	43.5	TRUE	28.41
C36+C35	C36	32.58	25.7	C35	31.98	25.2	92	0.005	6	1	0.013	0.1025	0.52	1.41	0.50	0.1025	0.4137	24.8	100.0	39.7	TRUE	28.41
C37+C36	C37	34.3	26.67	C36	32.58	25.73	153.2	0.006	6	1	0.013	0.0567	0.29	1.10	0.50	0.0567	0.4394	12.9	100.0	30.9	TRUE	28.41
C39+C37	C39	33.37	27.03	C37	34.3	26.7	164.1	0.002	6	1	0.013	0.0458	0.23	0.69	0.50	0.0478	0.2516	18.2	100.0	38.1	TRUE	28.41
C40+C36	C40	32.93	26.9	C36	32.58	25.83	257.5	0.004	6	1	0.013	0.0459	0.23	0.23	0.50	0.0459	0.3617	12.7	100.0	100.0	TRUE	28.41
C41+C40	C41	33.56	27.26	C40	32.93	26.93	191.4	0.002	6	1	0.013	0.0459	0.23	0.23	0.50	0.0459	0.2330	19.7	100.0	100.0	TRUE	28.41
C42+C41	C42	34.21	27.91	C41	33.56	27.31	300.1	0.002	6	1	0.013	0.0458	0.23	0.65	0.50	0.0458	0.2509	18.3	100.0	39.0	TRUE	28.41
C43+C8	C43	30.16	24.53	C8	29.93	24.33	101	0.002	6	1	0.013	0.0132	0.07	0.82	0.50	0.0132	0.2496	5.3	100.0	13.6	TRUE	29.57
C44+C10	C44	32.45	26.73	C10	31.71	25.76	154.5	0.006	6	1	0.013	0.0911	0.46	1.50	0.50	0.0914	0.4445	20.5	100.0	34.8	TRUE	30.50
C45+C44	C45	33.66	27.91	C44	32.45	26.77	166.1	0.007	6	1	0.013	0.0911	0.46	1.46	0.50	0.0911	0.4648	19.6	100.0	35.5	TRUE	30.50
C46+C45	C46	36.3	29.85	C45	33.66	27.91	255.5	0.008	6	1	0.013	0.0911	0.46	0.46	0.50	0.0911	0.4889	18.6	100.0	100.0	TRUE	30.50
C47+C46	C47	35.05	30.62	C46	36.3	30	309.1	0.002	6	1	0.013	0.0911	0.92	0.92	0.25	0.0911	0.2513	36.3	50.1	50.1	FALSE	30.90
C48+C11	C48	43.08	29.1	C11	41.2	28.98	178.7	0.001	6	1	0.013	0.1754	0.89	1.03	0.50	0.1755	0.1454	120.6	100.0	80.6	TRUE	31.27
C49+C48	C49	41.32	29.82	C48	43.08	29.1	247.7	0.003	6	1	0.013	0.1754	0.89	1.39	0.50	0.1755	0.3025	58.0	100.0	61.4	TRUE	31.52
C50+C49	C50	40.78	30.68	C49	41.32	29.82	361.2	0.002	6	1	0.013	0.1755	0.89	1.28	0.50	0.1755	0.2738	64.1	100.0	65.7	TRUE	31.93
C51+C50	C51	38.55	32.75	C50	40.78	30.68	556.1	0.004	6	1	0.013	0.1755	0.96	1.53	0.44	0.1755	0.3423	51.3	87.3	56.5	TRUE	33.04
D1+E4	D1	17.33	6.83	E4	16.28	6.08	354.5	0.002	12	1	0.013	2.7416	3.49	3.49	1.00	2.7416	1.6388	167.3	100.0	100.0	TRUE	11.99
D2+D1	D2	17.54	6.91	D1	17.33	6.88	53.3	0.001	12	1	0.013	2.6574	3.38	3.38	1.00	2.6574	0.8455	314.3	100.0	100.0	TRUE	12.19
D3+D2	D3	18.91	7.46	D2	17.54	6.99	363.3	0.001	12	1	0.013	2.6573	3.38	3.38	1.00	2.6573	1.2815	207.4	100.0	100.0	TRUE	14.19
D4+D3	D4	19	8.15	D3	18.91	7.56	296.1	0.002	8	1	0.013	0.8778	2.51	2.52	0.67	0.8797	0.5393	162.8	100.0	100.0	TRUE	15.84
D5+D4	D5	19	8.29	D4	19	8.15	69.6	0.002	8	1	0.013	0.8780	2.51	2.52	0.67	0.8800	0.5418	162.1	100.0	100.0	TRUE	16.15
D6+D5	D6	19.87	13.77	D5	19	8.29	246.1	0.022	8	1	0.013	0.5905	1.69	1.69	0.67	0.5905	1.8033	32.7	100.0	100.0	TRUE	16.16
D7+D6	D7	19.85	15.5	D6	19.87	13.82	398	0.004	6	1	0.013	0.5905	3.01	3.01	0.50	0.5905	0.3646	162.0	100.0	100.0	TRUE	19.22
D8+D7	D8	21.51	16.11	D7	19.85	15.5	157.8	0.004	6	1	0.013	0.2105	1.07	1.07	0.50	0.2105	0.3488	60.4	100.0	100.0	TRUE	19.22
D9+D8	D9	27.55	21.3	D8	21.51	16.11	496	0.01	6	1	0.013	0.2000	2.27	2.51	0.23	0.2003	0.5739	34.8	45.9	42.6	TRUE	21.52
D10+D3	D10	21.78	10.58	D3	18.91	7.81	489.1	0.006	10	1	0.013	1.7797	3.26	3.26	0.83	1.7797	1.6487	107.9	100.0	100.0	TRUE	17.45
D16+D20	D16	23	13.91	D20	22	13	453.9	0.002	10	1	0.013	0.3131	0.57	0.57	0.83	0.3131	0.9810	31.9	100.0	100.0	TRUE	18.13
D17+D16	D17	23.1	14.18	D16	23	13.91	136.3	0.002	10	1	0.013	0.3131	0.57	0.57	0.83	0.3131	0.9751	32.1	100.0	100.0	TRUE	18.13
D19+D10	D19	21.54	12.39	D10	21.78	10.63	48.1	0.037	10	1	0.013	1.7797	3.26	3.26	0.83	1.7797	4.1895	42.5	100.0	100.0	TRUE	17.71
D20+D19	D20	22	13	D19	21.54	12.89	52.7	0.002	6	1	0.013	0.4548	2.32	2.32	0.50	0.4548	0.2564	177.4	100.0	100.0	TRUE	18.06
D21+D19	D21	20.93	15.08	D19	21.54	12.84	390.8	0.006	8	1	0.013	1.3249	3.79	3.79	0.67	1.3249	0.9148	144.8	100.0	100.0	TRUE	22.59
D22+D21	D22	22.23	15.84	D21	20.93	15.13	149	0.005	8	1	0.013	1.3249	3.79	3.79	0.67	1.3249	0.8341	158.8	100.0	100.0	TRUE	24.42
D23+D22	D23	22.62	16.12	D22	22.23	15.88	73.3	0.003	8	1	0.013	0.6630	1.90	1.90	0.67	0.6630	0.6914	95.9	100.0	100.0	TRUE	24.57
D24+D23	D24	24.01	17.46	D23	22.62	16.12	349.8	0.004	8	1	0.013	0.6630	1.90	1.90	0.67	0.6630	0.7478	88.7	100.0	100.0	TRUE	25.64
D25+D24	D25	24.45	18.45	D24	24.01	17.56	300.9	0.003	6	1	0.013	0.3230	1.64	1.64	0.50	0.3230	0.3052	105.8	100.0	100.0	TRUE	25.64
D26+D25	D26	24.79	19.26	D25	24.45	18.5	156.7	0.005	6	1	0.013	0.3230	1.64	1.64	0.50	0.3230	0.3907	82.7	100.0	100.0	TRUE	25.64
D27+D26	D27	26.68	20.86	D26	24.79	19.28	392.4	0.004	6	1	0.013	0.1700	0.87	1.56	0.50	0.1701	0.3560	47.7	100.0	54.2	TRUE	25.64
D28+D27	D28	27.45	21.65	D27	26.68	20.9	81.1	0.009	6	1	0.013	0.1700	0.87	2.12	0.50	0.1700	0.5394	31.5	100.0	42.7	TRUE	25.64
D29+C37	D29	34.53	27.53	C37	34.3	26.7	129.5	0.006	6	1	0.013	0.0000	0.00	0.00	0.50	0.0000	0.4492	0.0	100.0	0.0	TRUE	28.41
D29+D28	D29	34.53	27.53	D28	27.45	21.67	465.5	0.013	6	1	0.013	0.0000	0.00	0.00	0.50	0.0000	0.6295	0.0	100.0	0.0	TRUE	27.53
D30+D26	D30	26.26	21.18	D26	24.79	19.29	436.5	0.004	6	1	0.013	0.1530	0.78	1.54	0.50	0.1533	0.3692	41.4	100.0	50.6	TRUE	25.64
D31+D30	D31	26.68	21.76	D30	26.26	21.46	152.5	0.002	6	1	0.013	0.0765	0.39	0.85	0.50	0.0765	0.2488	30.7	100.0	46.6	TRUE	25.64
D32+D30	D32	26.44	21.71	D30	26.26	21.46	126.2	0.002	6	1	0.013	0.0765	0.39	0.92	0.50	0.0790	0.2497	30.6	100.0	45.2	TRUE	25.64
D33+D24	D33	28.14	19.34	D24	24.01	17.51	450.4	0.004	8	1	0.013	0.1686	0.48	1.68	0.67	0.1703	0.7702	21.9	100.0	33.2	TRUE	25.66
D34+D33	D34	34.45	22.3	D33	28.14	19.34	293.3	0.01	8	1	0.013	0.1686	0.48	1.40	0.67	0.1803	1.2139	13.9	100.0	0.0	TRUE	25.66
D35+D34	D35	33.56	22.51	D34	34.45	22.3	177.8	0.001	6	1	0.013	0.1686	0.86	1.09	0.50	0.1686	0.1928	87.4	100.0	73.7	TRUE	25.78
D36+D35	D36	31.3	25.05	D35	33.56	22.56	250.8	0.01	6	1	0.013	0.0200	0.10	0.10	0.50	0.0200	0.5591	3.6	100.0	100.0	TRUE	25.78
D37+D36	D37	31.11	26.01	D36	31.3	25.05	367.8	0.003	6	1	0.013	0.0200	0.31	0.83	0.18	0.0202	0.2866	7.0	36.5	18.1	TRUE	26.13
D38+D37	D38	32	26.64	D37	31.11	26.16	237.7	0.002	6	1	0.013	0.0100	0.76	0.63	0.04	0.0164	0.2521	4.0	8.6	1.9	FALSE	26.70
D39+D38	D39	32.14	26.81	D38	32	26.64	84.1	0.002	6	1	0.013	0.0100	0.80	0.80	0.05	0.0100	0.2522	4.0	10.0	10.1	FALSE	26.87
D40+D37	D40	32	26.6	D37	31.11	26.21	193.6	0.002	6	1	0.013	0.0100	0.79	0.79	0.05	0.0101	0.2518	4.0	9.5	9.7	FALSE	26.66

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
D41+D24	D41	31.35	25.75	D24	24.01	17.51	190.6	0.043	6	1	0.013	0.1714	0.87	0.87	0.50	0.1714	1.1666	14.7	100.0	100.0	TRUE	25.90
D42+D41	D42	30	26	D41	31.35	25.8	100.2	0.002	6	1	0.013	0.0214	0.72	0.72	0.10	0.0214	0.2506	8.5	20.8	20.8	FALSE	26.11
D43+D41	D43	32	26.89	D41	31.35	25.85	517.4	0.002	6	1	0.013	0.1500	1.14	1.14	0.32	0.1500	0.2516	59.6	63.7	63.7	FALSE	27.21
D44+D43	D44	32	27.12	D43	32	26.89	113	0.002	6	1	0.013	0.1500	1.21	1.21	0.30	0.1500	0.2531	59.3	60.3	60.3	FALSE	27.44
D47+D22	D47	20.69	17.09	D22	22.23	15.86	299.2	0.004	8	1	0.013	0.3500	1.00	1.00	0.67	0.3500	0.7748	45.2	100.0	100.0	TRUE	24.42
D48+D47	D48	22.05	18.7	D47	20.69	17.09	401	0.004	6	1	0.013	0.3500	1.78	1.78	0.50	0.3500	0.3555	98.4	100.0	100.0	TRUE	24.42
D49+D48	D49	27.59	21.99	D48	22.05	18.7	399.7	0.008	6	1	0.013	0.3500	1.78	2.59	0.50	0.3500	0.5090	68.8	100.0	65.0	TRUE	24.43
D50+D49	D50	31.35	22.83	D49	27.59	21.99	421.6	0.002	6	1	0.013	0.3500	1.78	1.78	0.50	0.3500	0.2504	139.8	100.0	100.0	TRUE	24.43
D51+D7	D51	23.54	18.66	D7	19.85	15.5	457.8	0.007	6	1	0.013	0.3800	1.93	1.93	0.50	0.3800	0.4661	81.5	100.0	100.0	TRUE	21.64
D52+D51	D52	27.31	20.31	D51	23.54	18.69	267	0.006	6	1	0.013	0.2400	1.22	2.18	0.50	0.2408	0.4370	54.9	100.0	55.0	TRUE	22.19
D53+D52	D53	29.62	21.22	D52	27.31	20.31	247.8	0.004	6	1	0.013	0.1200	0.61	1.32	0.50	0.1203	0.3400	35.3	100.0	47.1	TRUE	22.28
D54+D53	D54	29.68	21.68	D53	29.62	21.27	74.9	0.005	6	1	0.013	0.1200	0.61	1.52	0.50	0.1202	0.4152	28.9	100.0	42.3	TRUE	22.28
D55+D54	D55	30.37	22.39	D54	29.68	21.88	252.3	0.002	6	1	0.013	0.1200	1.05	1.05	0.28	0.1207	0.2523	47.6	56.6	56.6	FALSE	22.67
D56+D35	D56	35.05	23.65	D35	33.56	22.51	286.3	0.004	6	1	0.013	0.1486	0.76	1.51	0.50	0.1490	0.3540	42.0	100.0	50.2	TRUE	25.99
D57+D56	D57	37.86	26.21	D56	35.05	23.7	197.1	0.013	6	1	0.013	0.1486	0.76	1.34	0.50	0.1493	0.6331	23.5	100.0	3.5	TRUE	26.48
D58+D57	D58	37.67	27.07	D57	37.86	26.36	158	0.004	6	1	0.013	0.1486	1.55	1.55	0.25	0.1486	0.3761	39.5	49.1	49.1	FALSE	27.32
D59+D58	D59	37.27	28.53	D58	37.67	27.12	151.4	0.009	6	1	0.013	0.1486	2.02	2.02	0.20	0.1486	0.5414	27.4	40.1	40.1	FALSE	28.74
D60+D59	D60	37.44	29.8	D59	37.27	28.57	112.6	0.011	6	1	0.013	0.1336	2.05	2.05	0.18	0.1336	0.5864	22.8	36.7	36.7	FALSE	29.99
D61+D60	D61	37.37	30.05	D60	37.44	29.84	101	0.002	6	1	0.013	0.1336	1.17	1.17	0.28	0.1336	0.2559	52.2	56.4	56.4	FALSE	30.35
D62+D59	D62	32.76	29.07	D59	37.27	28.57	247.7	0.002	6	1	0.013	0.0150	0.80	0.81	0.08	0.0151	0.2521	6.0	15.2	15.0	FALSE	29.16
D63+D5	D63	19.63	8.6	D5	19	8.29	296.6	0.001	8	1	0.013	0.2661	0.76	0.77	0.67	0.2687	0.3906	68.1	100.0	100.0	TRUE	16.24
D64+D63	D64	24.68	17.38	D63	19.63	8.56	470.5	0.019	6	1	0.013	0.2068	1.05	1.11	0.50	0.2108	0.7682	26.9	100.0	92.8	TRUE	17.68
D65+D64	D65	28.98	20.08	D64	24.68	17.38	448	0.006	6	1	0.013	0.1989	1.92	1.92	0.26	0.1989	0.4356	45.7	52.2	52.2	FALSE	20.34
D66+D65	D66	29.37	20.96	D65	28.98	20.13	412.5	0.002	8	1	0.013	0.1989	1.27	1.27	0.31	0.1989	0.5420	36.7	45.9	45.9	FALSE	21.28
D67+D63	D67	18.77	12.39	D63	19.63	8.6	294.1	0.013	6	1	0.013	0.0603	0.31	0.31	0.50	0.0603	0.6369	9.5	100.0	100.0	TRUE	16.24
D68+D67	D68	19	12.7	D67	18.77	12.42	138.9	0.002	6	1	0.013	0.0301	0.15	0.70	0.50	0.0310	0.2519	11.9	100.0	27.6	TRUE	16.24
D69+D67	D69	19	12.94	D67	18.77	12.42	259	0.002	6	1	0.013	0.0301	0.15	0.15	0.50	0.0301	0.2514	12.0	100.0	100.0	TRUE	16.24
D70+D51	D70	24	18.86	D51	23.54	18.72	70.8	0.002	6	1	0.013	0.1400	0.71	1.27	0.50	0.1412	0.2494	56.1	100.0	55.3	TRUE	21.66
D71+D52	D71	28.07	22.62	D52	27.31	21.11	130	0.012	6	1	0.013	0.1200	0.90	1.96	0.32	0.1200	0.6047	19.8	64.2	34.4	TRUE	22.79
D72+D20	D72	22.5	13.56	D20	22	13	279.6	0.002	10	1	0.013	0.1418	0.26	1.09	0.83	0.1420	0.9806	14.5	100.0	28.8	TRUE	18.06
D73+D72	D73	23	14.16	D72	22.5	13.56	297.4	0.002	8	1	0.013	0.1417	0.41	1.12	0.67	0.1419	0.5428	26.1	100.0	39.2	TRUE	18.07
D74+D73	D74	23.2	14.58	D73	23	14.16	210.2	0.002	8	1	0.013	0.1169	0.33	0.74	0.67	0.1171	0.5401	21.6	100.0	46.3	TRUE	18.07
E1+H9	E1	12.09	3.59	H9	11.84	3.09	269.8	0.002	18	1	0.013	4.1456	3.23	3.23	1.02	4.1456	4.5221	91.7	68.3	68.3	FALSE	4.69
E2+E1	E2	13.48	4.23	E1	12.09	3.64	283.2	0.002	12	1	0.013	2.7416	3.49	3.49	1.00	2.7416	1.6261	168.6	100.0	100.0	TRUE	6.29
E3+E2	E3	15.11	4.76	E2	13.48	4.33	279.6	0.002	12	1	0.013	2.7416	3.49	3.49	1.00	2.7416	1.3970	196.2	100.0	100.0	TRUE	7.88
E4+E3	E4	16.28	6.08	E3	15.11	5.01	356.7	0.003	12	1	0.013	2.7416	3.49	3.49	1.00	2.7416	1.9512	140.5	100.0	100.0	TRUE	9.94
E6+E1	E6	11.14	4.84	E1	12.09	4.04	501	0.002	12	1	0.013	1.4034	2.14	2.14	0.78	1.4034	1.4236	98.6	77.7	77.7	FALSE	5.67
E7+E6	E7	11.77	6.02	E6	11.14	4.84	310.5	0.004	12	1	0.013	1.3418	2.85	2.85	0.58	1.3430	2.1961	61.1	57.9	57.9	FALSE	6.61
E8+E7	E8	13.72	6.77	E7	11.77	6.07	354.7	0.002	12	1	0.013	1.1228	2.18	2.18	0.62	1.1228	1.5826	70.9	62.3	62.3	FALSE	7.41
E9+E8	E9	13.77	7.32	E8	13.72	6.82	341.1	0.001	12	1	0.013	0.7993	1.79	1.79	0.55	0.7993	1.3640	58.6	55.3	55.3	FALSE	7.89
E10+E9	E10	14.53	7.78	E9	13.77	7.32	192.1	0.002	12	1	0.013	0.7993	2.12	2.12	0.48	0.7993	1.7432	45.9	48.4	48.4	FALSE	8.27
E11+E10	E11	14.94	8.04	E10	14.53	7.93	194.9	0.001	12	1	0.013	0.4228	1.31	1.31	0.43	0.4228	0.8465	50.0	43.0	43.0	FALSE	8.51
E12+E11	E12	20.13	9.13	E11	14.94	8.14	494.5	0.002	12	1	0.013	0.4228	1.62	1.62	0.37	0.4228	1.5941	26.5	36.7	36.7	FALSE	9.50
E13+E12	E13	18.72	10	E12	20.13	9.18	450.3	0.002	8	1	0.013	0.2802	1.38	1.38	0.38	0.2802	0.5157	54.3	56.4	56.4	FALSE	10.38
E14+E13	E14	17.24	10.39	E13	18.72	10.12	185.5	0.001	8	1	0.013	0.2317	1.25	1.25	0.35	0.2317	0.4609	50.3	52.3	52.3	FALSE	10.76
E15+E14	E15	15.27	10.72	E14	17.24	10.49	246.2	0.001	8	1	0.013	0.2011	1.04	1.04	0.36	0.2011	0.3693	54.5	54.3	54.3	FALSE	11.10
E20+E7	E20	12.61	7.71	E7	11.77	6.12	504.5	0.003	6	1	0.013	0.1106	1.19	1.19	0.24	0.1106	0.3150	35.1	47.7	47.7	FALSE	7.95
E21+E20	E21	14.72	8.53	E20	12.61	7.76	385.6	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0609	0.2507	24.3	42.9	42.9	FALSE	8.76
E22+E8	E22	15.38	8.48	E8	13.72	6.87	449.9	0.004	6	1	0.013	0.1155	1.28	1.28	0.23	0.1155	0.3356	34.4	46.9	46.9	TRUE	8.72
E23+E22	E23	16.82	10.42	E22	15.38	8.48	438.8	0.004	6	1	0.013	0.0609	1.02	1.02	0.17	0.0610	0.3731	16.3	34.4	34.4	FALSE	10.61
E25+E50	E25	16.75	10.9	E50	16.04	9.64	231.9	0.005	6	1	0.013	0.3067	2.12	2.12	0.35	0.3067	0.4136	74.1	69.0	69.0	FALSE	11.25
E26+E25	E26	19.82	13.82	E25	16.75	10.9	488.2	0.006	6	1	0.013	0.0670	1.23	1.24	0.16	0.0670	0.4339	15.4	32.0	32.0	FALSE	13.98
E27+E12	E27	21.28	15.85	E12	20.13	9.53	576.2	0.011	6	1	0.013	0.0427	1.14	1.14	0.12	0.0427	0.5876	7.3	24.5	24.5	FALSE	15.97
E28+E27	E28	22	15.93	E27	21.28	15.81	61.8	0.002	6	1	0.013	0.0427	0.71	0.71	0.17	0.0427	0.2472	17.3	34.4	34.4	FALSE	16.13
E29+E12	E29	23.08	15.79	E12	20.13	9.58	247	0.025	6	1	0.013	0.1000	1.66	1.63	0.13	0.1008	0.8896	11.2	26.3	25.2	FALSE	15.92
E30+E29	E30	27	20.5	E29	23.08	15.83	502.3	0.009	6	1	0.013	0.0737	1.46	1.46	0.15	0.0738	0.5410	13.6	30.4	30.4	FALSE	20.66
E31+E29	E31	27.93	20.63	E29	23.08	15.83	252.3	0.019	6	1	0.013	0.0610	1.40	1.40	0.12	0.0610	0.7739	7.9	23.8	23.8	FALSE	20.75
E32+E31	E32	28	21.21	E31	27.93	20.68	263.2	0.002	6	1	0.013	0.0610	0.76	0.77	0.21	0.0617	0.2518	24.2	42.8	42.7	FALSE	21.44
E33+E13	E33	21.41	15.78	E13	18.72	10.02	228.9	0.025	8	1	0.013	0.0487	1.21	1.21	0.09	0.0487	1.9166	2.5	14.0	14.0	FALSE	15.87
E33+E29	E33	21.41	17.11	E29	23.08	15.86	455.1	0.003	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.2941	0.0	0.0	0.0	FALSE	17.11
E34+E33	E34	24.94	18.94	E33	21.41	15.83	278.9	0.011	6	1	0.013	0.0400	1.12	1.10	0.12	0.0401	0.5925	6.8	23.7	24.1	FALSE	19.06

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
E35+E14	E35	19.06	11.41	E14	17.24	10.74	333	0.002	6	1	0.013	0.0306	0.65	0.82	0.14	0.0327	0.2517	12.2	29.0	25.6	FALSE	11.57
E36+E15	E36	17.4	12.35	E15	15.27	10.82	420.2	0.004	6	1	0.013	0.1827	1.54	1.54	0.29	0.1827	0.3385	54.0	58.3	58.3	FALSE	12.65
E37+E36	E37	18	13.11	E36	17.4	12.4	353.2	0.002	6	1	0.013	0.0609	0.76	0.82	0.21	0.0619	0.2515	24.2	42.8	40.9	FALSE	13.34
E38+E36	E38	18.78	13.33	E36	17.4	12.35	233.6	0.004	6	1	0.013	0.1218	1.41	1.41	0.23	0.1218	0.3634	33.5	45.2	45.2	FALSE	13.56
E39+E38	E39	19	14.13	E38	18.78	13.53	300.6	0.002	6	1	0.013	0.0609	0.76	0.77	0.21	0.0610	0.2507	24.3	42.9	42.4	FALSE	14.36
E40+E38	E40	22.91	14.25	E38	18.78	13.33	458.2	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0612	0.2514	24.2	42.8	42.8	FALSE	14.48
E41+E15	E41	16	11.07	E15	15.27	10.87	98.3	0.002	6	1	0.013	0.0183	0.43	0.44	0.13	0.0183	0.2530	7.2	26.7	26.5	FALSE	11.17
E42+E10	E42	14.56	10.06	E10	14.53	7.88	550.5	0.004	6	1	0.013	0.0698	1.04	1.04	0.19	0.0698	0.3531	19.8	37.3	37.3	FALSE	10.25
E44+E8	E44	12.57	8.62	E8	13.72	6.82	630.5	0.003	6	1	0.013	0.2080	1.45	1.45	0.34	0.2080	0.2998	69.4	68.3	68.3	TRUE	8.97
E45+E44	E45	13.15	9.55	E44	12.57	8.57	319.4	0.003	6	1	0.013	0.2080	1.50	1.50	0.33	0.2080	0.3108	66.9	66.5	66.5	FALSE	9.89
E46+E7	E46	11	7.4	E7	11.77	6.02	500.5	0.003	6	1	0.013	0.1092	1.13	1.13	0.25	0.1092	0.2946	37.1	49.3	49.3	TRUE	7.65
E47+E46	E47	11.54	8.31	E46	11	7.4	455.2	0.002	6	1	0.013	0.1092	1.00	1.00	0.27	0.1092	0.2509	43.5	54.3	54.3	FALSE	8.58
E48+E6	E48	11.94	7.54	E6	11.14	5.19	498.5	0.005	6	1	0.013	0.0609	1.02	1.04	0.17	0.0609	0.3852	15.8	34.3	33.9	FALSE	7.71
E49+E48	E49	11.53	8.46	E48	11.94	7.54	457.8	0.002	6	1	0.013	0.0609	0.76	0.76	0.21	0.0612	0.2515	24.2	42.8	42.7	FALSE	8.69
E50+E10	E50	16.04	9.64	E10	14.53	7.88	217.9	0.008	6	1	0.013	0.3067	2.41	2.41	0.31	0.3067	0.5043	60.8	61.6	61.6	FALSE	9.95
F7+T25	F7	4.65	0.3	T25	3.95	-2.2	477	0.005	6	1	0.013	0.4292	2.19	2.19	0.50	0.4292	0.4062	105.7	100.0	100.0	TRUE	2.02
F8+F7	F8	8.3	1.38	F7	4.65	0.3	356.7	0.003	6	1	0.013	0.4139	2.11	2.11	0.50	0.4139	0.3087	134.1	100.0	100.0	TRUE	4.22
F9+F23	F9	8.21	3.11	F23	8.23	2.7	110	0.004	6	1	0.013	0.2146	1.09	1.09	0.50	0.2146	0.3425	62.7	100.0	100.0	TRUE	5.04
F10+F9	F10	11.76	4.96	F9	8.21	3.21	462.6	0.004	6	1	0.013	0.2146	1.09	1.65	0.50	0.2147	0.3451	62.2	100.0	62.9	TRUE	5.86
F11+F10	F11	13	6.84	F10	11.76	5.06	419.8	0.004	6	1	0.013	0.2146	1.73	1.72	0.30	0.2147	0.3653	58.8	60.5	60.6	TRUE	7.15
F12+F11	F12	13	7.65	F11	13	6.94	355.2	0.002	6	1	0.013	0.0994	0.96	0.96	0.26	0.0994	0.2508	39.6	52.1	52.1	FALSE	7.91
F13+F19	F13	15.24	10.24	F19	15.18	10.23	24.2	0	6	1	0.013	0.0260	0.34	0.35	0.21	0.0261	0.1141	22.8	41.1	40.8	FALSE	10.46
F14+F8	F14	9.56	5.64	F8	8.3	1.76	463.1	0.008	6	1	0.013	0.0362	0.28	1.03	0.31	0.0363	0.5136	7.1	61.8	23.5	TRUE	5.76
F15+F11	F15	13.27	7.77	F11	13	7.17	301.1	0.002	6	1	0.013	0.0775	0.85	0.85	0.23	0.0775	0.2505	30.9	47.0	47.0	FALSE	8.01
F16+F15	F16	13.27	8.24	F15	13.27	7.77	238	0.002	6	1	0.013	0.0648	0.78	0.78	0.22	0.0648	0.2494	26.0	44.0	44.0	FALSE	8.48
F17+F22	F17	15.11	8.76	F22	13	8.39	130.3	0.003	6	1	0.013	0.0994	1.10	1.10	0.23	0.1002	0.2990	33.2	46.9	47.1	FALSE	9.00
F18+F17	F18	15.34	9.94	F17	15.11	8.89	197.5	0.005	6	1	0.013	0.0260	1.07	1.07	0.09	0.0260	0.4091	6.4	17.8	17.8	FALSE	10.04
F19+F20	F19	15.18	10.33	F20	15.15	9.7	188.8	0.003	6	1	0.013	0.0260	0.94	0.99	0.10	0.0271	0.3241	8.0	19.8	19.7	FALSE	10.46
F20+F17	F20	15.15	9.7	F17	15.11	8.86	281.2	0.003	6	1	0.013	0.0734	0.96	1.01	0.21	0.0778	0.3067	23.9	41.2	41.3	FALSE	9.91
F21+F20	F21	15.15	10.38	F20	15.15	9.7	136.4	0.005	6	1	0.013	0.0260	0.75	0.76	0.12	0.0263	0.3961	6.6	23.3	23.1	FALSE	10.49
F22+F12	F22	13	8.39	F12	13	7.65	158.8	0.005	6	1	0.013	0.0994	1.33	1.33	0.20	0.0998	0.3830	26.0	40.6	40.6	FALSE	8.60
F23+F8	F23	8.23	2.7	F8	8.3	1.48	327.4	0.004	6	1	0.013	0.2404	1.22	1.22	0.50	0.2404	0.3425	70.2	100.0	100.0	TRUE	4.92
F24+F23	F24	8.23	3.19	F23	8.23	2.7	98	0.005	6	1	0.013	0.0258	0.13	1.02	0.50	0.0259	0.3967	6.5	100.0	18.7	TRUE	4.92
F25+F24	F25	8.73	3.77	F24	8.23	3.19	115	0.005	6	1	0.013	0.0129	0.07	0.53	0.50	0.0130	0.3985	3.2	100.0	18.3	TRUE	4.92
F26+F25	F26	8.73	4.36	F25	8.73	3.77	118	0.005	6	1	0.013	0.0129	0.07	0.80	0.50	0.0129	0.3967	3.3	100.0	9.6	TRUE	4.92
F27+F24	F27	8.73	3.78	F24	8.23	3.19	118	0.005	6	1	0.013	0.0129	0.07	0.76	0.50	0.0135	0.3967	3.3	100.0	7.8	TRUE	4.92
F28+F27	F28	8.73	4.57	F27	8.73	3.78	158	0.005	6	1	0.013	0.0129	0.07	0.79	0.50	0.0129	0.3967	3.3	100.0	8.8	TRUE	4.92
G2+G19	G2	4.2	0.05	G19	2.65	-0.76	154	0.005	6	1	0.013	0.1513	0.77	1.65	0.50	0.1513	0.4069	37.2	100.0	47.3	TRUE	1.01
G3+G14	G3	7	1.85	G14	6.79	1.05	208.1	0.004	6	1	0.013	0.1071	1.27	1.27	0.22	0.1071	0.3479	30.8	44.3	44.3	FALSE	2.08
G4+G3	G4	7.49	2.26	G3	7	1.95	212.7	0.001	6	1	0.013	0.0881	0.82	0.82	0.27	0.0881	0.2142	41.1	53.7	53.7	FALSE	2.53
G6+G4	G6	10.75	5.12	G4	7.49	2.36	387.6	0.007	6	1	0.013	0.0765	1.35	1.35	0.17	0.0765	0.4735	16.2	33.0	33.0	FALSE	5.29
G7+G6	G7	10.12	5.81	G6	10.75	5.22	294.7	0.002	6	1	0.013	0.0382	0.61	0.62	0.18	0.0383	0.2511	15.2	35.7	35.4	FALSE	5.99
G8+G7	G8	10.83	6.45	G7	10.12	5.8	326.8	0.002	6	1	0.013	0.0381	0.61	0.80	0.18	0.0404	0.2502	15.2	35.7	30.3	FALSE	6.64
G9+G6	G9	8.88	5.78	G6	10.75	5.2	290.8	0.002	6	1	0.013	0.0384	0.61	0.61	0.18	0.0384	0.2506	15.3	35.4	35.4	FALSE	5.96
G10+G9	G10	11.09	6.24	G9	8.88	5.78	270.6	0.002	6	1	0.013	0.0381	0.57	0.58	0.19	0.0391	0.2313	16.5	37.2	37.4	FALSE	6.43
G11+G10	G11	11.78	6.87	G10	11.09	6.34	265.7	0.002	6	1	0.013	0.0383	0.61	0.61	0.18	0.0383	0.2506	15.3	35.4	35.4	FALSE	7.06
G12+G4	G12	8.32	3.02	G4	7.49	2.47	277	0.002	6	1	0.013	0.0116	0.83	0.86	0.06	0.0118	0.2500	4.6	12.4	12.1	FALSE	3.09
G13+G3	G13	8.34	2.8	G3	7	1.9	452.5	0.002	6	1	0.013	0.0190	0.73	0.73	0.09	0.0190	0.2502	7.6	19.0	18.9	FALSE	2.90
G14+G17	G14	6.79	1.05	G17	5.65	0.6	151.1	0.003	6	1	0.013	0.1251	1.23	1.23	0.26	0.1251	0.3062	40.9	51.3	51.3	FALSE	1.31
G15+G14	G15	6.2	2.15	G14	6.79	1.05	214.7	0.005	8	1	0.013	0.0097	0.23	0.63	0.12	0.0122	0.8648	1.1	17.9	2.1	FALSE	2.23
G16+G15	G16	6.21	3.21	G15	6.2	2.2	154.5	0.007	8	1	0.013	0.0097	0.72	0.72	0.03	0.0097	0.9771	1.0	5.1	5.1	FALSE	3.24
G17+G2	G17	5.65	0.5	G2	4.2	0.15	143.7	0.002	6	1	0.013	0.1431	0.73	1.22	0.50	0.1431	0.2769	51.7	100.0	57.6	TRUE	1.01
G18+G17	G18	5.86	1.15	G17	5.65	0.57	291.5	0.002	6	1	0.013	0.0097	0.37	0.81	0.09	0.0099	0.2503	3.9	18.9	10.3	FALSE	1.21
G19+T23	G19	2.65	-0.76	T23	6.87	-2.3	290.9	0.005	6	1	0.013	0.1675	0.85	1.85	0.50	0.1682	0.4083	41.0	100.0	47.0	TRUE	1.01
G20+G19	G20	2.66	0.11	G19	2.65	-0.76	173.9	0.005	6	1	0.013	0.0128	0.07	0.85	0.50	0.0129	0.3968	3.2	100.0	11.5	TRUE	1.01
G21+G20	G21	2.67	0.37	G20	2.66	0.11	51.4	0.005	6	1	0.013	0.0059	0.03	0.67	0.50	0.0059	0.3991	1.5	100.0	5.5	TRUE	1.01
G22+G20	G22	2.67	0.25	G20	2.66	0.11	71.7	0.002	6	1	0.013	0.0060	0.03	0.72	0.50	0.0060	0.2479	2.4	100.0	7.6	TRUE	1.01
H2+I11	H2	7.99	0.59	I11	8.07	-0.03	36.6	0.017	24	1	0.01	5.2878	1.68	1.68	2.00	5.2878	38.2777	13.8	100.0	100.0	TRUE	3.61
H3+H2	H3	8.2	0.7	H2	7.99	0.59	30.8	0.004	24	1	0.01	5.2878	1.68	1.68	2.00	5.2877	17.5858	30.1	100.0	100.0	TRUE	3.63
H4+H3	H4	8.13	0.71	H3	8.2	0.7	7.1	0.001	24	1	0.01	4.2289	1.35	1.35	2.00	4.2289	11.0311	38.3	100.0	100.0	TRUE	3.65
H5+H4	H5	8.95	0.95	H4	8.13	0.71	259.3	0.001	24	1	0.01	4.2237	1.34	1.34	2.00	4.2237	8.9462	47.2	100.0	100.0	TRUE	3.67

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H6+H5	H6	8.89	0.99	H5	8.95	0.95	9	0.004	20	1	0.01	4.1556	1.90	1.90	1.67	4.1556	12.0730	34.4	100.0	100.0	TRUE	3.69
H7+H75	H7	10.51	1.76	H75	10.09	1.58	89.8	0.002	20	1	0.013	4.1556	1.90	1.90	1.67	4.1556	6.2294	66.7	100.0	100.0	TRUE	3.72
H8+H7	H8	10.95	2.05	H7	10.51	1.76	233.4	0.001	20	1	0.01	4.1556	1.90	1.90	1.67	4.1556	6.3751	65.2	100.0	100.0	TRUE	3.74
H9+H73	H9	11.84	3.09	H73	11.36	2.56	246.2	0.002	18	1	0.01	4.1556	3.50	3.50	0.96	4.1556	6.3351	65.6	63.7	63.7	FALSE	4.01
H11+H64	H11	9.92	1.44	H64	9.05	0.99	198.2	0.002	14	1	0.01	1.0211	0.96	0.96	1.17	1.0211	3.3286	30.7	100.0	100.0	TRUE	3.64
H12+H11	H12	10.15	2.2	H11	9.92	1.54	333.5	0.002	8	1	0.013	0.9164	2.62	2.62	0.67	0.9164	0.5376	170.5	100.0	100.0	TRUE	4.50
H13+H12	H13	10.85	2.55	H12	10.15	2.3	107.9	0.002	8	1	0.013	0.8106	2.32	2.32	0.67	0.8106	0.5815	139.4	100.0	100.0	TRUE	4.94
H14+H13	H14	11.02	3.54	H13	10.85	2.65	446.5	0.002	8	1	0.013	0.8106	2.32	2.32	0.67	0.8106	0.5395	150.3	100.0	100.0	TRUE	7.04
H15+H62	H15	14.61	5.6	H62	12.95	4.64	201.4	0.005	8	1	0.013	0.7581	2.17	2.17	0.67	0.7581	0.8342	90.9	100.0	100.0	TRUE	8.76
H16+H60	H16	14.43	6.48	H60	14.57	5.9	351.2	0.002	8	1	0.01	0.7177	2.06	2.06	0.67	0.7177	0.6384	112.4	100.0	100.0	TRUE	9.64
H17+H57	H17	12.03	6.83	H57	14.21	6.69	396.8	0	8	1	0.013	0.6771	1.94	1.94	0.67	0.6771	0.2270	298.3	100.0	100.0	TRUE	11.00
H18+H5	H18	8.92	1.27	H5	8.95	1.25	7.9	0.003	6	1	0.013	0.0679	0.35	0.35	0.50	0.0686	0.2825	24.0	100.0	100.0	TRUE	3.67
H19+H18	H19	8.88	2.58	H18	8.92	1.27	386.9	0.003	6	1	0.013	0.0679	0.35	0.35	0.50	0.0680	0.3265	20.8	100.0	100.0	TRUE	3.67
H20+H19	H20	9.1	3.65	H19	8.88	2.63	270.8	0.004	6	1	0.013	0.0679	0.38	1.00	0.43	0.0679	0.3443	19.7	85.6	37.7	TRUE	3.84
H21+H56	H21	9.3	5.04	H56	9.2	4.75	143.8	0.002	6	1	0.013	0.0100	0.81	0.83	0.05	0.0103	0.2520	4.0	10.3	11.3	FALSE	5.10
H22+H21	H22	9.3	5.34	H21	9.3	5.04	151.4	0.002	6	1	0.013	0.0100	0.81	0.82	0.05	0.0113	0.2498	4.0	10.3	10.4	FALSE	5.40
H23+H22	H23	9.4	6.15	H22	9.3	5.34	404.8	0.002	6	1	0.013	0.0100	0.81	0.81	0.05	0.0105	0.2510	4.0	10.4	10.2	FALSE	6.21
H24+H20	H24	10.14	5.82	H20	9.1	3.65	332.8	0.007	6	1	0.013	0.0479	1.01	1.15	0.14	0.0515	0.4530	10.6	29.0	27.9	FALSE	5.97
H25+H11	H25	11.2	3.3	H11	9.92	1.7	378	0.004	6	1	0.013	0.1046	0.53	1.30	0.50	0.1046	0.3650	28.7	100.0	42.9	TRUE	3.64
H26+H25	H26	10.63	4.58	H25	11.2	3.3	412.5	0.003	6	1	0.013	0.1046	1.16	1.16	0.23	0.1046	0.3125	33.5	46.8	46.8	FALSE	4.82
H27+H26	H27	11.38	5.66	H26	10.63	5.43	114.6	0.002	6	1	0.013	0.0372	0.63	0.63	0.17	0.0372	0.2514	14.8	34.2	34.2	FALSE	5.85
H28+H50	H28	10.4	5.41	H50	10.13	5.03	191.6	0.002	6	1	0.013	0.0303	0.66	0.78	0.14	0.0332	0.2499	12.1	28.3	26.8	FALSE	5.57
H29+H12	H29	8.35	5.83	H12	10.15	2.65	550.5	0.006	6	1	0.013	0.1058	1.44	1.46	0.20	0.1058	0.4264	24.8	40.1	39.5	TRUE	6.03
H30+H46	H30	11.57	7.74	H46	11.27	7.47	135.4	0.002	6	1	0.013	0.0529	0.70	0.76	0.20	0.0554	0.2506	21.1	40.7	39.8	FALSE	7.96
H31+H14	H31	13.28	4.5	H14	11.02	3.69	403.7	0.002	6	1	0.013	0.0415	0.21	0.63	0.50	0.0416	0.2513	16.5	100.0	36.8	TRUE	7.06
H32+H17	H32	16.06	10.26	H17	12.03	6.88	549.9	0.006	6	1	0.013	0.1397	0.71	0.71	0.50	0.1397	0.4399	31.8	100.0	100.0	TRUE	11.00
H33+H32	H33	20	11.29	H32	16.06	10.26	515	0.002	8	1	0.013	0.1236	1.05	1.05	0.25	0.1236	0.5404	22.9	37.1	37.1	TRUE	11.55
H34+H17	H34	12.74	7.69	H17	12.03	6.83	268.6	0.003	6	1	0.013	0.5375	2.74	2.74	0.50	0.5374	0.3175	169.3	100.0	100.0	TRUE	13.72
H35+H34	H35	14.34	9.56	H34	12.74	7.69	321.9	0.006	6	1	0.013	0.5376	2.74	2.74	0.50	0.5376	0.4277	125.7	100.0	100.0	TRUE	17.00
H36+H35	H36	15.37	9.87	H35	14.34	9.56	473.9	0.001	6	1	0.013	0.4269	2.17	2.17	0.50	0.4269	0.1435	297.5	100.0	100.0	TRUE	20.18
H37+H36	H37	17.89	12.09	H36	15.37	9.87	370.1	0.006	6	1	0.013	0.2305	1.17	1.17	0.50	0.2305	0.4346	53.0	100.0	100.0	TRUE	20.91
H38+E42	H38	17.69	11.79	E42	14.56	10.11	518.8	0.003	6	1	0.013	0.0698	0.97	0.97	0.20	0.0698	0.3193	21.9	39.4	39.4	FALSE	11.99
H38+H47	H38	17.69	11.79	H47	15.05	10.1	205.2	0.008	6	1	0.013	0.1111	0.57	1.91	0.50	0.1390	0.5092	21.8	100.0	39.8	TRUE	17.07
H39+H38	H39	18	12.1	H38	17.69	11.84	131.9	0.002	6	1	0.013	0.1020	0.52	0.99	0.50	0.1020	0.2491	40.9	100.0	51.8	TRUE	17.07
H40+H36	H40	22.17	15.97	H36	15.37	9.87	496.1	0.012	6	1	0.013	0.0920	0.47	0.47	0.50	0.0920	0.6221	14.8	100.0	100.0	TRUE	20.18
H41+H40	H41	24.38	16.27	H40	22.17	15.97	150.4	0.002	6	1	0.013	0.0920	0.47	0.94	0.50	0.0920	0.2506	36.7	100.0	49.9	TRUE	20.18
H42+H37	H42	21.01	14.76	H37	17.89	12.19	387.7	0.007	6	1	0.013	0.0998	0.51	1.64	0.50	0.0999	0.4568	21.8	100.0	34.9	TRUE	20.91
H43+H42	H43	22.12	16.57	H42	21.01	14.76	346.3	0.005	6	1	0.013	0.0920	0.47	1.46	0.50	0.1001	0.4056	22.7	100.0	37.9	TRUE	20.91
H44+H37	H44	20.24	14.24	H37	17.89	12.14	272.4	0.008	6	1	0.013	0.1045	0.53	1.81	0.50	0.1116	0.4927	21.2	100.0	30.2	TRUE	20.98
H45+H9	H45	12.4	3.93	H9	11.84	3.49	222.4	0.002	6	1	0.013	0.0100	0.08	0.77	0.30	0.0137	0.2496	4.0	59.2	7.9	TRUE	4.01
H46+H52	H46	11.27	7.47	H52	12.58	6.18	360.9	0.004	6	1	0.013	0.0529	0.87	0.88	0.17	0.0531	0.3355	15.8	34.8	34.7	FALSE	7.65
H47+H35	H47	15.05	10.1	H35	14.34	9.62	192.4	0.002	6	1	0.013	0.1109	0.56	1.10	0.50	0.1157	0.2803	39.6	100.0	52.7	TRUE	17.03
H48+H55	H48	9.12	6.64	H55	9.3	4.32	217.4	0.011	6	1	0.013	0.0100	0.72	0.62	0.03	0.0158	0.5797	1.7	6.9	1.7	FALSE	6.68
H49+H48	H49	8.35	6.77	H48	9.12	6.72	32.6	0.002	6	1	0.013	0.0100	0.66	0.59	0.02	0.0101	0.2199	4.5	4.4	1.8	FALSE	6.81
H50+H26	H50	10.13	5.03	H26	10.63	4.58	154.3	0.003	6	1	0.013	0.0676	0.92	0.92	0.20	0.0676	0.3030	22.3	40.0	40.0	FALSE	5.23
H51+H50	H51	10.5	6.35	H50	10.13	5.13	189.2	0.006	6	1	0.013	0.0372	1.02	1.02	0.12	0.0372	0.4505	8.3	24.0	24.0	FALSE	6.48
H52+H29	H52	12.58	6.18	H29	8.35	5.83	94.4	0.004	6	1	0.013	0.1058	1.25	1.25	0.22	0.1058	0.3416	31.0	44.7	44.7	FALSE	6.41
H53+H52	H53	12.4	8.3	H52	12.58	6.23	233.2	0.009	6	1	0.013	0.0529	1.20	1.20	0.14	0.0529	0.5286	10.0	27.6	27.6	FALSE	8.44
H54+H20	H54	9.2	4	H20	9.1	3.7	152.6	0.002	6	1	0.013	0.0200	0.72	0.72	0.10	0.0200	0.2487	8.0	20.0	20.0	FALSE	4.12
H55+H54	H55	9.3	4.32	H54	9.2	4.22	157.2	0.001	6	1	0.013	0.0200	0.81	0.81	0.09	0.0200	0.1415	14.1	18.3	18.3	FALSE	4.45
H56+H55	H56	9.2	4.75	H55	9.3	4.32	215.8	0.002	6	1	0.013	0.0100	0.78	0.78	0.05	0.0100	0.2505	4.0	9.3	9.3	FALSE	4.80
H57+H16	H57	14.21	6.69	H16	14.43	6.48	40.5	0.005	8	1	0.013	0.7177	2.06	2.06	0.67	0.7177	0.8706	82.4	100.0	100.0	TRUE	9.71
H58+H57	H58	15.13	7.62	H57	14.21	6.69	184.6	0.005	6	1	0.013	0.0406	0.21	1.05	0.50	0.0424	0.3982	10.2	100.0	25.8	TRUE	9.71
H59+H58	H59	16.1	8.59	H58	15.13	7.62	194.6	0.005	6	1	0.013	0.0000	0.00	0.00	0.50	0.0000	0.3962	0.0	100.0	0.0	TRUE	9.71
H59+H61	H59	16.1	8.59	H61	15.42	6.28	194.6	0.012	6	1	0.013	0.0000	0.00	0.17	0.50	0.0308	0.6114	0.0	100.0	85.0	TRUE	8.93
H60+H15	H60	14.57	5.9	H15	14.61	5.6	98.7	0.003	8	1	0.01	0.7581	2.17	2.17	0.67	0.7581	0.8661	87.5	100.0	100.0	TRUE	8.93
H61+H60	H61	15.42	6.28	H60	14.57	5.9	189.5	0.002	6	1	0.013	0.0406	0.21	0.38	0.50	0.0741	0.2513	16.1	100.0	100.0	TRUE	8.93
H62+H14	H62	12.95	4.64	H14	11.02	3.54	232.8	0.005	8	1	0.013	0.7691	2.20	2.20	0.67	0.7691	0.8305	92.6	100.0	100.0	TRUE	7.99
H63+H62	H63	13.79	5.49	H62	12.95	4.64	169.8	0.005	6	1	0.013	0.0110	0.06	0.74	0.50	0.0122	0.3970	2.8	100.0	7.2	TRUE	7.99
H64+H71	H64	9.05	0.99	H71	8.35	0.77	160.6	0.001	14	1	0.01	1.0501	0.98	0.98	1.17	1.0501	2.5853	40.6	100.0	100.0	TRUE	3.64
H65+H64	H65	9.89	1.83	H64	9.05	0.99	168.3	0.005	6	1	0.013	0.0290	0.15	1.10	0.50	0.0292	0.3963	7.3	100.0	18.2	TRUE	3.64

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
H66+H65	H66	9.89	2.09	H65	9.89	1.83	51.4	0.005	6	1	0.013	0.0290	0.15	0.90	0.50	0.0293	0.3989	7.3	100.0	22.1	TRUE	3.64
H67+H66	H67	9.89	2.32	H66	9.89	2.09	46	0.005	6	1	0.013	0.0100	0.05	0.77	0.50	0.0100	0.3968	2.5	100.0	8.7	TRUE	3.64
H68+H66	H68	9.89	2.42	H66	9.89	2.09	67	0.005	6	1	0.013	0.0190	0.10	0.98	0.50	0.0194	0.3937	4.8	100.0	15.5	TRUE	3.64
H69+H68	H69	9.89	2.64	H68	9.89	2.42	45.6	0.005	6	1	0.013	0.0100	0.05	0.77	0.50	0.0100	0.3898	2.6	100.0	8.8	TRUE	3.64
H70+H68	H70	9.89	2.67	H68	9.89	2.42	51.2	0.005	6	1	0.013	0.0090	0.05	0.74	0.50	0.0093	0.3921	2.3	100.0	7.6	TRUE	3.64
H71+H3	H71	8.35	0.77	H3	8.2	0.7	35	0.002	14	1	0.01	1.0591	0.99	0.99	1.17	1.0591	3.1237	33.9	100.0	100.0	TRUE	3.64
H72+H71	H72	9.26	1.54	H71	8.35	0.77	182.4	0.004	6	1	0.013	0.0090	0.05	0.66	0.50	0.0108	0.3646	2.5	100.0	4.1	TRUE	3.64
H73+H74	H73	11.36	2.56	H74	11.16	2.34	101	0.002	20	1	0.01	4.1556	2.25	2.25	1.31	4.1556	8.4400	49.2	78.8	78.8	FALSE	3.77
H74+H8	H74	11.16	2.34	H8	10.95	2.05	112.9	0.003	20	1	0.01	4.1556	1.96	1.96	1.55	4.1556	9.1668	45.3	93.1	93.1	TRUE	3.76
H75+H6	H75	10.09	1.58	H6	8.89	0.99	259.7	0.002	20	1	0.01	4.1556	1.90	1.90	1.67	4.1556	8.6193	48.2	100.0	100.0	TRUE	3.71
I3+I35	I3	1.69	-3.99	I35	1.2	-4.42	133	0.003	30	1	0.01	6.0820	1.24	1.24	2.50	6.0820	30.3207	20.1	100.0	100.0	TRUE	0.81
I4+I3	I4	1.84	-3.31	I3	1.69	-3.56	242.6	0.001	18	1	0.013	6.0819	3.44	3.44	1.50	6.0819	3.3716	180.4	100.0	100.0	TRUE	0.84
I5+I31	I5	3.41	-3.19	I31	2.94	-3.23	135	0	18	1	0.013	6.0716	3.44	3.44	1.50	6.0716	1.8081	335.8	100.0	100.0	TRUE	2.00
I6+I5	I6	4.62	-3.08	I5	3.41	-3.19	410.7	0	18	1	0.013	6.0713	3.44	3.44	1.50	6.0713	1.7191	353.2	100.0	100.0	TRUE	3.28
I7+I37	I7	5.18	-2.32	I37	4.72	-2.94	210.5	0.003	30	1	0.01	5.3206	1.08	1.08	2.50	5.3205	28.9378	18.4	100.0	100.0	TRUE	3.49
I8+I7	I8	6.15	-1.45	I7	5.18	-2.32	238.1	0.004	30	1	0.01	5.3135	1.08	1.08	2.50	5.3134	32.2300	16.5	100.0	100.0	TRUE	3.51
I9+I8	I9	5.69	-1.31	I8	6.15	-1.45	154.7	0.001	30	1	0.01	5.3005	1.08	1.08	2.50	5.3005	16.0402	33.0	100.0	100.0	TRUE	3.53
I10+I9	I10	7.26	-0.74	I9	5.69	-1.31	221.1	0.003	24	1	0.01	5.2881	1.68	1.68	2.00	5.2880	14.9310	35.4	100.0	100.0	TRUE	3.55
I11+I10	I11	8.07	-0.03	I10	7.26	-0.74	379.8	0.002	24	1	0.01	5.2879	1.68	1.68	2.00	5.2879	12.7144	41.6	100.0	100.0	TRUE	3.59
I12+I6	I12	4.46	-2.19	I6	4.62	-2.83	338.5	0.002	12	1	0.013	0.7288	0.93	1.38	1.00	1.0826	1.5492	47.0	100.0	100.0	TRUE	3.36
I13+I12	I13	5.54	-1.56	I12	4.46	-2.14	319.8	0.002	12	1	0.013	0.7285	0.93	1.38	1.00	1.0878	1.5173	48.0	100.0	100.0	TRUE	3.40
I14+I13	I14	4.22	-0.83	I13	5.54	-1.51	443.5	0.002	12	1	0.013	0.4525	0.58	1.09	1.00	0.8524	1.3950	32.4	100.0	100.0	TRUE	3.41
I15+I14	I15	5.32	-0.53	I14	4.22	-0.78	386	0.001	12	1	0.013	0.4524	0.58	1.09	1.00	0.8587	0.9066	49.9	100.0	100.0	TRUE	3.41
I16+I6	I16	4.85	0.96	I6	4.62	-2.38	492.8	0.007	8	1	0.013	0.0097	0.03	0.03	0.67	0.0097	0.9948	1.0	100.0	100.0	TRUE	3.28
I17+I7	I17	5.54	1.51	I7	5.18	-1.27	525.8	0.005	6	1	0.013	0.0050	0.03	0.56	0.50	0.0052	0.4080	1.2	100.0	1.2	TRUE	3.49
I18+I8	I18	5.2	1.01	I8	6.15	-0.65	236.8	0.007	6	1	0.013	0.0088	0.05	0.11	0.50	0.0146	0.4697	1.9	100.0	62.0	TRUE	3.51
I19+I18	I19	6.48	1.59	I18	5.2	1.11	238.8	0.002	6	1	0.013	0.0050	0.03	0.62	0.50	0.0062	0.2516	2.0	100.0	3.4	TRUE	3.51
I20+I9	I20	5.86	1.26	I9	5.69	-0.81	278.4	0.007	6	1	0.013	0.0050	0.03	0.57	0.50	0.0068	0.4838	1.0	100.0	1.4	TRUE	3.53
I21+I24	I21	7.17	1.52	I24	7	-0.08	364.1	0.004	6	1	0.013	0.1970	1.00	1.73	0.50	0.1975	0.3719	53.0	100.0	56.3	TRUE	4.61
I22+I23	I22	8.69	3.44	I23	8.52	3.17	44.5	0.006	6	1	0.013	0.0590	0.30	1.16	0.50	0.0603	0.4372	13.5	100.0	31.1	TRUE	5.05
I23+I27	I23	8.52	3.12	I27	8.3	2.86	80.1	0.003	6	1	0.013	0.1280	0.65	1.31	0.50	0.1280	0.3197	40.0	100.0	49.8	TRUE	5.05
I24+I13	I24	7	-0.08	I13	5.54	-0.56	236.9	0.002	6	1	0.013	0.2759	1.40	1.40	0.50	0.2759	0.2526	109.3	100.0	100.0	TRUE	4.09
I25+I24	I25	7	0.22	I24	7	-0.08	153.5	0.002	6	1	0.013	0.0789	0.40	0.45	0.50	0.0816	0.2480	31.8	100.0	87.9	TRUE	4.10
I26+I23	I26	9.29	4.04	I23	8.52	3.27	153.5	0.005	6	1	0.013	0.0690	0.35	1.16	0.50	0.0692	0.3974	17.4	100.0	34.3	TRUE	5.05
I27+I28	I27	8.3	2.86	I28	8.04	2.57	89.9	0.003	6	1	0.013	0.1280	0.65	0.65	0.50	0.1280	0.3188	40.2	100.0	100.0	TRUE	5.05
I28+I21	I28	8.04	2.57	I21	7.17	1.57	311.5	0.003	6	1	0.013	0.1970	1.00	1.50	0.50	0.1970	0.3179	62.0	100.0	63.4	TRUE	5.05
I29+I28	I29	8.81	3.34	I28	8.04	2.57	153.5	0.005	6	1	0.013	0.0690	0.35	1.26	0.50	0.0694	0.3974	17.4	100.0	32.3	TRUE	5.05
I31+I4	I31	2.94	-3.23	I4	1.84	-3.31	321.1	0	18	1	0.013	6.0818	3.44	3.44	1.50	6.0818	1.6581	366.8	100.0	100.0	TRUE	1.69
I32+I31	I32	3.97	-2.18	I31	2.94	-3.23	207.6	0.005	6	1	0.013	0.0100	0.05	0.28	0.50	0.0119	0.3990	2.5	100.0	26.8	TRUE	1.69
I33+I32	I33	4.43	-1.73	I32	3.97	-2.18	90.2	0.005	6	1	0.013	0.0050	0.03	0.60	0.50	0.0050	0.3963	1.3	100.0	3.1	TRUE	1.69
I34+I32	I34	4.56	-1.6	I32	3.97	-2.18	117.2	0.005	6	1	0.013	0.0050	0.03	0.62	0.50	0.0051	0.3947	1.3	100.0	3.8	TRUE	1.69
I35+I36	I35	1.2	-4.42	I36	1.7	-4.47	11.4	0.004	24	1	0.01	2.8814	0.92	0.92	2.00	2.8814	19.4782	14.8	100.0	100.0	TRUE	0.75
I35+T19	I35	1.2	-4.42	T19	2.23	-4.72	55.4	0.005	24	1	0.01	3.2017	1.02	1.02	2.00	3.2017	21.6427	14.8	100.0	100.0	TRUE	0.79
I36+T36	I36	1.7	-4.47	T36	2.125	-4.74	47.3	0.006	24	1	0.01	2.8814	0.92	0.92	2.00	2.8814	22.2278	13.0	100.0	100.0	TRUE	0.75
I37+I6	I37	4.72	-2.94	I6	4.62	-3.08	48.5	0.003	15	1	0.013	5.3209	4.34	4.34	1.25	5.3209	3.4711	153.3	100.0	100.0	TRUE	3.47
J5+J16	J5	4.44	-1.06	J16	3.8	-2.17	275.2	0.004	8	1	0.01	0.0772	0.22	1.30	0.67	0.0772	0.9977	7.7	100.0	22.6	TRUE	0.82
J6+J5	J6	5.85	0.6	J5	4.44	-0.96	558.5	0.003	6	1	0.013	0.0772	0.39	0.48	0.50	0.0772	0.2965	26.0	100.0	75.9	TRUE	0.82
J7+J6	J7	5.96	1.9	J6	5.85	1.02	441.1	0.002	6	1	0.013	0.0227	0.70	0.70	0.11	0.0227	0.2506	9.1	22.2	22.2	FALSE	2.02
J8+J6	J8	7.5	2.81	J6	5.85	0.7	442.1	0.005	6	1	0.013	0.0545	0.99	0.99	0.16	0.0545	0.3876	14.1	32.4	32.4	FALSE	2.97
J9+J8	J9	8.19	3.23	J8	7.5	2.81	400.5	0.001	6	1	0.013	0.0545	0.56	0.56	0.25	0.0545	0.1817	30.0	49.3	49.3	FALSE	3.48
J10+J9	J10	9.91	4.26	J9	8.19	3.34	299.8	0.003	6	1	0.013	0.0545	0.83	0.84	0.18	0.0549	0.3108	17.5	36.9	36.7	FALSE	4.46
J11+J15	J11	1.31	-2.3	J15	2.31	-3.24	199.7	0.005	8	1	0.013	0.0290	0.08	1.07	0.67	0.0291	0.8290	3.5	100.0	12.9	TRUE	0.80
J12+J11	J12	1.94	-1.61	J11	1.31	-2.2	299.4	0.002	8	1	0.013	0.0290	0.08	0.64	0.67	0.0291	0.5364	5.4	100.0	18.7	TRUE	0.80
J13+J12	J13	2.73	-0.51	J12	1.94	-1.51	298.6	0.003	8	1	0.013	0.0290	0.08	0.71	0.67	0.0291	0.6993	4.1	100.0	17.5	TRUE	0.80
J14+J13	J14	3.27	-0.03	J13	2.73	-0.41	190	0.002	8	1	0.013	0.0291	0.08	0.76	0.67	0.0315	0.5404	5.4	100.0	17.6	TRUE	0.80
J15+T20	J15	2.31	-3.49	T20	2.72	-4.06	82.7	0.007	7.6	1	0.01	0.0290	0.09	0.95	0.63	0.0296	1.1178	2.6	100.0	9.7	TRUE	0.80
J16+J17	J16	3.8	-2.17	J17	3.3	-3.02	210.2	0.004	7.6	1	0.01	0.0772	0.25	0.25	0.63	0.0772	0.8560	9.0	100.0	100.0	TRUE	0.82
J17+J18	J17	3.3	-3.02	J18	2.4	-3.24	45	0.005	8	1	0.01	0.0772	0.22	0.22	0.67	0.0772	1.0983	7.0	100.0	100.0	TRUE	0.82
J18+T21	J18	2.4	-3.24	T21	3.07	-3.99	63	0.012	8	1	0.01	0.0772	0.22	0.22	0.67	0.0772	1.7140	4.5	100.0	100.0	TRUE	0.82
K1+T16	K1	2.25	-6.28	T16	2.25	-6.5	30.8	0.007	18	1	0.01	2.7405	1.55	1.59	1.50	2.8163	11.5437	23.7	100.0	100.0	TRUE	0.46
K2+K38	K2	3.35	-5.2	K38	2.67	-5.61	193.7	0.002	18	1	0.01	2.7404	1.55	1.61	1.50	2.8520	6.2817	43.6	100.0	100.0	TRUE	0.51

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
K3+K2	K3	4.05	-4.8	K2	3.35	-5.2	189.7	0.002	18	1	0.01	2.7406	1.55	1.62	1.50	2.8592	6.2704	43.7	100.0	100.0	TRUE	0.52
K4+K43	K4	3.55	-4.28	K43	3.81	-4.75	204.6	0.002	18	1	0.01	2.7317	1.55	1.62	1.50	2.8547	6.5448	41.7	100.0	100.0	TRUE	0.54
K5+K4	K5	3.31	-3.71	K4	3.55	-4.28	248.1	0.002	18	1	0.01	1.6344	0.92	1.00	1.50	1.7688	6.5445	25.0	100.0	100.0	TRUE	0.55
K6+K5	K6	4.44	-2.86	K5	3.31	-3.71	251.1	0.003	18	1	0.01	1.5954	0.90	0.99	1.50	1.7580	7.9454	20.1	100.0	100.0	TRUE	0.55
K7+K6	K7	3.35	-1.85	K6	4.44	-2.66	362.1	0.002	8	1	0.013	0.0200	0.06	0.06	0.67	0.0201	0.5715	3.5	100.0	100.0	TRUE	0.56
K8+K7	K8	2.87	-1.18	K7	3.35	-1.85	355.5	0.002	8	1	0.013	0.0200	0.06	0.67	0.67	0.0200	0.5246	3.8	100.0	14.0	TRUE	0.56
K9+K8	K9	3.87	-0.58	K8	2.87	-1.18	355.9	0.002	8	1	0.013	0.0200	0.06	0.64	0.67	0.0200	0.4961	4.0	100.0	14.4	TRUE	0.56
K10+K9	K10	4.11	0.11	K9	3.87	-0.48	155.5	0.004	6	1	0.013	0.0100	0.05	0.70	0.50	0.0115	0.3456	2.9	100.0	5.8	TRUE	0.56
K11+K5	K11	3.67	-2.23	K5	3.31	-2.99	369.8	0.002	6	1	0.013	0.0205	0.10	0.72	0.50	0.0205	0.2544	8.1	100.0	20.1	TRUE	0.55
K12+K11	K12	3.54	-0.86	K11	3.67	-2.08	353.5	0.003	6	1	0.013	0.0205	0.10	0.91	0.50	0.0205	0.3296	6.2	100.0	17.1	TRUE	0.55
K13+K12	K13	2.97	0.27	K12	3.54	-0.86	362	0.003	6	1	0.013	0.0205	0.10	0.87	0.50	0.0209	0.3135	6.5	100.0	18.0	TRUE	0.55
K14+K13	K14	3.19	0.45	K13	2.97	0.27	90.4	0.002	6	1	0.013	0.0205	0.30	0.80	0.19	0.0212	0.2503	8.2	37.7	19.2	FALSE	0.58
K15+K9	K15	3.43	-0.33	K9	3.87	-0.48	73.9	0.002	6	1	0.013	0.0100	0.05	0.79	0.50	0.0100	0.2528	4.0	100.0	9.7	TRUE	0.56
K16+K4	K16	3.55	-2.65	K4	3.55	-3.45	273.7	0.003	6	1	0.013	0.0205	0.10	0.75	0.50	0.0205	0.3033	6.8	100.0	19.7	TRUE	0.54
K17+K16	K17	2.92	-1.88	K16	3.55	-2.6	267.2	0.003	6	1	0.013	0.0205	0.10	0.65	0.50	0.0205	0.2912	7.0	100.0	1.9	TRUE	0.54
K18+K17	K18	3.64	-1.31	K17	2.92	-1.88	268.7	0.002	6	1	0.013	0.0205	0.10	0.77	0.50	0.0219	0.2584	7.9	100.0	6.2	TRUE	0.54
K19+K18	K19	3.25	-0.65	K18	3.64	-1.31	272	0.002	6	1	0.013	0.0205	0.10	0.73	0.50	0.0205	0.2764	7.4	100.0	20.0	TRUE	0.54
K20+K19	K20	2.67	-0.53	K19	3.25	-0.6	134.6	0.001	6	1	0.013	0.0205	0.10	0.94	0.50	0.0205	0.1279	16.0	100.0	13.5	TRUE	0.54
K21+K3	K21	3.15	-2.1	K3	4.05	-4.25	246.4	0.009	6	1	0.013	0.0100	0.05	0.65	0.50	0.0201	0.5241	1.9	100.0	1.9	TRUE	0.52
K22+K21	K22	3.29	-1.16	K21	3.15	-2.05	256.2	0.003	6	1	0.013	0.0050	0.03	0.69	0.50	0.0050	0.3307	1.5	100.0	6.7	TRUE	0.52
K23+K22	K23	3.52	-0.91	K22	3.29	-1.11	99.5	0.002	6	1	0.013	0.0050	0.03	0.66	0.50	0.0050	0.2515	2.0	100.0	5.4	TRUE	0.52
K24+K21	K24	3.55	-1.7	K21	3.15	-2	148.6	0.002	6	1	0.013	0.0050	0.03	0.65	0.50	0.0050	0.2521	2.0	100.0	5.1	TRUE	0.52
K25+K44	K25	3.6	-1.7	K44	3.23	-2.92	346.2	0.004	6	1	0.01	0.0160	0.08	0.86	0.50	0.0237	0.4330	3.7	100.0	9.8	TRUE	0.55
K26+K6	K26	4.36	-1.29	K6	4.44	-2.76	293.6	0.005	6	1	0.013	0.0000	0.00	0.44	0.50	0.0176	0.3970	0.0	100.0	25.8	TRUE	0.55
K27+K26	K27	3.95	-0.6	K26	4.36	-1.29	199.5	0.003	6	1	0.013	0.0000	0.00	0.40	0.50	0.0184	0.3300	0.0	100.0	28.5	TRUE	0.55
K28+K4	K28	3.27	-4	K4	3.55	-4.1	242	0	10	1	0.013	1.0751	1.97	1.97	0.83	1.0751	0.4454	241.4	100.0	100.0	TRUE	0.54
K30+K31	K30	3.78	-3.21	K31	3.08	-3.43	108.2	0.002	8	1	0.013	0.1208	0.35	0.35	0.67	0.1208	0.5449	22.2	100.0	100.0	TRUE	0.55
K31+L1	K31	3.08	-3.43	L1	2.82	-3.73	147.8	0.002	8	1	0.013	0.1208	0.35	0.35	0.67	0.1208	0.5443	22.2	100.0	100.0	TRUE	0.55
K32+K30	K32	3.16	-2.76	K30	3.78	-3.21	226.9	0.002	8	1	0.013	0.1190	0.34	0.74	0.67	0.1190	0.5381	22.1	100.0	47.1	TRUE	0.55
K33+K32	K33	2.74	-2.37	K32	3.16	-2.76	130.8	0.003	6	1	0.013	0.0595	0.30	0.87	0.50	0.0595	0.3064	19.4	100.0	38.1	TRUE	0.55
K34+K33	K34	3.08	-1.54	K33	2.74	-2.37	278.4	0.003	6	1	0.013	0.0595	0.30	0.87	0.50	0.0597	0.3064	19.4	100.0	38.0	TRUE	0.55
K35+K34	K35	2.78	-0.7	K34	3.08	-1.54	279.8	0.003	6	1	0.013	0.0595	0.30	0.86	0.50	0.0595	0.3074	19.4	100.0	38.2	TRUE	0.55
K36+K35	K36	2.75	0.15	K35	2.78	-0.7	281.5	0.003	6	1	0.013	0.0595	0.30	0.89	0.50	0.0606	0.3083	19.3	100.0	37.8	TRUE	0.55
K37+K32	K37	2.51	-1.01	K32	3.16	-2.76	350.2	0.005	6	1	0.013	0.0595	0.30	1.07	0.50	0.0597	0.3966	15.0	100.0	32.6	TRUE	0.55
K38+K39	K38	2.67	-5.61	K39	2.49	-5.63	7.8	0.003	18	1	0.01	2.7404	1.55	1.61	1.50	2.8463	6.9194	39.6	100.0	100.0	TRUE	0.49
K39+K40	K39	2.49	-5.63	K40	2.25	-6.24	249.4	0.002	18	1	0.01	2.7404	1.55	1.60	1.50	2.8343	6.7531	40.6	100.0	100.0	TRUE	0.48
K40+K1	K40	2.25	-6.24	K1	2.25	-6.28	5.6	0.007	18	1	0.01	2.7404	1.55	1.59	1.50	2.8183	11.4992	23.8	100.0	100.0	TRUE	0.47
K41+K42	K41	5.23	-2.2	K42	7.35	-2.73	191.9	0.003	18	1	0.01	1.5756	0.89	0.99	1.50	1.7511	7.1761	22.0	100.0	100.0	TRUE	0.57
K42+K6	K42	7.35	-2.73	K6	4.44	-2.86	36.7	0.004	12	2	0.01	1.5752	1.00	1.12	1.00	1.7538	5.5095	28.6	100.0	100.0	TRUE	0.56
K43+K3	K43	3.81	-4.75	K3	4.05	-4.8	23.5	0.002	18	1	0.01	2.7310	1.55	1.61	1.50	2.8492	6.2985	43.4	100.0	100.0	TRUE	0.53
K44+K5	K44	3.23	-2.92	K5	3.31	-3.09	30	0.006	6	1	0.013	0.0160	0.08	0.94	0.50	0.0179	0.4224	3.8	100.0	14.0	TRUE	0.55
L1+L21	L1	2.82	-3.73	L21	2.74	-3.95	223.2	0.001	10	1	0.013	1.0751	1.97	1.97	0.83	1.0751	0.6879	156.3	100.0	100.0	TRUE	0.55
L2+L1	L2	2.72	-3.28	L1	2.82	-3.73	178.7	0.003	10	1	0.013	0.9544	1.75	1.75	0.83	0.9544	1.0993	86.8	100.0	100.0	TRUE	0.56
L3+L2	L3	2.93	-3.17	L2	2.72	-3.28	83.4	0.001	10	1	0.013	0.9544	1.75	1.75	0.83	0.9544	0.7957	119.9	100.0	100.0	TRUE	0.56
L4+L3	L4	3.39	-2.3	L3	2.93	-3.12	247.6	0.003	10	1	0.013	0.5073	0.93	0.93	0.83	0.5073	1.2607	40.2	100.0	100.0	TRUE	0.56
L5+L47	L5	4.17	-1.38	L47	3.21	-2.04	276.3	0.002	6	1	0.013	0.0680	0.35	0.86	0.50	0.0680	0.2742	24.8	100.0	42.5	TRUE	0.56
L6+L5	L6	4.69	-0.51	L5	4.17	-1.38	214.9	0.004	6	1	0.013	0.0340	0.17	0.24	0.50	0.0340	0.3570	9.5	100.0	66.5	TRUE	0.56
L7+L6	L7	5.31	-0.39	L6	4.69	-0.51	260.6	0	6	1	0.013	0.0340	0.17	0.47	0.50	0.0340	0.1204	28.2	100.0	39.5	TRUE	0.56
L8+L7	L8	5.39	-0.24	L7	5.31	-0.39	72.8	0.002	6	1	0.013	0.0340	0.17	0.64	0.50	0.0340	0.2547	13.4	100.0	31.5	TRUE	0.56
L9+L4	L9	3.42	-1.78	L4	3.39	-2.05	162.3	0.002	6	1	0.013	0.2353	1.20	1.20	0.50	0.2353	0.2288	102.8	100.0	100.0	TRUE	0.56
L10+K27	L10	3.59	0.24	K27	3.95	-0.55	197.2	0.004	6	1	0.013	0.0000	0.00	0.49	0.50	0.0250	0.3551	0.0	100.0	30.7	TRUE	0.55
L10+L9	L10	3.59	-0.76	L9	3.42	-1.78	274.7	0.004	6	1	0.013	0.0695	0.35	1.03	0.50	0.0697	0.3419	20.3	100.0	37.6	TRUE	0.56
L11+L10	L11	4.97	0.57	L10	3.59	-0.56	359.8	0.003	6	1	0.013	0.0696	0.36	0.36	0.48	0.0696	0.3144	22.1	95.4	94.3	TRUE	0.77
L12+L11	L12	4.97	0.62	L11	4.97	0.57	81.8	0.001	6	1	0.013	0.0536	0.88	0.94	0.17	0.0542	0.1387	38.7	34.9	33.4	FALSE	0.88
L13+L9	L13	4.47	-0.58	L9	3.42	-1.73	310.9	0.004	6	1	0.013	0.1658	0.84	0.84	0.50	0.1658	0.3412	48.6	100.0	100.0	TRUE	0.56
L14+L13	L14	5.25	0.6	L13	4.47	-0.58	301.6	0.004	6	1	0.013	0.1658	0.84	1.52	0.50	0.1658	0.3509	47.2	100.0	54.2	TRUE	0.87
L15+L14	L15	6.17	1.92	L14	5.25	0.6	310.2	0.004	6	1	0.013	0.1658	1.57	1.57	0.26	0.1658	0.3660	45.3	52.9	52.9	FALSE	2.19
L16+L15	L16	7.37	2.67	L15	6.17	1.92	311.1	0.002	6	1	0.013	0.1658	1.26	1.26	0.32	0.1658	0.2755	60.2	63.3	63.3	FALSE	2.99
L17+L16	L17	7.38	3.53	L16	7.37	2.67	236.3	0.004	6	1	0.013	0.1600	1.48	1.48	0.27	0.1601	0.3385	47.3	54.1	54.1	FALSE	3.81
L18+L17	L18	8.22	4.37	L17	7.38	3.53	330.9	0.003	6	1	0.013	0.1600	1.27	1.27	0.31	0.1600	0.2827	56.6	61.0	61.0	FALSE	4.68
L19+L18	L19	9.56	5.51	L18	8.22	4.37	332.7	0.003	6	1	0.013	0.1600	1.43	1.52	0.28	0.1607	0.3284	48.7	55.5	53.1	FALSE	5.80

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
L20+L16	L20	8.52	2.97	L16	7.37	2.77	101.4	0.002	6	1	0.013	0.0058	0.15	0.27	0.12	0.0059	0.2492	2.3	24.5	16.8	FALSE	3.01
L21+K28	L21	2.74	-3.95	K28	3.27	-4	68.3	0.001	10	1	0.013	1.0751	1.97	1.97	0.83	1.0751	0.5929	181.3	100.0	100.0	TRUE	0.55
L22+L3	L22	3.32	-0.13	L3	2.93	-2.72	365.6	0.007	6	1	0.013	0.0255	0.13	0.54	0.50	0.0256	0.4722	5.4	100.0	29.1	TRUE	0.56
L23+L3	L23	3.05	-2.75	L3	2.93	-3.17	351.1	0.001	8	1	0.01	0.4198	1.20	1.20	0.67	0.4198	0.5433	77.3	100.0	100.0	TRUE	0.56
L24+L23	L24	2.38	-2.17	L23	3.05	-2.75	386.3	0.002	8	1	0.01	0.4198	1.20	1.20	0.67	0.4198	0.6087	69.0	100.0	100.0	TRUE	0.56
L25+L24	L25	3.54	-1.91	L24	2.38	-2.17	342	0.001	8	1	0.01	0.4198	1.20	1.20	0.67	0.4198	0.4331	96.9	100.0	100.0	TRUE	0.57
L26+L25	L26	3.77	-1.38	L25	3.54	-1.91	215.6	0.002	8	1	0.013	0.2820	0.81	0.81	0.67	0.2820	0.5991	47.1	100.0	100.0	TRUE	0.57
L27+L26	L27	3.7	-0.86	L26	3.77	-1.38	260.1	0.002	8	1	0.013	0.1580	0.45	1.16	0.67	0.1580	0.5403	29.2	100.0	41.3	TRUE	0.57
L28+L27	L28	3.81	0.26	L27	3.7	-0.86	362.9	0.003	6	1	0.013	0.0790	0.40	1.01	0.50	0.0790	0.3117	25.3	100.0	41.8	TRUE	0.57
L29+L28	L29	4.59	1.14	L28	3.81	0.26	366	0.002	6	1	0.013	0.0790	0.92	0.93	0.22	0.0793	0.2751	28.7	44.8	44.7	FALSE	1.39
L30+L27	L30	3.71	-0.19	L27	3.7	-0.86	236	0.003	6	1	0.013	0.0790	0.40	0.98	0.50	0.0790	0.2989	26.4	100.0	42.9	TRUE	0.57
L31+L30	L31	4.39	0.64	L30	3.71	-0.19	178.8	0.005	6	1	0.013	0.0790	0.55	1.20	0.34	0.0790	0.3823	20.7	68.9	36.9	TRUE	0.83
L32+L31	L32	5.42	1.62	L31	4.39	0.64	293.5	0.003	6	1	0.013	0.0790	1.04	1.04	0.21	0.0790	0.3242	24.4	41.2	41.2	FALSE	1.83
L33+L32	L33	5.85	1.8	L32	5.42	1.62	90.7	0.002	6	1	0.013	0.0790	0.90	0.90	0.23	0.0790	0.2500	31.6	45.8	45.8	FALSE	2.06
L34+L26	L34	4.66	-0.24	L26	3.77	-1.28	287.3	0.004	6	1	0.013	0.1240	0.63	1.32	0.50	0.1241	0.3376	36.7	100.0	48.2	TRUE	0.57
L35+L34	L35	5.3	0.7	L34	4.66	-0.24	253.5	0.004	6	1	0.013	0.1100	1.15	1.26	0.24	0.1100	0.3417	32.2	49.0	45.6	TRUE	0.93
L36+L35	L36	5.75	1.65	L35	5.3	0.7	277.7	0.003	6	1	0.013	0.1100	1.22	1.22	0.23	0.1100	0.3282	33.5	46.6	46.6	FALSE	1.89
L37+L36	L37	6.21	2.76	L36	5.75	1.65	322.8	0.003	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.3290	0.0	0.0	0.0	FALSE	2.76
L37+L38	L37	6.21	2.76	L38	5.64	2.24	210.4	0.002	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.2789	0.0	0.0	0.0	FALSE	2.76
L38+L39	L38	5.64	2.24	L39	4.89	1.54	215.2	0.003	6	1	0.013	0.1200	1.26	1.26	0.24	0.1200	0.3200	37.5	48.8	48.8	FALSE	2.49
L39+L40	L39	4.89	1.54	L40	4.16	0.81	345.7	0.002	6	1	0.013	0.1200	1.06	1.06	0.28	0.1200	0.2578	46.5	55.9	55.9	FALSE	1.82
L40+L42	L40	4.16	0.61	L42	3.25	0.2	345.8	0.001	8	1	0.013	0.1250	0.88	0.88	0.29	0.1250	0.4161	30.0	42.8	42.8	FALSE	0.90
L41+L40	L41	6.09	0.95	L40	4.16	0.81	70.6	0.002	6	1	0.013	0.0050	0.64	0.64	0.02	0.0050	0.2499	2.0	4.7	4.7	FALSE	0.98
L42+L43	L42	3.25	0.2	L43	2.56	-0.34	330.1	0.002	8	1	0.013	0.1250	0.36	0.37	0.64	0.1250	0.4887	25.6	95.8	91.8	TRUE	0.57
L43+L44	L43	2.56	-0.34	L44	3.5	-0.85	334.4	0.002	8	1	0.013	0.1250	0.36	0.96	0.67	0.1250	0.4719	26.5	100.0	40.1	TRUE	0.57
L44+L45	L44	3.5	-0.85	L45	2.57	-1.33	238.4	0.002	8	1	0.013	0.1250	0.36	0.36	0.67	0.1250	0.5422	23.1	100.0	100.0	TRUE	0.57
L45+L25	L45	2.57	-1.38	L25	3.54	-1.76	201.8	0.002	8	1	0.013	0.1378	0.39	0.39	0.67	0.1378	0.5244	26.3	100.0	100.0	TRUE	0.57
L46+L45	L46	2.92	-0.93	L45	2.57	-1.23	136	0.002	6	1	0.013	0.0128	0.07	0.86	0.50	0.0153	0.2635	4.9	100.0	11.5	TRUE	0.57
L47+L4	L47	3.21	-2.04	L4	3.39	-2.3	88	0.003	8	1	0.013	0.2720	0.78	0.78	0.67	0.2720	0.6568	41.4	100.0	100.0	TRUE	0.56
L48+L47	L48	3.22	-1.35	L47	3.21	-2.04	228.9	0.003	8	1	0.013	0.2040	0.58	0.58	0.67	0.2040	0.6635	30.7	100.0	100.0	TRUE	0.56
L49+L48	L49	4.08	-1.2	L48	3.22	-1.35	233.3	0.001	8	1	0.013	0.2040	0.58	0.58	0.67	0.2040	0.3064	66.6	100.0	100.0	TRUE	0.56
L50+L49	L50	4.26	-0.68	L49	4.08	-1.2	223.6	0.002	8	1	0.013	0.2040	0.58	0.58	0.67	0.2040	0.5827	35.0	100.0	100.0	TRUE	0.56
L51+L50	L51	3.85	-0.28	L50	4.26	-0.68	79.7	0.005	6	1	0.013	0.0077	0.04	0.69	0.50	0.0080	0.3975	1.9	100.0	6.0	TRUE	0.57
L52+L50	L52	4.54	-0.36	L50	4.26	-0.68	223.9	0.001	6	1	0.013	0.1963	1.00	1.00	0.50	0.1963	0.2121	92.5	100.0	100.0	TRUE	0.57
L53+L52	L53	5.4	0.6	L52	4.54	-0.36	218.4	0.004	6	1	0.013	0.1963	1.06	1.69	0.45	0.1963	0.3720	52.8	89.1	57.2	TRUE	0.89
L54+L53	L54	6.47	2.07	L53	5.4	0.6	369.4	0.004	6	1	0.013	0.0935	1.21	1.21	0.21	0.0935	0.3539	26.4	41.6	41.6	FALSE	2.28
L55+L54	L55	6.53	2.37	L54	6.47	2.07	148.7	0.002	6	1	0.013	0.0425	0.62	0.64	0.19	0.0428	0.2520	16.9	38.0	37.3	FALSE	2.57
L56+L54	L56	7.59	3.34	L54	6.47	2.17	326.7	0.004	6	1	0.013	0.0510	0.84	0.90	0.17	0.0532	0.3357	15.2	34.8	34.1	FALSE	3.52
L57+L53	L57	5.49	1.29	L53	5.4	0.65	202.8	0.003	6	1	0.013	0.1028	1.16	1.16	0.23	0.1028	0.3152	32.6	46.0	46.0	FALSE	1.52
L58+L57	L58	6.75	2.35	L57	5.49	1.29	295.3	0.004	6	1	0.013	0.1028	1.21	1.22	0.22	0.1033	0.3361	30.6	44.8	44.6	FALSE	2.57
L59+L58	L59	7.91	3.31	L58	6.75	2.35	250	0.004	6	1	0.013	0.1028	1.24	1.25	0.22	0.1030	0.3477	29.6	43.9	43.7	FALSE	3.53
L60+L59	L60	8.08	3.53	L59	7.91	3.31	108.8	0.002	6	1	0.013	0.1028	1.02	1.02	0.26	0.1028	0.2523	40.7	51.1	51.1	FALSE	3.79
L61+L5	L61	4.57	-0.73	L5	4.17	-1.13	152.5	0.003	6	1	0.013	0.0340	0.17	0.71	0.50	0.0340	0.2874	11.8	100.0	29.3	TRUE	0.56
L62+L34	L62	4.95	0.45	L34	4.66	-0.19	146.7	0.004	6	1	0.013	0.0140	0.08	0.67	0.44	0.0140	0.3705	3.8	87.7	16.4	TRUE	0.57
M2+M44	M2	5.62	0.3	M44	5.62	0.22	42.2	0.002	8	1	0.013	0.4523	1.30	2.83	0.67	0.8873	0.5262	85.9	100.0	84.2	TRUE	3.41
M2+N1	M2	5.62	2.62	N1	5.32	2.32	82	0.004	12	1	0.013	0.3943	0.90	1.57	0.55	0.6067	2.1554	18.3	54.7	49.3	FALSE	3.41
M3+M2	M3	6.98	1.33	M2	5.62	0.3	379.8	0.003	8	1	0.013	0.8806	2.52	2.58	0.67	0.9007	0.6293	139.9	100.0	100.0	TRUE	5.34
M4+M31	M4	9.9	3	M31	7	2.52	142.5	0.003	8	1	0.013	0.6006	1.72	1.96	0.67	0.6851	0.7012	85.6	100.0	100.0	TRUE	7.60
M5+M4	M5	11.95	3.9	M4	9.9	3.05	372.5	0.002	8	1	0.013	0.6006	1.72	1.98	0.67	0.6913	0.5772	104.1	100.0	100.0	TRUE	8.53
M6+M46	M6	12.3	6.22	M46	12.8	6.1	50.4	0.002	16	1	0.01	0.1903	1.54	1.54	0.19	0.1907	4.8649	3.9	14.4	14.4	FALSE	6.42
M7+M36	M7	12.4	6.45	M36	7.3	3.24	79.9	0.04	10	1	0.01	0.3680	3.08	3.08	0.15	0.3687	5.7102	6.4	17.8	17.8	FALSE	6.60
M7+M45	M7	12.4	6.45	M45	12.36	6.35	46.6	0.002	12	2	0.01	0.1903	1.25	1.25	0.15	0.1909	4.2891	4.4	15.3	15.3	FALSE	6.61
M8+M7	M8	14.41	7.71	M7	12.4	6.45	192.5	0.007	16	1	0.01	0.5583	3.19	3.19	0.24	0.5596	8.0706	6.9	18.3	18.3	FALSE	7.96
M12+M40	M12	14.95	7.4	M40	13.27	5.72	338.1	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8518	97.4	100.0	100.0	TRUE	8.62
M13+M12	M13	16.33	8.78	M12	14.95	7.4	276	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8544	97.1	100.0	100.0	TRUE	9.94
M14+M5	M14	10.14	5.82	M5	11.95	3.95	327.8	0.006	10	1	0.013	0.0200	0.04	0.15	0.83	0.0275	1.6547	1.2	100.0	36.8	TRUE	8.53
M16+M8	M16	14.85	8.05	M8	14.41	7.81	19.7	0.012	6	1	0.013	0.0100	0.34	0.78	0.10	0.0100	0.6193	1.6	20.5	9.4	FALSE	8.09
M18+M5	M18	12	4.51	M5	11.95	4.2	153.9	0.002	10	1	0.013	-0.2489	-0.46	0.00	0.83	0.0000	0.9833	-25.3	100.0	0.0	TRUE	8.53
M19+M18	M19	12.1	4.7	M18	12	4.51	94.8	0.002	10	1	0.013	-0.2489	-0.46	0.09	0.83	0.0114	0.9807	-25.4	100.0	27.2	TRUE	8.53
M20+M19	M20	12.2	4.86	M19	12.1	4.7	78	0.002	10	1	0.013	-0.2489	-0.46	0.07	0.83	0.0123	0.9925	-25.1	100.0	34.9	TRUE	8.53
M21+M20	M21	12.3	5.45	M20	12.2	4.86	296.6	0.002	10	1	0.013	-0.2489	-0.46	0.06	0.83	0.0183	0.9772	-25.5	100.0	51.9	TRUE	8.53

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
M22+M21	M22	12.3	5.54	M21	12.3	5.45	43.3	0.002	10	1	0.013	-0.2489	-0.46	0.05	0.83	0.0188	0.9992	-24.9	100.0	62.2	TRUE	8.53
M23+M24	M23	7.5	4.92	M24	7.4	4.53	195	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2800	0.5404	51.8	100.0	100.0	TRUE	7.48
M24+M25	M24	7.4	4.56	M25	7.3	4.04	260	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2800	0.5404	51.8	100.0	100.0	TRUE	7.45
M25+M26	M25	7.3	4.04	M26	7.3	3.5	270	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2801	0.5404	51.8	100.0	100.0	TRUE	7.39
M26+M27	M26	7.3	3.5	M27	7.2	3.25	124.9	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2801	0.5406	51.8	100.0	100.0	TRUE	7.39
M27+M29	M27	7.2	3.25	M29	7.1	3.18	35.2	0.002	8	1	0.013	0.2800	0.80	0.80	0.67	0.2802	0.5385	52.0	100.0	100.0	TRUE	7.39
M28+N11	M28	7.3	0.37	N11	7.2	-0.1	236.4	0.002	8	1	0.013	0.0109	0.04	0.72	0.45	0.0154	0.5388	2.0	67.5	4.3	TRUE	0.59
M29+M31	M29	7.1	3.18	M31	7	2.52	328.8	0.002	8	1	0.01	0.2800	0.80	0.80	0.67	0.2802	0.7038	39.8	100.0	100.0	TRUE	7.39
M30+N29	M30	7.3	0.64	N29	7.2	0.13	255.2	0.002	8	1	0.013	0.0109	0.19	0.74	0.15	0.0110	0.5402	2.0	22.4	8.7	FALSE	0.71
M31+M3	M31	7	2.52	M3	6.98	1.33	357.1	0.003	8	1	0.013	0.8806	2.52	2.60	0.67	0.9066	0.6975	126.2	100.0	100.0	TRUE	7.30
M32+M33	M32	7.3	2.88	M33	7.3	2.49	195	0.002	8	1	0.013	0.5280	1.80	1.80	0.52	0.5280	0.5403	97.7	78.4	78.4	FALSE	3.43
M33+M34	M33	7.3	2.49	M34	7.2	1.91	257.5	0.002	8	1	0.013	0.5280	1.77	1.77	0.53	0.5280	0.5735	92.1	79.6	79.6	FALSE	3.03
M34+N22	M34	7.2	1.91	N22	7.1	1.4	283.5	0.002	8	1	0.013	0.5403	1.68	1.68	0.58	0.5403	0.5125	105.4	86.8	86.8	FALSE	2.53
M35+M34	M35	7.2	2.16	M34	7.2	1.91	124.1	0.002	8	1	0.013	0.0123	0.04	0.74	0.49	0.0123	0.5423	2.3	74.0	9.4	FALSE	2.53
M36+M37	M36	7.3	3.24	M37	7.4	2.73	256.7	0.002	8	1	0.013	0.3967	1.60	1.60	0.44	0.3973	0.5386	73.7	66.7	66.8	FALSE	3.69
M37+N24	M37	7.4	2.73	N24	7.3	2.21	259.3	0.002	8	1	0.013	0.3967	1.61	1.61	0.44	0.3971	0.5411	73.3	66.5	66.6	FALSE	3.18
M38+M39	M38	19.58	12.03	M39	18.79	11.24	157.5	0.005	8	1	0.013	0.8295	2.38	2.40	0.67	0.8390	0.8558	96.9	100.0	100.0	TRUE	12.75
M39+M43	M39	18.79	11.24	M43	17.59	10.04	240.5	0.005	8	1	0.013	0.8295	2.38	2.44	0.67	0.8461	0.8535	97.2	100.0	97.6	TRUE	12.05
M40+M5	M40	13.27	5.72	M5	11.95	4.4	263	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8561	96.9	100.0	100.0	TRUE	8.53
M41+M13	M41	16.89	9.34	M13	16.33	8.78	111	0.005	8	1	0.013	0.8295	2.38	2.38	0.67	0.8295	0.8583	96.6	100.0	100.0	TRUE	10.41
M42+M41	M42	17.07	9.82	M41	16.89	9.34	37.3	0.013	8	1	0.013	0.8295	2.38	3.86	0.67	0.8318	1.3699	60.6	100.0	59.2	TRUE	10.50
M43+M42	M43	17.59	10.04	M42	17.07	9.82	103.8	0.002	8	1	0.013	0.8295	2.38	2.45	0.67	0.8345	0.5563	149.1	100.0	94.1	TRUE	10.92
M44+I15	M44	5.62	0.12	I15	5.32	-0.53	61.7	0.011	12	1	0.013	0.4523	0.58	1.10	1.00	0.8649	3.6568	12.4	100.0	100.0	TRUE	3.41
M45+M6	M45	12.36	6.35	M6	12.3	6.22	63.5	0.002	16	1	0.01	0.1903	1.47	1.47	0.20	0.1908	4.5115	4.2	14.9	14.9	FALSE	6.55
M46+M22	M46	12.8	6.12	M22	12.3	5.54	290.6	0.002	10	1	0.013	-0.2489	-0.46	0.05	0.83	0.0196	0.9788	-25.4	100.0	74.1	TRUE	8.53
M46+M32	M46	12.8	6.1	M32	7.3	2.88	76	0.042	10	1	0.01	0.4392	3.49	3.49	0.16	0.4392	5.8625	7.5	19.0	19.0	FALSE	6.27
METERING STATION+T2	METERING STATION	0	-14.66	T2	3.04	-14.76	444.9	0	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	3.3913	375.5	100.0	100.0	TRUE	-11.24
N1+K41	N1	5.32	-2.08	K41	5.23	-2.2	30.8	0.004	18	1	0.01	1.5715	0.89	1.00	1.50	1.7592	8.5232	18.4	100.0	100.0	TRUE	0.57
N2+N1	N2	5.71	-1.39	N1	5.32	-2.08	295.7	0.002	16	1	0.01	1.1834	0.85	0.85	1.33	1.1862	4.8180	24.6	100.0	100.0	TRUE	0.58
N3+N21	N3	6	-0.64	N21	6	-0.82	88.8	0.002	16	1	0.01	1.1318	0.81	0.81	1.32	1.1318	4.4899	25.2	99.0	98.6	TRUE	0.59
N4+N3	N4	6.14	0.24	N3	6	-0.64	334.7	0.003	16	1	0.01	1.1275	1.30	1.51	0.80	1.1275	5.1141	22.0	59.7	52.6	FALSE	0.68
N5+N4	N5	7.28	1.13	N4	6.14	0.29	332.5	0.003	10	1	0.013	0.1905	1.34	1.34	0.26	0.1905	1.1012	17.3	30.7	30.7	FALSE	1.39
N6+N5	N6	8.64	1.99	N5	7.28	1.13	332.5	0.003	10	1	0.013	0.1905	1.35	1.35	0.25	0.1905	1.1142	17.1	30.5	30.5	FALSE	2.25
N7+N6	N7	9.69	2.84	N6	8.64	1.99	332.7	0.003	10	1	0.013	0.1905	1.35	1.35	0.26	0.1905	1.1074	17.2	30.6	30.6	FALSE	3.10
N8+N9	N8	13.8	4.05	N9	11.48	3.68	118.7	0.003	10	1	0.013	0.1905	1.45	1.45	0.24	0.1905	1.2230	15.6	29.1	29.1	FALSE	4.29
N9+N7	N9	11.48	3.68	N7	9.69	2.84	284	0.003	10	1	0.013	0.1905	1.42	1.42	0.25	0.1905	1.1916	16.0	29.5	29.5	FALSE	3.93
N10+N13	N10	7.1	-0.52	N13	7	-0.88	176	0.002	8	1	0.013	0.0109	0.03	0.78	0.67	0.0109	0.5465	2.0	100.0	8.3	TRUE	0.58
N11+N12	N11	7.2	-0.1	N12	7.1	-0.56	227.2	0.002	8	1	0.013	0.0218	0.06	0.87	0.67	0.0237	0.5437	4.0	100.0	7.4	TRUE	0.59
N12+N13	N12	7.1	-0.56	N13	7	-0.88	157.9	0.002	8	1	0.013	0.0218	0.06	0.69	0.67	0.0218	0.5440	4.0	100.0	14.6	TRUE	0.58
N13+N14	N13	7	-0.88	N14	6	-1.21	167	0.002	8	1	0.013	0.0327	0.09	0.76	0.67	0.0333	0.5371	6.1	100.0	18.3	TRUE	0.58
N14+N2	N14	6	-1.21	N2	5.71	-1.39	88.4	0.002	16	1	0.01	1.1848	0.85	0.85	1.33	1.1850	4.5003	26.3	100.0	100.0	TRUE	0.58
N15+N16	N15	7.3	0.75	N16	7.2	0.25	251.8	0.002	8	1	0.013	0.0123	0.72	0.87	0.06	0.0138	0.5384	2.3	9.5	9.1	FALSE	0.82
N16+N17	N16	7.2	0.25	N17	7.1	-0.21	228.2	0.002	8	1	0.013	0.0123	0.04	0.81	0.57	0.0138	0.5426	2.3	85.4	7.3	TRUE	0.59
N17+N20	N17	7.1	-0.27	N20	7	-0.67	197	0.002	8	1	0.013	0.0123	0.04	0.81	0.67	0.0132	0.5445	2.3	100.0	9.2	TRUE	0.59
N18+N19	N18	7.2	0.29	N19	7.1	-0.22	255.9	0.002	8	1	0.013	0.0123	0.04	0.77	0.50	0.0130	0.5394	2.3	75.5	9.5	TRUE	0.59
N19+N20	N19	7.1	-0.22	N20	7	-0.67	224.1	0.002	8	1	0.013	0.0123	0.04	0.70	0.67	0.0166	0.5415	2.3	100.0	3.5	TRUE	0.59
N20+N21	N20	7	-0.67	N21	6	-0.82	72	0.002	8	1	0.013	0.0250	0.07	0.70	0.67	0.0250	0.5516	4.5	100.0	15.9	TRUE	0.59
N21+N14	N21	6	-0.82	N14	6	-1.21	195.8	0.002	16	1	0.01	1.1544	0.83	0.83	1.33	1.1544	4.4512	25.9	100.0	100.0	TRUE	0.59
N22+N23	N22	7.1	1.4	N23	7.1	0.98	212	0.002	8	1	0.013	0.5403	1.79	1.79	0.54	0.5403	0.5378	100.5	80.9	80.9	FALSE	1.97
N23+N28	N23	7.1	0.98	N28	7	0.59	193.2	0.002	8	1	0.013	0.5403	1.86	1.86	0.52	0.5403	0.5430	99.5	77.6	77.6	FALSE	1.54
N24+N25	N24	7.3	2.21	N25	7.3	1.98	116.3	0.002	8	1	0.013	0.3967	1.71	1.71	0.42	0.3971	0.5374	73.8	62.9	63.0	FALSE	2.65
N25+N26	N25	7.3	1.98	N26	7.2	1.46	262.5	0.002	8	1	0.013	0.3967	1.60	1.60	0.45	0.3970	0.5379	73.8	66.8	66.9	FALSE	2.43
N26+N27	N26	7.2	1.46	N27	7.1	0.96	247.5	0.002	8	1	0.013	0.3967	1.61	1.61	0.44	0.3970	0.5431	73.1	66.3	66.3	FALSE	1.91
N27+N28	N27	7.1	0.96	N28	7	0.59	183	0.002	8	1	0.013	0.3967	1.63	1.64	0.44	0.3969	0.5433	73.0	65.8	65.6	FALSE	1.41
N28+N31	N28	7	0.59	N31	6.87	0.54	21.4	0.002	6	2	0.01	0.9370	2.57	2.57	0.44	0.9370	0.7050	132.9	87.7	87.7	FALSE	1.03
N29+N10	N29	7.2	0.13	N10	7.1	-0.52	325.6	0.002	8	1	0.013	0.0109	0.03	0.74	0.67	0.0109	0.5399	2.0	100.0	8.7	TRUE	0.59
N30+N11	N30	7.3	0.17	N11	7.2	-0.1	134	0.002	8	1	0.013	0.0109	0.04	0.82	0.55	0.0120	0.5424	2.0	82.5	7.7	TRUE	0.59
N31+N4	N31	6.87	0.54	N4	6.14	0.24	128.8	0.002	12	1	0.01	0.9370	2.75	2.75	0.45	0.9370	2.2348	41.9	44.8	44.8	FALSE	1.00
O3+N8	O3	17.6	8.2	N8	13.8	4.1	205.1	0.02	8	1	0.013	0.0800	1.48	1.48	0.12	0.0800	1.7083	4.7	17.3	17.3	FALSE	8.32
O4+O3	O4	15.39	9.13	O3	17.6	8.3	277.4	0.003	8	1	0.013	0.0338	1.13	0.72	0.09	0.0338	0.6609	5.1	13.8	1.7	FALSE	9.22
O5+O4	O5	14.73	10.25	O4	15.39	9.13	398.6	0.003	8	1	0.013	0.0338	1.09	0.72	0.08	0.0338	0.6405	5.3	12.6	1.7	FALSE	10.34

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
O6+O5	O6	13.82	11.05	O5	14.73	10.25	399.4	0.002	8	1	0.013	0.0338	1.13	0.72	0.09	0.0338	0.5408	6.2	14.1	1.7	FALSE	11.15
O7+O6	O7	15.16	11.56	O6	13.82	11.05	426.9	0.001	8	1	0.013	0.0338	0.94	0.72	0.11	0.0338	0.4177	8.1	15.9	1.7	FALSE	11.67
O8+O59	O8	16.28	12.23	O59	16.36	11.92	102.7	0.003	8	1	0.013	0.2285	1.58	1.58	0.29	0.2285	0.6639	34.4	43.3	43.3	FALSE	12.53
O9+O8	O9	17.01	12.76	O8	16.28	12.23	139.7	0.004	8	1	0.013	0.2075	1.63	1.63	0.26	0.2075	0.7443	27.9	39.3	39.3	FALSE	13.02
O10+O9	O10	17.95	13.1	O9	17.01	12.76	156.6	0.002	8	1	0.013	0.2075	1.35	1.35	0.30	0.2075	0.5631	36.9	45.4	45.4	FALSE	13.41
O11+O10	O11	19.41	14.01	O10	17.95	13.15	259.2	0.003	8	1	0.013	0.1932	1.51	1.51	0.26	0.1932	0.6960	27.8	39.4	39.4	FALSE	14.27
O12+O11	O12	19.9	14.5	O11	19.41	14.01	394.2	0.001	8	1	0.013	0.1932	1.06	1.06	0.35	0.1932	0.4260	45.4	51.8	51.8	FALSE	14.85
O13+O12	O13	22.22	16.47	O12	19.9	14.5	414.6	0.005	8	1	0.013	0.1932	1.72	1.72	0.24	0.1932	0.8329	23.2	35.8	35.8	FALSE	16.71
O14+O13	O14	21.75	17.35	O13	22.22	16.87	129.7	0.004	8	1	0.013	0.0487	0.82	0.82	0.15	0.0488	0.7351	6.6	22.6	22.6	FALSE	17.50
O15+O14	O15	24.85	19.05	O14	21.75	17.35	307.9	0.006	8	1	0.013	0.0487	0.93	0.93	0.14	0.0487	0.8978	5.4	20.8	20.8	FALSE	19.19
O16+O15	O16	28.01	22.56	O15	24.85	19.2	234.7	0.014	6	1	0.013	0.0487	1.34	1.34	0.12	0.0487	0.6714	7.3	23.8	23.8	FALSE	22.68
O17+O3	O17	10.93	8.62	O3	17.6	8.3	161.2	0.002	8	1	0.013	0.0494	0.66	0.66	0.18	0.0494	0.5383	9.2	26.8	26.8	FALSE	8.80
O18+O17	O18	15.83	11.93	O17	10.93	8.62	264	0.013	8	1	0.013	0.0136	0.74	0.74	0.04	0.0136	1.3530	1.0	5.3	5.3	FALSE	11.97
O19+O17	O19	17.6	10.75	O17	10.93	8.62	85.9	0.025	6	1	0.013	0.0354	1.09	1.10	0.08	0.0361	0.8837	4.0	16.6	16.7	FALSE	10.84
O20+O19	O20	17	10.98	O19	17.6	10.75	115.6	0.002	6	1	0.013	0.0057	0.68	0.56	0.03	0.0057	0.2503	2.3	6.2	1.3	FALSE	11.02
O21+O19	O21	20.09	12.64	O19	17.6	10.75	393.6	0.005	6	1	0.013	0.0302	0.97	0.97	0.11	0.0302	0.3888	7.8	21.5	21.5	FALSE	12.76
O22+O21	O22	20	13.27	O21	20.09	12.64	318.2	0.002	6	1	0.013	0.0300	0.64	0.64	0.14	0.0302	0.2497	12.0	28.9	28.8	FALSE	13.42
O23+O22	O23	21.65	15.65	O22	20	13.27	469.8	0.005	6	1	0.013	0.0299	0.86	0.89	0.12	0.0302	0.3993	7.5	23.3	22.8	FALSE	15.77
O24+O23	O24	21.18	15.84	O23	21.65	15.65	96.7	0.002	6	1	0.013	0.0300	0.67	0.71	0.14	0.0306	0.2488	12.1	27.8	27.1	FALSE	16.00
O25+O7	O25	16.12	12.07	O7	15.16	11.61	177.4	0.003	6	1	0.013	0.0338	0.72	0.72	0.14	0.0338	0.2857	11.8	28.8	2.2	FALSE	12.22
O26+O25	O26	18.86	13.26	O25	16.12	12.12	332.8	0.003	6	1	0.013	0.0140	0.79	0.79	0.07	0.0140	0.3284	4.3	14.6	14.6	FALSE	13.32
O27+O26	O27	19.94	13.44	O26	18.86	13.31	65.4	0.002	6	1	0.013	0.0075	0.71	0.71	0.03	0.0077	0.2501	3.0	6.8	6.7	FALSE	13.49
O28+O26	O28	19	14.28	O26	18.86	13.41	434.3	0.002	6	1	0.013	0.0065	0.70	0.70	0.03	0.0065	0.2511	2.6	6.8	6.8	FALSE	14.32
O29+O28	O29	23	19.53	O28	19	14.28	174	0.03	6	1	0.013	0.0000	0.00	0.00	0.00	0.0000	0.9746	0.0	0.0	0.0	FALSE	19.53
O29+O30	O29	23	19.53	O30	22.78	19.08	226	0.002	6	1	0.013	0.0000	0.00	0.00	0.04	0.0000	0.2504	0.0	7.4	0.0	FALSE	19.59
O30+O35	O30	22.78	17.63	O35	21.74	16.44	175.9	0.007	6	1	0.013	0.0492	0.99	1.01	0.05	0.0492	0.4615	10.7	9.8	10.7	FALSE	17.72
O31+O30	O31	23	18.76	O30	22.78	18.58	89.5	0.002	6	1	0.013	0.0164	0.80	0.81	0.08	0.0180	0.2516	6.5	16.1	17.0	FALSE	18.86
O32+O31	O32	24	19.18	O31	23	18.76	210.5	0.002	6	1	0.013	0.0164	0.83	0.96	0.08	0.0203	0.2506	6.5	15.6	14.3	FALSE	19.27
O33+O32	O33	25	19.71	O32	24	19.18	262.5	0.002	6	1	0.013	0.0164	0.76	0.97	0.08	0.0260	0.2521	6.5	16.7	13.5	FALSE	19.80
O34+O10	O34	23.33	14.69	O10	17.95	13.35	267.7	0.005	6	1	0.013	0.0492	1.09	0.81	0.07	0.0492	0.3970	12.4	13.9	2.5	FALSE	14.76
O35+O34	O35	21.74	16.44	O34	23.33	14.69	316.4	0.006	6	1	0.013	0.0492	1.08	0.81	0.07	0.0492	0.4173	11.8	13.5	2.5	FALSE	16.52
O36+O30	O36	24.12	18.01	O30	22.78	17.68	164.4	0.002	6	1	0.013	0.0164	0.78	0.94	0.08	0.0177	0.2514	6.5	16.3	15.1	FALSE	18.10
O37+O25	O37	16.63	12.23	O25	16.12	12.07	80.9	0.002	6	1	0.013	0.0198	0.71	0.74	0.10	0.0198	0.2495	7.9	19.9	19.4	FALSE	12.33
O38+O37	O38	17.23	12.46	O37	16.63	12.23	117.5	0.002	6	1	0.013	0.0066	0.71	0.71	0.04	0.0066	0.2482	2.7	7.1	7.1	FALSE	12.50
O39+O37	O39	16.48	12.31	O37	16.63	12.23	40.8	0.002	6	1	0.013	0.0132	0.89	0.89	0.06	0.0132	0.2486	5.3	12.8	12.8	FALSE	12.38
O40+O39	O40	16.65	12.38	O39	16.48	12.31	37.3	0.002	6	1	0.013	0.0066	0.28	0.31	0.09	0.0066	0.2431	2.7	17.7	16.7	FALSE	12.43
O41+O40	O41	16.5	12.47	O40	16.65	12.38	44.5	0.002	6	1	0.013	0.0066	0.64	0.64	0.02	0.0066	0.2523	2.6	4.2	4.2	FALSE	12.51
O42+O39	O42	16.78	12.41	O39	16.48	12.31	47.6	0.002	6	1	0.013	0.0066	0.65	0.65	0.02	0.0066	0.2572	2.6	4.8	4.8	FALSE	12.45
O43+O42	O43	17.92	13.6	O42	16.78	12.41	181.9	0.007	6	1	0.013	0.0066	0.65	0.65	0.02	0.0067	0.4538	1.5	4.5	4.9	FALSE	13.63
O44+O43	O44	18.13	13.78	O43	17.92	13.64	69.2	0.002	6	1	0.013	0.0066	0.69	0.69	0.03	0.0066	0.2524	2.6	6.3	6.3	FALSE	13.82
O45+O8	O45	17.06	12.55	O8	16.28	12.23	65.8	0.005	6	1	0.013	0.0210	0.47	0.99	0.14	0.0210	0.3912	5.4	27.7	16.5	FALSE	12.64
O46+O45	O46	18	13.61	O45	17.06	12.55	212.5	0.005	6	1	0.013	0.0070	0.75	0.75	0.04	0.0070	0.3963	1.8	8.5	8.5	FALSE	13.65
O47+O45	O47	16.84	12.91	O45	17.06	12.55	71.5	0.005	6	1	0.013	0.0140	0.85	0.85	0.06	0.0140	0.3981	3.5	11.3	11.3	FALSE	12.97
O48+O47	O48	17.43	13.52	O47	16.84	12.91	122	0.005	6	1	0.013	0.0070	0.69	0.69	0.03	0.0070	0.3968	1.8	6.3	6.3	FALSE	13.55
O49+O47	O49	17.41	13.27	O47	16.84	12.91	72.6	0.005	6	1	0.013	0.0070	0.68	0.68	0.03	0.0070	0.3952	1.8	5.9	5.9	FALSE	13.30
O50+O49	O50	17.95	14.13	O49	17.41	13.27	172.1	0.005	6	1	0.013	0.0070	0.63	0.63	0.02	0.0070	0.3967	1.8	3.9	3.9	FALSE	14.16
O51+O13	O51	24.5	18.4	O13	22.22	16.57	467.6	0.004	6	1	0.013	0.1445	1.45	1.45	0.25	0.1445	0.3510	41.2	50.7	50.7	FALSE	18.66
O52+O51	O52	26.81	19.11	O51	24.5	18.4	213.3	0.003	6	1	0.013	0.0772	1.03	1.03	0.20	0.0772	0.3237	23.8	40.7	40.7	FALSE	19.32
O53+O52	O53	27	19.48	O52	26.81	19.11	188.5	0.002	6	1	0.013	0.0100	0.81	0.82	0.05	0.0101	0.2486	4.0	10.5	10.7	FALSE	19.54
O54+O52	O54	31.19	20.39	O52	26.81	19.11	380.1	0.003	6	1	0.013	0.0672	0.97	0.97	0.19	0.0672	0.3256	20.6	38.4	38.4	FALSE	20.58
O55+O54	O55	28.75	20.95	O54	31.19	20.44	399.4	0.001	6	1	0.013	0.0672	0.68	0.68	0.25	0.0672	0.2005	33.5	50.4	50.4	FALSE	21.20
O56+O55	O56	27.04	22.24	O55	28.75	20.95	376.5	0.003	6	1	0.013	0.0672	0.97	0.97	0.19	0.0672	0.3284	20.5	38.2	38.2	FALSE	22.45
O57+O51	O57	25.61	19.76	O51	24.5	18.4	365.2	0.004	6	1	0.013	0.0487	0.84	0.84	0.17	0.0487	0.3424	14.2	33.6	33.6	FALSE	19.93
O58+O57	O58	26.81	20.57	O57	25.61	19.76	403.4	0.002	6	1	0.013	0.0487	0.67	0.67	0.20	0.0487	0.2514	19.4	39.7	39.7	FALSE	20.78
O59+O60	O59	16.36	11.92	O60	15.68	9.18	24.1	0.114	12	1	0.013	0.2070	2.05	2.03	0.10	0.2072	12.0125	1.7	10.3	9.8	FALSE	12.02
O59+O7	O59	16.36	11.92	O7	15.16	11.56	182.3	0.002	8	1	0.013	0.0000	0.00	0.00	0.14	0.0000	0.5370	0.0	20.6	0.0	FALSE	12.02
O60+O61	O60	15.68	9.18	O61	14.55	7.85	199	0.007	14	1	0.013	0.5483	2.68	2.69	0.29	0.5496	4.3937	12.5	24.6	24.6	FALSE	9.49
O61+M8	O61	14.55	7.85	M8	14.41	7.81	11.8	0.003	16	1	0.01	0.5483	2.42	2.43	0.29	0.5498	5.8139	9.4	21.9	21.9	FALSE	8.14
O62+O18	O62	17.08	13.18	O18	15.83	11.93	249	0.005	6	1	0.013	0.0136	0.89	0.61	0.07	0.0136	0.3975	3.4	13.1	1.7	FALSE	13.24
O63+O62	O63	17.27	13.37	O62	17.08	13.18	38	0.005	6	1	0.013	0.0136	0.85	0.82	0.06	0.0136	0.3968	3.4	11.4	9.9	FALSE	13.43
T1+T0	T1	4.57	-15.43	T0	#N/A	-17.68	329.2	0.007	24	1	0.013	12.7352	6.36	6.36	1.22	12.7352	18.7022	68.1	60.8	60.8	FALSE	-14.20

Appendix D: Table 6
Scenario 3: 2035 Enhanced PWWF Model Results

Label	Start Node	Rim (Start) (ft)	Invert (Start) (ft)	Stop Node	Rim (Stop) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Number of Barrels	Manning's n	Flow (Middle) (cfs)	Velocity (ft/s)	Velocity (Maximum Calculated) (ft/s)	Depth (Middle) (ft)	Flow (Maximum) (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Depth/Rise (%)	Depth (Maximum) / Rise (%)	Is Ever Surcharged?	Hydraulic Grade (Maximum) (ft)
T2+T1	T2	3.04	-14.76	T1	4.57	-15.43	505.8	0.001	24	1	0.013	12.7352	4.18	4.18	1.86	12.7352	8.2329	154.7	93.2	93.2	TRUE	-12.44
T3+METERING STATION	T3	2.52	-14.63	METERING STATION	0	-14.66	55	0.001	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	5.2820	241.1	100.0	100.0	TRUE	-11.19
T4+T3	T4	1.41	-12.09	T3	2.52	-14.63	474.9	0.005	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	16.5440	77.0	100.0	100.0	TRUE	-9.99
T5+T4	T5	0.16	-11.76	T4	1.41	-11.99	352.3	0.001	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	5.7802	220.3	100.0	100.0	TRUE	-9.10
T6+T5	T6	0.17	-11.38	T5	0.16	-11.66	359.1	0.001	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	6.3165	201.6	100.0	100.0	TRUE	-8.17
T7+T6	T7	-0.07	-10.42	T6	0.17	-11.38	503.8	0.002	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	9.8749	129.0	100.0	100.0	TRUE	-6.78
T8+T7	T8	0.14	-10.08	T7	-0.07	-10.32	501.9	0	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	4.9469	257.4	100.0	100.0	TRUE	-5.40
T9+T8	T9	0.14	-9.67	T8	0.14	-9.98	497.7	0.001	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	5.6455	225.6	100.0	100.0	TRUE	-4.02
T10+T9	T10	0.07	-9.12	T9	0.14	-9.57	446.9	0.001	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	7.1784	177.4	100.0	100.0	TRUE	-2.81
T11+T10	T11	-0.24	-8.44	T10	0.07	-9.02	325.8	0.002	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	9.5439	133.4	100.0	100.0	TRUE	-1.99
T12+T11	T12	0.55	-8.25	T11	-0.24	-8.49	482.2	0	24	1	0.013	12.7352	4.05	4.05	2.00	12.7352	5.0468	252.3	100.0	100.0	TRUE	-0.66
T16+T33	T16	2.25	-6.5	T33	2.25	-6.55	66.2	0.001	17.8	1	0.01	2.7405	1.59	1.64	1.48	2.8154	3.6203	75.7	100.0	100.0	TRUE	0.45
T17+T34	T17	0.96	-5.84	T34	1.75	-6.3	407.1	0.001	21	1	0.013	9.9947	4.16	4.16	1.75	9.9947	5.3261	187.7	100.0	100.0	TRUE	0.56
T18+T17	T18	1.12	-5.23	T17	0.96	-5.79	540.4	0.001	21	1	0.013	9.9947	4.16	4.16	1.75	9.9947	5.1005	196.0	100.0	100.0	TRUE	0.66
T19+T36	T19	2.23	-4.72	T36	2.125	-4.74	6.3	0.003	21	1	0.013	7.1135	2.96	2.96	1.75	7.1135	8.9021	79.9	100.0	100.0	TRUE	0.78
T20+T19	T20	2.72	-4.06	T19	2.23	-4.62	331.9	0.002	18	1	0.013	3.9128	2.21	2.21	1.50	3.9128	4.3143	90.7	100.0	100.0	TRUE	0.80
T21+T20	T21	3.07	-3.99	T20	2.72	-4.06	338.4	0	21	1	0.013	3.8832	1.61	1.61	1.75	3.8832	2.2788	170.4	100.0	100.0	TRUE	0.82
T22+T37	T22	2.81	-3.24	T37	3	-3.63	191.4	0.002	21	1	0.01	3.8060	1.58	1.58	1.75	3.8061	9.2972	40.9	100.0	100.0	TRUE	0.85
T23+T22	T23	6.87	-3.03	T22	2.81	-3.24	373	0.001	18	1	0.013	3.8061	2.15	2.15	1.50	3.8061	2.4921	152.7	100.0	100.0	TRUE	1.01
T24+T23	T24	3.66	-2.69	T23	6.87	-2.93	316.7	0.001	18	1	0.013	3.6278	2.05	2.05	1.50	3.6278	2.8914	125.5	100.0	100.0	TRUE	1.26
T25+T24	T25	3.95	-2.59	T24	3.66	-2.62	282.2	0	18	1	0.013	3.6278	2.05	2.05	1.50	3.6279	1.0830	335.0	100.0	100.0	TRUE	1.49
T26+T25	T26	7.03	-2.32	T25	3.95	-2.52	305.6	0.001	18	1	0.013	3.1325	1.77	1.77	1.50	3.1325	2.6873	116.6	100.0	100.0	TRUE	1.64
T27+T26	T27	7.85	-2.05	T26	7.03	-2.22	355.8	0	18	1	0.013	3.1325	1.77	1.77	1.50	3.1325	2.2958	136.4	100.0	100.0	TRUE	1.83
T28+T27	T28	8.67	-1.93	T27	7.85	-1.95	162.1	0	18	1	0.013	3.1325	1.77	1.77	1.50	3.1325	1.1667	268.5	100.0	100.0	TRUE	1.85
T29+T28	T29	4.98	-1.62	T28	8.67	-1.93	233.8	0.001	18	1	0.013	3.1325	1.77	1.77	1.50	3.1325	3.8245	81.9	100.0	100.0	TRUE	1.94
T30+T12	T30	0.25	-7.24	T12	0.55	-8.25	285.1	0.004	24	1	0.01	12.7352	4.05	4.05	2.00	12.7352	17.5030	72.8	100.0	100.0	TRUE	-0.32
T31+T30	T31	2.05	-7.15	T30	0.25	-7.24	350.8	0	24.2	1	0.01	12.7352	3.98	3.98	2.02	12.7352	4.8253	263.9	100.0	100.0	TRUE	0.10
T32+T31	T32	1.25	-7.11	T31	2.05	-7.15	125.2	0	24.2	1	0.01	12.7352	3.99	3.99	2.02	12.7352	5.3740	237.0	100.0	100.0	TRUE	0.16
T33+Transition 1	T33	2.25	-6.55	Transition 1	#N/A	-24.75	157	0.116	17.8	2	0.01	12.7353	3.70	3.70	1.48	12.7352	89.7137	14.2	100.0	100.0	TRUE	0.44
T34+T33	T34	1.75	-6.3	T33	2.25	-6.55	76.4	0.003	17.8	1	0.01	9.9948	5.81	5.81	1.48	9.9948	7.5365	132.6	100.0	100.0	TRUE	0.48
T36+T18	T36	2.125	-4.74	T18	1.12	-5.23	493.7	0.001	21	1	0.013	9.9947	4.16	4.16	1.75	9.9947	4.9915	200.2	100.0	100.0	TRUE	0.75
T37+T21	T37	3	-3.63	T21	3.07	-3.99	83.4	0.004	21	1	0.01	3.8060	1.58	1.58	1.75	3.8060	13.5420	28.1	100.0	100.0	TRUE	0.84
Transition 1+Transition 2	Transition 1	#N/A	-24.75	Transition 2	#N/A	-24.75	143	0	17.8	2	0.01	12.7353	3.70	3.70	1.48	12.7352	0.2635	4833.2	100.0	100.0	TRUE	0.39
Transition 2+Transition 3	Transition 2	#N/A	-24.75	Transition 3	#N/A	-15.75	99	-0.091	17.8	2	0.01	12.7352	3.70	3.70	1.48	12.7352	79.4468	16.0	100.0	100.0	TRUE	0.26
Transition 3+T32	Transition 3	#N/A	-15.75	T32	1.25	-7.11	117.6	-0.073	17.8	2	0.01	12.7352	3.70	3.70	1.48	12.7352	71.4274	17.8	100.0	100.0	TRUE	0.23

Abbreviations
PWWF: Peak Wet Weather Flow
CFS: Cubic Feet per Second
ft: Feet
s: Seconds
in: Inches

APPENDIX E

CIP PROJECT SUMMARY SHEETS

Appendix E
Capital Improvement Project 1.1
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on Menalto Avenue, Poplar Avenue, Bay Road, and Elliot Drive.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 2,488,000	$ 124,400
2	Traffic Control	%	15%	$ 2,488,000	$ 373,200
3	Sheeting, Shoring, and Bracing	%	5%	$ 2,488,000	$ 124,400
4	8-inch DR 17 HDPE Pipe	lf	950	$ 400	$ 380,000
5	10-inch DR 17 HDPE Pipe	lf	2,218	$ 500	$ 1,109,000
6	12-inch DR 17 HDPE Pipe	lf	1,665	$ 600	$ 999,000
7	Manholes	ea	19	$ 11,000	$ 209,000
8	30% Contingency	%	30%	$ 3,319,000	$ 995,700
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 4,315,000**
Engineering and Administration Cost					
9	Design	%	10%	$ 4,315,000	$ 432,000
10	Environmental/Permitting	%	10%	$ 4,315,000	$ 432,000
11	Construction Management/Inspection	%	15%	$ 4,315,000	$ 647,000
12	District Administration	%	5%	$ 4,315,000	$ 216,000
Subtotal - Engineering and Administration Cost (3)					**$ 1,727,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 6,042,000**

Notes
(1) Projects will need Encroachment Permit with City of Menlo Park. Project will involve crossing Bayshore Freeway.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 1.2
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on Trunk Line in Creek, Beech Street, Larkspur, and Gardenia Ave.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 4,294,200	$ 214,710
2	Traffic Control	%	15%	$ 4,294,200	$ 644,130
3	Sheeting, Shoring, and Bracing	%	5%	$ 4,294,200	$ 214,710
4	8-inch DR 17 HDPE Pipe	lf	272	$ 400	$ 108,801
5	12-inch DR 17 HDPE Pipe	lf	179	$ 600	$ 107,241
6	16-inch DR 17 HDPE Pipe	lf	533	$ 900	$ 480,091
7	30-inch DR 17 HDPE Pipe	lf	1,684	$ 2,550	$ 4,294,200
8	Manholes	ea	14	$ 11,000	$ 154,000
9	30% Contingency	%	30%	$ 6,217,882	$ 1,865,365
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 8,083,000**
Engineering and Administration Cost					
10	Design	%	10%	$ 8,083,000	$ 808,000
11	Environmental/Permitting	%	10%	$ 8,083,000	$ 808,000
12	Construction Management/Inspection	%	15%	$ 8,083,000	$ 1,212,000
13	District Administration	%	5%	$ 8,083,000	$ 404,000
Subtotal - Engineering and Administration Cost (3)					**$ 3,232,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 11,315,000**

Notes
(1) Environmental Permits will be required. Trunk Line improvements are located on Creek. Coordination will be required for PG&E gas line.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.1
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on Bayshore Road, Donohoe Street, Cooley Ave, and O'Connor Street.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 3,158,400	$ 157,920
2	Traffic Control	%	15%	$ 3,158,400	$ 473,760
3	Sheeting, Shoring, and Bracing	%	5%	$ 3,158,400	$ 157,920
4	8-inch DR 17 HDPE Pipe	lf	759	$ 400	$ 303,600
5	10-inch DR 17 HDPE Pipe	lf	398	$ 500	$ 199,000
6	12-inch DR 17 HDPE Pipe	lf	1,029	$ 600	$ 617,400
7	24-inch DR 17 HDPE Pipe	lf	1,274	$ 1,600	$ 2,038,400
8	Manholes	ea	14	$ 11,000	$ 154,000
9	30% Contingency	%	30%	$ 4,102,000	$ 1,230,600
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 5,333,000**
Engineering and Administration Cost					
10	Design	%	10%	$ 5,333,000	$ 533,000
11	Environmental/Permitting	%	10%	$ 5,333,000	$ 533,000
12	Construction Management/Inspection	%	15%	$ 5,333,000	$ 800,000
13	District Administration	%	5%	$ 5,333,000	$ 267,000
Subtotal - Engineering and Administration Cost (3)					**$ 2,133,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 7,466,000**

Notes
(1) Project will involve crossing Bayshore Freeway. Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.2
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on University Avenue, Runnymede Street, Clarke Avenue, and Beech Street.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 4,190,650	$ 209,533
2	Traffic Control	%	15%	$ 4,190,650	$ 628,598
3	Sheeting, Shoring, and Bracing	%	5%	$ 4,190,650	$ 209,533
4	10-inch DR 17 HDPE Pipe	lf	1,064	$ 500	$ 532,000
5	12-inch DR 17 HDPE Pipe	lf	2,209	$ 600	$ 1,325,400
6	30-inch DR 17 HDPE Pipe	lf	915	$ 2,550	$ 2,333,250
7	Manholes	ea	13	$ 11,000	$ 143,000
8	30% Contingency	%	30%	$ 5,381,313	$ 1,614,394
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 6,996,000**
Engineering and Administration Cost					
9	Design	%	10%	$ 6,996,000	$ 700,000
10	Environmental/Permitting	%	10%	$ 6,996,000	$ 700,000
11	Construction Management/Inspection	%	15%	$ 6,996,000	$ 1,049,000
12	District Administration	%	5%	$ 6,996,000	$ 350,000
Subtotal - Engineering and Administration Cost (3)					**$ 2,799,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 9,795,000**

Notes
(1) Project will include coordination with PG&E on gas line on Beech Street.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.3
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on Trunk Line in Creek.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 7,601,550	$ 380,078
2	Traffic Control	%	15%	$ 7,601,550	$ 1,140,233
3	Sheeting, Shoring, and Bracing	%	5%	$ 7,601,550	$ 380,078
4	30-inch DR 17 HDPE Pipe	lf	2,981	$ 2,550	$ 7,601,550
5	Manholes	ea	17	$ 11,000	$ 187,000
6	30% Contingency	%	30%	$ 9,688,938	$ 2,906,681
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 12,596,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 12,596,000	$ 1,260,000
8	Environmental/Permitting	%	10%	$ 12,596,000	$ 1,260,000
9	Construction Management/Inspection	%	15%	$ 12,596,000	$ 1,889,000
10	District Administration	%	5%	$ 12,596,000	$ 630,000
Subtotal - Engineering and Administration Cost (3)					**$ 5,039,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 17,635,000**

Notes
(1) Environmental Permits will be required. Trunk Line improvements are located on Creek.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.4
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on Bay Road and Pulgas Avenue.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 3,987,550	$ 199,378
2	Traffic Control	%	15%	$ 3,987,550	$ 598,133
3	Sheeting, Shoring, and Bracing	%	5%	$ 3,987,550	$ 199,378
4	8-inch DR 17 HDPE Pipe	lf	442	$ 400	$ 176,800
5	10-inch DR 17 HDPE Pipe	lf	262	$ 500	$ 131,000
6	24-inch DR 17 HDPE Pipe	lf	1,750	$ 1,600	$ 2,800,000
7	30-inch DR 17 HDPE Pipe	lf	345	$ 2,550	$ 879,750
8	Manholes	ea	11	$ 11,000	$ 121,000
9	30% Contingency	%	30%	$ 5,105,438	$ 1,531,631
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 6,637,000**
Engineering and Administration Cost					
10	Design	%	10%	$ 6,637,000	$ 664,000
11	Environmental/Permitting	%	10%	$ 6,637,000	$ 664,000
12	Construction Management/Inspection	%	15%	$ 6,637,000	$ 996,000
13	District Administration	%	5%	$ 6,637,000	$ 332,000
Subtotal - Engineering and Administration Cost (3)					**$ 2,656,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 9,293,000**

Notes
(1) Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.5
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on Maple Lane.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 580,500	$ 29,025
2	Traffic Control	%	15%	$ 580,500	$ 87,075
3	Sheeting, Shoring, and Bracing	%	5%	$ 580,500	$ 29,025
4	10-inch DR 17 HDPE Pipe	lf	1,161	$ 500	$ 580,500
5	Manholes	ea	4	$ 11,000	$ 44,000
6	30% Contingency	%	30%	$ 769,625	$ 230,888
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 1,001,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 1,001,000	$ 100,000
8	Environmental/Permitting	%	10%	$ 1,001,000	$ 100,000
9	Construction Management/Inspection	%	15%	$ 1,001,000	$ 150,000
10	District Administration	%	5%	$ 1,001,000	$ 50,000
Subtotal - Engineering and Administration Cost (2)					**$ 400,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 1,401,000**

Notes
(1) See Table 1 and Figure 1 for limits of improvements.
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.6
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacement on O'Connor Street. Project will also include 11 Smart Cover Meters to be installed similar to the subbasin locations notated in V&A Flow Monitoring Study.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 504,600	$ 25,230
2	Traffic Control	%	15%	$ 504,600	$ 75,690
3	Sheeting, Shoring, and Bracing	%	5%	$ 504,600	$ 25,230
4	12-inch DR 17 HDPE Pipe	lf	841	$ 600	$ 504,600
5	SmartCovers	ea	11	$ 6,500	$ 71,500
6	Manholes	ea	5	$ 11,000	$ 55,000
7	30% Contingency	%	30%	$ 757,250	$ 227,175
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 984,000**
Engineering and Administration Cost					
8	Design	%	10%	$ 984,000	$ 98,000
9	Environmental/Permitting	%	10%	$ 984,000	$ 98,000
10	Construction Management/Inspection	%	15%	$ 984,000	$ 148,000
11	District Administration	%	5%	$ 984,000	$ 49,000
Subtotal - Engineering and Administration Cost (3)					**$ 393,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 1,377,000**

Notes
(1) Project will require coordination for two 24-inch PG&E Gas Main Transmissions. Project will also reinstate City's Flow Monitoring Program.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 2.7
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: New Parallel Trunk Line within San Francisquito Creek on Palo Alto Golf Course.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 2,510,400	$ 125,520
2	Traffic Control	%	15%	$ 2,510,400	$ 376,560
3	Sheeting, Shoring, and Bracing	%	5%	$ 2,510,400	$ 125,520
4	24-inch DR 17 HDPE Pipe	lf	1,569	$ 1,600	$ 2,510,400
5	Manholes	ea	6	$ 11,000	$ 66,000
6	30% Contingency	%	30%	$ 3,204,000	$ 961,200
Subtotal - Conceptual Opinion of Probable Construction Cost (3)					**$ 4,165,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 4,165,000	$ 417,000
8	Environmental/Permitting	%	10%	$ 4,165,000	$ 417,000
9	Construction Management/Inspection	%	15%	$ 4,165,000	$ 625,000
10	District Administration	%	5%	$ 4,165,000	$ 208,000
Subtotal - Engineering and Administration Cost (3)					**$ 1,667,000**
Total Conceptual Opinion of Probable Project Cost (3)					**$ 5,832,000**

Notes
(1) Project should be re-evaluated on a yearly basis. As project scope on developments may be reduced/removed.
(2) See Figure A for limits of improvement
(3) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 3.1
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipeline Replacements on Dumbarton Avenue, Palo Verde Way, and Lilac Lane.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 714,349	$ 35,717
2	Traffic Control	%	15%	$ 714,349	$ 107,152
3	Sheeting, Shoring, and Bracing	%	5%	$ 714,349	$ 35,717
4	8-inch DR 17 HDPE Pipe	lf	1,786	$ 400	$ 714,349
5	Manholes	ea	8	$ 11,000	$ 88,000
6	30% Contingency	%	30%	$ 980,937	$ 294,281
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 1,275,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 1,275,000	$ 128,000
8	Environmental/Permitting	%	10%	$ 1,275,000	$ 128,000
9	Construction Management/Inspection	%	15%	$ 1,275,000	$ 191,000
10	District Administration	%	5%	$ 1,275,000	$ 64,000
Subtotal - Engineering and Administration Cost (2)					**$ 511,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 1,786,000**

Notes
(1) See Figure A for limits of improvement
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 3.2
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipe Replacements on Garden Street, Clarke Avenue, Pulgas Avenue, Woodland Avenue, and Bayshore Road.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 648,673	$ 32,434
2	Traffic Control	%	15%	$ 648,673	$ 97,301
3	Sheeting, Shoring, and Bracing	%	5%	$ 648,673	$ 32,434
4	8-inch DR 17 HDPE Pipe	lf	1,622	$ 400	$ 648,673
5	10-inch DR 17 HDPE Pipe	lf	277	$ 500	$ 138,706
6	Manholes	ea	11	$ 11,000	$ 121,000
7	30% Contingency	%	30%	$ 1,070,547	$ 321,164
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 1,392,000**
Engineering and Administration Cost					
8	Design	%	10%	$ 1,392,000	$ 139,000
9	Environmental/Permitting	%	10%	$ 1,392,000	$ 139,000
10	Construction Management/Inspection	%	15%	$ 1,392,000	$ 209,000
11	District Administration	%	5%	$ 1,392,000	$ 70,000
Subtotal - Engineering and Administration Cost (2)					**$ 557,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 1,949,000**

Notes
(1) See Figure A for limits of improvement
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 3.3
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

Project Description: Pipe Replacements on Glen Way and Capitol Avenue.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 570,088	$ 28,504
2	Traffic Control	%	15%	$ 570,088	$ 85,513
3	Sheeting, Shoring, and Bracing	%	5%	$ 570,088	$ 28,504
4	8-inch DR 17 HDPE Pipe	lf	1,425	$ 400	$ 570,088
5	Manholes	ea	5	$ 11,000	$ 55,000
6	30% Contingency	%	30%	$ 767,610	$ 230,283
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 998,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 998,000	$ 100,000
8	Environmental/Permitting	%	10%	$ 998,000	$ 100,000
9	Construction Management/Inspection	%	15%	$ 998,000	$ 150,000
10	District Administration	%	5%	$ 998,000	$ 50,000
Subtotal - Engineering and Administration Cost (2)					**$ 400,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 1,398,000**

Notes
(1) See Figure A for limits of improvement
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Appendix E
Capital Improvement Project 3.4
Conceptual OPPC
2025 Sewer System Master Plan
East Palo Alto, California

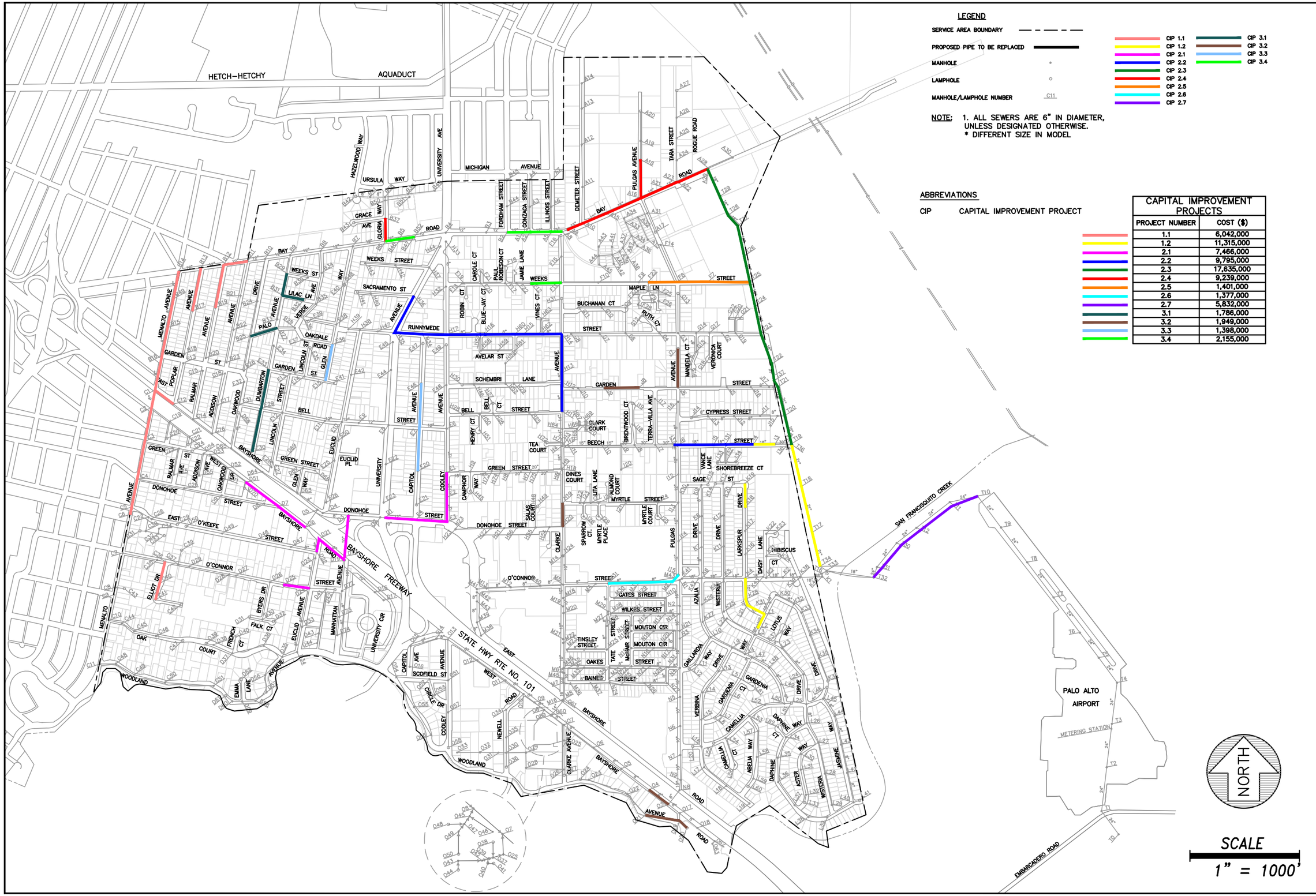
Project Description: Pipe Replacements on Bay Road and Weeks Street.

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 859,162	$ 42,958
2	Traffic Control	%	15%	$ 859,162	$ 128,874
3	Sheeting, Shoring, and Bracing	%	5%	$ 859,162	$ 42,958
4	8-inch DR 17 HDPE Pipe	lf	355	$ 400	$ 142,082
5	16-inch DR 17 HDPE Pipe	lf	659	$ 900	$ 592,798
6	18-inch DR 17 HDPE Pipe	lf	124	$ 1,000	$ 124,283
7	Manholes	ea	10	$ 11,000	$ 110,000
8	30% Contingency	%	30%	$ 1,183,952	$ 355,186
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 1,539,000**
Engineering and Administration Cost					
9	Design	%	10%	$ 1,539,000	$ 154,000
10	Environmental/Permitting	%	10%	$ 1,539,000	$ 154,000
11	Construction Management/Inspection	%	15%	$ 1,539,000	$ 231,000
12	District Administration	%	5%	$ 1,539,000	$ 77,000
Subtotal - Engineering and Administration Cost (2)					**$ 616,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 2,155,000**

Notes
(1) See Figure A for limits of improvement
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

OVERALL - CIP PROJECTS
2025 SEWER SYSTEM MASTER PLAN
EAST PALO ALTO, CA



LEGEND

- SERVICE AREA BOUNDARY
- PROPOSED PIPE TO BE REPLACED
- MANHOLE
- LAMPHOLE
- MANHOLE/LAMPHOLE NUMBER C11

CIP 1.1, CIP 1.2, CIP 2.1, CIP 2.2, CIP 2.3, CIP 2.4, CIP 2.5, CIP 2.6, CIP 2.7, CIP 3.1, CIP 3.2, CIP 3.3, CIP 3.4

NOTE: 1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.
* DIFFERENT SIZE IN MODEL

ABBREVIATIONS

CIP CAPITAL IMPROVEMENT PROJECT

CAPITAL IMPROVEMENT PROJECTS	
PROJECT NUMBER	COST ($)
1.1	6,042,000
1.2	11,315,000
2.1	7,466,000
2.2	9,795,000
2.3	17,635,000
2.4	9,239,000
2.5	1,401,000
2.6	1,377,000
2.7	5,832,000
3.1	1,786,000
3.2	1,949,000
3.3	1,398,000
3.4	2,155,000

NORTH

SCALE
1" = 1000'

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DATE:	06/20/2025
SCALE:	1" = 1000'
DESIGNED:	ZG
DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
A

JOB NO.
221009

APPENDIX F

IMPACT FEE MEMORANDUM

Impact Fee Memorandum

Re:	East Palo Alto – Sewer Fee Determination
Date:	June 20 2025
To:	Richard Perez, City of East Palo Alto
	Humza Javed, P.E. City of East Palo Alto
From:	Greg Arifian P.E., Freyer & Laureta, Inc.
	Rheanna Ostrea, Freyer & Laureta, Inc.
	Zoe Gnass, Freyer & Laureta, Inc.
Reviewed:	Jeffrey Tarantino, P.E., Freyer & Laureta, Inc.

1 Introduction

Freyer and Laureta, Inc. (F&L) has prepared this memorandum to outline the proposed Sanitary Sewer Capital Improvement Program (CIP) identified in the 2025 Sewer System Master Plan for the East Palo Alto Sanitary District's (EPASD). The memorandum serves as a comprehensive guide to address existing infrastructure deficiencies and accommodate future development needs.

The memorandum discusses the following information:

- Improvements needed to improve the overall reliability and resiliency of the existing sanitary sewer collection system.
- Improvements needed necessary to support future development as approved by the City of East Palo Alto (City).
- Proportional allocation of improvements costs between existing and future customers.
- Development of an impact fee for new developments requiring sanitary sewer service.
- CIPs identified within the 2025 Sewer System Master Plan (2025 Master Plan)
- Potential cash flow scenarios for each CIP alternative to evaluate potential adjustments to the Annual Sewer Charge (ASC), which may be required and subject to a future and separate Proposition 218 process.

The analysis shows that the costs for existing customers are based on the repair and replacement costs of the existing system while the developers will pay the costs for expanding the sewer system to accommodate new development. The CIP projects identified for existing infrastructure will be repaired or maintained by a combination of public financing, existing ratepayers, and new developments.

2 2025 Master Plan Analysis

The 2025 Master Plan involved hydraulic modeling and condition assessments to recommend improvements addressing identified system deficiencies. Improvements were categorized into four groups to develop the CIP projects based on the type of deficiency:

- Category 1 - Existing Pipe Capacity Deficiencies: Improvements to address current hydraulic capacity deficiencies under present-day flow conditions. Approximately 7,285 linear feet (LF) of pipe require upsizing to meet the minimum four-foot freeboard criteria for surcharging under Peak Wet Weather Flow (PWWF).

- Category 2 - Future Pipe Capacity Deficiencies: Improvements to address projected capacity constraints due to future growth and development. Approximately 13,848 LF of pipe must be upsized under PWWF to accommodate anticipated increases in flow.

- Category 3 - Pipe Structural Deficiencies: Improvements to address physical structural defects identified through closed-circuit television (CCTV) inspections. Approximately 9,796 LF of pipes are identified as structurally deficient and prioritized for replacement.

- Category 4 - Remaining Sewer System: Improvements to address the remaining pipes within the collection system. Approximately 142,928 LF of pipe is recommended for phased replacement over a 20-year planning period to ensure long-term serviceability.

3 Impact Fee – Calculation Methodology

3.1 Developer's Share of Capacity Assurance

An evaluation of hydraulic capacity improvements from Category 1 and Category 2 was conducted to determine the proportionate cost responsibility for new development. The capacity assessment identified shared infrastructure upgrades that benefit both existing and future users. The analysis was performed based on pipe sizing requirements and projected flow contributions.

3.1.1 Category 1: Existing Capacity Improvements

A portion of Category 1 improvements were identified as shared infrastructure upgrades that benefit both existing and future users. The analysis for proportionate cost responsibility was compared to the overall cost for Category 1 CIP projects. The total estimated cost for Category 1 CIP projects is approximately $17.7 million. The list of Category 1 pipes to be improved is listed in **Table 1** and the Conceptual Opinion of Probable Project Cost (OPPC) is in **Table 2.**

Approximately 1,684 linear feet (LF) of pipeline improvements identified in Category 1 were determined to serve both existing and future capacity needs and the shared benefit segments are illustrated in **Figure 1**.

3.1.2 Beech Street Improvements

The Beech Street segment shown in Figure 1 requires different pipe sizes under existing and future scenarios. For existing capacity improvements under Category 1, the proposed pipe diameter is 24-inch HDPE while future development under Category 2 necessitates an increase to 30-inch HDPE. A planning-level OPPC was prepared for both diameters, with the cost difference attributed to the upsizing totaling approximately $524,000. The differential cost between Category 1 and Category 2 improvements represents the portion of the improvement cost assignable to future development. The cost breakdown is presented in **Table 3**.

3.1.3 Trunk Line Improvements

In contrast, the trunk line improvements require the same pipe size under both existing and future scenarios. Therefore, a flow-based cost allocation method was used. The system currently has an existing average dry weather flow (ADWF) capacity of approximately 1.56 million gallons per day (MGD). Future development is projected to increase flows by an equivalent amount, 1.84 MGD, which approximately increases the total flow within the system by more than half. As a result, the cost of the trunk line improvements is allocated equally (50/50) between existing and future customers.

The total OPPC for the trunk line improvements is estimated at $8,440,000, with $4,220,000 assigned to new development. The OPPC for the trunk line improvement is in **Table 4**.

3.1.4 Summary Cost Analysis

Based on both the pipe sizing and flow-based analyses, the portion of Category 1 improvements that benefit new development is estimated to be approximately **25%**. The full cost allocation summary is shown in **Table 5**.

3.2 Developer's Improvement

Category 2 solely focuses on addressing projected capacity constraints driven by future growth and development. As these improvements will be pipe size upgrades driven by developers, the cost of these improvements will be accounted for in the development's connection fees. The total OPC for the trunk line improvements is estimated at $49,046,000. The list of pipes to be upsized is in **Table 6** and the OPC for the Category 2 projects is presented in **Table 7**.

4 Proposed Development Impacts

4.1 Anticipated Developments

The City provided a list of developments planned for the 2025/26 fiscal year. Additionally, the Master Plan identified other planned developments that have been approved or are in planning with City. The known developments have been assumed to be within the 2026/27 and 2027/28 fiscal years. The list, along with the anticipated number of residential units or square feet of commercial, industrial, or office space, is shown in **Table 8**.

Table 9 calculates the Equivalent Dwelling Units (EDUs) that are associated with each the anticipated developments. EPASD utilizes the EDUs to calculate the Impact Fee.

5 Impact Fee

As part of the ongoing development of the Master Plan and identification of new CIP projects, EPASD intends to update its impact fee to accurately reflect the costs associated with planned system improvements and infrastructure expansion. .

This fee has been calculated based on the following cost components:

- Developer's Share of Capacity Assurance: Approximately 25 percent of the costs associated with existing capacity assurance improvements, which are expected to provide benefits to new development.
- Developer's Improvement: 100 percent of the costs related to capacity deficiencies that are directly attributable to new development demands.
- Buy-In Treatment Cost: A buy-in cost of $5 million per 1.0 million gallons per day (MGD) of treatment capacity, representing the proportional reimbursement by developers for the available capacity at the PAWRQCP.

The calculation method used to determine the fee is presented in **Table 10**. The impact fee developed is $7,800. A regular review of the impact fee should be completed to ensure that the impact fee reflects the costs incurred to accommodate City-approved developments.

6 Proposed Operating and Maintenance Plan

The City has contracted with West Bay Sanitary District (WBSD) to operate and maintain the collection system. The collection system will continue to operate in accordance with Statewide SSO Waste Discharge Requirements and RWQCB Sewer System Management Plan guidelines. WBSD and the City has an agreement for the Operation and Maintenance of Sewer Collection System, the annual budget in the 2024/25 fiscal year was $1,724,120. Per email

from Richard Perez on April 24, 2025, the current annual contract is $1,799,152, which is an increase of 4.37% from the previous year. **Table 11** presents the operating expenses for the EPASD collection system.

In addition to the labor costs for operating the collection system, EPASD contributes the operating and capital costs for the Palo Alto (Regional Water Quality Control Plant PARWQCP) as outlined in the existing agreement. In reviewing the *East Palo Alto Sanitary District, 2019 Sewer Rate Study (Rate Study)*, F&L identified that the study included a summary of anticipated treatment operation, capital, and debt service costs. We have summarized the anticipated costs for PARWQCP treatment and capital improvements in **Table 12**.

7 Capital Improvement Projects

The 2025 Master Plan identified recommendations for Capital Improvement Program (CIP) projects, based on the four categories. The CIP projects were developed and grouped primarily according to their pipeline Category. However, in several cases, CIP improvements with different categories will be addressed in the same project due to overlap or immediate proximity. Below is a summary of the project Groups. A summary of the CIP project identified in the 2025 Master Plan can be seen in **Table 13**.

8 Annual Budget Cash Flow

F&L evaluated the year over year cash flow for operations and improvements of the sanitary sewer collection system. **Table 14** presents F&L's cash flow project for five fiscal years beginning with Fiscal Year 2025/26. The cash flow analysis includes the following key items:

- The Annual Sewer Charge (ASC) is set at $660. Per information from EPASD, the service charge is not expected to increase this fiscal year. It is recommended that a five-percent annual escalation be applied to reflect current economic conditions and the anticipated annual repair and replacement program to address the deficiencies identified in the EPASD CCTV TM.
- The proposed impact fee is to be $7,800 per EDU, similar to the ASC, and an annual 5-percent escalation is applied.
- The total number of anticipated new EDUs for each fiscal year is provided based on the information presented in **Table 9**.
- The total number of connected EDUs is also provided, including accounting for new EDUs that were assumed to be added during each fiscal year. The City shall confirm for EPASD the EDUs to be added each fiscal year.
- The beginning reserve fund balance is $23 million as provided by the EPASD.
- Category 4 pipes for the remaining sewer system assets not currently identified as hydraulically or structurally deficient but nearing the end of their expected service life. These pipes are recommended for phased replacement over a 20-year period to maintain system integrity and service reliability.
- Revenues include the ASC, connection fees, property taxes presented in the EPASD Rate Study, ERAF Rebate/Former RDAF presented in the EPASD Rate Study, and interest earned on reserve funds.
- Expenses including labor and other operating expenses for the collection system, Sewer Rehab Improvements to fund annual point repair projects, Category 4 Improvements, PAWRQCP annual treatment costs, EPASD share of existing PARWQCP debt service, EPASD share of project PARWQCP debt service, and EPASD 2011 SRF Loan debt service presented in the EPASD Rate Study.

For each fiscal year, the project expenses are projected revenues are calculated and presented. If expenses in a given fiscal year are greater than the project revenues, the Reserve Funds are used to balance the expenses and revenues. In utilizing portions of the existing Reserve Funds each fiscal year, the existing customers' contributions to the reserves over the prior years are utilized to fund the CIPs for the existing deficiencies.

At the end of the five-year evaluation period, the projected Reserve Fund balance is $2.4 Million. As EPASD receives its revenue payments twice per year as part of the property tax collection, sufficient reserves to fund at least six months of operation are suggested. The cash flow evaluation presented in **Table 14** maintains a minimum of 12-months of Reserve Funds for each given fiscal year.

The cash flow review above will be impacted by the Operating & Maintenance expenses, PARWQCP Treatment Expenses, and projected developments. If additional information on the actual Reserve Fund balance becomes available, the cash flow analysis will be updated.

Attachments:

Tables:

- Table 1: Category 1 Improvement Pipes
- Table 2: Category 1 OPC
- Table 3: Beech Street Improvement Comparison OPC
- Table 4: Trunk Line Improvement OPC
- Table 5: Developer's Share of Capacity Assurance
- Table 6: Category 2 Improvement Pipes
- Table 7: Category 2 OPC
- Table 8: Proposed Developments: Anticipated Completion Prior to FY 2027/2028
- Table 9: Equivalent Dwelling Units Over the Next Five Fiscal Years
- Table 10: Impact Fee Calculation
- Table 11: Estimated Annual Operating & Maintenance Expenses
- Table 12: PARWQCP Treatment Expenses Calculation
- Table 13: CIP Project Summary
- Table 14: Wastewater Enterprise Fund Cash Flow Projections

Figures

- Figure 1: Shared Capacity Improvements

Table 1
Category 1 Improvement Pipes
Sewer Impact Fee Memorandum
East Palo Alto, California

Segment	Length (Feet)	Existing Diameter (Inches)	Proposed Diameter (Inches)
B15+B49	331	8	12
B16+B15	327	8	12
B19+B12	500	6	10
B49+B14	328	8	12
C1+B16	402	8	12
C2+C1	204	8	10
C3+C2	398	6	10
C4+C3	436	6	10
C5+C4	328	6	10
C6+C5	87	6	10
C12+C1	265	6	10
D7+D6	398	6	10
H34+H17	269	6	10
H35+H34	322	6	10
H36+H35	474	6	10
I4+I3	243	18	30
K28+K4	242	10	16
L1+L21	223	10	16
L21+K28	68	10	16
T17+T34	407	21	30
T18+T17	540	21	30
T36+T18	494	21	30

Notes
(1) Category 1 Improvements are from EPASD 2025 Master Plan.

Abbreviations
PWWF: Peak Wet Weather Flow

Table 2
Category 1 OPPC
Sewer Impact Fee Memorandum
East Palo Alto, California

Item No.	Description	Units	Quantity (2)	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 7,446,563	$ 372,328
2	Traffic Control	%	15%	$ 7,446,563	$ 1,116,985
3	Sheeting, Shoring, and Bracing	%	5%	$ 7,446,563	$ 372,328
4	10-inch DR 17 HDPE Pipe	lf	3,680	$500	$ 1,840,055
5	12-inch DR 17 HDPE Pipe	lf	1,388	$600	$ 832,715
6	16-inch DR 17 HDPE Pipe	lf	533	$900	$ 480,091
7	30-inch DR 17 HDPE Pipe	lf	1,684	$2,550	$ 4,293,703
8	Manholes	ea	29	$ 11,000	$ 319,000
9	30% Contingency	%	30%	$ 9,627,204	$ 2,888,161
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 12,515,000**
Engineering and Administration Cost					
10	Design	%	10%	$ 12,515,000	$ 1,252,000
11	Environmental/Permitting	%	10%	$ 12,515,000	$ 1,252,000
12	Construction Management/Inspection	%	15%	$ 12,515,000	$ 1,877,000
13	District Administration	%	5%	$ 12,515,000	$ 626,000
Subtotal - Engineering and Administration Cost (2)					**$ 5,007,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 17,522,000**

Notes

(1) Category 1 Improvements are from EPASD 2025 Master Plan.

(2) Costs rounded to nearest $1,000.

Abbreviations

DR: dimension ration

HDPE: high density polyethylene

OPPC: opinion of probable project cost

Table 3
Beech Street OPPC Improvement Comparison
Sewer Impact Fee Memorandum
East Palo Alto, California

2025 - Beech Street Improvement

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 388,213	$ 19,411
2	Traffic Control	%	15%	$ 388,213	$ 58,232
3	Sheeting, Shoring, and Bracing	%	5%	$ 388,213	$ 19,411
4	24-inch DR 17 HDPE Pipe	lf	243	$ 1,600	$ 388,213
5	Manholes (3)	ea	2	$ 11,000	$ 22,000
6	30% Contingency	%	30%	$ 507,266	$ 152,180
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 659,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 659,000	$ 66,000
8	Environmental/Permitting	%	10%	$ 659,000	$ 66,000
9	Construction Management/Inspection	%	15%	$ 659,000	$ 99,000
10	District Administration	%	5%	$ 659,000	$ 33,000
Subtotal - Engineering and Administration Cost (2)					**$ 264,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 923,000**

2035 Enhanced - Beech Street Improvement

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 618,714	$ 30,936
2	Traffic Control	%	15%	$ 618,714	$ 92,807
3	Sheeting, Shoring, and Bracing	%	5%	$ 618,714	$ 30,936
4	30-inch DR 17 HDPE Pipe	lf	243	$2,550	$ 618,714
5	Manholes (3)	ea	2	$ 11,000	$ 22,000
6	30% Contingency	%	30%	$ 795,393	$ 238,618
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 1,034,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 1,034,000	$ 103,000
8	Environmental/Permitting	%	10%	$ 1,034,000	$ 103,000
9	Construction Management/Inspection	%	15%	$ 1,034,000	$ 155,000
10	District Administration	%	5%	$ 1,034,000	$ 52,000
Subtotal - Engineering and Administration Cost (2)					**$ 413,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 1,447,000**

OPCC Difference:	**$ 524,000**

Notes
(1) See Table 3 and Figure 2 for limits of improvements.
(2) Quantities rounded to nearest 10 feet.
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Table 4
Conceptual OPPC Trunkline Improvements (1)
Sewer Impact Fee Memorandum
East Palo Alto, California

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 3,674,988	$ 183,749
2	Traffic Control	%	15%	$ 3,674,988	$ 551,248
3	Sheeting, Shoring, and Bracing	%	5%	$ 3,674,988	$ 183,749
4	30-inch DR 17 HDPE Pipe	lf	1,441	$2,550	$ 3,674,988
5	Manholes (3)	ea	4	$ 11,000	$ 44,000
6	30% Contingency	%	30%	$ 4,637,736	$ 1,391,321
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 6,029,000**
Engineering and Administration Cost					
7	Design	%	10%	$ 6,029,000	$ 603,000
8	Environmental/Permitting	%	10%	$ 6,029,000	$ 603,000
9	Construction	%	15%	$ 6,029,000	$ 904,000
10	District Administration	%	5%	$ 6,029,000	$ 301,000
Subtotal - Engineering and Administration Cost (2)					**$ 2,411,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 8,440,000**

Notes
(1) See Figure 1 for limits of improvements.
(2) Costs rounded to nearest $1,000.

Abbreviations
DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Table 5
Developer's Share of Capacity Assurance
Sewer Impact Fee Memorandum
East Palo Alto, California

Capacity Assurance Cost	
Difference Pipe Size Change (1)	$ 524,000
50/50 Split on Developers Trunk Line (2)	$ 4,220,000
Total	$ 4,744,000
Category 1 - Existing Deficiency Costs (3)	$ 17,522,000
Shared Capacity of Developers (4)	27%

Notes
(1) See Table 3 for the cost required for upsizing.
(2) See Table 4 for Developers Trunk Line.
(3) See Table 1 for the Existing Cpacity deficiencies
(4) Shared Capacity cost for developers was determined by taking the total of the shared cost and dividing it by the overall total for the existing deficiency cost.

Table 6
Category 2 Improvement Pipes
Sewer Impact Fee Memorandum
East Palo Alto, California

Segment	Length (Feet)	Existing Diameter (Inches)	Proposed Diameter (Inches)
A9+A10	181	15	24
A10+A15	299	15	24
A15+A16	435	15	24
A16+A21	296	15	24
A21+A23	155	15	24
A23+A22	14	15	24
A22+A29	369	18	24
A29+T29	345	18	30
B37+B6	262	6	10
D1+E4	354	12	24
D21+D19	391	8	12
D22+D21	149	8	12
E2+E1	283	12	24
E3+E2	280	12	24
E4+E3	357	12	24
F7+T25	477	6	10
F8+F7	357	6	10
F23+F8	327	6	10
H12+H11	333	8	12
H13+H12	108	8	12
H14+H13	446	8	12
H15+H62	201	8	12
H16+H60	351	8	12
H17+H57	397	8	12
H57+H16	40	8	12
H60+H15	99	8	12
H62+H14	233	8	12
I5+I31	135	18	30
I6+I5	411	18	30
I31+I4	321	18	30
I37+I6	48	15	30
M2+M44	42	8	12
M3+M2	380	8	12
M31+M3	357	8	12
M44+I15	62	12	12
T11+T10	326	24	24
T12+T11	482	24	24
T19+T36	6	24	30
T20+T19	332	18	30
T21+T20	338	21	30
T22+T37	191	21	30
T23+T22	373	18	30
T24+T23	317	18	30
T25+T24	282	18	30
T26+T25	306	18	30
T27+T26	356	18	30
T28+T27	162	18	30
T29+T28	234	18	30
T30+T12	285	24	24
T31+T30	351	24.2	24
T32+T31	125	24.2	24
T37+T21	83	21	30

Abbreviations
PWWF: Peak Wet Weather Flow

Table 7
Category 2 OPPC
Sewer Impact Fee Memorandum
East Palo Alto, California

Item No.	Description	Units	Quantity	Unit Price	Budget
Conceptual Opinion of Probable Construction Cost					
1	Mobilization	%	5%	$ 21,030,484	$ 1,051,524
2	Traffic Control	%	15%	$ 21,030,484	$ 3,154,573
3	Sheeting, Shoring, and Bracing	%	5%	$ 21,030,484	$ 1,051,524
4	10-inch DR 17 HDPE Pipe	lf	1,423	$ 500	$ 711,723
5	12-inch DR 17 HDPE Pipe	lf	3,590	$ 600	$ 2,153,944
6	24-inch DR 17 HDPE Pipe	lf	4,593	$ 1,600	$ 7,348,965
7	30-inch DR 17 HDPE Pipe	lf	4,242	$ 2,550	$ 10,815,852
8	Manholes (3)	ea	60	$ 11,000	$ 660,000
9	30% Contingency	%	30%	$ 26,948,105	$ 8,084,432
Subtotal - Conceptual Opinion of Probable Construction Cost (2)					**$ 35,033,000**
Engineering and Administration Cost					
10	Design	%	10%	$ 35,033,000	$ 3,503,000
11	Environmental/Permitting	%	10%	$ 35,033,000	$ 3,503,000
12	Construction Management/Inspection	%	15%	$ 35,033,000	$ 5,255,000
13	District Administration	%	5%	$ 35,033,000	$ 1,752,000
Subtotal - Engineering and Administration Cost (2)					**$ 14,013,000**
Total Conceptual Opinion of Probable Project Cost (2)					**$ 49,046,000**

Notes

(1) Category 2 Improvements are from EPASD 2025 Master Plan.
(2) Costs rounded to nearest $1,000.

Abbreviations

DR: dimension ration
HDPE: high density polyethylene
OPPC: opinion of probable project cost

Table 8
Proposed Developments: Anticipated Completion Prior to FY 2027/2028 (1) (2)
Sewer Impact Fee Memorandum
East Palo Alto, California

Land-Use Category	Type	Projected Completed/In Construction (3)										FY 2025/2026 (4)								FY 2026/2027			
		2485 Pulgas Ave (Private Improvements)		Light Tree Apartments (1805 East Bayshore Road)		Mid-Pen Housing (965 Weeks)		University Plaza Phase 1		1950 Bay Road		2001 Manhattan (Woodland Parks)		717 Donohoe		990 Garden		1201 Runnymede		University Plaza Phase 2 (Sobrato Phase II) (5)		2331 University Ave (Clarum) (5)	
		Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed	Added	Removed
Residential (Units)	Single-Residential Multiple-Residential	51		94		131				63		551		14		6		20				33	
Commercial - Office (sf)	Office							165,915		74,435										203,967			
Commercial - Non-Office (sf)	Restaurant Hotel/Motel Commercial Medical School Church Recreational Retirement																			8,690		2,500	
Industrial (sf)	Industrial																						

Notes
(1) Proposed developments anticipated to be completed within the next five fiscal years and is subject to change.
(2) See Figure 2 for locations of proposed developments.
(3) Units and square footage are taken from the calculations in the 2025 Master Plan.
(4) Project list received by the District to be completed during the 2025/2026 fiscal year.
(5) EDU count and square footage information for proposed developments were found in Table 5 from the Sanitary Sewer CIP and Operations Memo by Freyer & Laureta, Inc dated November 2022.

Abbreviations
FY: fiscal year
sf: square feet

Table 9
Equivalent Dwelling Units Over the Next Five Fiscal Years (1)
Sewer Impact Fee Memorandum
East Palo Alto, California

Land-Use Category	Type	Flow, 2022-23 (hcf) (2)	EDU, 2022-23 (2) (3) (4)	Completed Project EDU, 2024-25 (4)	EDU, 2025-26 (4)	EDU, 2026-27 (4)	EDU, 2027-28 (4)
Residential (5)	Single-Residential	--	3,371	3,596	4,187	4,187	4,197
	Multiple-Residential	--	368	368	368	401	401
Commercial - Office (6)	Office	4,662	48	168	168	168	278
Commercial - Non-Office (6)	Restaurant	6,468	66	66	66	66	66
	Hotel/Motel	15,716	161	161	161	161	161
	Commercial	23,376	240	240	240	295	295
	Medical	1,296	13	13	13	13	13
	School	21,188	217	217	217	217	217
	Church	5,551	57	57	57	57	57
	Recreational	890	9	9	9	9	9
	Retirement	372	4	4	4	4	4
Industrial (6)	Industrial	2,976	30	30	30	30	30
Total (7) (8)	--	--	**4,584**	**4,930**	**5,521**	**5,609**	**5,729**

Notes

(1) The increase in Equivalent Dwelling Units (EDU) per year are based on the major proposed developments and their anticipated completion fiscal year.

(2) Number of residential units and flows for all other land uses for fiscal year 2022-23 are assumed to be the same as reported the EPASD "Sewer Service Charges Fiscal Year 2020-2021" report dated July 2020. The referenced report listed that there were a total of 38 customers "manually billed" but no flow or EDU information was provided for the 38 manually billed customers to allow inclusion in the development of projected EDUs.

(3) For non-residential land uses, the total number of equivalent EDUs is calculated by multiplying the flows in HCF by 748 gallons per hcf and then dividing by 200 gallons per EDU.

(4) Numbers of EDU are rounded to the nearest whole number.

(5) Both Single-Residential and Multiple-Residential are assumed to be one EDU per unit.

(6) The EDU calculations for Commercial and Industrial land-use categories use the commercial and industrial unit flows found in EPASD's Standard Specs B1.03-3 and B1.03-4.

(7) The EDU calculations use a rate of 200 gallons per day (gpd) per EDU.

(8) The calculated infiltration rate in EPASD's Standard Specs Section B1.03-5 was ignored since infiltration and inflow will be corrected as part of the PWWF improvements presented in Table 1 and improvements will utilized HDPE that will have fused pipe, which has a considerably lower infiltration rate.

Abbreviations

EDU: equivalent dwelling unit
EPASD: East Palo Alto Sanitary District
hcf: hundreds of cubic feet
HDPE: high density polyethylene
PWWF: peak wet weather flow

References

1. Sewer Service Charges, Fiscal Year 2020-2021 prepared by EPASD dated July 2020.

Table 10
Impact Fee Calculations
Sewer Impact Fee Memorandum
East Palo Alto, California

AT FULL BUILDOUT		
Projected Total ADWF Increase (gpd) (1)		1,560,000
Projected Total EDU Increase (2)		7800
Development Share of Cost of Capacity Assurance (3)	$	4,380,500
Total Cost of Improvements Due to Development (4)	$	49,046,000
Total Cost of Treatment (5)	$	7,800,000
Impact Fee per EDU(6)	**$**	**7,800**

Notes

(1) Projected Total ADWF Increase is from the EPASD 2025 Wastewater Masterplan.

(2) Projected Total EDU Increase was calculated using a rate of 200 gpd/EDU.

(3) The Development Share of the Cost of the Capacity Assurance is 25% of the costs presented in Table 2. The Capacity Assurance project reduce the potential for sanitary sewer overflows during peak wet weather flows that is a current system deficiency. However, implementing the Capacity Assurance project results in adding additional capacity for both average dry weather flow and peak dry weather flow that is a benefit to new development.

(4) See Table 7 for cost of improvements due to development.

(5) Total Cost of Treatment is based on EPASD reported cost of $5 million per 1.0 MGD of treatment capacity. It should be noted that EPASD current 7.96% ownership of the PARWQCP is equivalent to ADWF capacity of 3.06 MGD. The total project ADWF at full buildout is 3.3 MGD based on 200 gpd/EDU and 12,730 EDUs. Therefore, the Total Cost of Treatment presented above is for new development to buy-in to the available treatment capacity.

(6) Impact fee is calculated by dividing the total cost of improvements, capacity assurance, and treatment by the projected Total EDU increase and rounding to nearest $100.

Abbreviations

ADWF: Average Dry Weather Flow
EDUs: Equivalent Dwelling Units
gpd: gallons per day

Table 11
Estimated Annual Operating & Maintenance Expenses
Sewer Impact Fee Memorandum
East Palo Alto, California

	2024/25	2025/26	2026/27	2027/28	2028/29	2028/29
Cost Escalation		4.37%	4.37%	4.37%	4.37%	4.37%
Proposed Operating & Maintenance Expenses						
WBSD Contractual Amount (1)	$ 1,724,120	$ 1,799,000	$ 1,878,000	$ 1,960,000	$ 2,046,000	$ 2,135,000
EPASD Salaries Wages & Benefits		$ 400,000	$ 417,000	$ 435,000	$ 454,000	$ 474,000
Total Operating & Maintenance Expenses		$ 1,724,120	$ 2,199,000	$ 2,295,000	$ 2,395,000	$ 2,500,000

Notes

2024/25 fiscal year was $1,724,120. Per email from Richard Perez on April 24, 2025, the current annual contract is $1,799,152, which is an increase of 4.37% from the previous year. The same annual cost escalation of 4.37% is applied in each subsequent fiscal year following Fiscal Year 2024/25.
(2) Costs rounded to nearest $1,000.

Abbreviations

EPASD: East Palo Alto Sanitary District
WBSD: West Bay Sanitary District

Table 12
PARWQCP Treatment Expenses Calculation (1)
Sewer Impact Fee Memorandum
East Palo Alto, California

	2025/26	2026/27	2027/28	2028/29	2029/30
EPASD Share of PARWQCP (2)	7.64%	7.64%	7.64%	7.64%	7.64%
PARWQCP CAPITAL IMPROVEMENTS (3)					
Existing Debt Service	$ 128,000	$ 128,000	$ 128,000	$ 128,000	$ 128,000
Planned Debt Serve	$ 517,000	$ 517,000	$ 517,000	$ 517,000	$ 517,000
Total EPASD Share of Capital Improvements	**$ 645,000**	**$ 645,000**	**$ 645,000**	**$ 645,000**	**$ 645,000**
PARWQCP OPERATING EXPENSES (3)					
Treatment O&M	$ 2,412,000	$ 2,470,000	$ 2,546,000	$ 2,624,000	$ 2,703,000
Minor CIP Fund	$ 253,000	$ 26,000	$ 267,000	$ 274,000	$ 281,000
Total EPASD Share of Operating Expenses	**$ 2,665,000**	**$ 2,496,000**	**$ 2,813,000**	**$ 2,898,000**	**$ 2,984,000**
Total EPASD Share of Treatment Expenses	**$ 3,310,000**	**$ 3,141,000**	**$ 3,458,000**	**$ 3,543,000**	**$ 3,629,000**

Notes

(1) EPASD does not currently utilize its full 7.64% allocation of treatment capacity and therefore the annual PARWQCB operating costs do not reflect EPASD's full utilization of its capacity. As more EPASD EDUs are connected to the system, the annual rate adjustment is calculated by the proportionate increase in Total EPASD Connected EDUs to reflect the anticipated increase operating expenses.

(2) EPASD share of operating and capital expenses is from the PARWQCP Capital Program Finance Committee Meeting presentation dated 11/17/20, on page 10.

(3) All costs from Table 3 of the EPASD 2019 Sewer Capacity Rate Study dated April 17, 2019.

Abbreviations

EPASD: East Palo Alto Sanitary District
PARWQCP: Palo Alto Regional Water Quality Control Plant
EDUs: Equivalent Dwelling Units

References

1. PARWQCB Capital Program Finance Committee Meeting presentation can be accessed from the following link:
https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/reports/city-manager-reports-cmrs/year-archive/2020-2/11172020-item-2-presentation.pdf?t=74441.91
2. EPASD 2019 Sewer Rate Study dated April 17, 2019 can be accessed from the following link:
https://www.epasd.com/home/showpublisheddocument/3588/637116752736400000

Table 13
Overall – Proposed Capital Improvement Plan
Sewer Impact Fee Memorandum
East Palo Alto, California

Project #	Improvement Category Type (1)			Improvement Description	Proposed Pipe Sizes	Proposed Development (If applicable)	Project Priority	Approximate Length of Pipe (LF)	Projected OPPC ($)	Notes
1.1	1		3	Pipeline Replacement on Menalto Avenue, Poplar Avenue, Bay Road, and Elliot Drive	8-inch, 10-inch, 12-inch HDPE DR 17			4,833	$ 6,042,000	Projects will need Encroachment Permit with City of Menlo Park. Project will involve crossing Bayshore Freeway.
1.2	1			Pipeline Replacement on Trunk Line in Creek and Beech Street	30-inch HDPE DR 17			1,684	$ 9,910,000	Environmental Permits will be required. Trunk Line improvements are located on Creek.
1.3	1		3	Pipeline Replacement on Larkspur Drive and Gardenia Ave	8-inch, 12-inch, 16-inch HDPE DR 17			984	$ 1,724,000	Project will require coordination with PG&E for gas line.
2.0		2		11 Smart Cover Meters to be installed. Per V&A study in 2013, there were 11 sub-catch basin areas.	-			-	$ 134,000	Project will reinstate City's Flow Monitoring Program.
2.1	1	2	3	Pipeline Replacement on Bayshore Road, Donohoe Street, Cooley Ave, and O'Connor Street	8-inch, 10-inch, 12-inch, 24-inch HDPE DR 17	Woodland Parks (2001 Manhattan) & 2120-60 Euclid Avenue	See Note 2	3,460	$ 7,466,000	Project will involve crossing Bayshore Freeway. Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
2.2	1	2		Pipeline Replacement on University Avenue, Runnymede Street, Clarke Avenue, and Beech Street	10-inch, 12-inch HDPE DR 17	Woodland Parks (2001 Manhattan) & 2120-60 Euclid Avenue	See Note 2	4,188	$ 9,795,000	Project will include coordination with PG&E on gas line on Beech Street.
2.3		2		Pipeline Replacement on Trunk Line in Creek	30-inch HDPE DR 17	Ravenswood Area	See Note 2	2,981	$ 17,635,000	Environmental Permits will be required. Trunk Line improvements are located on Creek.
2.4		2	3	Pipeline Replacement on Bay Road and Pulgas Avenue	8-inch, 10-inch, 24-inch, 30-inch HDPE DR 17	2485 Pulgas Avenue (3) 2535 Pulgas Ave (Office) 2519 Pulgas Ave (Office) 1804 Bay Road 1675 Bay Road	See Note 2	2,799	$ 9,293,000	Project should be continued to be re-evaluated as structural deficiencies may be moved to a higher priority project if proposed development projects are not constructed soon.
2.5		2		Pipeline Replacement on Maple Lane	10-inch HDPE DR 17	Mid-Pen Housing (965 Weeks Street) (3)	See Note 2	1,161	$ 1,401,000	
2.6		2		Pipeline Replacement on O'Connor Street	12-inchHDPE DR 17	Light Tree Apartments (East Bayshore Road) (3)	See Note 2	841	$ 1,248,000	Project will require coordination for two 24-inch PG&E Gas Main Transmissions.
2.7		2		New Parallel Trunk Line within San Francisquito Creek on Palo Alto Golf Course	24-inch HDPE DR 17	Ravenswood Area	See Note 2	1,569	$ 5,832,000	Project should be re-evaluated on a yearly basis. As project scope on developments may be reduced/removed.
3.1			3	Pipeline Replacements on Dumbarton Avenue, Palo Verde Way, Lilac Lane, Flen Way, Capitol Avenue, Woodland Avenue, and Bayshore Road	8-inch, 10-inch HDPE DR 17			3,998	$ 4,061,000	
3.2			3	Pipe Replacements on Bay Road, Weeks Street, Garden Street, Clarke Avenue, and Pulgas Avenue	8-inch, 16-inch, 18-inch HDPE DR 17			2,431	$ 3,657,000	

(1) Category 2 projects that have Category 3 Structural Deficient projects should continue to be re-evaluated as the Category 3 pipes may move to a higher priority CIP project depending on development construction and the yearly CIP budget for rehabilitation projects.
(2) Project timeline will be dependent on when the proposed developments are constructed. City to assess every fiscal year.
(3) Developments have already been completed.

Table 14
Wastewater Enterprise Fund Cash Flow Projections
Sanitary Sewer Capital Improvement and Operation Plan Development
East Palo Alto, California

	2025/26	2026/27	2027/28	2028/29	2029/30
Overall Rate Adjustment	0%	5%	5%	5%	5%
Annual Sewer Charge (per EDU) (1)	$660	$693	$728	$764	$802
Connection Fee (per EDU) (2)	$7,800	$8,190	$8,600	$9,029	$9,481
Total New EDUs (3)	591	89	120	630	-
Total EDUs (3)	4,930	5,521	5,609	5,729	6,359
Interest Earnings Rate	0.5%	0.5%	0.5%	0.5%	0.5%
Beginning Reserve Funds (9)	**$23,000,000**	**$22,539,286**	**$14,132,274**	**$5,383,315**	**$5,222,232**
REVENUES					
Sewer Service Charges (4)	$3,253,486	$3,416,161	$4,017,010	$4,285,821	$4,596,380
Connection Fees (5)	$4,609,800	$728,500	$1,031,940	$5,688,569	$0
Property Taxes (6)	$521,000	$536,630	$552,729	$569,311	$586,390
ERAF Rebate/Former RDAF (6)	$300,000	$300,000	$300,000	$300,000	$300,000
Investment Earnings (7)	$115,000	$112,696	$70,661	$26,917	$26,111
Total Revenues	**$8,799,286**	**$5,093,988**	**$5,972,340**	**$10,870,618**	**$5,508,882**
EXPENSES					
Operating & Maintenance					
WBSD Contractual Amount (8)	$1,799,000	$1,878,000	$1,960,000	$2,046,000	$2,135,000
EPASD Salaries Wages & Benefits(8)	$400,000	$417,000	$435,000	$454,000	$474,000
PARWQCP Wastewater Treatment (6)	$2,665,000	$2,496,000	$2,813,000	$2,898,000	$2,984,000
Subtotal	**$4,864,000**	**$4,791,000**	**$5,208,000**	**$5,398,000**	**$5,593,000**
Capital & Other Non-Operating					
Category 3A Projects (9)	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000
Category 1 Projects (10)	$1,672,000	$5,986,000	$6,789,300	$2,909,700	$0
Subtotal	**$3,672,000**	**$7,986,000**	**$8,789,300**	**$4,909,700**	**$2,000,000**
Debt Service					
EPASD 2011 SRF Loan (6)	$79,000	$79,000	$79,000	$79,000	$79,000
Share of Existing PARWQCP Debt (6)	$128,000	$128,000	$128,000	$128,000	$128,000
Share of Projected PARWQCP Debt (6)	$517,000	$517,000	$517,000	$517,000	$517,000
Subtotal	**$724,000**	**$724,000**	**$724,000**	**$724,000**	**$724,000**
Total Expenses	**$9,260,000**	**$13,501,000**	**$14,721,300**	**$11,031,700**	**$8,317,000**
Revenues Less Expenses	**($460,714)**	**($8,407,012)**	**($8,748,960)**	**($161,082)**	**($2,808,118)**
Ending Reserve Fund	**$22,539,286**	**$14,132,274**	**$5,383,315**	**$5,222,232**	**$2,414,114**

Notes
(1) Proposed Annual Sewer Charge is shown as the rate for existing customers and will not increase for 2025/26. Information provied from Rich Perez via emaill on April 4, 2025.
(2) Proposed Connection Fee consists of a share of cost for capacity assurance and developers cost as shown in Table 10.
(3) See Table 9 for the current number of EDUs and estimate for annual increase in EDUs.
(4) Sewer Service Charges is calculated by multiplying Total EDUs by Annual Sewer Service Charge.
(5) Impact Fees is calculated by multiplying Total New EDUs by Impact Fee.
(6) Source of revenues and expenses is Table 4 of the East Palo Alto Sanitary District 2019 Sewer Rate Study prepared by Bartle Wells Associates dated April 17, 2019.
(7) Investment income is interest income on Beginning Fund Reserve.
(8) Operating & Maintenance Expenses are presented in Table 11.
(9) The City Sewer Rehab Improvement is an ongoing annual program to replace pipes that are found to be damaged or at the end of service life but not included Capacity Assurance Improvements or Developer Impact Capacity Improvements.
(10) Capacity Assurance Improvements is an annual expenditure to implement the improvements identified in Table 2 over a 15 year period. The design and construction will be completed in phases beginning in Fiscal Year 2024/25 once new development begins to come on line.
(11) Reserve Fund was stated to be $23 million as of June 30, 2024 per email by Tomohito Oku on April 25, 2025.

Abbreviations
EDUs: Equivalent Dwelling Units
EPASD: East Palo Alto Sanitary District
PARWQCP: Palo Alto Regional Water Quality Control Plant

References
1. East Palo Alto Sanitary District 2019 Sewer Rate Study prepared by Bartle Wells Associates dated April 17, 2019 can be accessed from the following link:
https://www.epasd.com/home/showpublisheddocument/3588/637116752736400000



LEGEND

- SERVICE AREA BOUNDARY
- PIPE SEGMENT WITH CATEGORY 1 DEFICIENCY (DEVELOPER SHARED COST)
- MANHOLE •C11
- LAMPHOLE °C11
- MANHOLE/LAMPHOLE NUMBER C11

NOTES:
1. ALL SEWERS ARE 6" IN DIAMETER, UNLESS DESIGNATED OTHERWISE.

NORTH

SCALE
1" = 1000'

SHARED CAPACITY IMPROVEMENTS
SEWER IMPACT FEE MEMORANDUM
EAST PALO ALTO, CA

FREYER & LAURETA, INC.
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
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DATE:	06/20/2025
SCALE:	1" = 1000'
DESIGNED:	ZG
DRAWN:	
CHECKED:	RO
PROJ. ENGR:	JTT

FIGURE
1

JOB NO.
221009

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