



**COTTONWOOD
CREEK
STORMWATER
ANALYSIS**

Wasilla, Alaska

June 2017



FINAL PROJECT REPORT

**COTTONWOOD CREEK STORMWATER ANALYSIS
MATANUSKA-SUSITNA BOROUGH, ALASKA**

MSB CONTRACT NO. 16-102P

Prepared for:

Matanuska Susitna Borough
Capital Projects Department
350 Dahlia Street
Palmer, Alaska 99645

Prepared by:

DOWL
705 South Bailey Street, Suite 200
Palmer, Alaska 99645
(907) 746-7600
Certificate of Authority No. AECL848

W.O. 62205

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LIST OF ACRONYMS (cont.)

ADF&G.....	Alaska Department of Fish and Game
ATV	all-terrain vehicle
DEC.....	Alaska Department of Environmental Conservation
DEM.....	Digital Elevation Model
DOT&PF.....	State of Alaska Department of Transportation and Public Facilities
EPA	United States Environmental Protection Agency
FY16	fiscal year 2016
FY17	fiscal year 2017
GI.....	Green Infrastructure
GIS.....	Geographic Information System
GPS	Global Positioning System
HSG.....	Hydrologic Soil Group
HUC.....	Hydrologic Unit Code
LiDAR.....	Light Detection and Ranging
MRLC	Multi-Resolution Land Characteristics Consortium
MSB	Matanuska-Susitna Borough
NCDC	National Climate Data Center
NLCD.....	National Land Cover Dataset
NOAA.....	National Oceanic and Atmospheric Administration
NRCS.....	Natural Resources Conservation Service
OGS.....	oil and grit separator
ROW.....	right-of-way
SWMM	Storm Water Management Model
TNC.....	The Nature Conservancy
WBD	Watershed Boundary Dataset
USDA.....	United States Department of Agriculture
USGS	United State Geological Survey

1.0 INTRODUCTION

1.1 History/Background







Cottonwood Creek is a valuable community asset as an anadromous waterbody, supporting diverse fish and wildlife, as well as a visible resource that extends through the center of Wasilla and flows into the Knik Arm of Cook Inlet (Figure 1). The City of Wasilla and the surrounding parts of the Matanuska-Susitna Borough (MSB) have experienced rapid population growth and development over the past several decades and a need for stormwater infrastructure has grown as well. In 2010 the Alaska Department of Environmental Conservation (DEC) listed Cottonwood Creek on the Clean Water Act Section 303(d) list (Category 5) as an impaired waterbody for fecal coliform bacteria pollution. Roughly seven miles of Cottonwood Creek are listed as an impaired water body, from approximately the Parks Highway to Surrey Road. Stormwater runoff was identified by the DEC as a likely conveyance for a portion of the bacteria entering Cottonwood Creek.

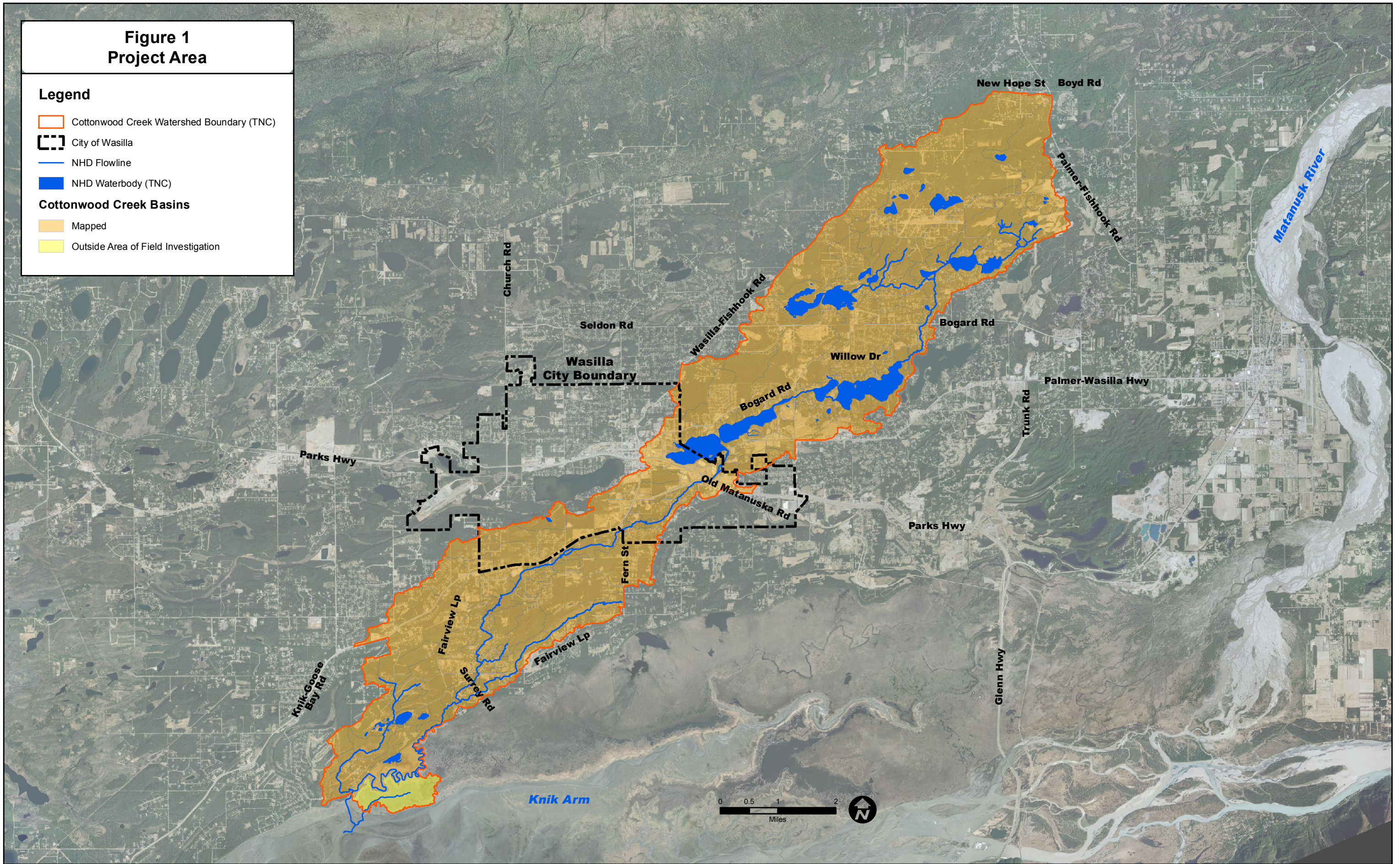
Cottonwood Creek flows from north to south within the core area of the MSB. Its watershed covers about 36 square miles with headwaters near the intersection of Palmer-Fishhook Road, New Hope Street, and Boyd Road. A portion of the City of Wasilla overlays the watershed in the vicinity of the intersection of the two major highways (Palmer-Wasilla and Parks) that pass through the watershed, roughly in the east-west direction. Other arterial roads, including Knik-Goose Bay, Old Matanuska/Willow, Bogard, and Fairview Loop roads, run through the watershed. In addition to the roadway system, development in the watershed includes undeveloped land, medium- to low-density (0.28- to 2.00-acre lots) residential development, and commercial development along the highways, arterials, and within the City of Wasilla, where the two highways intersect.

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**Figure 1
Project Area**

Legend

-  Cottonwood Creek Watershed Boundary (TNC)
-  City of Wasilla
-  NHD Flowline
-  NHD Waterbody (TNC)
- Cottonwood Creek Basins**
-  Mapped
-  Outside Area of Field Investigation



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1.2 Objectives

The primary purpose of this project is to perform an engineering and hydrologic analysis of the stormwater system contributing to Cottonwood Creek drainage in and around Wasilla, Alaska. The secondary goal is to identify the extent and functionality of the stormwater system, as well as potential improvements and conservation projects to enhance the water quality of the drainage system and mitigate impacts to Cottonwood Creek.

The proposed project is intended to develop and implement a portion of the MSB Stormwater Management Plan (USKH 2013) along Cottonwood Creek by mitigating current and preventing future pollution from public and private stormwater infrastructure and other stormwater sources.

This project is being completed for the MSB and is funded, in part, by an Alaska Clean Water Actions grant from the DEC. This project addresses Alaska Clean Water Actions Stewardship and Restoration priorities.

1.3 Project Description

The project study area was originally defined as the Cottonwood Creek watershed within the MSB, excluding the City of Wasilla, from Bogard Road on the north to the creek estuary and Knik Arm on the south. The portion of the Cottonwood Creek watershed within the City of Wasilla was added to the scope of work in the second phase (described in Section 1.4).

This project provides a generalized stormwater infrastructure inventory of the Cottonwood Creek watershed within the MSB. The inventory includes mapping of stormwater infrastructure and flow paths, particularly those that convey water to Cottonwood Creek, identifying inadequate storm drain collection and treatment systems, and mapping ditches, pipes, and water quality treatment features. The area of focus is the middle and lower sections of Cottonwood Creek watershed. The results of the mapping are evaluated and recommendations are included for physical stormwater control structures, including green infrastructure, which could be used to improve water quality.

The project has four tasks, listed below, and was broken into two contract phases, due to the timing of available grant funds.

- Task 1: Conduct a stormwater inventory of the Cottonwood Creek watershed using Geographic Information Systems (GIS) to map the stormwater drainage areas entering Cottonwood Creek. Where stormwater is discharged, identify the land area that drains to specific areas of the creek at a catchment level. Develop maps that identify stormwater inflow points and locations of runoff.
- Task 2: Estimate stormwater flows at input points.
- Task 3: Identify inadequate storm drain collection and treatment systems and/or areas where new stormwater controls are needed or that exist but needs to be upgraded during spring break-up.
- Task 4: Analyze results and develop a draft and final report with recommendations.

1.4 Project Phasing

The project focused on dry weather conditions, fall storm events, and spring breakup runoff.

The project has two contract phases: fiscal year 2016 (FY16) and fiscal year 2017 (FY17), completed in three segments.

- The FY16 phase developed a database schema, completed dry weather mapping in the MSB, and developed a GIS base map using ESRI ArcMap software for the project. The GIS data were submitted to the MSB and DEC in June, 2016.
- The first part of the FY17 phase included mapping features in the MSB and within the City of Wasilla during fall runoff events and adding these to the data layers of the previously developed GIS base map. This segment of the FY17 phase also developed runoff estimates for existing and future conditions, identified potential stormwater control features, and incorporated the results to date into this draft project report which provides project findings and recommendations for addressing stormwater runoff into Cottonwood Creek.
- The second part of the FY17 phase included observations and mapping during spring breakup flow conditions in spring 2017. Additional mapped features were added to the GIS data. The final GIS stormwater data layers for Cottonwood Creek are included with the final project report.

1.5 Project Context and Level of Detail

This project, as funded under a DEC grant and administered by the MSB, was not an exhaustive inventory of stormwater infrastructure in the Cottonwood Creek drainage. It was targeted at identifying locations where stormwater is discharged to the creek. Since this mapping had not previously been conducted, field work, time, and budget were needed to evaluate which portions of the watershed had connectivity with the creek and which did not. Even when stormwater drainage features were identified, such as ditches or culverts, it was not always apparent that runoff reached them or that they were needed for stormwater conveyance. Mapping during runoff events was vital to determine these conditions.

Given the size of the watershed and the extent of road system, the mapping and runoff calculations performed for this project provide a baseline of current conditions. While the results can serve as a basis for planning, they do not provide adequate detail to evaluate runoff at the parcel level and future site specific investigation and mapping are likely to be required.

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2.0 STORMWATER INFRASTRUCTURE MAPPING

2.1 Existing Available GIS Data

Data from federal and borough agencies and a conservation organization were used to provide a framework for data acquisition. These sources were used to develop field-grade maps for the field investigation.

2.1.1 Primary Data

The overall mapped watershed boundary conforms with the 12-digit Hydrologic Unit Code (HUC) 190204010003 as defined in the Watershed Boundary Dataset (WBD), compiled by the Federal Geographic Data Committee and the Advisory Committee on Water Information as a coordinated effort between the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), the United States Geological Survey (USGS), and the United States Environmental Protection Agency (EPA). The WBD was created from a variety of sources from each state and aggregated into a standard national layer for use in strategic planning and accountability. Geographic areas within the MSB were updated by the Nature Conservancy (TNC) under contract with the MSB (TNC 2014).

The mapped location of the thread of Cottonwood Creek and its tributaries was obtained from the digital vector data sets of the National Hydrographic Dataset (USGS, 2016), as compiled by the USGS and cooperating agencies.

Topographic data from a Digital Elevation Model (DEM) developed by MSB in its *Mat-Su LiDAR and Imagery Project 2011-2012* (MSB, 2012) was used to develop flow accumulation points (TNC, 2016; see Section 2.1.2) and to aid in catchment delineation.

Aerial imagery and building footprints were also obtained from the Mat-Su Light Detection and Ranging (LiDAR) and Imagery Project 2011-2012 (MSB, 2012).

2.1.2 Additional Datasets

The National Land Cover Dataset (NLCD) 2011, a raster dataset with 30-meter (100-foot) spatial resolution, was developed by the Multi-Resolution Land Characteristics Consortium (MRLC, 2011). It characterizes land surfaces in the watershed, based on 2011 and previous years' aerial

imagery, by the intensity of development, the vegetation type, or other surface features such as lakes and ice.

TNC generously shared spatial information it has developed for the Cottonwood Creek watershed. TNC provided a conversion of the NLCD 2011 raster data to polygon data. TNC further refined the 12-digit HUC for the Cottonwood Creek watershed based on topographic information. TNC also processed the topographic data (Miller et.al. 2015) and provided electronic files of flow accumulation points and a rubric for translating those files using ArcGIS tools so that they could be displayed as geographic features. These geographic features aided in identifying potential outfall points and flow paths and in catchment delineation. TNC shared an update of the National Hydrographic Dataset for the Cottonwood Creek watershed based on their work for the MSB (TNC, 2014).

The Alaska Department of Fish and Game (ADF&G) maintains a database of culverts on fish-bearing streams, as documented in Special Publication No. 14-08 (Eisenman, et al., 2014). Although stream culverts were not considered part of the stormwater infrastructure inventoried by this project and since they don't specifically convey drainage from roads and developed land, the culvert locations are of interest to the MSB. An electronic version of this database was provided by the ADF&G, dated June 6, 2016. It will be necessary for the MSB to obtain periodic downloads of the database to keep the information current.

Ownership information was associated with stormwater infrastructure elements in the GIS database. Owners include the State of Alaska Department of Transportation and Public Facilities (DOT&PF), the Alaska Railroad, City of Wasilla, the MSB, and private. Ownership information is important because it provides guidance on which entity is responsible for maintaining, replacing, or retrofitting facilities. In general, ditches, inlets, manholes, pipes, and culverts that handle runoff from the DOT&PF roads and right-of-ways (ROWs) are owned and maintained by the DOT&PF, and similarly for City and MSB roads. In some cases, stormwater infrastructure for the city, borough, and state roads also convey runoff from abutting private property. In other cases, runoff from private property may be discharged to the creek, either directly through a single point of discharge or through dispersed flow.

The ownership assignment started with determining DOT&PF roads and ROWs which include:

- Bogard Road
- Seldon Road
- Palmer-Wasilla Highway
- Parks Highway
- Knik-Goose Bay Road
- Fairview Loop Road
- Edland Road
- Hayfield Road
- Seward Meridian Parkway

City of Wasilla roads include all platted roads within the City that are not DOT&PF roads. MSB roads include all platted roads outside the City that are not DOT&PF roads. Road names and platted ROWs were identified from the MSB parcel database.

All cross culverts across DOT&PF ROWs and culverts paralleling DOT&PF-owned roads that are within DOT&PF ROWs were identified as owned by DOT&PF. Some storm pipe systems and detention areas constructed by DOT&PF, even if not within DOT&PF ROW, were identified as owned by the DOT&PF. All culverts across either City of Wasilla or MSB ROWs were identified as owned by the respective jurisdiction. Culverts paralleling City of Wasilla or MSB-owned ROWs at driveway or private road approaches, whether within the ROW or not, were identified as privately owned. Ditches paralleling roads and within ROWs were identified as being owned by the respective ROW owner.

2.2 Project-Acquired GIS Data

2.2.1 Database Schema

The GIS database was structured so that individual features of the stormwater infrastructure could be displayed geographically and characterized based on a variety of attributes. Table 1 presents an overview of the database structure. The types of features and their attributes are detailed in the data dictionary were included in Appendix A.

Table 1: GIS Stormwater Database Features

GIS Feature Type	Example Structures
Points (nodes)	Outfalls (discharge points to creek), manholes, detention areas
Linear features (lines)	Culverts, pipes, ditches
Closed areas (polygons)	Catchment areas and the watershed boundary

The mapping was intended to identify actual physical features as well as features that indicated conditions during runoff events. Attribute data were provided for each of the feature types, but not all attribute fields were populated by the field mapping. For instance, field mapping did not include identifying the owner or the party responsible for maintenance of the identified storm drainage features.

2.2.2 Mapped Points and Linear Features

Field data were collected on a drainage feature and outfall basis. The types of field data collected and the domains (or valid values) are listed in Appendix A. The collected data were associated with either a linear feature (culvert, pipe, stream, or ditch segment) or a node (outfall, manhole, inlet, etc.). Global positioning system (GPS) coordinates were captured for outfall nodes and field data were associated with that node. GPS coordinates of ends of linear features were captured and a linear feature was created within the GIS database.

Field mapping was conducted using a hand-held GPS (Trimble GeoXH) unit on June 7, 9, 10, and 13, 2016, on September 6 and 12, 2016, and on April 7, 12, and 27, 2017

The point features mapped in the field included outfalls, manholes, curb and field inlets, detention/retention basin. Because the purpose of the project is to identify sources contributing flow to Cottonwood Creek, additional data were collected at outfall points. At each of these points, the additional data collected included:

- whether discharge was occurring;
- the condition of the receiving water, including its color, clarity/turbidity, and odor;
- whether animals were present in the surrounding area;
- the condition of the discharge point, including its proximity to the flowing water, whether there was flow obstruction, whether there was erosion (outfall) protection; and

- deficiencies, noted in a comment field.

The linear features mapped in the field and from as-built drawings included culverts, constructed ditches, open channels, and storm drain pipe. At each of these features, additional data collected included:

- whether flow was occurring and, if so, its depth and width;
- an estimate of whether flow in the structure was perennial, intermittent, ephemeral, or due primarily to stormwater;
- for culverts and pipes, the material, shape, condition, and diameter, and whether there was rust staining along the flow line;
- for ditches and channels, the substrate or lining material, the top width, and the depth; and
- deficiencies, noted in a comment field.

2.2.3 Catchment Delineation

Catchment areas were digitized using interpolation from flow accumulation points and 2011 aerial imagery. Flow accumulation points were produced by TNC from LiDAR data, as documented in *Creation of a digital flowline network from IfSAR 5-m DEMs for the Matanuska-Susitna Basins: a resource for update of the National Hydrographic Dataset in Alaska* (an Miller, et al., July 2015).

Catchments were delineated as areas contributing to a single or general point of discharge by using aerial imagery, flow accumulation indicators, and topographic information from the DEM. Each catchment was categorized based on the fate of its runoff relative to Cottonwood Creek, as follows:

- Outfall – catchment runoff has a direct point of discharge to the creek from ditch, culvert or pipe;
- Dispersed – catchment runoff has a general point of discharge to the creek, with dispersed runoff flowing as sheetflow from land surfaces contiguous with the streambank or lakeshore;

- Sink – catchment runoff does not leave catchment area as surface flow; and
- Connected – catchment runoff is discharged to a downstream catchment by sheetflow or as a direct point of discharge. Connected catchments are further characterized by the type of catchment to which they discharge, as follows:
 - Connected - Outfall
 - Connected - Dispersed
 - Connected - Sink

A summary of the delineated catchments is shown in Table 2.

Table 2: Summary of Delineated Catchments

Catchment Type	Number of Catchments	Total Area	Percent of Total Area	Median Area
		(acres)		(acres)
Dispersed	162	5,845	27%	21.2
Sink	120	15,088	69%	62.0
Outfall	70	320	1.5%	1.1
Connected-dispersed	9	141	0.6%	15.6
Connected-sink	4	241	1.1%	25.8
Connected-outfall	10	112	0.5%	7.0
Total	375	21,747	100%	17.8

The sum of the catchment areas is slightly smaller than the total watershed area because lakes and areas within the estuary at the downstream boundary are not included. As indicated by the sink and connected-sink catchments, runoff from 70 percent of the watershed area is restricted from being conveyed to Cottonwood Creek by roads with no cross culverts or by natural topographic features.

2.3 Field Mapping

DOWL personnel conducted field mapping in May and September 2016 and April 2017. GPS coordinates for point and linear features were captured by an Arcpad GPS unit. Features were photographed, the photographs were georeferenced, and these have been compiled into files that can be viewed in Google Earth. A selection of annotated photos representative of field conditions is included in Appendix B.

2.3.1 Initial Mapping

Field mapping was conducted within the watershed in areas outside of the City of Wasilla city limits in May 2016. Because of an early breakup, the project notice to proceed date did not allow mapping during spring breakup, so dry weather mapping was conducted based on desktop mapping using the data described in Section 2.1. This dry weather mapping included inspection of locations where roads crossed Cottonwood Creek and its tributaries and locations where flow accumulation points indicated that flow might occur across roads or where it discharges directly to Cottonwood Creek.

2.3.2 Fall 2016 Mapping

Fall mapping occurred during runoff events on September 6, 2012 and September 12, 2016. Precipitation at rain gages at the Palmer Municipal Airport for September 5, 2016 and September 6, 2012 totaled 0.25 inches and for September 11, 2016 and September 12, 2016 totaled 0.63 inches (National Climate Data Center [NCDC], 2016). (There are no published precipitation data for gages in Wasilla for September 2016.) This mapping identified locations where discharges and ponded water were occurring, including outfalls to Cottonwood Creek within the City of Wasilla. This mapping was supplemented with as-built drawings of commercial development and DOT&PF facilities within the City of Wasilla.

2.3.3 Spring 2017 Mapping

Additional mapping was conducted during spring breakup on April 7, 12, and 27, 2017. Results are included in the final GIS database.

2.4 Map Production and Quality Control

2.4.1 Map Production

The GIS database was developed using ESRI ArcMAP software to allow interactive mapping and for future updates and database maintenance and enhancements.

Maps were created to be printed in 11-inch by 17-inch, hard copy format at 1 inch equals 1,000 feet (1:12,000) scale. To cover the study area, 22 maps were created; these are included in Appendix C.

2.4.2 Quality Control

Quality control procedures were used to:

- Enforce topologic rules, for instance, to assure that polygons representing catchments are closed and there are no overlaps or gaps;
- Assign unique names to catchments and, for outfall catchments, their outfall points;
- Provide relationships, such as joins and relates, between attribute tables to associate catchments with their outfalls; and
- Assure consistent terminology in attribute tables.

3.0 STORMWATER RUNOFF

Runoff to the creek was estimated under existing and build-out conditions. The distinguishing factor between the two conditions is the amount of impervious surface. For the existing condition, impervious areas for each catchment were estimated using data interpreted from the NLCD 2011, as described in Section 3.1.2. The build-out scenario was simulated by adjusting the percent impervious from the existing condition by assuming the ultimate development of private, undeveloped, subdivided land will occur, as described in Section 3.1.2.

3.1 Methodology and Hydrologic Parameters

Runoff to the creek was estimated for outfall and dispersed catchments; sink catchments were not modeled. The runoff from 244 catchments was modeled using the EPA Storm Water Management Model (SWMM) (Rossman, 2010). The SWMM model developed for the project calculated precipitation losses and surface runoff and, where applicable, routed flows through detention basins to estimate peak flows for design storms. See Appendix D for model input and output.

The SWMM modeling software requires user-supplied values for precipitation and catchment properties. Catchment properties include total and impervious surface area, roughness factors for flow paths, and rainfall loss parameters including surface depression storage and infiltration parameters related to soils types. These user-supplied values are described in sections 3.1.1 through 3.1.5.

3.1.1 Precipitation

The 24-hour precipitation depths for the study area were obtained from National Oceanic and Atmospheric Administration (NOAA) Atlas 14 (Perica et al., 2012) for precipitation gages Wasilla 3S and Wasilla 2NE. The precipitation depths from the two stations were similar in value (Table 3), with the Wasilla 2NE data being slightly (0 percent to 7 percent) higher than the Wasilla 3S data. This might be reflective of higher precipitation at the somewhat higher gage elevation. It might also be because the period of record at Wasilla 2NE (1968 to 1984) is different than the period of record at Wasilla 3S (1945 to 1997). For this analysis, the Wasilla 2NE precipitation data were used. The 24-hour depths were distributed temporally using the

NRCS Type I Dimensionless 24-hour precipitation distribution, as recommended for Alaska by the NRCS.

The 2-, 10-, 50- and 100-year 24-hour storms were modeled. The corresponding 24-hour precipitation depths at both gages for the four recurrence intervals are shown in Table 3 and in Appendix E.

Table 3: Design 24-Hour Precipitation Depths

Precipitation Recurrence Interval (years)	Rainfall Depth (inches)	
	WASILLA 3S	WASILLA 2NE
2	1.33	1.33
10	1.93	1.96
50	2.55	2.69
100	2.83	3.04

3.1.2 Total and Impervious Area

The total area for each catchment was obtained from the catchment delineation in the GIS Stormwater database as described in Section 2.2.3.

Impervious data were obtained from the NLCD 2011, which provides 100-foot resolution raster values of percent impervious, rounded to the nearest integer value. The NLCD 2011 percent impervious data for the Cottonwood Creek watershed are shown in Figure 2. The raster land cover percent impervious data were intersected with the catchment areas to calculate a weighted catchment impervious percent. Values for percent impervious corresponding with the NLCD 2011 pixel values are included in Appendix D.

For build-out conditions, aerial imagery, parcel boundaries, apparent potential for subdivision, adjoining land uses, and the LiDAR building footprint layer were used to determine the current level of development (e.g., 70 percent of lots developed in a given subdivision, for instance) within a given catchment. That was associated with the existing percent impervious for the catchment and then prorated to calculate the percent impervious at 100 percent development.

Visual representations of impervious percentages for the existing and build-out conditions are shown for the modeled catchments in Figures 3 and 4.

A summary of the existing and build-out percent imperviousness for the modeled catchments is shown in Table 4.

Table 4 Summary of Modeled Percent Imperviousness

Catchment Type	Number of Catchments	Catchment Area, acres, range / median			Existing Percent Impervious		Build-out Percent Impervious	
		min	max	median	median	max	median	max
Dispersed	162	0.28	351	21	4%	42%	8%	50%
Outfall	70	0.06	44	1.1	17%	72%	18%	72%
Connected-dispersed	9	0.57	25	15.6	6%	69%	15%	69%
Connected-outfall	10	0.76	33	7.0	60%	62%	55%	65%

3.1.3 Surface Flow

The SWMM non-linear reservoir method computes overland flow within each drainage basin, using user-supplied basin slope, width, and surface roughness factors.

Surface flow paths were delineated for each catchment and the upper and lower elevation of the flow path determined from the DEM data. Basin slope was computed based on the flow path length and change in elevation. Basin width was computed as the basin area divided by the flow path length.

Surface overland flow roughness factors are shown in Table 5. For drainage basins that had both landscaping and forest land cover, the surface roughness and depression storage were prorated by area.

Table 5: Surface Roughness Parameters

Parameter	Impervious	Pervious	
		Landscape	Light Underbrush
Surface Roughness	0.011	0.24	0.40

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Figure 2
NLCD 2011 Impervious Percentages
Cottonwood Creek Watershed

Legend

- Cottonwood Creek Watershed Boundary (TNC)
- City of Wasilla
- NHD Flowline
- NHD Waterbody (TNC)

Impervious Percentage

 0% - 10%	 51% - 60%
 11% - 20%	 61% - 70%
 21% - 30%	 71% - 80%
 31% - 40%	 81% - 90%
 41% - 50%	 91% - 100%

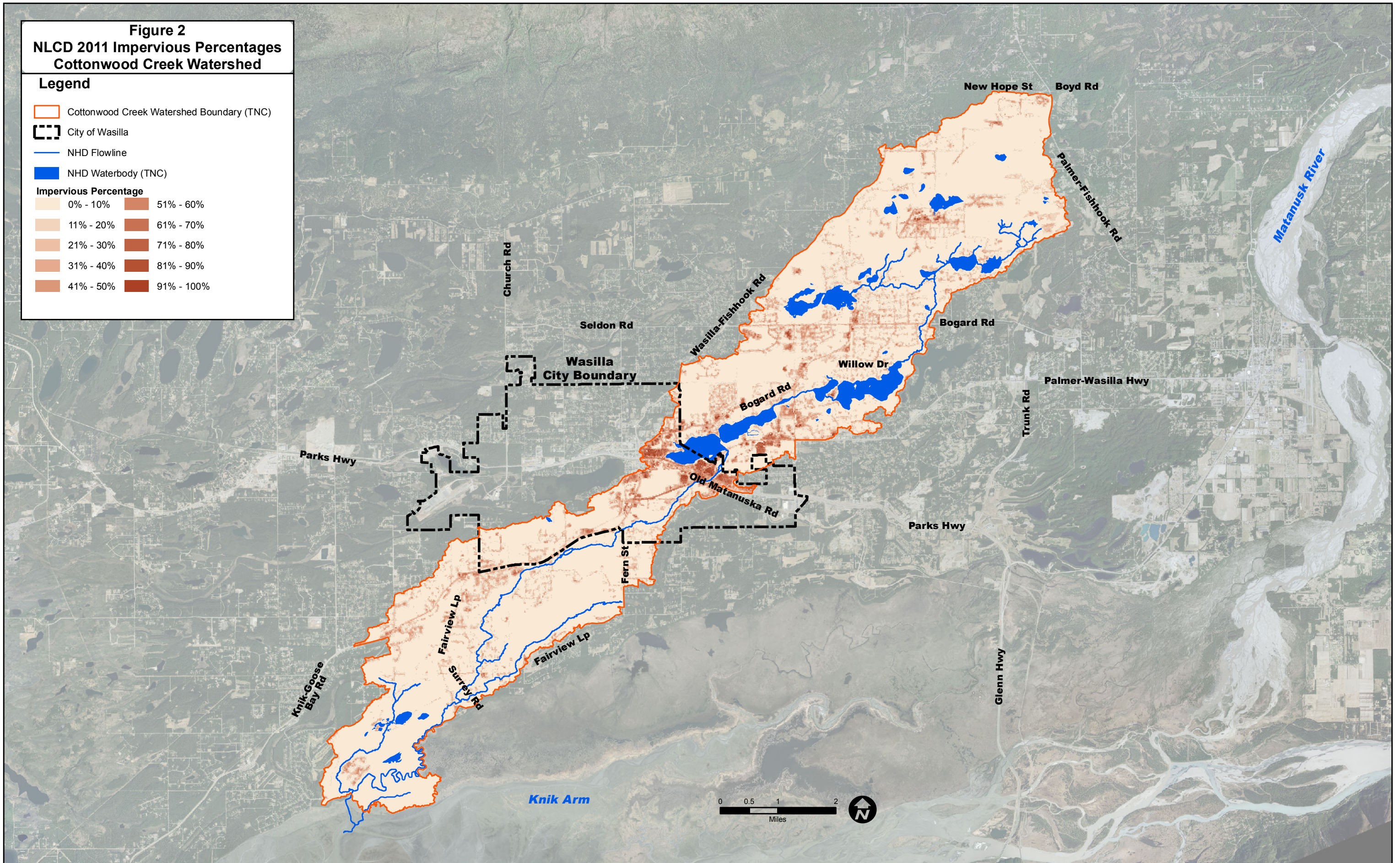


Figure 3
Existing Condition Catchment-Weighted
Impervious Percentages

Legend

- Cottonwood Creek Watershed Boundary (TNC)
 - City of Wasilla
 - NHD Flowline
 - NHD Waterbody (TNC)
 - Wasilla Precipitation Stations
- Impervious Percentage**
- | | |
|--|--|
| 0% | 40-50% |
| 0-10% | 50-60% |
| 10-20% | 60-70% |
| 20-30% | 70-80% |
| 30-40% | |

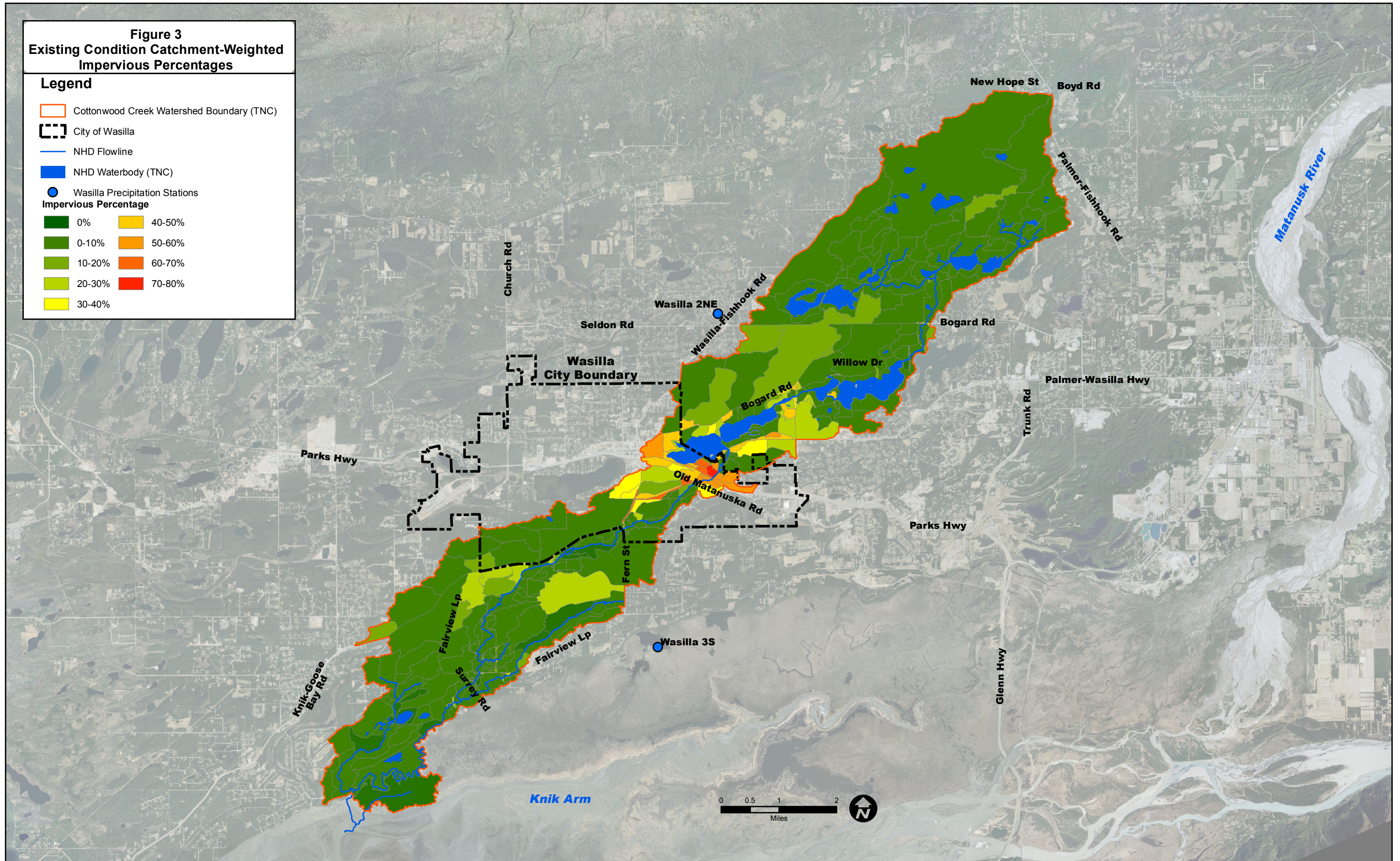


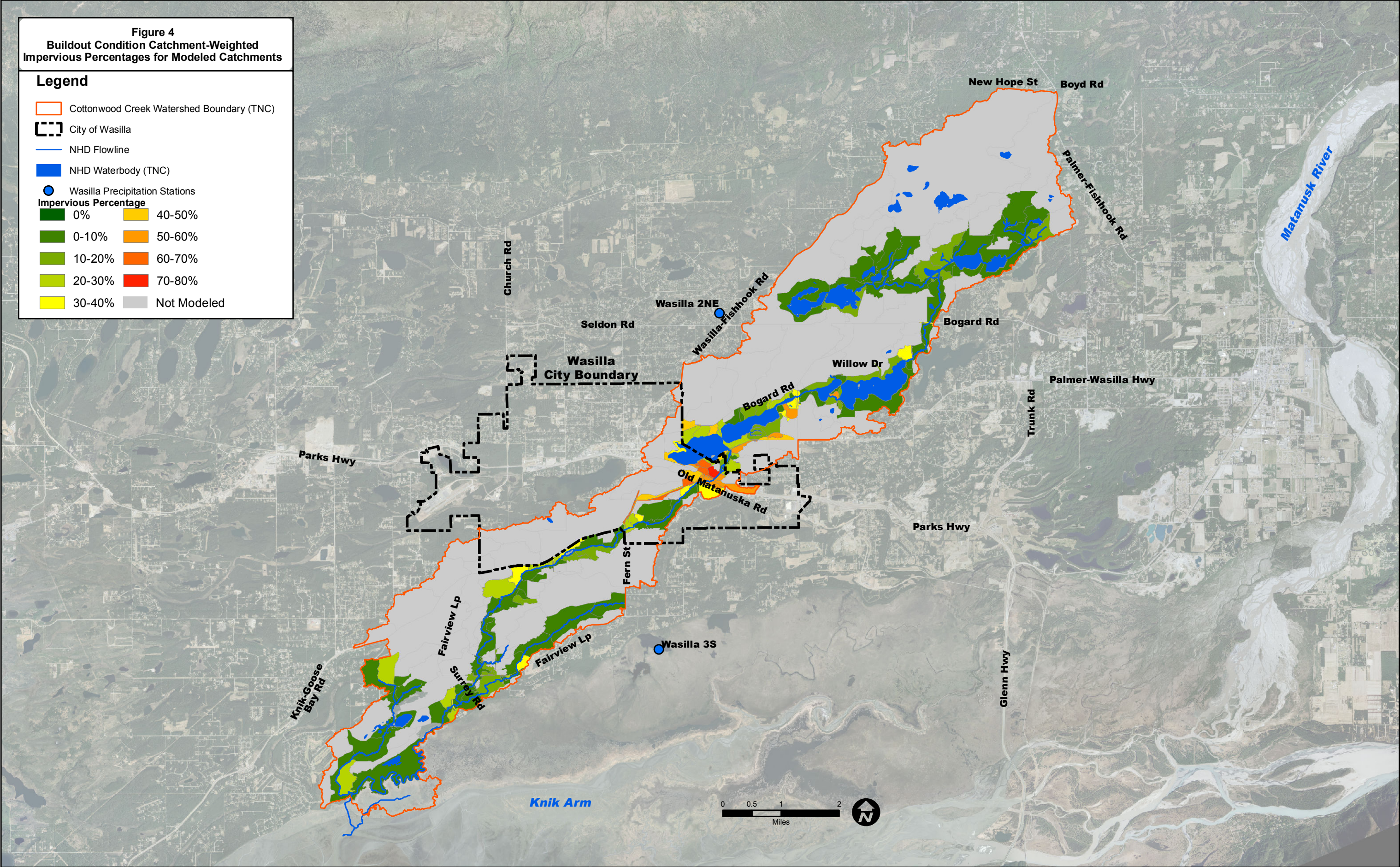
Figure 4
Buildout Condition Catchment-Weighted
Impervious Percentages for Modeled Catchments

Legend

- Cottonwood Creek Watershed Boundary (TNC)
- City of Wasilla
- NHD Flowline
- NHD Waterbody (TNC)
- Wasilla Precipitation Stations

Impervious Percentage

 0%	 40-50%
 0-10%	 50-60%
 10-20%	 60-70%
 20-30%	 70-80%
 30-40%	 Not Modeled



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3.1.4 Rainfall Loss Method

SWMM has the ability to explicitly model rainfall losses as surface depression storage in pervious and impervious surfaces and infiltration on pervious surfaces. Surface depression storage depths for paved, lawn, barren, and naturally vegetated surfaces are shown in Table 6.

Table 6: Depression Storage Parameters

Depression Storage (inches)			
Average Slope	Impervious Surfaces	Pervious Surfaces	
		Landscaped (lawn)	Naturally Vegetated (Forest)
Less than 2 percent	0.10	0.15	1.00
2 percent to 6 percent	0.00	0.10	1.00
Greater than 6 percent	0.00	0.05	0.50

The Green-Ampt equation was used to model infiltration losses. Green-Ampt parameters (suction head, conductivity, and initial deficit) are related to soil types.

Soils data for the project area is available from the NRCS (NRCS, 2016). The NRCS classifies soils into four hydrologic soils groups (HSG) based on rates of infiltration or hydraulic conductivity, where Group A soils have the most potential for infiltration and Group D soils have the least potential for infiltration. NRCS soils data for the project area are presented in Appendix E. Soil types present in the watershed include HSG A (12 percent), HSG B (78 percent), and HSG D (10 percent).

The three HSG types were correlated to the soil types listed in Appendix A of the SWMM guidance (Rossman, 2010), from which the Green-Ampt parameters were obtained. The parameters used in SWMM modeling for the three HSG types are shown in Table 7.

Table 7: Infiltration Parameters

HSG (from NRCS)	A	B	D
Soil type	Loamy Sand	Silt loam	Silty clay loam
Suction head (inches)	2.4	6.69	10.63
Conductivity (inches/hour)	1.18	0.26	0.04
Initial deficit (fraction)	0.39	0.366	0.261

Values from SWMM User's Manual Appendix A (Rossman, 2010)

3.1.5 Catchment Routing

After SWMM calculates runoff separately for pervious and impervious surfaces within each catchment, it has three options for routing the runoff amounts internally through the catchment. The runoff from pervious areas can flow to impervious areas, the runoff from impervious areas can flow to pervious areas, or runoff from both types of areas can flow directly to the catchment outlet. In this Cottonwood Creek watershed modeling, runoff from impervious surfaces was routed to pervious surfaces because, based on field observations, runoff is discharged either to pervious ditches or across pervious surfaces, including pervious riparian areas. No pipes were found that discharged directly to lakes, the creek, or its tributaries.

3.2 **Detention and Retention Modeling**

Several detention areas and detention basins were found in as-built records and during field mapping. Two that discharge directly to the creek, near the railroad creek crossing south of the Parks Highway appeared to be large enough to affect the results of the runoff model and were included in the modeling.

No as-builts were found at the Fred Meyer development (due north of the intersection of the Parks and the Palmer-Wasilla Highways). It has been reported that there is no direct discharge from that site to Wasilla Lake and that subsurface infiltration structures capture site runoff. A large retention area with an overflow structure is located on the north side of the property. A note on a DOT&PF as-built for the Palmer-Wasilla Highway Extension (DOT&PF, 2001) indicates that the DOT&PF storm drain pipe was designed to accommodate flow from a 6-inch pipe from the Fred Meyer site, stating that the 6-inch pipe “drains pumped water intermittently from the Fred Meyer store across the Parks Highway.” Overgrown conditions observed in the field at the surface discharge point of the DOT&PF pipe indicates that flow does not occur consistently enough to create a channel. It was concluded, for this level of runoff modeling, that the runoff from the Fred Meyer site is infiltrated in the large retention area for all flows up to the 100-year event and does not enter the DOT&PF piped system. If further detail is required, additional investigation and research could be performed. The commercial area immediately west of Fred Meyer also has a detention area, with a discharge pipe to Wasilla Lake. It was concluded, for this level of runoff modeling, that the runoff into this detention area is infiltrated in the detention basin for all flows up to the 100-year event and does not enter Wasilla Lake.

3.3 Summary of Runoff Estimate Results

The peak discharges are summarized in Table 8. The peak discharges for each catchment and storm event under both existing and build-out conditions are included in Appendix D.

Table 8 Summary of Peak Runoff Flows

Catchment Type	Number	Peak Catchment Runoff, median and maximum, cfs							
		2-year		10-year		50-year		100-year	
		Median	Maximum	Median	Maximum	Median	Maximum	Median	Maximum
		Existing							
Dispersed	162	0.0	0.0	0.0	0.3	0.0	1.6	0.0	4.2
Outfall	70	0.0	2.4	0.0	4.9	0.0	9.3	0.0	12.1
Connected-dispersed	9	0.0	0.4	0.0	2.5	0.0	5.8	0.0	7.8
Connected-outfall	10	0.0	3.4	0.0	4.4	0.2	9.6	0.3	12.5
		Buildout							
Dispersed	162	0.0	0.0	0.0	0.9	0.0	2.1	0.0	6.5
Outfall	70	0.0	2.4	0.0	4.9	0.0	9.3	0.0	12.1
Connected-dispersed	9	0.0	0.4	0.0	2.5	0.0	5.8	0.0	7.8
Connected-outfall	10	0.0	3.9	0.0	5.3	0.1	11.0	0.2	14.0

See Appendix D for tabulation by catchment.

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4.0 RESULTS

Examples of typical stormwater infrastructure features found during field mapping are included in Appendix B.

4.1 Field Observations of Drainage Infrastructure

In general, where property abuts the creek or its tributaries, flow is towards the creek, but in areas farther from the creek, drainage flows in a northeast to southwest direction in the watershed. Roadside ditches are the primary means of runoff capture and conveyance. Where roads cross Cottonwood Creek, ditches may discharge to the creek but in many instances heavy vegetation at the ditch ends indicates that little consistent flow reaches the creek. Piped storm drain systems exist in the core area near the intersection of the Palmer-Wasilla Highway and the Parks Highway, primarily along the Parks Highway west of the Palmer-Wasilla Highway. No pipes or culverts discharge directly to the creek. Even in the most developed area along the creek near the Parks Highway, the outlet ends of the pipes are set back from the creek and discharge to the riparian area along the creek. At these pipe outlets, observation showed a lack of defined flow paths from the pipe end to the creek, indicating that flow may spread out or be infiltrated before entering the creek, at least for low flows. In some areas, bioswales and detention areas have been incorporated into highway and commercial development drainage design. These elements promote runoff infiltration and reduce direct discharges.

Some stormwater infrastructure features, such as culverts, were found, but due to topography or changes in land development conditions, are not actually part of the stormwater conveyance system since no stormwater reaches them. Inferences that this is the case were made based on the degree of overgrown vegetation or accumulation of traction sand from snow clearing.

Runoff from livestock, dog kennels, horse barns, or other animal concentrations was not found to directly discharge to the creek. Erosion of ditches or embankments that may contribute to sediment loading was observed at outfalls, as was accumulated sediment that indicated sediment deposition from previous flows. Ducks were observed in the creek at five of the outfalls.

Based on observations from the field mapping, runoff discharged to Cottonwood Creek is treated through vegetated swales or dispersion across the riparian area along the creek. At least two

commercial developments (Target, Sportsman’s Warehouse) have oil and grit separators (OGS) within their piped storm drain system.

Based on observation during field mapping, runoff retention occurs in many instances in existing roadside ditches. The lack of connectivity of these ditches, for instance few cross culverts across Knik-Goose Bay and Bogard Roads, enables this. In many of the observed locations, this lack of connectivity does not result in problems and is essential for reducing direct discharges to Cottonwood Creek.

4.2 General Deficiencies

The general deficiencies noted for the mapped point and linear features are summarized in Tables 9 and 10, respectively.

Table 9: Types of Deficiencies at Outfalls

Deficiency	Outfalls
None	47
Erosion	16
Sediment accumulation	1
Trash	2
Total	66

Table 10: Types of Deficiencies Associated with Culverts and Constructed Channels

Deficiency	Culverts	Constructed Channels
None	39	0
Partially or totally blocked	16	0
Crushed	3	0
Perched or erosion occurring	6	5
Sediment accumulation	62	10
Separated Joint	1	0
Overgrown	13	0
Submerged	5	0
Trash	2	1
Flow bypassing	2	0
Total	149	16

In general, the noted deficiencies for point and linear features included those that impair water quality and those that impair drainage such that infrastructure or property is impacted.

- **Water quality:** Sources of sediment and trash indicate potential pollutants. Areas that show evidence of past erosion also indicate that pollutants may have and will continue to enter surface waterbodies.
- **Drainage:** Conditions that prevent or hinder the flow of drainage include crushed or perched (on the upstream end) culverts and blocked culverts. As discussed above, some slowing of drainage can promote infiltration, reducing the amount of runoff, and consequently pollutants, reaching Cottonwood Creek. However, blockage that pools water in areas too close to the roadway is detrimental to the roadway structure.

Maintenance will improve some of these situations while site alteration may be required for others (see section 5.3). Locations of the predominant deficiencies listed in Tables 9 and 10 are shown in Figure 5.

4.3 Specific Deficiencies

Specific deficiencies noted during the field investigations fell into four general categories. Examples for each category and their type of deficiency (water quality and/or drainage) are summarized in Table 11. Their specific locations are shown in Figure 5. Photos are included in Appendix F.

Table 11: Summary of Specific Identified Deficiencies

Deficiency ID	Location	Type of Deficiency	Priority (*)	Property Owner	Infrastructure		Flow Contributed from	Retrofit Concept Design Section
					constructed by	maintained by		
1	North Clayton south of Bogard Road	drainage, water quality	1	private and MSB ROW	private	unknown	on-property spring and DOT&PF ROW	5.2.1
2	Peck and Lakeshore - East	drainage, water quality	3	private and City of Wasilla	City of Wasilla		DOT&PF and City of Wasilla ROWs	--
3	Peck and Lakeshore - West	drainage, water quality	3	private and City of Wasilla	City of Wasilla		City of Wasilla ROW and private	--
4	Bogard and First Presbyterian	drainage	2	DOT&PF			DOT&PF ROW	5.2.2
5	Bogard between Seldon and Seward Meridian	drainage	2	DOT&PF			DOT&PF ROW	5.2.2
6	NE Corner of Bogard and Seldon Roads	drainage	2	DOT&PF			DOT&PF ROW	5.2.2
7	Ditches along Fairview Loop - N	drainage	3	DOT&PF			DOT&PF ROW	--
8	Ditches along Fairview Loop - S	drainage	3	DOT&PF			DOT&PF ROW	--
9	Lord Baranof and Riverdell - 1	drainage	3	MSB	private	unknown	on-property spring and MSB ROW	--
10	Lord Baranof and Riverdell - 2	drainage	3	MSB	private	unknown	on-property spring and MSB ROW	--
11	Earl Street bridge	water quality	2	MSB	MSB	MSB	MSB ROW	5.2.3
12	Detention pond outfall	water quality	1	Ak RR	DOT&PF		private, DOT&PF, AKRR	5.2.4
13	Fern Street outfall and ditches along Palmer-Wasilla Highway and Knik-Goose Bay Road	water quality	2	MSB, City of Wasilla, and DOT&PF				5.2.5

* Note: 1 Obvious poor condition directly contributing to water quality or road deterioration; corroborated by interested party
2 Structural conditions indicate that water quality impairment may occur, but not obvious at time of site visit
3 Not presently contributing to surface water quality impairment; may become a larger problem in the future

4.3.1 Springs and Other Natural Waterbodies

The stormwater infrastructure includes channels for springs that are not mapped as streams by the MSB or the National Hydrographic Dataset. In some cases, surface runoff reaches seepage areas or springs that have natural drainage paths before it is treated or attenuated. Deficiencies in this category affect drainage and water quality.

- Deficiency ID 1, North Clayton unimproved ROW south of Bogard Road (southeast of Williwaw Way). A private drive constructed in an otherwise undeveloped ROW doesn't have any ditches but does receive runoff from Bogard Road. Affected property owners state that road runoff drains down their driveway creating erosion and icing problems. Ditches but no cross-culverts were found along Bogard Road; however, Bogard Road is superelevated to the south here, directing flow towards the driveway. Field mapping indicates that there is a natural spring on the property that drains as a small creek into Wasilla Lake. Road runoff down this driveway would discharge to the small creek without attenuation or treatment.
- Deficiency ID 9 and 10, Lord Baranof and Riverdell Drives, east of Fairview Loop Road. Significant ponding occurs, even during non-rain events, which might indicate a spring. At least three small culverts have been installed to alleviate ponding but water still backs up at the intersection.

4.3.2 Shallow or Undersized Ditches

Deficiencies in this category affect drainage and may impact adjacent roadways, paths, or structures.

- Deficiency ID 4, First Presbyterian Church, east of Peck Street along Bogard Road. Significant ponding occurs at the pull-off area on the north side of Bogard Road. No cross culverts were found.
- Deficiency ID 6, strip mall at northeast corner of Bogard and Seldon Roads. Significant ponding occurs when roadside ditches overflow and water spreads out into the parking lot area. There are no cross culverts.

- Deficiency IDs 2 and 3, Peck Street and East Lakeshore Avenue, south of Bogard Road. Sheetflow runs down Peck Street south of Bogard Road and there is no means of conveyance for it to cross East Lakeshore Avenue and the intervening private property to reach Wasilla Lake. Runoff ponds in ditches on the north side of East Lakeshore Avenue. Similar ponding occurs further west along East Lakeshore Avenue in vegetated ditches in front of the Mat-Su Regional Outpatient Center. During the fall runoff event, these ditches were full and overflowing.

4.3.3 Ditches Affected by All-Terrain Vehicle Traffic

Deficiencies in this category can affect drainage and water quality. Ditches that convey flow affected by all-terrain vehicles (ATVs) are subject to erosion during runoff events. In some cases the runoff does not reach a surface water body, so water quality impacts do not occur. Alterations to ditches due to ATVs can impound runoff and impair drainage away from roads or property, causing drainage impacts. Areas where one or the other of these types of impacts include:

- Deficiency IDs 7 and 8, Fairview Loop Road. Ponding occurs along roadside ditches during rain events. No cross culverts were found. Water collects in ruts created by ATVs, particularly between Top of the World Circle and Old Knik Road. Impounded water may affect the road structural section, but does not discharge to Cottonwood Creek.
- Deficiency ID 5, Bogard Road between Seldon and Seward Meridian Roads. Ponding occurs along roadside ditches during rain events. There are no cross culverts; in some cases, water collects in ruts created by ATVs. Impounded water may affect the road structural section, but does not discharge to Cottonwood Creek.
- Deficiency ID 13, Palmer-Wasilla Highway east of Knik-Goose Bay Road and Knik-Goose Bay Road south of the Palmer-Wasilla Highway. Flow occurs in ATV track rather than in the rock lined ditches constructed for drainage. This flow drains to Cottonwood Creek where it may impair water quality.

4.3.4 Sediment Contributed Directly to Cottonwood Creek

Deficiencies in this category can affect water quality.

- Deficiency ID 11, bridge on Earl Road. This one-lane bridge on a neighborhood road has no curbing. Runoff, including sediment from street sanding, can drain directly into the creek.
- Deficiency ID 12, outfall from detention pond and culvert under the Palmer-Wasilla Highway downstream of the railroad trestle. This outfall was observed during spring breakup 2017 and in a previous investigation (ARRI, 2012). Discharge occurs even during dry weather down a steep (steeper than 2 horizontal to 1 vertical) grade. Geotextile fabric for channel protection is not anchored securely and channel erosion is occurring. Sediment plumes in Cottonwood Creek are apparent.

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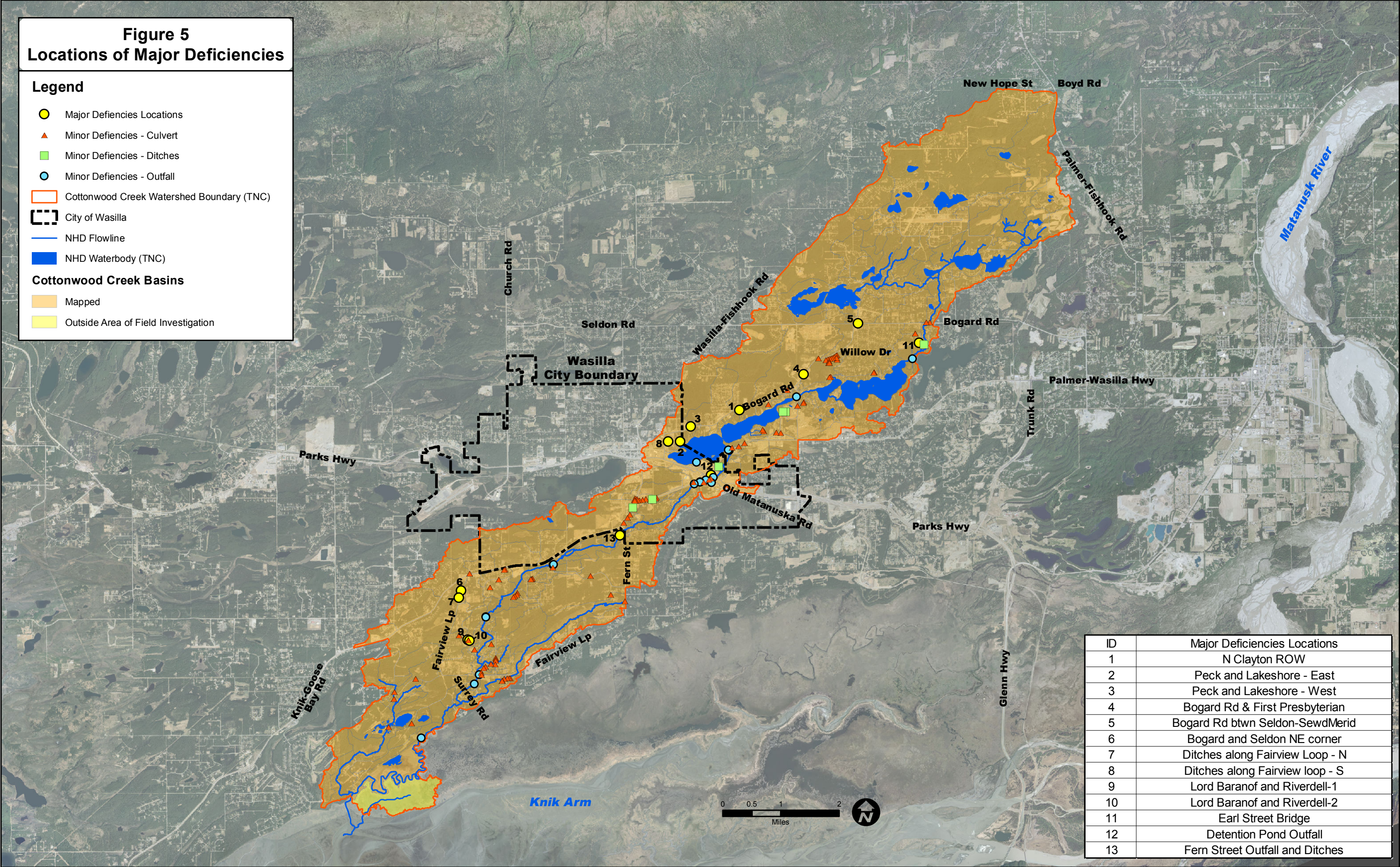
Figure 5
Locations of Major Deficiencies

Legend

- Major Deficiencies Locations
- ▲ Minor Deficiencies - Culvert
- Minor Deficiencies - Ditches
- Minor Deficiencies - Outfall
- Cottonwood Creek Watershed Boundary (TNC)
- City of Wasilla
- NHD Flowline
- NHD Waterbody (TNC)

Cottonwood Creek Basins

- Mapped
- Outside Area of Field Investigation



ID	Major Deficiencies Locations
1	N Clayton ROW
2	Peck and Lakeshore - East
3	Peck and Lakeshore - West
4	Bogard Rd & First Presbyterian
5	Bogard Rd btwn Seldon-SewdMerid
6	Bogard and Seldon NE corner
7	Ditches along Fairview Loop - N
8	Ditches along Fairview loop - S
9	Lord Baranof and Riverdell-1
10	Lord Baranof and Riverdell-2
11	Earl Street Bridge
12	Detention Pond Outfall
13	Fern Street Outfall and Ditches

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5.0 RECOMMENDATIONS

5.1 Drainage Facilities Design

Because of the current and projected low density of development in the Cottonwood Creek watershed, the lack of widespread use of curbs and gutters, the existing use of roadside ditches, and the generally well-draining soil in the watershed, design recommendations focus on retaining and infiltrating runoff as near to its source as possible while preventing property and road damage.

Green infrastructure (GI) is a term for stormwater management that reduces and treats stormwater at its source. Green infrastructure uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments. At the city or borough scale, green infrastructure is a patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the neighborhood or site scale, stormwater management systems that mimic nature soak up and store water (EPA, 2016) to prevent or limit runoff reaching surface waterbodies. GI facilities retain and infiltrate runoff to reduce the peak flow rate and total quantity of water discharged to surface waterbodies. By reducing the total quantity of water, the quantity of pollutants is also reduced.

In addition, GI is also a good tool for improving water quality, even if total runoff quantity is not reduced. For example, vegetated swales can reduce pollutants even if they do not provide a lot of infiltration and bioretention systems can be installed with underdrains such that they offer water quality treatment, but not as much peak flow reduction or overall retention. The water quality treatment provided with GI, as well as OGS devices and other stormwater treatment methods, primarily reduces sediment load. Since many pollutants, such as fecal coliform, particulate metals, oil, and grease, adhere to sediment particles, reduction in sediment load also provides reduction in other pollutants.

GI facilities are generally designed to perform for more frequent storm events (1- to 2-year return intervals), which have been shown to constitute the majority of annual storm event depths (DEC, 2011; USKH, 2013). Additional design elements, such as freeboard, are necessary for these facilities to handle runoff from larger, less frequent events.

GI facilities most applicable for the types of deficiencies noted in the field work include vegetated swales, bioretention facilities, and flow spreaders, described as follows.

- Vegetated or dry swales (DEC, 2011) are ditches that are stabilized against erosion by turf grass or other vegetation. They can be mowed or not, depending on site distances, site conditions, aesthetics, or other consideration. Not mowing vegetation may enhance swale performance for treatment and flow retention. They are optimally designed with a bottom width of 2 feet or more to maintain a shallow flow depth and on a longitudinal slope of less than two percent to maintain lower velocities and promote filtration by water flowing through the vegetation. Where slopes are steeper, check dams can be included to slow the velocity, trap sediment and promote infiltration. A typical section of a vegetated swale is shown in Figure 6.

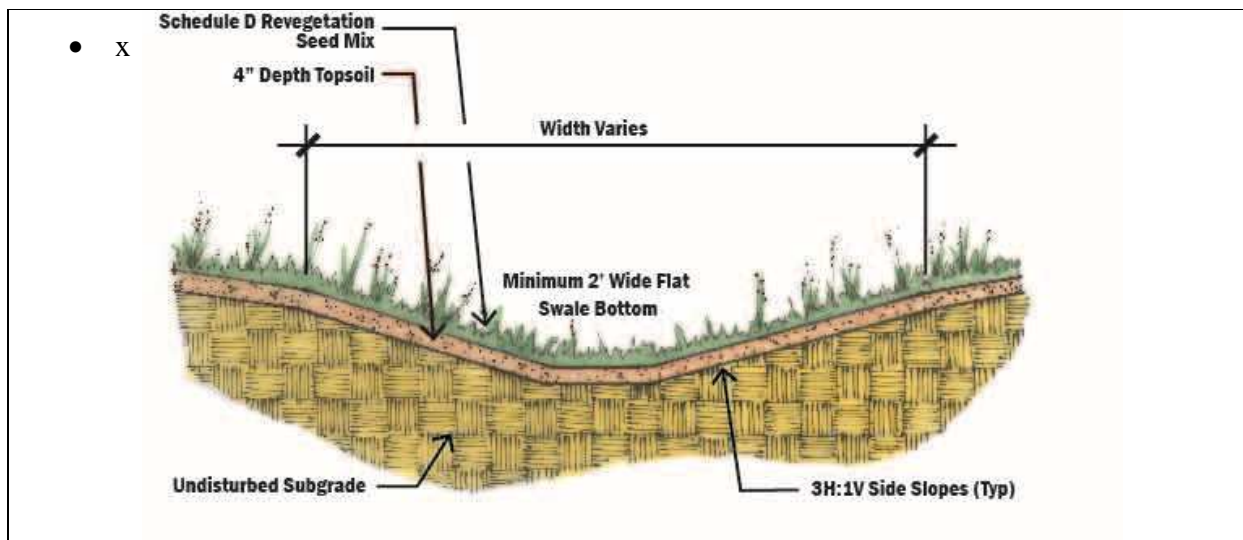


Figure 6: Vegetated Swale Typical Section

Bioretention facilities, also known as rain gardens, are shallow basins or landscaped areas that capture and treat runoff using amended planting soils (a mix of sand and organic soil) and vegetation. Unlike vegetated swales that convey flow, bioretention facilities receive and infiltrate runoff. They are optimally designed with a minimum 3-foot depth of amended planting soil on soils that have a minimum infiltration rate of 1-inch per hour. For location with slow draining soils or high groundwater tables, underdrains or liners can be considered. Bioretention facilities that are designed for no overflow are also called infiltration or retention facilities. Bioretention facilities that are designed to release water, such as with a beehive overflow structure, or that have underdrains, are also called detention facilities. Since bioretention facilities are sited at low points in drainage systems, adequate freeboard or overflow paths must be provided for larger runoff events. A typical section of a bioretention facility is shown in Figure 7.

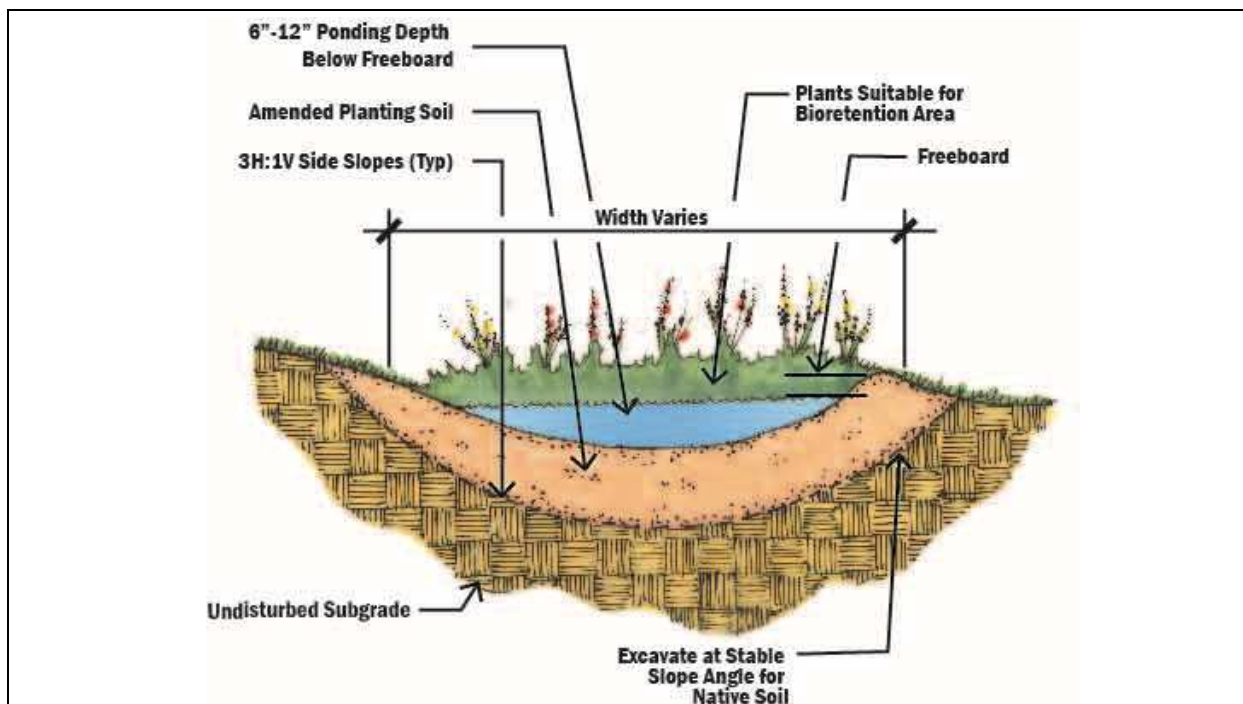


Figure 7: Bioretention Facility Typical Section

- Flow spreaders are level structures designed to uniformly distribute concentrated flow over a large area. These are applicable upgradient of riparian or vegetated areas where dispersed flow through the vegetation is desired. Level spreaders come in many forms,

depending on the peak rate of inflow, the duration of use, the type of pollutant, and the site conditions (Hunt et al., 2001). One of the simpler designs is a rock-lined channel oriented perpendicular to the in-coming flow along an elevation contour. The rock-lined channel depths and widths can range from 0.5 to 3 feet; based on the design flow. A typical section of a flow spreader facility is shown in Figure 8.



Figure 8: Flow Spreader Facility Concept

Vegetated swales, bioretention facilities, and flow spreaders must be designed to handle the flow directed towards them, and these flows will vary with the size and imperviousness of the area contributing drainage to them. Therefore, site specific design is required. Further information is provided in the Alaska Storm Water Guide (DEC, 2011).

Where limitations to the use of vegetated swales or bioretention facilities occur, the recommendation is to retain or infiltrate runoff from up to the 2-year storm event. If that cannot be achieved, at a minimum treatment should be provided before discharge. The first choice for treatment is the use of green infrastructure. Even if retention or infiltration is not feasible, vegetation and soils can provide treatment.

5.2 Retrofit Opportunities

The project scope of work included identifying potential improvements and conservation projects to enhance the water quality of the drainage system and mitigate impacts to Cottonwood Creek. Potential improvement projects are presented in this section.

5.2.1 Road Runoff and Spring on North Clayton South of Bogard Road

An undeveloped ROW in the vicinity southeast Williwaw Way receives runoff from Bogard Road. Based on field observations, the flow path of the road runoff and spring discharge appears to parallel an existing 55-foot ROW. Bogard Road runoff flows down the driveway; there is no ditch along the driveway. The driveway has a steep down grade before it reaches the elevation of the existing spring.

Improvements within the North Clayton ROW would include a 220-foot long vegetated swale, with energy dissipation along the steep section, such as riprap lining or check dams, and a bioretention area sized for flow from the tributary area, as indicated in Figure 9. Discharge from the bioretention area would continue to the existing stream channel.

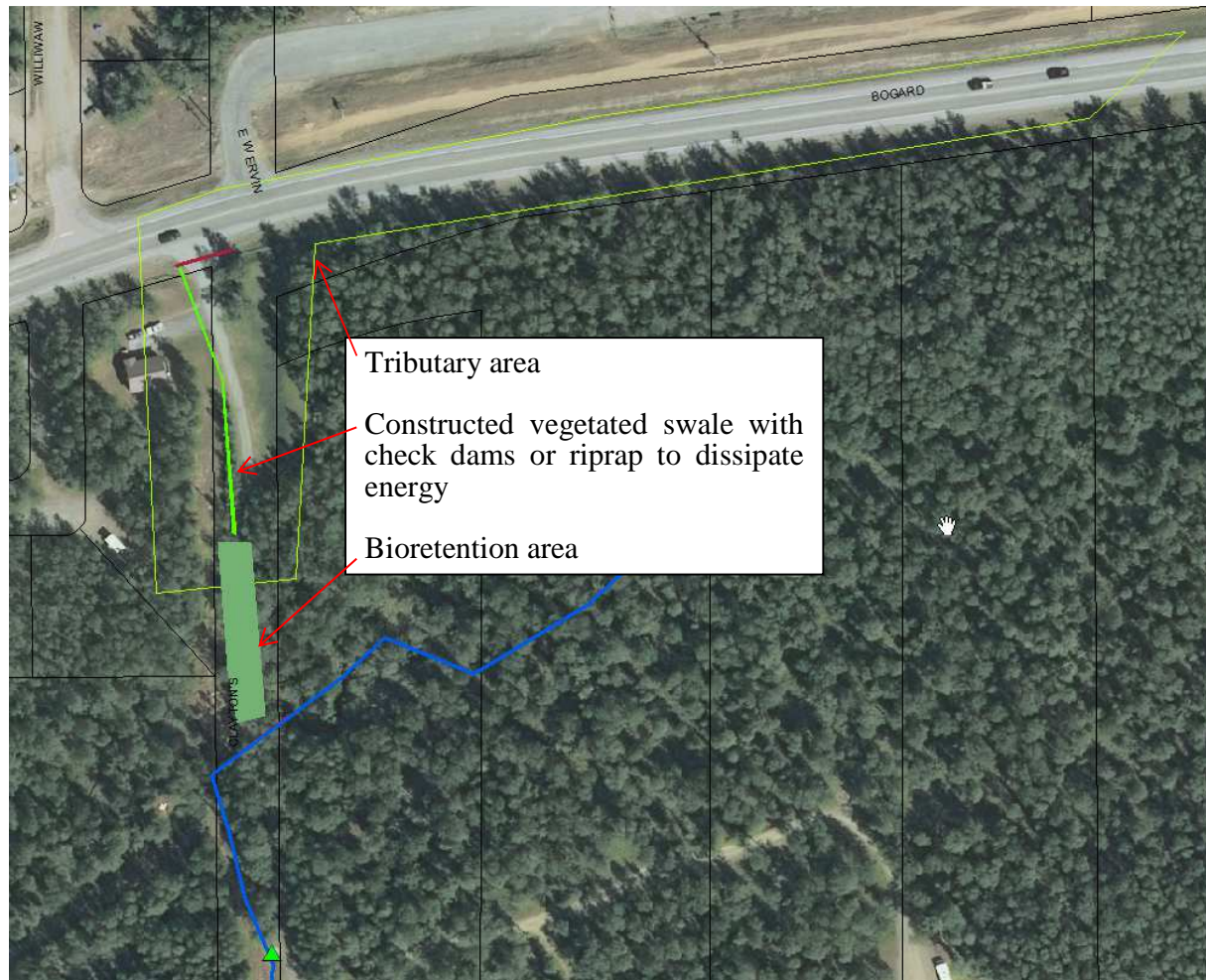


Figure 9: North Clayton Vegetated Swale – Conceptual Layout

5.2.2 Shallow or Undersized Ditches

Based on field observations, ditches along the frontage of developed properties receive runoff from the road and the property. The September field observations occurred after a rainfall depth of about half an inch, which is only half the depth of a 1-year event (see precipitation data in Appendix E). Even with this low-volume rainfall, several ditches were full to within a half a foot of the road surface elevation (see photos in Appendix B). Depending on the width of the ROW and clear-zone requirements for road safety, ditches could be widened or deepened, lined with amended planting soil and planted with suitable grass species (Wright, 2008). Alternatively, bioretention areas could be established on private property to reduce discharge from private property to the roadside ditches. Maintenance agreements for these facilities should be considered (see Section 5.3).

Three of the noted deficiency areas (Deficiency IDs 4, 5, and 6) could benefit from retrofits for ponding water. Conceptual site layouts are shown in Figures 10 through 12.



Figure 10: Bogard Road and First Presbyterian Church Bioretention – Conceptual Layout



**Figure 11: Bogard Road between Seldon Road and Seward Meridian Parkway
Bioretention – Conceptual Layout**



Figure 12: Bogard Road and Seldon Road, NE Corner Bioretention – Conceptual Layout

5.2.3 Discharge from Detention Basin Downstream of Railroad Trestle

As shown in Appendix F (Deficiency ID 12), the flow from the discharge pipe under the Palmer-Wasilla Highway downstream of the railroad trestle has eroded a channel to Cottonwood Creek and introduces sediment into the creek. Energy dissipation and channel stabilization are required. There is room between the end of the pipe and the creek to construct a vegetated swale or to enhance the riparian buffer and provide a flow spreader. In either case, however, the slope would need to be flattened or a portion of the existing floodplain adjacent to the creek would need to be used for this to be constructible and to perform effectively. This could be done by providing a tall (or deep) rock energy dissipator structure or a drop manhole could be installed. Flow would discharge to a vegetated area, as shown in Figure 13. Alternatively, enlarging the upstream detention pond to promote infiltration and reduce surface discharges, could be considered.

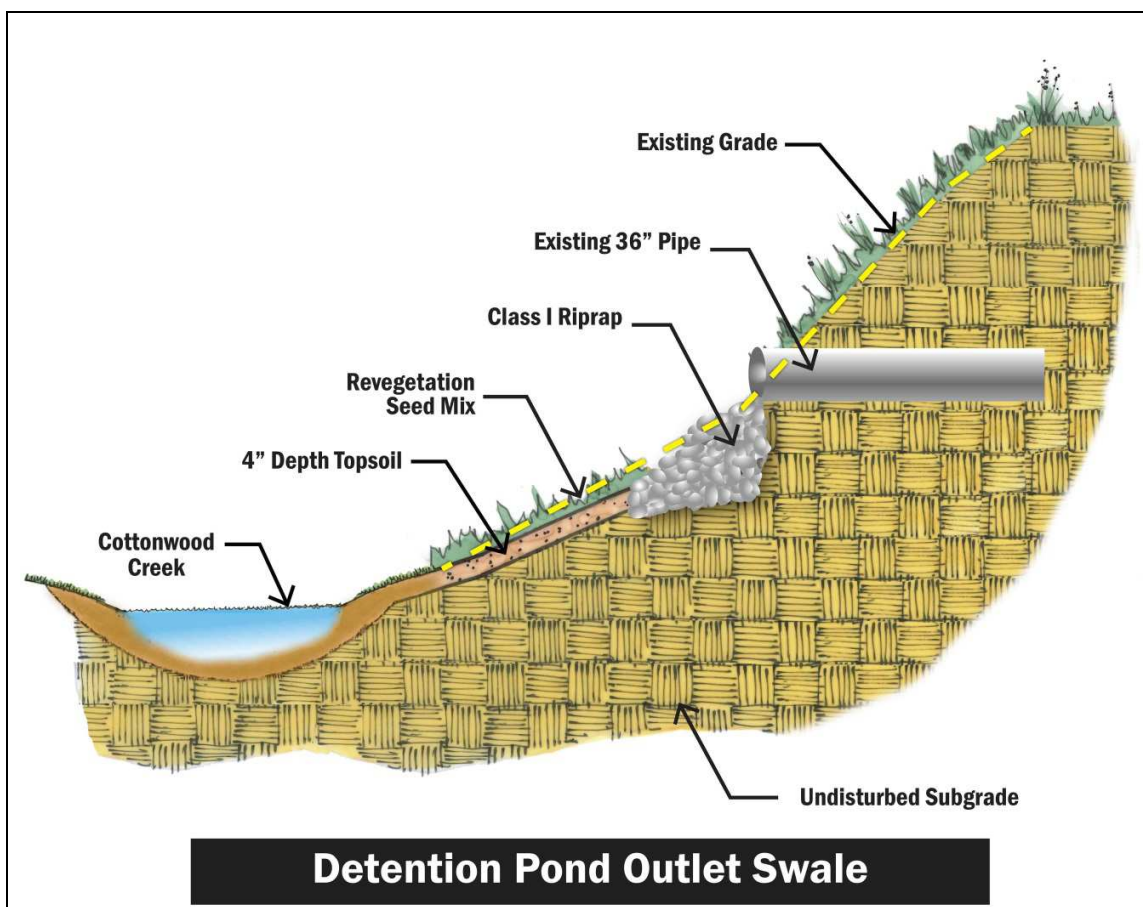


Figure 13: Detention Basin Discharge downstream of Railroad Trestle – Conceptual Section

5.2.4 Bridge at Earl Street

The Cottonwood Creek bridge on Earl Street does not have any gutters. Sediment deposited on the bridge by vehicles or from winter traction sanding can be washed into the creek during rainfall and snowmelt. One option is to install wood or concrete curbs, add asphalt to the bridge deck to direct drainage towards the curbs, and provide vegetated swales at each end of the bridge to receive and treat the runoff before discharge to the creek

Placing curb and gutter below a guardrail is usually avoided because of traffic safety issues. However, this is a very low volume, low speed road, so this may be less of a concern.

This bridge has a 0% grade in the longitudinal direction and very little crown. If curbing alone were added, runoff would pond or create icing on the bridge deck. Adding asphalt to create a vertical curve and crown would allow the driving surface to be sloped to allow runoff to occur.

The additional dead load that would be added from asphalt overlay and concrete or wood curbs must be within the bridge design limits. The designer would need to check to make sure that a future asphalt wearing surface was part of the design load and was adequate for this additional dead load. It is typically included, but it would need to be verified.

A rendering of the conceptual bridge modifications is shown in Figure 14.



Figure 14: Earl Street Bridge – Conceptual View

5.2.5 Combined Discharge at Fern Street

Discharge occurs on the west side of Fern Street, north of Cottonwood Creek, from combined discharge from portions of the Palmer-Wasilla Highway and Knik-Goose Bay Road. Although not observed during fall rains, flow was quite evident during spring breakup. The outlet of the last culvert in the ditch system is about 100 feet from the creek edge of water, at the edge of a hummocky but well vegetated riparian buffer. Channelized flow appears to occur across the riparian buffer from the culvert to the creek.

5.2.5.1 Provide Flow Spreader

A flow spreading device could be installed to spread out the concentrated flow and reduce channelization. As evident in the spring breakup photos, the runoff flows under the snow pack, indicating that the flow spreading device may function in spring, as well, as long as the flow spreading trench was not completely frozen. A conceptual rendering is shown in Figure 8 and the layout of a conceptual flow spreader is shown in Figure 15. Alternatively an OGS device in the piped system under Knik-Goose Bay Road could be considered to reduce the total sediment load, but sediment could still be picked up along the ditch system downstream of the OGS and reach Cottonwood Creek.



Figure 15: Fern Street Flow Spreader – Conceptual Layout

5.2.5.2 *Rehabilitate Ditches*

Upstream ditches contributing to the Fern Street outfall have been eroded by ATV traffic, causing drainage to flow outside of the riprap channels across bare earth, where sediment is picked up. Reestablishing stabilized (rock or vegetated) channels would reduce the amount of sediment that is picked up and, if flow is slowed, allow sedimentation to occur to reduce the sediment load to the creek. Providing another route for ATVs may be necessary.

5.2.6 Cost Estimates

Cost estimates for each of the identified retrofit projects are included in Table 12. These are preliminary, order-of-magnitude estimates for planning purposes only. The facilities were sized for the different recurrent interval design event based on available area and to accommodate conveyance criteria as well as water quality criteria. The estimates do not include ROW acquisition costs, which could be needed for location IDs 3, 4, and 5. They also do not include utility relocation costs.

Table 12: Potential Retrofit Projects and Estimated Costs

ID	Location	Description	Design Event	Cost estimate
1	North Clayton ROW south of Bogard Road	Install energy dissipation and bioretention	10Y	\$ 85,000
3	Bogard and First Presbyterian	Install bioretention	100Y	\$ 882,000
4	Bogard Road between Seldon and Seward Meridian	Install bioretention	100Y	\$1,452,000
5	NE Corner of Bogard and Seldon Roads	Install bioretention	10Y	\$ 907,000
10	Earl Street bridge	Install curbing and vegetated channel (*)	50Y	\$ 21,000
11	Detention pond outfall	Install energy dissipation, convert existing flow channel to vegetated riparian area	100Y	\$ 45,000
12	Fern Street	Flow spreader	10Y	\$ 18,000

(*) cost may be reduced if wood curbing is used instead of concrete

5.3 **Maintenance Considerations**

Maintenance of stormwater infrastructure is necessary for proper function. Maintenance considerations are often overlooked or receive inadequate funding (public facilities) or enforcement (private facilities).

Observations during mapping conducted for this project identified locations where culverts and ditches are overgrown, blocked, or have noticeable sediment accumulation that may be obstructing drainage. The condition of some specific drainage facilities, such as OGS devices and private detention and retention basins, are not as visible and were not part of the mapped observations. These facilities, which are prone to, or are specifically designed to, collect sediment, require specific means for inspection and periodic sediment removal. Existing

facilities that were mapped are shown in Figure 5. Specific maintenance recommendations are described below.

When OGS units or other water quality treatment devices, including bioretention facilities, are installed on private development, the permitting or approving agency (DEC, City of Wasilla, or MSB) should include mechanisms in the approval process for assuring ongoing maintenance of the facility. The authorizing agencies may not presently have enforcement mechanisms and may need to acquire them. For instance, the DEC issues a letter of non-objection that does not address on-going maintenance.

New facilities that rely on green infrastructure will require similarly periodic maintenance, such as mowing, sediment removal, and vegetation re-establishment. The approving authority should consider a means to guarantee ongoing maintenance of these facilities.

Blocked or overgrown culvert inlets, culverts impacted by deposited sediment, or culverts that are not aligned with ditches, should be maintained to provide unimpeded flow. Not all culverts in the Cottonwood Creek drainage actually serve a drainage function, so their maintenance may not be crucial. These could be identified through regular inspections or inspections during flow events. Those that do convey flow should have regular maintenance to prevent blockage.

Eroding ditches, whether due to steep embankments, ATV traffic, or channels inadequately protected for high flows, should be repaired. These may require a case-by-case examination to determine the cause. For instance, less steep unvegetated embankment slopes (for instance, 2 horizontal to 1 vertical or flatter), could be revegetated. Steeper slopes may require rolled erosion control products or other stabilization measures. Control of ATV traffic affecting drainage ditches is an on-going concern. Signage requesting ATV users' help in maintaining vegetation has been successful in some situations. Providing a dedicated gravel alignment outside of the ditch backslope could be considered.

Volunteer events for spring or creek clean up focused on trash removal from waterways should be encouraged and facilitated. For instance, pick-up locations for collected trash could be coordinated by a non-profit group or by MSB Public Works or other departments.

5.4 Future Considerations

Drainage recommendations for the Cottonwood Creek watershed as it approaches build-out include:

- Continue to handle runoff in ditches and vegetated swales and limit the conversion of ditches and swales to piped storm systems;
- Provide design criteria and plan review mechanisms that assure that adequate ROW (for roads) or on-site areas (for commercial, residential, and other development) are included for managing stormwater with green infrastructure; and
- For areas of new development in outfall and dispersed catchments, consider a limit on increases in site discharge through the use of green infrastructure.

The goal of green infrastructure is to minimize increases in discharge to surface water bodies and to provide water quality treatment even if low volume reduction is not possible. In some jurisdictions, this goal is focused on the more frequent events, such as the 1-year or 2-year events. Many catchments in the Cottonwood Creek watershed either have no runoff (due to their undeveloped condition) or do not discharge runoff to systems that subsequently discharge to the creek, due to topographies barriers or flow reduction along intervening flow paths, including ditches. One way to match this hydrology is to design facilities for developed areas to retain large runoff events, such as the 10-, 50-, or 100-year event. A bioretention facility designed for the 100-year event may require as much as three times the surface area as that required for a 2-year event.

The primary costs associated with green infrastructure include land, excavation, and material and labor to install amended planting soils and plant materials. Retrofitting sites for green infrastructure may also require utility relocation and ROW or land acquisition.

6.0 CONCLUSIONS

Field mapping of stormwater infrastructure was conducted in summer and fall of 2016 and in spring 2017 in the Cottonwood Creek watershed to identify discharges to Cottonwood Creek. As-built information was compiled. Mapped data, noted field conditions, and as-built information were captured in an ArcMap GIS database to display and manipulate watershed and stormwater infrastructure features.

Catchment areas contributing to discharge points were delineated and their land cover, slope, and area features were characterized. Runoff from approximately 70 percent of the Cottonwood Creek watershed is not connected by drainage infrastructure to Cottonwood Creek. Peak discharges from catchment areas the discharge to Cottonwood Creek for existing and build-out conditions were estimated for the 2-, 10-, 50-, and 100-year precipitation events.

Deficiencies noted during the field mapping included undersized ditches, ditches affected by ATV traffic, springs, untreated runoff from one bridge, and an eroding outfall channels.

Recommendations for retrofitting these deficiencies include:

- Improving existing points of discharge, such as at the North Clayton ROW off of Bogard Road, at the detention basin outfall downstream of the railroad trestle, and the Fern Street outfall (Sections 5.2.1, 5.2.3, and 5.2.4)
- Improving impoundment areas where runoff from private property and public ROW ponds. These areas (Section 5.2.2) have no current outlets to surface water bodies, which is an advantage for water quality, but the ponding may affect the road structural section. Improvements in these areas would have the benefit of precluding them from future connection to ditches or pipes that would discharge to Cottonwood Creek or the lakes in the watershed.

Recommendations for future conditions include maintaining the disconnected ditch and vegetated swale system to reduce impacts to Cottonwood Creek and incorporating bioretention areas with future land development.

For impacts from private development, the MSB or DEC could consider:

- Providing design criteria or local information to help developers design and install effective, properly sized bioretention facilities,
- Requiring specific minimum hydrologic computations for site development permits or subdivision plat reviews to ensure that runoff is adequately handled to reduce impacts to public infrastructure and receiving waterbodies, and
- Implementing methods to assure maintenance of stormwater facilities such as permit conditions or conditions on plan approvals.

For impacts from public stormwater facilities, the MSB, City of Wasilla, or DOT&PF could consider:

- Implementing an asset management system to track their stormwater facilities' locations and condition and to schedule and track routine and special maintenance
- Restricting unlimited discharges from new development to facilities in their ROWs and instead require new development to limit increases in runoff to some percentage, as low as zero, of the runoff in predevelopment conditions

In addition, the MSB and the City of Wasilla could consider:

- Developing an overall drainage master plan to prioritize problem areas and capital improvement projects
- Encouraging watershed stewardship for residents through support of creek, city, or borough cleanup days or educational activities for targeted groups, including the benefits of green infrastructure

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APPENDIX A

GIS Data Dictionary

DRAFT FINAL
STORMWATER INFRASTRUCTURE GEODATABASE
DATA DICTIONARY

Prepared for:

Matanuska Susitna Borough
Capital Projects Department
350 E. Dahlia Avenue
Palmer, Alaska 99645

Prepared by:

DOWL
4041 B Street
Anchorage, Alaska 99503
(907) 562-2000

W.O. 62205.01

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LIST OF ACRONYMS

AKRR	Alaska Railroad
DOT&PF	State of Alaska Department of Transportation and Public Facilities
GIS	Geographic Information System
MSB	Matanuska Susitna Borough
NHD	National Hydrographic Dataset
SIGDB.....	Stormwater Infrastructure Geodatabase
USGS	United State Geologic Survey

1.0 STORMWATER INFRASTRUCTURE GEODATABASE SUMMARY

The Stormwater Infrastructure Geodatabase (SIGDB) provides a digital container for information and spatial digital data files, attribute data, and metadata related to stormwater infrastructure and drainage analyses for use by the Matanuska Susitna Borough (MSB).

This data depicts stormwater infrastructure associated with point discharges to Cottonwood Creek between Bogard Road and Surrey Road, with some additional mapping in areas that contribute to Cottonwood Creek above and below those bounding roads. It depicts catchment areas and characterizes them based on the nature of the points of discharge associated with them.

1.1 Data Content and Compilation

The information content of the SIGDB is generated through mapping performed by MSB, its partners and its contractors.

This data depicts stormwater infrastructure associated with point discharges to Cottonwood Creek between Bogard Road and Surrey Road, excluding areas within the City of Wasilla. It depicts catchment areas and characterizes them based on their points of discharge.

Node (discharge points) and linear features (culverts and ditches) were field mapped using a hand-held global positioning system unit. Following field work, the collected data was entered into the Geographic Information System (GIS) data base.

The watershed boundary and catchment areas were also developed in the GIS database through data processing, topological associations, or information obtained from other sources. Data processing produced additional data attributes, such as stream and ditch locations, catchment delineation, area, slope, and lengths of identified linear features, such as culverts.

1.2 Data Administration

The MSB Information Technology department administers and coordinates digital geospatial data for the borough and provides quality assurance to maintain a common data structure, nomenclature, and topology.

1.3 Data Use

The SIGDB is intended to support planning-level and preliminary design drainage and water quality analyses. It may be used in the future for asset management and administration of a stormwater discharge permit and for guideline of stormwater discharges in the MSB. The SIGDB is structured, mapped, and attributed at a level of connectivity, resolution, and completeness sufficient for these uses.

All SIGDB digital spatial and attribute data are collected and compiled to be as complete and geographically representative as possible given mapping priorities and resources available at a point-in-time. It may contain errors and omissions.

This SIGDB is expected to be used with associated geospatial datasets, described in Table 1.

Table 1: Associated Geospatial Datasets

Agency	Data	Description
MSB Environmental Planning	Waterbody data	Linear and polygonal features
The Nature Conservancy	Hydrographic data	Digital geospatial data associated with an update of the USGS National Hydrographic Dataset for Alaska. Reference: <i>Creation of a digital flowline network from IfSAR 5-m DEMs for the Matanuska-Susitna Basins: a resource for update of the National Hydrographic Dataset in Alaska</i> , Dan Miller, et al., July 2015.
USGS	National Land Cover Dataset	

Note: USGS – United States Geologic Survey

1.4 Contacts

Contact the MSB GIS Division or Environmental Engineer for information about the SIGDB. Contact the responsible individual mapping agencies or consultants for information about the mapping and data content of specific feature classes.

2.0 GEOSPATIAL FEATURES

The SIGDB is structured to represent surface drainage features as spatially-interconnected systems of runoff surfaces, natural and constructed stormwater conveyances, and locations of point discharges to surface receiving waters. To support the intended uses, the SIGDB includes the following feature classes.

- Stormwater linear features include any stormwater conveyance, natural or constructed (including ditches, pipe systems, and natural channels and swales). Note that, unlike streams, a single MSB stormwater conveyance system is represented by a related network of interconnected arcs draining to a node define as a dispersed, sink, or outfall.
- Stormwater infrastructure nodes features include significant point features along a stormwater conveyance system. For the Cottonwood Creek area that was the initial focus of this database development, nodes typically identify legally-defined points of discharge to surface waters. Nodes may also identify important point features along stormwater conveyance networks, such as piped storm system inlets and manholes.
- Two polygonal features classes include the boundaries of watersheds and of stormwater catchments areas. Watersheds conform to the United States Geologic Survey (USGS) National Hydrographic Dataset (NHD) naming and delineation convention. Catchments include land areas that contribute runoff flows to specific point or surface water features. Catchment “types” reflect the nature of these endpoints. Catchments are delineated based on topographic features and connecting linear features such as pipes and culverts.

3.0 DATA ATTRIBUTES

Attribute data for feature classes includes metadata and core attribute data. SIGDB metadata is common to all feature classes. Core attribute data includes data content that is specific to a feature class as well as relational data. Domains may be revised to accommodate changing conditions.

3.1 Metadata

Metadata includes data that describes the quality and nature of the mapping data itself and conforms to Federal Geographic Data Committee-formatted and the MSB Spatial Data Standards. The metadata describes definitions and mapping standards and includes specific information about the source of the data, the date the information content was generated, the relative accuracy or quality of the data, and some references to information about the data published outside the database.

3.2 Stormwater Infrastructure Linear Features

Stormwater infrastructure linear features represent any stormwater conveyance, natural or constructed (including ditches, pipe systems, natural channels, and constructed ditches that carry and direct stormwater flows). A stormwater conveyance is any channel, ditch, pipe, or vegetated swale that does carry, or under stormwater runoff conditions would be likely to carry, surface runoff flows of generally short duration. Unlike a stream which is always uniquely defined as a single curvilinear feature and associated with another data set, such as NHD, stormwater conveyances are viewed as part of a larger network that drains to a single discharge point, either a surface waterbody or a sink. These linear features within a network represent discrete linear features to reflect lengths of conveyance system components having common geometric, material, and hydraulic properties. Definitions and descriptions of attribute and domain values for linear features are presented in Table 2.

Table 2: Stormwater Infrastructure Linear Features

ATTRIBUTE	Type to which attribute applies	Description	Domain
Type			constructed ditch, culvert, open channel, storm drain pipe, other
Material	Culvert, storm drain pipe		Concrete, corrugated metal, corrugated plastic, smooth metal, other; NA if Type not culvert or storm drain pipe
Drainage_Shape	All		Circular; arch-elliptical; V-ditch, trapezoidal; natural channel; other
Substrate	Ditch, channel	Describes materials lining the bottom and sides of channels and ditches	drain rock, earth, other, riprap, vegetated; NA if Type is culvert or storm drain pipe
Flow present	Any	as observed on the date of inspection	yes, no, standing water, unknown
Flow_duration	All	The temporal character of the flow along a linear feature	perennial, intermittent, NHD stream, stormwater, other, none
Condition	Culvert, storm drain pipe	as observed on the date of inspection, such as crushed end, rusted flow bypassing, blocked, etc.	Open domain: Text
Deficiencies	All	as observed on the date of inspection	Open domain: Text
Diameter_in	Culvert, storm drain pipe	Pipe diameter, inches, or unk if	Open domain, NA if Type not culvert or storm drain pipe:
Invert_stain	Culvert; with sub-type of corrugated metals	How far up the bottom of the culvert staining reaches; an indication of depth of flow, such as spring line; < 0.25 ft; 0.25 - .5 ft; > 0.5 ft,	Open domain: NA if Type culvert and sub-type corrugated metal
Depth_flow_ft	Constructed ditch or open channel	If flow present, observed maximum depth of flow, in feet	Open domain: single precision, NA if Type not constructed ditch or open channel or Flow present not equal to yes
Flow_width_ft	Constructed ditch or open channel	If flow present, observed width of flow, in feet	Open domain: single precision, NA if Type not constructed ditch or open channel or Flow present not equal to yes
Inspection_date	All		Open domain: mm/dd/yyyy
ID	All	Unique identification number for discrete linear feature	Open domain
Catchment_ID	All	Unique identification number for catchment of upstream end of linear feature	Open domain
Owner	All	Owner of ROW or easement, if public entity; Private otherwise	MSB, City of Wasilla, City of Palmer, DOT&PF, private, other
Notes	All		Open domain

Note: DOT&PF – State of Alaska Department of Transportation and Public Facilities

3.3 Stormwater Infrastructure Node Features

Stormwater infrastructure node features represent any significant point along a stormwater conveyance system (Table 3).

Table 3: Stormwater Infrastructure Node Features

ATTRIBUTE	Type /subtype to which attribute applies	Description	Domain
Type			curb inlet, detention/retention basin, field inlet, manhole, outfall, road culvert in, road culvert out, source, other
Sub-Type	Outfall		pipe-end, ditch-end, other
	Manhole		regular, OGS
	Any other value		NA if Type not outfall or manhole
Floatables	Outfall whose Outfall Position is not 'set back'	Floating debris found in the receiving water at the point of discharge	none, oil sheen, foam, algae, garbage, other. Can be NA if Type is not outfall or Type is outfall but Outfall Position is set back
Water Color	Outfall whose Outfall Position is not set back	Color of the receiving water at the point of discharge:	none, brown, other. Can be NA if Type is not outfall or Type is outfall and Outfall Position is set back
Water Turbidity	Outfall whose Outfall Position is not set back'	Clarity of the receiving water at the point of discharge:	clear, cloudy, opaque. NA if Type not outfall or Type is outfall but Outfall Position is set back
Odor	Outfall whose Outfall Position is not set back	as observed on the date of inspection	none, creosote, sulfur, musty, swamp, other. NA if Type not outfall or Type is outfall but Outfall Position is set back
Outfall Position	Outfall	Hydraulic position as observed on the date of inspection. Set back is used if pipe end is 15 feet or more from edge of water	partially submerged, set back, other. NA if Type is not outfall
Grated	Outfall, road culvert in, or road culvert out	Grating on culvert to prevent entry or to capture debris	yes, no. NA if Type not outfall, road culvert in, or road culvert out
Condition	Any	If observed on date of inspection. Examples include: eroded, needs maintenance, fair, good	Open domain: Text
Discharge Occurring	Outfall	As observed on the date of inspection	yes, no. NA if Type not outfall
Animals_Present	All	As observed on the date of inspection	none, ducks, domestic animals, other
Deficiencies	Any	If observed. Examples include: erosion, outfall protection,	Open domain: Text
Inspection Date	All		Open domain: mm/dd/yyyy
ID	All	Unique assigned number	Open domain: integer
Catchment	All	The identification number of the catchment within which the node lies.	Open domain: integer

ATTRIBUTE	Type /subtype to which attribute applies	Description	Domain
Owner	All		MSB, City of Wasilla, City of Palmer, DOT&PF, AKRR, private, other
Notes	Any	If observed on the date of inspection.	Open domain: Text
Outfall Obstruction	Outfall	as observed on the date of inspection	none, trash, woody debris, leaves, other. NA if Type not outfall
Outfall Protection	Outfall	as observed on the date of inspection	none, gravel, vegetation, riprap, paved, other. NA if Type not outfall

Note: DOT&PF – State of Alaska Department of Transportation and Public Facilities
AKRR – Alaska Railroad

3.4 Polygonal Features

3.4.1 Catchment Features

Catchment features represent land areas that contribute runoff flows to individual stormwater conveyance networks, to point discharges, and to diffuse non-point discharges (Table 4).

Table 4: Stormwater Infrastructure Catchment Features

Attribute	Domain	Domain Type
Acres	Area in acres	Open: floating point
Type	outfall, dispersed, sink, connected-dispersed, connected-outfall, connected-sink, outside area of field investigation, lake, other	Open: text
ID	unique assigned number	Open; integer
Impervious_Percentage		Open; floating point
Flow_path_length_ft		Open; floating point
Impervious_acres		Open; floating point
Highest_elevation_meters		Open; floating point
Lowest_elevation_meters		Open; floating point

The catchment type refers to the nature of discharge from the catchment area, as follows:

- **Outfall:** generally follows the federal regulatory definition of outfall and indicates that stormwater runoff from the catchment area enters surface water as a point discharge.
- **Dispersed:** signifies that stormwater runoff from the catchment area enters surface water as sheet flow or diffuse flow and not as a point discharge.

- Sink: indicates that stormwater runoff from the catchment does not have a connection to receiving water, either directly or through a conveyance system.
- Connected: indicates that the catchment area is connected to a downstream catchment area or conveyance system through a discrete conveyance feature (such as a culvert).
 - Connected-dispersed indicates that the downstream catchment is a dispersed catchment
 - Connected-outfall indicates that the downstream catchment is an outfall catchment
 - Connected-sink indicates that the downstream catchment is a sink catchment
- Outside area of field investigation indicates that the catchment area has been delineated, but its characteristics have not been field verified or calculated
- Lakes were also delineated to account for the entire area within the watershed

3.4.2 Watershed Features

Attributes for watershed polygonal features are shown in Table 5.




Table 5 Watershed Polygonal Features

Attribute	Description	Domain	Domain Type
Area	Area in square feet		Open; double precision
Watershed	A watershed is a land area drained by a network of streams with all stream flows discharging at a single point.	Discrete MSB watersheds per NHD	Closed; text

APPENDIX B




Typical Features

Cottonwood Creek Stormwater Analysis – Project Photographs
 Status Update of Fall Mapping
 9/23/2016

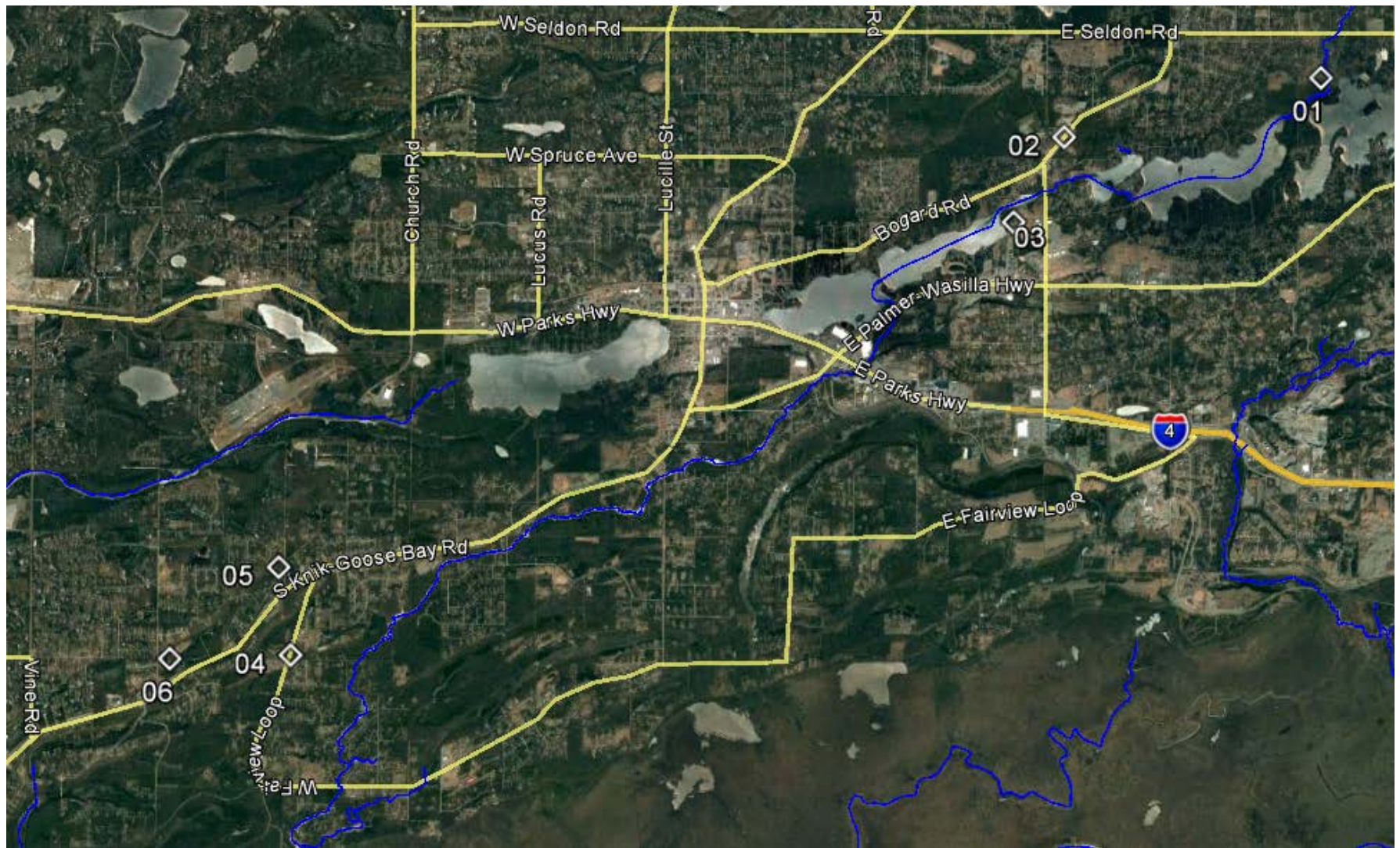
IMAGE FILE NAME	APPROX. LAT/LONG	CAT. †	DESCRIPTION	THUMBNAIL
01_Earl_Dr_Curb_Transition_08252016.jpg	61°36'32" N 149°17'39" W	2,3	<p>Transition along Earl Dr. from a paved road with curb & gutter to a gravel road with vegetated ditches near a bridge over Cottonwood Creek. Visible flowing water from the curbed section was dissipated by the vegetated ditches prior to reaching Cottonwood Creek. No visible sign of current discharge to the creek at the bridge.</p> <p>Example of existing green infrastructure (vegetated ditch) that improves water quality</p>	
02_Bogard_Rd_Ponding_08252016.jpg	61°36'07" N 149°21'20" W	1,2	<p>Ponding on the north side of Bogard Rd. between Anaheim Dr. and Tait Dr. The road embankment lacks cross culverts and is blocking runoff from reaching Cottonwood Creek.</p> <p>Although ponding and infiltration are important aspects of green infrastructure, they should be used in concert with drainage strategies that don't negatively affect transportation infrastructure and public safety.</p>	
03_Meridian Pk I_Wasilla_Lake_08252016.jpg	61°35'32" N 149°22'03" W	1,2,3	<p>The parking lot at the Meridian Park 1 development (ADEC medical building) off of Meridian Park Loop discharges to a wetland area that drains to Wasilla Lake. The constructed channel is lined with riprap and gravel and appears to be under construction after a parking lot expansion.</p> <p>Example of drainage that could be improved with green infrastructure.</p>	

†Category Descriptions: 1=Problem the project addresses; 2=Project in progress; 3=Environmental benefit of the project

Cottonwood Creek Stormwater Analysis – Project Photographs
 Status Update of Fall Mapping
 9/23/2016

IMAGE FILE NAME	APPROX. LAT/LONG	CAT.†	DESCRIPTION	THUMBNAIL
04_Fairview_Lp_Ponding_08252016.jpg	61°32'32" N 149°32'22" W	1,2	<p>Ponding in roadside ditches on the east and west sides of Fairview Loop just north of Marble Way. Road embankments that lack culverts and depressions developed in roadside ditches from ATV use prevent runoff from reaching Cottonwood Creek.</p> <p>Example of existing green infrastructure that maintains natural hydrology and prevents discharge of polluted runoff to Cottonwood Creek but does not improve water quality.</p>	
05_Clapp_St_Sink_08252016.jpg	61°33'08" N 149°32'33" W	1,2, 3	<p>Local sink at Clapp St./Donovan Dr. just north of KGB Rd. Curbed storm drain system along east side of Clapp St. discharges to a sink on the west side of the road. Runoff never reaches Cottonwood Creek.</p> <p>Example of existing green infrastructure (natural vegetation) that improves water quality and maintains natural hydrology of the creek.</p>	
06_Foothills_Blvd_Sink_08252016.jpg	61°32'30" N 149°34'06" W	1,2, 3	<p>Pronounced natural sink east of Foothills Blvd. Note the change in vegetation where water historically collects. Surface runoff does not reach Cottonwood Creek.</p> <p>Example of existing green infrastructure (vegetation) that improves water quality and maintains the natural hydrology of the creek.</p>	

†Category Descriptions: 1=Problem the project addresses; 2=Project in progress; 3=Environmental benefit of the project










Location of Six Typical Features

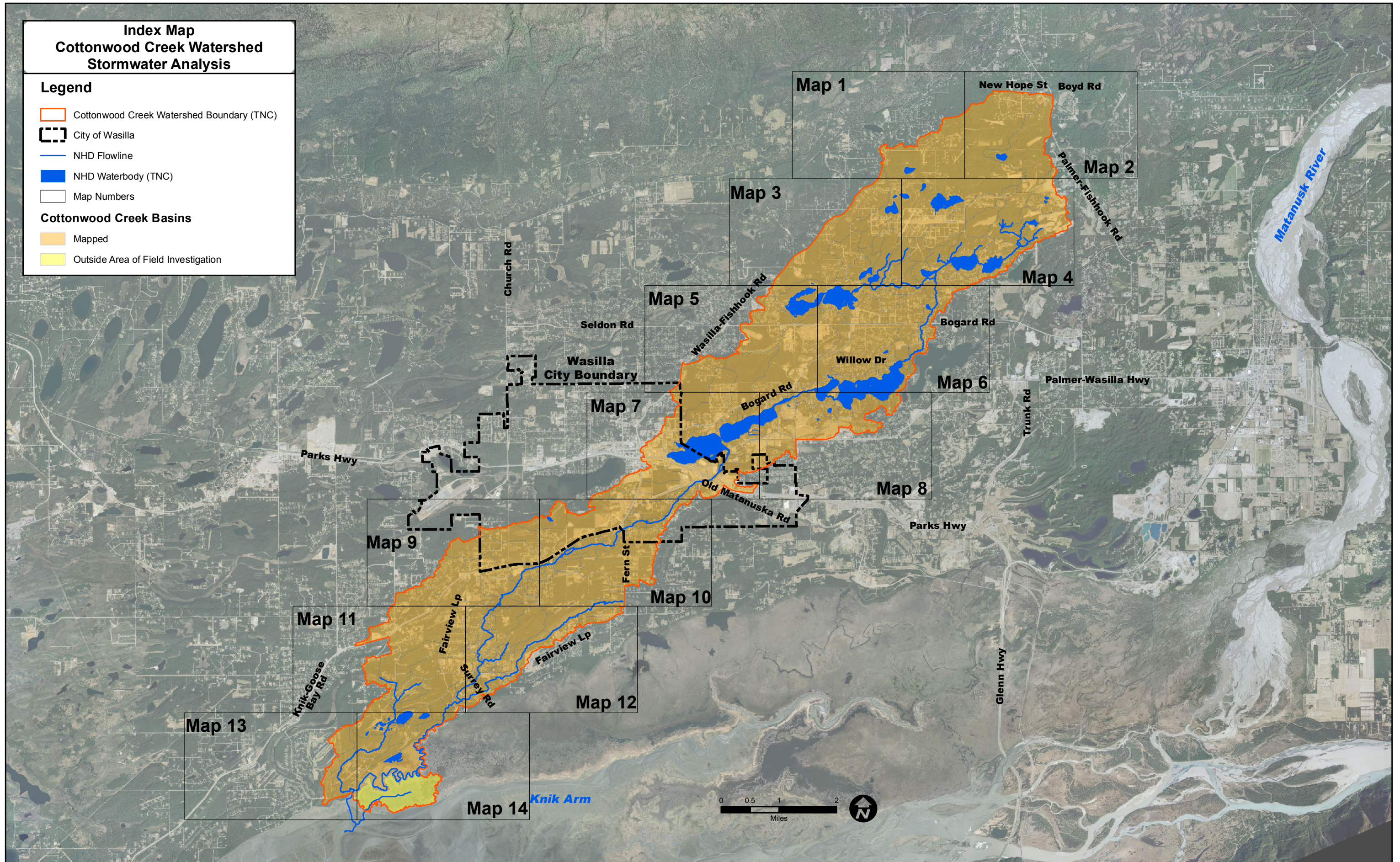
APPENDIX C

Maps















**Index Map
Cottonwood Creek Watershed
Stormwater Analysis**

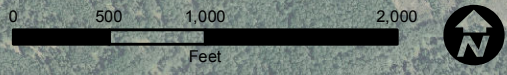
Legend

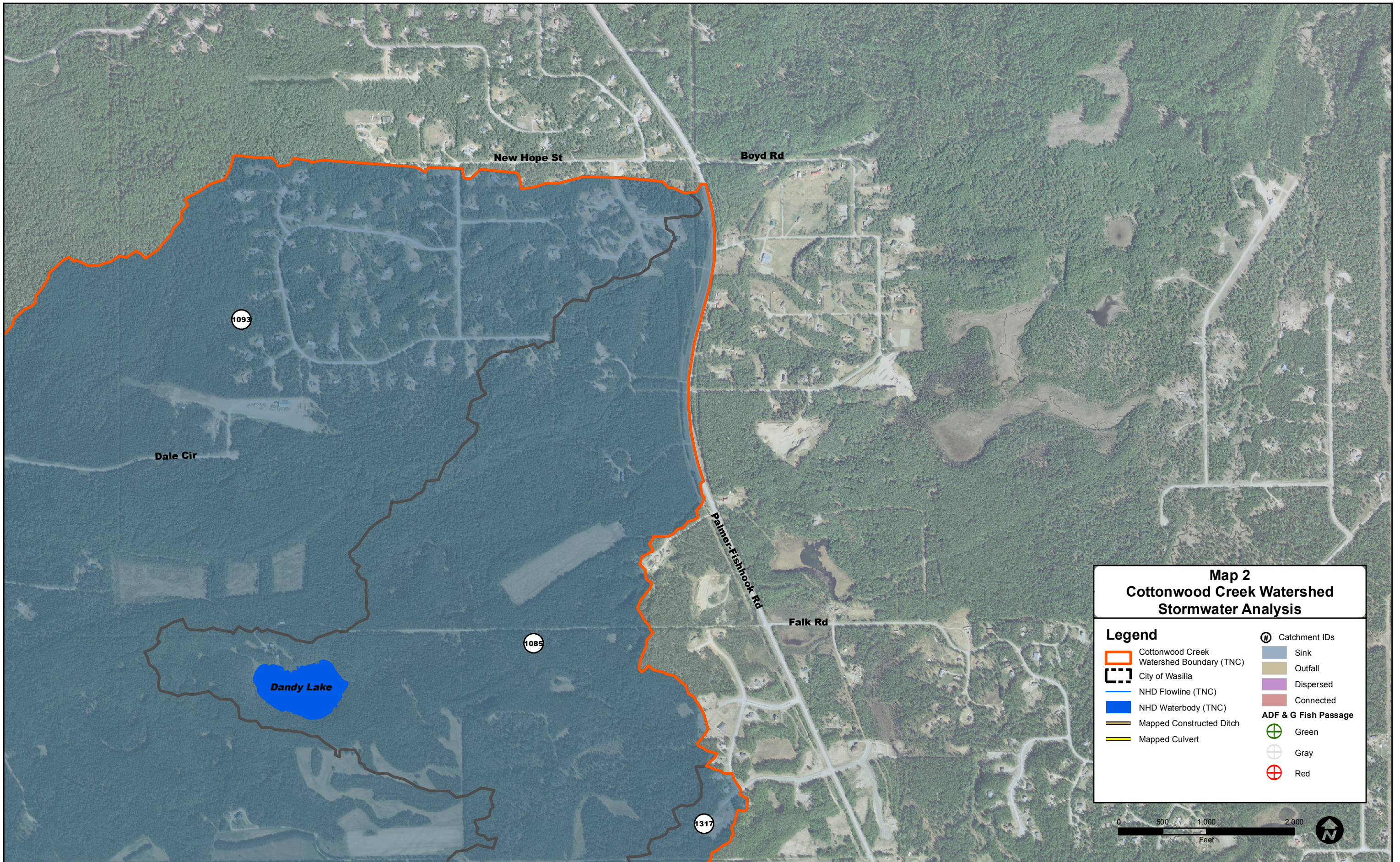
-  Cottonwood Creek Watershed Boundary (TNC)
 -  City of Wasilla
 -  NHD Flowline
 -  NHD Waterbody (TNC)
 -  Map Numbers
- Cottonwood Creek Basins**
-  Mapped
 -  Outside Area of Field Investigation



Map 1
Cottonwood Creek Watershed
Stormwater Analysis

- Legend**
-  Cottonwood Creek Watershed Boundary (TNC)
 -  City of Wasilla
 -  NHD Flowline (TNC)
 -  NHD Waterbody (TNC)
 -  Mapped Constructed Ditch
 -  Mapped Culvert
 -  Catchment IDs
 -  Sink
 -  Outfall
 -  Dispersed
 -  Connected
 - ADF & G Fish Passage**
 -  Green
 -  Gray
 -  Red

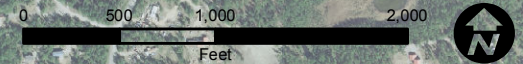


















Map 2
Cottonwood Creek Watershed
Stormwater Analysis

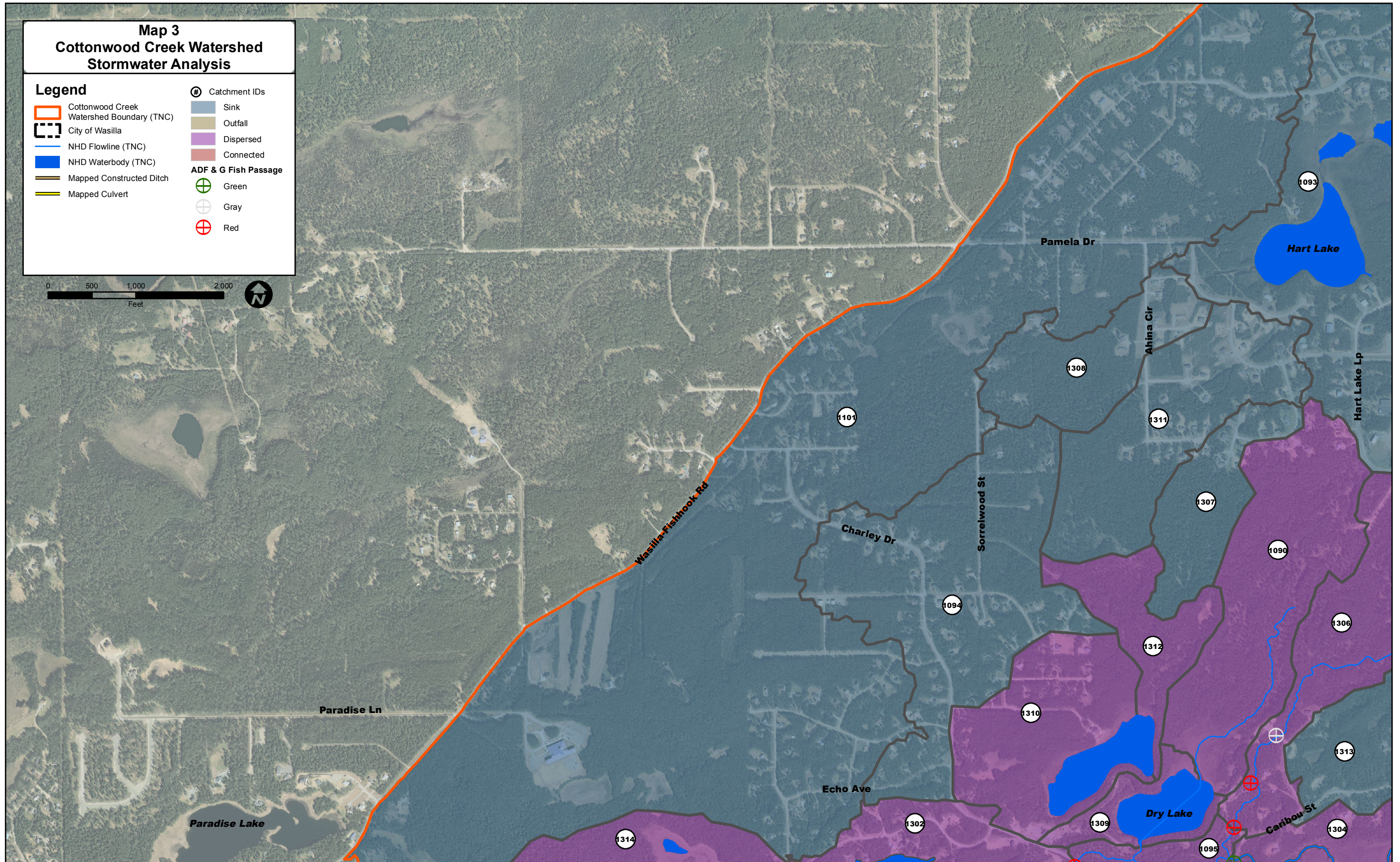
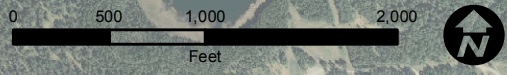
Legend

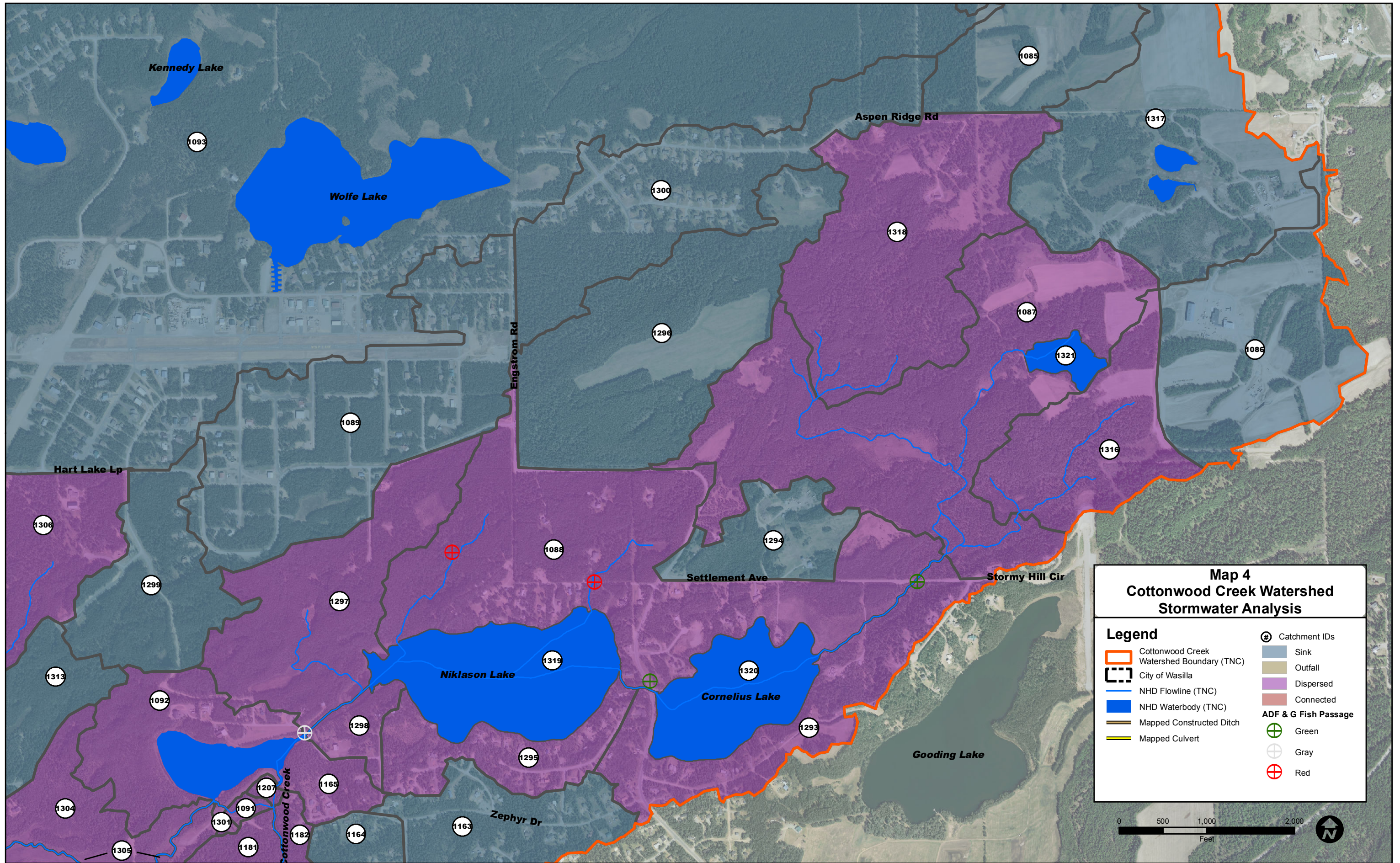
Cottonwood Creek Watershed Boundary (TNC)	Catchment IDs
City of Wasilla	Sink
NHD Flowline (TNC)	Outfall
NHD Waterbody (TNC)	Dispersed
Mapped Constructed Ditch	Connected
Mapped Culvert	ADF & G Fish Passage
	Green
	Gray
	Red



Map 3 Cottonwood Creek Watershed Stormwater Analysis

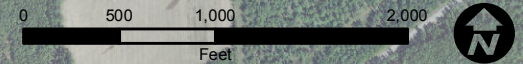
- Legend**
-  Cottonwood Creek Watershed Boundary (TNC)
 -  City of Wasilla
 -  NHD Flowline (TNC)
 -  NHD Waterbody (TNC)
 -  Mapped Constructed Ditch
 -  Mapped Culvert
 -  Catchment IDs
 -  Sink
 -  Outfall
 -  Dispersed
 -  Connected
 - ADF & G Fish Passage**
 -  Green
 -  Gray
 -  Red





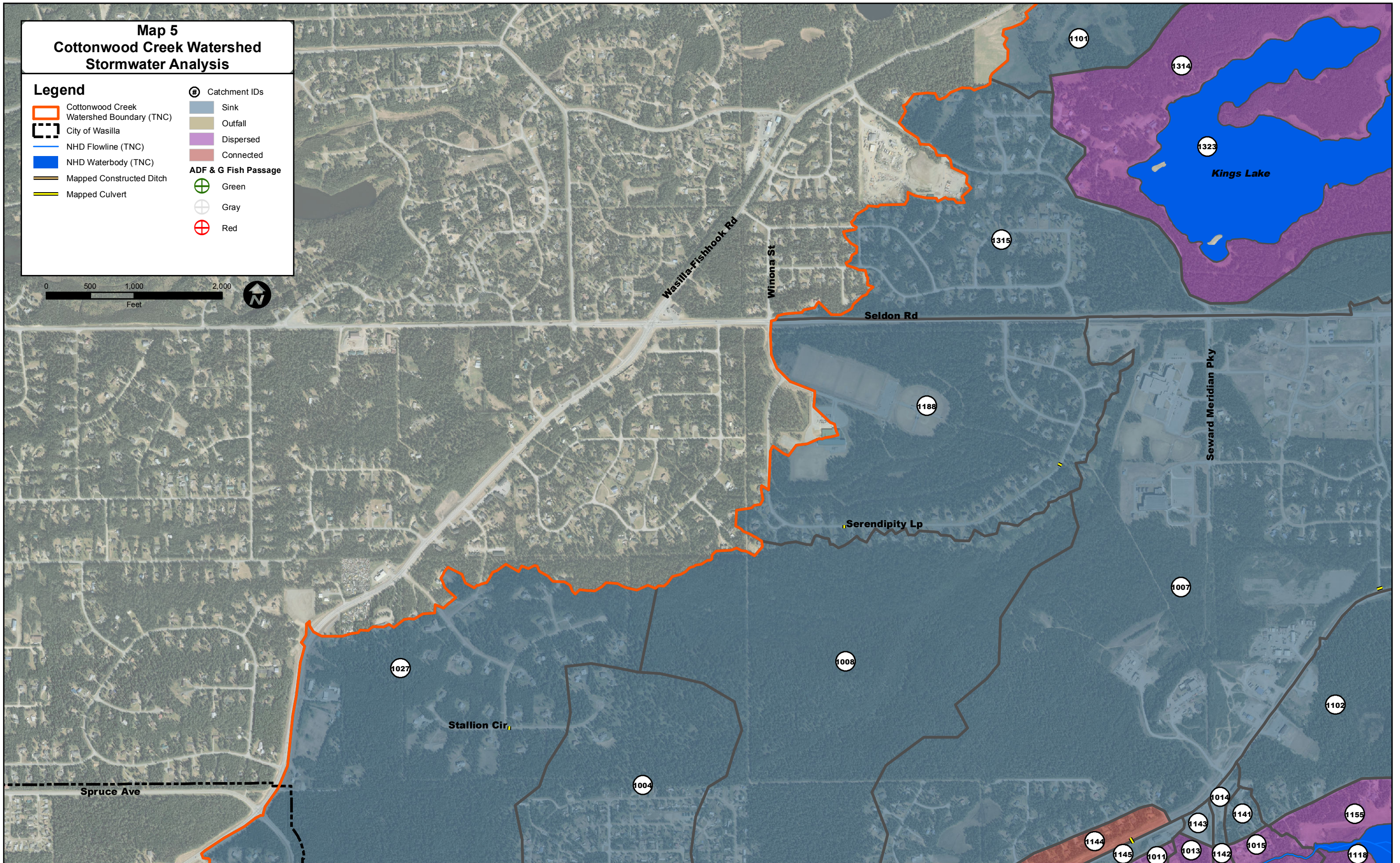
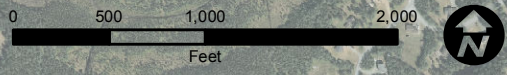
Map 4 Cottonwood Creek Watershed Stormwater Analysis

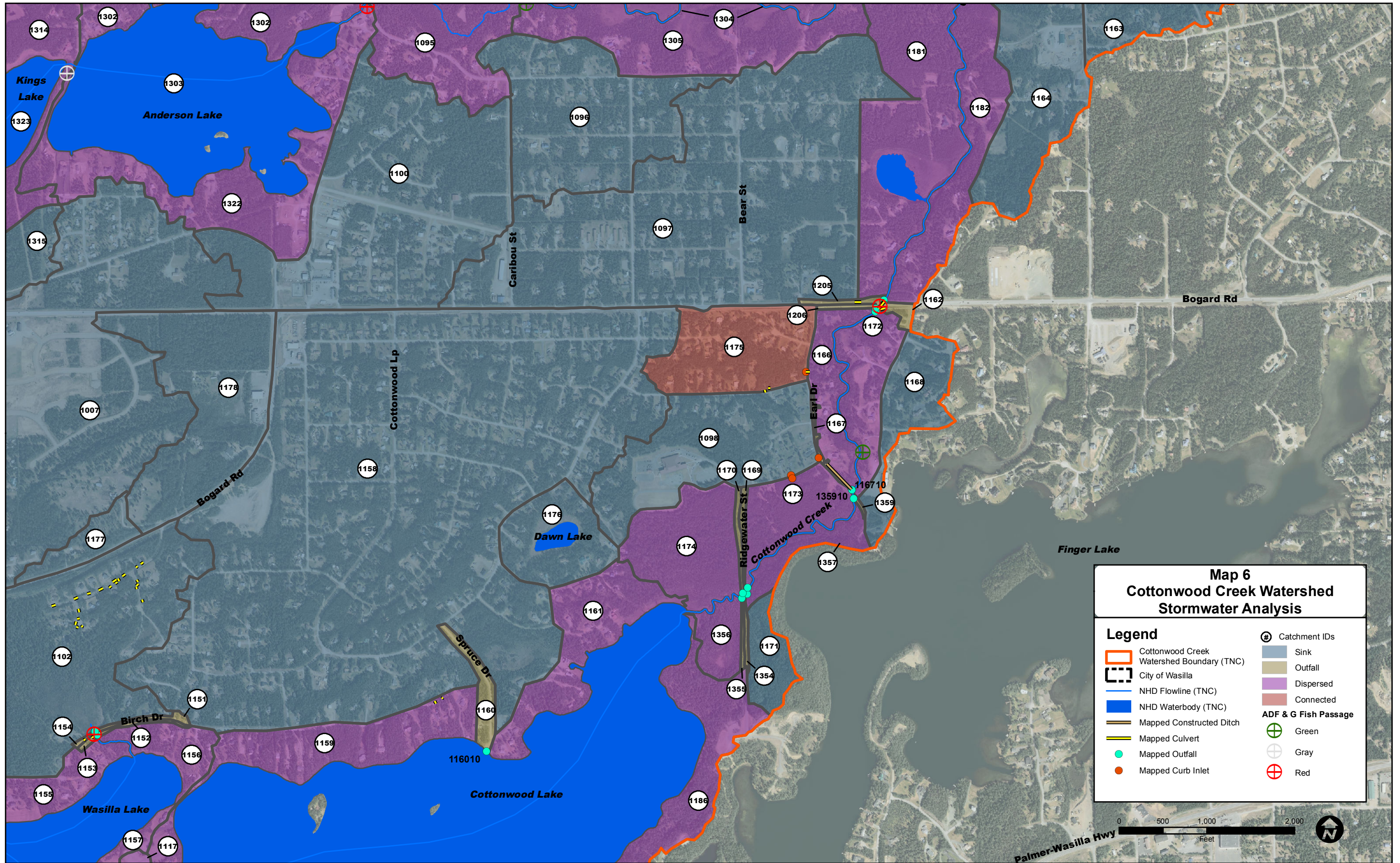
Legend	
	Cottonwood Creek Watershed Boundary (TNC)
	City of Wasilla
	NHD Flowline (TNC)
	NHD Waterbody (TNC)
	Mapped Constructed Ditch
	Mapped Culvert
	Catchment IDs
	Sink
	Outfall
	Dispersed
	Connected
ADF & G Fish Passage	
	Green
	Gray
	Red



Map 5 Cottonwood Creek Watershed Stormwater Analysis

- Legend**
- Cottonwood Creek Watershed Boundary (TNC)
 - City of Wasilla
 - NHD Flowline (TNC)
 - NHD Waterbody (TNC)
 - Mapped Constructed Ditch
 - Mapped Culvert
 - Catchment IDs
 - Sink
 - Outfall
 - Dispersed
 - Connected
 - ADF & G Fish Passage**
 - Green
 - Gray
 - Red





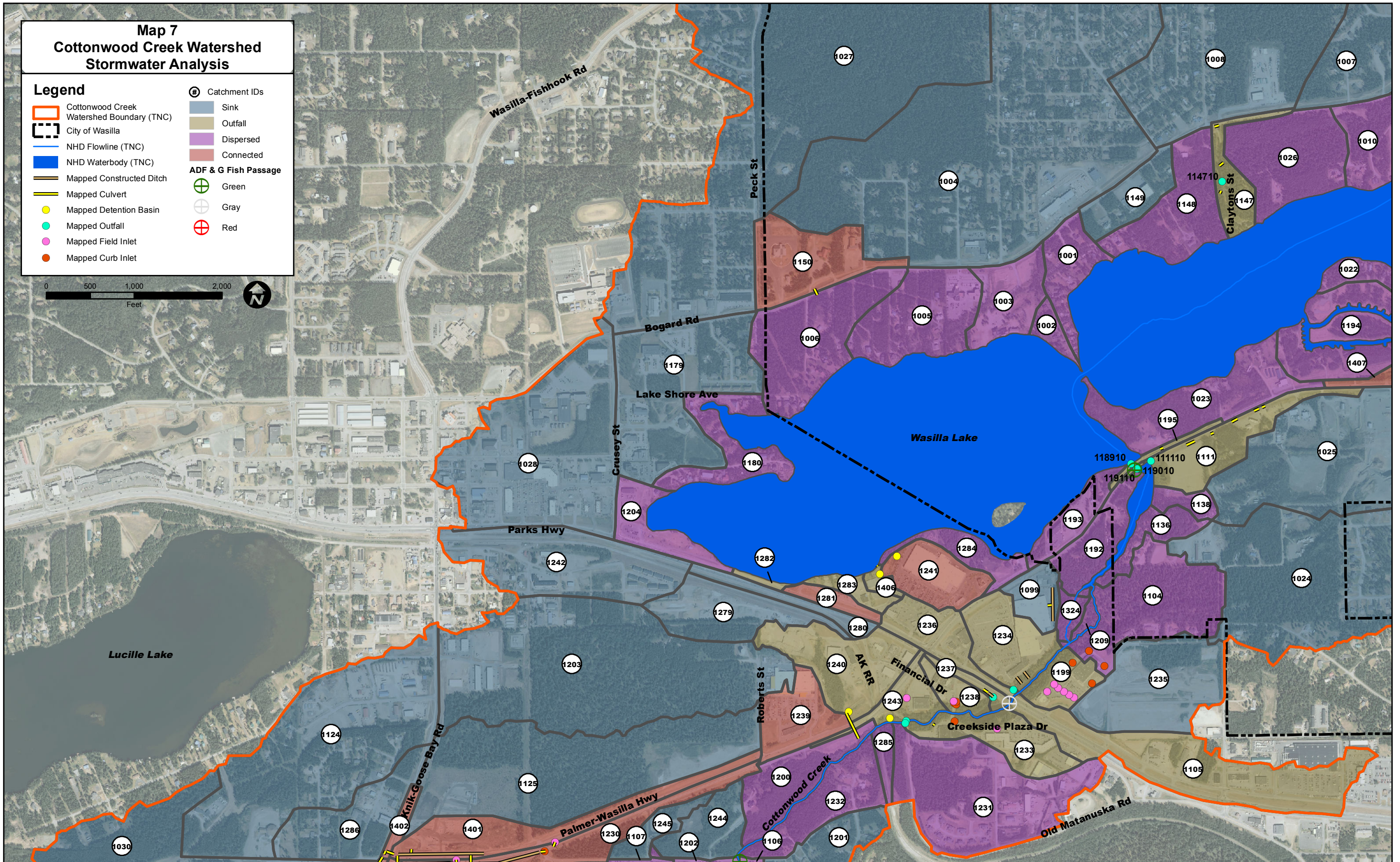
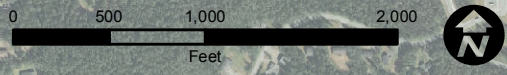
Map 6 Cottonwood Creek Watershed Stormwater Analysis

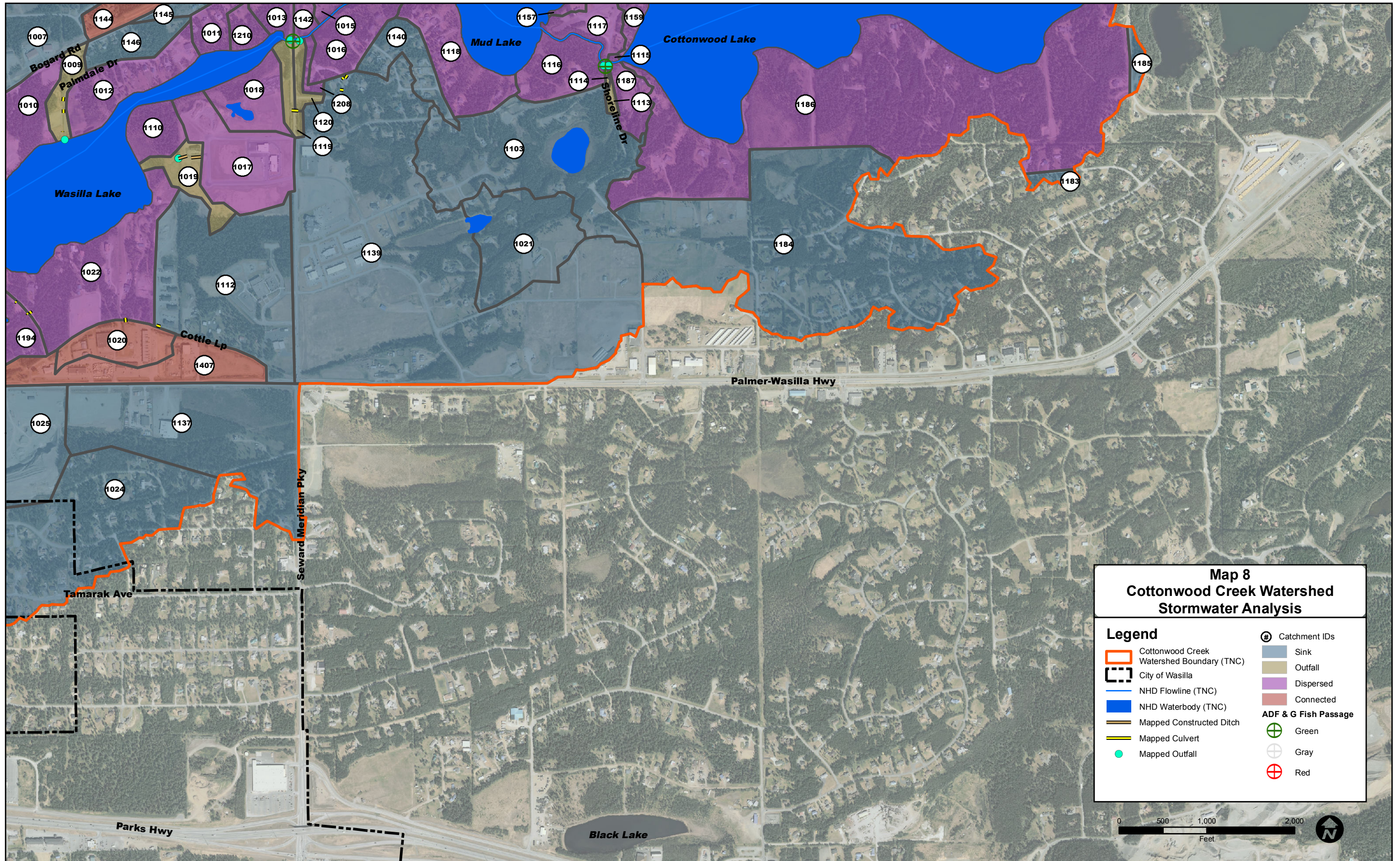
Legend	
	Cottonwood Creek Watershed Boundary (TNC)
	City of Wasilla
	NHD Flowline (TNC)
	NHD Waterbody (TNC)
	Mapped Constructed Ditch
	Mapped Culvert
	Mapped Outfall
	Mapped Curb Inlet
	Catchment IDs
	Sink
	Outfall
	Dispersed
	Connected
ADF & G Fish Passage	
	Green
	Gray
	Red



Map 7 Cottonwood Creek Watershed Stormwater Analysis

- Legend**
- Cottonwood Creek Watershed Boundary (TNC)
 - City of Wasilla
 - NHD Flowline (TNC)
 - NHD Waterbody (TNC)
 - Mapped Constructed Ditch
 - Mapped Culvert
 - Mapped Detention Basin
 - Mapped Outfall
 - Mapped Field Inlet
 - Mapped Curb Inlet
 - Catchment IDs
 - Sink
 - Outfall
 - Dispersed
 - Connected
 - ADF & G Fish Passage**
 - Green
 - Gray
 - Red





Map 8
Cottonwood Creek Watershed
Stormwater Analysis

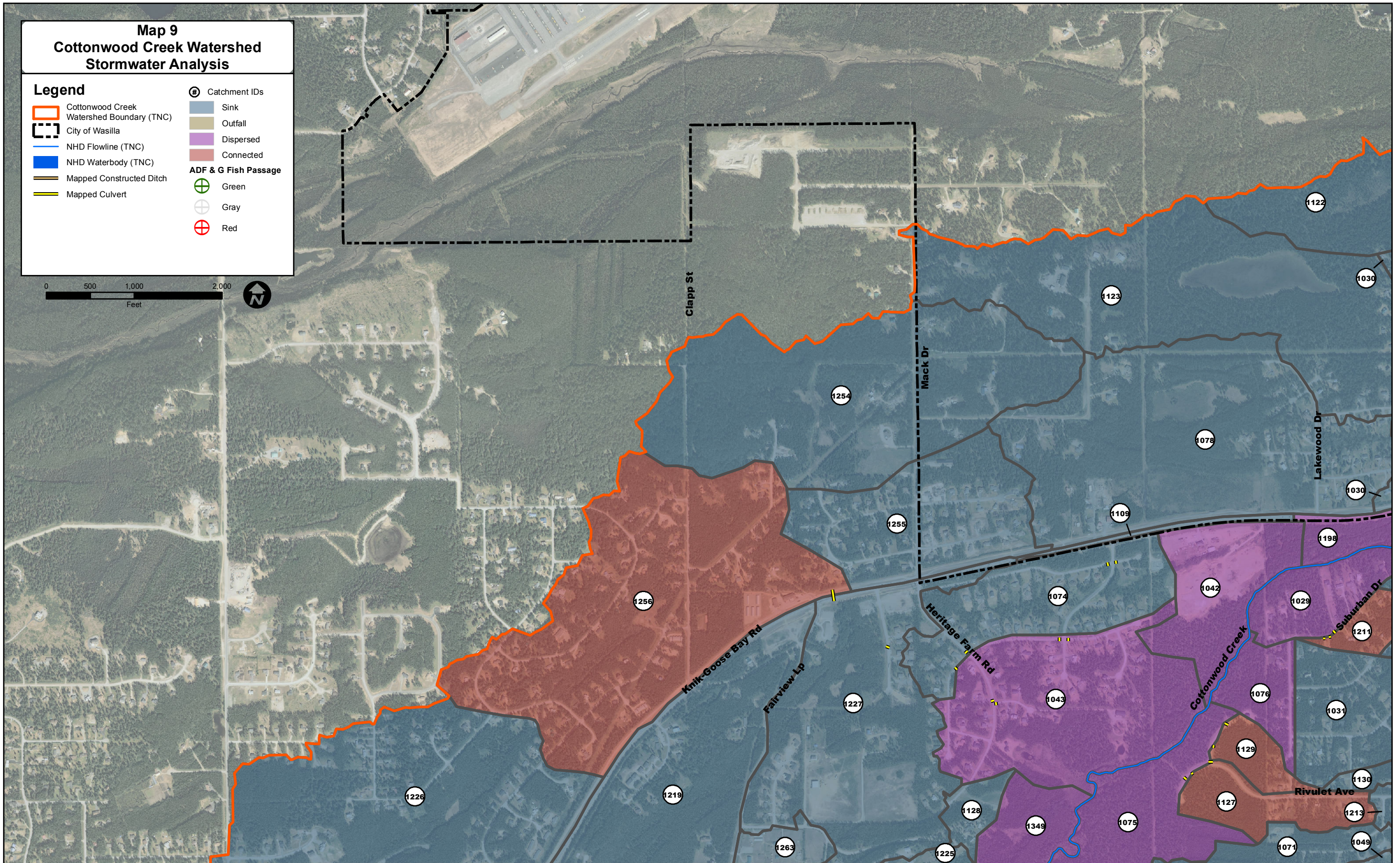
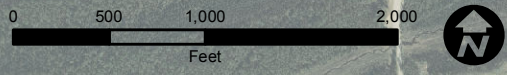
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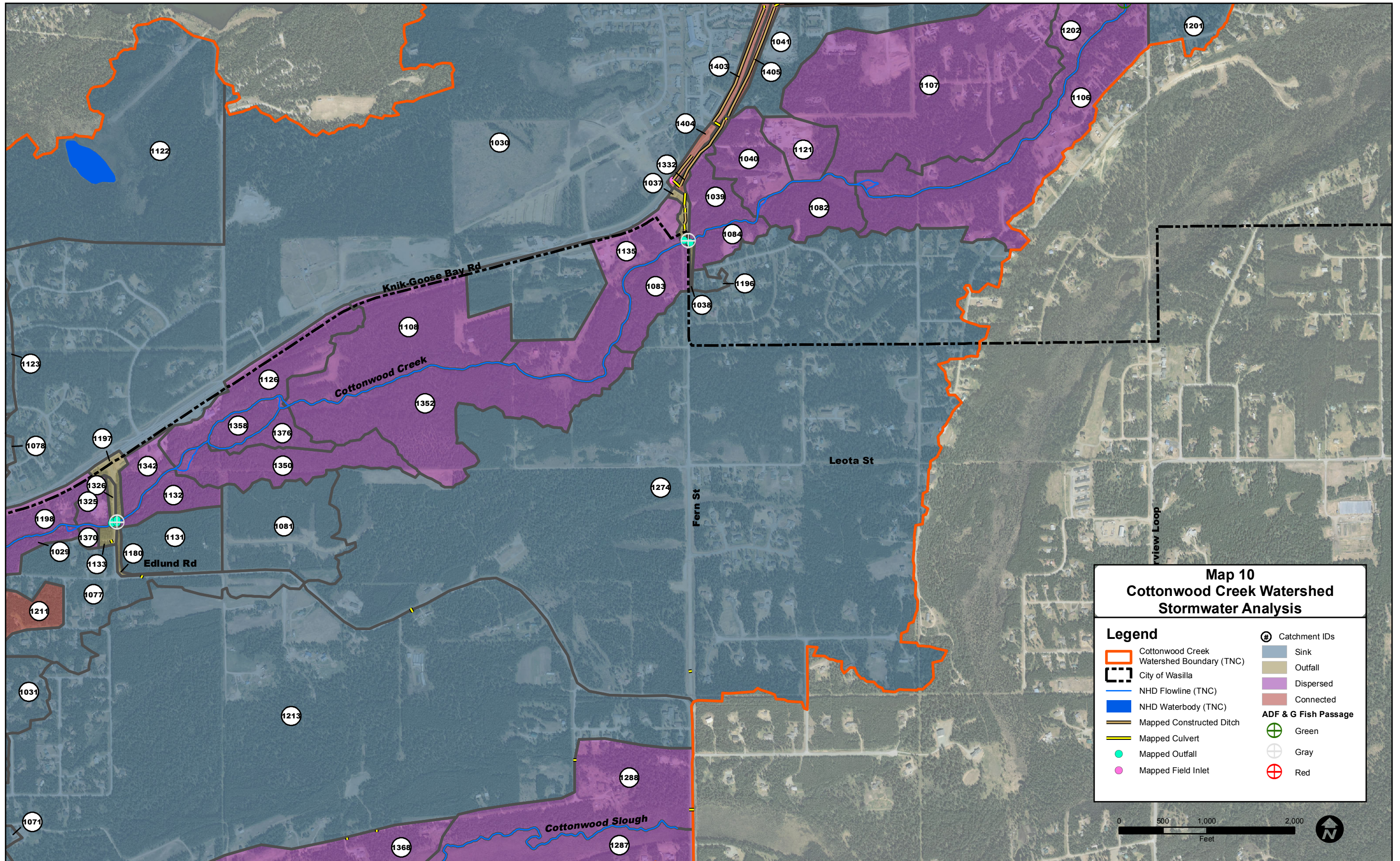
Cottonwood Creek Watershed Boundary (TNC)	Catchment IDs
City of Wasilla	Sink
NHD Flowline (TNC)	Outfall
NHD Waterbody (TNC)	Dispersed
Mapped Constructed Ditch	Connected
Mapped Culvert	ADF & G Fish Passage
Mapped Outfall	Green
	Gray
	Red



Map 9 Cottonwood Creek Watershed Stormwater Analysis

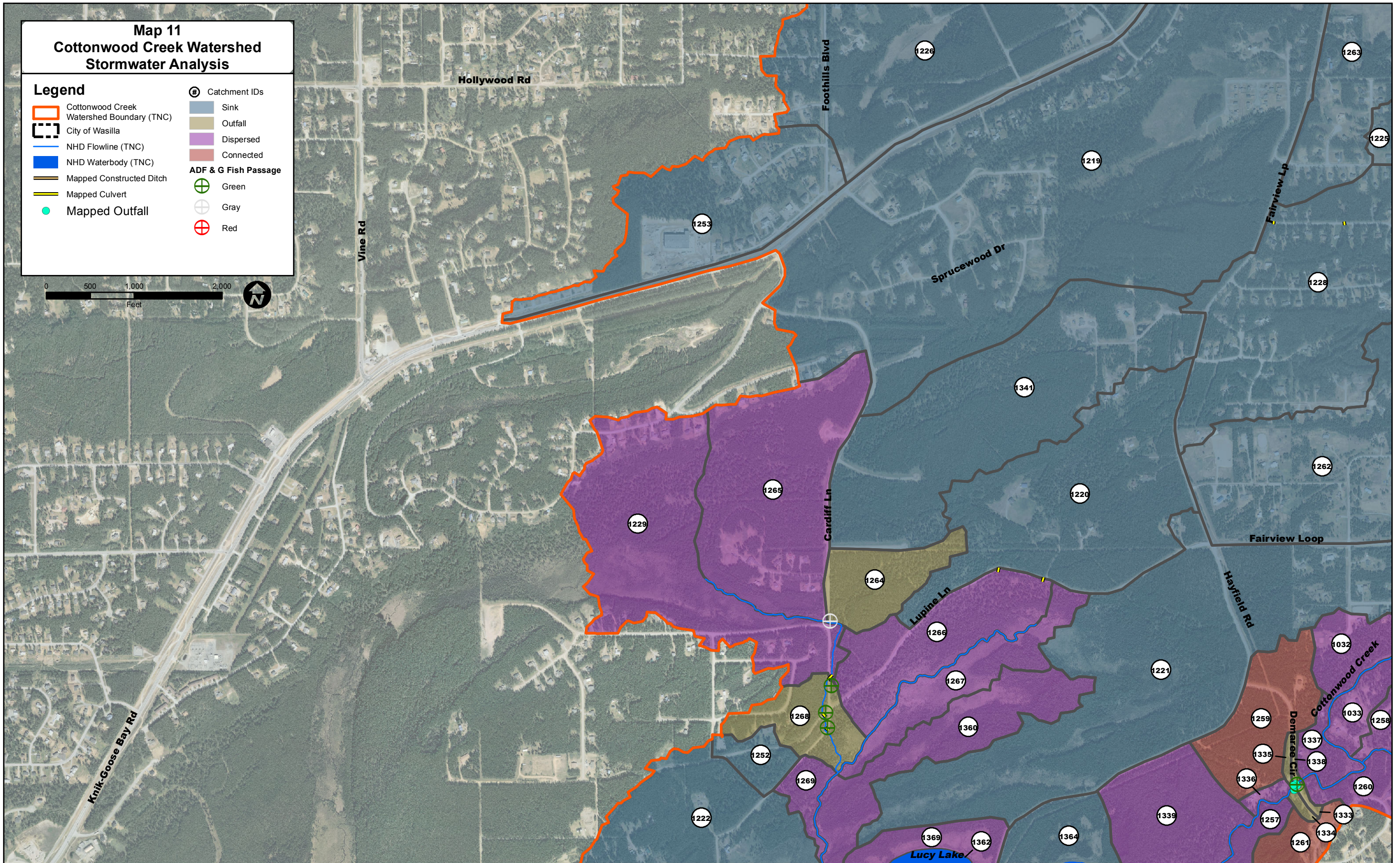
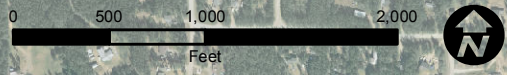
- Legend**
- Cottonwood Creek Watershed Boundary (TNC)
 - City of Wasilla
 - NHD Flowline (TNC)
 - NHD Waterbody (TNC)
 - Mapped Constructed Ditch
 - Mapped Culvert
 - Catchment IDs
 - Sink
 - Outfall
 - Dispersed
 - Connected
 - ADF & G Fish Passage**
 - Green
 - Gray
 - Red

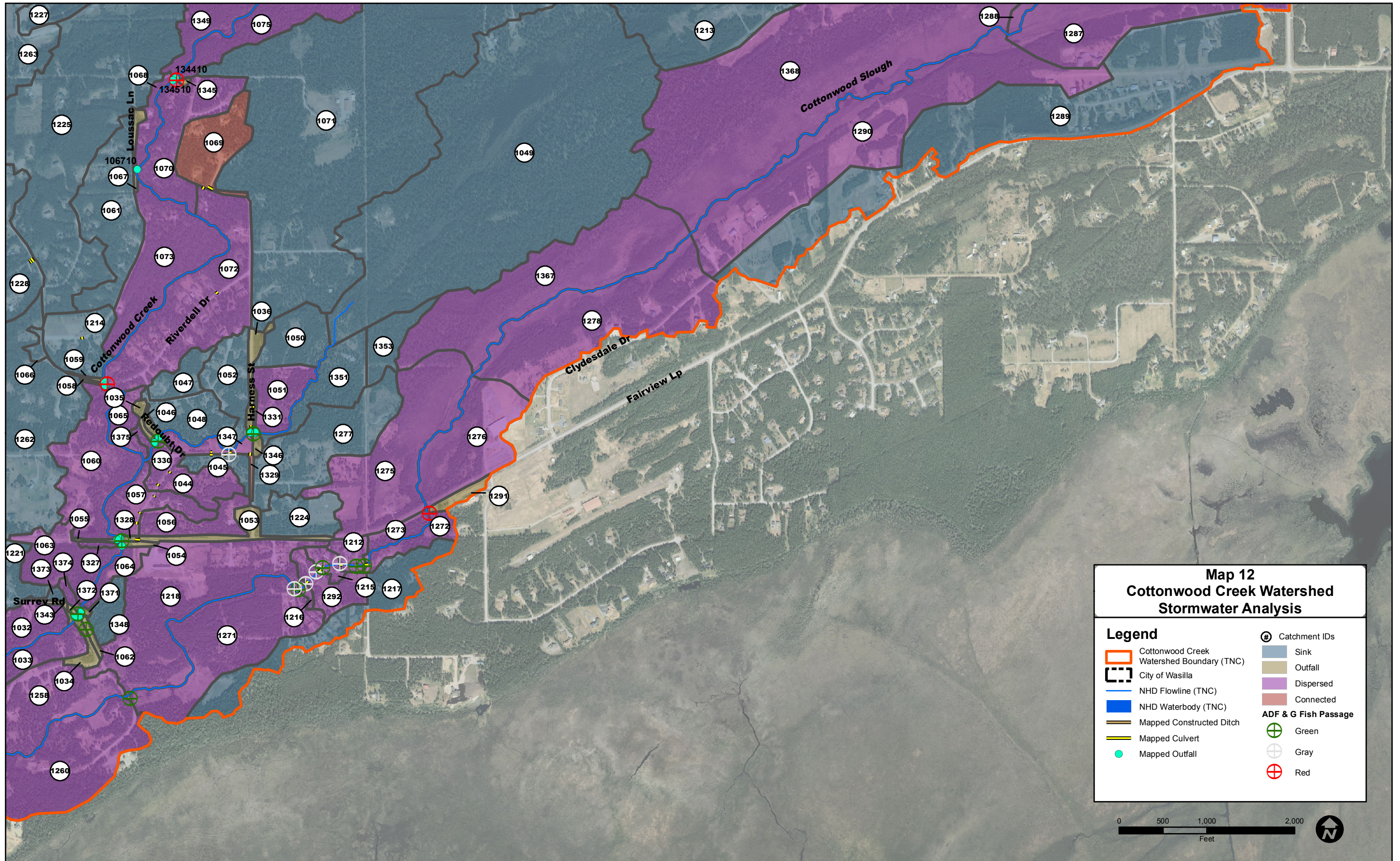




Map 11 Cottonwood Creek Watershed Stormwater Analysis















- Legend**
- Cottonwood Creek Watershed Boundary (TNC)
 - City of Wasilla
 - NHD Flowline (TNC)
 - NHD Waterbody (TNC)
 - Mapped Constructed Ditch
 - Mapped Culvert
 - Mapped Outfall
 - Catchment IDs
 - Sink
 - Outfall
 - Dispersed
 - Connected
 - ADF & G Fish Passage**
 - Green
 - Gray
 - Red



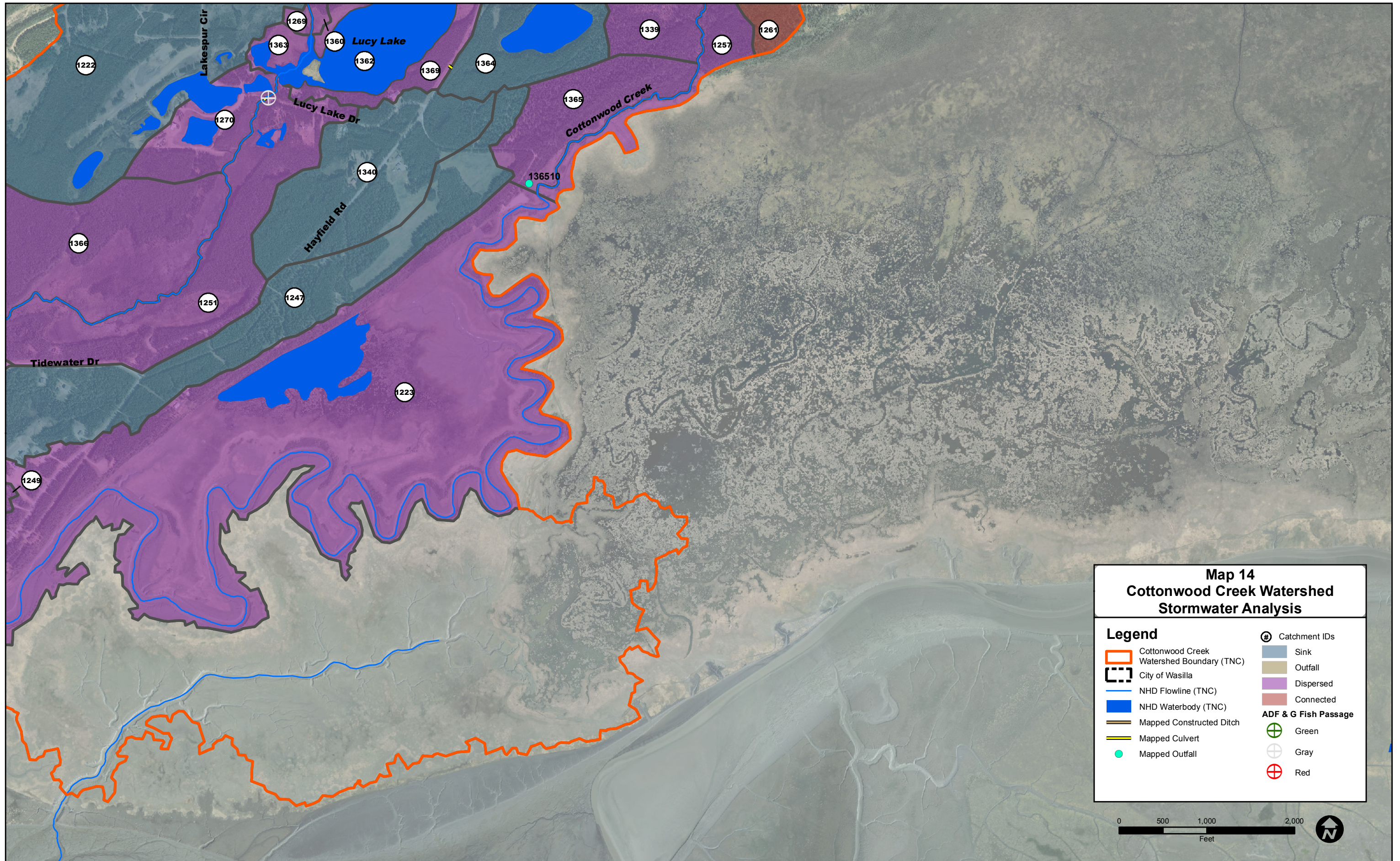


Map 13 Cottonwood Creek Watershed Stormwater Analysis

Legend

-  Cottonwood Creek Watershed Boundary (TNC)
-  City of Wasilla
-  NHD Flowline (TNC)
-  NHD Waterbody (TNC)
-  Mapped Constructed Ditch
-  Mapped Culvert
-  Catchment IDs
-  Sink
-  Outfall
-  Dispersed
-  Connected
- ADF & G Fish Passage**
-  Green
-  Gray
-  Red

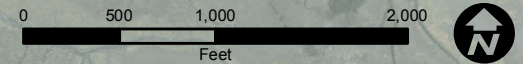




Map 14
Cottonwood Creek Watershed
Stormwater Analysis

Legend

Cottonwood Creek	Catchment IDs
Watershed Boundary (TNC)	Sink
City of Wasilla	Outfall
NHD Flowline (TNC)	Dispersed
NHD Waterbody (TNC)	Connected
Mapped Constructed Ditch	ADF & G Fish Passage
Mapped Culvert	Green
Mapped Outfall	Gray
	Red



APPENDIX D

SWMM Input and Output

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Existing

WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

Analysis Options

Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	691.173	1.330
Evaporation Loss	0.000	0.000
Infiltration Loss	688.797	1.325
Surface Runoff	0.836	0.002
Final Surface Storage	1.541	0.003
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.836	0.272
Groundwater Inflow	0.000	0.000

RDI Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	0.371	0.121
Internal Outflow	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.401	0.131
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.068	0.022
Continuity Error (%)	-0.569	

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

 Minimum Time Step : 30.00 sec
 Average Time Step : 30.00 sec
 Maximum Time Step : 30.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 1.00
 Percent Not Converging : 0.00

 Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
1001	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1002	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1003	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1005	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1006	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1009	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1010	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1011	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1012	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1013	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1015	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1016	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1017	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1018	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1019	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1020	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1022	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1023	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000

Existing Conditions – 2Y Event

1115	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1116	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1117	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1118	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1119	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1120	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1121	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1126	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1127	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1129	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1132	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1133	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1135	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1136	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1138	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1142	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1147	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1148	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1150	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1151	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1152	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1153	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1154	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1155	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1156	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1157	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1159	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1160	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1161	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1162	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1165	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1166	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1167	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1169	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1170	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1172	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1173	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1174	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1180	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1181	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1182	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1186	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1187	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1189	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1190	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1191	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1192	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1193	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1194	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1195	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1197	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1198	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1199	1.33	0.00	0.00	1.28	0.05	0.01	0.51	0.037
1200	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1202	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000

Existing Conditions – 2Y Event

1204	1.33	0.00	0.00	0.77	0.00	0.00	0.00	0.000
1205	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1206	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1207	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1208	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1209	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1210	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1211	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1212	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1215	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1216	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1218	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1223	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1229	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1230	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1231	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1232	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1233	1.33	0.00	0.00	1.31	0.02	0.01	0.63	0.018
1234	1.33	0.00	0.00	1.22	0.05	0.03	1.04	0.040
1236	1.33	0.00	0.00	1.16	0.12	0.04	0.87	0.089
1237	1.33	0.00	0.00	1.29	0.00	0.00	0.00	0.000
1238	1.33	0.00	0.00	1.17	0.16	0.03	0.97	0.124
1239	1.33	0.00	0.00	1.10	0.23	0.09	3.40	0.171
1240	1.33	0.00	0.00	1.33	0.00	0.00	0.01	0.000
1241	1.33	0.00	0.00	1.26	0.02	0.01	0.43	0.017
1243	1.33	0.00	0.00	1.13	0.20	0.05	2.42	0.152
1249	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1250	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1251	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1257	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1258	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1259	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1260	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1261	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1264	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1265	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1266	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1267	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1268	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1269	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1270	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1271	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1272	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1273	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1275	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1276	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1278	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1282	1.33	0.00	0.00	1.22	0.11	0.00	0.55	0.082
1283	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1284	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1285	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1287	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1288	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1290	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1291	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000

1370	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1371	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1372	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1374	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1375	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1376	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1401	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1402	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.001
1403	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1404	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1405	1.33	0.00	0.00	1.29	0.00	0.00	0.00	0.000
1406	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1407	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.00	0.00	322.00	0 00:00
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.00	0.00	350.78	0 00:00
N1332-1	JUNCTION	0.53	0.84	313.80	0 14:37
N-1332-2	JUNCTION	0.01	0.07	310.77	0 10:36
N1401	JUNCTION	0.00	0.00	350.45	0 00:00
N1402	JUNCTION	0.00	0.14	348.96	0 10:36
N1403-1	JUNCTION	0.00	0.13	348.95	0 10:51
N1403-2	JUNCTION	0.05	1.24	317.46	0 11:31
N1404	JUNCTION	0.00	0.00	311.00	0 00:00
N1405-1	JUNCTION	0.00	0.00	348.10	0 00:00
N1405-2	JUNCTION	0.00	0.00	319.48	0 00:00
N1037-1	JUNCTION	0.01	0.07	309.47	0 10:37
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Existing Conditions – 2Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.00	0.01	286.01	0	10:40
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

Existing Conditions – 2Y Event

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Existing Conditions – 2Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.00	0.00	319.40	0	00:00
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Existing Conditions – 2Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	0.34	1.11	320.91	0	12:02
DOT&PF_outfall_basin	STORAGE	2.36	3.89	325.99	0	11:49
FM-infilt-area	STORAGE	0.00	0.00	333.00	0	10:32
Petco-infilt-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1332-1	JUNCTION	0.00	0.00	0 14:37	0	0.000957	0.000
N-1332-2	JUNCTION	0.03	0.03	0 10:36	0.00115	0.00204	0.000
N1401	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1402	JUNCTION	0.00	0.00	0 10:36	7.13e-005	7.13e-005	0.000
N1403-1	JUNCTION	0.00	0.00	0 10:51	0	7.8e-005	-0.000
N1403-2	JUNCTION	0.00	0.00	0 11:31	0	0.000105	0.000
N1404	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1405-1	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1405-2	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1037-1	JUNCTION	0.00	0.03	0 10:37	0	0.00204	0.000
OUT-1001	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1012	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1013	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1015	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1016	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	0.00	0.00	0 10:08	1.25e-005	1.25e-005	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Existing Conditions – 2Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1037	OUTFALL	0.00	0.03	0	10:40	0	0.00112	0.000
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1068	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1091	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1104	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1105	OUTFALL	0.01	0.01	0	10:12	6.49e-005	6.49e-005	0.000
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1114	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1115	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Existing Conditions – 2Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	0.63	0.63	0	10:07	0.0104	0.0104	0.000
OUT-1234	OUTFALL	1.04	1.04	0	10:19	0.0254	0.0254	0.000
OUT-1236	OUTFALL	0.87	0.87	0	10:34	0.0426	0.0426	0.000
OUT-1237	OUTFALL	0.00	0.00	0	10:11	1.87e-005	1.87e-005	0.000
OUT-1238	OUTFALL	0.97	0.97	0	10:08	0.0256	0.0256	0.000
OUT-1240	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	0.55	0.55	0	10:00	0.00377	0.00377	0.000
OUT-1283	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1295	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1301	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal


```

DOT&PF_stormdrain_ditch STORAGE      3.41      3.41      0 10:06      0.0914      0.0914      -0.017
DOT&PF_outfall_basin STORAGE      2.42      2.42      0 10:03      0.0509      0.0509      -0.000
FM-infilt-area STORAGE      0.43      0.43      0 10:19      0.00898      0.00898      -4.482
Petco-infilt-area STORAGE      0.00      0.00      0 00:00      0              0              0.000 gal
    
```

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

```

-----
Node              Type      Hours          Max. Height   Min. Depth
                Surcharged  Above Crown   Below Rim
                Surcharged  Feet          Feet
-----
Petco-infilt-area STORAGE      54.01          0.000        3.000
    
```

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

```

-----
Storage Unit      Average   Avg   Evap   Exfil   Maximum   Max   Time of Max   Maximum
                  Volume  Pcnt  Pcnt  Pcnt   Volume  Pcnt  Occurrence    Outflow
                  1000 ft3 Full  Loss  Loss   1000 ft3 Full  days hr:min    CFS
-----
DOT&PF_stormdrain_ditch  2.721    3    0   100    9.775    12    0 12:01    0.50
DOT&PF_outfall_basin    3.418    29    0    59    6.200    53    0 11:49    0.11
FM-infilt-area          0.000    0    0   105    0.028    0    0 10:32    0.85
Petco-infilt-area        0.000    0    0    0    0.000    0    0 00:00    0.00
    
```

Outfall Loading Summary

```

-----
Outfall Node      Flow   Avg   Max   Total
                  Freq  Flow  Flow  Volume
                  Pcnt  CFS   CFS   10^6 gal
-----
OUT-1001          0.00   0.00  0.00  0.000
OUT-1002          0.00   0.00  0.00  0.000
OUT-1003          0.00   0.00  0.00  0.000
OUT-1005          0.00   0.00  0.00  0.000
OUT-1006          0.00   0.00  0.00  0.000
    
```


Existing Conditions – 2Y Event

OUT-1009	0.00	0.00	0.00	0.000
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	0.00	0.00	0.00	0.000
OUT-1012	0.00	0.00	0.00	0.000
OUT-1013	0.00	0.00	0.00	0.000
OUT-1015	0.00	0.00	0.00	0.000
OUT-1016	0.00	0.00	0.00	0.000
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	0.00	0.00	0.00	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	0.37	0.00	0.00	0.000
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	4.32	0.02	0.03	0.001
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	0.00	0.00	0.00	0.000
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000
OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000
OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000

Existing Conditions – 2Y Event

OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	0.00	0.00	0.00	0.000
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	0.00	0.00	0.00	0.000
OUT-1105	0.86	0.01	0.01	0.000
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	0.00	0.00	0.00	0.000
OUT-1115	0.00	0.00	0.00	0.000
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	0.00	0.00	0.00	0.000
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.00	0.00	0.00	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	0.00	0.00	0.00	0.000
OUT-1147	0.00	0.00	0.00	0.000
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	0.00	0.00	0.00	0.000
OUT-1159	0.00	0.00	0.00	0.000
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	0.00	0.00	0.00	0.000
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	0.00	0.00	0.00	0.000
OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000
OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	0.00	0.00	0.00	0.000
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	0.00	0.00	0.00	0.000
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	0.00	0.00	0.00	0.000
OUT-1186	0.00	0.00	0.00	0.000

Existing Conditions – 2Y Event

OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	0.00	0.00	0.00	0.000
OUT-1199	3.43	0.24	0.51	0.012
OUT-1200	0.00	0.00	0.00	0.000
OUT-1202	0.00	0.00	0.00	0.000
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	0.00	0.00	0.00	0.000
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	0.00	0.00	0.00	0.000
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	2.28	0.31	0.63	0.010
OUT-1234	3.50	0.50	1.04	0.025
OUT-1236	7.47	0.39	0.87	0.043
OUT-1237	0.57	0.00	0.00	0.000
OUT-1238	4.92	0.36	0.97	0.026
OUT-1240	0.00	0.00	0.00	0.000
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	0.00	0.00	0.00	0.000
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000
OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000
OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000

Existing Conditions – 2Y Event

OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	1.36	0.19	0.55	0.004
OUT-1283	0.00	0.00	0.00	0.000
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	0.00	0.00	0.00	0.000
OUT-1295	0.00	0.00	0.00	0.000
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	0.00	0.00	0.00	0.000
OUT-1301	0.00	0.00	0.00	0.000
OUT-1302	0.00	0.00	0.00	0.000
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	0.00	0.00	0.00	0.000
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	0.00	0.00	0.00	0.000
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.00	0.00	0.00	0.000
OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000
OUT-1349	0.00	0.00	0.00	0.000
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	0.00	0.00	0.00	0.000
OUT-1358	0.00	0.00	0.00	0.000

OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	0.00	0.00	0.00	0.000

System	0.12	2.02	3.87	0.121

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	0.03	0 10:40	0.00	0.00	0.00
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1240-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.00	0 21:06	0.00	0.00	0.00
1332-pipe	CONDUIT	0.03	0 10:37	0.89	0.00	0.03
1401-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1402-pipe	CONDUIT	0.00	0 10:51	0.11	0.01	0.06
1403-ditch	CONDUIT	0.00	0 11:31	0.00	0.00	0.00
1403-pipe	CONDUIT	0.00	0 14:37	0.00	0.37	0.33
1404-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1405-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1405-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
sd_ditch-orifice	ORIFICE	0.00	0 00:00			0.00
outfall_basin_weir	WEIR	0.00	0 00:00			0.00
FM-dummy-weir	WEIR	0.00	0 00:00			0.00

 Conduit Surcharge Summary

No conduits were surcharged.

Analysis begun on: Tue May 02 13:30:47 2017
Analysis ended on: Tue May 02 13:30:49 2017
Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Existing
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	1018.568	1.960
Evaporation Loss	0.000	0.000
Infiltration Loss	1013.599	1.950
Surface Runoff	3.153	0.006
Final Surface Storage	1.818	0.003
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	3.153	1.027
Groundwater Inflow	0.000	0.000

RDI Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	2.077	0.677
Internal Outflow	0.007	0.002
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.863	0.281
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.201	0.065
Continuity Error (%)	0.205	

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

 Minimum Time Step : 30.00 sec
 Average Time Step : 30.00 sec
 Maximum Time Step : 30.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 1.02
 Percent Not Converging : 0.00

 Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
1001	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1002	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1003	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1005	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1006	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1009	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1010	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1011	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1012	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1013	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1015	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1016	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1017	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1018	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1019	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1020	1.96	0.00	0.00	1.68	0.24	0.08	1.81	0.124
1022	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1023	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

Existing Conditions – 10Y Event

1115	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1116	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1117	1.96	0.00	0.00	1.93	0.03	0.01	0.28	0.016
1118	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1119	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1120	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1121	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1126	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1127	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1129	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1132	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1133	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1135	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1136	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1138	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1142	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1147	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1148	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1150	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1151	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1152	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1153	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1154	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1155	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1156	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1157	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1159	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1160	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1161	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1162	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1165	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1166	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1167	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1169	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1170	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1172	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1173	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1174	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1180	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1181	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1182	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1186	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1187	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1189	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1190	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1191	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1192	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1193	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1194	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1195	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1197	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1198	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1199	1.96	0.00	0.00	1.90	0.06	0.01	0.87	0.029
1200	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1202	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

Existing Conditions – 10Y Event

1204	1.96	0.00	0.00	1.13	0.00	0.00	0.00	0.000
1205	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1206	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1207	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1208	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1209	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1210	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1211	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1212	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1215	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1216	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1218	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1223	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1229	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1230	1.96	0.00	0.00	1.91	0.01	0.00	0.09	0.004
1231	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1232	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1233	1.96	0.00	0.00	1.65	0.31	0.14	4.87	0.160
1234	1.96	0.00	0.00	1.62	0.28	0.14	4.21	0.145
1236	1.96	0.00	0.00	1.77	0.14	0.05	1.39	0.070
1237	1.96	0.00	0.00	1.67	0.25	0.02	0.46	0.129
1238	1.96	0.00	0.00	1.83	0.13	0.02	1.17	0.065
1239	1.96	0.00	0.00	1.75	0.21	0.08	4.43	0.106
1240	1.96	0.00	0.00	1.76	0.20	0.13	3.17	0.100
1241	1.96	0.00	0.00	1.70	0.21	0.08	2.48	0.108
1243	1.96	0.00	0.00	1.79	0.17	0.04	3.04	0.088
1249	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1250	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1251	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1257	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1258	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1259	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1260	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1261	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1264	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1265	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1266	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1267	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1268	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1269	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1270	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1271	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1272	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1273	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1275	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1276	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1278	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1282	1.96	0.00	0.00	1.80	0.16	0.01	0.86	0.081
1283	1.96	0.00	0.00	1.69	0.23	0.03	0.79	0.120
1284	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1285	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1287	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1288	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1290	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1291	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

1370	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1371	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1372	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1374	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1375	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1376	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1401	1.96	0.00	0.00	1.93	0.00	0.00	0.04	0.001
1402	1.96	0.00	0.00	1.90	0.02	0.00	0.07	0.009
1403	1.96	0.00	0.00	1.91	0.01	0.00	0.05	0.005
1404	1.96	0.00	0.00	1.91	0.01	0.00	0.02	0.004
1405	1.96	0.00	0.00	1.89	0.03	0.00	0.03	0.016
1406	1.96	0.00	0.00	1.76	0.15	0.01	0.36	0.077
1407	1.96	0.00	0.00	1.93	0.00	0.00	0.02	0.000

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.00	0.08	322.08	0 12:36
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.00	0.07	350.85	0 10:54
N1332-1	JUNCTION	0.93	1.58	314.54	0 15:27
N-1332-2	JUNCTION	0.03	0.13	310.83	0 12:49
N1401	JUNCTION	0.00	0.06	350.51	0 10:58
N1402	JUNCTION	0.01	0.50	349.32	0 10:20
N1403-1	JUNCTION	0.01	0.49	349.31	0 10:28
N1403-2	JUNCTION	0.18	3.00	319.22	0 10:02
N1404	JUNCTION	0.00	0.08	311.08	0 10:26
N1405-1	JUNCTION	0.00	0.10	348.20	0 10:55
N1405-2	JUNCTION	0.01	0.08	319.56	0 12:31
N1037-1	JUNCTION	0.03	0.13	309.53	0 12:50
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Existing Conditions – 10Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.00	0.01	286.01	0	12:52
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

Existing Conditions – 10Y Event

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Existing Conditions – 10Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.00	0.08	319.48	0	12:41
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Existing Conditions – 10Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	1.17	2.23	322.03	0	12:36
DOT&PF_outfall_basin	STORAGE	2.02	3.51	325.61	0	11:04
FM-infilt-area	STORAGE	0.00	0.02	333.02	0	11:12
Petco-infilt-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	0.04	0 12:36	0	0.00074	0.000
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	0.09	0.09	0 10:54	0.0034	0.0034	0.000
N1332-1	JUNCTION	0.00	0.12	0 12:30	0	0.0122	0.000
N-1332-2	JUNCTION	0.07	0.12	0 12:49	0.00221	0.0148	0.000
N1401	JUNCTION	0.04	0.04	0 10:58	0.00133	0.00133	0.000
N1402	JUNCTION	0.07	0.07	0 10:20	0.00131	0.00131	0.000
N1403-1	JUNCTION	0.00	0.07	0 10:28	0	0.00131	0.000
N1403-2	JUNCTION	0.05	0.08	0 10:43	0.000936	0.00243	0.002
N1404	JUNCTION	0.02	0.02	0 10:26	0.000396	0.000396	0.000
N1405-1	JUNCTION	0.00	0.13	0 10:55	0	0.00473	0.000
N1405-2	JUNCTION	0.03	0.12	0 12:29	0.00246	0.00973	0.000
N1037-1	JUNCTION	0.00	0.12	0 12:50	0	0.0148	0.000
OUT-1001	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1012	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1013	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1015	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1016	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	1.81	1.81	0 10:18	0.078	0.078	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Existing Conditions – 10Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1037	OUTFALL	0.00	0.12	0	12:52	0	0.0131	0.000
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1068	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1091	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1104	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1105	OUTFALL	2.23	2.23	0	10:45	0.162	0.162	0.000
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1114	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1115	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Existing Conditions – 10Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	4.87	4.87	0	10:05	0.14	0.14	0.000
OUT-1234	OUTFALL	4.21	4.21	0	10:15	0.137	0.137	0.000
OUT-1236	OUTFALL	1.39	1.39	0	10:24	0.0497	0.0497	0.000
OUT-1237	OUTFALL	0.46	0.46	0	10:18	0.0207	0.0207	0.000
OUT-1238	OUTFALL	1.17	1.17	0	10:04	0.0198	0.0198	0.000
OUT-1240	OUTFALL	0.00	0.04	0	12:41	0	0.000747	0.000
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	0.86	0.86	0	09:55	0.00544	0.00544	0.000
OUT-1283	OUTFALL	0.79	0.79	0	10:12	0.0286	0.0286	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1295	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1301	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

DOT&PF_stormdrain_ditch	STORAGE	7.34	7.34	0	10:06	0.218	0.218	0.000
DOT&PF_outfall_basin	STORAGE	3.04	3.04	0	10:01	0.0433	0.0433	0.000
FM-infilt-area	STORAGE	2.48	2.48	0	10:18	0.0831	0.0831	-0.399
Petco-infilt-area	STORAGE	0.36	0.36	0	10:09	0.0079	0.0079	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
N1403-2	JUNCTION	2.54	0.000	0.000
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Poned Volume 1000 ft3
N1403-2	2.54	0.08	0 10:43	0.002	0.000

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	11.406	14	0	78	24.690	30	0 12:36	0.62
DOT&PF_outfall_basin	2.790	24	0	63	5.374	46	0 11:04	0.13
FM-infilt-area	0.036	0	0	100	1.478	1	0 11:12	2.73
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Flow Avg Max Total

Existing Conditions – 10Y Event

Outfall Node	Freq Pcnt	Flow CFS	Flow CFS	Volume 10^6 gal
OUT-1001	0.00	0.00	0.00	0.000
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000
OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	0.00	0.00	0.00	0.000
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	0.00	0.00	0.00	0.000
OUT-1012	0.00	0.00	0.00	0.000
OUT-1013	0.00	0.00	0.00	0.000
OUT-1015	0.00	0.00	0.00	0.000
OUT-1016	0.00	0.00	0.00	0.000
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	0.00	0.00	0.00	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	7.47	0.72	1.81	0.078
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	30.83	0.03	0.12	0.013
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	0.00	0.00	0.00	0.000
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000
OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000

Existing Conditions – 10Y Event

OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	0.00	0.00	0.00	0.000
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	0.00	0.00	0.00	0.000
OUT-1105	10.15	1.10	2.23	0.162
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	0.00	0.00	0.00	0.000
OUT-1115	0.00	0.00	0.00	0.000
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	3.52	0.14	0.28	0.007
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.00	0.00	0.00	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	0.00	0.00	0.00	0.000
OUT-1147	0.00	0.00	0.00	0.000
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	0.00	0.00	0.00	0.000
OUT-1159	0.00	0.00	0.00	0.000
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	0.00	0.00	0.00	0.000
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	0.00	0.00	0.00	0.000
OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000

Existing Conditions – 10Y Event

OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	0.00	0.00	0.00	0.000
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	0.00	0.00	0.00	0.000
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	0.00	0.00	0.00	0.000
OUT-1186	0.00	0.00	0.00	0.000
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	0.00	0.00	0.00	0.000
OUT-1199	2.35	0.41	0.87	0.014
OUT-1200	0.00	0.00	0.00	0.000
OUT-1202	0.00	0.00	0.00	0.000
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	0.00	0.00	0.00	0.000
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	0.00	0.00	0.00	0.000
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	6.30	1.53	4.87	0.140
OUT-1234	6.80	1.39	4.21	0.137
OUT-1236	5.74	0.60	1.39	0.050
OUT-1237	7.71	0.18	0.46	0.021
OUT-1238	2.87	0.48	1.17	0.020
OUT-1240	2.52	0.02	0.04	0.001
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	0.00	0.00	0.00	0.000
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000
OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000

Existing Conditions – 10Y Event

OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	1.13	0.33	0.86	0.005
OUT-1283	6.45	0.31	0.79	0.029
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	0.00	0.00	0.00	0.000
OUT-1295	0.00	0.00	0.00	0.000
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	0.00	0.00	0.00	0.000
OUT-1301	0.00	0.00	0.00	0.000
OUT-1302	0.00	0.00	0.00	0.000
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	0.00	0.00	0.00	0.000
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	0.00	0.00	0.00	0.000
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.00	0.00	0.00	0.000
OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000

OUT-1349	0.00	0.00	0.00	0.000
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	0.00	0.00	0.00	0.000
OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	1.65	0.01	0.02	0.000

System	0.40	7.23	17.03	0.677

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	0.12	0 12:52	2.08	0.00	0.00
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	0.09	0 10:54	2.47	0.00	0.04
1240-pipe	CONDUIT	0.04	0 12:41	0.97	0.00	0.03
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.12	0 12:49	0.45	0.00	0.04
1332-pipe	CONDUIT	0.12	0 12:50	1.35	0.01	0.07
1401-pipe	CONDUIT	0.04	0 10:59	1.32	0.00	0.03
1402-pipe	CONDUIT	0.07	0 10:28	0.15	0.13	0.25
1403-ditch	CONDUIT	0.05	0 10:52	0.85	0.00	0.01
1403-pipe	CONDUIT	0.00	0 15:27	0.00	0.97	0.64
1404-pipe	CONDUIT	0.02	0 10:28	0.51	0.00	0.04
1405-ditch	CONDUIT	0.10	0 12:31	1.08	0.00	0.02
1405-pipe	CONDUIT	0.12	0 12:30	3.32	0.00	0.04
sd_ditch-orifice	ORIFICE	0.04	0 12:36			0.00
outfall_basin_weir	WEIR	0.00	0 00:00			0.00
FM-dummy-weir	WEIR	0.00	0 00:00			0.00

Conduit Surcharge Summary

```
-----  
Conduit          ----- Hours Full -----      Hours      Hours  
                  Both Ends  Upstream  Dnstream  Above Full  Capacity  
                  -----  
1403-pipe         0.01      2.57      0.01      0.01      2.57
```

Analysis begun on: Tue May 02 13:31:16 2017
Analysis ended on: Tue May 02 13:31:18 2017
Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Existing
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	1397.916	2.690
Evaporation Loss	0.000	0.000
Infiltration Loss	1390.155	2.675
Surface Runoff	5.625	0.011
Final Surface Storage	2.138	0.004
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	5.625	1.833
Groundwater Inflow	0.000	0.000

RDI Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	3.879	1.264
Internal Outflow	0.110	0.036
Evaporation Loss	0.000	0.000
Exfiltration Loss	1.324	0.431
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.266	0.087
Continuity Error (%)	0.822	

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

 Minimum Time Step : 30.00 sec
 Average Time Step : 30.00 sec
 Maximum Time Step : 30.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 1.02
 Percent Not Converging : 0.00

 Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
1001	2.69	0.00	0.00	2.63	0.06	0.02	0.52	0.021
1002	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1003	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1005	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1006	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1009	2.69	0.00	0.00	2.68	0.01	0.00	0.07	0.005
1010	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1011	2.69	0.00	0.00	2.66	0.03	0.01	0.16	0.013
1012	2.69	0.00	0.00	2.62	0.07	0.03	0.92	0.025
1013	2.69	0.00	0.00	2.67	0.02	0.00	0.10	0.006
1015	2.69	0.00	0.00	2.66	0.03	0.01	0.29	0.011
1016	2.69	0.00	0.00	2.69	0.00	0.00	0.06	0.001
1017	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1018	2.69	0.00	0.00	2.63	0.06	0.02	0.54	0.020
1019	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1020	2.69	0.00	0.00	2.51	0.14	0.05	1.77	0.053
1022	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1023	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000

Existing Conditions – 50Y Event

1026	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1029	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1032	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1033	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1034	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1035	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1036	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1037	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1038	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1039	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1040	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1042	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1043	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1044	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1046	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1051	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1053	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1054	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1055	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1056	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1057	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1058	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1059	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1060	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1062	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1063	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1064	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1065	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1067	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1068	2.69	0.00	0.00	2.68	0.01	0.00	0.10	0.005
1069	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1070	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1072	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1073	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1075	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1076	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1080	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1082	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1083	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1084	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1087	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1088	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1090	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1091	2.69	0.00	0.00	2.68	0.01	0.00	0.03	0.002
1092	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1095	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1104	2.69	0.00	0.00	2.69	0.00	0.00	0.12	0.001
1105	2.69	0.00	0.00	2.63	0.06	0.07	1.84	0.022
1106	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1107	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1108	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1110	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1111	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1113	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1114	2.69	0.00	0.00	2.54	0.15	0.00	0.18	0.058

Existing Conditions – 50Y Event

1115	2.69	0.00	0.00	2.63	0.06	0.00	0.03	0.024
1116	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1117	2.69	0.00	0.00	2.69	0.00	0.00	0.07	0.001
1118	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1119	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1120	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1121	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1126	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1127	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1129	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1132	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1133	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1135	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1136	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1138	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1142	2.69	0.00	0.00	2.63	0.06	0.01	0.18	0.024
1147	2.69	0.00	0.00	2.69	0.00	0.00	0.01	0.000
1148	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1150	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1151	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1152	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1153	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1154	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1155	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1156	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1157	2.69	0.00	0.00	2.66	0.03	0.00	0.21	0.012
1159	2.69	0.00	0.00	2.68	0.01	0.01	0.51	0.003
1160	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1161	2.69	0.00	0.00	2.68	0.01	0.01	0.31	0.003
1162	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1165	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1166	2.69	0.00	0.00	2.67	0.02	0.01	0.34	0.006
1167	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1169	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1170	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1172	2.69	0.00	0.00	2.68	0.01	0.00	0.17	0.002
1173	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1174	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1180	2.69	0.00	0.00	2.58	0.11	0.05	1.64	0.042
1181	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1182	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1186	2.69	0.00	0.00	2.69	0.00	0.00	0.23	0.000
1187	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1189	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1190	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1191	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1192	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1193	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1194	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1195	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1197	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1198	2.69	0.00	0.00	2.67	0.02	0.01	0.58	0.009
1199	2.69	0.00	0.00	2.44	0.25	0.06	2.74	0.094
1200	2.69	0.00	0.00	2.65	0.04	0.02	0.58	0.015
1202	2.69	0.00	0.00	2.69	0.00	0.00	0.13	0.001

Existing Conditions – 50Y Event

1204	2.69	0.00	0.00	1.56	0.00	0.00	0.00	0.000
1205	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1206	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1207	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1208	2.69	0.00	0.00	2.67	0.02	0.00	0.04	0.007
1209	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1210	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1211	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1212	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1215	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1216	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1218	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1223	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1229	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1230	2.69	0.00	0.00	2.54	0.11	0.05	0.65	0.039
1231	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1232	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1233	2.69	0.00	0.00	2.46	0.23	0.10	5.33	0.085
1234	2.69	0.00	0.00	1.98	0.66	0.32	9.25	0.245
1236	2.69	0.00	0.00	2.20	0.44	0.16	3.65	0.164
1237	2.69	0.00	0.00	2.50	0.16	0.01	0.46	0.058
1238	2.69	0.00	0.00	2.31	0.38	0.06	2.93	0.140
1239	2.69	0.00	0.00	2.19	0.50	0.20	9.56	0.185
1240	2.69	0.00	0.00	2.59	0.10	0.07	2.87	0.036
1241	2.69	0.00	0.00	2.09	0.55	0.22	5.81	0.206
1243	2.69	0.00	0.00	2.26	0.43	0.11	6.67	0.159
1249	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1250	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1251	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1257	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1258	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1259	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1260	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1261	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1264	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1265	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1266	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1267	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1268	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1269	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1270	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1271	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1272	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1273	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1275	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1276	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1278	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1282	2.69	0.00	0.00	2.32	0.37	0.01	1.75	0.138
1283	2.69	0.00	0.00	2.52	0.14	0.02	0.77	0.050
1284	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1285	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1287	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1288	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1290	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1291	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000

Existing Conditions – 50Y Event

1292	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1293	2.69	0.00	0.00	2.69	0.00	0.01	0.31	0.001
1295	2.69	0.00	0.00	2.69	0.00	0.00	0.24	0.002
1297	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1298	2.69	0.00	0.00	2.68	0.01	0.00	0.18	0.004
1301	2.69	0.00	0.00	2.64	0.05	0.00	0.06	0.017
1302	2.69	0.00	0.00	2.69	0.00	0.01	0.27	0.001
1304	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1305	2.69	0.00	0.00	2.69	0.00	0.00	0.21	0.001
1306	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1309	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1310	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1312	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1314	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1316	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1318	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1322	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1324	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1325	2.69	0.00	0.00	2.59	0.10	0.01	0.43	0.037
1326	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1327	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1328	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1329	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1330	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1331	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1332	2.69	0.00	0.00	2.35	0.29	0.01	0.22	0.109
1333	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1334	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1335	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1336	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1337	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1338	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1339	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1342	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1343	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1344	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1345	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1346	2.69	0.00	0.00	2.02	0.00	0.00	0.00	0.000
1347	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1349	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1350	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1352	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1354	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1355	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1356	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1357	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1358	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1359	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1360	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1363	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1365	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1366	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1367	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1368	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1369	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000

1370	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1371	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1372	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1374	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1375	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1376	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1401	2.69	0.00	0.00	2.66	0.00	0.00	0.01	0.000
1402	2.69	0.00	0.00	2.41	0.23	0.02	0.51	0.086
1403	2.69	0.00	0.00	2.46	0.19	0.02	0.45	0.070
1404	2.69	0.00	0.00	2.47	0.18	0.01	0.21	0.066
1405	2.69	0.00	0.00	2.64	0.01	0.00	0.02	0.003
1406	2.69	0.00	0.00	2.16	0.48	0.03	1.14	0.179
1407	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.01	0.39	322.39	0 11:15
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.01	0.18	350.96	0 11:06
N1332-1	JUNCTION	1.21	2.00	314.96	0 10:33
N-1332-2	JUNCTION	0.05	0.29	310.99	0 12:27
N1401	JUNCTION	0.00	0.02	350.47	0 10:24
N1402	JUNCTION	0.05	3.00	351.82	0 10:11
N1403-1	JUNCTION	0.05	1.81	350.63	0 10:21
N1403-2	JUNCTION	0.29	3.00	319.22	0 09:53
N1404	JUNCTION	0.01	0.23	311.23	0 10:28
N1405-1	JUNCTION	0.01	0.24	348.34	0 11:06
N1405-2	JUNCTION	0.02	0.22	319.70	0 12:26
N1037-1	JUNCTION	0.05	0.29	309.69	0 12:28
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Existing Conditions – 50Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.00	0.04	286.04	0	12:29
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

Existing Conditions – 50Y Event

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Existing Conditions – 50Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.01	0.39	319.79	0	11:17
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Existing Conditions – 50Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	1.21	2.47	322.27	0	11:15
DOT&PF_outfall_basin	STORAGE	3.24	5.18	327.28	0	10:26
FM-infiltr-area	STORAGE	0.02	0.22	333.22	0	12:12
Petco-infiltr-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	1.20	0 11:15	0	0.0416	0.000
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	0.65	0.65	0 11:06	0.0468	0.0468	0.000
N1332-1	JUNCTION	0.00	0.55	0 12:26	0	0.0564	0.000
N-1332-2	JUNCTION	0.22	0.63	0 12:27	0.0106	0.0764	0.000
N1401	JUNCTION	0.01	0.01	0 10:24	4.58e-005	4.58e-005	0.000
N1402	JUNCTION	0.51	0.51	0 10:16	0.0168	0.0168	-0.000
N1403-1	JUNCTION	0.00	0.54	0 10:21	0	0.0167	0.000
N1403-2	JUNCTION	0.45	0.92	0 10:32	0.0189	0.0362	0.000
N1404	JUNCTION	0.21	0.21	0 10:28	0.00935	0.00935	0.000
N1405-1	JUNCTION	0.00	0.65	0 11:06	0	0.0468	0.000
N1405-2	JUNCTION	0.02	0.55	0 12:26	0.000552	0.0531	0.000
N1037-1	JUNCTION	0.00	0.63	0 12:28	0	0.0764	0.000
OUT-1001	OUTFALL	0.52	0.52	0 10:30	0.0194	0.0194	0.000
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.07	0.07	0 10:30	0.00193	0.00193	0.000
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.16	0.16	0 10:31	0.0061	0.0061	0.000
OUT-1012	OUTFALL	0.92	0.92	0 10:30	0.0322	0.0322	0.000
OUT-1013	OUTFALL	0.10	0.10	0 10:30	0.00254	0.00254	0.000
OUT-1015	OUTFALL	0.29	0.29	0 10:24	0.00518	0.00518	0.000
OUT-1016	OUTFALL	0.06	0.06	0 10:30	0.00107	0.00107	0.000
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.54	0.54	0 10:30	0.0189	0.0189	0.000
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	1.77	1.77	0 10:11	0.0462	0.0462	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Existing Conditions – 50Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1037	OUTFALL	0.00	0.63	0	12:29	0	0.0748	0.000	
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1068	OUTFALL	0.10	0.10	0	10:24	0.00133	0.00133	0.000	
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1091	OUTFALL	0.03	0.03	0	10:30	0.000362	0.000362	0.000	
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1104	OUTFALL	0.12	0.12	0	10:30	0.00243	0.00243	0.000	
OUT-1105	OUTFALL	1.84	1.84	0	10:24	0.0698	0.0698	0.000	
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1114	OUTFALL	0.18	0.18	0	10:00	0.00104	0.00104	0.000	
OUT-1115	OUTFALL	0.03	0.03	0	10:18	0.000487	0.000487	0.000	
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal

Existing Conditions – 50Y Event

OUT-1117	OUTFALL	0.07	0.07	0	10:08	0.000576	0.000576	0.000
OUT-1118	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1119	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1120	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1121	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1126	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1127	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1129	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1132	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1133	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1135	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1136	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1138	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1142	OUTFALL	0.18	0.18	0	10:24	0.00506	0.00506	0.000
OUT-1147	OUTFALL	0.01	0.01	0	10:30	8.61e-005	8.61e-005	0.000
OUT-1148	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1150	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1151	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1152	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1153	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1154	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1155	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1156	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1157	OUTFALL	0.21	0.21	0	10:24	0.00403	0.00403	0.000
OUT-1159	OUTFALL	0.51	0.51	0	10:30	0.0106	0.0106	0.000
OUT-1160	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1161	OUTFALL	0.31	0.31	0	10:30	0.00702	0.00702	0.000
OUT-1162	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1165	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1166	OUTFALL	0.34	0.34	0	10:30	0.00743	0.00743	0.000
OUT-1167	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1169	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1170	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1172	OUTFALL	0.17	0.17	0	10:30	0.00356	0.00356	0.000
OUT-1173	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1174	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1180	OUTFALL	1.64	1.64	0	10:24	0.0516	0.0516	0.000
OUT-1181	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1182	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1186	OUTFALL	0.23	0.23	0	10:30	0.00277	0.00277	0.000
OUT-1187	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1189	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1190	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1191	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1192	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1193	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1194	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1195	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1197	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1198	OUTFALL	0.58	0.58	0	10:30	0.013	0.013	0.000
OUT-1199	OUTFALL	2.74	2.74	0	10:05	0.0614	0.0614	0.000
OUT-1200	OUTFALL	0.58	0.58	0	10:30	0.0185	0.0185	0.000
OUT-1202	OUTFALL	0.13	0.13	0	10:30	0.00254	0.00254	0.000
OUT-1204	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1205	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Existing Conditions – 50Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.04	0.04	0	10:30	0.000839	0.000839	0.000
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	5.33	5.33	0	10:03	0.102	0.102	0.000
OUT-1234	OUTFALL	9.25	9.25	0	10:09	0.318	0.318	0.000
OUT-1236	OUTFALL	3.65	3.65	0	10:19	0.16	0.16	0.000
OUT-1237	OUTFALL	0.46	0.46	0	10:12	0.0127	0.0127	0.000
OUT-1238	OUTFALL	2.93	2.93	0	10:02	0.0584	0.0584	0.000
OUT-1240	OUTFALL	0.00	1.20	0	11:17	0	0.0416	0.000
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	2.64	0	10:26	0	0.0345	0.000
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	1.75	1.75	0	09:54	0.0128	0.0128	0.000
OUT-1283	OUTFALL	0.77	0.77	0	10:06	0.0165	0.0165	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	0.31	0.31	0	10:30	0.00539	0.00539	0.000
OUT-1295	OUTFALL	0.24	0.24	0	10:30	0.00492	0.00492	0.000
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.18	0.18	0	10:30	0.00377	0.00377	0.000
OUT-1301	OUTFALL	0.06	0.06	0	10:30	0.00175	0.00175	0.000

Existing Conditions – 50Y Event

OUT-1302	OUTFALL	0.27	0.27	0	10:30	0.00562	0.00562	0.000
OUT-1304	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1305	OUTFALL	0.21	0.21	0	10:30	0.00337	0.00337	0.000
OUT-1306	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1309	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1310	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1312	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1314	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1316	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1318	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1322	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1324	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1325	OUTFALL	0.43	0.43	0	10:18	0.0102	0.0102	0.000
OUT-1326	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1327	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1328	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1329	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1330	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1331	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1333	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1334	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1335	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1336	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1337	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1338	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1339	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1342	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1343	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1344	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1345	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1346	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1347	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1349	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1350	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1352	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1354	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1355	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1356	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1357	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1358	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1359	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1360	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1363	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1365	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1366	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1367	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1368	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1369	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1370	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1371	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1372	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1374	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1375	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1376	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1407	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

DOT&PF_stormdrain_ditch	STORAGE	12.30	12.30	0	10:03	0.267	0.267	0.012
DOT&PF_outfall_basin	STORAGE	6.67	6.67	0	10:00	0.107	0.107	0.194
FM-infilt-area	STORAGE	5.81	5.81	0	10:12	0.217	0.217	-0.084
Petco-infilt-area	STORAGE	1.14	1.14	0	10:03	0.0253	0.0253	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
N1402	JUNCTION	0.17	1.000	0.000
N1403-2	JUNCTION	4.45	0.000	0.000
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Poned Volume 1000 ft3
N1402	0.17	0.01	0 10:16	0.000	0.000
N1403-2	4.45	0.91	0 10:33	0.036	0.000

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	11.950	14	0	66	28.554	34	0 11:14	1.67
DOT&PF_outfall_basin	5.245	45	0	35	9.352	81	0 10:26	2.79
FM-infilt-area	1.362	1	0	100	13.992	7	0 12:12	3.75
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10 ⁶ gal
OUT-1001	4.91	0.27	0.52	0.019
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000
OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	3.44	0.04	0.07	0.002
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	4.64	0.09	0.16	0.006
OUT-1012	4.74	0.47	0.92	0.032
OUT-1013	3.32	0.05	0.10	0.003
OUT-1015	2.45	0.15	0.29	0.005
OUT-1016	2.02	0.04	0.06	0.001
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	4.64	0.28	0.54	0.019
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	4.21	0.75	1.77	0.046
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	40.66	0.13	0.63	0.075
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	1.73	0.05	0.10	0.001
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000

Existing Conditions – 50Y Event

OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000
OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	1.60	0.02	0.03	0.000
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	2.59	0.06	0.12	0.002
OUT-1105	5.45	0.88	1.84	0.070
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	1.88	0.04	0.18	0.001
OUT-1115	2.01	0.02	0.03	0.000
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	0.94	0.04	0.07	0.001
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.00	0.00	0.00	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	3.80	0.09	0.18	0.005
OUT-1147	1.28	0.00	0.01	0.000
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	2.56	0.11	0.21	0.004
OUT-1159	2.72	0.27	0.51	0.011
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	2.89	0.17	0.31	0.007
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	2.89	0.18	0.34	0.007

Existing Conditions – 50Y Event

OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000
OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	2.65	0.09	0.17	0.004
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	4.61	0.77	1.64	0.052
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	0.00	0.00	0.00	0.000
OUT-1186	1.54	0.12	0.23	0.003
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	2.93	0.31	0.58	0.013
OUT-1199	4.32	0.98	2.74	0.061
OUT-1200	4.18	0.30	0.58	0.019
OUT-1202	2.53	0.07	0.13	0.003
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	2.79	0.02	0.04	0.001
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	0.00	0.00	0.00	0.000
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	3.67	1.90	5.33	0.102
OUT-1234	10.54	2.08	9.25	0.318
OUT-1236	9.10	1.21	3.65	0.160
OUT-1237	4.49	0.19	0.46	0.013
OUT-1238	4.77	0.84	2.93	0.058
OUT-1240	6.00	0.48	1.20	0.042
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	2.92	0.81	2.64	0.034
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000

Existing Conditions – 50Y Event

OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000
OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	1.79	0.49	1.75	0.013
OUT-1283	3.46	0.33	0.77	0.017
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	2.19	0.17	0.31	0.005
OUT-1295	2.56	0.13	0.24	0.005
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	2.65	0.10	0.18	0.004
OUT-1301	3.78	0.03	0.06	0.002
OUT-1302	2.62	0.15	0.27	0.006
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	1.96	0.12	0.21	0.003
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	3.43	0.21	0.43	0.010
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.00	0.00	0.00	0.000

OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000
OUT-1349	0.00	0.00	0.00	0.000
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	0.00	0.00	0.00	0.000
OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	0.00	0.00	0.00	0.000

System 0.83 16.09 35.50 1.264

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	0.63	0 12:29	4.00	0.00	0.01
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	0.65	0 11:06	4.50	0.02	0.09
1240-pipe	CONDUIT	1.20	0 11:17	2.19	0.04	0.13
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.55	0 12:46	0.69	0.01	0.09
1332-pipe	CONDUIT	0.63	0 12:28	2.25	0.05	0.14
1401-pipe	CONDUIT	0.01	0 10:25	0.70	0.00	0.01
1402-pipe	CONDUIT	0.54	0 10:21	0.19	1.07	0.91
1403-ditch	CONDUIT	0.49	0 10:35	1.53	0.00	0.05
1403-pipe	CONDUIT	0.00	0 19:35	0.00	1.08	1.00
1404-pipe	CONDUIT	0.21	0 10:29	1.04	0.03	0.11
1405-ditch	CONDUIT	0.55	0 12:26	1.50	0.00	0.07
1405-pipe	CONDUIT	0.55	0 12:26	5.23	0.01	0.07
sd_ditch-orifice	ORIFICE	1.20	0 11:15			0.00
outfall_basin_weir	WEIR	2.64	0 10:26			0.00

FM-dummy-weir WEIR 0.00 0 00:00 0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
1402-pipe	0.01	0.17	0.01	0.11	0.17
1403-pipe	3.81	4.47	6.67	7.43	4.47

Analysis begun on: Tue May 02 13:31:43 2017
 Analysis ended on: Tue May 02 13:31:45 2017
 Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Existing
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	1579.807	3.040
Evaporation Loss	0.000	0.000
Infiltration Loss	1567.302	3.016
Surface Runoff	10.217	0.020
Final Surface Storage	2.292	0.004
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	10.217	3.329
Groundwater Inflow	0.000	0.000

RDI Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	8.103	2.640
Internal Outflow	0.190	0.062
Evaporation Loss	0.000	0.000
Exfiltration Loss	1.576	0.513
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.279	0.091
Continuity Error (%)	0.680	

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

 Minimum Time Step : 30.00 sec
 Average Time Step : 30.00 sec
 Maximum Time Step : 30.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 1.02
 Percent Not Converging : 0.00

 Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
1001	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1002	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1003	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1005	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1006	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1009	3.04	0.00	0.00	2.97	0.07	0.01	0.26	0.024
1010	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1011	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1012	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1013	3.04	0.00	0.00	2.96	0.08	0.01	0.36	0.028
1015	3.04	0.00	0.00	2.90	0.14	0.02	1.08	0.045
1016	3.04	0.00	0.00	2.99	0.05	0.02	0.58	0.017
1017	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1018	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1019	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1020	3.04	0.00	0.00	2.76	0.25	0.08	2.69	0.082
1022	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1023	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000

Existing Conditions – 100Y Event

1026	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1029	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1032	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1033	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1034	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1035	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1036	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1037	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1038	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1039	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1040	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1042	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1043	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1044	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1046	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1051	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1053	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1054	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1055	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1056	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1057	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1058	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1059	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1060	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1062	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1063	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1064	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1065	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1067	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1068	3.04	0.00	0.00	2.92	0.12	0.01	0.61	0.038
1069	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1070	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1072	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1073	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1075	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1076	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1080	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1082	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1083	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1084	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1087	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1088	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1090	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1091	3.04	0.00	0.00	2.95	0.09	0.01	0.25	0.029
1092	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1095	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1104	3.04	0.00	0.00	3.01	0.03	0.03	0.75	0.011
1105	3.04	0.00	0.00	2.92	0.12	0.14	3.00	0.040
1106	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1107	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1108	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1110	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1111	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1113	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1114	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000

Existing Conditions – 100Y Event

1115	3.04	0.00	0.00	2.85	0.19	0.00	0.10	0.061
1116	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1117	3.04	0.00	0.00	2.99	0.05	0.01	0.67	0.015
1118	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1119	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1120	3.04	0.00	0.00	3.04	0.00	0.00	0.01	0.000
1121	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1126	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1127	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1129	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1132	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1133	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1135	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1136	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1138	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1142	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1147	3.04	0.00	0.00	3.02	0.02	0.01	0.14	0.006
1148	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1150	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1151	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1152	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1153	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1154	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1155	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1156	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1157	3.04	0.00	0.00	2.90	0.14	0.02	0.75	0.047
1159	3.04	0.00	0.00	2.96	0.08	0.09	2.62	0.026
1160	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1161	3.04	0.00	0.00	2.98	0.06	0.06	1.58	0.021
1162	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1165	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1166	3.04	0.00	0.00	2.94	0.10	0.04	1.42	0.034
1167	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1169	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1170	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1172	3.04	0.00	0.00	2.98	0.06	0.03	0.96	0.020
1173	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1174	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1180	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1181	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1182	3.04	0.00	0.00	3.01	0.03	0.04	1.11	0.010
1186	3.04	0.00	0.00	3.01	0.03	0.14	4.24	0.010
1187	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1189	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1190	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1191	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1192	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1193	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1194	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1195	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1197	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1198	3.04	0.00	0.00	2.92	0.12	0.06	2.21	0.039
1199	3.04	0.00	0.00	2.66	0.38	0.09	3.83	0.124
1200	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1202	3.04	0.00	0.00	2.99	0.05	0.03	0.82	0.015

Existing Conditions – 100Y Event

1204	3.04	0.00	0.00	1.76	0.00	0.00	0.00	0.000
1205	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1206	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1207	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1208	3.04	0.00	0.00	2.94	0.10	0.00	0.15	0.035
1209	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1210	3.04	0.00	0.00	3.00	0.04	0.00	0.13	0.012
1211	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1212	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1215	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1216	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1218	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1223	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1229	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1230	3.04	0.00	0.00	2.80	0.20	0.09	1.05	0.065
1231	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1232	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1233	3.04	0.00	0.00	2.69	0.35	0.15	7.55	0.114
1234	3.04	0.00	0.00	2.12	0.87	0.42	12.07	0.285
1236	3.04	0.00	0.00	2.37	0.62	0.22	4.99	0.205
1237	3.04	0.00	0.00	2.74	0.27	0.02	0.69	0.087
1238	3.04	0.00	0.00	2.52	0.52	0.08	3.95	0.172
1239	3.04	0.00	0.00	2.38	0.66	0.27	12.45	0.218
1240	3.04	0.00	0.00	2.86	0.18	0.12	4.43	0.059
1241	3.04	0.00	0.00	2.24	0.75	0.29	7.75	0.246
1243	3.04	0.00	0.00	2.47	0.57	0.14	8.67	0.189
1249	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1250	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1251	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1257	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1258	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1259	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1260	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1261	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1264	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1265	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1266	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1267	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1268	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1269	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1270	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1271	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1272	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1273	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1275	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1276	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1278	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1282	3.04	0.00	0.00	2.55	0.49	0.02	2.15	0.160
1283	3.04	0.00	0.00	2.77	0.24	0.03	1.19	0.078
1284	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1285	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1287	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1288	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1290	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1291	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000

Existing Conditions – 100Y Event

1292	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.00	0.000
1293	3.04	0.00	0.00	2.99	0.05	0.09	2.64	0.016	
1295	3.04	0.00	0.00	2.99	0.05	0.06	1.57	0.017	
1297	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1298	3.04	0.00	0.00	2.96	0.08	0.03	0.94	0.026	
1301	3.04	0.00	0.00	2.89	0.15	0.01	0.16	0.049	
1302	3.04	0.00	0.00	2.99	0.05	0.07	1.71	0.015	
1304	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1305	3.04	0.00	0.00	3.00	0.04	0.08	2.22	0.015	
1306	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1309	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1310	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1312	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1314	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1316	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1318	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1322	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1324	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000	
1325	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1326	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1327	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1328	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1329	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1330	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1331	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1332	3.04	0.00	0.00	2.55	0.45	0.02	0.32	0.147	
1333	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1334	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1335	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1336	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1337	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1338	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1339	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1342	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1343	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1344	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1345	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.001	
1346	3.04	0.00	0.00	2.28	0.00	0.00	0.00	0.000	
1347	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1349	3.04	0.00	0.00	3.03	0.01	0.01	0.30	0.004	
1350	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1352	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1354	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1355	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1356	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1357	3.04	0.00	0.00	3.00	0.04	0.01	0.44	0.014	
1358	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1359	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1360	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1363	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1365	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1366	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1367	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1368	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1369	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	

Existing Conditions – 100Y Event

1370	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1371	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1372	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1374	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1375	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1376	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1401	3.04	0.00	0.00	3.00	0.00	0.00	0.12	0.002
1402	3.04	0.00	0.00	2.61	0.39	0.03	0.80	0.127
1403	3.04	0.00	0.00	2.66	0.34	0.03	0.72	0.111
1404	3.04	0.00	0.00	2.67	0.32	0.02	0.34	0.105
1405	3.04	0.00	0.00	2.97	0.03	0.00	0.05	0.011
1406	3.04	0.00	0.00	2.32	0.67	0.04	1.60	0.221
1407	3.04	0.00	0.00	3.01	0.01	0.00	0.22	0.002

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.03	0.71	322.71	0 10:58
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.02	0.23	351.01	0 11:06
N1332-1	JUNCTION	1.22	2.00	314.96	0 10:22
N-1332-2	JUNCTION	0.06	0.39	311.09	0 12:09
N1401	JUNCTION	0.00	0.10	350.55	0 10:30
N1402	JUNCTION	0.09	3.00	351.82	0 09:59
N1403-1	JUNCTION	0.07	2.00	350.82	0 10:05
N1403-2	JUNCTION	0.33	3.00	319.22	0 09:51
N1404	JUNCTION	0.01	0.29	311.29	0 10:25
N1405-1	JUNCTION	0.02	0.33	348.43	0 10:57
N1405-2	JUNCTION	0.03	0.30	319.78	0 12:13
N1037-1	JUNCTION	0.06	0.39	309.79	0 12:10
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Existing Conditions – 100Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.01	0.06	286.06	0	12:10
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

Existing Conditions – 100Y Event

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Existing Conditions – 100Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.03	0.71	320.11	0	10:59
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Existing Conditions – 100Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	1.26	2.79	322.59	0	10:58
DOT&PF_outfall_basin	STORAGE	3.28	5.28	327.38	0	10:16
FM-infilt-area	STORAGE	0.05	0.34	333.34	0	12:37
Petco-infilt-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	3.95	0 10:58	0	0.155	0.000
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	1.05	1.05	0 11:06	0.0874	0.0874	0.000
N1332-1	JUNCTION	0.00	0.99	0 12:10	0	0.105	0.000
N-1332-2	JUNCTION	0.32	1.19	0 12:09	0.0162	0.138	0.000
N1401	JUNCTION	0.12	0.12	0 10:30	0.0031	0.0031	0.000
N1402	JUNCTION	0.80	0.80	0 10:12	0.0279	0.0279	0.000
N1403-1	JUNCTION	0.00	0.54	0 10:53	0	0.0239	0.000
N1403-2	JUNCTION	0.72	1.19	0 10:28	0.0335	0.0582	0.000
N1404	JUNCTION	0.34	0.34	0 10:25	0.017	0.017	0.000
N1405-1	JUNCTION	0.00	1.12	0 10:57	0	0.0905	0.000
N1405-2	JUNCTION	0.05	0.99	0 12:10	0.00262	0.101	0.000
N1037-1	JUNCTION	0.00	1.19	0 12:10	0	0.138	0.000
OUT-1001	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.26	0.26	0 10:30	0.011	0.011	0.000
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1012	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1013	OUTFALL	0.36	0.36	0 10:30	0.0141	0.0141	0.000
OUT-1015	OUTFALL	1.08	1.08	0 10:18	0.0246	0.0246	0.000
OUT-1016	OUTFALL	0.58	0.58	0 10:30	0.0193	0.0193	0.000
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	2.69	2.69	0 10:10	0.0803	0.0803	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Existing Conditions – 100Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1037	OUTFALL	0.00	1.19	0	12:10	0	0.136	0.000	
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1068	OUTFALL	0.61	0.61	0	10:18	0.012	0.012	0.000	
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1091	OUTFALL	0.25	0.25	0	10:24	0.00608	0.00608	0.000	
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1104	OUTFALL	0.75	0.75	0	10:36	0.031	0.031	0.000	
OUT-1105	OUTFALL	3.00	3.00	0	10:27	0.144	0.144	0.000	
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1114	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1115	OUTFALL	0.10	0.10	0	10:00	0.0014	0.0014	0.000	
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal

Existing Conditions – 100Y Event

OUT-1117	OUTFALL	0.67	0.67	0	10:08	0.0109	0.0109	0.000
OUT-1118	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1119	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1120	OUTFALL	0.01	0.01	0	10:06	6.47e-005	6.47e-005	0.000
OUT-1121	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1126	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1127	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1129	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1132	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1133	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1135	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1136	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1138	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1142	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1147	OUTFALL	0.14	0.14	0	10:36	0.00509	0.00509	0.000
OUT-1148	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1150	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1151	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1152	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1153	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1154	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1155	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1156	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1157	OUTFALL	0.75	0.75	0	10:18	0.0174	0.0174	0.000
OUT-1159	OUTFALL	2.62	2.62	0	10:26	0.0882	0.0882	0.000
OUT-1160	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1161	OUTFALL	1.58	1.58	0	10:30	0.0591	0.0591	0.000
OUT-1162	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1165	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1166	OUTFALL	1.42	1.42	0	10:24	0.0442	0.0442	0.000
OUT-1167	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1169	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1170	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1172	OUTFALL	0.96	0.96	0	10:30	0.0349	0.0349	0.000
OUT-1173	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1174	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1180	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1181	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1182	OUTFALL	1.11	1.11	0	10:30	0.0351	0.0351	0.000
OUT-1186	OUTFALL	4.24	4.24	0	10:30	0.144	0.144	0.000
OUT-1187	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1189	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1190	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1191	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1192	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1193	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1194	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1195	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1197	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1198	OUTFALL	2.21	2.21	0	10:24	0.065	0.065	0.000
OUT-1199	OUTFALL	3.83	3.83	0	10:04	0.0918	0.0918	0.000
OUT-1200	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1202	OUTFALL	0.82	0.82	0	10:30	0.0313	0.0313	0.000
OUT-1204	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1205	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Existing Conditions – 100Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.15	0.15	0	10:24	0.00472	0.00472	0.000
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.13	0.13	0	10:30	0.00393	0.00393	0.000
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	7.55	7.55	0	10:02	0.154	0.154	0.000
OUT-1234	OUTFALL	12.07	12.07	0	10:07	0.419	0.419	0.000
OUT-1236	OUTFALL	4.99	4.99	0	10:17	0.225	0.225	0.000
OUT-1237	OUTFALL	0.69	0.69	0	10:12	0.0218	0.0218	0.000
OUT-1238	OUTFALL	3.95	3.95	0	10:01	0.0812	0.0812	0.000
OUT-1240	OUTFALL	0.00	3.95	0	10:59	0	0.155	0.000
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	4.91	0	10:16	0	0.0702	0.000
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	2.15	2.15	0	09:54	0.0167	0.0167	0.000
OUT-1283	OUTFALL	1.19	1.19	0	10:06	0.0289	0.0289	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	2.64	2.64	0	10:30	0.092	0.092	0.000
OUT-1295	OUTFALL	1.57	1.57	0	10:30	0.0584	0.0584	0.000
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.94	0.94	0	10:24	0.031	0.031	0.000
OUT-1301	OUTFALL	0.16	0.16	0	10:24	0.00564	0.00564	0.000

Existing Conditions – 100Y Event

OUT-1302	OUTFALL	1.71	1.71	0	10:30	0.0666	0.0666	0.000
OUT-1304	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1305	OUTFALL	2.22	2.22	0	10:30	0.0753	0.0753	0.000
OUT-1306	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1309	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1310	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1312	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1314	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1316	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1318	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1322	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1324	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1325	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1326	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1327	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1328	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1329	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1330	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1331	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1333	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1334	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1335	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1336	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1337	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1338	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1339	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1342	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1343	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1344	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1345	OUTFALL	0.00	0.00	0	10:06	1.51e-005	1.51e-005	0.000
OUT-1346	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1347	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1349	OUTFALL	0.30	0.30	0	10:30	0.00957	0.00957	0.000
OUT-1350	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1352	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1354	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1355	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1356	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1357	OUTFALL	0.44	0.44	0	10:24	0.0113	0.0113	0.000
OUT-1358	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1359	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1360	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1363	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1365	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1366	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1367	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1368	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1369	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1370	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1371	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1372	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1374	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1375	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1376	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1407	OUTFALL	0.22	0.22	0	10:18	0.00346	0.00346	0.000

DOT&PF_stormdrain_ditch	STORAGE	16.62	16.62	0	10:02	0.389	0.389	0.064
DOT&PF_outfall_basin	STORAGE	8.67	8.67	0	10:00	0.144	0.144	0.313
FM-infilt-area	STORAGE	7.75	7.75	0	10:10	0.294	0.294	-0.057
Petco-infilt-area	STORAGE	1.60	1.60	0	10:02	0.0353	0.0353	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
N1402	JUNCTION	0.85	1.000	0.000
N1403-2	JUNCTION	5.15	0.000	0.000
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Poned Volume 1000 ft3
N1402	0.85	0.30	0 10:12	0.004	0.000
N1403-2	5.15	1.19	0 10:29	0.058	0.000

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	12.637	15	0	47	34.137	41	0 10:57	4.53
DOT&PF_outfall_basin	5.339	46	0	27	9.606	83	0 10:15	5.08
FM-infilt-area	3.046	2	0	100	21.693	11	0 12:37	4.07
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Existing Conditions – 100Y Event

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10 ⁶ gal
OUT-1001	0.00	0.00	0.00	0.000
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000
OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	5.48	0.14	0.26	0.011
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	0.00	0.00	0.00	0.000
OUT-1012	0.00	0.00	0.00	0.000
OUT-1013	5.18	0.19	0.36	0.014
OUT-1015	3.46	0.49	1.08	0.025
OUT-1016	4.35	0.31	0.58	0.019
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	0.00	0.00	0.00	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	5.34	1.03	2.69	0.080
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	42.39	0.22	1.19	0.136
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	2.90	0.29	0.61	0.012
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000

Existing Conditions – 100Y Event

OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000
OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	3.36	0.12	0.25	0.006
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	5.15	0.41	0.75	0.031
OUT-1105	7.22	1.37	3.00	0.144
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	0.00	0.00	0.00	0.000
OUT-1115	2.59	0.04	0.10	0.001
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	2.13	0.35	0.67	0.011
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.62	0.01	0.01	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	0.00	0.00	0.00	0.000
OUT-1147	4.41	0.08	0.14	0.005
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	3.56	0.34	0.75	0.017
OUT-1159	4.57	1.33	2.62	0.088
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	4.94	0.82	1.58	0.059
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	4.41	0.69	1.42	0.044

Existing Conditions – 100Y Event

OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000
OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	4.80	0.50	0.96	0.035
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	0.00	0.00	0.00	0.000
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	4.07	0.59	1.11	0.035
OUT-1186	4.34	2.29	4.24	0.144
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	4.27	1.05	2.21	0.065
OUT-1199	5.22	1.21	3.83	0.092
OUT-1200	0.00	0.00	0.00	0.000
OUT-1202	4.91	0.44	0.82	0.031
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	4.30	0.08	0.15	0.005
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	3.84	0.07	0.13	0.004
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	4.46	2.38	7.55	0.154
OUT-1234	13.08	2.20	12.07	0.419
OUT-1236	10.71	1.44	4.99	0.225
OUT-1237	5.65	0.26	0.69	0.022
OUT-1238	5.80	0.96	3.95	0.081
OUT-1240	8.01	1.33	3.95	0.155
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	4.01	1.20	4.91	0.070
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000

Existing Conditions – 100Y Event

OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000
OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	2.22	0.52	2.15	0.017
OUT-1283	4.40	0.45	1.19	0.029
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	4.55	1.39	2.64	0.092
OUT-1295	4.84	0.83	1.57	0.058
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	4.49	0.48	0.94	0.031
OUT-1301	5.15	0.08	0.16	0.006
OUT-1302	5.00	0.92	1.71	0.067
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	4.41	1.17	2.22	0.075
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	0.00	0.00	0.00	0.000
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.54	0.00	0.00	0.000

OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000
OUT-1349	3.97	0.17	0.30	0.010
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	3.38	0.23	0.44	0.011
OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	1.96	0.12	0.22	0.003

System 1.02 30.56 68.35 2.640

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	1.19	0 12:10	5.10	0.00	0.01
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	1.05	0 11:06	5.17	0.03	0.12
1240-pipe	CONDUIT	3.95	0 10:59	3.12	0.12	0.24
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.99	0 12:27	0.82	0.01	0.13
1332-pipe	CONDUIT	1.19	0 12:10	2.71	0.08	0.20
1401-pipe	CONDUIT	0.12	0 10:30	1.86	0.01	0.05
1402-pipe	CONDUIT	0.54	0 10:53	0.19	1.08	1.00
1403-ditch	CONDUIT	0.52	0 10:59	1.59	0.00	0.05
1403-pipe	CONDUIT	0.00	0 20:15	0.00	1.08	1.00
1404-pipe	CONDUIT	0.34	0 10:26	1.21	0.04	0.14
1405-ditch	CONDUIT	0.96	0 12:13	1.52	0.01	0.10
1405-pipe	CONDUIT	0.99	0 12:10	6.33	0.02	0.10
sd_ditch-orifice	ORIFICE	3.95	0 10:58			0.00
outfall_basin_weir	WEIR	4.91	0 10:16			0.00

FM-dummy-weir WEIR 0.00 0 00:00 0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	Hours
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
1402-pipe	0.73	0.84	0.77	0.12	0.84
1403-pipe	4.64	5.17	7.50	7.42	5.17

Analysis begun on: Tue May 02 13:32:07 2017
 Analysis ended on: Tue May 02 13:32:09 2017
 Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Buildout
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	691.173	1.330
Evaporation Loss	0.000	0.000
Infiltration Loss	688.329	1.325
Surface Runoff	0.871	0.002
Final Surface Storage	1.974	0.004
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.871	0.284

Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	0.371	0.121
Internal Outflow	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.437	0.142
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.068	0.022
Continuity Error (%)	-0.554	

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step : 30.00 sec
Average Time Step : 30.00 sec
Maximum Time Step : 30.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.00
Percent Not Converging : 0.00

Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10 ⁶ gal	Peak Runoff CFS	Runoff Coeff
1001	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1002	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1003	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1005	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1006	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1009	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1010	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1011	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1012	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1013	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1015	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1016	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1017	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1018	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1019	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1020	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1022	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000

Buildout Conditions – 2Y Event

1114	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1115	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1116	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1117	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1118	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1119	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1120	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1121	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1126	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1127	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1129	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1132	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1133	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1135	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1136	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1138	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1142	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1147	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1148	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1150	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1151	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1152	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1153	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1154	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1155	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1156	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1157	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1159	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1160	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1161	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1162	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1165	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1166	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1167	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1169	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1170	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1172	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1173	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1174	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1180	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1181	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1182	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1186	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1187	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1189	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1190	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1191	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1192	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1193	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1194	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1195	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1197	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1198	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1199	1.33	0.00	0.00	1.28	0.05	0.01	0.51	0.037
1200	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000

Buildout Conditions – 2Y Event

1202	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1204	1.33	0.00	0.00	0.77	0.00	0.00	0.00	0.000
1205	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1206	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1207	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1208	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1209	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1210	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1211	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1212	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1215	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1216	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1218	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1223	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1229	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1230	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1231	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1232	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1233	1.33	0.00	0.00	1.31	0.02	0.01	0.63	0.018
1234	1.33	0.00	0.00	1.22	0.05	0.03	1.04	0.040
1236	1.33	0.00	0.00	1.16	0.12	0.04	0.87	0.089
1237	1.33	0.00	0.00	1.29	0.00	0.00	0.00	0.000
1238	1.33	0.00	0.00	1.17	0.16	0.03	0.97	0.124
1239	1.33	0.00	0.00	1.07	0.26	0.10	3.92	0.193
1240	1.33	0.00	0.00	1.33	0.00	0.00	0.01	0.000
1241	1.33	0.00	0.00	1.26	0.02	0.01	0.43	0.017
1243	1.33	0.00	0.00	1.13	0.20	0.05	2.42	0.152
1249	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1250	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1251	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1257	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1258	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1259	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1260	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1261	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1264	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1265	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1266	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1267	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1268	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1269	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1270	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1271	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1272	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1273	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1275	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1276	1.33	0.00	0.00	1.31	0.00	0.00	0.00	0.000
1278	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1282	1.33	0.00	0.00	1.22	0.11	0.00	0.55	0.082
1283	1.33	0.00	0.00	1.29	0.00	0.00	0.02	0.001
1284	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1285	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1287	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1288	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1290	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000

1369	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1370	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1371	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1372	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1374	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1375	1.33	0.00	0.00	1.33	0.00	0.00	0.00	0.000
1376	1.33	0.00	0.00	1.32	0.00	0.00	0.00	0.000
1401	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000
1402	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.001
1403	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1404	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1405	1.33	0.00	0.00	1.29	0.00	0.00	0.00	0.000
1406	1.33	0.00	0.00	1.28	0.00	0.00	0.00	0.000
1407	1.33	0.00	0.00	1.30	0.00	0.00	0.00	0.000

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.00	0.00	322.00	0 00:00
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.00	0.00	350.78	0 00:00
N1332-1	JUNCTION	0.53	0.84	313.80	0 14:37
N-1332-2	JUNCTION	0.01	0.01	310.71	0 21:06
N1401	JUNCTION	0.00	0.00	350.45	0 00:00
N1402	JUNCTION	0.00	0.14	348.96	0 10:36
N1403-1	JUNCTION	0.00	0.13	348.95	0 10:51
N1403-2	JUNCTION	0.05	1.24	317.46	0 11:31
N1404	JUNCTION	0.00	0.00	311.00	0 00:00
N1405-1	JUNCTION	0.00	0.00	348.10	0 00:00
N1405-2	JUNCTION	0.00	0.00	319.48	0 00:00
N1037-1	JUNCTION	0.01	0.01	309.41	0 21:10
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00

Buildout Conditions – 2Y Event

OUT-1020	OUTFALL	0.00	0.00	349.94	0	00:00
OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.00	0.00	286.00	0	00:00
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00

Buildout Conditions – 2Y Event

OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00
OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00

Buildout Conditions – 2Y Event

OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00
OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.00	0.00	319.40	0	00:00
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00

Buildout Conditions – 2Y Event

OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00
OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00

OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00
OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	0.42	1.22	321.02	0	12:07
DOT&PF_outfall_basin	STORAGE	2.36	3.89	325.99	0	11:49
FM-infilt-area	STORAGE	0.00	0.00	333.00	0	10:32
Petco-infilt-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1332-1	JUNCTION	0.00	0.00	0 14:37	0	0.000957	0.000
N-1332-2	JUNCTION	0.00	0.00	0 21:06	0	0.000891	0.000
N1401	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1402	JUNCTION	0.00	0.00	0 10:36	7.13e-005	7.13e-005	0.000
N1403-1	JUNCTION	0.00	0.00	0 10:51	0	7.8e-005	-0.000
N1403-2	JUNCTION	0.00	0.00	0 11:31	0	0.000105	0.000
N1404	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1405-1	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1405-2	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1037-1	JUNCTION	0.00	0.00	0 21:10	0	0.000889	0.000
OUT-1001	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1012	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1013	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1015	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1016	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	0.00	0.00	0 10:08	1.25e-005	1.25e-005	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Buildout Conditions – 2Y Event

OUT-1205	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	0.63	0.63	0	10:07	0.0104	0.0104	0.000
OUT-1234	OUTFALL	1.04	1.04	0	10:19	0.0254	0.0254	0.000
OUT-1236	OUTFALL	0.87	0.87	0	10:34	0.0426	0.0426	0.000
OUT-1237	OUTFALL	0.00	0.00	0	10:11	1.87e-005	1.87e-005	0.000
OUT-1238	OUTFALL	0.97	0.97	0	10:08	0.0256	0.0256	0.000
OUT-1240	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	0.55	0.55	0	10:00	0.00377	0.00377	0.000
OUT-1283	OUTFALL	0.02	0.02	0	10:08	0.000135	0.000135	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1295	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

OUT-1407	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
DOT&PF_stormdrain_ditch	STORAGE	3.92	3.92	0	10:06	0.103	0.103	-0.015
DOT&PF_outfall_basin	STORAGE	2.42	2.42	0	10:03	0.0509	0.0509	-0.000
FM-infilt-area	STORAGE	0.43	0.43	0	10:19	0.00898	0.00898	-4.482
Petco-infilt-area	STORAGE	0.00	0.00	0	00:00	0	0	0.000 gal

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	3.417	4	0	100	11.090	13	0 12:06	0.48
DOT&PF_outfall_basin	3.418	29	0	59	6.200	53	0 11:49	0.11
FM-infilt-area	0.000	0	0	105	0.028	0	0 10:32	0.85
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
OUT-1001	0.00	0.00	0.00	0.000
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000

Buildout Conditions – 2Y Event

OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	0.00	0.00	0.00	0.000
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	0.00	0.00	0.00	0.000
OUT-1012	0.00	0.00	0.00	0.000
OUT-1013	0.00	0.00	0.00	0.000
OUT-1015	0.00	0.00	0.00	0.000
OUT-1016	0.00	0.00	0.00	0.000
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	0.00	0.00	0.00	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	0.37	0.00	0.00	0.000
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	0.00	0.00	0.00	0.000
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	0.00	0.00	0.00	0.000
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000
OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000
OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000

Buildout Conditions – 2Y Event

OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	0.00	0.00	0.00	0.000
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	0.00	0.00	0.00	0.000
OUT-1105	1.85	0.03	0.05	0.001
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	0.00	0.00	0.00	0.000
OUT-1115	0.00	0.00	0.00	0.000
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	0.00	0.00	0.00	0.000
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.00	0.00	0.00	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	0.00	0.00	0.00	0.000
OUT-1147	0.00	0.00	0.00	0.000
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	0.00	0.00	0.00	0.000
OUT-1159	0.00	0.00	0.00	0.000
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	0.00	0.00	0.00	0.000
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	0.00	0.00	0.00	0.000
OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000
OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	0.00	0.00	0.00	0.000
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	0.00	0.00	0.00	0.000
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	0.00	0.00	0.00	0.000

Buildout Conditions – 2Y Event

OUT-1186	0.00	0.00	0.00	0.000
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	0.00	0.00	0.00	0.000
OUT-1199	3.43	0.24	0.51	0.012
OUT-1200	0.00	0.00	0.00	0.000
OUT-1202	0.00	0.00	0.00	0.000
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	0.00	0.00	0.00	0.000
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	0.00	0.00	0.00	0.000
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	2.28	0.31	0.63	0.010
OUT-1234	3.50	0.50	1.04	0.025
OUT-1236	7.47	0.39	0.87	0.043
OUT-1237	0.57	0.00	0.00	0.000
OUT-1238	4.92	0.36	0.97	0.026
OUT-1240	0.00	0.00	0.00	0.000
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	0.00	0.00	0.00	0.000
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000
OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000
OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000

Buildout Conditions – 2Y Event

OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	1.36	0.19	0.55	0.004
OUT-1283	0.94	0.01	0.02	0.000
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	0.00	0.00	0.00	0.000
OUT-1295	0.00	0.00	0.00	0.000
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	0.00	0.00	0.00	0.000
OUT-1301	0.00	0.00	0.00	0.000
OUT-1302	0.00	0.00	0.00	0.000
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	0.00	0.00	0.00	0.000
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	0.00	0.00	0.00	0.000
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.00	0.00	0.00	0.000
OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000
OUT-1349	0.00	0.00	0.00	0.000
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	0.00	0.00	0.00	0.000

OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	0.00	0.00	0.00	0.000

System	0.11	2.04	3.91	0.121

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1240-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.00	0 21:06	0.00	0.00	0.00
1332-pipe	CONDUIT	0.00	0 21:10	0.27	0.00	0.01
1401-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1402-pipe	CONDUIT	0.00	0 10:51	0.11	0.01	0.06
1403-ditch	CONDUIT	0.00	0 11:31	0.00	0.00	0.00
1403-pipe	CONDUIT	0.00	0 14:37	0.00	0.37	0.33
1404-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1405-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1405-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
sd_ditch-orifice	ORIFICE	0.00	0 00:00			0.00
outfall_basin_weir	WEIR	0.00	0 00:00			0.00
FM-dummy-weir	WEIR	0.00	0 00:00			0.00

 Conduit Surcharge Summary

No conduits were surcharged.

Analysis begun on: Tue May 02 13:30:08 2017
Analysis ended on: Tue May 02 13:30:10 2017
Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Buildout
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	1018.568	1.960
Evaporation Loss	0.000	0.000
Infiltration Loss	1012.962	1.949
Surface Runoff	3.358	0.006
Final Surface Storage	2.251	0.004
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	3.358	1.094
Groundwater Inflow	0.000	0.000

```

RDII Inflow ..... 0.000      0.000
External Inflow ..... 0.000      0.000
External Outflow ..... 2.262      0.737
Internal Outflow ..... 0.007      0.002
Evaporation Loss ..... 0.000      0.000
Exfiltration Loss ..... 0.873      0.285
Initial Stored Volume .... 0.000      0.000
Final Stored Volume ..... 0.210      0.068
Continuity Error (%) ..... 0.192
    
```

```

*****
Highest Flow Instability Indexes
*****
All links are stable.
    
```

```

*****
Routing Time Step Summary
*****
Minimum Time Step      : 30.00 sec
Average Time Step      : 30.00 sec
Maximum Time Step      : 30.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.02
Percent Not Converging  : 0.00
    
```

```

*****
Subcatchment Runoff Summary
*****
    
```

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
1001	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1002	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1003	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1005	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1006	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1009	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1010	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1011	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1012	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1013	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1015	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1016	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1017	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1018	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1019	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1020	1.96	0.00	0.00	1.68	0.24	0.08	1.81	0.124
1022	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1023	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

Buildout Conditions – 10Y Event

1026	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1029	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1032	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1033	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1034	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1035	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1036	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1037	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1038	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1039	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1040	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1042	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1043	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1044	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1046	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1051	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1053	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1054	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1055	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1056	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1057	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1058	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1059	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1060	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1062	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1063	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1064	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1065	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1067	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1068	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1069	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1070	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1072	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1073	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1075	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1076	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1080	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1082	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1083	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1084	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1087	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1088	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1090	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1091	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1092	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1095	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1104	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1105	1.96	0.00	0.00	1.80	0.16	0.19	2.48	0.079
1106	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1107	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1108	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1110	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1111	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1113	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1114	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

Buildout Conditions – 10Y Event

1115	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1116	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1117	1.96	0.00	0.00	1.84	0.12	0.03	0.90	0.060
1118	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1119	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1120	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1121	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1126	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1127	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1129	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1132	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1133	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1135	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1136	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1138	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1142	1.96	0.00	0.00	1.96	0.00	0.00	0.02	0.002
1147	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1148	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1150	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1151	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1152	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1153	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1154	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1155	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1156	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1157	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1159	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1160	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1161	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1162	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1165	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1166	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1167	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1169	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1170	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1172	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1173	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1174	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1180	1.96	0.00	0.00	1.96	0.00	0.00	0.03	0.000
1181	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1182	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1186	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1187	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1189	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1190	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1191	1.96	0.00	0.00	1.93	0.00	0.00	0.00	0.000
1192	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1193	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1194	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1195	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1197	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1198	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1199	1.96	0.00	0.00	1.90	0.06	0.01	0.87	0.029
1200	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1202	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

Buildout Conditions – 10Y Event

1204	1.96	0.00	0.00	1.13	0.00	0.00	0.00	0.000
1205	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1206	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1207	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1208	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1209	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1210	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1211	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1212	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1215	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1216	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1218	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1223	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1229	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1230	1.96	0.00	0.00	1.91	0.01	0.00	0.09	0.004
1231	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1232	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1233	1.96	0.00	0.00	1.65	0.31	0.14	4.87	0.160
1234	1.96	0.00	0.00	1.62	0.28	0.14	4.21	0.145
1236	1.96	0.00	0.00	1.77	0.14	0.05	1.39	0.070
1237	1.96	0.00	0.00	1.67	0.25	0.02	0.46	0.129
1238	1.96	0.00	0.00	1.83	0.13	0.02	1.17	0.065
1239	1.96	0.00	0.00	1.71	0.25	0.10	5.30	0.129
1240	1.96	0.00	0.00	1.76	0.20	0.13	3.17	0.100
1241	1.96	0.00	0.00	1.70	0.21	0.08	2.48	0.108
1243	1.96	0.00	0.00	1.79	0.17	0.04	3.04	0.088
1249	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1250	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1251	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1257	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1258	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1259	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1260	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1261	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1264	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1265	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1266	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1267	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1268	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1269	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1270	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1271	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1272	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1273	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1275	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1276	1.96	0.00	0.00	1.94	0.00	0.00	0.00	0.000
1278	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1282	1.96	0.00	0.00	1.80	0.16	0.01	0.86	0.081
1283	1.96	0.00	0.00	1.64	0.28	0.03	0.96	0.144
1284	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1285	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1287	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1288	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1290	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1291	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000

1370	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1371	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1372	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1374	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1375	1.96	0.00	0.00	1.96	0.00	0.00	0.00	0.000
1376	1.96	0.00	0.00	1.95	0.00	0.00	0.00	0.000
1401	1.96	0.00	0.00	1.93	0.00	0.00	0.04	0.001
1402	1.96	0.00	0.00	1.90	0.02	0.00	0.07	0.009
1403	1.96	0.00	0.00	1.91	0.01	0.00	0.05	0.005
1404	1.96	0.00	0.00	1.91	0.01	0.00	0.02	0.004
1405	1.96	0.00	0.00	1.89	0.03	0.00	0.03	0.016
1406	1.96	0.00	0.00	1.76	0.15	0.01	0.36	0.077
1407	1.96	0.00	0.00	1.93	0.00	0.00	0.02	0.000

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.01	0.21	322.21	0 12:10
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.00	0.07	350.85	0 10:54
N1332-1	JUNCTION	0.93	1.58	314.54	0 15:27
N-1332-2	JUNCTION	0.03	0.13	310.83	0 12:49
N1401	JUNCTION	0.00	0.06	350.51	0 10:58
N1402	JUNCTION	0.01	0.50	349.32	0 10:20
N1403-1	JUNCTION	0.01	0.49	349.31	0 10:28
N1403-2	JUNCTION	0.18	3.00	319.22	0 10:02
N1404	JUNCTION	0.00	0.08	311.08	0 10:26
N1405-1	JUNCTION	0.00	0.10	348.20	0 10:55
N1405-2	JUNCTION	0.01	0.08	319.56	0 12:31
N1037-1	JUNCTION	0.03	0.13	309.53	0 12:50
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Buildout Conditions – 10Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.00	0.01	286.01	0	12:52
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Buildout Conditions – 10Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.01	0.21	319.61	0	12:13
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Buildout Conditions – 10Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	1.21	2.31	322.11	0	12:10
DOT&PF_outfall_basin	STORAGE	2.02	3.51	325.61	0	11:04
FM-infilt-area	STORAGE	0.00	0.02	333.02	0	11:12
Petco-infilt-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	0.33	0 12:10	0	0.0123	0.000
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	0.09	0.09	0 10:54	0.0034	0.0034	0.000
N1332-1	JUNCTION	0.00	0.12	0 12:30	0	0.0122	0.000
N-1332-2	JUNCTION	0.00	0.12	0 12:49	0	0.0126	0.000
N1401	JUNCTION	0.04	0.04	0 10:58	0.00133	0.00133	0.000
N1402	JUNCTION	0.07	0.07	0 10:20	0.00131	0.00131	0.000
N1403-1	JUNCTION	0.00	0.07	0 10:28	0	0.00131	0.000
N1403-2	JUNCTION	0.05	0.08	0 10:43	0.000936	0.00243	0.002
N1404	JUNCTION	0.02	0.02	0 10:26	0.000396	0.000396	0.000
N1405-1	JUNCTION	0.00	0.13	0 10:55	0	0.00473	0.000
N1405-2	JUNCTION	0.03	0.12	0 12:29	0.00246	0.00973	0.000
N1037-1	JUNCTION	0.00	0.12	0 12:50	0	0.0126	0.000
OUT-1001	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1012	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1013	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1015	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1016	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	1.81	1.81	0 10:18	0.078	0.078	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Buildout Conditions – 10Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1037	OUTFALL	0.00	0.12	0	12:52	0	0.0109	0.000
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1068	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1091	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1104	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1105	OUTFALL	2.48	2.48	0	10:47	0.186	0.186	0.000
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1114	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1115	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Buildout Conditions – 10Y Event

OUT-1117	OUTFALL	0.90	0.90	0	10:19	0.0279	0.0279	0.000
OUT-1118	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1119	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1120	OUTFALL	0.00	0.00	0	10:30	5.94e-007	5.94e-007	0.000 gal
OUT-1121	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1126	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1127	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1129	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1132	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1133	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1135	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1136	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1138	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1142	OUTFALL	0.02	0.02	0	10:30	0.000277	0.000277	0.000
OUT-1147	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1148	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1150	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1151	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1152	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1153	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1154	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1155	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1156	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1157	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1159	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1160	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1161	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1162	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1165	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1166	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1167	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1169	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1170	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1172	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1173	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1174	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1180	OUTFALL	0.03	0.03	0	10:30	0.000344	0.000344	0.000
OUT-1181	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1182	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1186	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1187	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1189	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1190	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1191	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1192	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1193	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1194	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1195	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1197	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1198	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1199	OUTFALL	0.87	0.87	0	10:05	0.0139	0.0139	0.000
OUT-1200	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1202	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1204	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1205	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Buildout Conditions – 10Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	4.87	4.87	0	10:05	0.14	0.14	0.000
OUT-1234	OUTFALL	4.21	4.21	0	10:15	0.137	0.137	0.000
OUT-1236	OUTFALL	1.39	1.39	0	10:24	0.0497	0.0497	0.000
OUT-1237	OUTFALL	0.46	0.46	0	10:18	0.0207	0.0207	0.000
OUT-1238	OUTFALL	1.17	1.17	0	10:04	0.0198	0.0198	0.000
OUT-1240	OUTFALL	0.00	0.33	0	12:13	0	0.0123	0.000
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	0.86	0.86	0	09:55	0.00544	0.00544	0.000
OUT-1283	OUTFALL	0.96	0.96	0	10:12	0.0345	0.0345	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1295	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1301	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

DOT&PF_stormdrain_ditch	STORAGE	8.18	8.18	0	10:06	0.236	0.236	-0.000
DOT&PF_outfall_basin	STORAGE	3.04	3.04	0	10:01	0.0433	0.0433	0.000
FM-infilt-area	STORAGE	2.48	2.48	0	10:18	0.0831	0.0831	-0.399
Petco-infilt-area	STORAGE	0.36	0.36	0	10:09	0.0079	0.0079	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
N1403-2	JUNCTION	2.54	0.000	0.000
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Poned Volume 1000 ft3
N1403-2	2.54	0.08	0 10:43	0.002	0.000

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	11.869	14	0	74	26.056	31	0 12:10	0.69
DOT&PF_outfall_basin	2.790	24	0	63	5.374	46	0 11:04	0.13
FM-infilt-area	0.036	0	0	100	1.478	1	0 11:12	2.73
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Flow	Avg	Max	Total
------	-----	-----	-------

Outfall Node	Freq Pcnt	Flow CFS	Flow CFS	Volume 10^6 gal
OUT-1001	0.00	0.00	0.00	0.000
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000
OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	0.00	0.00	0.00	0.000
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	0.00	0.00	0.00	0.000
OUT-1012	0.00	0.00	0.00	0.000
OUT-1013	0.00	0.00	0.00	0.000
OUT-1015	0.00	0.00	0.00	0.000
OUT-1016	0.00	0.00	0.00	0.000
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	0.00	0.00	0.00	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	7.47	0.72	1.81	0.078
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	30.33	0.02	0.12	0.011
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	0.00	0.00	0.00	0.000
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000
OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000

Buildout Conditions – 10Y Event

OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	0.00	0.00	0.00	0.000
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	0.00	0.00	0.00	0.000
OUT-1105	10.65	1.20	2.48	0.186
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	0.00	0.00	0.00	0.000
OUT-1115	0.00	0.00	0.00	0.000
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	4.86	0.39	0.90	0.028
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.00	0.00	0.00	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	1.71	0.01	0.02	0.000
OUT-1147	0.00	0.00	0.00	0.000
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	0.00	0.00	0.00	0.000
OUT-1159	0.00	0.00	0.00	0.000
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	0.00	0.00	0.00	0.000
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	0.00	0.00	0.00	0.000
OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000

Buildout Conditions – 10Y Event

OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	0.00	0.00	0.00	0.000
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	1.23	0.02	0.03	0.000
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	0.00	0.00	0.00	0.000
OUT-1186	0.00	0.00	0.00	0.000
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	0.00	0.00	0.00	0.000
OUT-1199	2.35	0.41	0.87	0.014
OUT-1200	0.00	0.00	0.00	0.000
OUT-1202	0.00	0.00	0.00	0.000
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	0.00	0.00	0.00	0.000
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	0.00	0.00	0.00	0.000
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	6.30	1.53	4.87	0.140
OUT-1234	6.80	1.39	4.21	0.137
OUT-1236	5.74	0.60	1.39	0.050
OUT-1237	7.71	0.18	0.46	0.021
OUT-1238	2.87	0.48	1.17	0.020
OUT-1240	5.11	0.17	0.33	0.012
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	0.00	0.00	0.00	0.000
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000
OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000

OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	1.13	0.33	0.86	0.005
OUT-1283	6.90	0.34	0.96	0.035
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	0.00	0.00	0.00	0.000
OUT-1295	0.00	0.00	0.00	0.000
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	0.00	0.00	0.00	0.000
OUT-1301	0.00	0.00	0.00	0.000
OUT-1302	0.00	0.00	0.00	0.000
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	0.00	0.00	0.00	0.000
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	0.00	0.00	0.00	0.000
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.00	0.00	0.00	0.000
OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000

OUT-1349	0.00	0.00	0.00	0.000
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	0.00	0.00	0.00	0.000
OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	1.65	0.01	0.02	0.000

System	0.43	7.80	17.96	0.737

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	0.12	0 12:52	2.08	0.00	0.00
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	0.09	0 10:54	2.47	0.00	0.04
1240-pipe	CONDUIT	0.33	0 12:13	1.48	0.01	0.07
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.12	0 12:49	0.45	0.00	0.04
1332-pipe	CONDUIT	0.12	0 12:50	1.35	0.01	0.07
1401-pipe	CONDUIT	0.04	0 10:59	1.32	0.00	0.03
1402-pipe	CONDUIT	0.07	0 10:28	0.15	0.13	0.25
1403-ditch	CONDUIT	0.05	0 10:52	0.85	0.00	0.01
1403-pipe	CONDUIT	0.00	0 15:27	0.00	0.97	0.64
1404-pipe	CONDUIT	0.02	0 10:28	0.51	0.00	0.04
1405-ditch	CONDUIT	0.10	0 12:31	1.08	0.00	0.02
1405-pipe	CONDUIT	0.12	0 12:30	3.32	0.00	0.04
sd_ditch-orifice	ORIFICE	0.33	0 12:10			0.00
outfall_basin_weir	WEIR	0.00	0 00:00			0.00
FM-dummy-weir	WEIR	0.00	0 00:00			0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
1403-pipe	0.01	2.57	0.01	0.01	2.57

Analysis begun on: Tue May 02 13:29:46 2017
 Analysis ended on: Tue May 02 13:29:48 2017
 Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Buildout
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	1397.916	2.690
Evaporation Loss	0.000	0.000
Infiltration Loss	1389.160	2.673
Surface Runoff	6.189	0.012
Final Surface Storage	2.571	0.005
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	6.189	2.017
Groundwater Inflow	0.000	0.000

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RDII Inflow ..... 0.000      0.000
External Inflow ..... 0.000      0.000
External Outflow ..... 4.433      1.445
Internal Outflow ..... 0.110      0.036
Evaporation Loss ..... 0.000      0.000
Exfiltration Loss ..... 1.330      0.433
Initial Stored Volume .... 0.000      0.000
Final Stored Volume ..... 0.270      0.088
Continuity Error (%) ..... 0.748
    
```

```

*****
Highest Flow Instability Indexes
*****
All links are stable.
    
```

```

*****
Routing Time Step Summary
*****
Minimum Time Step      : 30.00 sec
Average Time Step      : 30.00 sec
Maximum Time Step      : 30.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.02
Percent Not Converging  : 0.00
    
```

```

*****
Subcatchment Runoff Summary
*****
    
```

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
1001	2.69	0.00	0.00	2.63	0.06	0.02	0.52	0.021
1002	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1003	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1005	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1006	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1009	2.69	0.00	0.00	2.62	0.07	0.01	0.25	0.025
1010	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1011	2.69	0.00	0.00	2.66	0.03	0.01	0.16	0.013
1012	2.69	0.00	0.00	2.60	0.09	0.04	1.11	0.032
1013	2.69	0.00	0.00	2.59	0.10	0.02	0.44	0.038
1015	2.69	0.00	0.00	2.66	0.03	0.01	0.29	0.011
1016	2.69	0.00	0.00	2.69	0.00	0.00	0.08	0.002
1017	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1018	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1019	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1020	2.69	0.00	0.00	2.51	0.14	0.05	1.77	0.053
1022	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1023	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000

Buildout Conditions – 50Y Event

1026	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1029	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1032	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1033	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1034	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1035	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1036	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1037	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1038	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1039	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1040	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1042	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1043	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1044	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1046	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1051	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1053	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1054	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1055	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1056	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1057	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1058	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1059	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1060	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1062	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1063	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1064	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1065	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1067	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1068	2.69	0.00	0.00	2.68	0.01	0.00	0.10	0.005
1069	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1070	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1072	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1073	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1075	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1076	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1080	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1082	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1083	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1084	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1087	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1088	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1090	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1091	2.69	0.00	0.00	2.68	0.01	0.00	0.03	0.002
1092	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1095	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1104	2.69	0.00	0.00	2.63	0.06	0.05	1.18	0.023
1105	2.69	0.00	0.00	2.62	0.07	0.09	2.13	0.027
1106	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1107	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1108	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1110	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1111	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1113	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1114	2.69	0.00	0.00	2.54	0.15	0.00	0.18	0.058

Buildout Conditions – 50Y Event

1115	2.69	0.00	0.00	2.53	0.16	0.00	0.09	0.060
1116	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1117	2.69	0.00	0.00	2.63	0.06	0.01	0.85	0.022
1118	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1119	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1120	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1121	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1126	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1127	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1129	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1132	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1133	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1135	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1136	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1138	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1142	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1147	2.69	0.00	0.00	2.69	0.00	0.00	0.01	0.000
1148	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1150	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1151	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1152	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1153	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1154	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1155	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1156	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1157	2.69	0.00	0.00	2.65	0.04	0.00	0.25	0.015
1159	2.69	0.00	0.00	2.66	0.03	0.03	1.13	0.010
1160	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1161	2.69	0.00	0.00	2.67	0.02	0.02	0.63	0.007
1162	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1165	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1166	2.69	0.00	0.00	2.67	0.02	0.01	0.40	0.008
1167	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1169	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1170	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1172	2.69	0.00	0.00	2.68	0.01	0.00	0.20	0.003
1173	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1174	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1180	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1181	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1182	2.69	0.00	0.00	2.69	0.00	0.01	0.26	0.002
1186	2.69	0.00	0.00	2.69	0.00	0.02	1.12	0.002
1187	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1189	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1190	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1191	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000
1192	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1193	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1194	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1195	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1197	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1198	2.69	0.00	0.00	2.58	0.11	0.06	2.12	0.041
1199	2.69	0.00	0.00	2.44	0.25	0.06	2.74	0.094
1200	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1202	2.69	0.00	0.00	2.68	0.01	0.00	0.19	0.003

Buildout Conditions – 50Y Event

1204	2.69	0.00	0.00	1.56	0.00	0.00	0.00	0.000
1205	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1206	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1207	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1208	2.69	0.00	0.00	2.67	0.02	0.00	0.04	0.007
1209	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1210	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1211	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1212	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1215	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1216	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1218	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1223	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1229	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1230	2.69	0.00	0.00	2.54	0.11	0.05	0.65	0.039
1231	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1232	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1233	2.69	0.00	0.00	2.46	0.23	0.10	5.33	0.085
1234	2.69	0.00	0.00	1.98	0.66	0.32	9.25	0.245
1236	2.69	0.00	0.00	2.20	0.44	0.16	3.65	0.164
1237	2.69	0.00	0.00	2.50	0.16	0.01	0.46	0.058
1238	2.69	0.00	0.00	2.31	0.38	0.06	2.93	0.140
1239	2.69	0.00	0.00	2.13	0.56	0.23	10.95	0.210
1240	2.69	0.00	0.00	2.59	0.10	0.07	2.87	0.036
1241	2.69	0.00	0.00	2.09	0.55	0.22	5.81	0.206
1243	2.69	0.00	0.00	2.26	0.43	0.11	6.67	0.159
1249	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1250	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1251	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1257	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1258	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1259	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1260	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1261	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1264	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1265	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1266	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1267	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1268	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1269	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1270	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1271	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1272	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1273	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1275	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1276	2.69	0.00	0.00	2.67	0.00	0.00	0.00	0.000
1278	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1282	2.69	0.00	0.00	2.32	0.37	0.01	1.75	0.138
1283	2.69	0.00	0.00	2.46	0.19	0.02	1.00	0.071
1284	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1285	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1287	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1288	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1290	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1291	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000

Buildout Conditions – 50Y Event

1292	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1293	2.69	0.00	0.00	2.69	0.00	0.01	0.37	0.001
1295	2.69	0.00	0.00	2.68	0.01	0.01	0.28	0.002
1297	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1298	2.69	0.00	0.00	2.68	0.01	0.00	0.18	0.004
1301	2.69	0.00	0.00	2.64	0.05	0.00	0.06	0.017
1302	2.69	0.00	0.00	2.68	0.01	0.01	0.40	0.002
1304	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1305	2.69	0.00	0.00	2.68	0.01	0.01	0.59	0.003
1306	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1309	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1310	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1312	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1314	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1316	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1318	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1322	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1324	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1325	2.69	0.00	0.00	2.59	0.10	0.01	0.43	0.037
1326	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1327	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1328	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1329	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1330	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1331	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1332	2.69	0.00	0.00	2.65	0.04	0.00	0.04	0.015
1333	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1334	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1335	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1336	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1337	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1338	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1339	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1342	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1343	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1344	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1345	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1346	2.69	0.00	0.00	2.02	0.00	0.00	0.00	0.000
1347	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1349	2.69	0.00	0.00	2.68	0.01	0.01	0.20	0.003
1350	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1352	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1354	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1355	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1356	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1357	2.69	0.00	0.00	2.67	0.02	0.01	0.25	0.008
1358	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1359	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1360	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1363	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1365	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1366	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1367	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1368	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1369	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000

1370	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1371	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1372	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1374	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1375	2.69	0.00	0.00	2.69	0.00	0.00	0.00	0.000
1376	2.69	0.00	0.00	2.68	0.00	0.00	0.00	0.000
1401	2.69	0.00	0.00	2.66	0.00	0.00	0.01	0.000
1402	2.69	0.00	0.00	2.41	0.23	0.02	0.51	0.086
1403	2.69	0.00	0.00	2.46	0.19	0.02	0.45	0.070
1404	2.69	0.00	0.00	2.47	0.18	0.01	0.21	0.066
1405	2.69	0.00	0.00	2.64	0.01	0.00	0.02	0.003
1406	2.69	0.00	0.00	2.16	0.48	0.03	1.14	0.179
1407	2.69	0.00	0.00	2.66	0.00	0.00	0.00	0.000

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.02	0.47	322.47	0 11:08
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.01	0.18	350.96	0 11:06
N1332-1	JUNCTION	1.21	2.00	314.96	0 10:33
N-1332-2	JUNCTION	0.05	0.28	310.98	0 12:46
N1401	JUNCTION	0.00	0.02	350.47	0 10:24
N1402	JUNCTION	0.05	3.00	351.82	0 10:11
N1403-1	JUNCTION	0.05	1.81	350.63	0 10:21
N1403-2	JUNCTION	0.29	3.00	319.22	0 09:53
N1404	JUNCTION	0.01	0.23	311.23	0 10:28
N1405-1	JUNCTION	0.01	0.24	348.34	0 11:06
N1405-2	JUNCTION	0.02	0.22	319.70	0 12:26
N1037-1	JUNCTION	0.05	0.28	309.68	0 12:36
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Buildout Conditions – 50Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.00	0.04	286.04	0	12:37
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

Buildout Conditions – 50Y Event

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Buildout Conditions – 50Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.02	0.47	319.87	0	11:09
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Buildout Conditions – 50Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	1.23	2.54	322.34	0	11:08
DOT&PF_outfall_basin	STORAGE	3.24	5.18	327.28	0	10:26
FM-infiltr-area	STORAGE	0.02	0.22	333.22	0	12:12
Petco-infiltr-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	1.76	0 11:08	0	0.0654	0.000
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	0.65	0.65	0 11:06	0.0468	0.0468	0.000
N1332-1	JUNCTION	0.00	0.55	0 12:26	0	0.0564	0.000
N-1332-2	JUNCTION	0.04	0.58	0 12:35	0.00141	0.0673	0.000
N1401	JUNCTION	0.01	0.01	0 10:24	4.58e-005	4.58e-005	0.000
N1402	JUNCTION	0.51	0.51	0 10:16	0.0168	0.0168	-0.000
N1403-1	JUNCTION	0.00	0.54	0 10:21	0	0.0167	0.000
N1403-2	JUNCTION	0.45	0.92	0 10:32	0.0189	0.0362	0.000
N1404	JUNCTION	0.21	0.21	0 10:28	0.00935	0.00935	0.000
N1405-1	JUNCTION	0.00	0.65	0 11:06	0	0.0468	0.000
N1405-2	JUNCTION	0.02	0.55	0 12:26	0.000552	0.0531	0.000
N1037-1	JUNCTION	0.00	0.58	0 12:36	0	0.0672	0.000
OUT-1001	OUTFALL	0.52	0.52	0 10:30	0.0194	0.0194	0.000
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.25	0.25	0 10:30	0.01	0.01	0.000
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.16	0.16	0 10:31	0.0061	0.0061	0.000
OUT-1012	OUTFALL	1.11	1.11	0 10:28	0.0403	0.0403	0.000
OUT-1013	OUTFALL	0.44	0.44	0 10:28	0.0171	0.0171	0.000
OUT-1015	OUTFALL	0.29	0.29	0 10:24	0.00518	0.00518	0.000
OUT-1016	OUTFALL	0.08	0.08	0 10:30	0.00152	0.00152	0.000
OUT-1017	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1018	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	1.77	1.77	0 10:11	0.0462	0.0462	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Buildout Conditions – 50Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1037	OUTFALL	0.00	0.58	0	12:37	0	0.0656	0.000	
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1068	OUTFALL	0.10	0.10	0	10:24	0.00133	0.00133	0.000	
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1091	OUTFALL	0.03	0.03	0	10:30	0.000362	0.000362	0.000	
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1104	OUTFALL	1.18	1.18	0	10:36	0.0543	0.0543	0.000	
OUT-1105	OUTFALL	2.13	2.13	0	10:25	0.0881	0.0881	0.000	
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal
OUT-1114	OUTFALL	0.18	0.18	0	10:00	0.00104	0.00104	0.000	
OUT-1115	OUTFALL	0.09	0.09	0	10:00	0.00121	0.00121	0.000	
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000	gal

Buildout Conditions – 50Y Event

OUT-1117	OUTFALL	0.85	0.85	0	10:08	0.0143	0.0143	0.000
OUT-1118	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1119	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1120	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1121	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1126	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1127	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1129	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1132	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1133	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1135	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1136	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1138	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1142	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1147	OUTFALL	0.01	0.01	0	10:30	0.000166	0.000166	0.000
OUT-1148	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1150	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1151	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1152	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1153	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1154	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1155	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1156	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1157	OUTFALL	0.25	0.25	0	10:24	0.00486	0.00486	0.000
OUT-1159	OUTFALL	1.13	1.13	0	10:30	0.0302	0.0302	0.000
OUT-1160	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1161	OUTFALL	0.63	0.63	0	10:30	0.018	0.018	0.000
OUT-1162	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1165	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1166	OUTFALL	0.40	0.40	0	10:30	0.00929	0.00929	0.000
OUT-1167	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1169	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1170	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1172	OUTFALL	0.20	0.20	0	10:30	0.00436	0.00436	0.000
OUT-1173	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1174	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1180	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1181	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1182	OUTFALL	0.26	0.26	0	10:30	0.00519	0.00519	0.000
OUT-1186	OUTFALL	1.12	1.12	0	10:30	0.0241	0.0241	0.000
OUT-1187	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1189	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1190	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1191	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1192	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1193	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1194	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1195	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1197	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1198	OUTFALL	2.12	2.12	0	10:24	0.0604	0.0604	0.000
OUT-1199	OUTFALL	2.74	2.74	0	10:05	0.0614	0.0614	0.000
OUT-1200	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1202	OUTFALL	0.19	0.19	0	10:30	0.00462	0.00462	0.000
OUT-1204	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1205	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Buildout Conditions – 50Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.04	0.04	0	10:30	0.000839	0.000839	0.000
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	5.33	5.33	0	10:03	0.102	0.102	0.000
OUT-1234	OUTFALL	9.25	9.25	0	10:09	0.318	0.318	0.000
OUT-1236	OUTFALL	3.65	3.65	0	10:19	0.16	0.16	0.000
OUT-1237	OUTFALL	0.46	0.46	0	10:12	0.0127	0.0127	0.000
OUT-1238	OUTFALL	2.93	2.93	0	10:02	0.0584	0.0584	0.000
OUT-1240	OUTFALL	0.00	1.76	0	11:09	0	0.0653	0.000
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	2.64	0	10:26	0	0.0345	0.000
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	1.75	1.75	0	09:54	0.0128	0.0128	0.000
OUT-1283	OUTFALL	1.00	1.00	0	10:06	0.0231	0.0231	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	0.37	0.37	0	10:30	0.00683	0.00683	0.000
OUT-1295	OUTFALL	0.28	0.28	0	10:30	0.00585	0.00585	0.000
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.18	0.18	0	10:30	0.00377	0.00377	0.000
OUT-1301	OUTFALL	0.06	0.06	0	10:30	0.00175	0.00175	0.000

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OUT-1302	OUTFALL	0.40	0.40	0	10:30	0.00959	0.00959	0.000
OUT-1304	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1305	OUTFALL	0.59	0.59	0	10:30	0.0132	0.0132	0.000
OUT-1306	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1309	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1310	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1312	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1314	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1316	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1318	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1322	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1324	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1325	OUTFALL	0.43	0.43	0	10:18	0.0102	0.0102	0.000
OUT-1326	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1327	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1328	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1329	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1330	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1331	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1333	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1334	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1335	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1336	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1337	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1338	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1339	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1342	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1343	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1344	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1345	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1346	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1347	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1349	OUTFALL	0.20	0.20	0	10:30	0.00567	0.00567	0.000
OUT-1350	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1352	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1354	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1355	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1356	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1357	OUTFALL	0.25	0.25	0	10:30	0.00544	0.00544	0.000
OUT-1358	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1359	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1360	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1363	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1365	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1366	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1367	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1368	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1369	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1370	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1371	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1372	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1374	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1375	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1376	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1407	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

DOT&PF_stormdrain_ditch	STORAGE	13.67	13.67	0	10:02	0.294	0.294	0.023
DOT&PF_outfall_basin	STORAGE	6.67	6.67	0	10:00	0.107	0.107	0.194
FM-infilt-area	STORAGE	5.81	5.81	0	10:12	0.217	0.217	-0.084
Petco-infilt-area	STORAGE	1.14	1.14	0	10:03	0.0253	0.0253	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
N1402	JUNCTION	0.17	1.000	0.000
N1403-2	JUNCTION	4.45	0.000	0.000
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Pondered Volume 1000 ft3
N1402	0.17	0.01	0 10:16	0.000	0.000
N1403-2	4.45	0.91	0 10:33	0.036	0.000

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	12.201	15	0	60	29.847	36	0 11:07	2.26
DOT&PF_outfall_basin	5.245	45	0	35	9.352	81	0 10:26	2.79
FM-infilt-area	1.362	1	0	100	13.992	7	0 12:12	3.75
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10 ⁶ gal
OUT-1001	4.91	0.27	0.52	0.019
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000
OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	5.32	0.13	0.25	0.010
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	4.64	0.09	0.16	0.006
OUT-1012	5.01	0.55	1.11	0.040
OUT-1013	5.43	0.22	0.44	0.017
OUT-1015	2.45	0.15	0.29	0.005
OUT-1016	2.22	0.05	0.08	0.002
OUT-1017	0.00	0.00	0.00	0.000
OUT-1018	0.00	0.00	0.00	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	4.21	0.75	1.77	0.046
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	40.52	0.11	0.58	0.066
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	1.73	0.05	0.10	0.001
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000

Buildout Conditions – 50Y Event

OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000
OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	1.60	0.02	0.03	0.000
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	5.99	0.62	1.18	0.054
OUT-1105	6.02	1.01	2.13	0.088
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	1.88	0.04	0.18	0.001
OUT-1115	2.48	0.03	0.09	0.001
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	2.31	0.42	0.85	0.014
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	0.00	0.00	0.00	0.000
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	0.00	0.00	0.00	0.000
OUT-1147	1.59	0.01	0.01	0.000
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	2.65	0.13	0.25	0.005
OUT-1159	3.50	0.59	1.13	0.030
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	3.66	0.34	0.63	0.018
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	3.02	0.21	0.40	0.009

Buildout Conditions – 50Y Event

OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000
OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	2.82	0.11	0.20	0.004
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	0.00	0.00	0.00	0.000
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	2.48	0.14	0.26	0.005
OUT-1186	2.75	0.60	1.12	0.024
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	4.17	1.00	2.12	0.060
OUT-1199	4.32	0.98	2.74	0.061
OUT-1200	0.00	0.00	0.00	0.000
OUT-1202	2.99	0.11	0.19	0.005
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	2.79	0.02	0.04	0.001
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	0.00	0.00	0.00	0.000
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	3.67	1.90	5.33	0.102
OUT-1234	10.54	2.08	9.25	0.318
OUT-1236	9.10	1.21	3.65	0.160
OUT-1237	4.49	0.19	0.46	0.013
OUT-1238	4.77	0.84	2.93	0.058
OUT-1240	6.82	0.66	1.76	0.065
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	2.92	0.81	2.64	0.034
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000

Buildout Conditions – 50Y Event

OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000
OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	1.79	0.49	1.75	0.013
OUT-1283	4.00	0.40	1.00	0.023
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	2.33	0.20	0.37	0.007
OUT-1295	2.67	0.15	0.28	0.006
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	2.65	0.10	0.18	0.004
OUT-1301	3.78	0.03	0.06	0.002
OUT-1302	3.06	0.22	0.40	0.010
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	2.85	0.32	0.59	0.013
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	3.43	0.21	0.43	0.010
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.00	0.00	0.00	0.000

OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000
OUT-1349	3.46	0.11	0.20	0.006
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	2.85	0.13	0.25	0.005
OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	0.00	0.00	0.00	0.000

System 0.87 18.79 40.09 1.444

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	0.58	0 12:37	3.88	0.00	0.01
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	0.65	0 11:06	4.50	0.02	0.09
1240-pipe	CONDUIT	1.76	0 11:09	2.46	0.05	0.16
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.55	0 12:46	0.69	0.01	0.09
1332-pipe	CONDUIT	0.58	0 12:36	2.20	0.04	0.14
1401-pipe	CONDUIT	0.01	0 10:25	0.70	0.00	0.01
1402-pipe	CONDUIT	0.54	0 10:21	0.19	1.07	0.91
1403-ditch	CONDUIT	0.49	0 10:35	1.53	0.00	0.05
1403-pipe	CONDUIT	0.00	0 19:35	0.00	1.08	1.00
1404-pipe	CONDUIT	0.21	0 10:29	1.04	0.03	0.11
1405-ditch	CONDUIT	0.55	0 12:26	1.50	0.00	0.07
1405-pipe	CONDUIT	0.55	0 12:26	5.23	0.01	0.07
sd_ditch-orifice	ORIFICE	1.76	0 11:08			0.00
outfall_basin_weir	WEIR	2.64	0 10:26			0.00

FM-dummy-weir WEIR 0.00 0 00:00 0.00

 Conduit Surcharge Summary

Conduit	Hours Full		Hours		Hours
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
1402-pipe	0.01	0.17	0.01	0.11	0.17
1403-pipe	3.81	4.47	6.67	7.43	4.47

Analysis begun on: Tue May 02 13:29:17 2017
 Analysis ended on: Tue May 02 13:29:19 2017
 Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.007)

 Cottonwood Creek Watershed
 model of outfall and dispersed catchments
 Buildout
 WARNING 04: minimum elevation drop used for Conduit 1402-pipe
 WARNING 02: maximum depth increased for Node N1037-1

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method GREEN_AMPT
 Flow Routing Method KINWAVE
 Starting Date AUG-05-2016 00:00:00
 Ending Date AUG-07-2016 06:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:03:00
 Wet Time Step 00:00:30
 Dry Time Step 01:00:00
 Routing Time Step 30.00 sec

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	1579.807	3.040
Evaporation Loss	0.000	0.000
Infiltration Loss	1565.956	3.013
Surface Runoff	11.132	0.021
Final Surface Storage	2.725	0.005
Continuity Error (%)	-0.000	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	11.132	3.628
Groundwater Inflow	0.000	0.000

```

RDII Inflow ..... 0.000      0.000
External Inflow ..... 0.000      0.000
External Outflow ..... 9.010      2.936
Internal Outflow ..... 0.190      0.062
Evaporation Loss ..... 0.000      0.000
Exfiltration Loss ..... 1.580      0.515
Initial Stored Volume .... 0.000      0.000
Final Stored Volume ..... 0.282      0.092
Continuity Error (%) ..... 0.628
    
```

```

*****
Highest Flow Instability Indexes
*****
All links are stable.
    
```

```

*****
Routing Time Step Summary
*****
Minimum Time Step      : 30.00 sec
Average Time Step      : 30.00 sec
Maximum Time Step      : 30.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.02
Percent Not Converging  : 0.00
    
```

```

*****
Subcatchment Runoff Summary
*****
    
```

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10 ⁶ gal	Peak Runoff CFS	Runoff Coeff
1001	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1002	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1003	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1005	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1006	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1009	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1010	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1011	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1012	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1013	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1015	3.04	0.00	0.00	2.90	0.14	0.02	1.08	0.045
1016	3.04	0.00	0.00	2.98	0.06	0.02	0.62	0.019
1017	3.04	0.00	0.00	3.04	0.00	0.00	0.13	0.001
1018	3.04	0.00	0.00	3.04	0.00	0.00	0.01	0.000
1019	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1020	3.04	0.00	0.00	2.76	0.25	0.08	2.69	0.082
1022	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1023	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000

Buildout Conditions – 100Y Event

1026	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1029	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1032	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1033	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1034	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1035	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1036	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1037	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1038	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1039	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1040	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1042	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1043	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1044	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1046	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1051	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1053	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1054	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1055	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1056	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1057	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1058	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1059	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1060	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1062	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1063	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1064	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1065	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1067	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1068	3.04	0.00	0.00	2.92	0.12	0.01	0.61	0.038
1069	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1070	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1072	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1073	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1075	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1076	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1080	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1082	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1083	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1084	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1087	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1088	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1090	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1091	3.04	0.00	0.00	2.95	0.09	0.01	0.25	0.029
1092	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1095	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1104	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1105	3.04	0.00	0.00	2.89	0.15	0.17	3.41	0.048
1106	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1107	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1108	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1110	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1111	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1113	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1114	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000

Buildout Conditions – 100Y Event

1115	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1116	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1117	3.04	0.00	0.00	2.88	0.16	0.04	1.97	0.052
1118	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1119	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1120	3.04	0.00	0.00	3.03	0.01	0.00	0.06	0.003
1121	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1126	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1127	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1129	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1132	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1133	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1135	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1136	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1138	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1142	3.04	0.00	0.00	3.03	0.01	0.00	0.08	0.004
1147	3.04	0.00	0.00	3.02	0.02	0.01	0.16	0.007
1148	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1150	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1151	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1152	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1153	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1154	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1155	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1156	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1157	3.04	0.00	0.00	2.89	0.15	0.02	0.79	0.050
1159	3.04	0.00	0.00	2.93	0.11	0.13	3.68	0.038
1160	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1161	3.04	0.00	0.00	2.95	0.09	0.09	2.15	0.031
1162	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1165	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1166	3.04	0.00	0.00	2.93	0.11	0.05	1.53	0.036
1167	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1169	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1170	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1172	3.04	0.00	0.00	2.97	0.07	0.04	1.01	0.022
1173	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1174	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1180	3.04	0.00	0.00	3.03	0.01	0.00	0.31	0.002
1181	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1182	3.04	0.00	0.00	2.98	0.06	0.06	1.73	0.018
1186	3.04	0.00	0.00	2.99	0.05	0.25	6.52	0.017
1187	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1189	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1190	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1191	3.04	0.00	0.00	3.01	0.00	0.00	0.00	0.000
1192	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1193	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1194	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1195	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1197	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1198	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1199	3.04	0.00	0.00	2.66	0.38	0.09	3.83	0.124
1200	3.04	0.00	0.00	3.04	0.00	0.00	0.10	0.001
1202	3.04	0.00	0.00	2.98	0.06	0.04	0.96	0.018

Buildout Conditions – 100Y Event

1204	3.04	0.00	0.00	1.76	0.00	0.00	0.00	0.000
1205	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1206	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1207	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1208	3.04	0.00	0.00	2.94	0.10	0.00	0.15	0.035
1209	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1210	3.04	0.00	0.00	3.00	0.04	0.00	0.13	0.012
1211	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1212	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1215	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1216	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1218	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1223	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1229	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1230	3.04	0.00	0.00	2.80	0.20	0.09	1.05	0.065
1231	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1232	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1233	3.04	0.00	0.00	2.69	0.35	0.15	7.55	0.114
1234	3.04	0.00	0.00	2.12	0.87	0.42	12.07	0.285
1236	3.04	0.00	0.00	2.37	0.62	0.22	4.99	0.205
1237	3.04	0.00	0.00	2.74	0.27	0.02	0.69	0.087
1238	3.04	0.00	0.00	2.52	0.52	0.08	3.95	0.172
1239	3.04	0.00	0.00	2.30	0.74	0.30	14.04	0.244
1240	3.04	0.00	0.00	2.86	0.18	0.12	4.43	0.059
1241	3.04	0.00	0.00	2.24	0.75	0.29	7.75	0.246
1243	3.04	0.00	0.00	2.47	0.57	0.14	8.67	0.189
1249	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1250	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1251	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1257	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1258	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1259	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1260	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1261	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1264	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1265	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1266	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1267	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1268	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1269	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1270	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1271	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1272	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1273	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1275	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1276	3.04	0.00	0.00	3.02	0.00	0.00	0.00	0.000
1278	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1282	3.04	0.00	0.00	2.55	0.49	0.02	2.15	0.160
1283	3.04	0.00	0.00	2.70	0.31	0.04	1.48	0.101
1284	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1285	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1287	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1288	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1290	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1291	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000

Buildout Conditions – 100Y Event

1292	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.00	0.000
1293	3.04	0.00	0.00	2.99	0.05	0.10	2.78	0.017	
1295	3.04	0.00	0.00	2.99	0.05	0.06	1.64	0.018	
1297	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1298	3.04	0.00	0.00	2.96	0.08	0.03	0.94	0.026	
1301	3.04	0.00	0.00	2.89	0.15	0.01	0.16	0.049	
1302	3.04	0.00	0.00	2.99	0.05	0.08	1.98	0.018	
1304	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1305	3.04	0.00	0.00	2.97	0.07	0.11	3.05	0.022	
1306	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1309	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1310	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1312	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1314	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1316	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1318	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1322	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1324	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000	
1325	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1326	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1327	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1328	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1329	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1330	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000	
1331	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1332	3.04	0.00	0.00	2.93	0.11	0.00	0.07	0.038	
1333	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1334	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1335	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1336	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1337	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1338	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1339	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1342	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1343	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1344	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1345	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.001	
1346	3.04	0.00	0.00	2.28	0.00	0.00	0.00	0.000	
1347	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1349	3.04	0.00	0.00	2.99	0.05	0.04	0.85	0.017	
1350	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000	
1352	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000	
1354	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1355	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1356	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1357	3.04	0.00	0.00	2.93	0.11	0.03	0.99	0.037	
1358	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1359	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1360	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1363	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1365	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1366	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1367	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1368	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	
1369	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000	

Buildout Conditions – 100Y Event

1370	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1371	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1372	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1374	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1375	3.04	0.00	0.00	3.04	0.00	0.00	0.00	0.000
1376	3.04	0.00	0.00	3.03	0.00	0.00	0.00	0.000
1401	3.04	0.00	0.00	3.00	0.00	0.00	0.12	0.002
1402	3.04	0.00	0.00	2.61	0.39	0.03	0.80	0.127
1403	3.04	0.00	0.00	2.66	0.34	0.03	0.72	0.111
1404	3.04	0.00	0.00	2.67	0.32	0.02	0.34	0.105
1405	3.04	0.00	0.00	2.97	0.03	0.00	0.05	0.011
1406	3.04	0.00	0.00	2.32	0.67	0.04	1.60	0.221
1407	3.04	0.00	0.00	3.01	0.01	0.00	0.22	0.002

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
sd_ditch_out	JUNCTION	0.03	0.76	322.76	0 10:53
1259-to-ditch	JUNCTION	0.00	0.00	82.00	0 00:00
1261-to-ditch	JUNCTION	0.00	0.00	81.70	0 00:00
1053-to-pipe	JUNCTION	0.00	0.00	133.70	0 00:00
N1230	JUNCTION	0.02	0.23	351.01	0 11:06
N1332-1	JUNCTION	1.22	2.00	314.96	0 10:22
N-1332-2	JUNCTION	0.06	0.39	311.09	0 12:27
N1401	JUNCTION	0.00	0.10	350.55	0 10:30
N1402	JUNCTION	0.09	3.00	351.82	0 09:59
N1403-1	JUNCTION	0.07	2.00	350.82	0 10:05
N1403-2	JUNCTION	0.33	3.00	319.22	0 09:51
N1404	JUNCTION	0.01	0.29	311.29	0 10:25
N1405-1	JUNCTION	0.02	0.33	348.43	0 10:57
N1405-2	JUNCTION	0.03	0.30	319.78	0 12:13
N1037-1	JUNCTION	0.06	0.38	309.78	0 12:15
OUT-1001	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1002	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1003	OUTFALL	0.00	0.00	325.73	0 00:00
OUT-1005	OUTFALL	0.00	0.00	325.22	0 00:00
OUT-1006	OUTFALL	0.00	0.00	327.31	0 00:00
OUT-1009	OUTFALL	0.00	0.00	325.49	0 00:00
OUT-1010	OUTFALL	0.00	0.00	326.36	0 00:00
OUT-1011	OUTFALL	0.00	0.00	325.56	0 00:00
OUT-1012	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1013	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1015	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1016	OUTFALL	0.00	0.00	328.56	0 00:00
OUT-1017	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1018	OUTFALL	0.00	0.00	326.05	0 00:00
OUT-1019	OUTFALL	0.00	0.00	325.21	0 00:00
OUT-1020	OUTFALL	0.00	0.00	349.94	0 00:00

Buildout Conditions – 100Y Event

OUT-1022	OUTFALL	0.00	0.00	326.57	0	00:00
OUT-1023	OUTFALL	0.00	0.00	325.60	0	00:00
OUT-1026	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1029	OUTFALL	0.00	0.00	249.49	0	00:00
OUT-1032	OUTFALL	0.00	0.00	100.31	0	00:00
OUT-1033	OUTFALL	0.00	0.00	102.06	0	00:00
OUT-1034	OUTFALL	0.00	0.00	102.62	0	00:00
OUT-1035	OUTFALL	0.00	0.00	131.16	0	00:00
OUT-1036	OUTFALL	0.00	0.00	136.89	0	00:00
OUT-1037	OUTFALL	0.01	0.05	286.05	0	12:16
OUT-1038	OUTFALL	0.00	0.00	294.15	0	00:00
OUT-1039	OUTFALL	0.00	0.00	289.25	0	00:00
OUT-1040	OUTFALL	0.00	0.00	290.37	0	00:00
OUT-1042	OUTFALL	0.00	0.00	244.06	0	00:00
OUT-1043	OUTFALL	0.00	0.00	234.69	0	00:00
OUT-1044	OUTFALL	0.00	0.00	131.01	0	00:00
OUT-1046	OUTFALL	0.00	0.00	130.76	0	00:00
OUT-1051	OUTFALL	0.00	0.00	144.25	0	00:00
OUT-1053	OUTFALL	0.00	0.00	133.27	0	00:00
OUT-1054	OUTFALL	0.00	0.00	122.73	0	00:00
OUT-1055	OUTFALL	0.00	0.00	123.60	0	00:00
OUT-1056	OUTFALL	0.00	0.00	134.30	0	00:00
OUT-1057	OUTFALL	0.00	0.00	123.86	0	00:00
OUT-1058	OUTFALL	0.00	0.00	156.74	0	00:00
OUT-1059	OUTFALL	0.00	0.00	154.21	0	00:00
OUT-1060	OUTFALL	0.00	0.00	142.37	0	00:00
OUT-1062	OUTFALL	0.00	0.00	105.52	0	00:00
OUT-1063	OUTFALL	0.00	0.00	116.90	0	00:00
OUT-1064	OUTFALL	0.00	0.00	121.85	0	00:00
OUT-1065	OUTFALL	0.00	0.00	142.56	0	00:00
OUT-1067	OUTFALL	0.00	0.00	197.19	0	00:00
OUT-1068	OUTFALL	0.00	0.00	225.26	0	00:00
OUT-1069	OUTFALL	0.00	0.00	195.71	0	00:00
OUT-1070	OUTFALL	0.00	0.00	213.72	0	00:00
OUT-1072	OUTFALL	0.00	0.00	171.08	0	00:00
OUT-1073	OUTFALL	0.00	0.00	165.37	0	00:00
OUT-1075	OUTFALL	0.00	0.00	233.45	0	00:00
OUT-1076	OUTFALL	0.00	0.00	241.10	0	00:00
OUT-1080	OUTFALL	0.00	0.00	265.73	0	00:00
OUT-1082	OUTFALL	0.00	0.00	291.47	0	00:00
OUT-1083	OUTFALL	0.00	0.00	287.34	0	00:00
OUT-1084	OUTFALL	0.00	0.00	290.88	0	00:00
OUT-1087	OUTFALL	0.00	0.00	468.14	0	00:00
OUT-1088	OUTFALL	0.00	0.00	499.44	0	00:00
OUT-1090	OUTFALL	0.00	0.00	453.67	0	00:00
OUT-1091	OUTFALL	0.00	0.00	409.22	0	00:00
OUT-1092	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1095	OUTFALL	0.00	0.00	423.92	0	00:00
OUT-1104	OUTFALL	0.00	0.00	320.68	0	00:00
OUT-1105	OUTFALL	0.00	0.00	318.43	0	00:00
OUT-1106	OUTFALL	0.00	0.00	302.27	0	00:00
OUT-1107	OUTFALL	0.00	0.00	290.90	0	00:00
OUT-1108	OUTFALL	0.00	0.00	267.37	0	00:00
OUT-1110	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1111	OUTFALL	0.00	0.00	325.65	0	00:00

Buildout Conditions – 100Y Event

OUT-1113	OUTFALL	0.00	0.00	334.77	0	00:00
OUT-1114	OUTFALL	0.00	0.00	331.30	0	00:00
OUT-1115	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1116	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1117	OUTFALL	0.00	0.00	328.83	0	00:00
OUT-1118	OUTFALL	0.00	0.00	329.16	0	00:00
OUT-1119	OUTFALL	0.00	0.00	325.58	0	00:00
OUT-1120	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1121	OUTFALL	0.00	0.00	291.18	0	00:00
OUT-1126	OUTFALL	0.00	0.00	265.69	0	00:00
OUT-1127	OUTFALL	0.00	0.00	244.17	0	00:00
OUT-1129	OUTFALL	0.00	0.00	246.95	0	00:00
OUT-1132	OUTFALL	0.00	0.00	259.90	0	00:00
OUT-1133	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1135	OUTFALL	0.00	0.00	287.80	0	00:00
OUT-1136	OUTFALL	0.00	0.00	326.89	0	00:00
OUT-1138	OUTFALL	0.00	0.00	325.52	0	00:00
OUT-1142	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1147	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1148	OUTFALL	0.00	0.00	325.21	0	00:00
OUT-1150	OUTFALL	0.00	0.00	381.94	0	00:00
OUT-1151	OUTFALL	0.00	0.00	339.68	0	00:00
OUT-1152	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1153	OUTFALL	0.00	0.00	339.07	0	00:00
OUT-1154	OUTFALL	0.00	0.00	340.54	0	00:00
OUT-1155	OUTFALL	0.00	0.00	329.06	0	00:00
OUT-1156	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1157	OUTFALL	0.00	0.00	328.55	0	00:00
OUT-1159	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1160	OUTFALL	0.00	0.00	328.45	0	00:00
OUT-1161	OUTFALL	0.00	0.00	329.82	0	00:00
OUT-1162	OUTFALL	0.00	0.00	398.21	0	00:00
OUT-1165	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1166	OUTFALL	0.00	0.00	374.86	0	00:00
OUT-1167	OUTFALL	0.00	0.00	335.46	0	00:00
OUT-1169	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1170	OUTFALL	0.00	0.00	328.84	0	00:00
OUT-1172	OUTFALL	0.00	0.00	377.87	0	00:00
OUT-1173	OUTFALL	0.00	0.00	329.05	0	00:00
OUT-1174	OUTFALL	0.00	0.00	328.59	0	00:00
OUT-1180	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1181	OUTFALL	0.00	0.00	399.92	0	00:00
OUT-1182	OUTFALL	0.00	0.00	391.89	0	00:00
OUT-1186	OUTFALL	0.00	0.00	328.44	0	00:00
OUT-1187	OUTFALL	0.00	0.00	334.11	0	00:00
OUT-1189	OUTFALL	0.00	0.00	332.63	0	00:00
OUT-1190	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1191	OUTFALL	0.00	0.00	331.64	0	00:00
OUT-1192	OUTFALL	0.00	0.00	326.11	0	00:00
OUT-1193	OUTFALL	0.00	0.00	327.05	0	00:00
OUT-1194	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1195	OUTFALL	0.00	0.00	326.40	0	00:00
OUT-1197	OUTFALL	0.00	0.00	260.17	0	00:00
OUT-1198	OUTFALL	0.00	0.00	253.92	0	00:00
OUT-1199	OUTFALL	0.00	0.00	318.64	0	00:00

Buildout Conditions – 100Y Event

OUT-1200	OUTFALL	0.00	0.00	306.61	0	00:00
OUT-1202	OUTFALL	0.00	0.00	302.34	0	00:00
OUT-1204	OUTFALL	0.00	0.00	325.22	0	00:00
OUT-1205	OUTFALL	0.00	0.00	398.85	0	00:00
OUT-1206	OUTFALL	0.00	0.00	386.73	0	00:00
OUT-1207	OUTFALL	0.00	0.00	409.73	0	00:00
OUT-1208	OUTFALL	0.00	0.00	328.56	0	00:00
OUT-1209	OUTFALL	0.00	0.00	320.47	0	00:00
OUT-1210	OUTFALL	0.00	0.00	326.31	0	00:00
OUT-1211	OUTFALL	0.00	0.00	252.65	0	00:00
OUT-1212	OUTFALL	0.00	0.00	119.94	0	00:00
OUT-1215	OUTFALL	0.00	0.00	117.68	0	00:00
OUT-1216	OUTFALL	0.00	0.00	112.67	0	00:00
OUT-1218	OUTFALL	0.00	0.00	107.94	0	00:00
OUT-1223	OUTFALL	0.00	0.00	16.27	0	00:00
OUT-1229	OUTFALL	0.00	0.00	158.70	0	00:00
OUT-1231	OUTFALL	0.00	0.00	313.81	0	00:00
OUT-1232	OUTFALL	0.00	0.00	304.84	0	00:00
OUT-1233	OUTFALL	0.00	0.00	318.26	0	00:00
OUT-1234	OUTFALL	0.00	0.00	318.62	0	00:00
OUT-1236	OUTFALL	0.00	0.00	318.60	0	00:00
OUT-1237	OUTFALL	0.00	0.00	318.27	0	00:00
OUT-1238	OUTFALL	0.00	0.00	316.17	0	00:00
OUT-1240	OUTFALL	0.03	0.76	320.16	0	10:55
OUT-1241	OUTFALL	0.00	0.00	325.69	0	00:00
OUT-1243	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1249	OUTFALL	0.00	0.00	67.73	0	00:00
OUT-1250	OUTFALL	0.00	0.00	76.34	0	00:00
OUT-1251	OUTFALL	0.00	0.00	80.26	0	00:00
OUT-1257	OUTFALL	0.00	0.00	20.84	0	00:00
OUT-1258	OUTFALL	0.00	0.00	96.18	0	00:00
OUT-1260	OUTFALL	0.00	0.00	89.72	0	00:00
OUT-1264	OUTFALL	0.00	0.00	139.19	0	00:00
OUT-1265	OUTFALL	0.00	0.00	159.39	0	00:00
OUT-1266	OUTFALL	0.00	0.00	110.24	0	00:00
OUT-1267	OUTFALL	0.00	0.00	118.39	0	00:00
OUT-1268	OUTFALL	0.00	0.00	129.93	0	00:00
OUT-1269	OUTFALL	0.00	0.00	90.75	0	00:00
OUT-1270	OUTFALL	0.00	0.00	85.77	0	00:00
OUT-1271	OUTFALL	0.00	0.00	100.52	0	00:00
OUT-1272	OUTFALL	0.00	0.00	125.32	0	00:00
OUT-1273	OUTFALL	0.00	0.00	121.75	0	00:00
OUT-1275	OUTFALL	0.00	0.00	133.73	0	00:00
OUT-1276	OUTFALL	0.00	0.00	134.38	0	00:00
OUT-1278	OUTFALL	0.00	0.00	134.70	0	00:00
OUT-1282	OUTFALL	0.00	0.00	328.66	0	00:00
OUT-1283	OUTFALL	0.00	0.00	328.39	0	00:00
OUT-1284	OUTFALL	0.00	0.00	331.21	0	00:00
OUT-1285	OUTFALL	0.00	0.00	313.04	0	00:00
OUT-1287	OUTFALL	0.00	0.00	155.68	0	00:00
OUT-1288	OUTFALL	0.00	0.00	156.87	0	00:00
OUT-1290	OUTFALL	0.00	0.00	148.67	0	00:00
OUT-1291	OUTFALL	0.00	0.00	124.79	0	00:00
OUT-1292	OUTFALL	0.00	0.00	113.52	0	00:00
OUT-1293	OUTFALL	0.00	0.00	418.86	0	00:00

Buildout Conditions – 100Y Event

OUT-1295	OUTFALL	0.00	0.00	410.94	0	00:00
OUT-1297	OUTFALL	0.00	0.00	419.79	0	00:00
OUT-1298	OUTFALL	0.00	0.00	410.53	0	00:00
OUT-1301	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1302	OUTFALL	0.00	0.00	434.84	0	00:00
OUT-1304	OUTFALL	0.00	0.00	411.98	0	00:00
OUT-1305	OUTFALL	0.00	0.00	410.51	0	00:00
OUT-1306	OUTFALL	0.00	0.00	480.60	0	00:00
OUT-1309	OUTFALL	0.00	0.00	426.88	0	00:00
OUT-1310	OUTFALL	0.00	0.00	442.29	0	00:00
OUT-1312	OUTFALL	0.00	0.00	441.99	0	00:00
OUT-1314	OUTFALL	0.00	0.00	434.78	0	00:00
OUT-1316	OUTFALL	0.00	0.00	424.29	0	00:00
OUT-1318	OUTFALL	0.00	0.00	477.12	0	00:00
OUT-1322	OUTFALL	0.00	0.00	436.77	0	00:00
OUT-1324	OUTFALL	0.00	0.00	321.97	0	00:00
OUT-1325	OUTFALL	0.00	0.00	257.84	0	00:00
OUT-1326	OUTFALL	0.00	0.00	258.08	0	00:00
OUT-1327	OUTFALL	0.00	0.00	123.56	0	00:00
OUT-1328	OUTFALL	0.00	0.00	131.60	0	00:00
OUT-1329	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1330	OUTFALL	0.00	0.00	133.71	0	00:00
OUT-1331	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1333	OUTFALL	0.00	0.00	74.19	0	00:00
OUT-1334	OUTFALL	0.00	0.00	81.00	0	00:00
OUT-1335	OUTFALL	0.00	0.00	81.30	0	00:00
OUT-1336	OUTFALL	0.00	0.00	65.50	0	00:00
OUT-1337	OUTFALL	0.00	0.00	75.91	0	00:00
OUT-1338	OUTFALL	0.00	0.00	74.04	0	00:00
OUT-1339	OUTFALL	0.00	0.00	31.27	0	00:00
OUT-1342	OUTFALL	0.00	0.00	259.84	0	00:00
OUT-1343	OUTFALL	0.00	0.00	101.88	0	00:00
OUT-1344	OUTFALL	0.00	0.00	233.85	0	00:00
OUT-1345	OUTFALL	0.00	0.00	228.34	0	00:00
OUT-1346	OUTFALL	0.00	0.00	140.02	0	00:00
OUT-1347	OUTFALL	0.00	0.00	136.62	0	00:00
OUT-1349	OUTFALL	0.00	0.00	230.54	0	00:00
OUT-1350	OUTFALL	0.00	0.00	260.86	0	00:00
OUT-1352	OUTFALL	0.00	0.00	281.59	0	00:00
OUT-1354	OUTFALL	0.00	0.00	328.85	0	00:00
OUT-1355	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1356	OUTFALL	0.00	0.00	328.82	0	00:00
OUT-1357	OUTFALL	0.00	0.00	328.86	0	00:00
OUT-1358	OUTFALL	0.00	0.00	266.02	0	00:00
OUT-1359	OUTFALL	0.00	0.00	334.75	0	00:00
OUT-1360	OUTFALL	0.00	0.00	90.35	0	00:00
OUT-1363	OUTFALL	0.00	0.00	88.28	0	00:00
OUT-1365	OUTFALL	0.00	0.00	20.16	0	00:00
OUT-1366	OUTFALL	0.00	0.00	77.55	0	00:00
OUT-1367	OUTFALL	0.00	0.00	137.18	0	00:00
OUT-1368	OUTFALL	0.00	0.00	148.40	0	00:00
OUT-1369	OUTFALL	0.00	0.00	88.38	0	00:00
OUT-1370	OUTFALL	0.00	0.00	257.73	0	00:00
OUT-1371	OUTFALL	0.00	0.00	107.74	0	00:00
OUT-1372	OUTFALL	0.00	0.00	104.95	0	00:00

OUT-1374	OUTFALL	0.00	0.00	107.09	0	00:00
OUT-1375	OUTFALL	0.00	0.00	130.91	0	00:00
OUT-1376	OUTFALL	0.00	0.00	267.48	0	00:00
OUT-1407	OUTFALL	0.00	0.00	300.00	0	00:00
DOT&PF_stormdrain_ditch	STORAGE	1.28	2.85	322.65	0	10:53
DOT&PF_outfall_basin	STORAGE	3.28	5.28	327.38	0	10:16
FM-infilt-area	STORAGE	0.05	0.34	333.34	0	12:37
Petco-infilt-area	STORAGE	0.00	0.00	324.00	0	00:00

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
sd_ditch_out	JUNCTION	0.00	4.57	0 10:53	0	0.185	0.000
1259-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1261-to-ditch	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
1053-to-pipe	JUNCTION	0.00	0.00	0 00:00	0	0	0.000 gal
N1230	JUNCTION	1.05	1.05	0 11:06	0.0874	0.0874	0.000
N1332-1	JUNCTION	0.00	0.99	0 12:10	0	0.105	0.000
N-1332-2	JUNCTION	0.07	1.12	0 12:15	0.00414	0.126	0.000
N1401	JUNCTION	0.12	0.12	0 10:30	0.0031	0.0031	0.000
N1402	JUNCTION	0.80	0.80	0 10:12	0.0279	0.0279	0.000
N1403-1	JUNCTION	0.00	0.54	0 10:53	0	0.0239	0.000
N1403-2	JUNCTION	0.72	1.19	0 10:28	0.0335	0.0582	0.000
N1404	JUNCTION	0.34	0.34	0 10:25	0.017	0.017	0.000
N1405-1	JUNCTION	0.00	1.12	0 10:57	0	0.0905	0.000
N1405-2	JUNCTION	0.05	0.99	0 12:10	0.00262	0.101	0.000
N1037-1	JUNCTION	0.00	1.12	0 12:15	0	0.126	0.000
OUT-1001	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1002	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1003	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1005	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1006	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1009	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1010	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1011	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1012	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1013	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1015	OUTFALL	1.08	1.08	0 10:18	0.0246	0.0246	0.000
OUT-1016	OUTFALL	0.62	0.62	0 10:30	0.0212	0.0212	0.000
OUT-1017	OUTFALL	0.13	0.13	0 10:37	0.00276	0.00276	0.000
OUT-1018	OUTFALL	0.01	0.01	0 10:06	5.11e-005	5.11e-005	0.000
OUT-1019	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1020	OUTFALL	2.69	2.69	0 10:10	0.0803	0.0803	0.000
OUT-1022	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1023	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1026	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal
OUT-1029	OUTFALL	0.00	0.00	0 00:00	0	0	0.000 gal

Buildout Conditions – 100Y Event

OUT-1032	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1033	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1034	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1035	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1036	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1037	OUTFALL	0.00	1.12	0	12:16	0	0.124	0.000
OUT-1038	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1039	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1040	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1042	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1043	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1044	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1046	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1051	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1053	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1054	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1055	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1056	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1057	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1058	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1059	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1060	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1062	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1063	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1064	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1065	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1067	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1068	OUTFALL	0.61	0.61	0	10:18	0.012	0.012	0.000
OUT-1069	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1070	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1072	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1073	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1075	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1076	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1080	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1082	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1083	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1084	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1087	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1088	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1090	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1091	OUTFALL	0.25	0.25	0	10:24	0.00608	0.00608	0.000
OUT-1092	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1095	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1104	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1105	OUTFALL	3.41	3.41	0	10:30	0.174	0.174	0.000
OUT-1106	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1107	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1108	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1110	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1111	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1113	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1114	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1115	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1116	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Buildout Conditions – 100Y Event

OUT-1117	OUTFALL	1.97	1.97	0	10:06	0.0376	0.0376	0.000
OUT-1118	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1119	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1120	OUTFALL	0.06	0.06	0	10:06	0.000637	0.000637	0.000
OUT-1121	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1126	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1127	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1129	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1132	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1133	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1135	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1136	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1138	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1142	OUTFALL	0.08	0.08	0	10:06	0.000855	0.000855	0.000
OUT-1147	OUTFALL	0.16	0.16	0	10:36	0.00584	0.00584	0.000
OUT-1148	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1150	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1151	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1152	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1153	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1154	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1155	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1156	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1157	OUTFALL	0.79	0.79	0	10:18	0.0186	0.0186	0.000
OUT-1159	OUTFALL	3.68	3.68	0	10:24	0.13	0.13	0.000
OUT-1160	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1161	OUTFALL	2.15	2.15	0	10:30	0.0859	0.0859	0.000
OUT-1162	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1165	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1166	OUTFALL	1.53	1.53	0	10:24	0.0478	0.0478	0.000
OUT-1167	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1169	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1170	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1172	OUTFALL	1.01	1.01	0	10:30	0.0373	0.0373	0.000
OUT-1173	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1174	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1180	OUTFALL	0.31	0.31	0	10:06	0.00325	0.00325	0.000
OUT-1181	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1182	OUTFALL	1.73	1.73	0	10:30	0.0619	0.0619	0.000
OUT-1186	OUTFALL	6.52	6.52	0	10:30	0.251	0.251	0.000
OUT-1187	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1189	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1190	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1191	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1192	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1193	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1194	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1195	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1197	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1198	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1199	OUTFALL	3.83	3.83	0	10:04	0.0918	0.0918	0.000
OUT-1200	OUTFALL	0.10	0.10	0	10:07	0.000896	0.000896	0.000
OUT-1202	OUTFALL	0.96	0.96	0	10:30	0.0385	0.0385	0.000
OUT-1204	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1205	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal

Buildout Conditions – 100Y Event

OUT-1206	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1207	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1208	OUTFALL	0.15	0.15	0	10:24	0.00472	0.00472	0.000
OUT-1209	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1210	OUTFALL	0.13	0.13	0	10:30	0.00393	0.00393	0.000
OUT-1211	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1212	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1215	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1216	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1218	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1223	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1229	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1231	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1232	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1233	OUTFALL	7.55	7.55	0	10:02	0.154	0.154	0.000
OUT-1234	OUTFALL	12.07	12.07	0	10:07	0.419	0.419	0.000
OUT-1236	OUTFALL	4.99	4.99	0	10:17	0.225	0.225	0.000
OUT-1237	OUTFALL	0.69	0.69	0	10:12	0.0218	0.0218	0.000
OUT-1238	OUTFALL	3.95	3.95	0	10:01	0.0812	0.0812	0.000
OUT-1240	OUTFALL	0.00	4.57	0	10:55	0	0.184	0.000
OUT-1241	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1243	OUTFALL	0.00	4.91	0	10:16	0	0.0702	0.000
OUT-1249	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1250	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1251	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1257	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1258	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1260	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1264	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1265	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1266	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1267	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1268	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1269	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1270	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1271	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1272	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1273	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1275	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1276	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1278	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1282	OUTFALL	2.15	2.15	0	09:54	0.0167	0.0167	0.000
OUT-1283	OUTFALL	1.48	1.48	0	10:06	0.0374	0.0374	0.000
OUT-1284	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1285	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1287	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1288	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1290	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1291	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1292	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1293	OUTFALL	2.78	2.78	0	10:30	0.0982	0.0982	0.000
OUT-1295	OUTFALL	1.64	1.64	0	10:30	0.0618	0.0618	0.000
OUT-1297	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1298	OUTFALL	0.94	0.94	0	10:24	0.031	0.031	0.000
OUT-1301	OUTFALL	0.16	0.16	0	10:24	0.00564	0.00564	0.000

Buildout Conditions – 100Y Event

OUT-1302	OUTFALL	1.98	1.98	0	10:30	0.0804	0.0804	0.000
OUT-1304	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1305	OUTFALL	3.05	3.05	0	10:30	0.112	0.112	0.000
OUT-1306	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1309	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1310	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1312	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1314	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1316	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1318	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1322	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1324	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1325	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1326	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1327	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1328	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1329	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1330	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1331	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1333	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1334	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1335	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1336	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1337	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1338	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1339	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1342	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1343	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1344	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1345	OUTFALL	0.00	0.00	0	10:06	1.51e-005	1.51e-005	0.000
OUT-1346	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1347	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1349	OUTFALL	0.85	0.85	0	10:36	0.0385	0.0385	0.000
OUT-1350	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1352	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1354	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1355	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1356	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1357	OUTFALL	0.99	0.99	0	10:24	0.0291	0.0291	0.000
OUT-1358	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1359	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1360	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1363	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1365	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1366	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1367	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1368	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1369	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1370	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1371	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1372	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1374	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1375	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1376	OUTFALL	0.00	0.00	0	00:00	0	0	0.000 gal
OUT-1407	OUTFALL	0.22	0.22	0	10:18	0.00346	0.00346	0.000

DOT&PF_stormdrain_ditch	STORAGE	18.16	18.16	0	10:01	0.421	0.421	0.073
DOT&PF_outfall_basin	STORAGE	8.67	8.67	0	10:00	0.144	0.144	0.313
FM-infilt-area	STORAGE	7.75	7.75	0	10:10	0.294	0.294	-0.057
Petco-infilt-area	STORAGE	1.60	1.60	0	10:02	0.0353	0.0353	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
N1402	JUNCTION	0.85	1.000	0.000
N1403-2	JUNCTION	5.15	0.000	0.000
Petco-infilt-area	STORAGE	54.01	0.000	3.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Pondered Volume 1000 ft3
N1402	0.85	0.30	0 10:12	0.004	0.000
N1403-2	5.15	1.19	0 10:29	0.058	0.000

Storage Volume Summary

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
DOT&PF_stormdrain_ditch	12.834	15	0	43	35.221	42	0 10:53	5.17
DOT&PF_outfall_basin	5.339	46	0	27	9.606	83	0 10:15	5.08
FM-infilt-area	3.046	2	0	100	21.693	11	0 12:37	4.07
Petco-infilt-area	0.000	0	0	0	0.000	0	0 00:00	0.00

Outfall Loading Summary

Buildout Conditions – 100Y Event

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10 ⁶ gal
OUT-1001	0.00	0.00	0.00	0.000
OUT-1002	0.00	0.00	0.00	0.000
OUT-1003	0.00	0.00	0.00	0.000
OUT-1005	0.00	0.00	0.00	0.000
OUT-1006	0.00	0.00	0.00	0.000
OUT-1009	0.00	0.00	0.00	0.000
OUT-1010	0.00	0.00	0.00	0.000
OUT-1011	0.00	0.00	0.00	0.000
OUT-1012	0.00	0.00	0.00	0.000
OUT-1013	0.00	0.00	0.00	0.000
OUT-1015	3.46	0.49	1.08	0.025
OUT-1016	4.46	0.33	0.62	0.021
OUT-1017	2.61	0.07	0.13	0.003
OUT-1018	0.52	0.01	0.01	0.000
OUT-1019	0.00	0.00	0.00	0.000
OUT-1020	5.34	1.03	2.69	0.080
OUT-1022	0.00	0.00	0.00	0.000
OUT-1023	0.00	0.00	0.00	0.000
OUT-1026	0.00	0.00	0.00	0.000
OUT-1029	0.00	0.00	0.00	0.000
OUT-1032	0.00	0.00	0.00	0.000
OUT-1033	0.00	0.00	0.00	0.000
OUT-1034	0.00	0.00	0.00	0.000
OUT-1035	0.00	0.00	0.00	0.000
OUT-1036	0.00	0.00	0.00	0.000
OUT-1037	42.26	0.20	1.12	0.124
OUT-1038	0.00	0.00	0.00	0.000
OUT-1039	0.00	0.00	0.00	0.000
OUT-1040	0.00	0.00	0.00	0.000
OUT-1042	0.00	0.00	0.00	0.000
OUT-1043	0.00	0.00	0.00	0.000
OUT-1044	0.00	0.00	0.00	0.000
OUT-1046	0.00	0.00	0.00	0.000
OUT-1051	0.00	0.00	0.00	0.000
OUT-1053	0.00	0.00	0.00	0.000
OUT-1054	0.00	0.00	0.00	0.000
OUT-1055	0.00	0.00	0.00	0.000
OUT-1056	0.00	0.00	0.00	0.000
OUT-1057	0.00	0.00	0.00	0.000
OUT-1058	0.00	0.00	0.00	0.000
OUT-1059	0.00	0.00	0.00	0.000
OUT-1060	0.00	0.00	0.00	0.000
OUT-1062	0.00	0.00	0.00	0.000
OUT-1063	0.00	0.00	0.00	0.000
OUT-1064	0.00	0.00	0.00	0.000
OUT-1065	0.00	0.00	0.00	0.000
OUT-1067	0.00	0.00	0.00	0.000
OUT-1068	2.90	0.29	0.61	0.012
OUT-1069	0.00	0.00	0.00	0.000
OUT-1070	0.00	0.00	0.00	0.000

Buildout Conditions – 100Y Event

OUT-1072	0.00	0.00	0.00	0.000
OUT-1073	0.00	0.00	0.00	0.000
OUT-1075	0.00	0.00	0.00	0.000
OUT-1076	0.00	0.00	0.00	0.000
OUT-1080	0.00	0.00	0.00	0.000
OUT-1082	0.00	0.00	0.00	0.000
OUT-1083	0.00	0.00	0.00	0.000
OUT-1084	0.00	0.00	0.00	0.000
OUT-1087	0.00	0.00	0.00	0.000
OUT-1088	0.00	0.00	0.00	0.000
OUT-1090	0.00	0.00	0.00	0.000
OUT-1091	3.36	0.12	0.25	0.006
OUT-1092	0.00	0.00	0.00	0.000
OUT-1095	0.00	0.00	0.00	0.000
OUT-1104	0.00	0.00	0.00	0.000
OUT-1105	7.81	1.54	3.41	0.174
OUT-1106	0.00	0.00	0.00	0.000
OUT-1107	0.00	0.00	0.00	0.000
OUT-1108	0.00	0.00	0.00	0.000
OUT-1110	0.00	0.00	0.00	0.000
OUT-1111	0.00	0.00	0.00	0.000
OUT-1113	0.00	0.00	0.00	0.000
OUT-1114	0.00	0.00	0.00	0.000
OUT-1115	0.00	0.00	0.00	0.000
OUT-1116	0.00	0.00	0.00	0.000
OUT-1117	3.24	0.80	1.97	0.038
OUT-1118	0.00	0.00	0.00	0.000
OUT-1119	0.00	0.00	0.00	0.000
OUT-1120	1.08	0.04	0.06	0.001
OUT-1121	0.00	0.00	0.00	0.000
OUT-1126	0.00	0.00	0.00	0.000
OUT-1127	0.00	0.00	0.00	0.000
OUT-1129	0.00	0.00	0.00	0.000
OUT-1132	0.00	0.00	0.00	0.000
OUT-1133	0.00	0.00	0.00	0.000
OUT-1135	0.00	0.00	0.00	0.000
OUT-1136	0.00	0.00	0.00	0.000
OUT-1138	0.00	0.00	0.00	0.000
OUT-1142	1.23	0.05	0.08	0.001
OUT-1147	4.57	0.09	0.16	0.006
OUT-1148	0.00	0.00	0.00	0.000
OUT-1150	0.00	0.00	0.00	0.000
OUT-1151	0.00	0.00	0.00	0.000
OUT-1152	0.00	0.00	0.00	0.000
OUT-1153	0.00	0.00	0.00	0.000
OUT-1154	0.00	0.00	0.00	0.000
OUT-1155	0.00	0.00	0.00	0.000
OUT-1156	0.00	0.00	0.00	0.000
OUT-1157	3.61	0.35	0.79	0.019
OUT-1159	5.03	1.78	3.68	0.130
OUT-1160	0.00	0.00	0.00	0.000
OUT-1161	5.45	1.08	2.15	0.086
OUT-1162	0.00	0.00	0.00	0.000
OUT-1165	0.00	0.00	0.00	0.000
OUT-1166	4.49	0.73	1.53	0.048

Buildout Conditions – 100Y Event

OUT-1167	0.00	0.00	0.00	0.000
OUT-1169	0.00	0.00	0.00	0.000
OUT-1170	0.00	0.00	0.00	0.000
OUT-1172	4.88	0.53	1.01	0.037
OUT-1173	0.00	0.00	0.00	0.000
OUT-1174	0.00	0.00	0.00	0.000
OUT-1180	1.17	0.19	0.31	0.003
OUT-1181	0.00	0.00	0.00	0.000
OUT-1182	4.69	0.91	1.73	0.062
OUT-1186	5.01	3.44	6.52	0.251
OUT-1187	0.00	0.00	0.00	0.000
OUT-1189	0.00	0.00	0.00	0.000
OUT-1190	0.00	0.00	0.00	0.000
OUT-1191	0.00	0.00	0.00	0.000
OUT-1192	0.00	0.00	0.00	0.000
OUT-1193	0.00	0.00	0.00	0.000
OUT-1194	0.00	0.00	0.00	0.000
OUT-1195	0.00	0.00	0.00	0.000
OUT-1197	0.00	0.00	0.00	0.000
OUT-1198	0.00	0.00	0.00	0.000
OUT-1199	5.22	1.21	3.83	0.092
OUT-1200	0.97	0.06	0.10	0.001
OUT-1202	5.18	0.51	0.96	0.039
OUT-1204	0.00	0.00	0.00	0.000
OUT-1205	0.00	0.00	0.00	0.000
OUT-1206	0.00	0.00	0.00	0.000
OUT-1207	0.00	0.00	0.00	0.000
OUT-1208	4.30	0.08	0.15	0.005
OUT-1209	0.00	0.00	0.00	0.000
OUT-1210	3.84	0.07	0.13	0.004
OUT-1211	0.00	0.00	0.00	0.000
OUT-1212	0.00	0.00	0.00	0.000
OUT-1215	0.00	0.00	0.00	0.000
OUT-1216	0.00	0.00	0.00	0.000
OUT-1218	0.00	0.00	0.00	0.000
OUT-1223	0.00	0.00	0.00	0.000
OUT-1229	0.00	0.00	0.00	0.000
OUT-1231	0.00	0.00	0.00	0.000
OUT-1232	0.00	0.00	0.00	0.000
OUT-1233	4.46	2.38	7.55	0.154
OUT-1234	13.08	2.20	12.07	0.419
OUT-1236	10.71	1.44	4.99	0.225
OUT-1237	5.65	0.26	0.69	0.022
OUT-1238	5.80	0.96	3.95	0.081
OUT-1240	8.58	1.48	4.57	0.184
OUT-1241	0.00	0.00	0.00	0.000
OUT-1243	4.01	1.20	4.91	0.070
OUT-1249	0.00	0.00	0.00	0.000
OUT-1250	0.00	0.00	0.00	0.000
OUT-1251	0.00	0.00	0.00	0.000
OUT-1257	0.00	0.00	0.00	0.000
OUT-1258	0.00	0.00	0.00	0.000
OUT-1260	0.00	0.00	0.00	0.000
OUT-1264	0.00	0.00	0.00	0.000
OUT-1265	0.00	0.00	0.00	0.000

Buildout Conditions – 100Y Event

OUT-1266	0.00	0.00	0.00	0.000
OUT-1267	0.00	0.00	0.00	0.000
OUT-1268	0.00	0.00	0.00	0.000
OUT-1269	0.00	0.00	0.00	0.000
OUT-1270	0.00	0.00	0.00	0.000
OUT-1271	0.00	0.00	0.00	0.000
OUT-1272	0.00	0.00	0.00	0.000
OUT-1273	0.00	0.00	0.00	0.000
OUT-1275	0.00	0.00	0.00	0.000
OUT-1276	0.00	0.00	0.00	0.000
OUT-1278	0.00	0.00	0.00	0.000
OUT-1282	2.22	0.52	2.15	0.017
OUT-1283	4.95	0.52	1.48	0.037
OUT-1284	0.00	0.00	0.00	0.000
OUT-1285	0.00	0.00	0.00	0.000
OUT-1287	0.00	0.00	0.00	0.000
OUT-1288	0.00	0.00	0.00	0.000
OUT-1290	0.00	0.00	0.00	0.000
OUT-1291	0.00	0.00	0.00	0.000
OUT-1292	0.00	0.00	0.00	0.000
OUT-1293	4.63	1.46	2.78	0.098
OUT-1295	4.92	0.86	1.64	0.062
OUT-1297	0.00	0.00	0.00	0.000
OUT-1298	4.49	0.48	0.94	0.031
OUT-1301	5.15	0.08	0.16	0.006
OUT-1302	5.25	1.05	1.98	0.080
OUT-1304	0.00	0.00	0.00	0.000
OUT-1305	4.89	1.58	3.05	0.112
OUT-1306	0.00	0.00	0.00	0.000
OUT-1309	0.00	0.00	0.00	0.000
OUT-1310	0.00	0.00	0.00	0.000
OUT-1312	0.00	0.00	0.00	0.000
OUT-1314	0.00	0.00	0.00	0.000
OUT-1316	0.00	0.00	0.00	0.000
OUT-1318	0.00	0.00	0.00	0.000
OUT-1322	0.00	0.00	0.00	0.000
OUT-1324	0.00	0.00	0.00	0.000
OUT-1325	0.00	0.00	0.00	0.000
OUT-1326	0.00	0.00	0.00	0.000
OUT-1327	0.00	0.00	0.00	0.000
OUT-1328	0.00	0.00	0.00	0.000
OUT-1329	0.00	0.00	0.00	0.000
OUT-1330	0.00	0.00	0.00	0.000
OUT-1331	0.00	0.00	0.00	0.000
OUT-1333	0.00	0.00	0.00	0.000
OUT-1334	0.00	0.00	0.00	0.000
OUT-1335	0.00	0.00	0.00	0.000
OUT-1336	0.00	0.00	0.00	0.000
OUT-1337	0.00	0.00	0.00	0.000
OUT-1338	0.00	0.00	0.00	0.000
OUT-1339	0.00	0.00	0.00	0.000
OUT-1342	0.00	0.00	0.00	0.000
OUT-1343	0.00	0.00	0.00	0.000
OUT-1344	0.00	0.00	0.00	0.000
OUT-1345	0.54	0.00	0.00	0.000

OUT-1346	0.00	0.00	0.00	0.000
OUT-1347	0.00	0.00	0.00	0.000
OUT-1349	5.77	0.46	0.85	0.038
OUT-1350	0.00	0.00	0.00	0.000
OUT-1352	0.00	0.00	0.00	0.000
OUT-1354	0.00	0.00	0.00	0.000
OUT-1355	0.00	0.00	0.00	0.000
OUT-1356	0.00	0.00	0.00	0.000
OUT-1357	4.24	0.47	0.99	0.029
OUT-1358	0.00	0.00	0.00	0.000
OUT-1359	0.00	0.00	0.00	0.000
OUT-1360	0.00	0.00	0.00	0.000
OUT-1363	0.00	0.00	0.00	0.000
OUT-1365	0.00	0.00	0.00	0.000
OUT-1366	0.00	0.00	0.00	0.000
OUT-1367	0.00	0.00	0.00	0.000
OUT-1368	0.00	0.00	0.00	0.000
OUT-1369	0.00	0.00	0.00	0.000
OUT-1370	0.00	0.00	0.00	0.000
OUT-1371	0.00	0.00	0.00	0.000
OUT-1372	0.00	0.00	0.00	0.000
OUT-1374	0.00	0.00	0.00	0.000
OUT-1375	0.00	0.00	0.00	0.000
OUT-1376	0.00	0.00	0.00	0.000
OUT-1407	1.96	0.12	0.22	0.003

System 0.99 33.52 73.94 2.936

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
1037-ditch	CONDUIT	1.12	0 12:16	4.99	0.00	0.01
1053-pipe	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1230-pipe	CONDUIT	1.05	0 11:06	5.17	0.03	0.12
1240-pipe	CONDUIT	4.57	0 10:55	3.25	0.14	0.25
1259-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1261-ditch	CONDUIT	0.00	0 00:00	0.00	0.00	0.00
1332-ditch	CONDUIT	0.99	0 12:27	0.82	0.01	0.13
1332-pipe	CONDUIT	1.12	0 12:15	2.67	0.08	0.19
1401-pipe	CONDUIT	0.12	0 10:30	1.86	0.01	0.05
1402-pipe	CONDUIT	0.54	0 10:53	0.19	1.08	1.00
1403-ditch	CONDUIT	0.52	0 10:59	1.59	0.00	0.05
1403-pipe	CONDUIT	0.00	0 20:15	0.00	1.08	1.00
1404-pipe	CONDUIT	0.34	0 10:26	1.21	0.04	0.14
1405-ditch	CONDUIT	0.96	0 12:13	1.52	0.01	0.10
1405-pipe	CONDUIT	0.99	0 12:10	6.33	0.02	0.10
sd_ditch-orifice	ORIFICE	4.57	0 10:53			0.00
outfall_basin_weir	WEIR	4.91	0 10:16			0.00

FM-dummy-weir WEIR 0.00 0 00:00 0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	Hours
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
1402-pipe	0.73	0.84	0.77	0.12	0.84
1403-pipe	4.64	5.17	7.50	7.42	5.17

Analysis begun on: Tue May 02 13:24:10 2017
 Analysis ended on: Tue May 02 13:24:12 2017
 Total elapsed time: 00:00:02

APPENDIX E

Precipitation, Soils, and Percent Impervious Data

NOAA Atlas 14, Volume 7, Version 2 WASILLA
3 S



Station ID: 50-9759
Location name: Wasilla, Alaska, USA*
Latitude: 61.5333°, Longitude: -149.4333°
Elevation:
Elevation (station metadata): 50 ft**



* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypaluk, Dale Unruh, Michael Yekta, Erica Betts, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

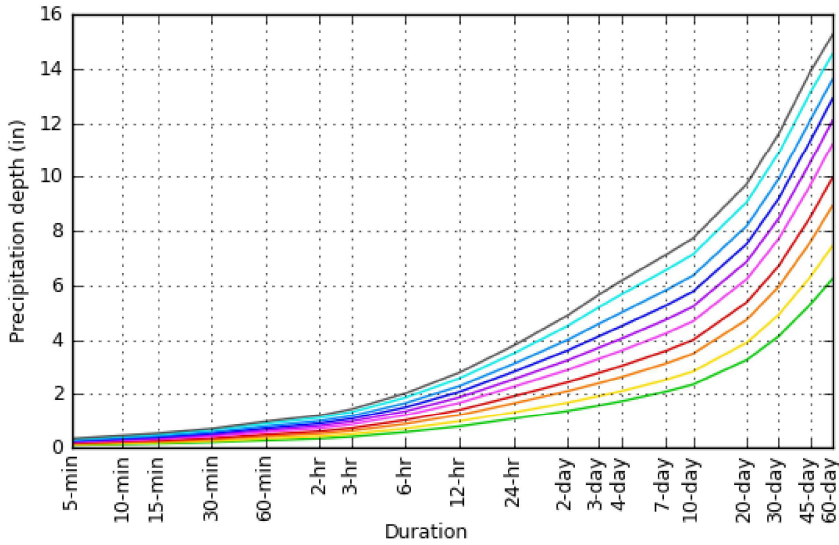
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.097 (0.077-0.125)	0.119 (0.093-0.155)	0.148 (0.114-0.196)	0.172 (0.131-0.231)	0.204 (0.152-0.280)	0.229 (0.168-0.319)	0.254 (0.183-0.359)	0.280 (0.199-0.402)	0.314 (0.219-0.460)	0.340 (0.234-0.505)
10-min	0.130 (0.103-0.167)	0.160 (0.126-0.208)	0.198 (0.153-0.262)	0.230 (0.175-0.309)	0.274 (0.204-0.376)	0.307 (0.225-0.427)	0.341 (0.246-0.482)	0.376 (0.267-0.539)	0.422 (0.294-0.618)	0.457 (0.314-0.679)
15-min	0.152 (0.121-0.195)	0.188 (0.148-0.244)	0.232 (0.179-0.307)	0.270 (0.205-0.363)	0.321 (0.239-0.440)	0.360 (0.264-0.501)	0.399 (0.288-0.564)	0.440 (0.313-0.631)	0.494 (0.345-0.723)	0.535 (0.368-0.794)
30-min	0.202 (0.161-0.259)	0.249 (0.196-0.323)	0.308 (0.238-0.407)	0.358 (0.272-0.481)	0.426 (0.317-0.584)	0.477 (0.350-0.664)	0.530 (0.383-0.749)	0.584 (0.415-0.838)	0.656 (0.458-0.960)	0.710 (0.488-1.05)
60-min	0.277 (0.220-0.356)	0.341 (0.268-0.443)	0.422 (0.325-0.558)	0.490 (0.372-0.658)	0.583 (0.434-0.799)	0.654 (0.479-0.910)	0.726 (0.524-1.03)	0.800 (0.569-1.15)	0.898 (0.626-1.31)	0.972 (0.668-1.44)
2-hr	0.345 (0.274-0.443)	0.425 (0.334-0.552)	0.526 (0.406-0.696)	0.610 (0.463-0.819)	0.726 (0.540-0.995)	0.816 (0.598-1.14)	0.905 (0.654-1.28)	0.997 (0.709-1.43)	1.12 (0.781-1.64)	1.21 (0.833-1.80)
3-hr	0.413 (0.328-0.530)	0.508 (0.399-0.660)	0.629 (0.485-0.832)	0.729 (0.554-0.979)	0.868 (0.646-1.19)	0.975 (0.715-1.36)	1.08 (0.781-1.53)	1.19 (0.848-1.71)	1.34 (0.934-1.96)	1.45 (0.996-2.15)
6-hr	0.580 (0.461-0.745)	0.714 (0.561-0.927)	0.885 (0.683-1.17)	1.03 (0.780-1.38)	1.22 (0.908-1.67)	1.37 (1.00-1.91)	1.52 (1.10-2.15)	1.68 (1.19-2.40)	1.88 (1.31-2.75)	2.04 (1.40-3.02)
12-hr	0.797 (0.633-1.02)	0.983 (0.772-1.28)	1.23 (0.946-1.62)	1.42 (1.08-1.91)	1.68 (1.25-2.31)	1.89 (1.38-2.63)	2.09 (1.51-2.96)	2.31 (1.64-3.31)	2.59 (1.80-3.78)	2.80 (1.92-4.16)
24-hr	1.08 (0.959-1.22)	1.33 (1.17-1.53)	1.67 (1.43-1.96)	1.93 (1.63-2.30)	2.28 (1.89-2.78)	2.55 (2.07-3.17)	2.83 (2.26-3.57)	3.12 (2.45-4.00)	3.50 (2.69-4.59)	3.79 (2.86-5.05)
2-day	1.38 (1.23-1.57)	1.69 (1.49-1.95)	2.12 (1.82-2.49)	2.45 (2.07-2.92)	2.90 (2.40-3.54)	3.25 (2.64-4.04)	3.61 (2.89-4.56)	4.00 (3.14-5.14)	4.51 (3.47-5.92)	4.90 (3.71-6.54)
3-day	1.59 (1.41-1.80)	1.94 (1.70-2.23)	2.42 (2.08-2.83)	2.79 (2.36-3.33)	3.31 (2.74-4.04)	3.72 (3.02-4.62)	4.14 (3.31-5.23)	4.60 (3.61-5.91)	5.21 (4.00-6.84)	5.66 (4.29-7.56)
4-day	1.75 (1.55-1.98)	2.12 (1.86-2.44)	2.64 (2.27-3.09)	3.04 (2.57-3.63)	3.61 (2.98-4.40)	4.05 (3.29-5.03)	4.51 (3.60-5.69)	5.01 (3.94-6.44)	5.67 (4.36-7.45)	6.18 (4.67-8.24)
7-day	2.10 (1.87-2.38)	2.53 (2.22-2.91)	3.12 (2.69-3.66)	3.59 (3.04-4.28)	4.23 (3.50-5.16)	4.73 (3.85-5.88)	5.25 (4.19-6.63)	5.81 (4.57-7.46)	6.55 (5.04-8.60)	7.11 (5.38-9.49)
10-day	2.37 (2.10-2.68)	2.84 (2.50-3.27)	3.49 (3.00-4.10)	4.00 (3.38-4.77)	4.69 (3.88-5.72)	5.23 (4.25-6.49)	5.77 (4.61-7.30)	6.36 (5.00-8.18)	7.14 (5.49-9.38)	7.73 (5.85-10.3)
20-day	3.27 (2.91-3.71)	3.91 (3.43-4.49)	4.75 (4.09-5.58)	5.39 (4.56-6.43)	6.24 (5.16-7.62)	6.89 (5.60-8.56)	7.53 (6.02-9.52)	8.20 (6.44-10.5)	9.07 (6.98-11.9)	9.74 (7.37-13.0)
30-day	4.13 (3.68-4.69)	4.92 (4.32-5.66)	5.95 (5.12-6.98)	6.71 (5.68-8.01)	7.71 (6.38-9.42)	8.46 (6.87-10.5)	9.19 (7.34-11.6)	9.91 (7.79-12.7)	10.9 (8.36-14.3)	11.6 (8.77-15.5)
45-day	5.30 (4.71-6.01)	6.31 (5.54-7.25)	7.59 (6.53-8.90)	8.51 (7.20-10.2)	9.67 (8.00-11.8)	10.5 (8.55-13.1)	11.3 (9.06-14.3)	12.1 (9.51-15.5)	13.1 (10.1-17.2)	13.9 (10.5-18.5)
60-day	6.25 (5.56-7.09)	7.46 (6.55-8.58)	8.94 (7.69-10.5)	9.97 (8.43-11.9)	11.2 (9.28-13.7)	12.1 (9.83-15.0)	12.9 (10.3-16.3)	13.6 (10.7-17.5)	14.5 (11.2-19.1)	15.3 (11.5-20.4)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

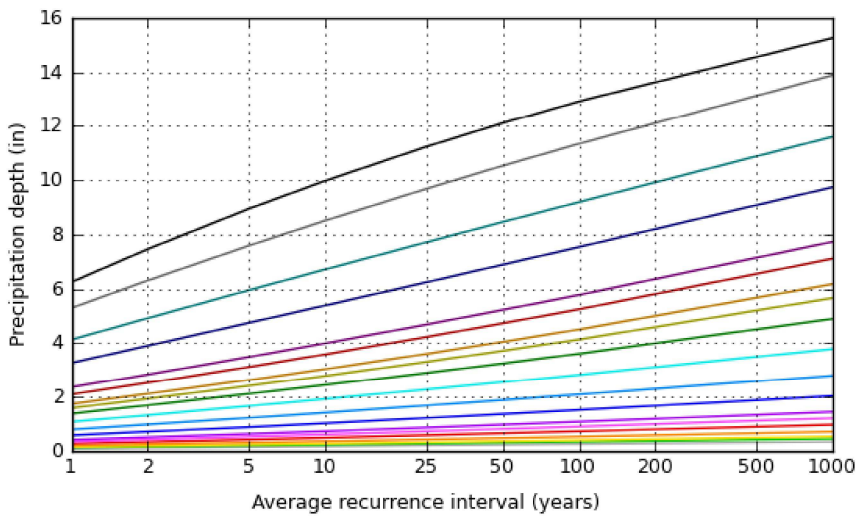
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PF graphical

PDS-based depth-duration-frequency (DDF) curves
 Latitude: 61.5333°, Longitude: -149.4333°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000



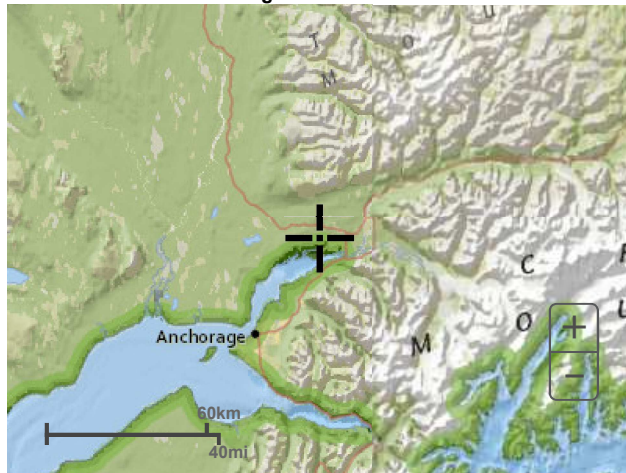
Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

Maps & aerals

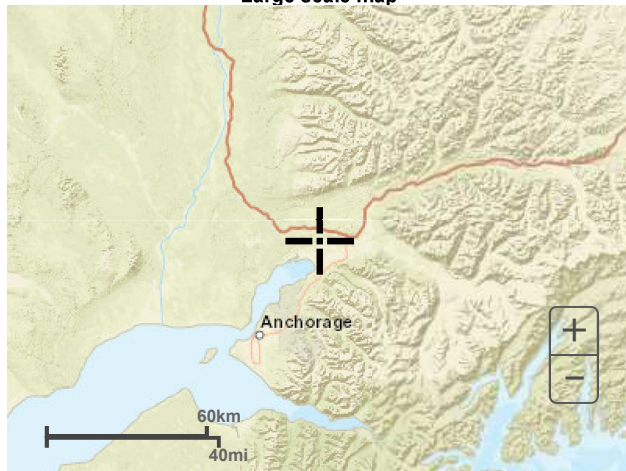
Small scale terrain



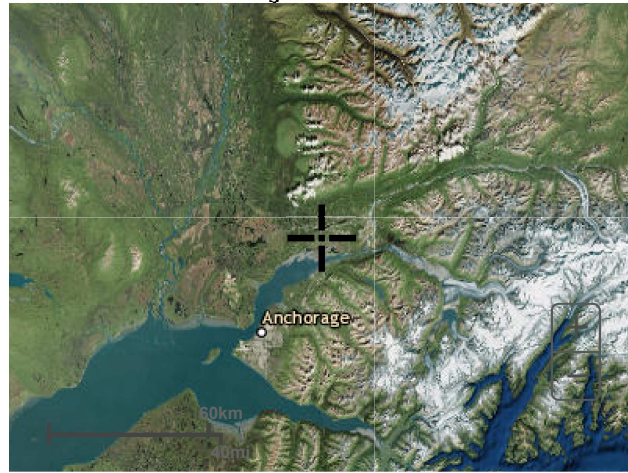
Large scale terrain



Large scale map



Large scale aerial



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[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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**NOAA Atlas 14, Volume 7, Version 2 WASILLA
2 NE**



Station ID: 50-9765
Location name: Wasilla, Alaska, USA*
Latitude: 61.6167°, Longitude: -149.4°
Elevation:
Elevation (station metadata): 500 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypaluk, Dale Unruh, Michael Yekta, Erica Betts, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
 and
 University of Alaska Fairbanks, Water and Environmental Research Center

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

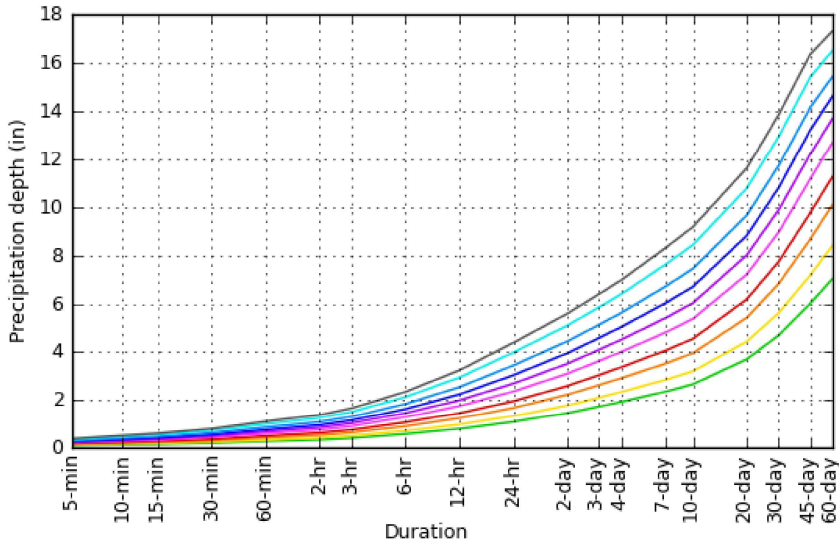
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.096 (0.070-0.134)	0.117 (0.083-0.168)	0.149 (0.104-0.223)	0.175 (0.120-0.270)	0.211 (0.141-0.340)	0.239 (0.157-0.397)	0.267 (0.173-0.458)	0.303 (0.193-0.535)	0.350 (0.218-0.643)	0.386 (0.236-0.722)
10-min	0.128 (0.093-0.179)	0.157 (0.112-0.225)	0.200 (0.139-0.299)	0.235 (0.161-0.363)	0.284 (0.190-0.457)	0.321 (0.211-0.534)	0.359 (0.232-0.616)	0.407 (0.259-0.719)	0.470 (0.293-0.863)	0.518 (0.317-0.969)
15-min	0.150 (0.109-0.210)	0.184 (0.131-0.264)	0.234 (0.163-0.350)	0.276 (0.189-0.426)	0.332 (0.222-0.535)	0.376 (0.248-0.625)	0.420 (0.272-0.720)	0.476 (0.303-0.841)	0.550 (0.342-1.01)	0.606 (0.371-1.13)
30-min	0.199 (0.145-0.278)	0.244 (0.174-0.350)	0.310 (0.216-0.463)	0.366 (0.251-0.565)	0.441 (0.295-0.710)	0.499 (0.329-0.830)	0.558 (0.361-0.957)	0.632 (0.402-1.12)	0.730 (0.454-1.34)	0.804 (0.492-1.50)
60-min	0.273 (0.199-0.382)	0.334 (0.238-0.479)	0.425 (0.296-0.635)	0.501 (0.344-0.773)	0.604 (0.405-0.973)	0.684 (0.450-1.14)	0.764 (0.495-1.31)	0.866 (0.551-1.53)	1.00 (0.623-1.84)	1.10 (0.675-2.06)
2-hr	0.343 (0.250-0.480)	0.420 (0.299-0.603)	0.534 (0.372-0.798)	0.629 (0.431-0.971)	0.759 (0.509-1.22)	0.859 (0.566-1.43)	0.959 (0.621-1.64)	1.09 (0.692-1.92)	1.26 (0.781-2.31)	1.38 (0.847-2.59)
3-hr	0.412 (0.301-0.576)	0.504 (0.359-0.723)	0.642 (0.448-0.959)	0.756 (0.518-1.17)	0.912 (0.611-1.47)	1.03 (0.680-1.72)	1.15 (0.746-1.98)	1.31 (0.830-2.31)	1.51 (0.939-2.77)	1.66 (1.02-3.11)
6-hr	0.583 (0.425-0.816)	0.713 (0.508-1.02)	0.907 (0.633-1.36)	1.07 (0.732-1.65)	1.29 (0.863-2.07)	1.46 (0.961-2.43)	1.63 (1.06-2.79)	1.85 (1.18-3.26)	2.13 (1.33-3.92)	2.35 (1.44-4.39)
12-hr	0.800 (0.584-1.12)	0.980 (0.698-1.41)	1.24 (0.866-1.86)	1.46 (0.999-2.25)	1.76 (1.18-2.83)	2.00 (1.32-3.32)	2.25 (1.45-3.85)	2.55 (1.62-4.50)	2.94 (1.83-5.41)	3.24 (1.99-6.07)
24-hr	1.09 (0.980-1.22)	1.33 (1.19-1.51)	1.68 (1.46-1.95)	1.96 (1.68-2.32)	2.37 (1.98-2.86)	2.69 (2.22-3.31)	3.04 (2.46-3.80)	3.45 (2.74-4.38)	3.98 (3.09-5.18)	4.39 (3.35-5.80)
2-day	1.46 (1.32-1.64)	1.78 (1.59-2.02)	2.23 (1.94-2.59)	2.59 (2.22-3.06)	3.11 (2.60-3.75)	3.52 (2.89-4.32)	3.95 (3.20-4.94)	4.45 (3.53-5.65)	5.10 (3.96-6.63)	5.59 (4.27-7.39)
3-day	1.74 (1.56-1.95)	2.11 (1.88-2.40)	2.63 (2.29-3.05)	3.05 (2.61-3.60)	3.63 (3.04-4.38)	4.10 (3.37-5.03)	4.58 (3.70-5.73)	5.13 (4.08-6.52)	5.85 (4.55-7.60)	6.39 (4.89-8.45)
4-day	1.94 (1.75-2.17)	2.35 (2.09-2.67)	2.92 (2.55-3.39)	3.38 (2.89-3.99)	4.01 (3.36-4.84)	4.52 (3.71-5.55)	5.04 (4.08-6.30)	5.62 (4.47-7.15)	6.40 (4.97-8.31)	6.98 (5.34-9.22)
7-day	2.36 (2.12-2.64)	2.84 (2.53-3.23)	3.52 (3.06-4.08)	4.05 (3.47-4.78)	4.80 (4.02-5.80)	5.40 (4.44-6.63)	6.01 (4.86-7.52)	6.70 (5.32-8.52)	7.61 (5.91-9.89)	8.29 (6.34-11.0)
10-day	2.67 (2.40-2.99)	3.21 (2.85-3.64)	3.95 (3.44-4.59)	4.55 (3.89-5.37)	5.37 (4.49-6.49)	6.02 (4.95-7.40)	6.70 (5.41-8.37)	7.44 (5.91-9.46)	8.43 (6.55-11.0)	9.17 (7.01-12.1)
20-day	3.71 (3.34-4.16)	4.44 (3.95-5.04)	5.43 (4.73-6.30)	6.19 (5.30-7.30)	7.22 (6.04-8.72)	8.02 (6.59-9.85)	8.82 (7.13-11.0)	9.66 (7.68-12.3)	10.8 (8.38-14.0)	11.6 (8.89-15.4)
30-day	4.69 (4.23-5.26)	5.61 (4.99-6.37)	6.82 (5.94-7.91)	7.73 (6.62-9.12)	8.95 (7.48-10.8)	9.87 (8.11-12.1)	10.8 (8.72-13.5)	11.7 (9.30-14.9)	12.9 (10.0-16.8)	13.8 (10.6-18.3)
45-day	6.00 (5.41-6.73)	7.17 (6.38-8.15)	8.66 (7.54-10.0)	9.75 (8.35-11.5)	11.2 (9.33-13.5)	12.2 (10.0-15.0)	13.2 (10.7-16.5)	14.1 (11.2-18.0)	15.4 (12.0-20.0)	16.3 (12.5-21.6)
60-day	7.03 (6.34-7.89)	8.41 (7.48-9.55)	10.1 (8.79-11.7)	11.3 (9.64-13.3)	12.7 (10.6-15.3)	13.7 (11.3-16.8)	14.6 (11.8-18.3)	15.4 (12.3-19.6)	16.5 (12.8-21.5)	17.3 (13.2-22.9)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

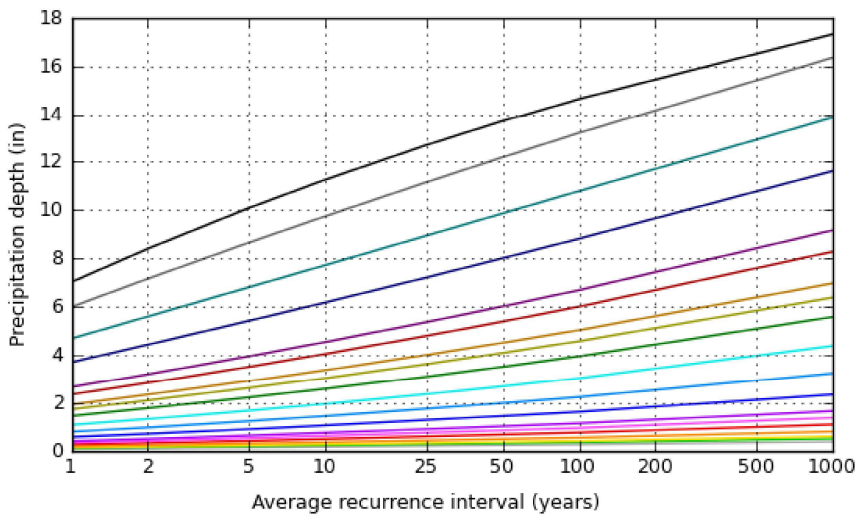
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PF graphical

PDS-based depth-duration-frequency (DDF) curves
 Latitude: 61.6167°, Longitude: -149.4000°



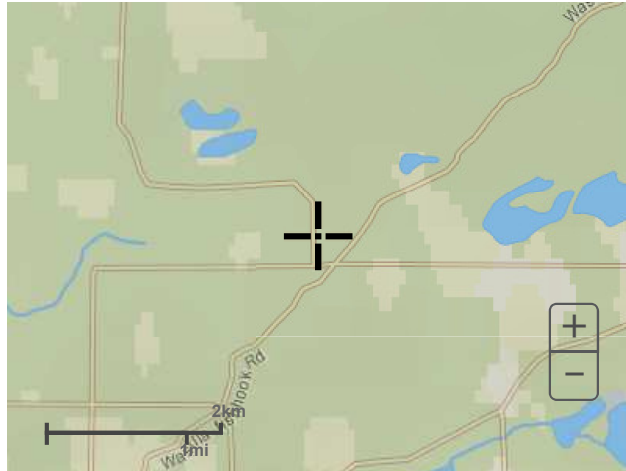
Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000



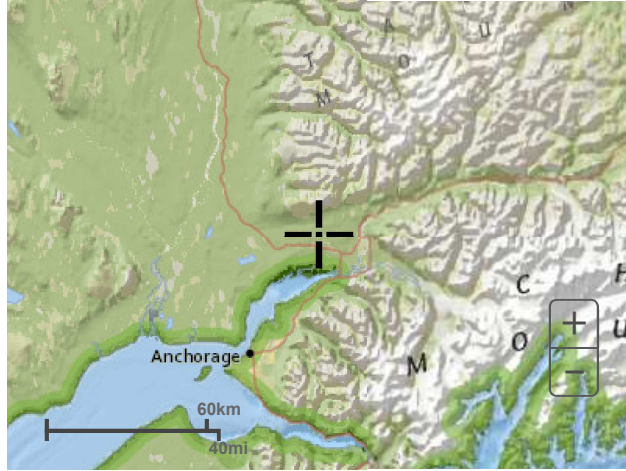
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15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

Maps & aerals

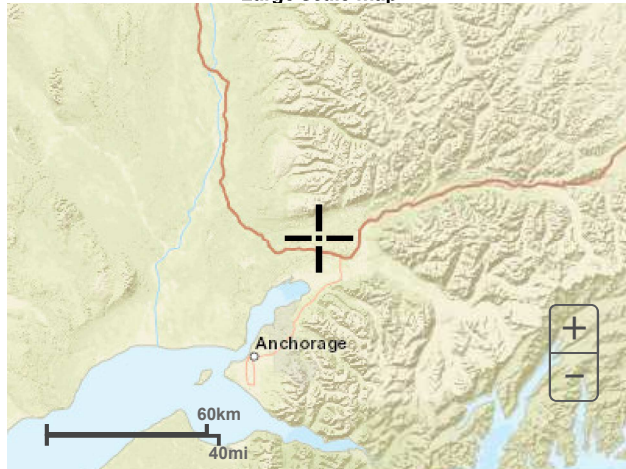
Small scale terrain



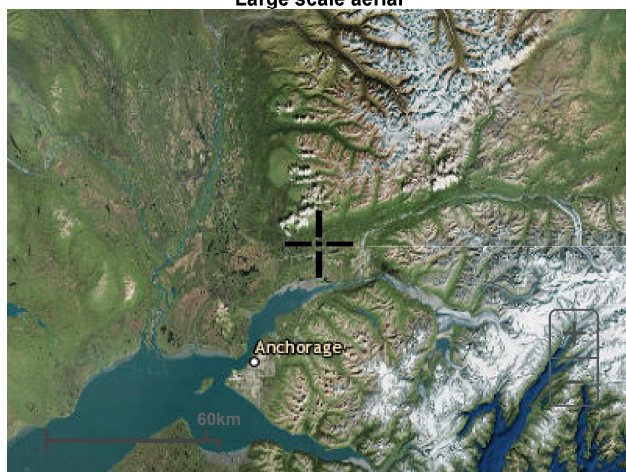
Large scale terrain



Large scale map



Large scale aerial

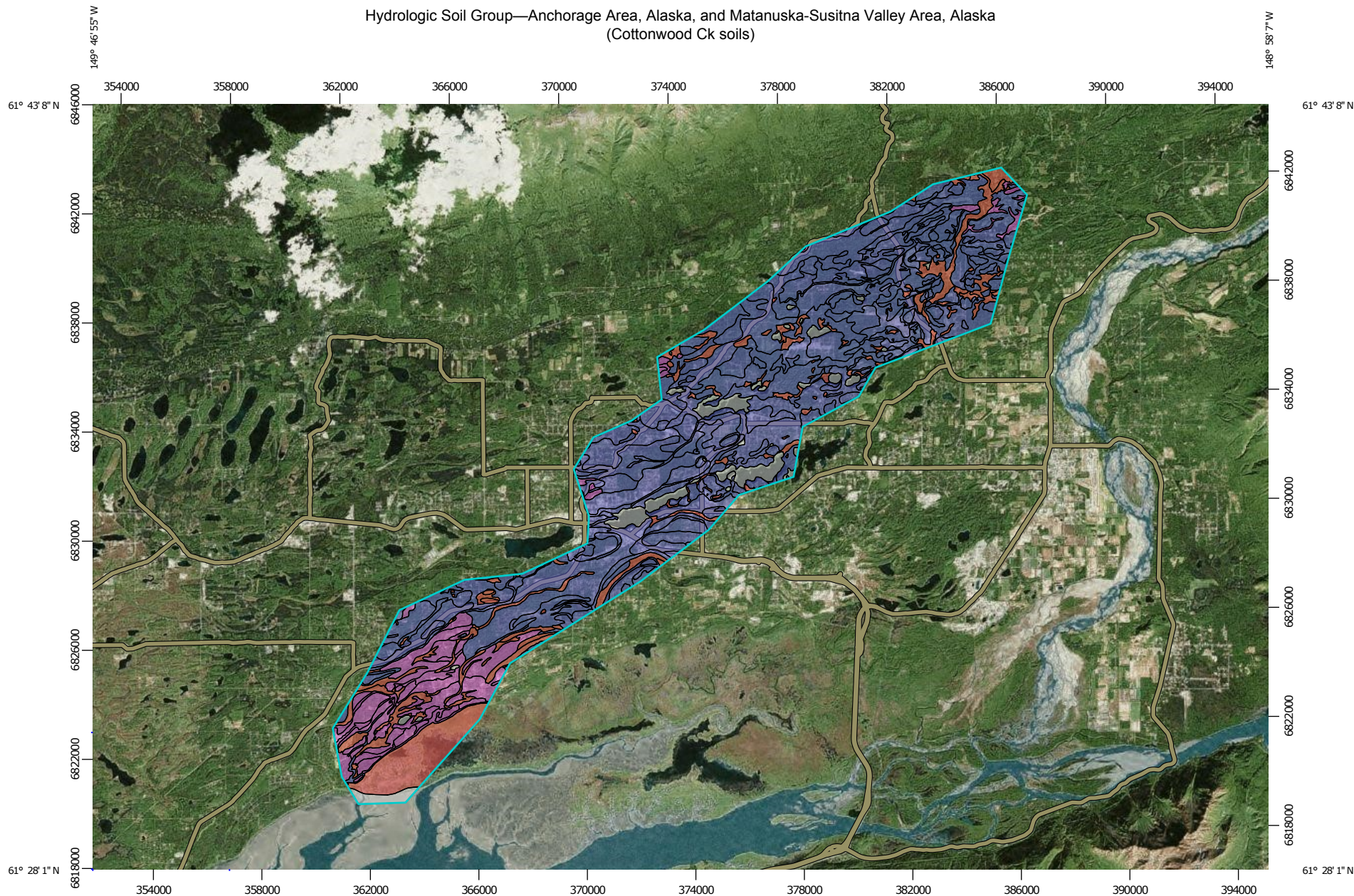


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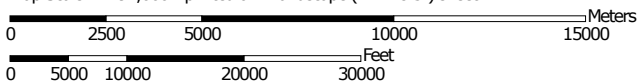
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[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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Hydrologic Soil Group—Anchorage Area, Alaska, and Matanuska-Susitna Valley Area, Alaska
(Cottonwood Ck soils)



Map Scale: 1:197,000 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 6N WGS84



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:24,000 to 1:25,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Anchorage Area, Alaska
 Survey Area Data: Version 11, Sep 27, 2015

Soil Survey Area: Matanuska-Susitna Valley Area, Alaska
 Survey Area Data: Version 13, Sep 27, 2015

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Anchorage Area, Alaska (AK605)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
464	Water, saline		212.8	0.6%
Subtotals for Soil Survey Area			212.8	0.6%
Totals for Area of Interest			35,610.1	100.0%

Hydrologic Soil Group— Summary by Map Unit — Matanuska-Susitna Valley Area, Alaska (AK600)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
116	Cryaquepts, depressional, 0 to 7 percent slopes	D	1,603.8	4.5%
120	Cryods, low elevation, and Cryochrepts, 30 to 70 percent slopes	B	783.2	2.2%
122	Deception silt loam, rolling	B	701.9	2.0%
123	Deception silt loam, sloping and moderately steep	B	484.1	1.4%
124	Deception silt loam, steep and sloping	B	172.3	0.5%
125	Deception silt loam, undulating	B	30.5	0.1%
128	Disappoint very cobbly mucky silt loam, 0 to 12 percent	D	7.9	0.0%
131	Estelle silt loam, rolling	B	26.3	0.1%
133	Estelle silt loam, steep and sloping	B	15.6	0.0%
134	Estelle silt loam, undulating	B	178.9	0.5%
136	Estelle, undulating-Disappoint complex	B	22.2	0.1%
141	Histosols	D	1,132.7	3.2%
143	Kalambach silt loam, sloping and moderately steep	B	1,445.1	4.1%
144	Kalambach silt loam, steep and sloping	B	89.2	0.3%
145	Kalambach silt loam, undulating	B	1,989.6	5.6%
146	Kalambach-Disappoint complex, 0 to 10 percent slopes	B	109.1	0.3%

Hydrologic Soil Group— Summary by Map Unit — Matanuska-Susitna Valley Area, Alaska (AK600)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
147	Kashwitna silt loam, 0 to 3 percent slopes	B	90.6	0.3%
148	Kashwitna silt loam, sloping and moderately steep	B	745.3	2.1%
149	Kashwitna silt loam, undulating	B	190.4	0.5%
151	Kichatna silt loam, 0 to 3 percent slopes	A	1,687.9	4.7%
152	Kichatna silt loam, sloping and moderately steep	A	508.8	1.4%
153	Kichatna silt loam, steep and sloping	A	446.9	1.3%
154	Kichatna silt loam, undulating	A	1,125.6	3.2%
155	Kichatna-Deception complex, sloping and moderately steep	A	36.8	0.1%
156	Kichatna-Deception complex, steep and sloping	A	34.4	0.1%
157	Kichatna-Delyndia complex, moderately steep and gently sloping	A	44.3	0.1%
158	Kichatna-Delyndia silt loams, 0 to 4 percent slopes	A	25.2	0.1%
162	Kidazqeni-Niklason complex, 0 to 2 percent slopes	A	10.1	0.0%
164	Knik silt loam, 0 to 3 percent slopes	B	6,654.7	18.7%
165	Knik silt loam, gently sloping and moderately steep	B	5,119.5	14.4%
166	Knik silt loam, steep and sloping	B	2,257.5	6.3%
167	Knik silt loam, undulating	B	3,148.6	8.8%
168	Knik-Cryaquepts complex, 0 to 25 percent slopes	B	394.3	1.1%
179	Pits, gravel		40.3	0.1%
203	Typic Cryaquents, 0 to 2 percent slopes	D	647.4	1.8%
204	Typic Cryaquents, coastal, 0 to 2 percent slopes	D	1,556.7	4.4%

Hydrologic Soil Group— Summary by Map Unit — Matanuska-Susitna Valley Area, Alaska (AK600)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
212	Yensus silt loam, 0 to 2 percent slopes	B	33.6	0.1%
213	Yensus silt loam, sloping and moderately steep	B	462.8	1.3%
214	Yensus silt loam, undulating	B	66.6	0.2%
216	Yohn silt loam, rolling	B	14.0	0.0%
220	Water		1,262.7	3.5%
Subtotals for Soil Survey Area			35,397.2	99.4%
Totals for Area of Interest			35,610.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

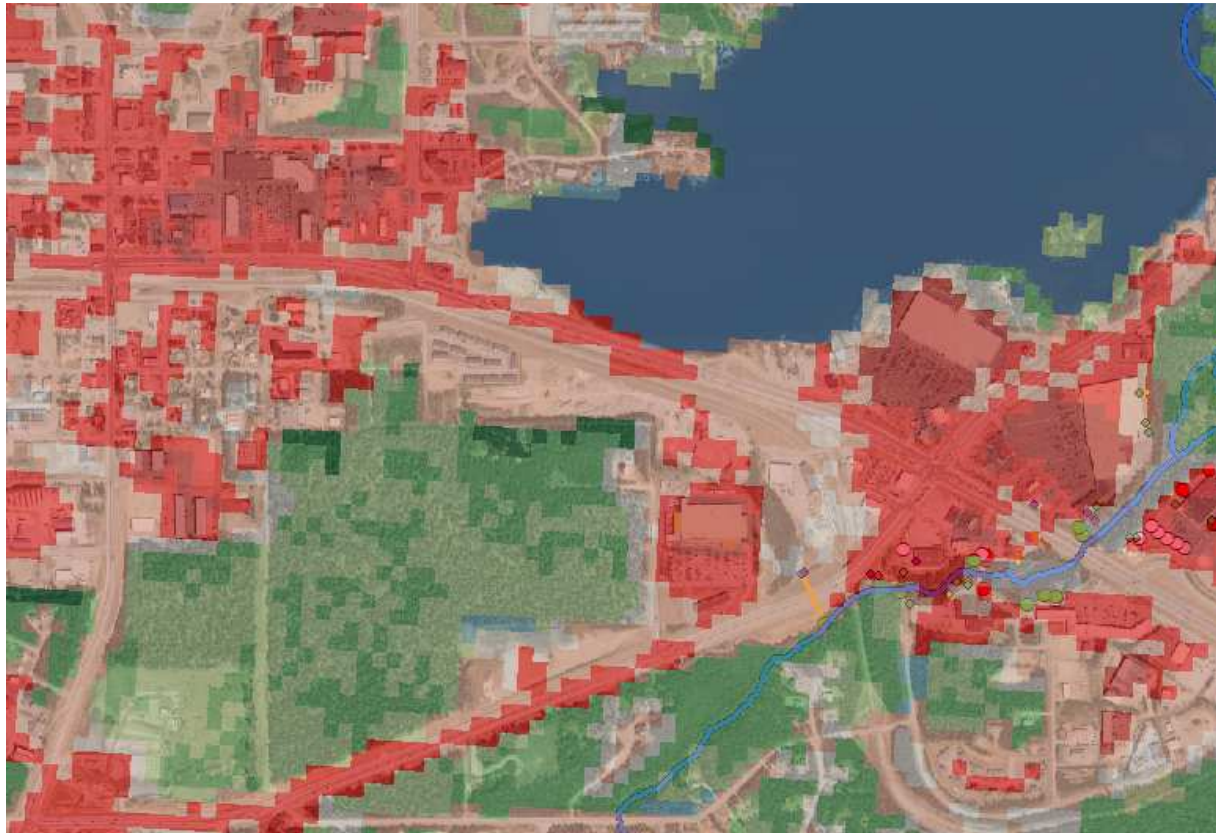
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

TNC GIS file: AK_nlcd_2011_landcover_15_15

screen shot from data:



This table shows the attribute data for the TNC GIS data set (first 5 columns) and DOWL assigned % impervious

Value	Red	Green	Blue	Land_Cover	map color	DOWL assigned % imperv 5-1-17
0	0.0	0.0	0.0	Unclassified	black	0%
11	0.3	0.4	0.6	Open Water	blue	0%
12	0.8	0.9	1.0	Perennial Ice/Snow	lt blue	0%
21	0.9	0.8	0.8	Developed, Open Space	lt pink	30%
22	0.9	0.6	0.5	Developed, Low Intensity	pink	60%
23	0.9	0.0	0.0	Developed, Medium Intensity	red	75%
24	0.7	0.0	0.0	Developed, High Intensity	dark red	90%
31	0.7	0.7	0.6	Barren Land	gray	0%
41	0.4	0.7	0.4	Deciduous Forest	green	0%
42	0.1	0.4	0.2	Evergreen Forest	dark green	0%
43	0.7	0.8	0.6	Mixed Forest	lt green	0%
51	0.7	0.6	0.2	Dwarf Shrub	brown	0%
52	0.8	0.7	0.5	Shrub/Scrub	tan	0%
71	0.9	0.9	0.8	Grassland/Herbaceous	lt gray	0%
72	0.8	0.8	0.5	Sedge/Herbaceous	gray-green	0%
74	0.5	0.7	0.6	Moss	lt green	0%

81	0.9	0.9	0.2	Pasture/Hay	yellowish	0%
82	0.7	0.4	0.2	Cultivated Crops	brown	0%
90	0.7	0.9	0.9	Woody Wetlands	lt blue	0%
95	0.4	0.6	0.7	Emergent Herbaceous Wetlands	lt blue	0%

How TNC used the NLCD_2011_Land_Conversion GIS data (from TNC read me file)

In the attached shapefile , I clipped out the NLCD change index to the MSB boundary then selected all the “change” pixels and tossed all the pixels which did not change. Then I converted the raster to polygon so the data is a bit easier to manipulate.

Check out the attribute table; there is a textual description of each change category. These are:

Barren Land to Developed, Medium Intensity	Dwarf Scrub to Open Water
Barren Land to Emergent Herbaceous Wetlands	Emergent Herbaceous Wetlands to Barren Land
Barren Land to Open Water	Emergent Herbaceous Wetlands to Deciduous Forest
Barren Land to Perennial Ice/Snow	Emergent Herbaceous Wetlands to Developed, High Intensity
Barren Land to Woody Wetlands	Emergent Herbaceous Wetlands to Developed, Low Intensity
Cultivated Crops to Developed, High Intensity	Emergent Herbaceous Wetlands to Developed, Medium Intensity
Cultivated Crops to Developed, Low Intensity	Emergent Herbaceous Wetlands to Developed, Open Space
Cultivated Crops to Developed, Medium Intensity	Emergent Herbaceous Wetlands to Mixed Forest
Cultivated Crops to Developed, Open Space	Emergent Herbaceous Wetlands to Open Water
Cultivated Crops to Open Water	Emergent Herbaceous Wetlands to Shrub/Scrub
Deciduous Forest to Barren Land	Emergent Herbaceous Wetlands to Woody Wetlands
Deciduous Forest to Developed, High Intensity	Evergreen Forest to Barren Land
Deciduous Forest to Developed, Low Intensity	Evergreen Forest to Deciduous Forest
Deciduous Forest to Developed, Medium Intensity	Evergreen Forest to Developed, High Intensity
Deciduous Forest to Developed, Open Space	Evergreen Forest to Developed, Low Intensity
Deciduous Forest to Evergreen Forest	Evergreen Forest to Developed, Medium Intensity
Deciduous Forest to Mixed Forest	Evergreen Forest to Developed, Open Space
Deciduous Forest to Open Water	Evergreen Forest to Emergent Herbaceous Wetlands
Deciduous Forest to Shrub/Scrub	Evergreen Forest to Grassland/Herbaceous
Deciduous Forest to Woody Wetlands	Evergreen Forest to Mixed Forest
Developed, High Intensity to Open Water	Evergreen Forest to Open Water
Developed, Low Intensity to Developed, High Intensity	Evergreen Forest to Shrub/Scrub
Developed, Low Intensity to Developed, Medium Intensity	Evergreen Forest to Woody Wetlands
Developed, Low Intensity to Developed, Open Space	Grassland/Herbaceous to Shrub/Scrub
Developed, Low Intensity to Open Water	Grassland/Herbaceous to Woody Wetlands
Developed, Medium Intensity to Open Water	Mixed Forest to Barren Land
Developed, Open Space to Developed, High Intensity	Mixed Forest to Deciduous Forest
Developed, Open Space to Developed, Low Intensity	Mixed Forest to Developed, High Intensity
Developed, Open Space to Developed, Medium Intensity	Mixed Forest to Developed, Low Intensity
Developed, Open Space to Open Water	Mixed Forest to Developed, Medium Intensity
Dwarf Scrub to Barren Land	Mixed Forest to Developed, Open Space

Mixed Forest to Grassland/Herbaceous
Mixed Forest to Open Water
Mixed Forest to Shrub/Scrub
Mixed Forest to Woody Wetlands
Open Water to Barren Land
Open Water to Developed, Low Intensity
Open Water to Developed, Medium Intensity
Open Water to Developed, Open Space
Open Water to Emergent Herbaceous Wetlands
Open Water to Shrub/Scrub
Open Water to Woody Wetlands
Pasture/Hay to Developed, Low Intensity
Pasture/Hay to Developed, Medium Intensity
Pasture/Hay to Developed, Open Space
Pasture/Hay to Open Water
Perennial Ice/Snow to Barren Land
Perennial Ice/Snow to Open Water
Sedge/Herbaceous to Shrub/Scrub
Shrub/Scrub to Barren Land
Shrub/Scrub to Deciduous Forest
Shrub/Scrub to Developed, High Intensity
Shrub/Scrub to Developed, Low Intensity
Shrub/Scrub to Developed, Medium Intensity
Shrub/Scrub to Developed, Open Space
Shrub/Scrub to Emergent Herbaceous Wetlands
Shrub/Scrub to Evergreen Forest
Shrub/Scrub to Grassland/Herbaceous
Shrub/Scrub to Mixed Forest
Shrub/Scrub to Open Water
Shrub/Scrub to Woody Wetlands
Woody Wetlands to Barren Land
Woody Wetlands to Developed, High Intensity
Woody Wetlands to Developed, Low Intensity
Woody Wetlands to Developed, Medium Intensity
Woody Wetlands to Developed, Open Space
Woody Wetlands to Emergent Herbaceous Wetlands
Woody Wetlands to Grassland/Herbaceous
Woody Wetlands to Mixed Forest
Woody Wetlands to Open Water
Woody Wetlands to Shrub/Scrub

APPENDIX F

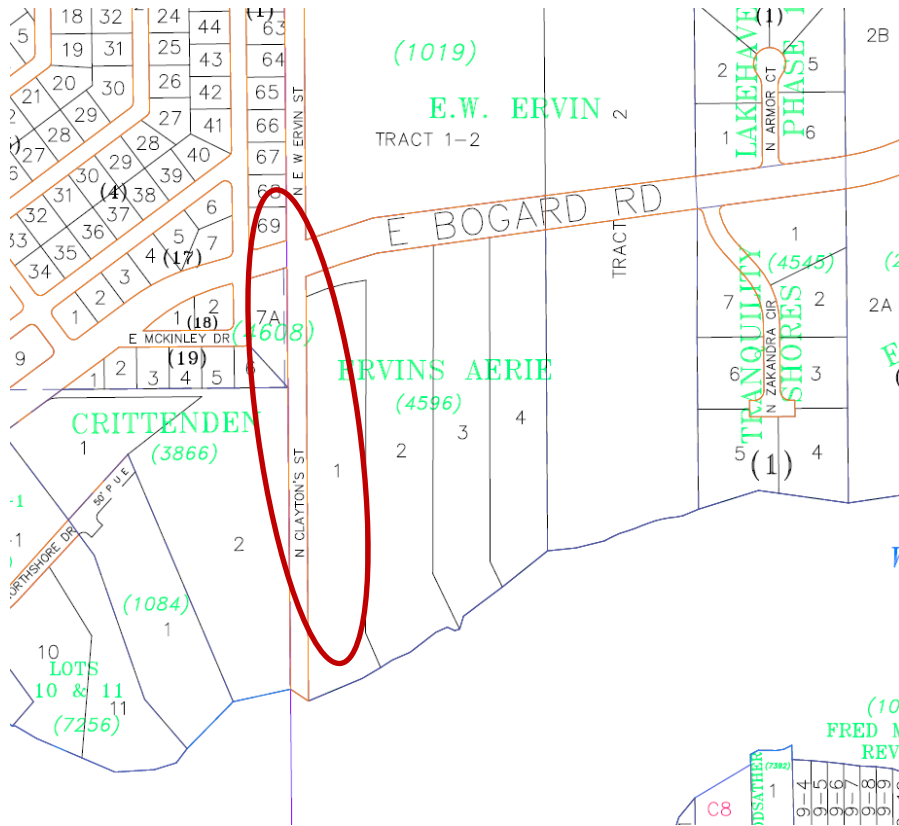
Deficiency Photos

Cottonwood Creek Stormwater Analysis
Deficiencies

NORTH CLAYTON UNIMPROVED ROW AND LOT 1 ERVINS AERIE: southeast of Williwaw Way
on south side of Bogard Road. (Deficiency ID 1)

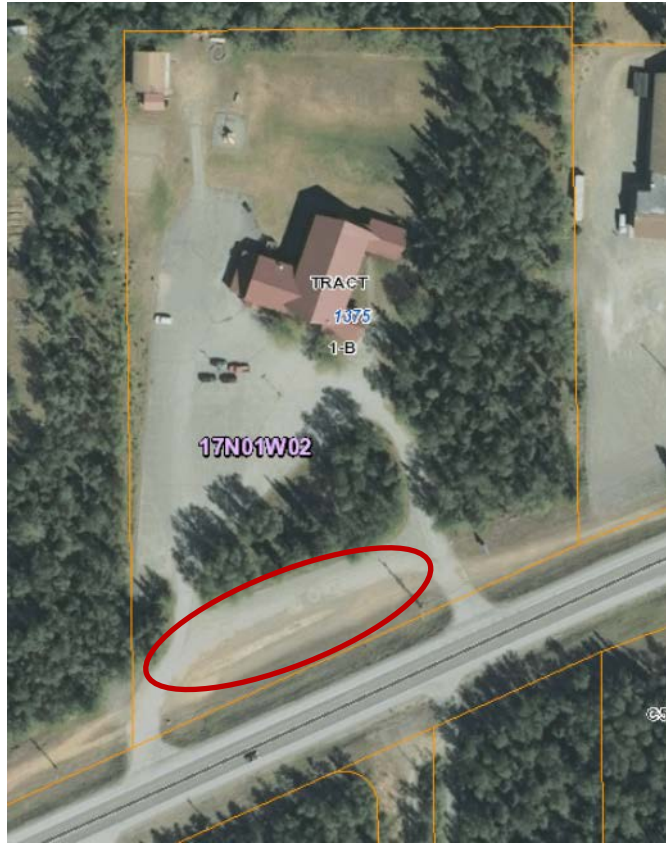


Cottonwood Creek Stormwater Analysis Deficiencies



Cottonwood Creek Stormwater Analysis
Deficiencies

FIRST PRESBYTERIAN CHURCH: Peck St. and Bogard Rd. (Deficiency ID 4)

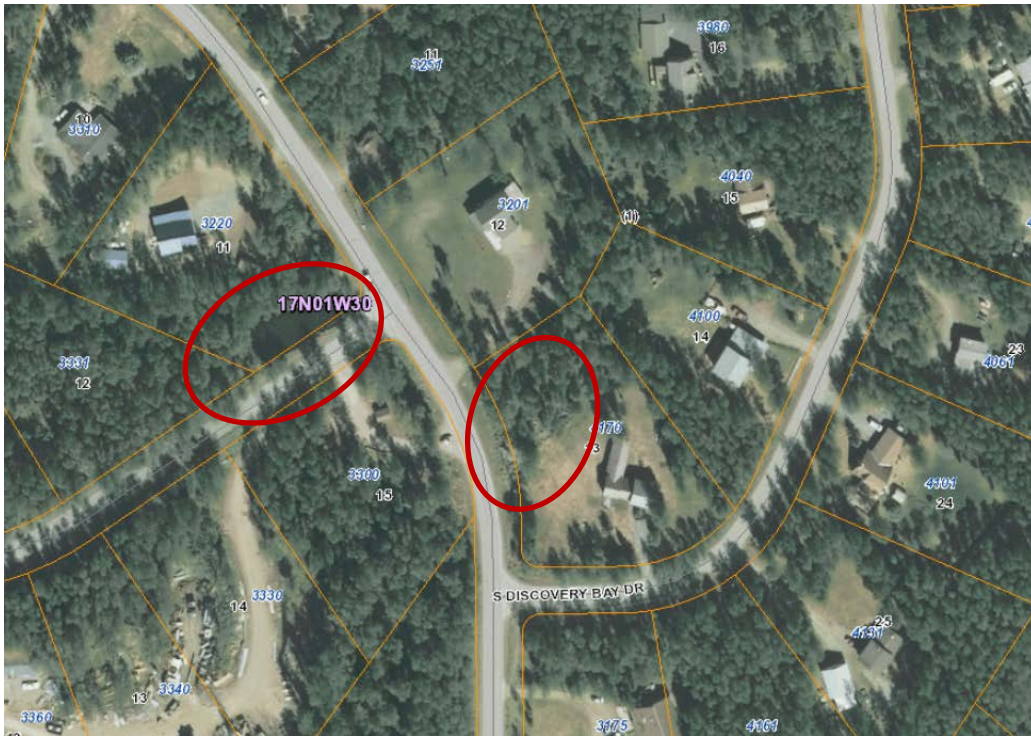


Cottonwood Creek Stormwater Analysis
Deficiencies



Cottonwood Creek Stormwater Analysis
Deficiencies

CORNER OF LORD BARANOF AND RIVERDALE: East of Fairview Loop. (Deficiency IDs 9 and 10)



Cottonwood Creek Stormwater Analysis
Deficiencies



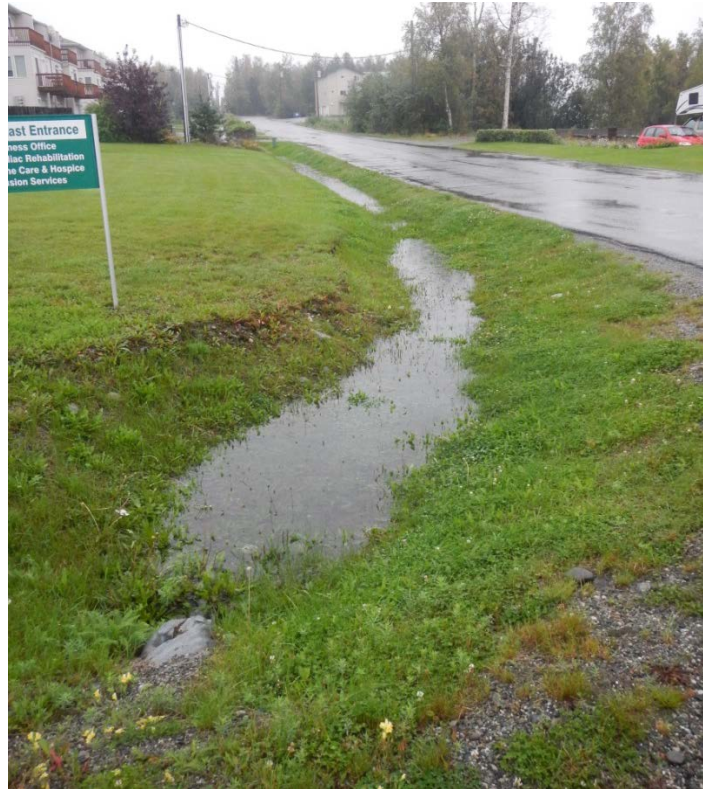
Cottonwood Creek Stormwater Analysis
Deficiencies

DITCHES ALONG FAIRVIEW LOOP: From KGB to approximately Birch Meadows. (photos are along Fairview Loop between Top of the World Circle and Old Knik Road) (Deficiency IDs 4 and 5)



Cottonwood Creek Stormwater Analysis
Deficiencies

PECK ST. AND LAKESHORE: Residential neighborhood along Peck and Mat-Su Regional Outpatient Center. (Deficiency IDs 2 and 3)



Cottonwood Creek Stormwater Analysis
Deficiencies

BOGARD ROAD: Between Seldon Road and Seward Meridian. “Word of Faith Assembly” between Seward Meridian and Tait. (Deficiency ID 5)



BOGARD ROAD AND SELDON: Crossroads Center - NE quadrant – somewhat east of, not right at, intersection



Cottonwood Creek Stormwater Analysis
Deficiencies

PALMER WASILLA HIGHWAY, SOUTH SIDE, EAST OF KNIK-GOOSE BAY ROAD. Flow occurs in ATV track rather than in the rock line ditch constructed for drainage. (Deficiency ID 13)



Cottonwood Creek Stormwater Analysis
Deficiencies

DISCHARGE FROM FERN STREET DITCH TO COTTONWOOD CREEK. Runoff collected by ditches along the Palmer Wasilla Highway, south side, east of Knik-Goose Bay Road, and from Knik-Goose Bay Road south of the Palmer Wasilla Highway discharges to Cottonwood Creek. Although riparian area exists through which the flow can attenuate and sediment settle out, there is evidence of channelization and sediment reaching the creek. (Deficiency ID 13)



Cottonwood Creek Stormwater Analysis
Deficiencies

DOWNSLOPE TO AND BRIDGE ON EARL ROAD. This one-lane bridge on a neighborhood road has no curbing. runoff, including sediment from street sanding, can drain directly into the creek. (Deficiency ID 11)



Cottonwood Creek Stormwater Analysis
Deficiencies

Outfall from culvert under Palmer-Wasilla Highway near Railroad Trestle. This discharge from a detention pond on the northwest side of the Palmer-Wasilla Highway runs down a slope (steeper than 2 horizontal to 1 vertical) for 50 feet, picking up sediment before discharging into Cottonwood Creek. (Deficiency ID 12)



24-inch culvert outlet (draped in geotextile)



Upgradient detention pond (outlet in upper center of photo)



Point of discharge to creek (mid-left) and sediment plume (lower right)

APPENDIX G

Cost Estimates

Cottonwood Creek Stormwater Analysis
North Clayton ROW
Cost Estimate for Channel and Bioretention

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended Price
			10Y	10Y
Design (15% of construction cost)				\$ 7,742
ROW Acquisition			not included	
Utility Relocation			not included	
Construction				
Seeding, Seed Mix D	MSF	\$ 755.00	4.2	\$ 3,137
Bioretention planting	SF	\$ 12.50	1,311	\$ 16,388
Topsoil (4" depth)	MSF	\$ 685.00	4.2	\$ 2,846
Amended planting soil (3-ft depth; includes excavation)	CY	\$ 180.00	146	\$ 26,220
Energy dissipation (Class I riprap)	Ton	\$ 150.00	13	\$ 2,000
Swale geogrid	SY	\$ 4.00	220	\$ 880
Subtotal Construction				\$ 51,611
Construction Engineering & Administration (15%)				\$ 7,289
Subtotal Construction and CEA				\$ 58,899
Contingency at		30%		\$ 17,670
Total including design, construction, and contingency				\$ 84,311
			rounded:	\$ 85,000

**Cottonwood Creek Stormwater Analysis
 Bogard Road First Presbyterian Church
 Cost Estimate for Bioretention Areas**

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended price
			100Y	100Y
Design (15% of construction cost)				\$ 29,478
ROW Acquisition			not included	
Utility Relocation			not included	
Construction				
Seeding, seed mix D	MSF	\$ 755.00	6.02	\$ 4,543
Bioretention planting	SF	\$ 12.50	17,260	\$ 215,751
Topsoil (4" depth)	MSF	\$ 685.00	6.02	\$ 4,122
Amended planting soil (3-ft depth; includes excavation)	CY	\$ 180.00	1,918	\$ 345,202
Subtotal Construction				\$ 569,617
Construction Engineering & Administration (15%)				\$ 85,443
Subtotal Construction and CEA				\$ 655,060
Contingency at		30%		\$ 196,518
Total including design, construction, and contingency				\$ 881,055
			rounded:	\$ 882,000

Cottonwood Creek Stormwater Analysis
Bogard Road between Seldon Road and Seward Meridian Parkway
Cost Estimate for Bioretention Areas

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended Price
			100Y	100Y
Design (15% of construction cost)				\$ 48,548
ROW Acquisition				not included
Utility Relocation				not included
Construction				
Seeding, Seed Mix D	MSF	\$ 755	8	\$ 5,721
Bioretention planting	SF	\$ 13	28,529	\$ 356,618
Topsoil (4" depth)	MSF	\$ 685	8	\$ 5,191
Amended planting soil (3-ft depth; includes excavation)	CY	\$ 180	3,170	\$ 570,589
Subtotal Construction				\$ 938,119
Construction Engineering & Administration (15%)				\$ 140,718
Subtotal Construction and CEA				\$ 1,078,836
Contingency at		30%		\$ 323,651
Total including design, construction, and contingency				\$ 1,451,035
			rounded:	\$ 1,452,000

Cottonwood Creek Stormwater Analysis
NE Corner of Bogard Road and Seldon Road
Cost Estimate for Bioretention Areas

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended Price
			10Y	10Y
Design (15% of construction cost)				\$ 30,341
ROW Acquisition			not included	
Utility Relocation			not included	
Construction				
Seeding, Seed Mix D	MSF	\$ 755.00	6.1	\$ 4,583
Bioretention planting	SF	\$ 12.50	17,771	\$ 222,138
Topsoil (4" depth)	MSF	\$ 685.00	6.1	\$ 4,158
Amended planting soil (3-ft depth; includes excavation)	CY	\$ 180.00	1,975	\$ 355,421
Subtotal Construction				\$ 586,300
Construction Engineering & Administration (15%)				\$ 87,945
Subtotal Construction and CEA				\$ 674,245
Contingency at		30%		\$ 202,274
Total including design, construction, and contingency				\$ 906,860
			rounded:	\$ 907,000

Cottonwood Creek Stormwater Analysis
Earl Street Bridge
Cost Estimate for Drainage Retrofit

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended Price
			all events	all events
Design (15% of construction cost)				\$ 1,945
ROW Acquisition			not included	
Utility Relocation			not included	
Construction				
Asphalt	TN	\$ 160	9	\$ 1,462
PCC curb	LF	\$ 80	102	\$ 8,160
vegetate down channel:				
Topsoil (4" depth)	MSF	\$ 685	0	\$ 164
Seeding, Seed Mix D	MSF	\$ 755	0	\$ 181
Additional planting	SF	\$ 13	240	\$ 3,000
Subtotal Construction				\$ 12,968
Construction Engineering & Administration (15%)				\$ 1,468
Subtotal Construction and CEA				\$ 14,436
Contingency at		30%		\$ 4,331
Total including design, construction, and contingency				\$ 20,712
			rounded:	\$ 21,000

Cottonwood Creek Stormwater Analysis
Detention Basin Outfall downstream of railroad trestle
Cost Estimate for Channel Rehabilitation

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended Price
			10Y	10Y
Design (15% of construction cost)				\$ 4,212
ROW Acquisition			not included	
Utility Relocation			not included	
Construction				
Seeding, seed mix D	MSF	\$ 755	0	\$ 370
Bioretention planting	SF	\$ 13	490	\$ 6,125
Topsoil (4" depth)	MSF	\$ 685	0	\$ 336
Amended planting soil (3-ft depth; includes excavation)	CY	\$ 180	54	\$ 9,800
Class I riprap	TN	\$ 150	75	\$ 11,250
Geogrid	SY	\$ 4	50	\$ 200
Subtotal Construction				\$ 28,081
Construction Engineering & Administration (15%)				\$ 2,495
Subtotal Construction and CEA				\$ 30,575
Contingency at		30%		\$ 9,173
Total including design, construction, and contingency				\$ 43,960
			rounded:	\$ 44,000

Cottonwood Creek Stormwater Analysis
Fern Street outfall
Cost Estimate for Flow Spreader

date: 5/1/2017
 by: mel

Cost Item	Units	Unit price	Quantity	Extended Price
			all events	all events
Design (15% of construction cost)				\$ 1,774
ROW Acquisition				not included
Utility Relocation				not included
Construction				
Seeding, Seed Mix D	MSF	\$ 755	1	\$ 491
Topsoil (4" depth)	MSF	\$ 685	1	\$ 445
Excavation	CY	\$ 40	8	\$ 333
Aggregate	TN	\$ 40	17	\$ 667
Geotextile	SY	\$ 4	83	\$ 292
Riparian area planting	EA	\$ 60	160	\$ 9,600
Subtotal Construction				\$ 11,828
Construction Engineering & Administration (15%)				\$ 140
Subtotal Construction and CEA				\$ 11,968
Contingency at		30%		\$ 3,590
Total including design, construction, and contingency				\$ 17,333
			rounded:	\$ 18,000