Hydrology Report

Cedar Mill Creek – CLOMR

November 2020, Draft

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WASHINGTON COUNTY OREGON

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Table of Contents

1 Introduction 1-1
1.1 Study Area 1-1
1.2 Purpose of Study 1-3
1.3 Type of Flooding 1-3
1.4 Flooding History 1-3
2 Study Area Characteristics 2-3
2.1 Hydrologic Region 2-3
2.2 Watershed Size 2-3
2.3 Soils and Topography 2-3
2.4 Rainfall and Climate 2-7
2.5 Land Use 2-7
2.6 Sub-Basins 2-9
3 Approach & Methodology 3-12
3.1 Methodology 3-12
3.1.1 Rainfall 3-12
3.1.2 Rainfall Losses 3-14
3.1.3 Sub-Basin Response 3-18
3.1.4 Routing 3-19
3.1.5 Channel Storage 3-19
3.1.6 Reservoir Storage 3-19
3.1.7 Calibration Approach 3-20
3.2 Assumptions 3-21
3.3 Gages 3-21
4 Supporting Information 4-21
5 Discharge Comparison 5-21
6 Discharge Summary 6-22
7 References 7-23

Appendices

Appendix A Data Files

Tables

Table 2-1 Cedar Mill Creek Watershed Soils 2-5
Table 3-1 Design Storm Events 3-13
Table 3-2 Impervious Percentage By Zoning 3-15
Table 3-3 Depression Storage Parameters 3-18
Table 3-4 Manning's 'n' Values 3-19
Table 5-1 100-year Discharge Comparison 5-21
Table 6-1 Summary of Discharges 6-22

Figures

Figure 1-1 Cedar Mill Creek Watershed Map 1-2
Figure 2-1 Cedar Mill Creek Soil Map 2-4
Figure 2-2 Cedar Mill Creek Topography 2-6
Figure 2-3 Cedar Mill Creek Development Map 2-8
Figure 2-4 Cedar Mill Creek Sub-Basin Map 2-10
Figure 2-5 Sub-Basin Sample 2-11
Figure 3-1 Bonny Slope School Rainfall 3-12
Figure 3-2 NRCS Type 1A Hydrograph 3-13
Figure 3-3 2005 Impervious Percentage 3-16
Figure 3-4 2019 Impervious Percentage 3-17
Figure 3-5 Model Calibration Hydrograph 3-20
Figure 6-2 North Johnson Creek Hydrographs 6-23

Acronyms

1D	One Dimensional
DEM	Digital Elevation Model
DOGAMI	Oregon Department of Geology & Mineral Industries
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIS	Flood Insurance Study
GIS	Geographic Information System
HU	Hydrologic Unit
LiDAR	Light Detection and Ranging
NFIP	National Flood Insurance Program
NRCS	USDA Natural Resource Conservation Service
RLIS	Metro's Regional Land Information System
SWMM	Storm Water Management Model
USDA	United States Department of Agriculture
USGS	United States Geological Survey

1 Introduction

1.1 Study Area

The Cedar Mill Creek Watershed is in Washington County, Oregon and is contained within USGS Hydrologic Unit (HU) 170900100401 (Beaverton Creek). Highway 26 runs perpendicular to the creek through the northern half of the watershed. The watershed contains the sub-watershed for North Johnson Creek with both creeks running through the cities of Portland and Beaverton. The watershed terminates at the confluence of Cedar Mill Creek and Beaverton Creek at the Tualatin Hills Nature Park (See Figure 1-1).

This study was performed in response to several bridge and channel improvement projects proposed by Washington County along Cedar Mill Creek and its tributary North Johnson Creek. This study will be used for the remapping of the floodplains for these creeks between Highway 26 and the confluence of Cedar Mill Creek and Beaverton Creek.

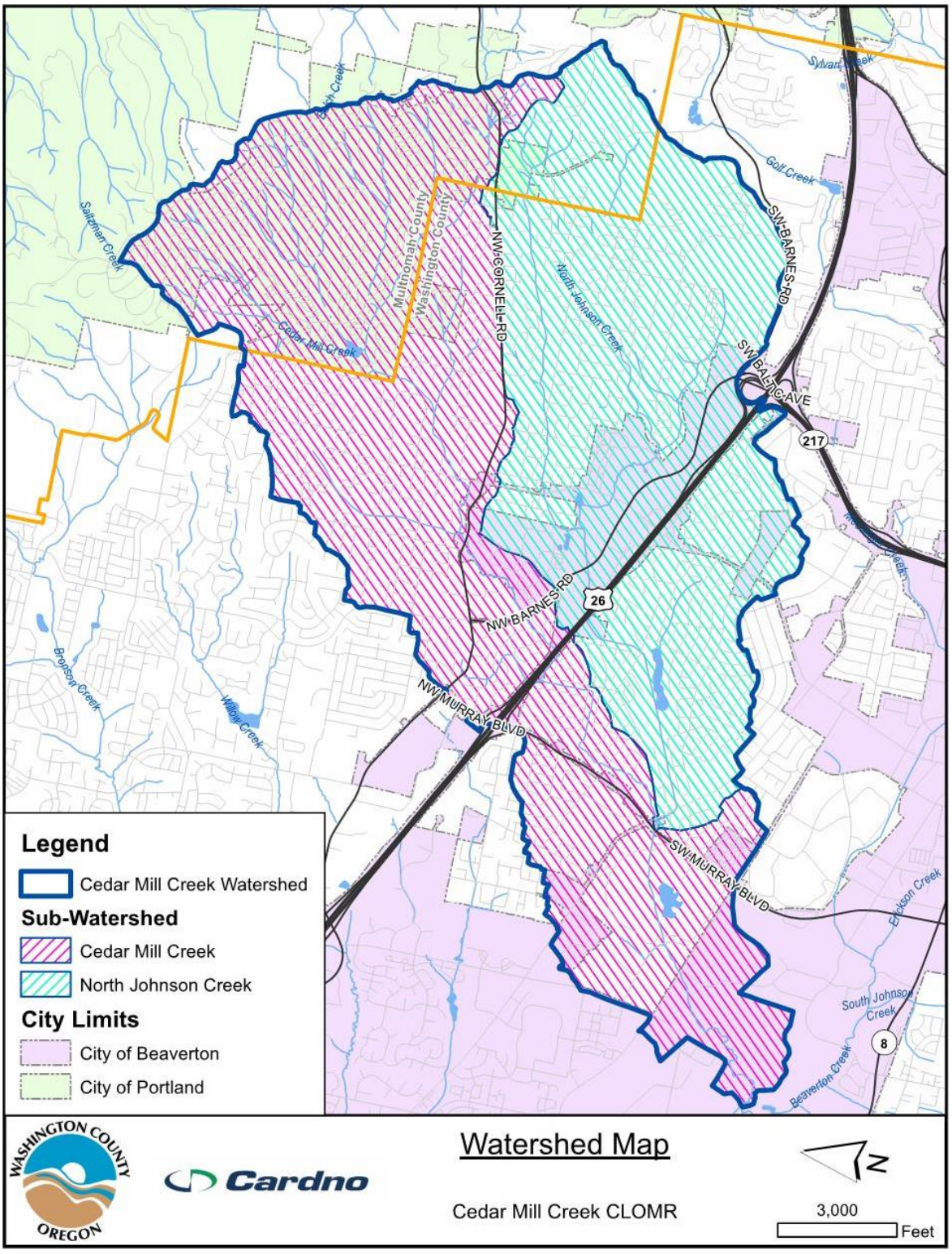


Figure 1-1 Cedar Mill Creek Watershed Map

1.2 Purpose of Study

The purpose of this study is to take advantage of improved hydrologic analysis methodology, and utilize the availability of better information including gage data and storm sewer mapping in order to provide greater accuracy in flood prediction for the study area. This study is intended to only support hydraulic analysis conducted in the proposed remapping of the Cedar Mill Creek and North Johnson Creek floodplains between Highway 26 and Beaverton Creek. However, this analysis is expanded across the watershed in order to allow for better hydrologic data for use in future mapping efforts.

1.3 Type of Flooding

The entire study area is riverine without any tidal influences, with sources of flooding occurring from riverine flow. The downstream boundary of the watershed at Beaverton Creek is roughly 55 miles east of the Pacific Ocean and roughly 79 miles southeast of the mouth of the Columbia River.

1.4 Flooding History

Reports of flooding along Cedar Mill and North Johnson Creek are nearly annual in some locations as winter storms hit the watershed. The watershed is highly urbanized and responds quickly to short, high intensity storms which cause a quick, dramatic rise in water surface elevations in the channels. Issues are most present between Beaverton Creek and Barnes Road where the channel transitions from the steep hillslopes to lowland areas, and the creek flows overtop their banks consistently through this reach.

2 Study Area Characteristics

2.1 Hydrologic Region

The Cedar Mill Creek Watershed lies within the Pacific Northwest Hydrologic Region, in the Willamette River Basin, Tualatin Subbasin, Rock Creek-Tualatin River Watershed, and the Beaverton Creek Sub-watershed (HU 170900100401).

2.2 Watershed Size

At the downstream boundary of the Cedar Mill Creek Watershed at Beaverton Creek, the watershed encompasses approximately 8.5 square miles and included portions of the City of Portland, and the City of Beaverton.

2.3 Soils and Topography

The Cedar Mill Creek Watershed is composed of predominantly silt loams with isolated areas of clay loam. Table 2-1 below quantifies the soils present in the watershed and their respective percentage of cover, and Figure 2-1 shows the spatial distribution of soil types across the watershed.

The watershed slopes downward from the northeast to the southwest, with a maximum elevation of 1283.5 feet (NAVD 88), a minimum elevation of 160.1 feet (NAVD 88), an average channel slope of 3%, and an average basin slope of 15%. Figure 2-2 shows the elevation contours across the watershed at 100 foot intervals.

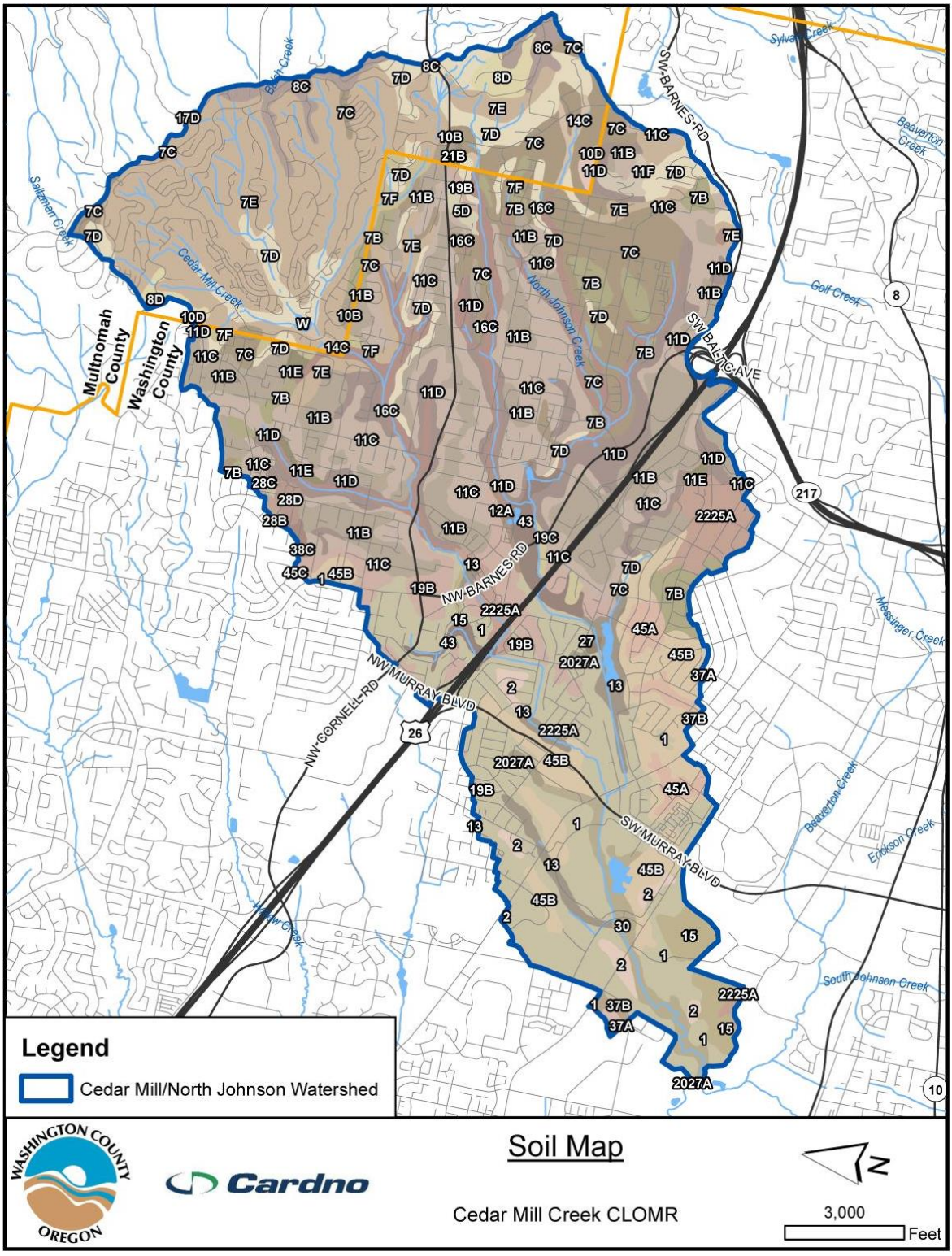


Figure 2-1 Cedar Mill Creek Soil Map

Table 2-1 Cedar Mill Creek Watershed Soils

USGS Map Unit Symbol	USGS Map Unit Name	Ksat	ψ_s	θ_{dmax}	Coverage Area (ac)	Percent of Total Coverage
1	Aloha silt loam	1.28	6.57	0.2	723.6	13.3%
2	Amity silt loam	1.28	6.57	0.2	39.6	0.7%
13	Cove silty clay loam	0.43	10.75	0.2	80.1	1.5%
15	Dayton silt loam	1.28	6.57	0.22	68.3	1.3%
27	Labish mucky clay	0.13	6.57	0.24	3.2	0.1%
30	McBee silty clay loam	1.28	6.57	0.2	77.0	1.4%
43	Wapato silty clay loam	1.13	10.75	0.2	64.3	1.2%
10B	Cornelius silt loam, 3 to 8 percent slopes	1.28	6.57	0.22	9.7	0.2%
10D	Cornelius silt loam, 15 to 30 percent slopes	1.28	6.57	0.22	9.9	0.2%
11B	Cornelius and Kinton silt loams, 2 to 7 percent slopes	1.28	6.57	0.22	617.7	11.4%
11C	Cornelius and Kinton silt loams, 7 to 12 percent slopes	1.28	6.57	0.22	606.2	11.2%
11D	Cornelius and Kinton silt loams, 12 to 20 percent slopes	1.28	6.57	0.22	258.7	4.8%
11E	Cornelius and Kinton silt loams, 20 to 30 percent slopes	1.28	6.57	0.22	17.5	0.3%
11F	Cornelius and Kinton silt loams, 30 to 60 percent slopes	1.28	6.57	0.22	16.5	0.3%
12A	Cornelius variant silt loam, 0 to 3 percent slopes	1.28	6.57	0.2	7.6	0.1%
14C/16C	Delena silt loam, 3 to 12 percent slopes	1.28	6.57	0.2	266.2	4.9%
17D	Goble silt loam, 15 to 30 percent slopes	1.28	6.57	0.45	0.1	0.0%
19B	Helvetia silt loam, 2 to 7 percent slopes	52.9	6.57	0.2	167.8	3.1%
19C	Helvetia silt loam, 7 to 12 percent slopes	1.28	6.57	0.2	11.4	0.2%
2027A	Verboort silty clay loam, 0 to 3 percent slopes	1.28	10.75	0.22	10.2	0.2%
21B	Helvetia silt loam, 3 to 8 percent slopes	1.28	6.57	0.2	2.5	0.0%
2225A	Huberly silt loam, 0 to 3 percent slopes	1.28	6.57	0.2	116.6	2.1%
28B	Laurelwood silt loam, 3 to 7 percent slopes	1.13	6.57	0.2	6.2	0.1%
28C	Laurelwood silt loam, 7 to 12 percent slopes	1.28	6.57	0.2	3.6	0.1%
28D	Laurelwood silt loam, 12 to 20 percent slopes	1.28	6.57	0.2	13.1	0.2%
37A	Quatama loam, 0 to 3 percent slopes	1.28	6.57	0.17	4.9	0.1%
37B	Quatama loam, 3 to 7 percent slopes	1.28	6.57	0.17	7.5	0.1%
38C	Saum silt loam, 7 to 12 percent slopes	1.28	6.57	0.2	6.3	0.1%
45A	Woodburn silt loam, 0 to 3 percent slopes	1.28	6.57	0.2	61.2	1.1%
45B	Woodburn silt loam, 3 to 7 percent slopes	1.28	6.57	0.2	289.9	5.3%
45C	Woodburn silt loam, 7 to 12 percent slopes	1.28	6.57	0.2	0.2	0.0%
5D	Briedwell stony silt loam, 12 to 20 percent slopes	1.28	6.57	0.16	10.4	0.2%
7B	Cascade silt loam, 3 to 7 percent slopes	1.28	6.57	0.19	128.8	2.4%
7B	Cascade silt loam, 3 to 8 percent slopes	1.28	6.57	0.19	9.1	0.2%
7C	Cascade silt loam, 7 to 12 percent slopes	1.28	6.57	0.19	284.9	5.2%
7C	Cascade silt loam, 8 to 15 percent slopes	1.28	6.57	0.19	112.2	2.1%
7D	Cascade silt loam, 12 to 20 percent slopes	1.28	6.57	0.19	105.3	1.9%
7D	Cascade silt loam, 15 to 30 percent slopes	1.28	6.57	0.19	196.7	3.6%
7E	Cascade silt loam, 20 to 30 percent slopes	1.28	6.57	0.19	87.6	1.6%
7E	Cascade silt loam, 30 to 60 percent slopes	1.28	6.57	0.19	800.9	14.7%
8C	Cascade-Urban land complex, 8 to 15 percent slopes	1.28	6.57	0.19	81.6	1.5%
8D	Cascade-Urban land complex, 15 to 30 percent slopes	1.28	6.57	0.19	44.1	0.8%
W	Water	-	-	-	2.6	0.0%
		Total			**5432.1**	**100.0%**

For the purposes of analysis, the Water map unit is considered to be impervious area.

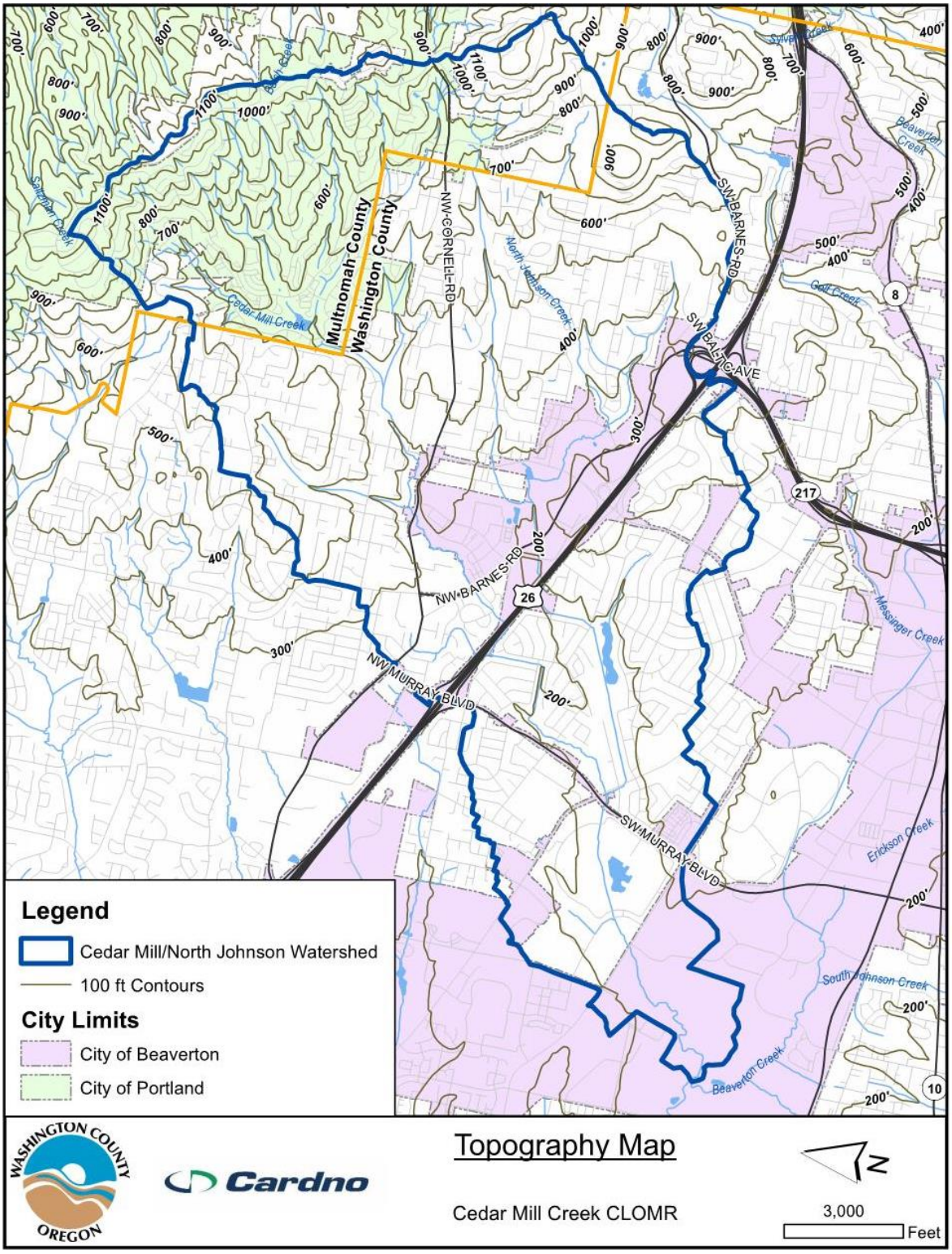


Figure 2-2 Cedar Mill Creek Topography

2.4 Rainfall and Climate

The City of Beaverton sees an average annual precipitation of 39.1 inches based on data from the area with a period of record of October 1972 to March 2007. This data has been processed and statistics reported by the Desert Research Institute's Western Regional Climate Center (https://wrcc.dri.edu/).

2.5 Land Use

Based on land use coverage available for the Portland Metro Area through Metro's Regional Land Information System (RLIS), the Cedar Mill Creek watershed is roughly 88% developed as of the summer of 2019. The watershed has seen at least 54% of the total undeveloped area become developed since the winter of 2005 with only 78% of the watershed being developed at that time. Figure 2-3 illustrates the extent of development between 2005 and 2019.

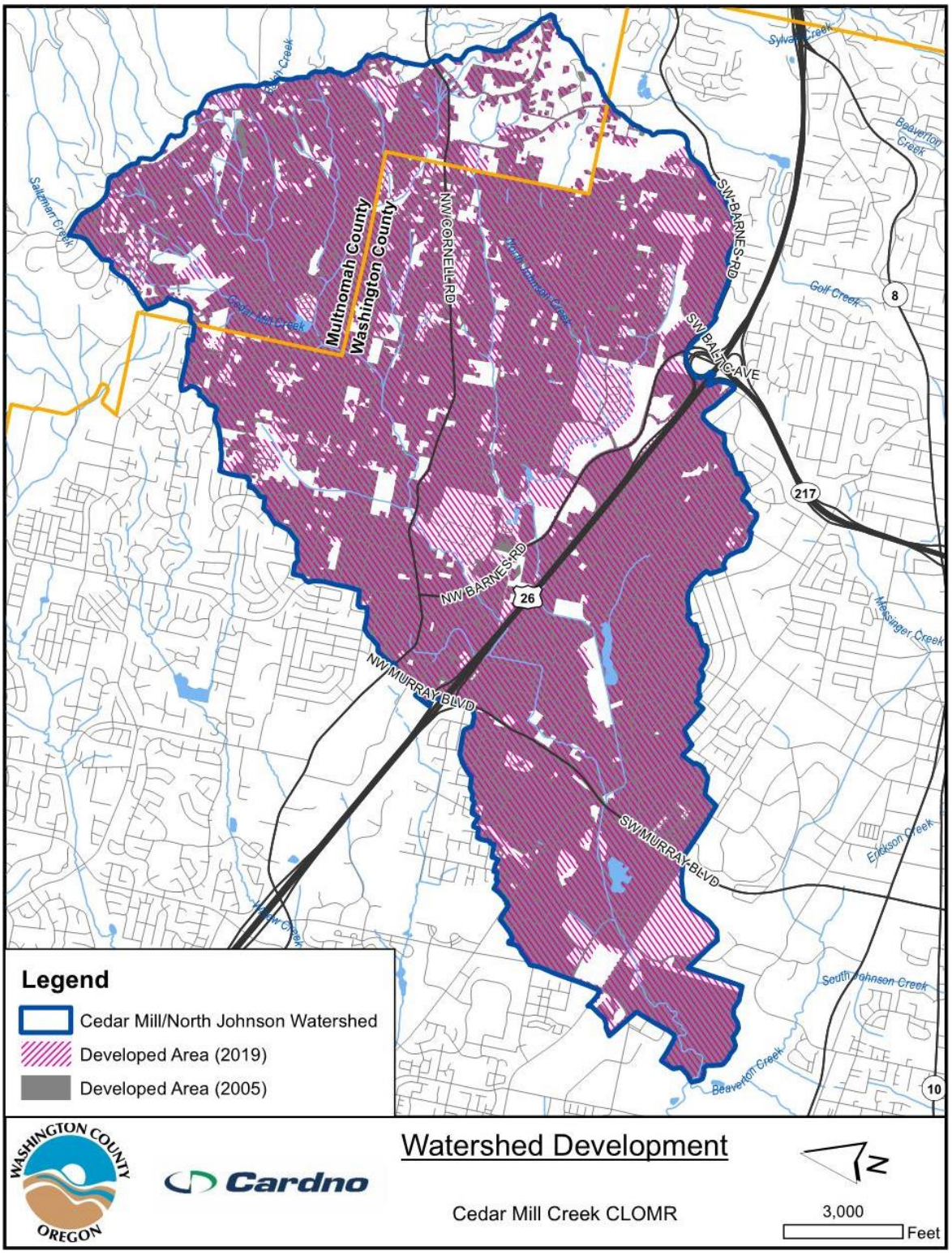


Figure 2-3 Cedar Mill Creek Development Map

2.6 Sub-Basins

Sub-basins were delineated corresponding to modeled points of connection to the storm sewer system and for key discharge locations within the Cedar Mill Creek watershed. Sub-basins were delineated by hand using topographic data from a digital elevation model (DEM) developed from high-resolution light detection and ranging (LiDAR) collected and compiled in 2014 by the Oregon Department of Geology & Mineral Industries (DOGAMI) for the Portland Metro area. Specifically, the data for the USGS 7.5 minute quadrangles 45122D7 and 45122E7 were used for this study.

Figure 2-4 outlines the Cedar Mill Creek Watershed, illustrating the coverage of the study area and sub-basin extent. Figure 2-5 provides a representative sample of the sub-basin coverage within the study area and illustrating the correlation with the hydrologic model geometry.

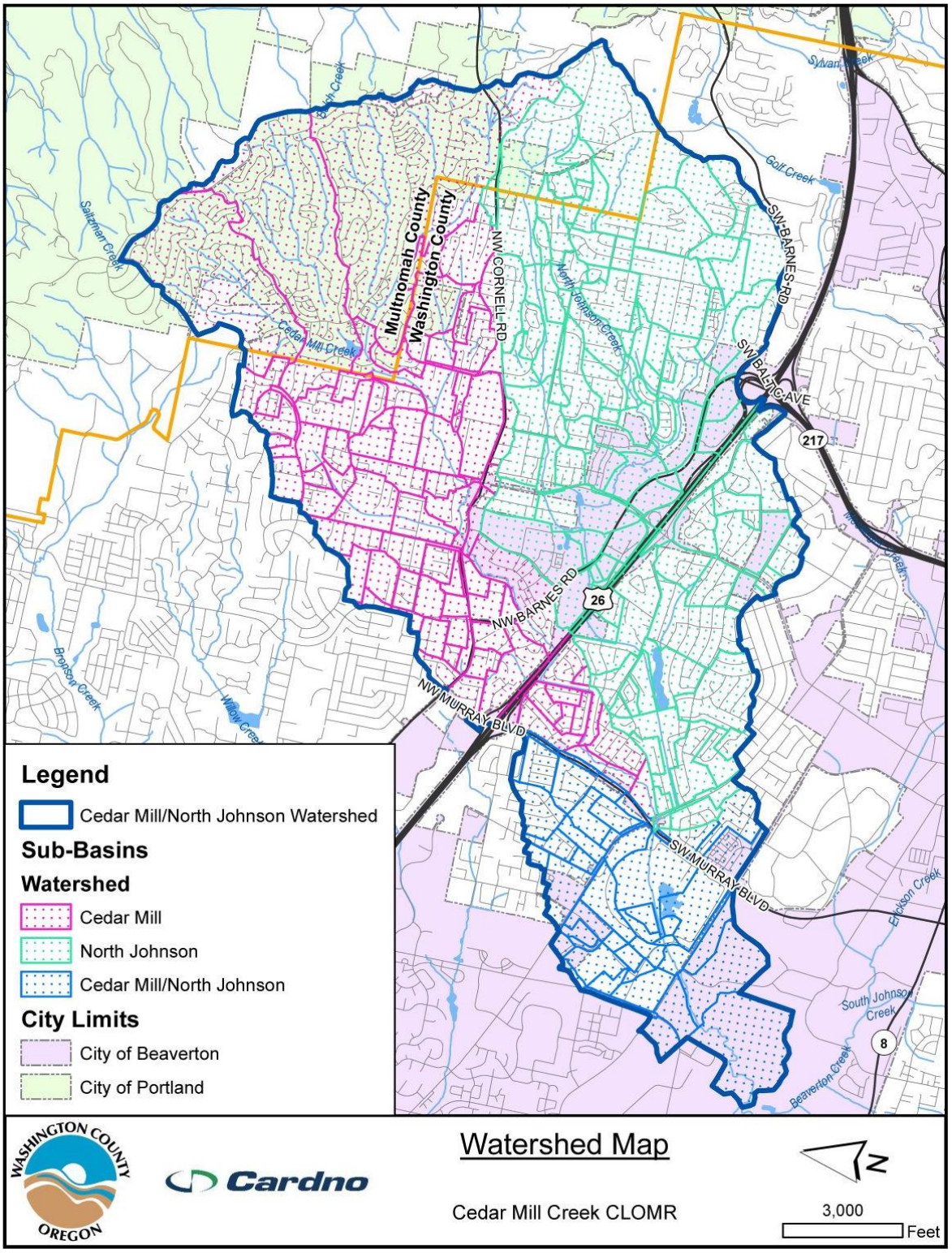


Figure 2-4 Cedar Mill Creek Sub-Basin Map

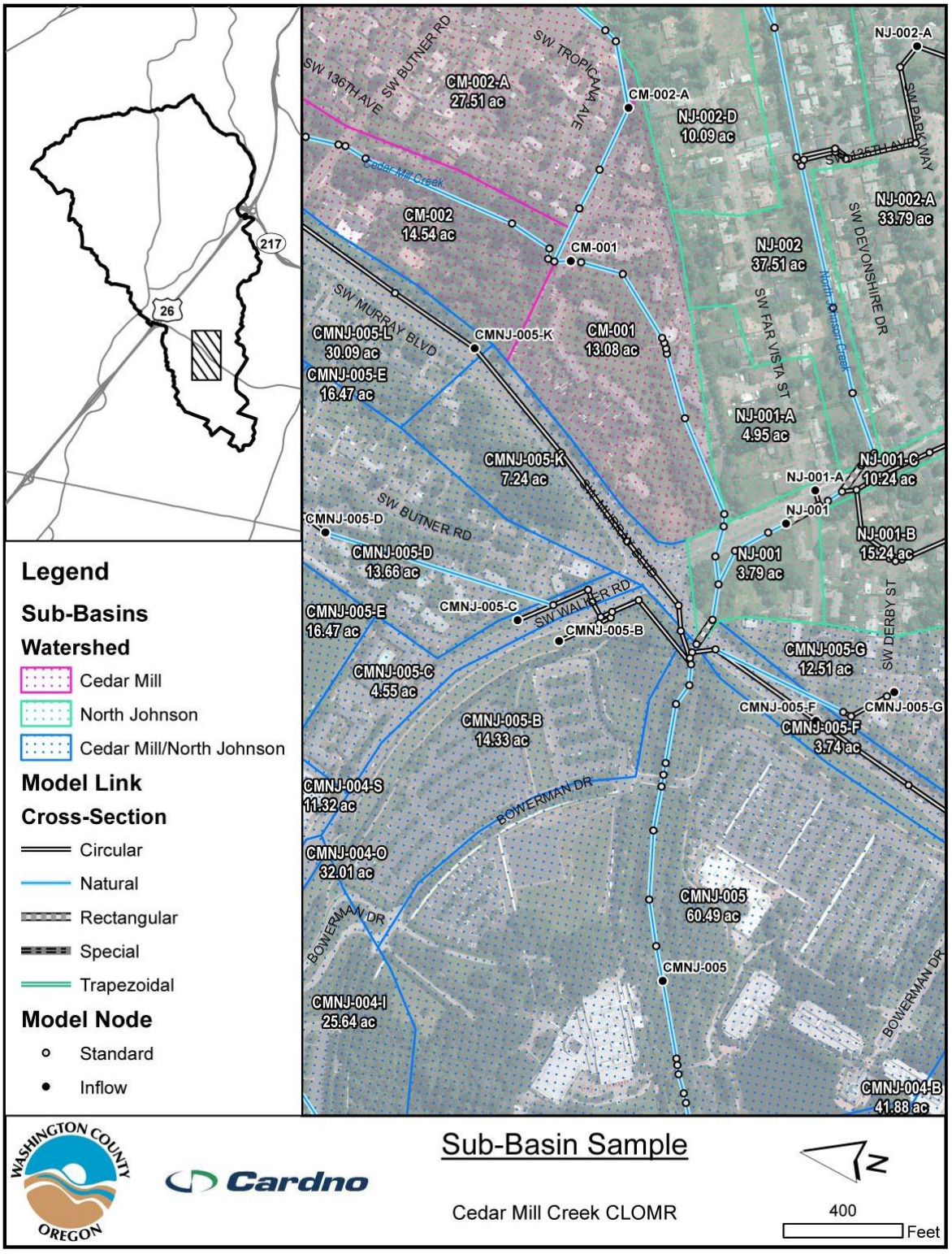


Figure 2-5 Sub-Basin Sample

3 Approach & Methodology

3.1 Methodology

Flows for the Cedar Mill Creek study area were calculated using a rainfall-runoff model. The model chosen for use is an XPSWMM version 19.3.5 one dimensional (1D) hydrologic and hydraulic model. A 1D model uses governing equations to solve for depth of flow, which is the single dimension which gives the model its classification. When considering unsteady flows along structures – such as through culverts, around bridges, or over weirs – upstream and downstream boundary conditions are used in order to see the change in flow when water moves through them.

XPSWMM is based on the EPA SWMM model developed in the 1970's as a comprehensive urban runoff model for event based simulation, and updated to include continuous simulation. XPSWMM was selected for its user friendly model development, report generation, ability to import and export GIS shapefiles, data management tools, and due to existing models of the study area having been developed previously in XPSWMM. XPSWMM version 8.52 and up is a nationally accepted hydrologic model that meets the minimum requirement of the National Flood Insurance Program (NFIP). Following NFIP guidelines, the model was calibrated to observed flows before calculating annual peak flood return interval flows.

3.1.1 Rainfall

Rainfall data used in the calibration of the XPSWMM model was collected from the rain gage at Bonny Slope School, located at 10351 NW Thompson Road, in Portland, Oregon. Data was gathered for a period of record from 12/16/2005 0:00 to 1/1/2006 23:00 and was used for calibration of the model. The gage was retired in 2017, and replaced by a new gage at 11775 NW McDaniel Road, in Portland, Oregon. Figure 3-1 illustrates the measured rainfall distribution from the Bonny Slope School gage.

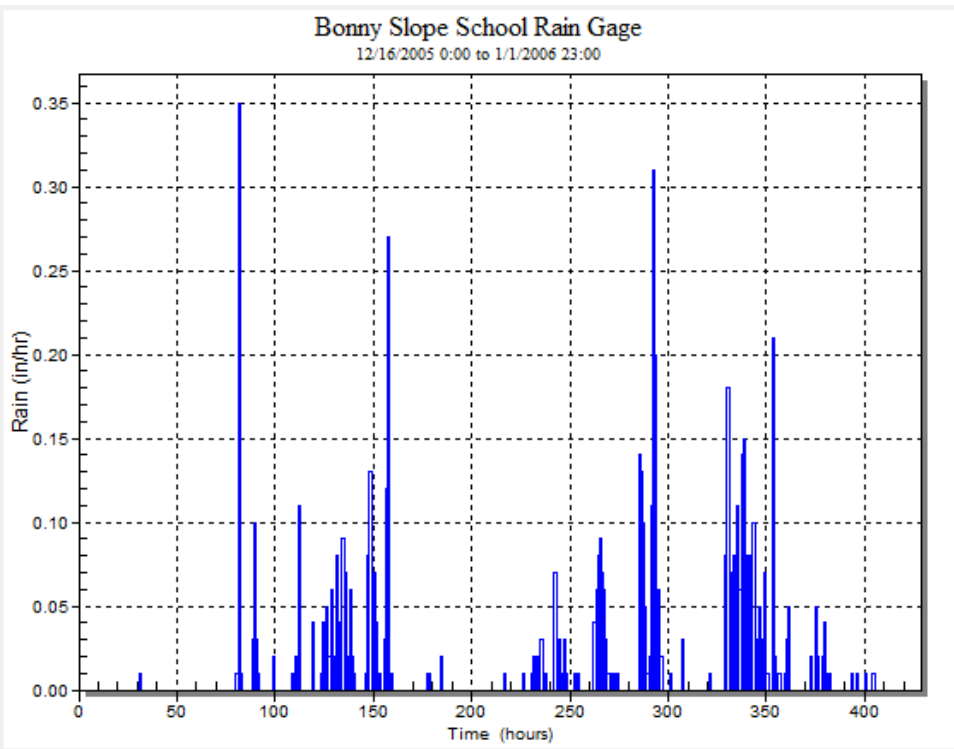


Figure 3-1 Bonny Slope School Rainfall

Design event storms were determined using the *Clean Water Services Design and Construction Standards for Sanitary Sewer and Surface Water Management* as required by Washington County and the City of Beaverton and correspond to 24-hour rainfall depths. Table 3-1 outlines the design storm depths used for the hydrologic analysis. The 500-year 24-hour rainfall depth, which is not published in the Design Standards, was taken from the published value in the *Hydrologic Modeling for the Watersheds 2000 Project* revised in June 2003.

Table 3-1 Design Storm Events

Return Interval	24-hour Design Depth (inches)
2-year	2.50
5-year	3.10
10-year	3.45
25-year	3.90
50-year	4.20
100-year	4.50
500-year	5.20

Following Washington County requirements, all design storm events were given the temporal distribution of an NRCS Type 1A 24-hour unit hydrograph. This hydrograph was input in a tabular format into XPSWMM and multiplied by the respective design depth for each run to generate the input rainfall. Figure 3-2 illustrates a typical Type 1A distribution.

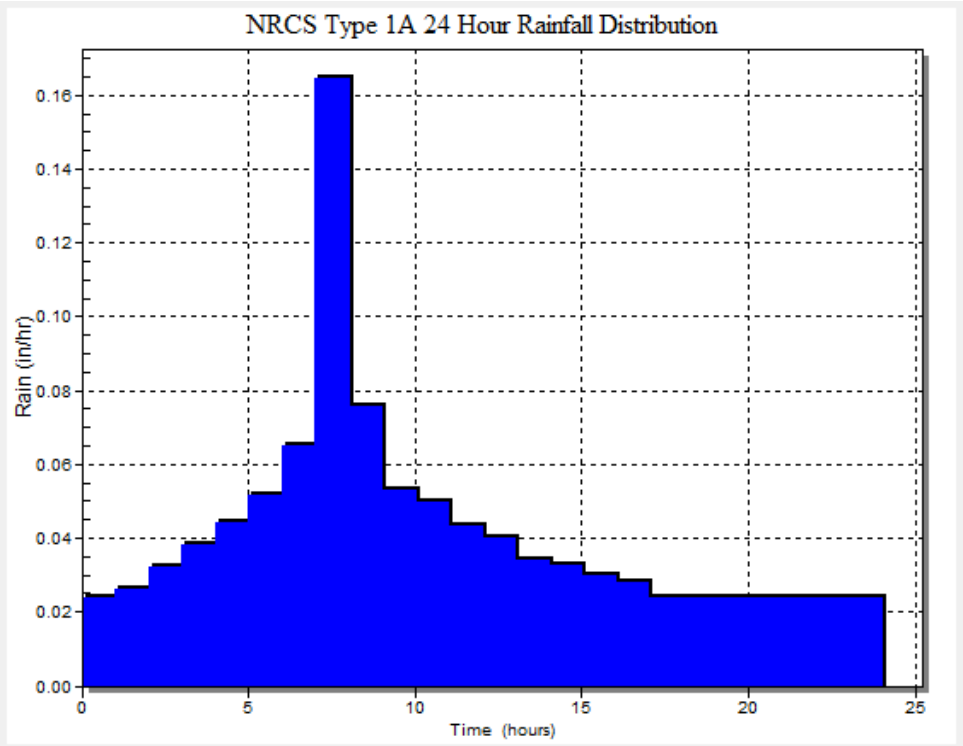


Figure 3-2 NRCS Type 1A Hydrograph

3.1.2 Rainfall Losses

Rainfall losses are calculated in the XPSWMM runoff module using EPA SWMM Runoff methodology with Green-Ampt infiltration.

This method was chosen due to the level of detain in which the parameters for each sub-basin could be quantified from available GIS data. The overall calculated losses are dependent on several factors including underlying soil type, vegetative cover, and impervious area. Each of these factors are spatially discrete and available in GIS format through means of land cover inventory, NRCS soil information, and zoning information. This allowed for batch calculation of each parameter for each sub-basin with relatively little effort while providing a simple means of reproduction.

3.1.2.1 Green-Ampt Infiltration

The Green-Ampt equation was used to calculate infiltration losses for the pervious areas within the each sub-basin. The Green-Ampt equation is dependent on three independent variables which are defined for each sub-basin. These variables are saturated hydraulic conductivity (K_{sat}), the suction head at the wetting front (ψ_s), and the maximum soil moisture deficit (θ_{dmax}).

Saturated Hydraulic Conductivity (K_{sat})

The K_{sat} value used in the Green-Ampt equation is a physical property of the underlying soil. K_{sat} values for each sub-basin were determined using information from the NRCS Web Soil Survey. Table 2-1 provides the K_{sat} values used for each soil unit in the watershed.

Suction Head (ψ_s)

Suction head (ψ_s) is a physical property of the underlying soil in a watershed that accounts for the capillary suction potential of the soils. Values for ψ_s are higher in soils with a high content of fines like clays and lower in soils with a low fine content. ψ_s can be estimated through an inverse relationship with K_{sat} (Brakensiek et al., 1981) and is expressed through the following non-linear regression equation:

$$\psi_s = 3.237 K_s^{-0.328} \quad (R^2 = 0.9)$$

Table 2-1 provides the estimated ψ_s values used for each soil in the watershed.

Maximum Soil Moisture Deficit (θ_{dmax})

The maximum soil moisture deficit is defined as the difference between the moisture content at saturation and at the start of the simulation. Sandy soils tend to have lower porosities than clay soils, but drain to lower moisture contents between storms due in part to the decrease in surface area of the soil matrix. Values for θ_{dmax} were determined using information from the NRCS Web Soil Survey, defined as “Available Moisture Capacity.” Table 2-1 provides the reported θ_{dmax} values used for each soil in the watershed.

3.1.2.2 Impervious Area

Impervious areas for each sub-basin within the study area was determined based on aerial photographs and corresponding land use. Impervious percentages were estimated from aerial photos and assigned to homogenous zoning. Impervious percentages used for public spaces and parks were determined on a parcel specific basis in order to capture the dramatic variability in impervious percentage for these zones. Table 3-2 outlines the given zoning categories and their corresponding impervious percentages for non-special cases.

Table 3-2 Impervious Percentage By Zoning

Zone	Zoning ID	Impervious Percentage
Central Commercial	CC	90%
General Commercial	CG	90%
Neighborhood Commercial	CN	90%
Office Commercial	CO	90%
Industrial Campus	IC	90%
Light Industrial	IL	90%
Industrial Office	IO	50%
Multi-Family (15-20 Units Per Acre)	MFR2	80%
Multi-Family (21-25 Units Per Acre)	MFR3	85%
Multi-Family (31-35 Units Per Acre)	MFR5	90%
Multi-Family (46+ Units Per Acre)	MFR7	90%
Mixed Use Residential (4-10 Units Per Acre)	MUR1	80%
Mixed Use Residential (11-15 Units Per Acre)	MUR2	90%
Mixed Use Residential (11-15 Units Per Acre)	MUR2	50%
Mixed Use Residential (16-20 Units Per Acre)	MUR3	50%
Mixed Use Residential (21-25 Units Per Acre)	MUR4	75%
Mixed Use Residential (26-30 Units Per Acre)	MUR5	85%
Mixed Use Residential (31-35 Units Per Acre)	MUR6	90%
Mixed Use Residential (36-45 Units Per Acre)	MUR7	90%
Mixed Use Residential (46-60 Units Per Acre)	MUR8	90%
Rural Residential or Future Urban	RRFU	20%
Single Family (1 Unit Per Acre)	SFR1	15%
Single Family (15 Units Per Acre)	SFR15	85%
Single Family (2 Units per Acre)	SFR2	50%
Single Family (3 Units Per Acre)	SFR3	50%
Single Family (5 Units per Acre)	SFR5	50%
Single Family (6 Units per Acre)	SFR6	50%
Single Family (7 Units per Acre)	SFR7	50%
Single Family (9 Units per Acre)	SFR9	75%

Public right-of-way, which was not given a zoning classification, was assumed to be 95% impervious corresponding to urban street sections and highways. Values for Public Facilities (PF) range from 90% to 0%, and values for Parks/Open Space (POS) range from 85% to 0% depending on the presence of paved pathways and/or bodies of water.

Impervious percentages were only applied to areas identified as “developed” so as to not overestimate the total impervious area in the watershed. Areas not considered “developed” were assumed to be 0% impervious. Impervious coverage for the Cedar Mill Creek Watershed is illustrated in Figure 3-3 and Figure 3-4 for the 2005 and 2019 conditions respectively.

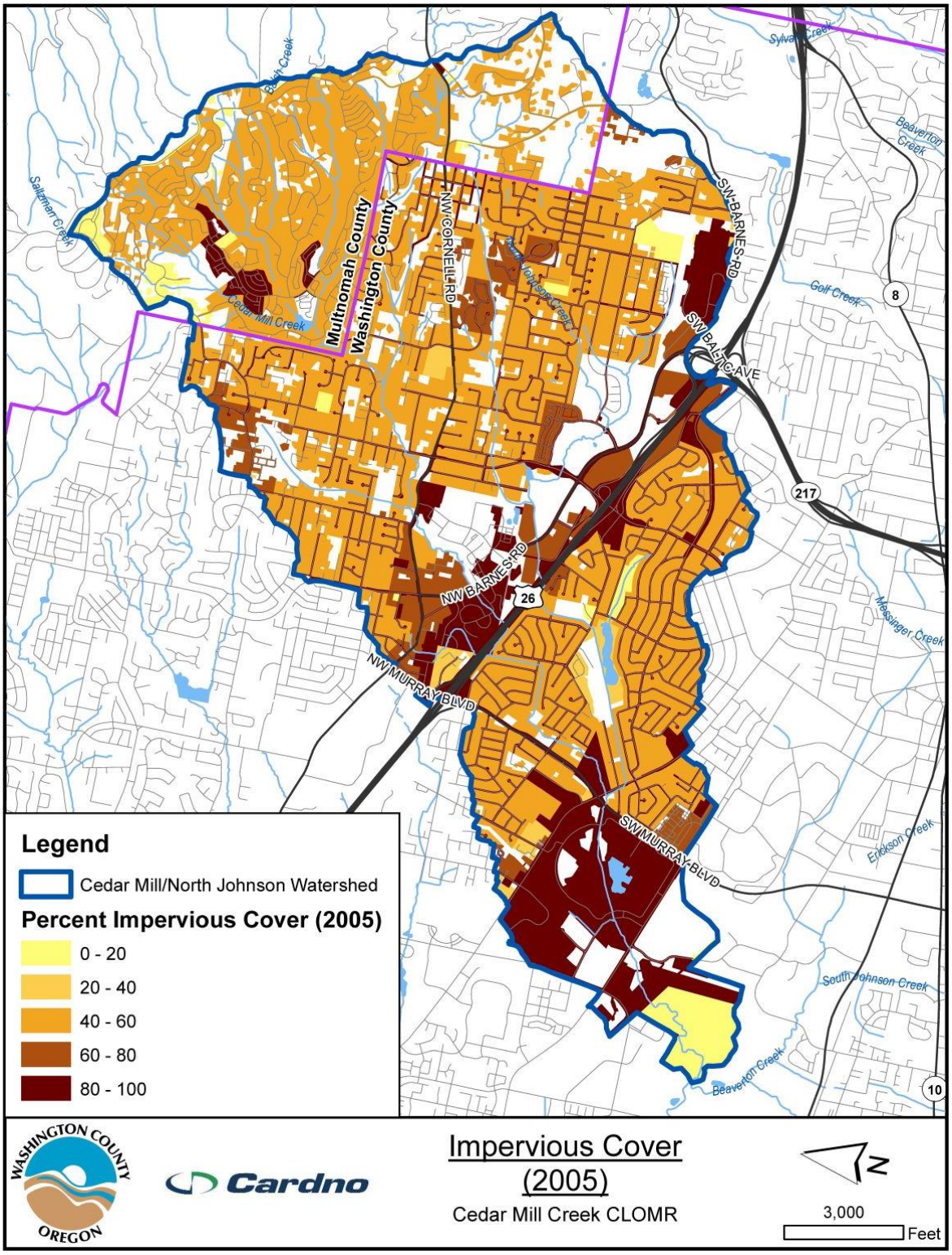


Figure 3-3 2005 Impervious Percentage

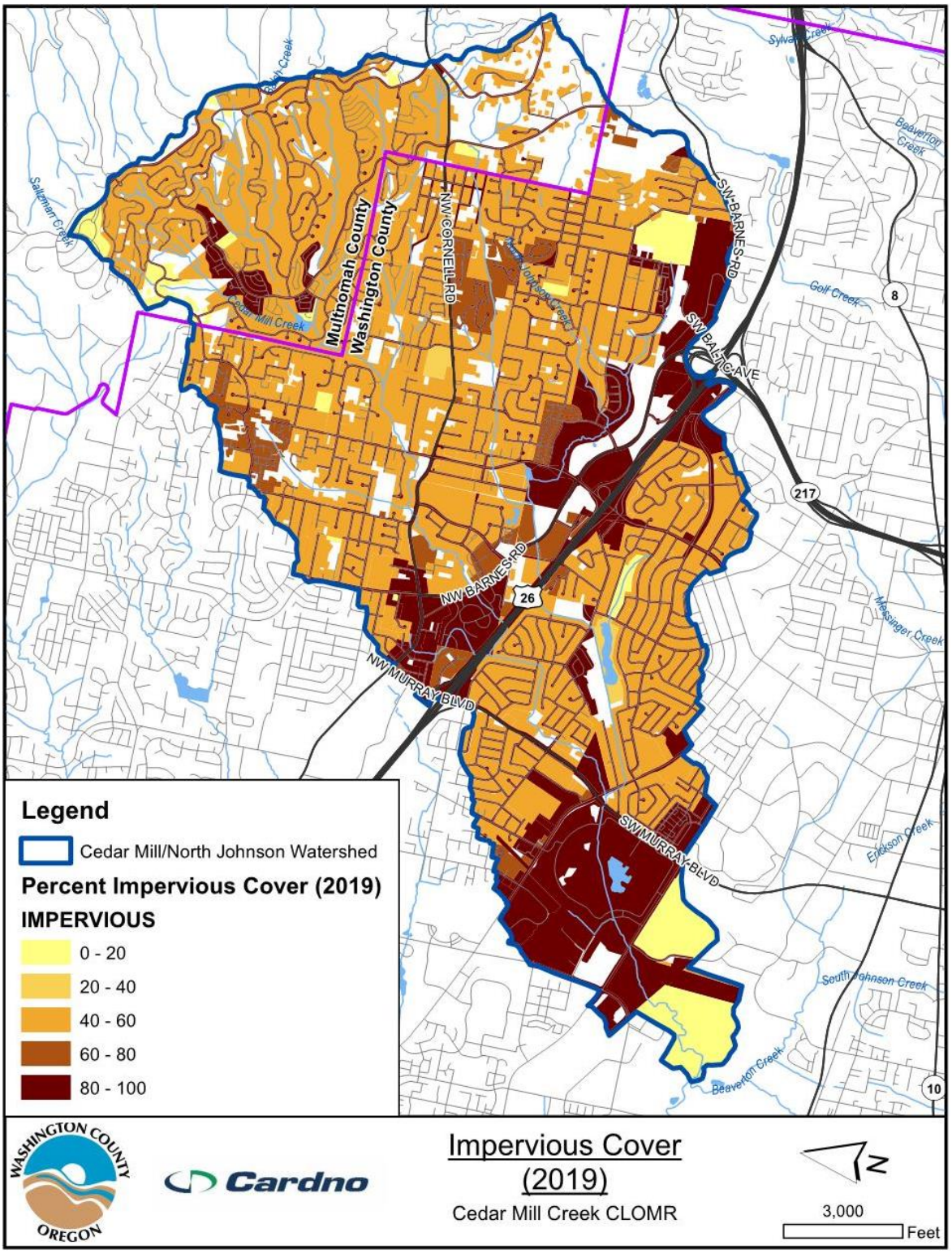


Figure 3-4 2019 Impervious Percentage

3.1.2.3 Depression Storage

Depression storage is the initial abstraction by the process of surface ponding, surface wetting, interception and evaporation, and applies to both impervious and pervious cover. All depression storage must be filled before runoff begins and therefore influences the volume that is conveyed downstream. Depression storage controls the amount of runoff that immediately runs off a surface. A percentage of Zero Detention Storage can be applied to represent an amount of impervious area that has no depression storage, and contributes 100% of its rainfall volume to surface runoff. Table 3-3 lists the depression storage parameters that were used in the model, which were set for each cover type through recommendations outlined in Chapter 3 of the *Storm Water Management Model Reference Manual, Volume I – Hydrology (Revised),* dated January 2016.

Table 3-3 Depression Storage Parameters

Cover Type	Depression Storage (inches)
Brush - Good Condition	0.30
Brush - Fair Condition	0.30
Brush - Poor Condition	0.30
Open Space - Good Condition	0.20
Open Space - Fair Condition	0.20
Open Space - Poor Condition	0.20
Pasture - Fair Condition	0.30
Woods - Good Condition	0.40
Impervious Area	0.06

3.1.3 Sub-Basin Response

Sub-basin response is calculated using EPA SWMM methodology within the XPSWMM Runoff module. In SWMM methodology, the sub-basin is modeled as a nonlinear reservoir with a rectangular surface. The sub-basin is modeled as having a uniform slope and width that drains to a single outlet. After inflow from precipitation and losses from infiltration and evaporation are accounted for, any excess ponding depth above the depression storage depth can become runoff. The resulting overland flow is assumed to consist of uniform flow within an existing rectangular channel, and is computed using Manning's equation. The key variables that affect the response from each sub-basin are the basin width, slope, and the modeled roughness of the sub-basin.

3.1.3.1 Sub-Basin Width

The width of each sub-basin was assumed to be a function of the longest length of flow within the sub-basin. This flow length was calculated for each basin using the LiDAR DEM which was processed in ArcMap to generate a raster dataset with the minimum flow length for each cell. To account for statistical error resulting from the difference in levels of detail between the DEM and the sub-basin delineation, the flow length for each sub-basin was calculated as the sum of four standard deviations from the mean, eliminating the effect of outlier values. These values were then rounded to the nearest whole foot and recorded in the sub-basin shapefile. Assuming a rectangular basin, the area of the sub-basin was then divided by the calculated flow length and rounded to the nearest whole foot to then determine the sub-basin width.

3.1.3.2 Sub-Basin Slope

The slope of each sub-basin was calculated similarly to the sub-basin width, as the total drop across the sub-basin was calculated using the sum of two standard deviations from the mean of the elevation values in the DEM within the sub-basin. Again, this was done to eliminate the effect of outliers and account for the different levels of detail between the LiDAR DEM and the sub-basin delineation. This calculated drop was then divided by the previously calculated flow length and rounded to the nearest 0.1%.

3.1.3.3 Sub-Basin Roughness

The roughness of sub-basin is characterized by Manning's 'n' values, corresponding to the roughness of pervious and impervious areas. Table 3-4 outlines the Manning's 'n' values used for corresponding cover types.

Table 3-4 Manning's 'n' Values

Cover Type	Manning's 'n' Value
Brush - Good Condition	0.120
Brush - Fair Condition	0.090
Brush - Poor Condition	0.060
Open Space - Good Condition	0.060
Open Space - Fair Condition	0.050
Open Space - Poor Condition	0.040
Pasture - Fair Condition	0.060
Woods - Good Condition	0.120
Impervious Area	0.014

3.1.4 Routing

XPSWMM uses full hydrodynamic routing within the Hydraulics module of the software. The software uses EXTRAN (Dynamic Wave) routing to model open channel and closed conduit networks in both dendritic and looped configurations. EXTRAN is based on the St. Venant equations for gradually varied one-dimensional flow, and has procedures for handling exceptional flow situations such as roll waves, bores, supercritical flow, and hydraulic jumps that would otherwise violate the assumption of gradually varied flow.

The XPSWMM hydrologic model for Cedar Mill Creek incorporates a full link-node representation of the physical condition of the study area; explicitly modeling Cedar Mill Creek, the connected storm sewer pipe system, culverts, bridges, ponds, reservoirs, and control structures. The physical geometry of the real structure as well as appropriate Manning's 'n' value is assigned to each link in the model, and used in the EXTRAN calculation to determine flow. Each link has a defined cross-sectional shape, length, slope, invert elevations, and Manning's 'n' value. Each link also has the option of user-defined inlet and outlet losses to account for expansion, contraction, headwall losses, or other losses. Nodes at the upstream and downstream ends of each link have physical descriptions as well, but are generally limited to invert elevations and ground or rim elevations.

3.1.5 Channel Storage

Each link has a defined cross-sectional shape, length, slope, invert elevations, and Manning's 'n' value. XPSWMM has options for built-in sections such as circular, and rectangular closed conduits or trapezoidal open channels. Additionally, the model has options for user-defined cross-sections including natural channel sections or special closed conduits. Channel storage is calculated at each link using the defined geometry of the link.

Link geometry was initially developed by Clean Water Services for the purposes of asset management, using a variety of sources including existing watershed models and GIS data. The geometry was reviewed by Cardno and deemed fit for purpose in developing a flood flow hydrologic model of the basin.

3.1.6 Reservoir Storage

Reservoir storage was largely neglected in the development of the model, with the exception of Commonwealth Lake which was assumed to have a constant storage area of 6.48 acres.

3.1.7 Calibration Approach

Calibration of the model occurred through comparing the modeled flows in Cedar Mill Creek downstream of SW Murray Blvd with measured flows at that location. To reach a calibrated state, methods of developing the hydrologic parameters for each sub-basin were altered until the model results had similar enough peak flow values and hydrograph shape compared to the measured flow that it could be determined that the model would produce results with a reasonable level of certainty. This approach was chosen in order to improve the reproducibility of the methods used, and also to account for the fact that assumptions made are consistent between each sub-basin which makes a sub-basin specific approach infeasible.

Figure 3-5 illustrates the results of the calibration, comparing the gaged flow data with the model flow results.

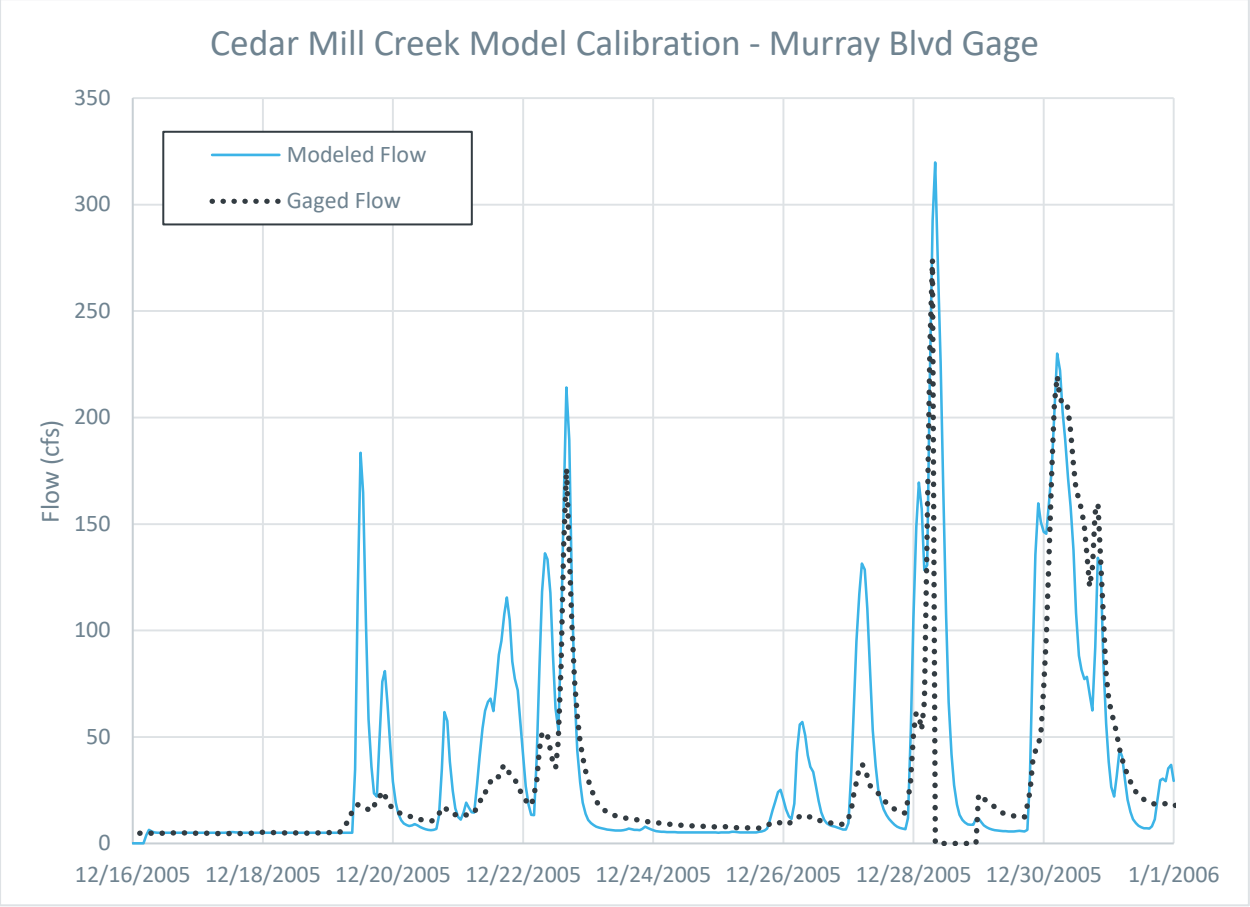


Figure 3-5 Model Calibration Hydrograph

3.2 Assumptions

The following are a list of key assumptions made in the development of the hydrologic model:

- No backwater effects from Beaverton Creek at the mouth of Cedar Mill Creek. Backwater effects should be accounted for in the hydraulic model of the watershed.
- Baseflow in Cedar Mill Creek is assumed to be 5 cfs based on gaged flow data.
- Peak flow events in Cedar Mill Creek and North Johnson Creek correspond to peak rainfall events. This is supported by gage data, which shows consistently fast response times to rainfall.

3.3 Gages

Gage data used to calibrate the model was provided by Clean Water Services, and was located on Cedar Mill Creek at SW Murray Blvd. The gage has a period of record from January 1, 2001 to October 31, 2009. Data collection through this period is intermittent, with numerous gaps in the data. The gage collected instantaneous stream flow data, gauge height, and temperature.

4 Supporting Information

Sub-basins were delineated by hand using topographic data from a digital elevation model (DEM) developed from high-resolution light detection and ranging (LiDAR) collected and compiled in 2014 by the Oregon Department of Geology & Mineral Industries (DOGAMI) for the Portland Metro area. Specifically, the data for the USGS 7.5 minute quadrangles 45122E7 and 45122D7 were used for this study.

5 Discharge Comparison

Table 5-1 compares the 100-year (1% annual chance) peak discharges from the effective Flood Insurance Study (FIS) report for Washington County, dated October 19, 2018, at two locations along Cedar Mill Creek and one along North Johnson Creek. Proposed discharges will be used in place of effective discharges to account for the detailed modelling effort of the Cedar Mill Creek watershed downstream of Highway 26.

Table 5-1 100-year Discharge Comparison

Creek	FIS Reference XS	Basin Area (acres)	Modeled Proposed Discharge (cfs)	FIS Effective Discharge (cfs)	Change in Discharge
North Johnson	At mouth	2335	269	530	-49.2%
Cedar Mill	At mouth	5432	848	1384	-38.7%
Cedar Mill	At Northwest Barnes	1927	655	632	3.6%

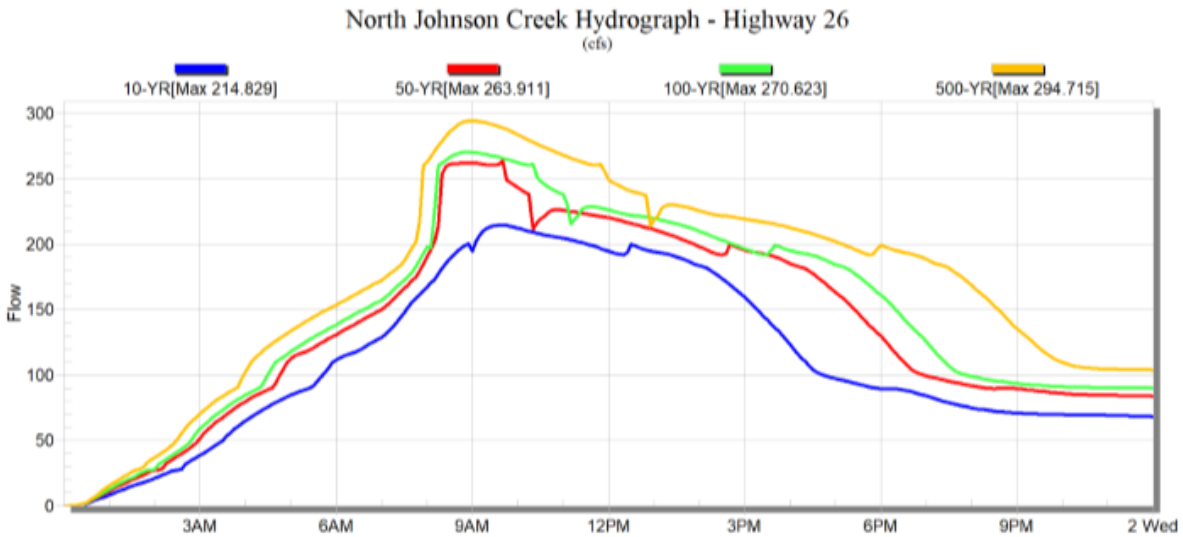
6 Discharge Summary

Table 6-1 provides a summary of discharges for the Cedar Mill Creek watershed at major landmarks.

Table 6-1 Summary of Discharges

Flooding Source and Location	Drainage Area (sq-mi)	Peak Discharges (cfs)			
		10-Year	50-year	100-year	500-year
Cedar Mill Creek					
At Mouth	8.5	662	803	848	943
At Murray Boulevard	7.3	609	736	766	865
At Highway 26	3.0	469	581	619	713
North Johnson Creek					
At Mouth	3.6	236	251	269	305
At Highway 26	2.5	215	264	271	295

For North Johnson Creek, flows between Highway 26 and the downstream confluence with Cedar Mill Creek decrease due to the wide floodplain between Highway 26 and SW Walker Road. Flow is attenuated to such a degree that peak flows for larger storm events downstream are reduced to levels lower than upstream peaks. This can be seen in Figure 6-2 which shows a comparison between the upstream and downstream hydrographs, with peaks being delayed by nearly 9 hours between the two points.



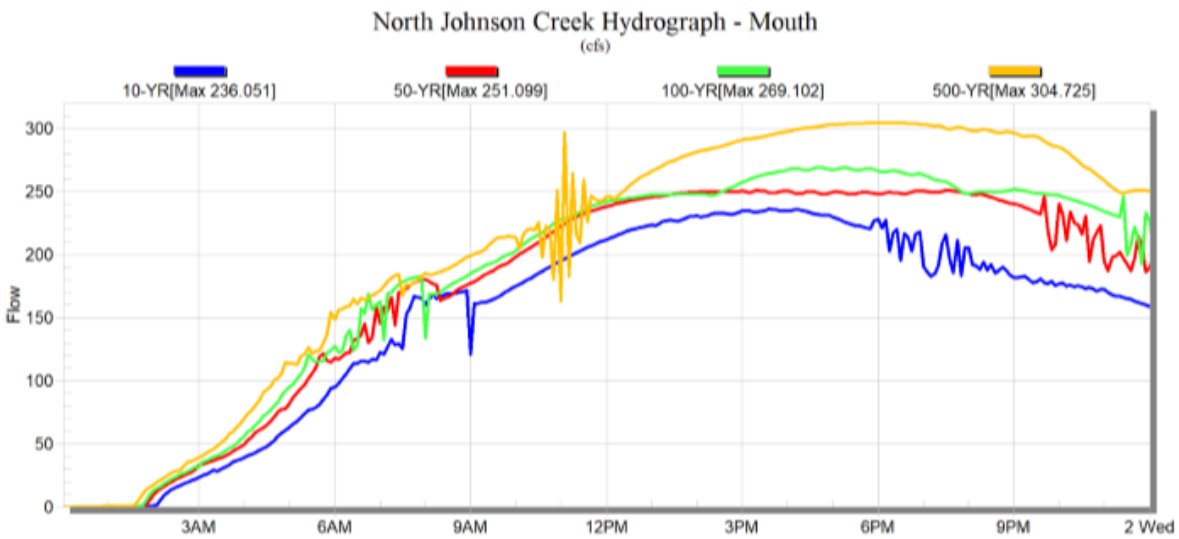


Figure 6-2 North Johnson Creek Hydrographs

7 References

1. *Hydrologic Modeling for the Watersheds 2000 Project,* Revised June 2, 2003. Clean Water Services. Hillsboro, Oregon.
2. *Design and Construction Standards for Sanitary Sewer and Surface Water Management,* April 2009. Clean Water Services. Hillsboro, Oregon.
3. *Storm Water Management Model Reference Manual, Volume I – Hydrology (Revised)*, January 2016. Rossman, L.A. and W.C. Huber. National Risk Management Laboratory, Office of Research and Development, U.S. Environmental Protection Agency. Cincinnati, OH.
4. *Digital Simulation in Hydrology: Stanford Watershed Model IV,* July 1966. Crawford, N.H. and R.K. Linsley. Civil Engineering Department, Stanford University. Palo Alto, CA.

Cedar Mill Creek – CLOMR

APPENDIX A

DATA FILES

Appendix A
Data Files

XPSWMM Hydrologic Model Map

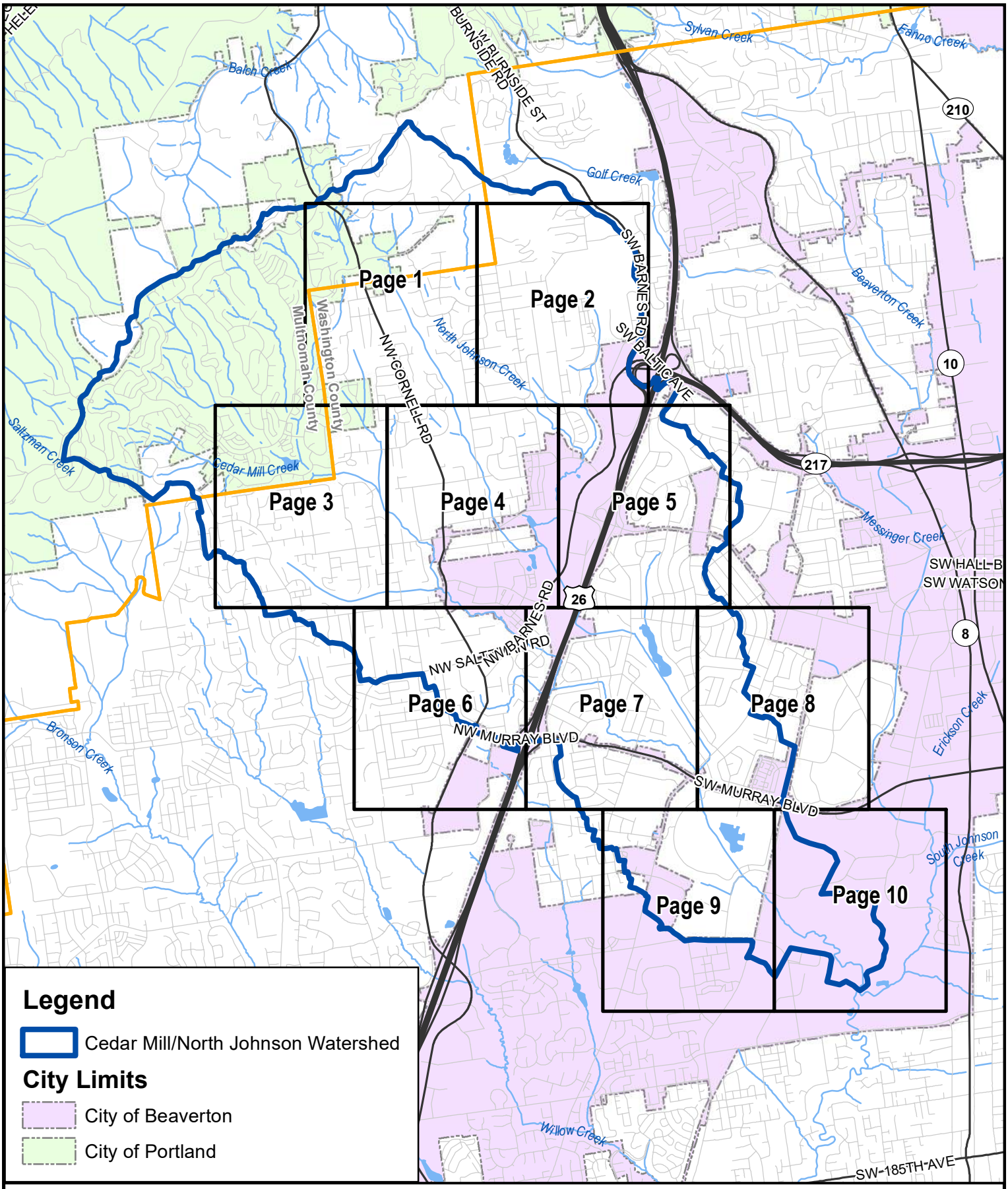
XPSWMM Output Tables

- XPSWMM Infiltration Reference Parameters
- XPSWMM Sub-Basin Hydrology Output
  - 10yr Storm
  - 25yr Storm
  - 50yr Storm
  - 100yr Storm
  - 500yr Storm
- XPSWMM Link Hydrologic Output

XPSWMM Files

Proposed Hydrology Model

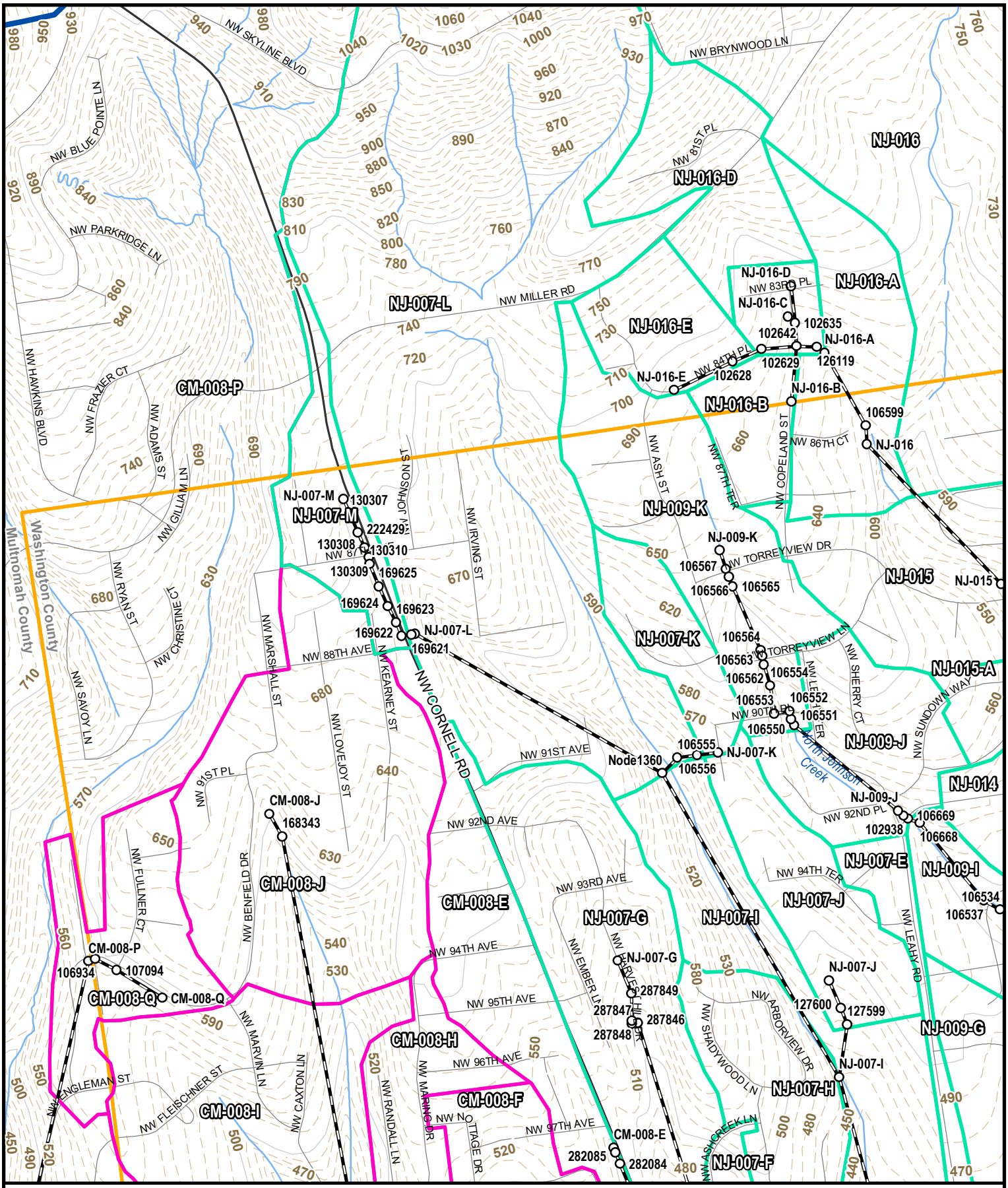
Hydrology Calibration Model



Hydrologic Model Map

Cedar Mill Creek CLOMR

3,500 Feet



WASHINGTON COUNTY OREGON

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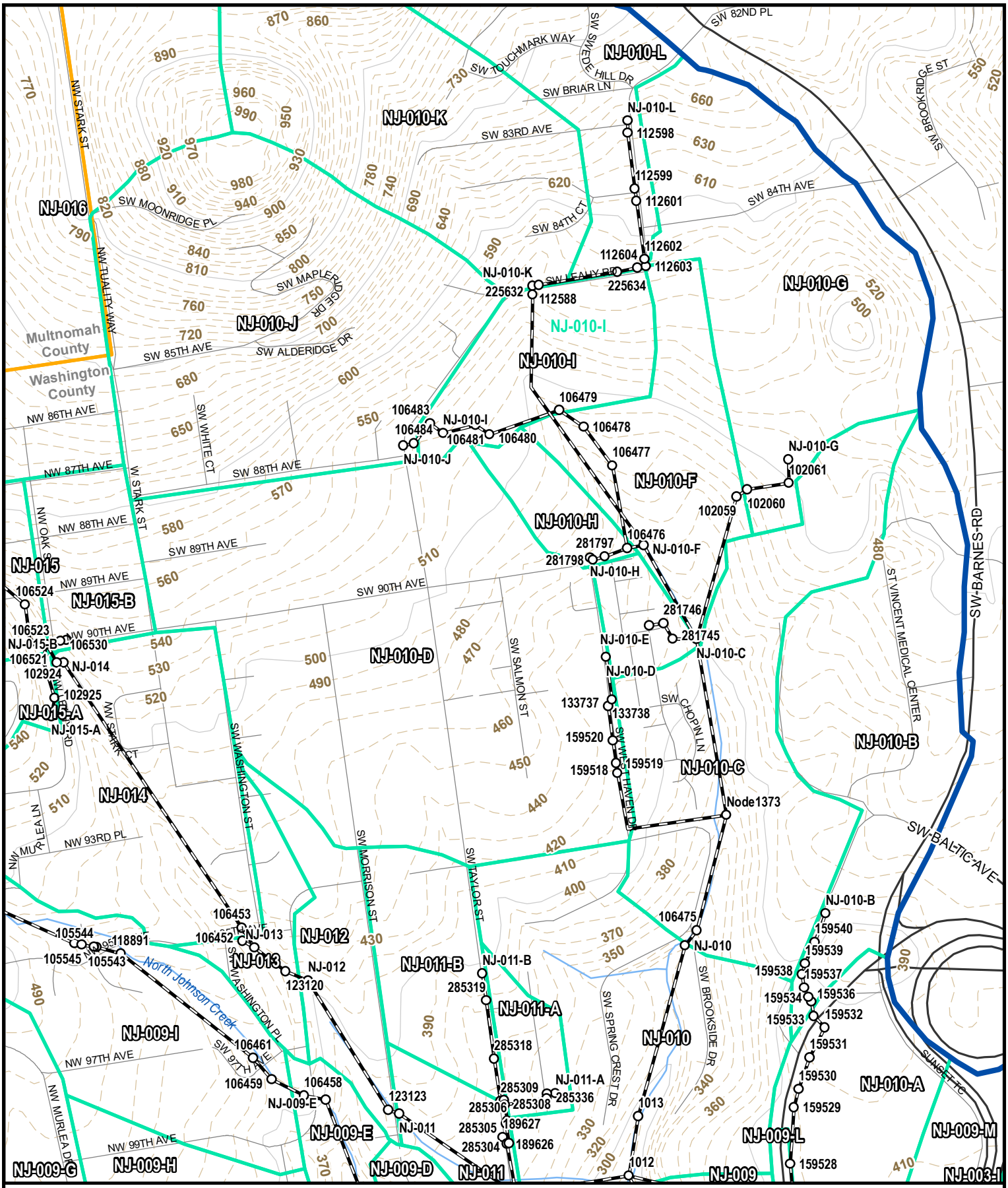
Hydrologic Model Map

Page 1 of 10

Cedar Mill Creek CLOMR

N

600 Feet

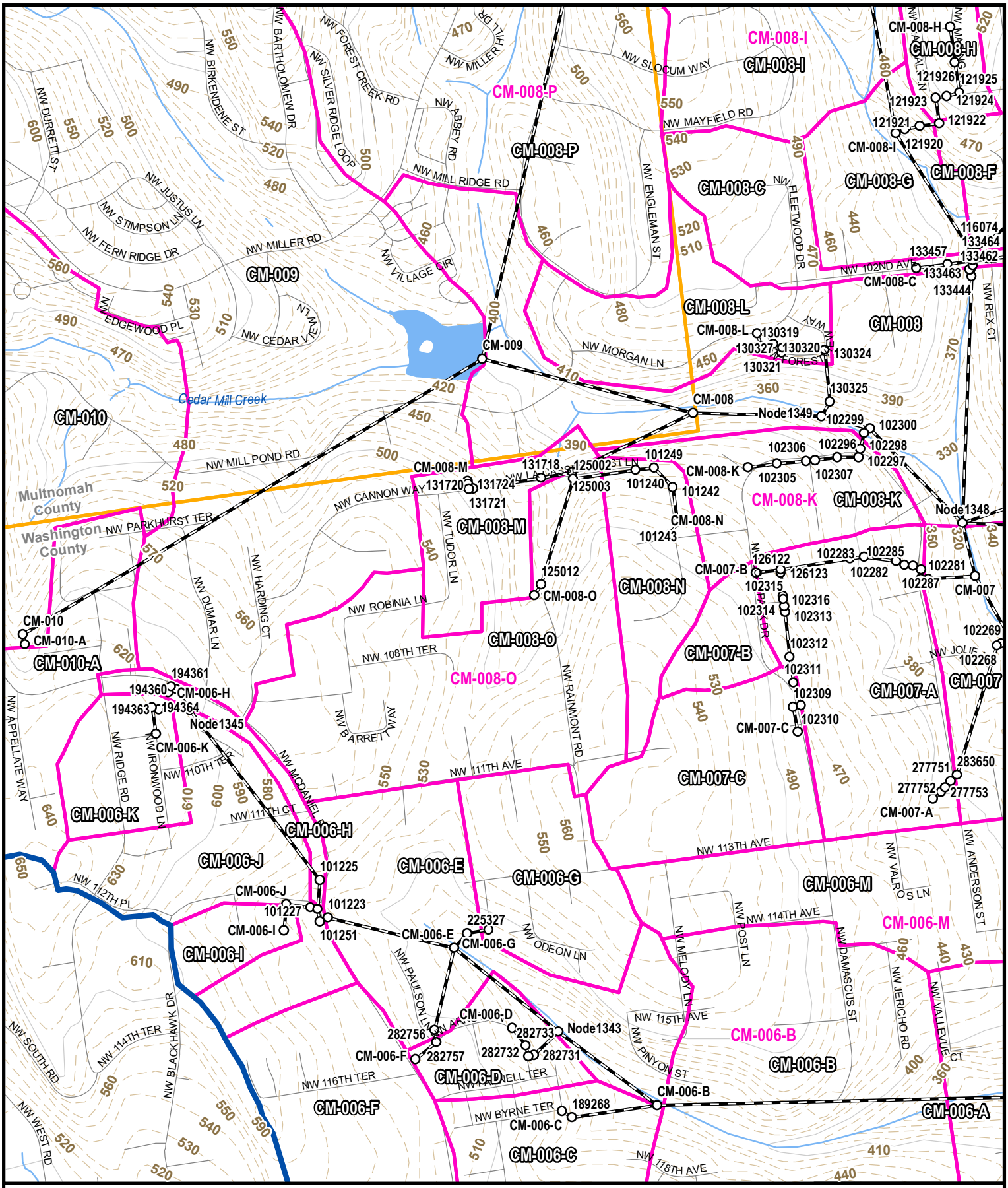


Hydrologic Model Map

Page 2 of 10

Cedar Mill Creek CLOMR

600 Feet



WASHINGTON COUNTY OREGON

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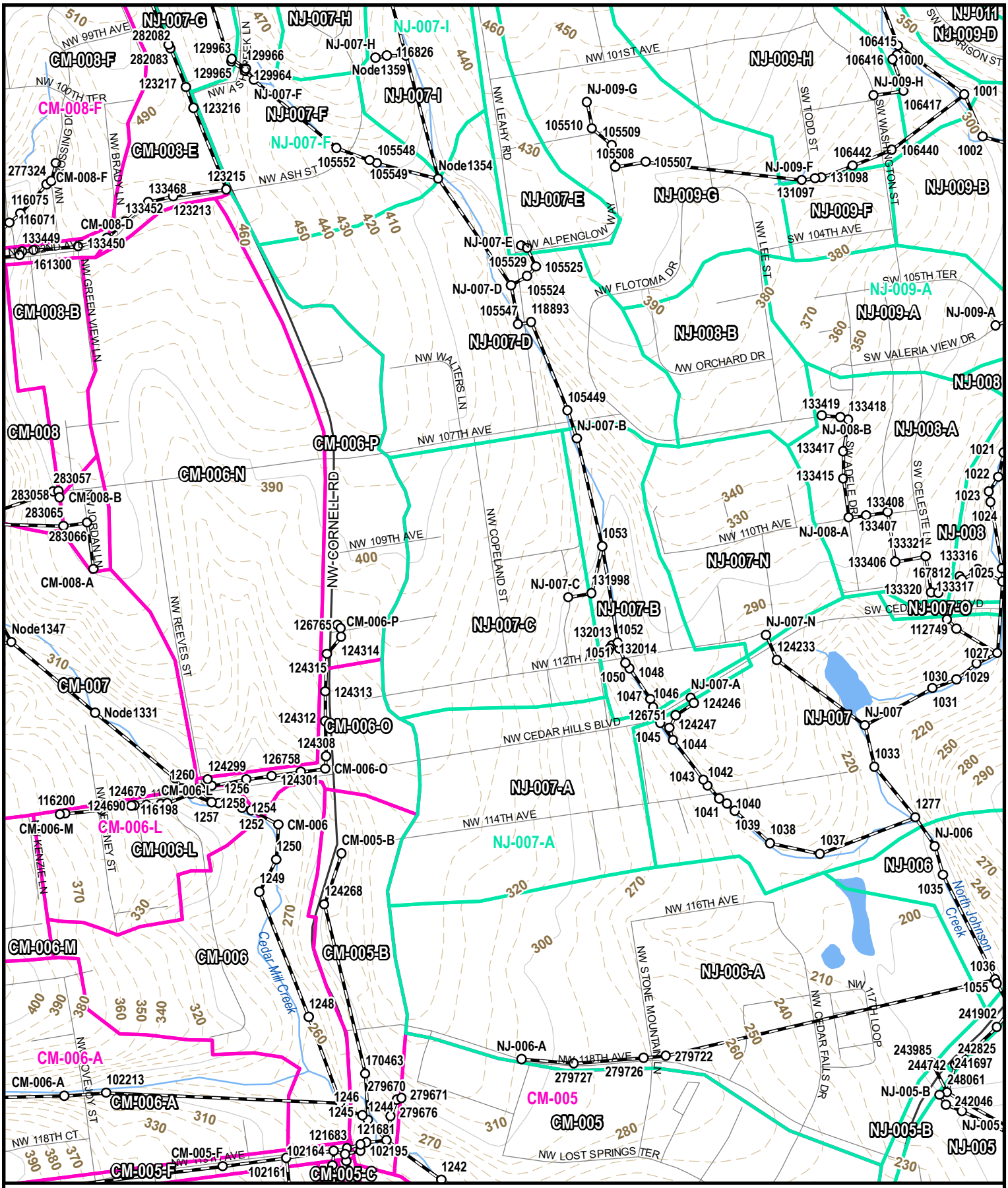
Hydrologic Model Map

Page 3 of 10

Cedar Mill Creek CLOMR

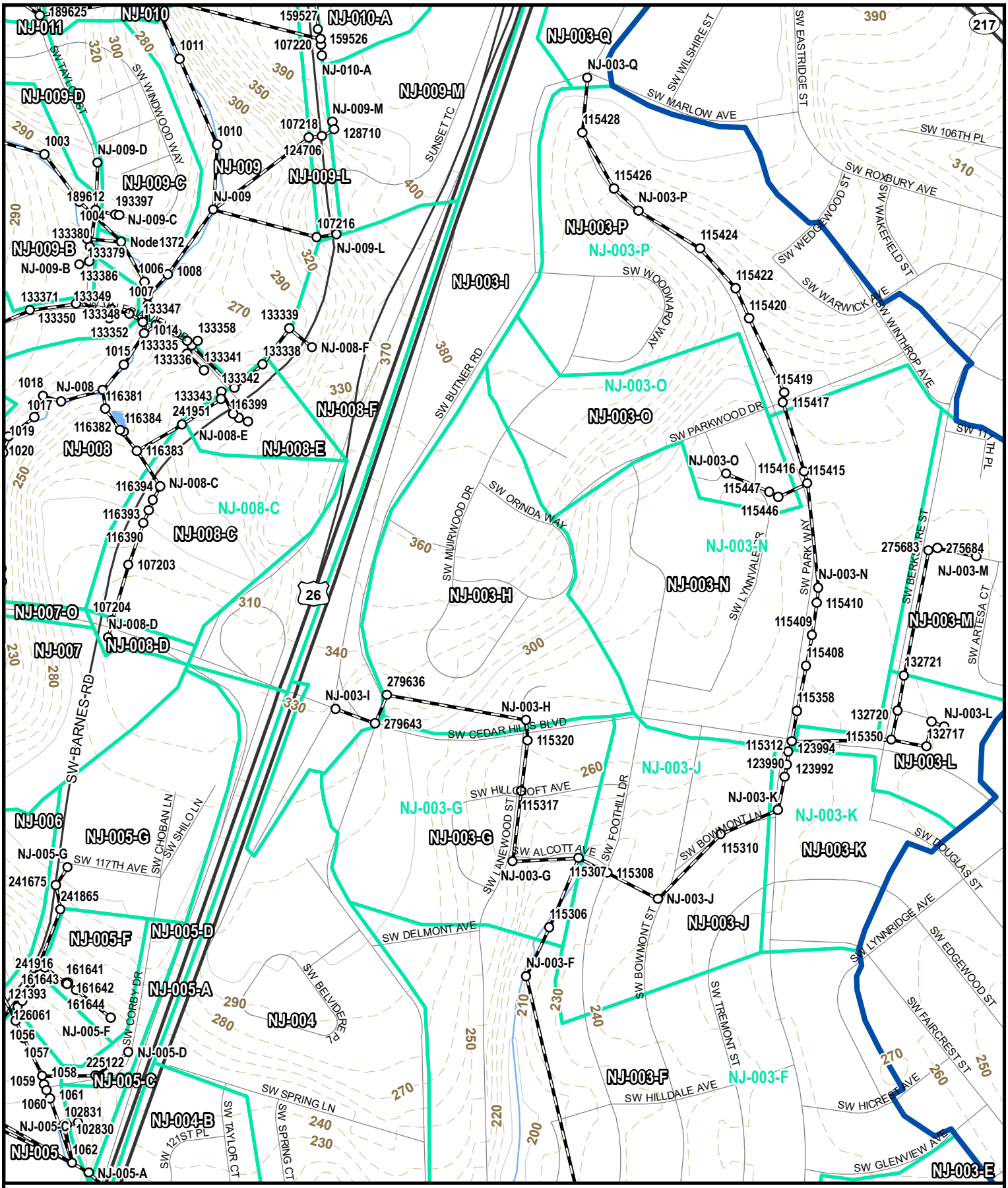


Hydrologic Model Map

Page 4 of 10

Cedar Mill Creek CLOMR

600 Feet

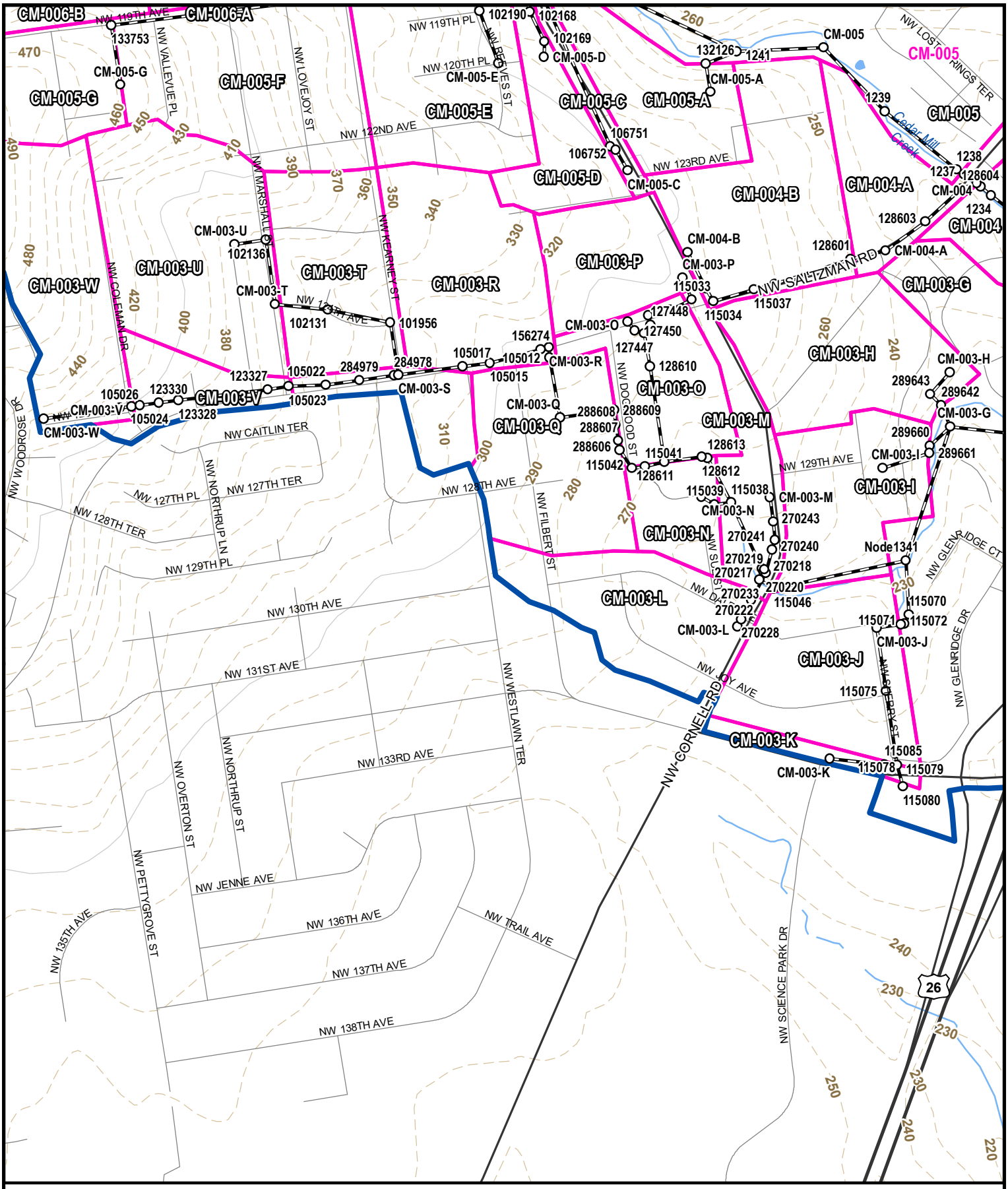


Hydrologic Model Map

Page 5 of 10

Cedar Mill Creek CLOMR

600 Feet

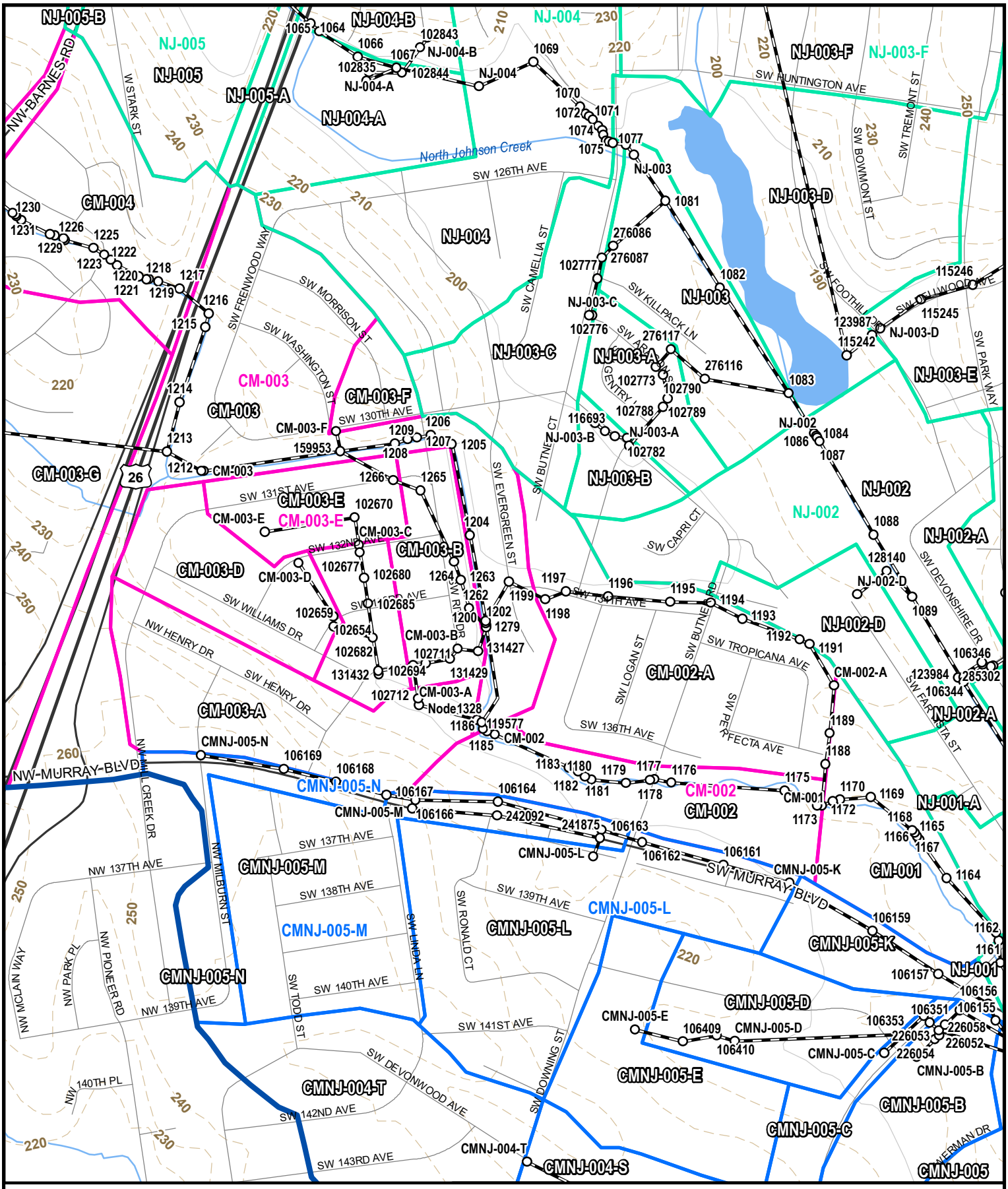


Hydrologic Model Map

Page 6 of 10

Cedar Mill Creek CLOMR

600 Feet

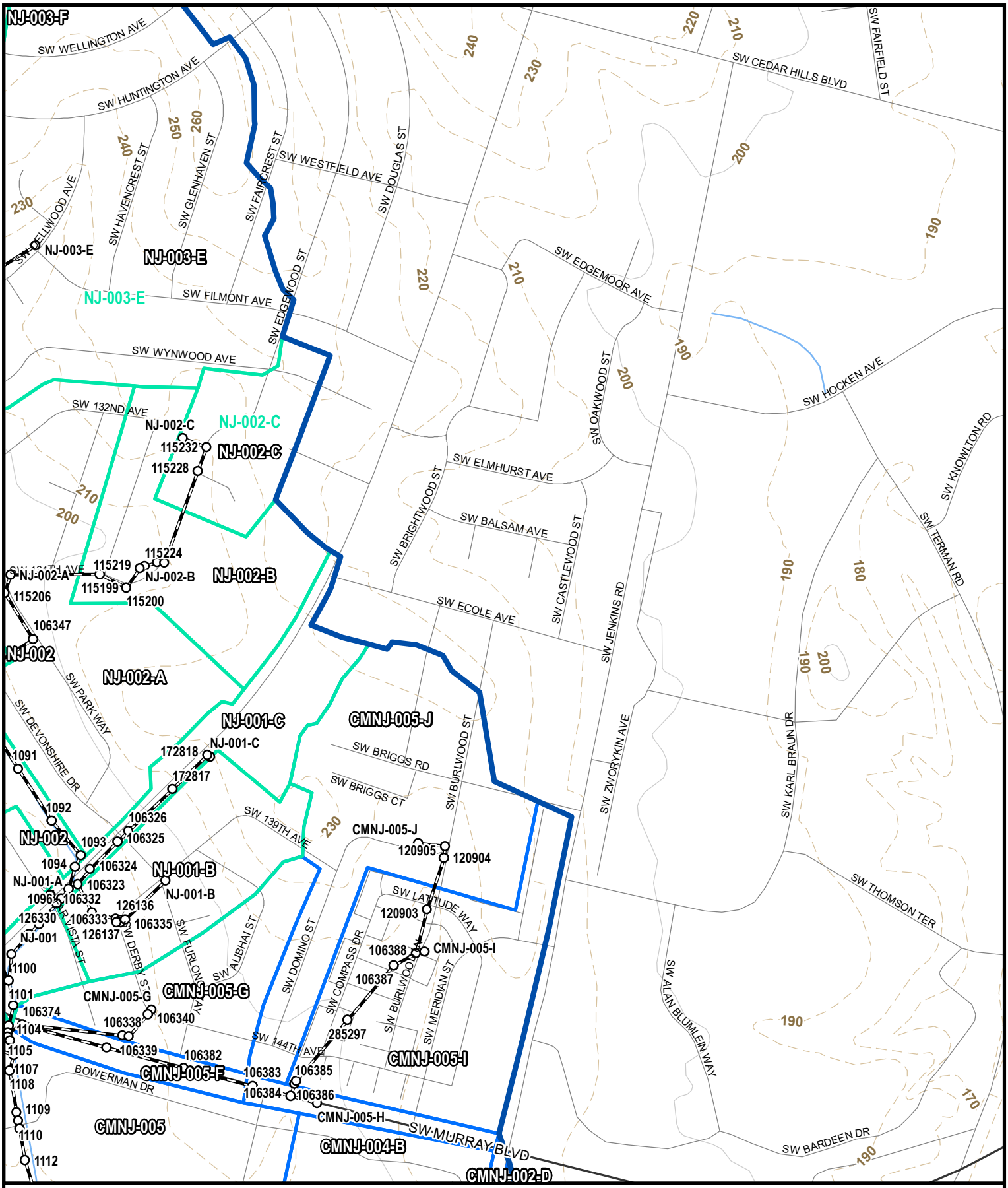


Hydrologic Model Map

Page 7 of 10

Cedar Mill Creek CLOMR

600 Feet



WASHINGTON COUNTY OREGON

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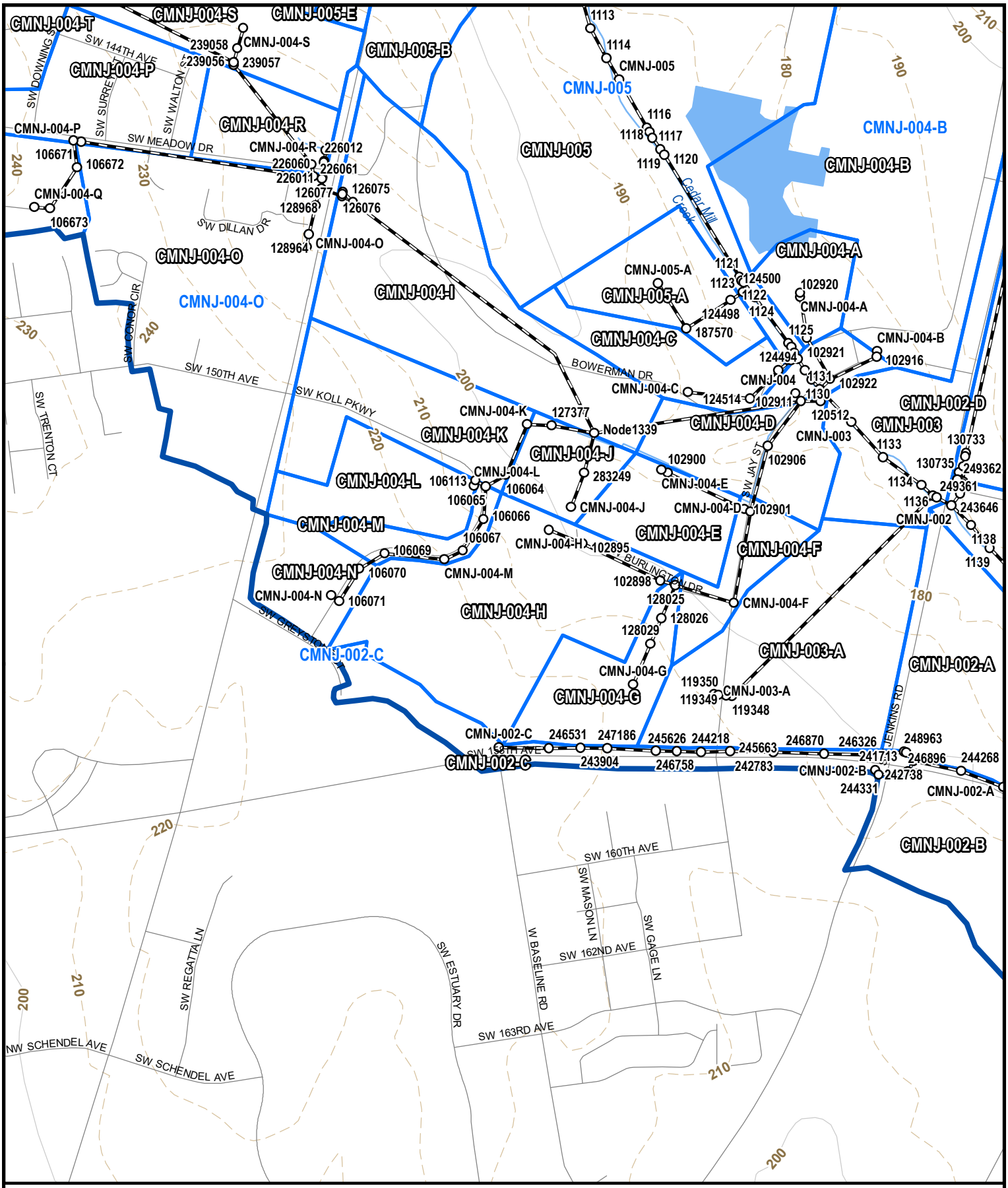
Hydrologic Model Map

Page 8 of 10

Cedar Mill Creek CLOMR

N

600 Feet



WASHINGTON COUNTY OREGON

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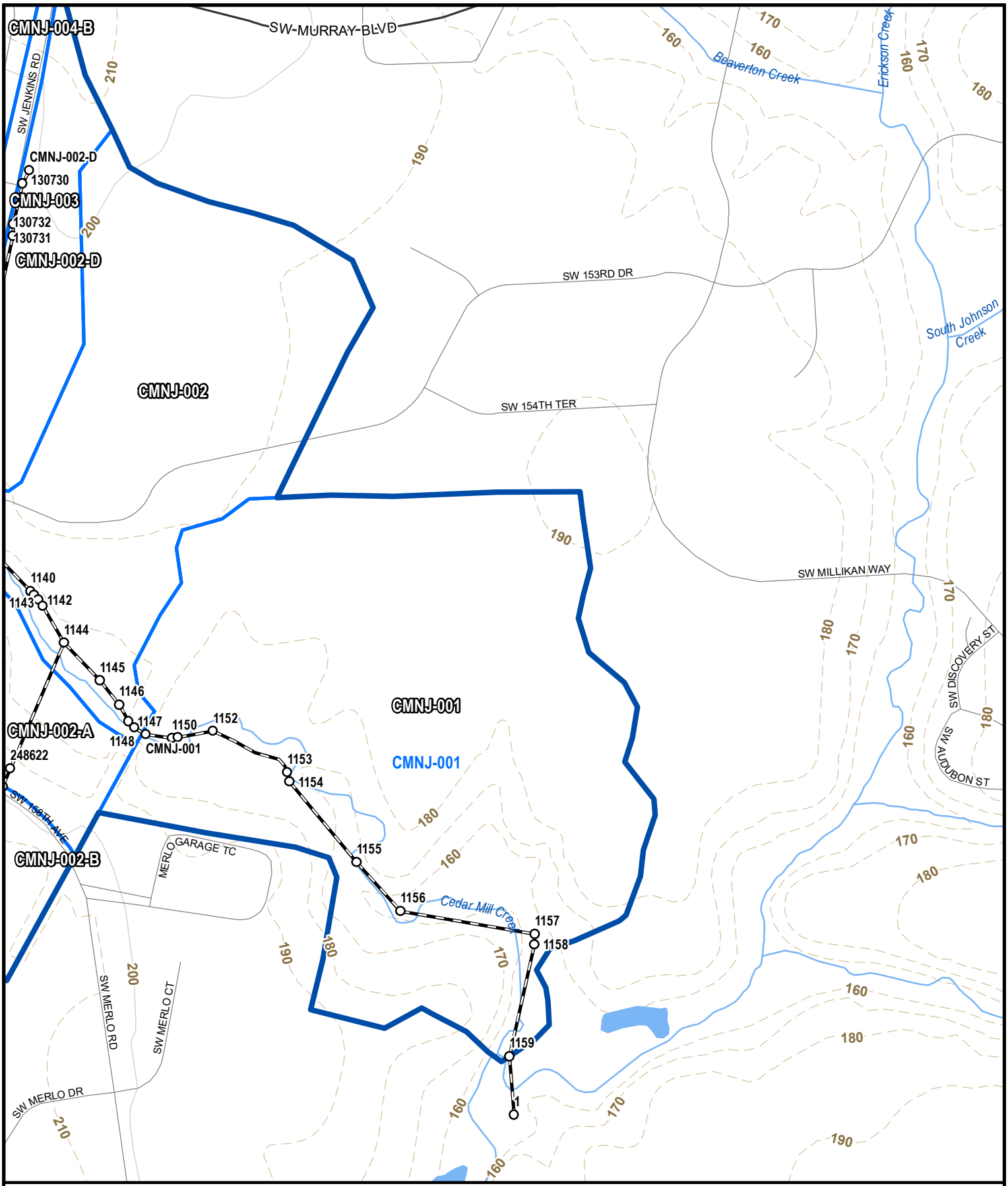
Hydrologic Model Map

Page 9 of 10

Cedar Mill Creek CLOMR

N

600 Feet



Hydrologic Model Map

Page 10 of 10

Cedar Mill Creek CLOMR

600 Feet

XPSWMM Infiltration Reference Parameters Cedar Mill/North Johnson Creek CLOMR								
Infiltration Reference ID	Green-Ampt Infiltration Parameters			EPA SWMM Runoff Parameters				
	Average Capillary Suction, in	Ksat, in/hr	Initial Moisture Deficit	Impervious Area Depression Storage, in	Impervious Area Manning's "n"	% Zero Detention	Pervious Area Depression Storage, in	Pervious Area Manning's "n"
GA-01	2.99	1.28	0.20	0.06	0.014	50	0.20	0.052
GA-02	3.60	0.87	0.20	0.06	0.014	50	0.20	0.051
GA-03	3.05	1.23	0.20	0.06	0.014	50	0.20	0.050
GA-04	3.02	1.24	0.20	0.06	0.014	50	0.20	0.050
GA-05	3.09	1.21	0.20	0.06	0.014	50	0.20	0.050
GA-06	3.00	1.28	0.20	0.06	0.014	50	0.20	0.050
GA-07	2.99	1.28	0.20	0.06	0.014	50	0.20	0.050
GA-08	3.00	1.27	0.20	0.06	0.014	50	0.20	0.050
GA-09	3.03	1.24	0.20	0.06	0.014	50	0.20	0.050
GA-10	3.00	1.27	0.20	0.06	0.014	50	0.20	0.046
GA-11	3.00	1.26	0.20	0.06	0.014	50	0.20	0.049
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GA-13	2.99	1.28	0.20	0.06	0.014	50	0.20	0.045
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GA-17	2.99	1.28	0.21	0.06	0.014	50	0.20	0.049
GA-18	2.99	1.28	0.21	0.06	0.014	50	0.20	0.053
GA-19	2.99	1.28	0.21	0.06	0.014	50	0.20	0.052
GA-20	3.06	1.20	0.20	0.06	0.014	50	0.20	0.051
GA-21	3.19	1.14	0.20	0.06	0.014	50	0.20	0.050
GA-22	3.11	1.19	0.21	0.06	0.014	50	0.20	0.061
GA-23	2.99	1.28	0.21	0.06	0.014	50	0.20	0.047
GA-24	2.99	1.28	0.22	0.06	0.014	50	0.20	0.064
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GA-27	2.99	1.28	0.21	0.06	0.014	50	0.20	0.050
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XPSWMM Infiltration Reference Parameters Cedar Mill/North Johnson Creek CLOMR								
Infiltration Reference ID	Green-Ampt Infiltration Parameters			EPA SWMM Runoff Parameters				
	Average Capillary Suction, in	Ksat, in/hr	Initial Moisture Deficit	Impervious Area Depression Storage, in	Impervious Area Manning's "n"	% Zero Detention	Pervious Area Depression Storage, in	Pervious Area Manning's "n"
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GA-81	2.99	1.28	0.20	0.06	0.014	50	0.20	0.058
GA-82	2.99	1.28	0.20	0.06	0.014	50	0.20	0.068
GA-83	3.46	0.97	0.20	0.06	0.014	50	0.20	0.053
GA-84	3.03	1.25	0.20	0.06	0.014	50	0.20	0.049
GA-85	3.98	0.84	0.21	0.06	0.014	50	0.20	0.056
GA-86	3.63	0.86	0.20	0.06	0.014	50	0.20	0.049
GA-87	3.07	1.23	0.20	0.06	0.014	50	0.20	0.051
GA-88	2.99	1.28	0.22	0.06	0.014	50	0.20	0.047
GA-89	3.01	1.25	0.20	0.06	0.014	50	0.20	0.050
GA-90	3.05	1.20	0.20	0.06	0.014	50	0.20	0.050
GA-91	3.08	1.17	0.20	0.06	0.014	50	0.20	0.050
GA-92	3.11	1.13	0.20	0.06	0.014	50	0.20	0.061
GA-93	3.08	1.17	0.20	0.06	0.014	50	0.20	0.049
GA-94	3.03	1.23	0.21	0.06	0.014	50	0.20	0.051
GA-95	3.00	1.27	0.22	0.06	0.014	50	0.20	0.050
GA-96	2.99	1.28	0.22	0.06	0.014	50	0.20	0.042
GA-97	3.01	1.26	0.21	0.06	0.014	50	0.20	0.051
GA-98	3.05	1.21	0.20	0.06	0.014	50	0.20	0.057
GA-99	3.01	1.26	0.20	0.06	0.014	50	0.20	0.050
GA-100	3.04	1.22	0.20	0.06	0.014	50	0.20	0.054
GA-101	3.00	1.27	0.21	0.06	0.014	50	0.20	0.049
GA-102	3.03	1.23	0.20	0.06	0.014	50	0.20	0.050
GA-103	2.99	1.28	0.21	0.06	0.014	50	0.20	0.045
GA-104	3.02	1.24	0.21	0.06	0.014	50	0.30	0.084
GA-105	3.01	1.25	0.21	0.06	0.014	50	0.20	0.053
GA-106	3.01	1.25	0.21	0.06	0.014	50	0.30	0.086
GA-107	2.99	1.28	0.22	0.06	0.014	50	0.20	0.057
GA-108	2.99	1.28	0.22	0.06	0.014	50	0.30	0.072
GA-109	2.99	1.28	0.22	0.06	0.014	50	0.20	0.056
GA-110	2.99	1.28	0.21	0.06	0.014	50	0.20	0.060
GA-111	2.99	1.28	0.20	0.06	0.014	50	0.20	0.064
GA-112	2.99	1.28	0.20	0.06	0.014	50	0.20	0.055
GA-113	2.99	1.28	0.20	0.06	0.014	50	0.40	0.104
GA-114	2.99	1.28	0.20	0.06	0.014	50	0.20	0.057
GA-115	2.99	1.28	0.19	0.06	0.014	50	0.30	0.089
GA-116	3.00	1.27	0.21	0.06	0.014	50	0.20	0.050
GA-117	2.99	1.28	0.21	0.06	0.014	50	0.20	0.058
GA-118	2.99	1.28	0.21	0.06	0.014	50	0.30	0.096
GA-119	2.99	1.28	0.19	0.06	0.014	50	0.20	0.070
GA-120	2.99	1.28	0.20	0.06	0.014	50	0.30	0.100
GA-121	2.99	1.28	0.20	0.06	0.014	50	0.30	0.092
GA-122	2.99	1.28	0.19	0.06	0.014	50	0.20	0.056
GA-123	2.99	1.28	0.20	0.06	0.014	50	0.30	0.102
GA-124	2.99	1.28	0.22	0.06	0.014	50	0.20	0.049
GA-125	2.99	1.28	0.19	0.06	0.014	50	0.30	0.077
GA-126	2.99	1.28	0.19	0.06	0.014	50	0.30	0.102
GA-127	2.99	1.28	0.21	0.06	0.014	50	0.30	0.093
GA-128	2.99	1.28	0.19	0.06	0.014	50	0.20	0.071
GA-129	2.99	1.28	0.20	0.06	0.014	50	0.30	0.073
GA-130	2.99	1.28	0.20	0.06	0.014	50	0.30	0.082
GA-131	2.99	1.28	0.20	0.06	0.014	50	0.30	0.087
GA-132	2.99	1.28	0.19	0.06	0.014	50	0.30	0.090

XPSWMM Infiltration Reference Parameters Cedar Mill/North Johnson Creek CLOMR								
Infiltration Reference ID	Green-Ampt Infiltration Parameters			EPA SWMM Runoff Parameters				
	Average Capillary Suction, in	Ksat, in/hr	Initial Moisture Deficit	Impervious Area Depression Storage, in	Impervious Area Manning's "n"	% Zero Detention	Pervious Area Depression Storage, in	Pervious Area Manning's "n"
GA-133	2.99	1.28	0.19	0.06	0.014	50	0.30	0.087
GA-134	2.99	1.28	0.19	0.06	0.014	50	0.30	0.088
GA-135	2.99	1.28	0.19	0.06	0.014	50	0.20	0.066
GA-136	2.99	1.28	0.19	0.06	0.014	50	0.20	0.050
GA-137	2.99	1.28	0.19	0.06	0.014	50	0.30	0.094
GA-138	2.99	1.28	0.19	0.06	0.014	50	0.30	0.070
GA-139	2.99	1.28	0.19	0.06	0.014	50	0.30	0.084
GA-140	2.99	1.28	0.19	0.06	0.014	50	0.20	0.054

XPSWMM Sub-Basin Hydrology Output (10yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
CM-001	13.08	85.10	923	0.023	GA-01	3.45	0.33	2.80	0.19	6.32
CM-002	14.54	36.90	650	0.033	GA-02	3.45	2.04	1.22	0.14	3.05
CM-002-A	27.51	59.60	730	0.011	GA-03	3.45	1.23	1.94	0.16	9.22
CM-003	42.57	68.60	814	0.029	GA-04	3.45	0.92	2.24	0.17	16.44
CM-003-A	19.88	58.80	684	0.047	GA-05	3.45	1.26	1.93	0.16	6.64
CM-003-B	8.40	60.60	420	0.014	GA-06	3.45	1.20	1.99	0.16	2.89
CM-003-C	5.93	60.30	333	0.011	GA-07	3.45	1.21	1.98	0.16	2.03
CM-003-D	11.43	60.00	323	0.012	GA-08	3.45	1.22	1.96	0.16	3.87
CM-003-E	7.82	56.30	399	0.006	GA-07	3.45	1.35	1.84	0.16	2.49
CM-003-F	3.28	63.20	398	0.063	GA-07	3.45	1.11	2.09	0.16	1.18
CM-003-G	48.95	86.10	2369	0.064	GA-09	3.45	0.29	2.83	0.19	23.92
CM-003-H	14.05	90.00	744	0.092	GA-10	3.45	0.16	2.96	0.19	7.18
CM-003-I	10.94	88.00	878	0.083	GA-11	3.45	0.23	2.90	0.19	5.47
CM-003-J	13.86	87.60	584	0.023	GA-12	3.45	0.24	2.87	0.19	6.88
CM-003-K	1.87	92.10	88	0.007	GA-13	3.45	0.08	3.00	0.19	0.97
CM-003-L	12.31	71.50	641	0.053	GA-14	3.45	0.81	2.35	0.17	5.00
CM-003-M	6.82	87.80	324	0.055	GA-15	3.45	0.23	2.89	0.19	3.40
CM-003-N	4.61	59.40	505	0.044	GA-07	3.45	1.24	1.96	0.16	1.56
CM-003-O	9.26	90.30	376	0.026	GA-13	3.45	0.14	2.96	0.19	4.74
CM-003-P	7.95	77.60	186	0.018	GA-16	3.45	0.60	2.52	0.18	3.46
CM-003-Q	13.96	60.60	622	0.035	GA-07	3.45	1.20	1.99	0.16	4.80
CM-003-R	14.96	60.70	292	0.025	GA-17	3.45	1.20	1.98	0.16	5.12
CM-003-S	4.75	62.10	102	0.028	GA-07	3.45	1.15	2.03	0.16	1.67
CM-003-T	12.03	58.60	344	0.043	GA-07	3.45	1.27	1.92	0.16	4.00
CM-003-U	19.33	40.30	781	0.096	GA-18	3.45	1.92	1.33	0.14	4.42
CM-003-V	5.03	61.20	228	0.070	GA-07	3.45	1.18	2.02	0.16	1.75
CM-003-W	15.58	56.10	350	0.057	GA-19	3.45	1.36	1.84	0.16	4.96
CM-004	22.30	87.10	1386	0.046	GA-20	3.45	0.26	2.87	0.19	11.03
CM-004-A	9.05	65.90	664	0.036	GA-21	3.45	1.01	2.17	0.17	3.39
CM-004-B	16.14	54.90	817	0.074	GA-07	3.45	1.40	1.81	0.16	5.03
CM-005	44.12	60.40	1308	0.073	GA-22	3.45	1.21	1.99	0.16	15.13
CM-005-A	9.63	70.20	595	0.061	GA-23	3.45	0.86	2.31	0.17	3.84
CM-005-B	12.85	61.10	639	0.120	GA-24	3.45	1.18	2.02	0.16	4.46
CM-005-C	2.31	88.60	113	0.034	GA-25	3.45	0.21	2.91	0.19	1.16
CM-005-D	6.96	64.50	264	0.042	GA-25	3.45	1.06	2.12	0.17	2.55
CM-005-E	14.44	58.80	592	0.059	GA-25	3.45	1.26	1.94	0.16	4.82
CM-005-F	20.47	63.70	482	0.083	GA-26	3.45	1.09	2.09	0.16	7.40
CM-005-G	25.40	58.60	439	0.041	GA-27	3.45	1.27	1.91	0.16	8.41
CM-006	25.34	33.50	1573	0.166	GA-28	3.45	2.16	1.11	0.13	4.82
CM-006-A	28.95	44.50	1572	0.204	GA-29	3.45	1.77	1.47	0.14	7.31
CM-006-B	39.85	42.20	1337	0.125	GA-30	3.45	1.85	1.39	0.14	9.55
CM-006-C	15.36	52.90	913	0.134	GA-31	3.45	1.47	1.75	0.15	4.61
CM-006-D	6.75	75.40	418	0.116	GA-32	3.45	0.67	2.49	0.18	2.89
CM-006-E	25.88	45.00	1277	0.136	GA-33	3.45	1.75	1.49	0.15	6.61
CM-006-F	19.05	55.60	576	0.044	GA-18	3.45	1.38	1.83	0.16	6.01
CM-006-G	14.25	64.60	547	0.073	GA-34	3.45	1.06	2.13	0.17	5.23
CM-006-H	3.09	79.30	113	0.084	GA-25	3.45	0.54	2.61	0.18	1.39
CM-006-I	3.99	76.40	154	0.056	GA-25	3.45	0.64	2.51	0.18	1.73
CM-006-J	19.65	61.90	810	0.106	GA-35	3.45	1.15	2.04	0.16	6.91
CM-006-K	7.86	64.60	216	0.020	GA-36	3.45	1.06	2.11	0.17	2.87
CM-006-L	11.24	55.30	469	0.107	GA-32	3.45	1.39	1.82	0.16	3.53
CM-006-M	22.11	57.60	800	0.175	GA-37	3.45	1.31	1.90	0.16	7.23
CM-006-N	52.07	47.00	2284	0.159	GA-38	3.45	1.68	1.55	0.15	13.89
CM-006-O	7.24	67.30	297	0.084	GA-39	3.45	0.96	2.22	0.17	2.77
CM-006-P	14.42	60.30	321	0.053	GA-25	3.45	1.21	1.98	0.16	4.93
CM-007	31.60	45.00	1088	0.095	GA-40	3.45	1.75	1.48	0.15	8.07
CM-007-A	23.17	44.10	920	0.119	GA-41	3.45	1.78	1.46	0.14	5.80
CM-007-B	4.58	39.90	110	0.048	GA-42	3.45	1.93	1.31	0.14	1.04
CM-007-C	16.93	48.00	479	0.068	GA-43	3.45	1.65	1.58	0.15	4.61
CM-008	44.77	46.80	535	0.037	GA-44	3.45	1.69	1.53	0.15	11.80
CM-008-A	2.01	61.00	63	0.005	GA-45	3.45	1.19	1.98	0.16	0.68
CM-008-B	7.03	55.00	102	0.012	GA-46	3.45	1.40	1.78	0.16	2.13
CM-008-C	10.48	39.60	451	0.122	GA-47	3.45	1.94	1.31	0.14	2.36
CM-008-D	1.25	80.10	27	0.053	GA-48	3.45	0.51	2.62	0.18	0.57
CM-008-E	24.44	59.50	429	0.097	GA-25	3.45	1.24	1.95	0.16	8.25
CM-008-F	25.44	54.20	1000	0.156	GA-49	3.45	1.43	1.79	0.15	7.83
CM-008-G	11.96	33.30	1168	0.265	GA-50	3.45	2.17	1.10	0.13	2.26
CM-008-H	12.99	58.40	515	0.129	GA-51	3.45	1.28	1.93	0.16	4.31
CM-008-I	38.79	53.20	1350	0.134	GA-52	3.45	1.46	1.75	0.15	11.72
CM-008-J	42.01	51.80	952	0.084	GA-53	3.45	1.51	1.70	0.15	12.35
CM-008-K	13.18	57.70	334	0.069	GA-54	3.45	1.30	1.90	0.16	4.32

XPSWMM Sub-Basin Hydrology Output (10yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-008-L	15.05	50.60	140	0.022	GA-55	3.45	1.55	1.64	0.15	4.19
CM-008-M	9.74	53.00	136	0.049	GA-56	3.45	1.47	1.73	0.15	2.92
CM-008-N	10.02	55.80	94	0.031	GA-57	3.45	1.37	1.81	0.16	3.09
CM-008-O	37.33	52.60	1237	0.115	GA-58	3.45	1.48	1.73	0.15	11.15
CM-008-P	470.13	50.20	2389	0.088	GA-59	3.45	1.57	1.63	0.15	130.49
CM-008-Q	15.89	56.60	714	0.113	GA-60	3.45	1.34	1.87	0.16	5.11
CM-009	316.17	51.90	1954	0.121	GA-61	3.45	1.51	1.69	0.15	92.01
CM-010	240.55	43.50	2000	0.150	GA-62	3.45	1.81	1.42	0.14	59.28
CM-010-A	23.35	56.10	722	0.065	GA-56	3.45	1.36	1.85	0.16	7.44
CMNJ-001	106.87	87.90	2305	0.017	GA-63	3.45	0.23	2.85	0.19	52.12
CMNJ-002	60.18	30.60	1128	0.012	GA-64	3.45	2.26	1.00	0.13	10.42
CMNJ-002-A	20.10	90.50	1178	0.040	GA-65	3.45	0.14	2.97	0.19	10.33
CMNJ-002-B	13.63	71.10	411	0.020	GA-66	3.45	0.83	2.32	0.17	5.48
CMNJ-002-C	8.00	91.90	154	0.016	GA-07	3.45	0.09	2.97	0.19	4.03
CMNJ-002-D	17.64	10.60	582	0.027	GA-67	3.45	2.97	0.35	0.11	1.06
CMNJ-003	14.17	91.40	394	0.032	GA-07	3.45	0.11	2.98	0.19	7.31
CMNJ-003-A	22.16	25.80	956	0.040	GA-07	3.45	2.43	0.85	0.13	3.25
CMNJ-004	2.54	90.00	351	0.053	GA-07	3.45	0.16	2.97	0.19	1.30
CMNJ-004-A	4.07	90.00	181	0.005	GA-68	3.45	0.16	2.92	0.19	2.04
CMNJ-004-B	41.88	90.10	740	0.013	GA-69	3.45	0.15	2.90	0.19	20.44
CMNJ-004-C	6.68	90.00	167	0.015	GA-70	3.45	0.16	2.92	0.19	3.35
CMNJ-004-D	8.42	90.00	529	0.018	GA-71	3.45	0.16	2.95	0.19	4.30
CMNJ-004-E	6.29	90.00	559	0.031	GA-72	3.45	0.16	2.96	0.19	3.21
CMNJ-004-F	4.49	74.60	354	0.042	GA-07	3.45	0.70	2.46	0.18	1.90
CMNJ-004-G	7.46	89.40	179	0.015	GA-68	3.45	0.18	2.90	0.19	3.71
CMNJ-004-H	21.42	90.00	687	0.027	GA-15	3.45	0.16	2.94	0.19	10.89
CMNJ-004-I	25.64	87.00	960	0.034	GA-73	3.45	0.26	2.85	0.19	12.64
CMNJ-004-J	4.32	90.00	289	0.028	GA-74	3.45	0.16	2.96	0.19	2.21
CMNJ-004-K	12.02	89.70	550	0.044	GA-75	3.45	0.17	2.94	0.19	6.12
CMNJ-004-L	7.29	90.00	292	0.019	GA-13	3.45	0.16	2.94	0.19	3.71
CMNJ-004-M	2.81	89.40	239	0.042	GA-75	3.45	0.18	2.95	0.19	1.43
CMNJ-004-N	5.19	90.00	159	0.004	GA-65	3.45	0.16	2.90	0.19	2.52
CMNJ-004-O	32.01	81.80	1231	0.028	GA-76	3.45	0.45	2.68	0.18	14.84
CMNJ-004-P	12.21	64.00	391	0.016	GA-77	3.45	1.08	2.09	0.16	4.42
CMNJ-004-Q	5.90	52.90	151	0.003	GA-07	3.45	1.47	1.71	0.15	1.71
CMNJ-004-R	5.83	81.80	545	0.037	GA-78	3.45	0.45	2.70	0.18	2.71
CMNJ-004-S	11.32	65.70	580	0.013	GA-79	3.45	1.02	2.15	0.17	4.22
CMNJ-004-T	26.87	57.70	849	0.014	GA-80	3.45	1.30	1.89	0.16	8.77
CMNJ-005	60.49	87.40	1044	0.016	GA-81	3.45	0.25	2.82	0.19	28.89
CMNJ-005-A	7.96	90.00	273	0.017	GA-82	3.45	0.16	2.93	0.19	4.04
CMNJ-005-B	14.33	79.20	211	0.020	GA-07	3.45	0.54	2.56	0.18	6.22
CMNJ-005-C	4.55	87.30	220	0.053	GA-07	3.45	0.25	2.87	0.19	2.26
CMNJ-005-D	13.66	75.00	694	0.046	GA-07	3.45	0.69	2.47	0.18	5.82
CMNJ-005-E	16.47	55.70	665	0.018	GA-01	3.45	1.37	1.83	0.16	5.20
CMNJ-005-F	3.74	93.20	179	0.009	GA-07	3.45	0.04	3.04	0.19	1.96
CMNJ-005-G	12.51	58.40	610	0.048	GA-07	3.45	1.28	1.92	0.16	4.15
CMNJ-005-H	3.05	94.60	46	0.012	GA-75	3.45	-0.01	3.03	0.20	1.53
CMNJ-005-I	25.73	85.60	956	0.022	GA-15	3.45	0.31	2.80	0.19	12.46
CMNJ-005-J	27.65	63.30	731	0.021	GA-72	3.45	1.10	2.07	0.16	9.90
CMNJ-005-K	7.24	67.30	412	0.026	GA-72	3.45	0.96	2.21	0.17	2.77
CMNJ-005-L	30.09	61.30	1275	0.042	GA-72	3.45	1.17	2.02	0.16	10.47
CMNJ-005-M	24.45	63.50	734	0.030	GA-07	3.45	1.10	2.08	0.16	8.80
CMNJ-005-N	7.64	65.30	187	0.013	GA-07	3.45	1.03	2.13	0.17	2.80
NJ-001	3.79	54.20	872	0.041	GA-07	3.45	1.43	1.79	0.15	1.17
NJ-001-A	4.95	61.30	603	0.013	GA-07	3.45	1.17	2.02	0.16	1.72
NJ-001-B	15.24	58.50	743	0.063	GA-07	3.45	1.27	1.93	0.16	5.06
NJ-001-C	10.24	70.50	429	0.046	GA-75	3.45	0.85	2.32	0.17	4.10
NJ-002	37.51	47.20	1284	0.021	GA-83	3.45	1.67	1.55	0.15	10.05
NJ-002-A	33.79	61.70	1292	0.042	GA-84	3.45	1.16	2.03	0.16	11.83
NJ-002-B	17.61	69.90	1002	0.043	GA-68	3.45	0.87	2.30	0.17	6.99
NJ-002-C	9.76	58.70	562	0.036	GA-07	3.45	1.27	1.93	0.16	3.25
NJ-002-D	10.09	45.50	861	0.028	GA-01	3.45	1.74	1.50	0.15	2.61
NJ-003	14.46	26.90	2571	0.052	GA-85	3.45	2.40	0.89	0.13	2.21
NJ-003-A	7.13	82.90	919	0.029	GA-07	3.45	0.41	2.73	0.18	3.36
NJ-003-B	4.30	61.40	206	0.013	GA-07	3.45	1.17	2.01	0.16	1.50
NJ-003-C	15.77	63.70	696	0.045	GA-08	3.45	1.09	2.10	0.16	5.70
NJ-003-D	35.30	50.80	1301	0.056	GA-86	3.45	1.55	1.67	0.15	10.18
NJ-003-E	62.97	60.00	1845	0.044	GA-07	3.45	1.22	1.97	0.16	21.44
NJ-003-F	71.91	52.40	1572	0.043	GA-87	3.45	1.49	1.72	0.15	21.37
NJ-003-G	25.90	68.10	756	0.079	GA-26	3.45	0.93	2.24	0.17	10.01
NJ-003-H	29.57	60.50	837	0.082	GA-26	3.45	1.20	1.99	0.16	10.15

XPSWMM Sub-Basin Hydrology Output (10yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
NJ-003-I	28.48	86.30	336	0.037	GA-88	3.45	0.29	2.79	0.19	13.48
NJ-003-J	24.12	58.60	1232	0.038	GA-89	3.45	1.27	1.93	0.16	8.02
NJ-003-K	12.85	61.30	473	0.017	GA-90	3.45	1.17	2.01	0.16	4.46
NJ-003-L	8.16	67.70	276	0.020	GA-91	3.45	0.95	2.22	0.17	3.13
NJ-003-M	18.80	56.70	388	0.007	GA-92	3.45	1.34	1.84	0.16	5.90
NJ-003-N	47.66	59.20	1461	0.038	GA-93	3.45	1.25	1.94	0.16	16.01
NJ-003-O	18.24	52.40	440	0.081	GA-94	3.45	1.49	1.72	0.15	5.43
NJ-003-P	42.25	72.60	972	0.064	GA-95	3.45	0.77	2.38	0.17	17.39
NJ-003-Q	10.67	84.00	68	0.004	GA-96	3.45	0.37	2.58	0.18	3.69
NJ-004	67.72	59.20	1723	0.103	GA-97	3.45	1.25	1.95	0.16	22.76
NJ-004-A	13.11	47.20	821	0.065	GA-98	3.45	1.67	1.56	0.15	3.51
NJ-004-B	10.62	72.10	551	0.059	GA-99	3.45	0.79	2.37	0.17	4.35
NJ-005	22.62	41.70	2513	0.171	GA-100	3.45	1.87	1.38	0.14	5.36
NJ-005-A	8.73	95.00	148	0.062	GA-101	3.45	-0.02	3.09	0.20	4.66
NJ-005-B	1.41	88.10	131	0.077	GA-102	3.45	0.22	2.91	0.19	0.71
NJ-005-C	1.88	67.80	393	0.163	GA-07	3.45	0.94	2.25	0.17	0.72
NJ-005-D	2.90	84.70	235	0.202	GA-25	3.45	0.34	2.80	0.19	1.39
NJ-005-E	2.25	75.70	424	0.148	GA-103	3.45	0.66	2.51	0.18	0.97
NJ-005-F	4.81	75.20	395	0.108	GA-35	3.45	0.68	2.48	0.18	2.05
NJ-005-G	18.18	52.80	473	0.061	GA-95	3.45	1.48	1.73	0.15	5.45
NJ-006	11.64	27.80	751	0.224	GA-104	3.45	2.36	0.92	0.13	1.84
NJ-006-A	57.93	57.50	1477	0.096	GA-105	3.45	1.31	1.89	0.16	18.91
NJ-007	50.73	66.30	1822	0.107	GA-106	3.45	1.00	2.18	0.17	19.09
NJ-007-A	22.77	57.60	866	0.097	GA-107	3.45	1.31	1.90	0.16	7.45
NJ-007-B	12.74	50.40	901	0.190	GA-19	3.45	1.56	1.67	0.15	3.65
NJ-007-C	25.96	56.30	1220	0.137	GA-26	3.45	1.35	1.86	0.16	8.30
NJ-007-D	34.86	42.90	1217	0.083	GA-108	3.45	1.83	1.41	0.14	8.49
NJ-007-E	12.24	67.80	386	0.144	GA-109	3.45	0.94	2.23	0.17	4.71
NJ-007-F	16.92	53.20	672	0.088	GA-110	3.45	1.46	1.75	0.15	5.11
NJ-007-G	30.46	71.70	903	0.114	GA-111	3.45	0.81	2.36	0.17	12.40
NJ-007-H	15.69	78.10	511	0.098	GA-112	3.45	0.58	2.57	0.18	6.96
NJ-007-I	26.86	48.80	2166	0.370	GA-113	3.45	1.62	1.62	0.15	7.44
NJ-007-J	12.83	68.40	590	0.099	GA-31	3.45	0.92	2.25	0.17	4.98
NJ-007-K	7.61	56.30	190	0.060	GA-114	3.45	1.35	1.85	0.16	2.43
NJ-007-L	118.98	31.10	1053	0.148	GA-115	3.45	2.25	1.02	0.13	21.00
NJ-007-M	9.81	63.10	135	0.036	GA-108	3.45	1.11	2.05	0.16	3.47
NJ-007-N	15.98	57.50	606	0.087	GA-25	3.45	1.31	1.89	0.16	5.22
NJ-007-O	1.63	93.40	106	0.122	GA-116	3.45	0.03	3.08	0.19	0.86
NJ-008	24.41	48.60	1332	0.156	GA-117	3.45	1.63	1.61	0.15	6.74
NJ-008-A	18.13	84.10	764	0.101	GA-27	3.45	0.36	2.77	0.18	8.66
NJ-008-B	11.84	60.90	655	0.060	GA-25	3.45	1.19	2.01	0.16	4.09
NJ-008-C	16.18	85.80	537	0.022	GA-96	3.45	0.30	2.80	0.19	7.84
NJ-008-D	1.31	91.90	42	0.006	GA-88	3.45	0.09	2.97	0.19	0.66
NJ-008-E	4.67	82.60	251	0.042	GA-96	3.45	0.42	2.72	0.18	2.19
NJ-008-F	20.76	66.20	470	0.058	GA-25	3.45	1.00	2.17	0.17	7.79
NJ-009	26.46	33.70	1803	0.286	GA-118	3.45	2.15	1.12	0.13	5.06
NJ-009-A	16.97	80.70	636	0.131	GA-19	3.45	0.49	2.66	0.18	7.77
NJ-009-B	16.29	78.80	926	0.119	GA-33	3.45	0.55	2.60	0.18	7.29
NJ-009-C	10.48	89.30	807	0.115	GA-119	3.45	0.18	2.95	0.19	5.31
NJ-009-D	7.36	60.10	467	0.134	GA-120	3.45	1.22	1.99	0.16	2.51
NJ-009-E	8.60	58.00	381	0.134	GA-121	3.45	1.29	1.91	0.16	2.83
NJ-009-F	4.43	57.40	189	0.056	GA-25	3.45	1.31	1.89	0.16	1.44
NJ-009-G	35.72	56.70	790	0.081	GA-35	3.45	1.34	1.86	0.16	11.49
NJ-009-H	22.15	54.80	536	0.092	GA-109	3.45	1.41	1.80	0.16	6.89
NJ-009-I	31.81	55.10	702	0.068	GA-108	3.45	1.39	1.81	0.16	9.95
NJ-009-J	14.75	66.00	774	0.107	GA-27	3.45	1.01	2.18	0.17	5.53
NJ-009-K	23.44	53.40	934	0.151	GA-122	3.45	1.45	1.76	0.15	7.11
NJ-009-L	3.05	81.70	98	0.065	GA-25	3.45	0.45	2.68	0.18	1.41
NJ-009-M	21.21	56.60	378	0.022	GA-88	3.45	1.34	1.84	0.16	6.75
NJ-010	37.52	46.50	1197	0.099	GA-123	3.45	1.70	1.53	0.15	9.91
NJ-010-A	16.41	87.00	418	0.013	GA-124	3.45	0.26	2.82	0.19	7.94
NJ-010-B	32.85	85.70	927	0.067	GA-88	3.45	0.31	2.81	0.19	15.96
NJ-010-C	39.69	57.20	1090	0.118	GA-33	3.45	1.32	1.88	0.16	12.89
NJ-010-D	74.95	56.80	900	0.047	GA-125	3.45	1.33	1.85	0.16	23.94
NJ-010-E	4.23	86.30	218	0.044	GA-126	3.45	0.29	2.84	0.19	2.07
NJ-010-F	18.78	16.80	472	0.086	GA-127	3.45	2.75	0.56	0.12	1.79
NJ-010-G	39.38	70.30	923	0.098	GA-18	3.45	0.85	2.31	0.17	15.71
NJ-010-H	5.06	11.70	231	0.066	GA-128	3.45	2.94	0.39	0.11	0.34
NJ-010-I	13.96	18.20	354	0.053	GA-129	3.45	2.70	0.60	0.12	1.44
NJ-010-J	54.62	46.50	472	0.097	GA-130	3.45	1.70	1.52	0.15	14.35
NJ-010-K	38.44	30.40	892	0.265	GA-131	3.45	2.27	1.00	0.13	6.63

XPSWMM Sub-Basin Hydrology Output (10yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
NJ-010-L	24.97	43.40	558	0.218	GA-44	3.45	1.81	1.43	0.14	6.15
NJ-011	6.22	48.10	255	0.060	GA-132	3.45	1.64	1.59	0.15	1.70
NJ-011-A	4.43	57.80	213	0.059	GA-133	3.45	1.30	1.90	0.16	1.45
NJ-011-B	12.45	54.40	365	0.073	GA-134	3.45	1.42	1.79	0.15	3.85
NJ-012	10.88	58.30	175	0.046	GA-135	3.45	1.28	1.90	0.16	3.59
NJ-013	6.71	63.50	300	0.079	GA-07	3.45	1.10	2.09	0.16	2.42
NJ-014	34.93	55.00	1446	0.101	GA-112	3.45	1.40	1.81	0.16	10.91
NJ-015	19.44	59.40	753	0.099	GA-112	3.45	1.24	1.96	0.16	6.56
NJ-015-A	4.75	81.00	365	0.108	GA-27	3.45	0.47	2.67	0.18	2.18
NJ-015-B	9.33	67.70	523	0.130	GA-136	3.45	0.95	2.23	0.17	3.59
NJ-016	173.89	20.20	1485	0.134	GA-132	3.45	2.63	0.67	0.12	19.94
NJ-016-A	16.64	27.90	1228	0.325	GA-137	3.45	2.36	0.92	0.13	2.64
NJ-016-B	5.95	60.10	281	0.043	GA-136	3.45	1.22	1.98	0.16	2.03
NJ-016-C	3.94	57.90	495	0.155	GA-138	3.45	1.30	1.92	0.16	1.30
NJ-016-D	14.47	29.30	668	0.255	GA-139	3.45	2.31	0.97	0.13	2.41
NJ-016-E	8.56	52.70	348	0.087	GA-140	3.45	1.48	1.74	0.15	2.56

XPSWMM Sub-Basin Hydrology Output (25yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-001	13.08	85.10	923	0.023	GA-01	3.90	0.40	3.18	0.19	7.15
CM-002	14.54	36.90	650	0.033	GA-02	3.90	2.32	1.38	0.14	3.45
CM-002-A	27.51	59.60	730	0.011	GA-03	3.90	1.42	2.21	0.16	10.46
CM-003	42.57	68.60	814	0.029	GA-04	3.90	1.06	2.54	0.17	18.63
CM-003-A	19.88	58.80	684	0.047	GA-05	3.90	1.45	2.20	0.16	7.51
CM-003-B	8.40	60.60	420	0.014	GA-06	3.90	1.38	2.26	0.16	3.27
CM-003-C	5.93	60.30	333	0.011	GA-07	3.90	1.39	2.25	0.16	2.30
CM-003-D	11.43	60.00	323	0.012	GA-08	3.90	1.40	2.22	0.16	4.38
CM-003-E	7.82	56.30	399	0.006	GA-07	3.90	1.55	2.09	0.16	2.82
CM-003-F	3.28	63.20	398	0.063	GA-07	3.90	1.27	2.37	0.16	1.33
CM-003-G	48.95	86.10	2369	0.064	GA-09	3.90	0.36	3.22	0.19	27.07
CM-003-H	14.05	90.00	744	0.092	GA-10	3.90	0.20	3.37	0.19	8.12
CM-003-I	10.94	88.00	878	0.083	GA-11	3.90	0.28	3.30	0.19	6.18
CM-003-J	13.86	87.60	584	0.023	GA-12	3.90	0.30	3.26	0.19	7.79
CM-003-K	1.87	92.10	88	0.007	GA-13	3.90	0.12	3.41	0.19	1.10
CM-003-L	12.31	71.50	641	0.053	GA-14	3.90	0.94	2.67	0.17	5.65
CM-003-M	6.82	87.80	324	0.055	GA-15	3.90	0.29	3.28	0.19	3.85
CM-003-N	4.61	59.40	505	0.044	GA-07	3.90	1.42	2.23	0.16	1.76
CM-003-O	9.26	90.30	376	0.026	GA-13	3.90	0.19	3.36	0.19	5.36
CM-003-P	7.95	77.60	186	0.018	GA-16	3.90	0.70	2.87	0.18	3.92
CM-003-Q	13.96	60.60	622	0.035	GA-07	3.90	1.38	2.26	0.16	5.43
CM-003-R	14.96	60.70	292	0.025	GA-17	3.90	1.37	2.25	0.16	5.80
CM-003-S	4.75	62.10	102	0.028	GA-07	3.90	1.32	2.30	0.16	1.89
CM-003-T	12.03	58.60	344	0.043	GA-07	3.90	1.46	2.18	0.16	4.53
CM-003-U	19.33	40.30	781	0.096	GA-18	3.90	2.19	1.51	0.14	5.00
CM-003-V	5.03	61.20	228	0.070	GA-07	3.90	1.35	2.29	0.16	1.98
CM-003-W	15.58	56.10	350	0.057	GA-19	3.90	1.56	2.09	0.16	5.61
CM-004	22.30	87.10	1386	0.046	GA-20	3.90	0.32	3.26	0.19	12.48
CM-004-A	9.05	65.90	664	0.036	GA-21	3.90	1.16	2.47	0.17	3.83
CM-004-B	16.14	54.90	817	0.074	GA-07	3.90	1.60	2.06	0.16	5.69
CM-005	44.12	60.40	1308	0.073	GA-22	3.90	1.38	2.26	0.16	17.11
CM-005-A	9.63	70.20	595	0.061	GA-23	3.90	0.99	2.63	0.17	4.34
CM-005-B	12.85	61.10	639	0.120	GA-24	3.90	1.36	2.29	0.16	5.04
CM-005-C	2.31	88.60	113	0.034	GA-25	3.90	0.26	3.30	0.19	1.31
CM-005-D	6.96	64.50	264	0.042	GA-25	3.90	1.22	2.41	0.17	2.88
CM-005-E	14.44	58.80	592	0.059	GA-25	3.90	1.45	2.20	0.16	5.45
CM-005-F	20.47	63.70	482	0.083	GA-26	3.90	1.25	2.38	0.16	8.37
CM-005-G	25.40	58.60	439	0.041	GA-27	3.90	1.46	2.18	0.16	9.53
CM-006	25.34	33.50	1573	0.166	GA-28	3.90	2.46	1.26	0.13	5.45
CM-006-A	28.95	44.50	1572	0.204	GA-29	3.90	2.02	1.67	0.14	8.28
CM-006-B	39.85	42.20	1337	0.125	GA-30	3.90	2.11	1.58	0.14	10.80
CM-006-C	15.36	52.90	913	0.134	GA-31	3.90	1.68	1.99	0.15	5.22
CM-006-D	6.75	75.40	418	0.116	GA-32	3.90	0.78	2.83	0.18	3.27
CM-006-E	25.88	45.00	1277	0.136	GA-33	3.90	2.00	1.69	0.15	7.48
CM-006-F	19.05	55.60	576	0.044	GA-18	3.90	1.58	2.07	0.16	6.80
CM-006-G	14.25	64.60	547	0.073	GA-34	3.90	1.22	2.42	0.17	5.91
CM-006-H	3.09	79.30	113	0.084	GA-25	3.90	0.63	2.96	0.18	1.57
CM-006-I	3.99	76.40	154	0.056	GA-25	3.90	0.74	2.85	0.18	1.96
CM-006-J	19.65	61.90	810	0.106	GA-35	3.90	1.32	2.32	0.16	7.81
CM-006-K	7.86	64.60	216	0.020	GA-36	3.90	1.22	2.40	0.17	3.25
CM-006-L	11.24	55.30	469	0.107	GA-32	3.90	1.59	2.07	0.16	3.99
CM-006-M	22.11	57.60	800	0.175	GA-37	3.90	1.50	2.16	0.16	8.18
CM-006-N	52.07	47.00	2284	0.159	GA-38	3.90	1.92	1.76	0.15	15.72
CM-006-O	7.24	67.30	297	0.084	GA-39	3.90	1.11	2.52	0.17	3.13
CM-006-P	14.42	60.30	321	0.053	GA-25	3.90	1.39	2.25	0.16	5.58
CM-007	31.60	45.00	1088	0.095	GA-40	3.90	2.00	1.69	0.15	9.13
CM-007-A	23.17	44.10	920	0.119	GA-41	3.90	2.04	1.65	0.14	6.56
CM-007-B	4.58	39.90	110	0.048	GA-42	3.90	2.20	1.49	0.14	1.17
CM-007-C	16.93	48.00	479	0.068	GA-43	3.90	1.88	1.79	0.15	5.22
CM-008	44.77	46.80	535	0.037	GA-44	3.90	1.93	1.73	0.15	13.38
CM-008-A	2.01	61.00	63	0.005	GA-45	3.90	1.36	2.25	0.16	0.78
CM-008-B	7.03	55.00	102	0.012	GA-46	3.90	1.60	2.02	0.16	2.43
CM-008-C	10.48	39.60	451	0.122	GA-47	3.90	2.22	1.49	0.14	2.67
CM-008-D	1.25	80.10	27	0.053	GA-48	3.90	0.60	2.97	0.18	0.64
CM-008-E	24.44	59.50	429	0.097	GA-25	3.90	1.42	2.22	0.16	9.33
CM-008-F	25.44	54.20	1000	0.156	GA-49	3.90	1.63	2.03	0.15	8.86
CM-008-G	11.96	33.30	1168	0.265	GA-50	3.90	2.47	1.25	0.13	2.56
CM-008-H	12.99	58.40	515	0.129	GA-51	3.90	1.46	2.19	0.16	4.87
CM-008-I	38.79	53.20	1350	0.134	GA-52	3.90	1.67	1.99	0.15	13.26
CM-008-J	42.01	51.80	952	0.084	GA-53	3.90	1.73	1.93	0.15	13.98
CM-008-K	13.18	57.70	334	0.069	GA-54	3.90	1.49	2.15	0.16	4.88

XPSWMM Sub-Basin Hydrology Output (25yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-008-L	15.05	50.60	140	0.022	GA-55	3.90	1.78	1.86	0.15	4.76
CM-008-M	9.74	53.00	136	0.049	GA-56	3.90	1.68	1.97	0.15	3.30
CM-008-N	10.02	55.80	94	0.031	GA-57	3.90	1.57	2.05	0.16	3.51
CM-008-O	37.33	52.60	1237	0.115	GA-58	3.90	1.70	1.97	0.15	12.61
CM-008-P	470.13	50.20	2389	0.088	GA-59	3.90	1.79	1.85	0.15	148.29
CM-008-Q	15.89	56.60	714	0.113	GA-60	3.90	1.54	2.12	0.16	5.78
CM-009	316.17	51.90	1954	0.121	GA-61	3.90	1.72	1.92	0.15	104.35
CM-010	240.55	43.50	2000	0.150	GA-62	3.90	2.06	1.62	0.14	67.11
CM-010-A	23.35	56.10	722	0.065	GA-56	3.90	1.56	2.10	0.16	8.41
CMNJ-001	106.87	87.90	2305	0.017	GA-63	3.90	0.28	3.24	0.19	59.20
CMNJ-002	60.18	30.60	1128	0.012	GA-64	3.90	2.58	1.14	0.13	11.80
CMNJ-002-A	20.10	90.50	1178	0.040	GA-65	3.90	0.18	3.38	0.19	11.68
CMNJ-002-B	13.63	71.10	411	0.020	GA-66	3.90	0.96	2.64	0.17	6.20
CMNJ-002-C	8.00	91.90	154	0.016	GA-07	3.90	0.12	3.38	0.19	4.59
CMNJ-002-D	17.64	10.60	582	0.027	GA-67	3.90	3.38	0.40	0.11	1.20
CMNJ-003	14.17	91.40	394	0.032	GA-07	3.90	0.14	3.39	0.19	8.28
CMNJ-003-A	22.16	25.80	956	0.040	GA-07	3.90	2.77	0.97	0.13	3.67
CMNJ-004	2.54	90.00	351	0.053	GA-07	3.90	0.20	3.38	0.19	1.47
CMNJ-004-A	4.07	90.00	181	0.005	GA-68	3.90	0.20	3.32	0.19	2.32
CMNJ-004-B	41.88	90.10	740	0.013	GA-69	3.90	0.20	3.30	0.19	23.28
CMNJ-004-C	6.68	90.00	167	0.015	GA-70	3.90	0.20	3.32	0.19	3.80
CMNJ-004-D	8.42	90.00	529	0.018	GA-71	3.90	0.20	3.35	0.19	4.86
CMNJ-004-E	6.29	90.00	559	0.031	GA-72	3.90	0.20	3.37	0.19	3.64
CMNJ-004-F	4.49	74.60	354	0.042	GA-07	3.90	0.82	2.79	0.18	2.15
CMNJ-004-G	7.46	89.40	179	0.015	GA-68	3.90	0.22	3.30	0.19	4.21
CMNJ-004-H	21.42	90.00	687	0.027	GA-15	3.90	0.20	3.34	0.19	12.34
CMNJ-004-I	25.64	87.00	960	0.034	GA-73	3.90	0.32	3.24	0.19	14.31
CMNJ-004-J	4.32	90.00	289	0.028	GA-74	3.90	0.20	3.36	0.19	2.50
CMNJ-004-K	12.02	89.70	550	0.044	GA-75	3.90	0.21	3.35	0.19	6.92
CMNJ-004-L	7.29	90.00	292	0.019	GA-13	3.90	0.20	3.34	0.19	4.20
CMNJ-004-M	2.81	89.40	239	0.042	GA-75	3.90	0.22	3.35	0.19	1.61
CMNJ-004-N	5.19	90.00	159	0.004	GA-65	3.90	0.20	3.30	0.19	2.87
CMNJ-004-O	32.01	81.80	1231	0.028	GA-76	3.90	0.53	3.04	0.18	16.80
CMNJ-004-P	12.21	64.00	391	0.016	GA-77	3.90	1.24	2.38	0.16	5.01
CMNJ-004-Q	5.90	52.90	151	0.003	GA-07	3.90	1.68	1.94	0.15	1.95
CMNJ-004-R	5.83	81.80	545	0.037	GA-78	3.90	0.53	3.06	0.18	3.06
CMNJ-004-S	11.32	65.70	580	0.013	GA-79	3.90	1.17	2.45	0.17	4.77
CMNJ-004-T	26.87	57.70	849	0.014	GA-80	3.90	1.49	2.14	0.16	9.93
CMNJ-005	60.49	87.40	1044	0.016	GA-81	3.90	0.30	3.21	0.19	32.87
CMNJ-005-A	7.96	90.00	273	0.017	GA-82	3.90	0.20	3.33	0.19	4.57
CMNJ-005-B	14.33	79.20	211	0.020	GA-07	3.90	0.63	2.91	0.18	7.08
CMNJ-005-C	4.55	87.30	220	0.053	GA-07	3.90	0.31	3.26	0.19	2.55
CMNJ-005-D	13.66	75.00	694	0.046	GA-07	3.90	0.80	2.80	0.18	6.58
CMNJ-005-E	16.47	55.70	665	0.018	GA-01	3.90	1.57	2.08	0.16	5.89
CMNJ-005-F	3.74	93.20	179	0.009	GA-07	3.90	0.07	3.45	0.19	2.23
CMNJ-005-G	12.51	58.40	610	0.048	GA-07	3.90	1.46	2.19	0.16	4.69
CMNJ-005-H	3.05	94.60	46	0.012	GA-75	3.90	0.02	3.45	0.20	1.74
CMNJ-005-I	25.73	85.60	956	0.022	GA-15	3.90	0.38	3.18	0.19	14.11
CMNJ-005-J	27.65	63.30	731	0.021	GA-72	3.90	1.27	2.35	0.16	11.21
CMNJ-005-K	7.24	67.30	412	0.026	GA-72	3.90	1.11	2.51	0.17	3.13
CMNJ-005-L	30.09	61.30	1275	0.042	GA-72	3.90	1.35	2.29	0.16	11.85
CMNJ-005-M	24.45	63.50	734	0.030	GA-07	3.90	1.26	2.36	0.16	9.96
CMNJ-005-N	7.64	65.30	187	0.013	GA-07	3.90	1.19	2.42	0.17	3.18
NJ-001	3.79	54.20	872	0.041	GA-07	3.90	1.63	2.04	0.15	1.32
NJ-001-A	4.95	61.30	603	0.013	GA-07	3.90	1.35	2.30	0.16	1.95
NJ-001-B	15.24	58.50	743	0.063	GA-07	3.90	1.46	2.19	0.16	5.73
NJ-001-C	10.24	70.50	429	0.046	GA-75	3.90	0.98	2.63	0.17	4.64
NJ-002	37.51	47.20	1284	0.021	GA-83	3.90	1.91	1.76	0.15	11.37
NJ-002-A	33.79	61.70	1292	0.042	GA-84	3.90	1.33	2.30	0.16	13.39
NJ-002-B	17.61	69.90	1002	0.043	GA-68	3.90	1.00	2.61	0.17	7.91
NJ-002-C	9.76	58.70	562	0.036	GA-07	3.90	1.45	2.20	0.16	3.68
NJ-002-D	10.09	45.50	861	0.028	GA-01	3.90	1.98	1.71	0.15	2.95
NJ-003	14.46	26.90	2571	0.052	GA-85	3.90	2.72	1.01	0.13	2.50
NJ-003-A	7.13	82.90	919	0.029	GA-07	3.90	0.48	3.11	0.18	3.80
NJ-003-B	4.30	61.40	206	0.013	GA-07	3.90	1.34	2.29	0.16	1.70
NJ-003-C	15.77	63.70	696	0.045	GA-08	3.90	1.25	2.38	0.16	6.45
NJ-003-D	35.30	50.80	1301	0.056	GA-86	3.90	1.77	1.90	0.15	11.52
NJ-003-E	62.97	60.00	1845	0.044	GA-07	3.90	1.40	2.24	0.16	24.26
NJ-003-F	71.91	52.40	1572	0.043	GA-87	3.90	1.70	1.95	0.15	24.18
NJ-003-G	25.90	68.10	756	0.079	GA-26	3.90	1.08	2.54	0.17	11.33
NJ-003-H	29.57	60.50	837	0.082	GA-26	3.90	1.38	2.26	0.16	11.49

XPSWMM Sub-Basin Hydrology Output (25yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
NJ-003-I	28.48	86.30	336	0.037	GA-88	3.90	0.35	3.17	0.19	15.33
NJ-003-J	24.12	58.60	1232	0.038	GA-89	3.90	1.46	2.19	0.16	9.08
NJ-003-K	12.85	61.30	473	0.017	GA-90	3.90	1.35	2.28	0.16	5.05
NJ-003-L	8.16	67.70	276	0.020	GA-91	3.90	1.09	2.52	0.17	3.54
NJ-003-M	18.80	56.70	388	0.007	GA-92	3.90	1.53	2.09	0.16	6.70
NJ-003-N	47.66	59.20	1461	0.038	GA-93	3.90	1.43	2.21	0.16	18.12
NJ-003-O	18.24	52.40	440	0.081	GA-94	3.90	1.70	1.96	0.15	6.14
NJ-003-P	42.25	72.60	972	0.064	GA-95	3.90	0.90	2.70	0.17	19.68
NJ-003-Q	10.67	84.00	68	0.004	GA-96	3.90	0.44	2.94	0.18	4.27
NJ-004	67.72	59.20	1723	0.103	GA-97	3.90	1.43	2.21	0.16	25.75
NJ-004-A	13.11	47.20	821	0.065	GA-98	3.90	1.91	1.77	0.15	3.98
NJ-004-B	10.62	72.10	551	0.059	GA-99	3.90	0.92	2.70	0.17	4.92
NJ-005	22.62	41.70	2513	0.171	GA-100	3.90	2.13	1.57	0.14	6.06
NJ-005-A	8.73	95.00	148	0.062	GA-101	3.90	0.00	3.52	0.20	5.28
NJ-005-B	1.41	88.10	131	0.077	GA-102	3.90	0.28	3.30	0.19	0.80
NJ-005-C	1.88	67.80	393	0.163	GA-07	3.90	1.09	2.55	0.17	0.82
NJ-005-D	2.90	84.70	235	0.202	GA-25	3.90	0.41	3.18	0.19	1.58
NJ-005-E	2.25	75.70	424	0.148	GA-103	3.90	0.77	2.85	0.18	1.09
NJ-005-F	4.81	75.20	395	0.108	GA-35	3.90	0.79	2.82	0.18	2.32
NJ-005-G	18.18	52.80	473	0.061	GA-95	3.90	1.69	1.97	0.15	6.16
NJ-006	11.64	27.80	751	0.224	GA-104	3.90	2.69	1.05	0.13	2.08
NJ-006-A	57.93	57.50	1477	0.096	GA-105	3.90	1.50	2.15	0.16	21.39
NJ-007	50.73	66.30	1822	0.107	GA-106	3.90	1.15	2.48	0.17	21.60
NJ-007-A	22.77	57.60	866	0.097	GA-107	3.90	1.50	2.16	0.16	8.42
NJ-007-B	12.74	50.40	901	0.190	GA-19	3.90	1.78	1.89	0.15	4.12
NJ-007-C	25.96	56.30	1220	0.137	GA-26	3.90	1.55	2.11	0.16	9.39
NJ-007-D	34.86	42.90	1217	0.083	GA-108	3.90	2.08	1.61	0.14	9.61
NJ-007-E	12.24	67.80	386	0.144	GA-109	3.90	1.09	2.54	0.17	5.33
NJ-007-F	16.92	53.20	672	0.088	GA-110	3.90	1.67	1.99	0.15	5.78
NJ-007-G	30.46	71.70	903	0.114	GA-111	3.90	0.93	2.68	0.17	14.03
NJ-007-H	15.69	78.10	511	0.098	GA-112	3.90	0.68	2.92	0.18	7.87
NJ-007-I	26.86	48.80	2166	0.370	GA-113	3.90	1.85	1.84	0.15	8.42
NJ-007-J	12.83	68.40	590	0.099	GA-31	3.90	1.06	2.56	0.17	5.64
NJ-007-K	7.61	56.30	190	0.060	GA-114	3.90	1.55	2.10	0.16	2.75
NJ-007-L	118.98	31.10	1053	0.148	GA-115	3.90	2.56	1.16	0.13	23.76
NJ-007-M	9.81	63.10	135	0.036	GA-108	3.90	1.28	2.33	0.16	3.94
NJ-007-N	15.98	57.50	606	0.087	GA-25	3.90	1.50	2.15	0.16	5.90
NJ-007-O	1.63	93.40	106	0.122	GA-116	3.90	0.06	3.50	0.19	0.98
NJ-008	24.41	48.60	1332	0.156	GA-117	3.90	1.86	1.82	0.15	7.62
NJ-008-A	18.13	84.10	764	0.101	GA-27	3.90	0.44	3.14	0.18	9.79
NJ-008-B	11.84	60.90	655	0.060	GA-25	3.90	1.36	2.28	0.16	4.63
NJ-008-C	16.18	85.80	537	0.022	GA-96	3.90	0.37	3.18	0.19	8.88
NJ-008-D	1.31	91.90	42	0.006	GA-88	3.90	0.12	3.38	0.19	0.75
NJ-008-E	4.67	82.60	251	0.042	GA-96	3.90	0.50	3.09	0.18	2.48
NJ-008-F	20.76	66.20	470	0.058	GA-25	3.90	1.15	2.46	0.17	8.82
NJ-009	26.46	33.70	1803	0.286	GA-118	3.90	2.45	1.27	0.13	5.73
NJ-009-A	16.97	80.70	636	0.131	GA-19	3.90	0.57	3.02	0.18	8.80
NJ-009-B	16.29	78.80	926	0.119	GA-33	3.90	0.65	2.95	0.18	8.25
NJ-009-C	10.48	89.30	807	0.115	GA-119	3.90	0.23	3.35	0.19	6.01
NJ-009-D	7.36	60.10	467	0.134	GA-120	3.90	1.40	2.26	0.16	2.84
NJ-009-E	8.60	58.00	381	0.134	GA-121	3.90	1.48	2.17	0.16	3.20
NJ-009-F	4.43	57.40	189	0.056	GA-25	3.90	1.50	2.15	0.16	1.63
NJ-009-G	35.72	56.70	790	0.081	GA-35	3.90	1.53	2.12	0.16	13.01
NJ-009-H	22.15	54.80	536	0.092	GA-109	3.90	1.61	2.05	0.16	7.80
NJ-009-I	31.81	55.10	702	0.068	GA-108	3.90	1.60	2.05	0.16	11.25
NJ-009-J	14.75	66.00	774	0.107	GA-27	3.90	1.16	2.47	0.17	6.25
NJ-009-K	23.44	53.40	934	0.151	GA-122	3.90	1.66	2.00	0.15	8.04
NJ-009-L	3.05	81.70	98	0.065	GA-25	3.90	0.53	3.05	0.18	1.60
NJ-009-M	21.21	56.60	378	0.022	GA-88	3.90	1.54	2.10	0.16	7.66
NJ-010	37.52	46.50	1197	0.099	GA-123	3.90	1.94	1.74	0.15	11.21
NJ-010-A	16.41	87.00	418	0.013	GA-124	3.90	0.32	3.21	0.19	9.01
NJ-010-B	32.85	85.70	927	0.067	GA-88	3.90	0.37	3.19	0.19	18.07
NJ-010-C	39.69	57.20	1090	0.118	GA-33	3.90	1.51	2.14	0.16	14.58
NJ-010-D	74.95	56.80	900	0.047	GA-125	3.90	1.53	2.10	0.16	27.14
NJ-010-E	4.23	86.30	218	0.044	GA-126	3.90	0.35	3.22	0.19	2.34
NJ-010-F	18.78	16.80	472	0.086	GA-127	3.90	3.13	0.63	0.12	2.03
NJ-010-G	39.38	70.30	923	0.098	GA-18	3.90	0.99	2.62	0.17	17.78
NJ-010-H	5.06	11.70	231	0.066	GA-128	3.90	3.33	0.44	0.11	0.38
NJ-010-I	13.96	18.20	354	0.053	GA-129	3.90	3.07	0.68	0.12	1.63
NJ-010-J	54.62	46.50	472	0.097	GA-130	3.90	1.94	1.73	0.15	16.25
NJ-010-K	38.44	30.40	892	0.265	GA-131	3.90	2.58	1.14	0.13	7.51

XPSWMM Sub-Basin Hydrology Output (25yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
NJ-010-L	24.97	43.40	558	0.218	GA-44	3.90	2.06	1.63	0.14	6.96
NJ-011	6.22	48.10	255	0.060	GA-132	3.90	1.88	1.80	0.15	1.92
NJ-011-A	4.43	57.80	213	0.059	GA-133	3.90	1.49	2.16	0.16	1.65
NJ-011-B	12.45	54.40	365	0.073	GA-134	3.90	1.62	2.03	0.15	4.35
NJ-012	10.88	58.30	175	0.046	GA-135	3.90	1.47	2.16	0.16	4.06
NJ-013	6.71	63.50	300	0.079	GA-07	3.90	1.26	2.38	0.16	2.74
NJ-014	34.93	55.00	1446	0.101	GA-112	3.90	1.60	2.06	0.16	12.34
NJ-015	19.44	59.40	753	0.099	GA-112	3.90	1.42	2.22	0.16	7.42
NJ-015-A	4.75	81.00	365	0.108	GA-27	3.90	0.56	3.04	0.18	2.47
NJ-015-B	9.33	67.70	523	0.130	GA-136	3.90	1.09	2.54	0.17	4.06
NJ-016	173.89	20.20	1485	0.134	GA-132	3.90	2.99	0.76	0.12	22.56
NJ-016-A	16.64	27.90	1228	0.325	GA-137	3.90	2.68	1.05	0.13	2.98
NJ-016-B	5.95	60.10	281	0.043	GA-136	3.90	1.40	2.25	0.16	2.30
NJ-016-C	3.94	57.90	495	0.155	GA-138	3.90	1.48	2.18	0.16	1.47
NJ-016-D	14.47	29.30	668	0.255	GA-139	3.90	2.63	1.10	0.13	2.72
NJ-016-E	8.56	52.70	348	0.087	GA-140	3.90	1.69	1.97	0.15	2.90

XPSWMM Sub-Basin Hydrology Output (50yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-001	13.08	85.10	923	0.023	GA-01	4.20	0.44	3.43	0.19	7.70
CM-002	14.54	36.90	650	0.033	GA-02	4.20	2.51	1.49	0.14	3.71
CM-002-A	27.51	59.60	730	0.011	GA-03	4.20	1.54	2.38	0.16	11.28
CM-003	42.57	68.60	814	0.029	GA-04	4.20	1.15	2.74	0.17	20.09
CM-003-A	19.88	58.80	684	0.047	GA-05	4.20	1.57	2.37	0.16	8.09
CM-003-B	8.40	60.60	420	0.014	GA-06	4.20	1.49	2.44	0.16	3.52
CM-003-C	5.93	60.30	333	0.011	GA-07	4.20	1.51	2.43	0.16	2.47
CM-003-D	11.43	60.00	323	0.012	GA-08	4.20	1.52	2.40	0.16	4.72
CM-003-E	7.82	56.30	399	0.006	GA-07	4.20	1.68	2.26	0.16	3.04
CM-003-F	3.28	63.20	398	0.063	GA-07	4.20	1.38	2.56	0.16	1.44
CM-003-G	48.95	86.10	2369	0.064	GA-09	4.20	0.40	3.47	0.19	29.17
CM-003-H	14.05	90.00	744	0.092	GA-10	4.20	0.23	3.64	0.19	8.75
CM-003-I	10.94	88.00	878	0.083	GA-11	4.20	0.32	3.56	0.19	6.66
CM-003-J	13.86	87.60	584	0.023	GA-12	4.20	0.33	3.52	0.19	8.39
CM-003-K	1.87	92.10	88	0.007	GA-13	4.20	0.14	3.68	0.19	1.18
CM-003-L	12.31	71.50	641	0.053	GA-14	4.20	1.03	2.89	0.17	6.09
CM-003-M	6.82	87.80	324	0.055	GA-15	4.20	0.33	3.54	0.19	4.14
CM-003-N	4.61	59.40	505	0.044	GA-07	4.20	1.55	2.41	0.16	1.90
CM-003-O	9.26	90.30	376	0.026	GA-13	4.20	0.22	3.63	0.19	5.78
CM-003-P	7.95	77.60	186	0.018	GA-16	4.20	0.76	3.10	0.18	4.23
CM-003-Q	13.96	60.60	622	0.035	GA-07	4.20	1.49	2.44	0.16	5.85
CM-003-R	14.96	60.70	292	0.025	GA-17	4.20	1.49	2.43	0.16	6.25
CM-003-S	4.75	62.10	102	0.028	GA-07	4.20	1.43	2.49	0.16	2.04
CM-003-T	12.03	58.60	344	0.043	GA-07	4.20	1.58	2.36	0.16	4.88
CM-003-U	19.33	40.30	781	0.096	GA-18	4.20	2.37	1.63	0.14	5.39
CM-003-V	5.03	61.20	228	0.070	GA-07	4.20	1.47	2.47	0.16	2.13
CM-003-W	15.58	56.10	350	0.057	GA-19	4.20	1.69	2.26	0.16	6.05
CM-004	22.30	87.10	1386	0.046	GA-20	4.20	0.36	3.52	0.19	13.44
CM-004-A	9.05	65.90	664	0.036	GA-21	4.20	1.27	2.66	0.17	4.13
CM-004-B	16.14	54.90	817	0.074	GA-07	4.20	1.74	2.22	0.16	6.13
CM-005	44.12	60.40	1308	0.073	GA-22	4.20	1.50	2.44	0.16	18.44
CM-005-A	9.63	70.20	595	0.061	GA-23	4.20	1.08	2.84	0.17	4.68
CM-005-B	12.85	61.10	639	0.120	GA-24	4.20	1.47	2.47	0.16	5.43
CM-005-C	2.31	88.60	113	0.034	GA-25	4.20	0.29	3.57	0.19	1.42
CM-005-D	6.96	64.50	264	0.042	GA-25	4.20	1.33	2.60	0.17	3.11
CM-005-E	14.44	58.80	592	0.059	GA-25	4.20	1.57	2.37	0.16	5.88
CM-005-F	20.47	63.70	482	0.083	GA-26	4.20	1.36	2.57	0.16	9.02
CM-005-G	25.40	58.60	439	0.041	GA-27	4.20	1.58	2.35	0.16	10.27
CM-006	25.34	33.50	1573	0.166	GA-28	4.20	2.66	1.36	0.13	5.88
CM-006-A	28.95	44.50	1572	0.204	GA-29	4.20	2.19	1.80	0.14	8.92
CM-006-B	39.85	42.20	1337	0.125	GA-30	4.20	2.29	1.71	0.14	11.64
CM-006-C	15.36	52.90	913	0.134	GA-31	4.20	1.83	2.14	0.15	5.62
CM-006-D	6.75	75.40	418	0.116	GA-32	4.20	0.86	3.05	0.18	3.52
CM-006-E	25.88	45.00	1277	0.136	GA-33	4.20	2.17	1.82	0.15	8.06
CM-006-F	19.05	55.60	576	0.044	GA-18	4.20	1.71	2.24	0.16	7.33
CM-006-G	14.25	64.60	547	0.073	GA-34	4.20	1.32	2.61	0.17	6.37
CM-006-H	3.09	79.30	113	0.084	GA-25	4.20	0.69	3.20	0.18	1.70
CM-006-I	3.99	76.40	154	0.056	GA-25	4.20	0.82	3.08	0.18	2.11
CM-006-J	19.65	61.90	810	0.106	GA-35	4.20	1.44	2.50	0.16	8.42
CM-006-K	7.86	64.60	216	0.020	GA-36	4.20	1.32	2.59	0.17	3.50
CM-006-L	11.24	55.30	469	0.107	GA-32	4.20	1.72	2.24	0.16	4.30
CM-006-M	22.11	57.60	800	0.175	GA-37	4.20	1.62	2.33	0.16	8.81
CM-006-N	52.07	47.00	2284	0.159	GA-38	4.20	2.08	1.90	0.15	16.94
CM-006-O	7.24	67.30	297	0.084	GA-39	4.20	1.21	2.72	0.17	3.37
CM-006-P	14.42	60.30	321	0.053	GA-25	4.20	1.51	2.43	0.16	6.01
CM-007	31.60	45.00	1088	0.095	GA-40	4.20	2.17	1.82	0.15	9.84
CM-007-A	23.17	44.10	920	0.119	GA-41	4.20	2.20	1.79	0.14	7.07
CM-007-B	4.58	39.90	110	0.048	GA-42	4.20	2.38	1.61	0.14	1.27
CM-007-C	16.93	48.00	479	0.068	GA-43	4.20	2.04	1.94	0.15	5.62
CM-008	44.77	46.80	535	0.037	GA-44	4.20	2.09	1.87	0.15	14.42
CM-008-A	2.01	61.00	63	0.005	GA-45	4.20	1.48	2.43	0.16	0.84
CM-008-B	7.03	55.00	102	0.012	GA-46	4.20	1.74	2.19	0.16	2.62
CM-008-C	10.48	39.60	451	0.122	GA-47	4.20	2.40	1.60	0.14	2.87
CM-008-D	1.25	80.10	27	0.053	GA-48	4.20	0.66	3.21	0.18	0.69
CM-008-E	24.44	59.50	429	0.097	GA-25	4.20	1.54	2.39	0.16	10.06
CM-008-F	25.44	54.20	1000	0.156	GA-49	4.20	1.77	2.19	0.15	9.54
CM-008-G	11.96	33.30	1168	0.265	GA-50	4.20	2.67	1.35	0.13	2.76
CM-008-H	12.99	58.40	515	0.129	GA-51	4.20	1.59	2.36	0.16	5.25
CM-008-I	38.79	53.20	1350	0.134	GA-52	4.20	1.81	2.15	0.15	14.28
CM-008-J	42.01	51.80	952	0.084	GA-53	4.20	1.87	2.09	0.15	15.06
CM-008-K	13.18	57.70	334	0.069	GA-54	4.20	1.62	2.33	0.16	5.26

XPSWMM Sub-Basin Hydrology Output (50yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
CM-008-L	15.05	50.60	140	0.022	GA-55	4.20	1.92	2.01	0.15	5.14
CM-008-M	9.74	53.00	136	0.049	GA-56	4.20	1.82	2.12	0.15	3.56
CM-008-N	10.02	55.80	94	0.031	GA-57	4.20	1.70	2.22	0.16	3.79
CM-008-O	37.33	52.60	1237	0.115	GA-58	4.20	1.84	2.13	0.15	13.59
CM-008-P	470.13	50.20	2389	0.088	GA-59	4.20	1.94	2.00	0.15	160.14
CM-008-Q	15.89	56.60	714	0.113	GA-60	4.20	1.67	2.29	0.16	6.22
CM-009	316.17	51.90	1954	0.121	GA-61	4.20	1.87	2.07	0.15	112.57
CM-010	240.55	43.50	2000	0.150	GA-62	4.20	2.23	1.75	0.14	72.32
CM-010-A	23.35	56.10	722	0.065	GA-56	4.20	1.69	2.26	0.16	9.07
CMNJ-001	106.87	87.90	2305	0.017	GA-63	4.20	0.32	3.50	0.19	63.92
CMNJ-002	60.18	30.60	1128	0.012	GA-64	4.20	2.78	1.23	0.13	12.72
CMNJ-002-A	20.10	90.50	1178	0.040	GA-65	4.20	0.21	3.65	0.19	12.59
CMNJ-002-B	13.63	71.10	411	0.020	GA-66	4.20	1.04	2.85	0.17	6.69
CMNJ-002-C	8.00	91.90	154	0.016	GA-07	4.20	0.15	3.65	0.19	4.96
CMNJ-002-D	17.64	10.60	582	0.027	GA-67	4.20	3.64	0.43	0.11	1.29
CMNJ-003	14.17	91.40	394	0.032	GA-07	4.20	0.17	3.66	0.19	8.93
CMNJ-003-A	22.16	25.80	956	0.040	GA-07	4.20	2.99	1.05	0.13	3.96
CMNJ-004	2.54	90.00	351	0.053	GA-07	4.20	0.23	3.65	0.19	1.58
CMNJ-004-A	4.07	90.00	181	0.005	GA-68	4.20	0.23	3.59	0.19	2.50
CMNJ-004-B	41.88	90.10	740	0.013	GA-69	4.20	0.23	3.57	0.19	25.17
CMNJ-004-C	6.68	90.00	167	0.015	GA-70	4.20	0.23	3.59	0.19	4.10
CMNJ-004-D	8.42	90.00	529	0.018	GA-71	4.20	0.23	3.62	0.19	5.24
CMNJ-004-E	6.29	90.00	559	0.031	GA-72	4.20	0.23	3.63	0.19	3.92
CMNJ-004-F	4.49	74.60	354	0.042	GA-07	4.20	0.89	3.02	0.18	2.32
CMNJ-004-G	7.46	89.40	179	0.015	GA-68	4.20	0.26	3.56	0.19	4.54
CMNJ-004-H	21.42	90.00	687	0.027	GA-15	4.20	0.23	3.61	0.19	13.30
CMNJ-004-I	25.64	87.00	960	0.034	GA-73	4.20	0.36	3.50	0.19	15.42
CMNJ-004-J	4.32	90.00	289	0.028	GA-74	4.20	0.23	3.63	0.19	2.69
CMNJ-004-K	12.02	89.70	550	0.044	GA-75	4.20	0.24	3.61	0.19	7.46
CMNJ-004-L	7.29	90.00	292	0.019	GA-13	4.20	0.23	3.61	0.19	4.53
CMNJ-004-M	2.81	89.40	239	0.042	GA-75	4.20	0.26	3.61	0.19	1.74
CMNJ-004-N	5.19	90.00	159	0.004	GA-65	4.20	0.23	3.56	0.19	3.11
CMNJ-004-O	32.01	81.80	1231	0.028	GA-76	4.20	0.58	3.29	0.18	18.10
CMNJ-004-P	12.21	64.00	391	0.016	GA-77	4.20	1.35	2.57	0.16	5.40
CMNJ-004-Q	5.90	52.90	151	0.003	GA-07	4.20	1.83	2.10	0.15	2.11
CMNJ-004-R	5.83	81.80	545	0.037	GA-78	4.20	0.58	3.31	0.18	3.30
CMNJ-004-S	11.32	65.70	580	0.013	GA-79	4.20	1.28	2.64	0.17	5.14
CMNJ-004-T	26.87	57.70	849	0.014	GA-80	4.20	1.62	2.32	0.16	10.71
CMNJ-005	60.49	87.40	1044	0.016	GA-81	4.20	0.34	3.47	0.19	35.53
CMNJ-005-A	7.96	90.00	273	0.017	GA-82	4.20	0.23	3.60	0.19	4.93
CMNJ-005-B	14.33	79.20	211	0.020	GA-07	4.20	0.69	3.14	0.18	7.65
CMNJ-005-C	4.55	87.30	220	0.053	GA-07	4.20	0.35	3.52	0.19	2.75
CMNJ-005-D	13.66	75.00	694	0.046	GA-07	4.20	0.88	3.03	0.18	7.09
CMNJ-005-E	16.47	55.70	665	0.018	GA-01	4.20	1.71	2.24	0.16	6.35
CMNJ-005-F	3.74	93.20	179	0.009	GA-07	4.20	0.09	3.73	0.19	2.40
CMNJ-005-G	12.51	58.40	610	0.048	GA-07	4.20	1.59	2.36	0.16	5.06
CMNJ-005-H	3.05	94.60	46	0.012	GA-75	4.20	0.03	3.73	0.20	1.89
CMNJ-005-I	25.73	85.60	956	0.022	GA-15	4.20	0.42	3.43	0.19	15.21
CMNJ-005-J	27.65	63.30	731	0.021	GA-72	4.20	1.38	2.54	0.16	12.08
CMNJ-005-K	7.24	67.30	412	0.026	GA-72	4.20	1.21	2.71	0.17	3.37
CMNJ-005-L	30.09	61.30	1275	0.042	GA-72	4.20	1.46	2.47	0.16	12.76
CMNJ-005-M	24.45	63.50	734	0.030	GA-07	4.20	1.37	2.55	0.16	10.74
CMNJ-005-N	7.64	65.30	187	0.013	GA-07	4.20	1.29	2.61	0.17	3.43
NJ-001	3.79	54.20	872	0.041	GA-07	4.20	1.77	2.20	0.15	1.42
NJ-001-A	4.95	61.30	603	0.013	GA-07	4.20	1.46	2.48	0.16	2.10
NJ-001-B	15.24	58.50	743	0.063	GA-07	4.20	1.59	2.36	0.16	6.17
NJ-001-C	10.24	70.50	429	0.046	GA-75	4.20	1.07	2.84	0.17	5.00
NJ-002	37.51	47.20	1284	0.021	GA-83	4.20	2.07	1.90	0.15	12.25
NJ-002-A	33.79	61.70	1292	0.042	GA-84	4.20	1.45	2.49	0.16	14.43
NJ-002-B	17.61	69.90	1002	0.043	GA-68	4.20	1.09	2.82	0.17	8.52
NJ-002-C	9.76	58.70	562	0.036	GA-07	4.20	1.58	2.37	0.16	3.97
NJ-002-D	10.09	45.50	861	0.028	GA-01	4.20	2.14	1.84	0.15	3.18
NJ-003	14.46	26.90	2571	0.052	GA-85	4.20	2.94	1.09	0.13	2.69
NJ-003-A	7.13	82.90	919	0.029	GA-07	4.20	0.54	3.35	0.18	4.09
NJ-003-B	4.30	61.40	206	0.013	GA-07	4.20	1.46	2.47	0.16	1.83
NJ-003-C	15.77	63.70	696	0.045	GA-08	4.20	1.36	2.57	0.16	6.95
NJ-003-D	35.30	50.80	1301	0.056	GA-86	4.20	1.92	2.05	0.15	12.41
NJ-003-E	62.97	60.00	1845	0.044	GA-07	4.20	1.52	2.42	0.16	26.14
NJ-003-F	71.91	52.40	1572	0.043	GA-87	4.20	1.85	2.11	0.15	26.06
NJ-003-G	25.90	68.10	756	0.079	GA-26	4.20	1.17	2.75	0.17	12.20
NJ-003-H	29.57	60.50	837	0.082	GA-26	4.20	1.50	2.44	0.16	12.38

XPSWMM Sub-Basin Hydrology Output (50yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
NJ-003-I	28.48	86.30	336	0.037	GA-88	4.20	0.39	3.43	0.19	16.57
NJ-003-J	24.12	58.60	1232	0.038	GA-89	4.20	1.58	2.37	0.16	9.78
NJ-003-K	12.85	61.30	473	0.017	GA-90	4.20	1.46	2.46	0.16	5.45
NJ-003-L	8.16	67.70	276	0.020	GA-91	4.20	1.19	2.72	0.17	3.82
NJ-003-M	18.80	56.70	388	0.007	GA-92	4.20	1.66	2.26	0.16	7.24
NJ-003-N	47.66	59.20	1461	0.038	GA-93	4.20	1.55	2.38	0.16	19.52
NJ-003-O	18.24	52.40	440	0.081	GA-94	4.20	1.85	2.11	0.15	6.61
NJ-003-P	42.25	72.60	972	0.064	GA-95	4.20	0.98	2.92	0.17	21.21
NJ-003-Q	10.67	84.00	68	0.004	GA-96	4.20	0.49	3.18	0.18	4.66
NJ-004	67.72	59.20	1723	0.103	GA-97	4.20	1.55	2.39	0.16	27.74
NJ-004-A	13.11	47.20	821	0.065	GA-98	4.20	2.07	1.91	0.15	4.28
NJ-004-B	10.62	72.10	551	0.059	GA-99	4.20	1.00	2.91	0.17	5.30
NJ-005	22.62	41.70	2513	0.171	GA-100	4.20	2.31	1.69	0.14	6.53
NJ-005-A	8.73	95.00	148	0.062	GA-101	4.20	0.02	3.80	0.20	5.70
NJ-005-B	1.41	88.10	131	0.077	GA-102	4.20	0.31	3.57	0.19	0.86
NJ-005-C	1.88	67.80	393	0.163	GA-07	4.20	1.19	2.75	0.17	0.88
NJ-005-D	2.90	84.70	235	0.202	GA-25	4.20	0.46	3.43	0.19	1.70
NJ-005-E	2.25	75.70	424	0.148	GA-103	4.20	0.85	3.07	0.18	1.18
NJ-005-F	4.81	75.20	395	0.108	GA-35	4.20	0.87	3.05	0.18	2.50
NJ-005-G	18.18	52.80	473	0.061	GA-95	4.20	1.83	2.13	0.15	6.64
NJ-006	11.64	27.80	751	0.224	GA-104	4.20	2.91	1.13	0.13	2.24
NJ-006-A	57.93	57.50	1477	0.096	GA-105	4.20	1.63	2.32	0.16	23.05
NJ-007	50.73	66.30	1822	0.107	GA-106	4.20	1.25	2.68	0.17	23.28
NJ-007-A	22.77	57.60	866	0.097	GA-107	4.20	1.62	2.33	0.16	9.08
NJ-007-B	12.74	50.40	901	0.190	GA-19	4.20	1.93	2.04	0.15	4.44
NJ-007-C	25.96	56.30	1220	0.137	GA-26	4.20	1.68	2.28	0.16	10.11
NJ-007-D	34.86	42.90	1217	0.083	GA-108	4.20	2.26	1.74	0.14	10.35
NJ-007-E	12.24	67.80	386	0.144	GA-109	4.20	1.19	2.74	0.17	5.74
NJ-007-F	16.92	53.20	672	0.088	GA-110	4.20	1.81	2.15	0.15	6.23
NJ-007-G	30.46	71.70	903	0.114	GA-111	4.20	1.02	2.89	0.17	15.11
NJ-007-H	15.69	78.10	511	0.098	GA-112	4.20	0.74	3.15	0.18	8.48
NJ-007-I	26.86	48.80	2166	0.370	GA-113	4.20	2.00	1.98	0.15	9.07
NJ-007-J	12.83	68.40	590	0.099	GA-31	4.20	1.16	2.77	0.17	6.07
NJ-007-K	7.61	56.30	190	0.060	GA-114	4.20	1.68	2.27	0.16	2.96
NJ-007-L	118.98	31.10	1053	0.148	GA-115	4.20	2.76	1.25	0.13	25.60
NJ-007-M	9.81	63.10	135	0.036	GA-108	4.20	1.39	2.52	0.16	4.25
NJ-007-N	15.98	57.50	606	0.087	GA-25	4.20	1.63	2.32	0.16	6.36
NJ-007-O	1.63	93.40	106	0.122	GA-116	4.20	0.08	3.78	0.19	1.05
NJ-008	24.41	48.60	1332	0.156	GA-117	4.20	2.01	1.97	0.15	8.21
NJ-008-A	18.13	84.10	764	0.101	GA-27	4.20	0.48	3.40	0.18	10.55
NJ-008-B	11.84	60.90	655	0.060	GA-25	4.20	1.48	2.46	0.16	4.99
NJ-008-C	16.18	85.80	537	0.022	GA-96	4.20	0.41	3.44	0.19	9.58
NJ-008-D	1.31	91.90	42	0.006	GA-88	4.20	0.15	3.65	0.19	0.81
NJ-008-E	4.67	82.60	251	0.042	GA-96	4.20	0.55	3.33	0.18	2.67
NJ-008-F	20.76	66.20	470	0.058	GA-25	4.20	1.25	2.66	0.17	9.50
NJ-009	26.46	33.70	1803	0.286	GA-118	4.20	2.65	1.37	0.13	6.17
NJ-009-A	16.97	80.70	636	0.131	GA-19	4.20	0.63	3.26	0.18	9.48
NJ-009-B	16.29	78.80	926	0.119	GA-33	4.20	0.71	3.19	0.18	8.88
NJ-009-C	10.48	89.30	807	0.115	GA-119	4.20	0.26	3.61	0.19	6.48
NJ-009-D	7.36	60.10	467	0.134	GA-120	4.20	1.52	2.43	0.16	3.06
NJ-009-E	8.60	58.00	381	0.134	GA-121	4.20	1.61	2.35	0.16	3.45
NJ-009-F	4.43	57.40	189	0.056	GA-25	4.20	1.63	2.32	0.16	1.76
NJ-009-G	35.72	56.70	790	0.081	GA-35	4.20	1.66	2.28	0.16	14.01
NJ-009-H	22.15	54.80	536	0.092	GA-109	4.20	1.74	2.21	0.16	8.40
NJ-009-I	31.81	55.10	702	0.068	GA-108	4.20	1.73	2.22	0.16	12.13
NJ-009-J	14.75	66.00	774	0.107	GA-27	4.20	1.26	2.67	0.17	6.74
NJ-009-K	23.44	53.40	934	0.151	GA-122	4.20	1.80	2.16	0.15	8.66
NJ-009-L	3.05	81.70	98	0.065	GA-25	4.20	0.59	3.29	0.18	1.72
NJ-009-M	21.21	56.60	378	0.022	GA-88	4.20	1.67	2.26	0.16	8.26
NJ-010	37.52	46.50	1197	0.099	GA-123	4.20	2.10	1.88	0.15	12.07
NJ-010-A	16.41	87.00	418	0.013	GA-124	4.20	0.36	3.47	0.19	9.73
NJ-010-B	32.85	85.70	927	0.067	GA-88	4.20	0.42	3.45	0.19	19.47
NJ-010-C	39.69	57.20	1090	0.118	GA-33	4.20	1.64	2.31	0.16	15.71
NJ-010-D	74.95	56.80	900	0.047	GA-125	4.20	1.66	2.27	0.16	29.27
NJ-010-E	4.23	86.30	218	0.044	GA-126	4.20	0.39	3.48	0.19	2.53
NJ-010-F	18.78	16.80	472	0.086	GA-127	4.20	3.38	0.68	0.12	2.18
NJ-010-G	39.38	70.30	923	0.098	GA-18	4.20	1.08	2.83	0.17	19.15
NJ-010-H	5.06	11.70	231	0.066	GA-128	4.20	3.60	0.48	0.11	0.41
NJ-010-I	13.96	18.20	354	0.053	GA-129	4.20	3.32	0.74	0.12	1.76
NJ-010-J	54.62	46.50	472	0.097	GA-130	4.20	2.10	1.86	0.15	17.52
NJ-010-K	38.44	30.40	892	0.265	GA-131	4.20	2.79	1.23	0.13	8.09

XPSWMM Sub-Basin Hydrology Output (50yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
NJ-010-L	24.97	43.40	558	0.218	GA-44	4.20	2.23	1.76	0.14	7.50
NJ-011	6.22	48.10	255	0.060	GA-132	4.20	2.03	1.94	0.15	2.07
NJ-011-A	4.43	57.80	213	0.059	GA-133	4.20	1.62	2.34	0.16	1.77
NJ-011-B	12.45	54.40	365	0.073	GA-134	4.20	1.76	2.20	0.15	4.69
NJ-012	10.88	58.30	175	0.046	GA-135	4.20	1.59	2.34	0.16	4.38
NJ-013	6.71	63.50	300	0.079	GA-07	4.20	1.37	2.57	0.16	2.95
NJ-014	34.93	55.00	1446	0.101	GA-112	4.20	1.74	2.22	0.16	13.30
NJ-015	19.44	59.40	753	0.099	GA-112	4.20	1.55	2.40	0.16	7.99
NJ-015-A	4.75	81.00	365	0.108	GA-27	4.20	0.62	3.28	0.18	2.66
NJ-015-B	9.33	67.70	523	0.130	GA-136	4.20	1.19	2.74	0.17	4.37
NJ-016	173.89	20.20	1485	0.134	GA-132	4.20	3.23	0.82	0.12	24.31
NJ-016-A	16.64	27.90	1228	0.325	GA-137	4.20	2.90	1.13	0.13	3.21
NJ-016-B	5.95	60.10	281	0.043	GA-136	4.20	1.52	2.43	0.16	2.48
NJ-016-C	3.94	57.90	495	0.155	GA-138	4.20	1.61	2.35	0.16	1.58
NJ-016-D	14.47	29.30	668	0.255	GA-139	4.20	2.84	1.19	0.13	2.93
NJ-016-E	8.56	52.70	348	0.087	GA-140	4.20	1.83	2.13	0.15	3.12

XPSWMM Sub-Basin Hydrology Output (100yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-001	13.08	85.10	923	0.023	GA-01	4.50	0.49	3.68	0.19	8.26
CM-002	14.54	36.90	650	0.033	GA-02	4.50	2.70	1.60	0.14	3.98
CM-002-A	27.51	59.60	730	0.011	GA-03	4.50	1.66	2.56	0.16	12.10
CM-003	42.57	68.60	814	0.029	GA-04	4.50	1.24	2.95	0.17	21.55
CM-003-A	19.88	58.80	684	0.047	GA-05	4.50	1.70	2.55	0.16	8.67
CM-003-B	8.40	60.60	420	0.014	GA-06	4.50	1.61	2.62	0.16	3.78
CM-003-C	5.93	60.30	333	0.011	GA-07	4.50	1.63	2.61	0.16	2.65
CM-003-D	11.43	60.00	323	0.012	GA-08	4.50	1.64	2.58	0.16	5.07
CM-003-E	7.82	56.30	399	0.006	GA-07	4.50	1.81	2.43	0.16	3.26
CM-003-F	3.28	63.20	398	0.063	GA-07	4.50	1.49	2.75	0.16	1.54
CM-003-G	48.95	86.10	2369	0.064	GA-09	4.50	0.44	3.73	0.19	31.26
CM-003-H	14.05	90.00	744	0.092	GA-10	4.50	0.26	3.90	0.19	9.38
CM-003-I	10.94	88.00	878	0.083	GA-11	4.50	0.35	3.82	0.19	7.14
CM-003-J	13.86	87.60	584	0.023	GA-12	4.50	0.37	3.78	0.19	9.00
CM-003-K	1.87	92.10	88	0.007	GA-13	4.50	0.16	3.95	0.19	1.27
CM-003-L	12.31	71.50	641	0.053	GA-14	4.50	1.11	3.10	0.17	6.53
CM-003-M	6.82	87.80	324	0.055	GA-15	4.50	0.36	3.80	0.19	4.44
CM-003-N	4.61	59.40	505	0.044	GA-07	4.50	1.67	2.58	0.16	2.03
CM-003-O	9.26	90.30	376	0.026	GA-13	4.50	0.25	3.90	0.19	6.20
CM-003-P	7.95	77.60	186	0.018	GA-16	4.50	0.83	3.33	0.18	4.54
CM-003-Q	13.96	60.60	622	0.035	GA-07	4.50	1.61	2.63	0.16	6.28
CM-003-R	14.96	60.70	292	0.025	GA-17	4.50	1.61	2.61	0.16	6.71
CM-003-S	4.75	62.10	102	0.028	GA-07	4.50	1.54	2.67	0.16	2.18
CM-003-T	12.03	58.60	344	0.043	GA-07	4.50	1.70	2.53	0.16	5.23
CM-003-U	19.33	40.30	781	0.096	GA-18	4.50	2.55	1.75	0.14	5.78
CM-003-V	5.03	61.20	228	0.070	GA-07	4.50	1.59	2.66	0.16	2.28
CM-003-W	15.58	56.10	350	0.057	GA-19	4.50	1.82	2.43	0.16	6.48
CM-004	22.30	87.10	1386	0.046	GA-20	4.50	0.39	3.78	0.19	14.41
CM-004-A	9.05	65.90	664	0.036	GA-21	4.50	1.37	2.86	0.17	4.42
CM-004-B	16.14	54.90	817	0.074	GA-07	4.50	1.88	2.39	0.16	6.57
CM-005	44.12	60.40	1308	0.073	GA-22	4.50	1.62	2.62	0.16	19.77
CM-005-A	9.63	70.20	595	0.061	GA-23	4.50	1.17	3.05	0.17	5.01
CM-005-B	12.85	61.10	639	0.120	GA-24	4.50	1.59	2.66	0.16	5.82
CM-005-C	2.31	88.60	113	0.034	GA-25	4.50	0.32	3.83	0.19	1.52
CM-005-D	6.96	64.50	264	0.042	GA-25	4.50	1.43	2.79	0.17	3.33
CM-005-E	14.44	58.80	592	0.059	GA-25	4.50	1.70	2.55	0.16	6.30
CM-005-F	20.47	63.70	482	0.083	GA-26	4.50	1.47	2.76	0.16	9.67
CM-005-G	25.40	58.60	439	0.041	GA-27	4.50	1.70	2.52	0.16	11.01
CM-006	25.34	33.50	1573	0.166	GA-28	4.50	2.86	1.46	0.13	6.30
CM-006-A	28.95	44.50	1572	0.204	GA-29	4.50	2.35	1.94	0.14	9.56
CM-006-B	39.85	42.20	1337	0.125	GA-30	4.50	2.46	1.83	0.14	12.47
CM-006-C	15.36	52.90	913	0.134	GA-31	4.50	1.97	2.30	0.15	6.03
CM-006-D	6.75	75.40	418	0.116	GA-32	4.50	0.93	3.28	0.18	3.78
CM-006-E	25.88	45.00	1277	0.136	GA-33	4.50	2.33	1.96	0.15	8.64
CM-006-F	19.05	55.60	576	0.044	GA-18	4.50	1.84	2.41	0.16	7.86
CM-006-G	14.25	64.60	547	0.073	GA-34	4.50	1.43	2.80	0.17	6.83
CM-006-H	3.09	79.30	113	0.084	GA-25	4.50	0.75	3.44	0.18	1.82
CM-006-I	3.99	76.40	154	0.056	GA-25	4.50	0.89	3.31	0.18	2.26
CM-006-J	19.65	61.90	810	0.106	GA-35	4.50	1.55	2.69	0.16	9.02
CM-006-K	7.86	64.60	216	0.020	GA-36	4.50	1.43	2.78	0.17	3.76
CM-006-L	11.24	55.30	469	0.107	GA-32	4.50	1.86	2.40	0.16	4.61
CM-006-M	22.11	57.60	800	0.175	GA-37	4.50	1.75	2.50	0.16	9.45
CM-006-N	52.07	47.00	2284	0.159	GA-38	4.50	2.24	2.04	0.15	18.15
CM-006-O	7.24	67.30	297	0.084	GA-39	4.50	1.30	2.92	0.17	3.61
CM-006-P	14.42	60.30	321	0.053	GA-25	4.50	1.63	2.60	0.16	6.45
CM-007	31.60	45.00	1088	0.095	GA-40	4.50	2.33	1.95	0.15	10.55
CM-007-A	23.17	44.10	920	0.119	GA-41	4.50	2.37	1.92	0.14	7.58
CM-007-B	4.58	39.90	110	0.048	GA-42	4.50	2.57	1.73	0.14	1.36
CM-007-C	16.93	48.00	479	0.068	GA-43	4.50	2.19	2.08	0.15	6.03
CM-008	44.77	46.80	535	0.037	GA-44	4.50	2.25	2.01	0.15	15.47
CM-008-A	2.01	61.00	63	0.005	GA-45	4.50	1.59	2.61	0.16	0.90
CM-008-B	7.03	55.00	102	0.012	GA-46	4.50	1.87	2.35	0.16	2.81
CM-008-C	10.48	39.60	451	0.122	GA-47	4.50	2.58	1.72	0.14	3.08
CM-008-D	1.25	80.10	27	0.053	GA-48	4.50	0.72	3.45	0.18	0.74
CM-008-E	24.44	59.50	429	0.097	GA-25	4.50	1.66	2.57	0.16	10.78
CM-008-F	25.44	54.20	1000	0.156	GA-49	4.50	1.91	2.36	0.15	10.23
CM-008-G	11.96	33.30	1168	0.265	GA-50	4.50	2.87	1.45	0.13	2.95
CM-008-H	12.99	58.40	515	0.129	GA-51	4.50	1.71	2.54	0.16	5.63
CM-008-I	38.79	53.20	1350	0.134	GA-52	4.50	1.95	2.31	0.15	15.31
CM-008-J	42.01	51.80	952	0.084	GA-53	4.50	2.02	2.24	0.15	16.14
CM-008-K	13.18	57.70	334	0.069	GA-54	4.50	1.75	2.50	0.16	5.64

XPSWMM Sub-Basin Hydrology Output (100yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-008-L	15.05	50.60	140	0.022	GA-55	4.50	2.07	2.16	0.15	5.53
CM-008-M	9.74	53.00	136	0.049	GA-56	4.50	1.96	2.28	0.15	3.82
CM-008-N	10.02	55.80	94	0.031	GA-57	4.50	1.83	2.38	0.16	4.07
CM-008-O	37.33	52.60	1237	0.115	GA-58	4.50	1.98	2.28	0.15	14.57
CM-008-P	470.13	50.20	2389	0.088	GA-59	4.50	2.09	2.15	0.15	172.00
CM-008-Q	15.89	56.60	714	0.113	GA-60	4.50	1.80	2.46	0.16	6.67
CM-009	316.17	51.90	1954	0.121	GA-61	4.50	2.01	2.23	0.15	120.79
CM-010	240.55	43.50	2000	0.150	GA-62	4.50	2.40	1.88	0.14	77.54
CM-010-A	23.35	56.10	722	0.065	GA-56	4.50	1.82	2.43	0.16	9.72
CMNJ-001	106.87	87.90	2305	0.017	GA-63	4.50	0.36	3.76	0.19	68.63
CMNJ-002	60.18	30.60	1128	0.012	GA-64	4.50	2.99	1.32	0.13	13.64
CMNJ-002-A	20.10	90.50	1178	0.040	GA-65	4.50	0.24	3.92	0.19	13.49
CMNJ-002-B	13.63	71.10	411	0.020	GA-66	4.50	1.13	3.06	0.17	7.17
CMNJ-002-C	8.00	91.90	154	0.016	GA-07	4.50	0.17	3.92	0.19	5.33
CMNJ-002-D	17.64	10.60	582	0.027	GA-67	4.50	3.91	0.46	0.11	1.39
CMNJ-003	14.17	91.40	394	0.032	GA-07	4.50	0.20	3.93	0.19	9.58
CMNJ-003-A	22.16	25.80	956	0.040	GA-07	4.50	3.21	1.12	0.13	4.24
CMNJ-004	2.54	90.00	351	0.053	GA-07	4.50	0.26	3.91	0.19	1.70
CMNJ-004-A	4.07	90.00	181	0.005	GA-68	4.50	0.26	3.85	0.19	2.68
CMNJ-004-B	41.88	90.10	740	0.013	GA-69	4.50	0.26	3.83	0.19	27.07
CMNJ-004-C	6.68	90.00	167	0.015	GA-70	4.50	0.26	3.85	0.19	4.40
CMNJ-004-D	8.42	90.00	529	0.018	GA-71	4.50	0.26	3.89	0.19	5.62
CMNJ-004-E	6.29	90.00	559	0.031	GA-72	4.50	0.26	3.90	0.19	4.20
CMNJ-004-F	4.49	74.60	354	0.042	GA-07	4.50	0.97	3.24	0.18	2.49
CMNJ-004-G	7.46	89.40	179	0.015	GA-68	4.50	0.29	3.83	0.19	4.88
CMNJ-004-H	21.42	90.00	687	0.027	GA-15	4.50	0.26	3.88	0.19	14.26
CMNJ-004-I	25.64	87.00	960	0.034	GA-73	4.50	0.40	3.76	0.19	16.53
CMNJ-004-J	4.32	90.00	289	0.028	GA-74	4.50	0.26	3.90	0.19	2.88
CMNJ-004-K	12.02	89.70	550	0.044	GA-75	4.50	0.27	3.88	0.19	8.00
CMNJ-004-L	7.29	90.00	292	0.019	GA-13	4.50	0.26	3.88	0.19	4.86
CMNJ-004-M	2.81	89.40	239	0.042	GA-75	4.50	0.29	3.88	0.19	1.86
CMNJ-004-N	5.19	90.00	159	0.004	GA-65	4.50	0.26	3.83	0.19	3.34
CMNJ-004-O	32.01	81.80	1231	0.028	GA-76	4.50	0.64	3.53	0.18	19.41
CMNJ-004-P	12.21	64.00	391	0.016	GA-77	4.50	1.46	2.76	0.16	5.79
CMNJ-004-Q	5.90	52.90	151	0.003	GA-07	4.50	1.97	2.26	0.15	2.26
CMNJ-004-R	5.83	81.80	545	0.037	GA-78	4.50	0.64	3.55	0.18	3.54
CMNJ-004-S	11.32	65.70	580	0.013	GA-79	4.50	1.38	2.84	0.17	5.51
CMNJ-004-T	26.87	57.70	849	0.014	GA-80	4.50	1.75	2.49	0.16	11.48
CMNJ-005	60.49	87.40	1044	0.016	GA-81	4.50	0.38	3.73	0.19	38.19
CMNJ-005-A	7.96	90.00	273	0.017	GA-82	4.50	0.26	3.87	0.19	5.29
CMNJ-005-B	14.33	79.20	211	0.020	GA-07	4.50	0.76	3.38	0.18	8.22
CMNJ-005-C	4.55	87.30	220	0.053	GA-07	4.50	0.38	3.78	0.19	2.95
CMNJ-005-D	13.66	75.00	694	0.046	GA-07	4.50	0.95	3.25	0.18	7.60
CMNJ-005-E	16.47	55.70	665	0.018	GA-01	4.50	1.84	2.41	0.16	6.80
CMNJ-005-F	3.74	93.20	179	0.009	GA-07	4.50	0.11	4.01	0.19	2.57
CMNJ-005-G	12.51	58.40	610	0.048	GA-07	4.50	1.71	2.53	0.16	5.42
CMNJ-005-H	3.05	94.60	46	0.012	GA-75	4.50	0.05	4.01	0.20	2.03
CMNJ-005-I	25.73	85.60	956	0.022	GA-15	4.50	0.46	3.69	0.19	16.31
CMNJ-005-J	27.65	63.30	731	0.021	GA-72	4.50	1.49	2.73	0.16	12.95
CMNJ-005-K	7.24	67.30	412	0.026	GA-72	4.50	1.30	2.92	0.17	3.61
CMNJ-005-L	30.09	61.30	1275	0.042	GA-72	4.50	1.58	2.66	0.16	13.68
CMNJ-005-M	24.45	63.50	734	0.030	GA-07	4.50	1.48	2.74	0.16	11.51
CMNJ-005-N	7.64	65.30	187	0.013	GA-07	4.50	1.40	2.80	0.17	3.68
NJ-001	3.79	54.20	872	0.041	GA-07	4.50	1.91	2.36	0.15	1.52
NJ-001-A	4.95	61.30	603	0.013	GA-07	4.50	1.58	2.66	0.16	2.25
NJ-001-B	15.24	58.50	743	0.063	GA-07	4.50	1.71	2.54	0.16	6.61
NJ-001-C	10.24	70.50	429	0.046	GA-75	4.50	1.16	3.05	0.17	5.35
NJ-002	37.51	47.20	1284	0.021	GA-83	4.50	2.23	2.04	0.15	13.13
NJ-002-A	33.79	61.70	1292	0.042	GA-84	4.50	1.56	2.67	0.16	15.46
NJ-002-B	17.61	69.90	1002	0.043	GA-68	4.50	1.19	3.03	0.17	9.13
NJ-002-C	9.76	58.70	562	0.036	GA-07	4.50	1.70	2.55	0.16	4.25
NJ-002-D	10.09	45.50	861	0.028	GA-01	4.50	2.31	1.98	0.15	3.41
NJ-003	14.46	26.90	2571	0.052	GA-85	4.50	3.16	1.17	0.13	2.89
NJ-003-A	7.13	82.90	919	0.029	GA-07	4.50	0.59	3.60	0.18	4.38
NJ-003-B	4.30	61.40	206	0.013	GA-07	4.50	1.58	2.65	0.16	1.96
NJ-003-C	15.77	63.70	696	0.045	GA-08	4.50	1.47	2.76	0.16	7.45
NJ-003-D	35.30	50.80	1301	0.056	GA-86	4.50	2.06	2.20	0.15	13.30
NJ-003-E	62.97	60.00	1845	0.044	GA-07	4.50	1.64	2.60	0.16	28.02
NJ-003-F	71.91	52.40	1572	0.043	GA-87	4.50	1.99	2.26	0.15	27.94
NJ-003-G	25.90	68.10	756	0.079	GA-26	4.50	1.27	2.95	0.17	13.08
NJ-003-H	29.57	60.50	837	0.082	GA-26	4.50	1.62	2.62	0.16	13.27

XPSWMM Sub-Basin Hydrology Output (100yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
NJ-003-I	28.48	86.30	336	0.037	GA-88	4.50	0.43	3.68	0.19	17.80
NJ-003-J	24.12	58.60	1232	0.038	GA-89	4.50	1.70	2.54	0.16	10.48
NJ-003-K	12.85	61.30	473	0.017	GA-90	4.50	1.58	2.65	0.16	5.84
NJ-003-L	8.16	67.70	276	0.020	GA-91	4.50	1.29	2.92	0.17	4.09
NJ-003-M	18.80	56.70	388	0.007	GA-92	4.50	1.79	2.42	0.16	7.77
NJ-003-N	47.66	59.20	1461	0.038	GA-93	4.50	1.68	2.56	0.16	20.92
NJ-003-O	18.24	52.40	440	0.081	GA-94	4.50	1.99	2.27	0.15	7.09
NJ-003-P	42.25	72.60	972	0.064	GA-95	4.50	1.06	3.13	0.17	22.74
NJ-003-Q	10.67	84.00	68	0.004	GA-96	4.50	0.54	3.43	0.18	5.06
NJ-004	67.72	59.20	1723	0.103	GA-97	4.50	1.68	2.56	0.16	29.74
NJ-004-A	13.11	47.20	821	0.065	GA-98	4.50	2.23	2.05	0.15	4.59
NJ-004-B	10.62	72.10	551	0.059	GA-99	4.50	1.08	3.13	0.17	5.68
NJ-005	22.62	41.70	2513	0.171	GA-100	4.50	2.48	1.82	0.14	7.00
NJ-005-A	8.73	95.00	148	0.062	GA-101	4.50	0.03	4.08	0.20	6.11
NJ-005-B	1.41	88.10	131	0.077	GA-102	4.50	0.35	3.83	0.19	0.92
NJ-005-C	1.88	67.80	393	0.163	GA-07	4.50	1.28	2.96	0.17	0.95
NJ-005-D	2.90	84.70	235	0.202	GA-25	4.50	0.50	3.69	0.19	1.82
NJ-005-E	2.25	75.70	424	0.148	GA-103	4.50	0.92	3.30	0.18	1.26
NJ-005-F	4.81	75.20	395	0.108	GA-35	4.50	0.94	3.27	0.18	2.68
NJ-005-G	18.18	52.80	473	0.061	GA-95	4.50	1.97	2.29	0.15	7.12
NJ-006	11.64	27.80	751	0.224	GA-104	4.50	3.12	1.21	0.13	2.40
NJ-006-A	57.93	57.50	1477	0.096	GA-105	4.50	1.76	2.49	0.16	24.71
NJ-007	50.73	66.30	1822	0.107	GA-106	4.50	1.35	2.88	0.17	24.95
NJ-007-A	22.77	57.60	866	0.097	GA-107	4.50	1.75	2.50	0.16	9.73
NJ-007-B	12.74	50.40	901	0.190	GA-19	4.50	2.08	2.20	0.15	4.76
NJ-007-C	25.96	56.30	1220	0.137	GA-26	4.50	1.81	2.45	0.16	10.84
NJ-007-D	34.86	42.90	1217	0.083	GA-108	4.50	2.43	1.86	0.14	11.09
NJ-007-E	12.24	67.80	386	0.144	GA-109	4.50	1.28	2.94	0.17	6.16
NJ-007-F	16.92	53.20	672	0.088	GA-110	4.50	1.95	2.31	0.15	6.68
NJ-007-G	30.46	71.70	903	0.114	GA-111	4.50	1.10	3.11	0.17	16.20
NJ-007-H	15.69	78.10	511	0.098	GA-112	4.50	0.81	3.38	0.18	9.09
NJ-007-I	26.86	48.80	2166	0.370	GA-113	4.50	2.16	2.13	0.15	9.72
NJ-007-J	12.83	68.40	590	0.099	GA-31	4.50	1.25	2.97	0.17	6.51
NJ-007-K	7.61	56.30	190	0.060	GA-114	4.50	1.81	2.44	0.16	3.18
NJ-007-L	118.98	31.10	1053	0.148	GA-115	4.50	2.97	1.35	0.13	27.44
NJ-007-M	9.81	63.10	135	0.036	GA-108	4.50	1.50	2.71	0.16	4.56
NJ-007-N	15.98	57.50	606	0.087	GA-25	4.50	1.76	2.50	0.16	6.82
NJ-007-O	1.63	93.40	106	0.122	GA-116	4.50	0.10	4.06	0.19	1.13
NJ-008	24.41	48.60	1332	0.156	GA-117	4.50	2.16	2.12	0.15	8.80
NJ-008-A	18.13	84.10	764	0.101	GA-27	4.50	0.53	3.65	0.18	11.31
NJ-008-B	11.84	60.90	655	0.060	GA-25	4.50	1.60	2.64	0.16	5.35
NJ-008-C	16.18	85.80	537	0.022	GA-96	4.50	0.45	3.69	0.19	10.27
NJ-008-D	1.31	91.90	42	0.006	GA-88	4.50	0.17	3.92	0.19	0.87
NJ-008-E	4.67	82.60	251	0.042	GA-96	4.50	0.60	3.58	0.18	2.86
NJ-008-F	20.76	66.20	470	0.058	GA-25	4.50	1.36	2.86	0.17	10.19
NJ-009	26.46	33.70	1803	0.286	GA-118	4.50	2.85	1.47	0.13	6.61
NJ-009-A	16.97	80.70	636	0.131	GA-19	4.50	0.69	3.50	0.18	10.16
NJ-009-B	16.29	78.80	926	0.119	GA-33	4.50	0.78	3.42	0.18	9.52
NJ-009-C	10.48	89.30	807	0.115	GA-119	4.50	0.29	3.88	0.19	6.94
NJ-009-D	7.36	60.10	467	0.134	GA-120	4.50	1.64	2.61	0.16	3.28
NJ-009-E	8.60	58.00	381	0.134	GA-121	4.50	1.73	2.52	0.16	3.70
NJ-009-F	4.43	57.40	189	0.056	GA-25	4.50	1.76	2.49	0.16	1.89
NJ-009-G	35.72	56.70	790	0.081	GA-35	4.50	1.79	2.45	0.16	15.02
NJ-009-H	22.15	54.80	536	0.092	GA-109	4.50	1.88	2.37	0.16	9.00
NJ-009-I	31.81	55.10	702	0.068	GA-108	4.50	1.87	2.38	0.16	13.00
NJ-009-J	14.75	66.00	774	0.107	GA-27	4.50	1.36	2.87	0.17	7.22
NJ-009-K	23.44	53.40	934	0.151	GA-122	4.50	1.94	2.32	0.15	9.29
NJ-009-L	3.05	81.70	98	0.065	GA-25	4.50	0.64	3.53	0.18	1.85
NJ-009-M	21.21	56.60	378	0.022	GA-88	4.50	1.80	2.43	0.16	8.86
NJ-010	37.52	46.50	1197	0.099	GA-123	4.50	2.26	2.02	0.15	12.94
NJ-010-A	16.41	87.00	418	0.013	GA-124	4.50	0.40	3.72	0.19	10.45
NJ-010-B	32.85	85.70	927	0.067	GA-88	4.50	0.46	3.70	0.19	20.87
NJ-010-C	39.69	57.20	1090	0.118	GA-33	4.50	1.77	2.48	0.16	16.84
NJ-010-D	74.95	56.80	900	0.047	GA-125	4.50	1.79	2.44	0.16	31.40
NJ-010-E	4.23	86.30	218	0.044	GA-126	4.50	0.43	3.74	0.19	2.71
NJ-010-F	18.78	16.80	472	0.086	GA-127	4.50	3.63	0.73	0.12	2.34
NJ-010-G	39.38	70.30	923	0.098	GA-18	4.50	1.17	3.04	0.17	20.53
NJ-010-H	5.06	11.70	231	0.066	GA-128	4.50	3.86	0.51	0.11	0.44
NJ-010-I	13.96	18.20	354	0.053	GA-129	4.50	3.56	0.79	0.12	1.89
NJ-010-J	54.62	46.50	472	0.097	GA-130	4.50	2.26	2.00	0.15	18.79
NJ-010-K	38.44	30.40	892	0.265	GA-131	4.50	3.00	1.32	0.13	8.67

XPSWMM Sub-Basin Hydrology Output (100yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
NJ-010-L	24.97	43.40	558	0.218	GA-44	4.50	2.40	1.89	0.14	8.04
NJ-011	6.22	48.10	255	0.060	GA-132	4.50	2.19	2.09	0.15	2.22
NJ-011-A	4.43	57.80	213	0.059	GA-133	4.50	1.74	2.51	0.16	1.90
NJ-011-B	12.45	54.40	365	0.073	GA-134	4.50	1.90	2.36	0.15	5.02
NJ-012	10.88	58.30	175	0.046	GA-135	4.50	1.72	2.51	0.16	4.69
NJ-013	6.71	63.50	300	0.079	GA-07	4.50	1.48	2.76	0.16	3.16
NJ-014	34.93	55.00	1446	0.101	GA-112	4.50	1.87	2.39	0.16	14.25
NJ-015	19.44	59.40	753	0.099	GA-112	4.50	1.67	2.58	0.16	8.57
NJ-015-A	4.75	81.00	365	0.108	GA-27	4.50	0.67	3.52	0.18	2.85
NJ-015-B	9.33	67.70	523	0.130	GA-136	4.50	1.29	2.94	0.17	4.69
NJ-016	173.89	20.20	1485	0.134	GA-132	4.50	3.47	0.88	0.12	26.05
NJ-016-A	16.64	27.90	1228	0.325	GA-137	4.50	3.12	1.22	0.13	3.44
NJ-016-B	5.95	60.10	281	0.043	GA-136	4.50	1.64	2.61	0.16	2.65
NJ-016-C	3.94	57.90	495	0.155	GA-138	4.50	1.74	2.52	0.16	1.69
NJ-016-D	14.47	29.30	668	0.255	GA-139	4.50	3.05	1.28	0.13	3.15
NJ-016-E	8.56	52.70	348	0.087	GA-140	4.50	1.98	2.29	0.15	3.35

XPSWMM Sub-Basin Hydrology Output (500yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-001	13.08	85.10	923	0.023	GA-01	5.20	0.59	4.28	0.19	9.55
CM-002	14.54	36.90	650	0.033	GA-02	5.20	3.14	1.86	0.14	4.60
CM-002-A	27.51	59.60	730	0.011	GA-03	5.20	1.94	2.97	0.16	14.01
CM-003	42.57	68.60	814	0.029	GA-04	5.20	1.46	3.42	0.17	24.96
CM-003-A	19.88	58.80	684	0.047	GA-05	5.20	1.98	2.96	0.16	10.03
CM-003-B	8.40	60.60	420	0.014	GA-06	5.20	1.89	3.04	0.16	4.37
CM-003-C	5.93	60.30	333	0.011	GA-07	5.20	1.90	3.03	0.16	3.07
CM-003-D	11.43	60.00	323	0.012	GA-08	5.20	1.92	3.00	0.16	5.87
CM-003-E	7.82	56.30	399	0.006	GA-07	5.20	2.12	2.82	0.16	3.77
CM-003-F	3.28	63.20	398	0.063	GA-07	5.20	1.75	3.19	0.16	1.78
CM-003-G	48.95	86.10	2369	0.064	GA-09	5.20	0.54	4.33	0.19	36.15
CM-003-H	14.05	90.00	744	0.092	GA-10	5.20	0.33	4.53	0.19	10.85
CM-003-I	10.94	88.00	878	0.083	GA-11	5.20	0.44	4.44	0.19	8.26
CM-003-J	13.86	87.60	584	0.023	GA-12	5.20	0.46	4.39	0.19	10.41
CM-003-K	1.87	92.10	88	0.007	GA-13	5.20	0.22	4.59	0.19	1.47
CM-003-L	12.31	71.50	641	0.053	GA-14	5.20	1.31	3.60	0.17	7.55
CM-003-M	6.82	87.80	324	0.055	GA-15	5.20	0.45	4.41	0.19	5.14
CM-003-N	4.61	59.40	505	0.044	GA-07	5.20	1.95	3.00	0.16	2.35
CM-003-O	9.26	90.30	376	0.026	GA-13	5.20	0.31	4.52	0.19	7.17
CM-003-P	7.95	77.60	186	0.018	GA-16	5.20	0.99	3.87	0.18	5.26
CM-003-Q	13.96	60.60	622	0.035	GA-07	5.20	1.89	3.05	0.16	7.26
CM-003-R	14.96	60.70	292	0.025	GA-17	5.20	1.88	3.03	0.16	7.77
CM-003-S	4.75	62.10	102	0.028	GA-07	5.20	1.81	3.10	0.16	2.53
CM-003-T	12.03	58.60	344	0.043	GA-07	5.20	1.99	2.94	0.16	6.05
CM-003-U	19.33	40.30	781	0.096	GA-18	5.20	2.96	2.03	0.14	6.68
CM-003-V	5.03	61.20	228	0.070	GA-07	5.20	1.86	3.08	0.16	2.64
CM-003-W	15.58	56.10	350	0.057	GA-19	5.20	2.13	2.82	0.16	7.50
CM-004	22.30	87.10	1386	0.046	GA-20	5.20	0.48	4.38	0.19	16.66
CM-004-A	9.05	65.90	664	0.036	GA-21	5.20	1.61	3.32	0.17	5.12
CM-004-B	16.14	54.90	817	0.074	GA-07	5.20	2.19	2.77	0.16	7.60
CM-005	44.12	60.40	1308	0.073	GA-22	5.20	1.90	3.04	0.16	22.86
CM-005-A	9.63	70.20	595	0.061	GA-23	5.20	1.38	3.54	0.17	5.80
CM-005-B	12.85	61.10	639	0.120	GA-24	5.20	1.86	3.08	0.16	6.74
CM-005-C	2.31	88.60	113	0.034	GA-25	5.20	0.40	4.45	0.19	1.76
CM-005-D	6.96	64.50	264	0.042	GA-25	5.20	1.68	3.24	0.17	3.85
CM-005-E	14.44	58.80	592	0.059	GA-25	5.20	1.98	2.96	0.16	7.28
CM-005-F	20.47	63.70	482	0.083	GA-26	5.20	1.72	3.20	0.16	11.18
CM-005-G	25.40	58.60	439	0.041	GA-27	5.20	1.99	2.93	0.16	12.75
CM-006	25.34	33.50	1573	0.166	GA-28	5.20	3.33	1.69	0.13	7.28
CM-006-A	28.95	44.50	1572	0.204	GA-29	5.20	2.74	2.25	0.14	11.05
CM-006-B	39.85	42.20	1337	0.125	GA-30	5.20	2.86	2.13	0.14	14.43
CM-006-C	15.36	52.90	913	0.134	GA-31	5.20	2.30	2.67	0.15	6.97
CM-006-D	6.75	75.40	418	0.116	GA-32	5.20	1.10	3.80	0.18	4.37
CM-006-E	25.88	45.00	1277	0.136	GA-33	5.20	2.72	2.27	0.15	9.99
CM-006-F	19.05	55.60	576	0.044	GA-18	5.20	2.15	2.79	0.16	9.09
CM-006-G	14.25	64.60	547	0.073	GA-34	5.20	1.68	3.25	0.17	7.90
CM-006-H	3.09	79.30	113	0.084	GA-25	5.20	0.90	3.99	0.18	2.10
CM-006-I	3.99	76.40	154	0.056	GA-25	5.20	1.05	3.84	0.18	2.62
CM-006-J	19.65	61.90	810	0.106	GA-35	5.20	1.82	3.12	0.16	10.43
CM-006-K	7.86	64.60	216	0.020	GA-36	5.20	1.68	3.23	0.17	4.35
CM-006-L	11.24	55.30	469	0.107	GA-32	5.20	2.17	2.79	0.16	5.33
CM-006-M	22.11	57.60	800	0.175	GA-37	5.20	2.05	2.90	0.16	10.92
CM-006-N	52.07	47.00	2284	0.159	GA-38	5.20	2.61	2.37	0.15	20.99
CM-006-O	7.24	67.30	297	0.084	GA-39	5.20	1.53	3.39	0.17	4.18
CM-006-P	14.42	60.30	321	0.053	GA-25	5.20	1.90	3.02	0.16	7.46
CM-007	31.60	45.00	1088	0.095	GA-40	5.20	2.72	2.27	0.15	12.20
CM-007-A	23.17	44.10	920	0.119	GA-41	5.20	2.76	2.23	0.14	8.77
CM-007-B	4.58	39.90	110	0.048	GA-42	5.20	2.99	2.01	0.14	1.57
CM-007-C	16.93	48.00	479	0.068	GA-43	5.20	2.56	2.42	0.15	6.97
CM-008	44.77	46.80	535	0.037	GA-44	5.20	2.62	2.34	0.15	17.91
CM-008-A	2.01	61.00	63	0.005	GA-45	5.20	1.87	3.04	0.16	1.04
CM-008-B	7.03	55.00	102	0.012	GA-46	5.20	2.19	2.73	0.16	3.27
CM-008-C	10.48	39.60	451	0.122	GA-47	5.20	3.00	2.00	0.14	3.56
CM-008-D	1.25	80.10	27	0.053	GA-48	5.20	0.86	4.01	0.18	0.86
CM-008-E	24.44	59.50	429	0.097	GA-25	5.20	1.95	2.99	0.16	12.47
CM-008-F	25.44	54.20	1000	0.156	GA-49	5.20	2.23	2.73	0.15	11.83
CM-008-G	11.96	33.30	1168	0.265	GA-50	5.20	3.34	1.69	0.13	3.42
CM-008-H	12.99	58.40	515	0.129	GA-51	5.20	2.01	2.94	0.16	6.51
CM-008-I	38.79	53.20	1350	0.134	GA-52	5.20	2.28	2.68	0.15	17.70
CM-008-J	42.01	51.80	952	0.084	GA-53	5.20	2.36	2.60	0.15	18.67
CM-008-K	13.18	57.70	334	0.069	GA-54	5.20	2.04	2.90	0.16	6.52

XPSWMM Sub-Basin Hydrology Output (500yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
CM-008-L	15.05	50.60	140	0.022	GA-55	5.20	2.42	2.51	0.15	6.42
CM-008-M	9.74	53.00	136	0.049	GA-56	5.20	2.29	2.65	0.15	4.42
CM-008-N	10.02	55.80	94	0.031	GA-57	5.20	2.14	2.77	0.16	4.73
CM-008-O	37.33	52.60	1237	0.115	GA-58	5.20	2.31	2.65	0.15	16.84
CM-008-P	470.13	50.20	2389	0.088	GA-59	5.20	2.44	2.49	0.15	199.65
CM-008-Q	15.89	56.60	714	0.113	GA-60	5.20	2.10	2.85	0.16	7.72
CM-009	316.17	51.90	1954	0.121	GA-61	5.20	2.35	2.59	0.15	139.95
CM-010	240.55	43.50	2000	0.150	GA-62	5.20	2.80	2.18	0.14	89.70
CM-010-A	23.35	56.10	722	0.065	GA-56	5.20	2.13	2.82	0.16	11.24
CMNJ-001	106.87	87.90	2305	0.017	GA-63	5.20	0.44	4.37	0.19	79.63
CMNJ-002	60.18	30.60	1128	0.012	GA-64	5.20	3.48	1.53	0.13	15.78
CMNJ-002-A	20.10	90.50	1178	0.040	GA-65	5.20	0.30	4.55	0.19	15.60
CMNJ-002-B	13.63	71.10	411	0.020	GA-66	5.20	1.33	3.56	0.17	8.30
CMNJ-002-C	8.00	91.90	154	0.016	GA-07	5.20	0.23	4.56	0.19	6.19
CMNJ-002-D	17.64	10.60	582	0.027	GA-67	5.20	4.54	0.54	0.11	1.60
CMNJ-003	14.17	91.40	394	0.032	GA-07	5.20	0.26	4.57	0.19	11.08
CMNJ-003-A	22.16	25.80	956	0.040	GA-07	5.20	3.73	1.30	0.13	4.90
CMNJ-004	2.54	90.00	351	0.053	GA-07	5.20	0.33	4.54	0.19	1.96
CMNJ-004-A	4.07	90.00	181	0.005	GA-68	5.20	0.33	4.48	0.19	3.11
CMNJ-004-B	41.88	90.10	740	0.013	GA-69	5.20	0.33	4.45	0.19	31.49
CMNJ-004-C	6.68	90.00	167	0.015	GA-70	5.20	0.33	4.48	0.19	5.11
CMNJ-004-D	8.42	90.00	529	0.018	GA-71	5.20	0.33	4.52	0.19	6.50
CMNJ-004-E	6.29	90.00	559	0.031	GA-72	5.20	0.33	4.53	0.19	4.86
CMNJ-004-F	4.49	74.60	354	0.042	GA-07	5.20	1.15	3.76	0.18	2.87
CMNJ-004-G	7.46	89.40	179	0.015	GA-68	5.20	0.36	4.44	0.19	5.66
CMNJ-004-H	21.42	90.00	687	0.027	GA-15	5.20	0.33	4.50	0.19	16.51
CMNJ-004-I	25.64	87.00	960	0.034	GA-73	5.20	0.49	4.36	0.19	19.13
CMNJ-004-J	4.32	90.00	289	0.028	GA-74	5.20	0.33	4.52	0.19	3.34
CMNJ-004-K	12.02	89.70	550	0.044	GA-75	5.20	0.35	4.50	0.19	9.25
CMNJ-004-L	7.29	90.00	292	0.019	GA-13	5.20	0.33	4.50	0.19	5.62
CMNJ-004-M	2.81	89.40	239	0.042	GA-75	5.20	0.36	4.50	0.19	2.16
CMNJ-004-N	5.19	90.00	159	0.004	GA-65	5.20	0.33	4.45	0.19	3.89
CMNJ-004-O	32.01	81.80	1231	0.028	GA-76	5.20	0.77	4.10	0.18	22.45
CMNJ-004-P	12.21	64.00	391	0.016	GA-77	5.20	1.71	3.20	0.16	6.69
CMNJ-004-Q	5.90	52.90	151	0.003	GA-07	5.20	2.30	2.62	0.15	2.63
CMNJ-004-R	5.83	81.80	545	0.037	GA-78	5.20	0.77	4.12	0.18	4.09
CMNJ-004-S	11.32	65.70	580	0.013	GA-79	5.20	1.62	3.30	0.17	6.38
CMNJ-004-T	26.87	57.70	849	0.014	GA-80	5.20	2.04	2.89	0.16	13.28
CMNJ-005	60.49	87.40	1044	0.016	GA-81	5.20	0.47	4.33	0.19	44.38
CMNJ-005-A	7.96	90.00	273	0.017	GA-82	5.20	0.33	4.49	0.19	6.13
CMNJ-005-B	14.33	79.20	211	0.020	GA-07	5.20	0.90	3.93	0.18	9.55
CMNJ-005-C	4.55	87.30	220	0.053	GA-07	5.20	0.47	4.39	0.19	3.41
CMNJ-005-D	13.66	75.00	694	0.046	GA-07	5.20	1.13	3.77	0.18	8.79
CMNJ-005-E	16.47	55.70	665	0.018	GA-01	5.20	2.15	2.80	0.16	7.87
CMNJ-005-F	3.74	93.20	179	0.009	GA-07	5.20	0.16	4.65	0.19	2.98
CMNJ-005-G	12.51	58.40	610	0.048	GA-07	5.20	2.01	2.94	0.16	6.27
CMNJ-005-H	3.05	94.60	46	0.012	GA-75	5.20	0.09	4.66	0.20	2.37
CMNJ-005-I	25.73	85.60	956	0.022	GA-15	5.20	0.56	4.28	0.19	18.87
CMNJ-005-J	27.65	63.30	731	0.021	GA-72	5.20	1.75	3.17	0.16	14.99
CMNJ-005-K	7.24	67.30	412	0.026	GA-72	5.20	1.53	3.38	0.17	4.18
CMNJ-005-L	30.09	61.30	1275	0.042	GA-72	5.20	1.85	3.08	0.16	15.82
CMNJ-005-M	24.45	63.50	734	0.030	GA-07	5.20	1.73	3.18	0.16	13.31
CMNJ-005-N	7.64	65.30	187	0.013	GA-07	5.20	1.64	3.26	0.17	4.26
NJ-001	3.79	54.20	872	0.041	GA-07	5.20	2.23	2.74	0.15	1.76
NJ-001-A	4.95	61.30	603	0.013	GA-07	5.20	1.85	3.09	0.16	2.60
NJ-001-B	15.24	58.50	743	0.063	GA-07	5.20	2.00	2.95	0.16	7.65
NJ-001-C	10.24	70.50	429	0.046	GA-75	5.20	1.36	3.54	0.17	6.19
NJ-002	37.51	47.20	1284	0.021	GA-83	5.20	2.60	2.37	0.15	15.19
NJ-002-A	33.79	61.70	1292	0.042	GA-84	5.20	1.83	3.10	0.16	17.88
NJ-002-B	17.61	69.90	1002	0.043	GA-68	5.20	1.40	3.52	0.17	10.56
NJ-002-C	9.76	58.70	562	0.036	GA-07	5.20	1.99	2.96	0.16	4.91
NJ-002-D	10.09	45.50	861	0.028	GA-01	5.20	2.69	2.30	0.15	3.94
NJ-003	14.46	26.90	2571	0.052	GA-85	5.20	3.67	1.36	0.13	3.34
NJ-003-A	7.13	82.90	919	0.029	GA-07	5.20	0.71	4.18	0.18	5.07
NJ-003-B	4.30	61.40	206	0.013	GA-07	5.20	1.85	3.08	0.16	2.26
NJ-003-C	15.77	63.70	696	0.045	GA-08	5.20	1.72	3.20	0.16	8.62
NJ-003-D	35.30	50.80	1301	0.056	GA-86	5.20	2.41	2.56	0.15	15.38
NJ-003-E	62.97	60.00	1845	0.044	GA-07	5.20	1.92	3.01	0.16	32.40
NJ-003-F	71.91	52.40	1572	0.043	GA-87	5.20	2.32	2.63	0.15	32.31
NJ-003-G	25.90	68.10	756	0.079	GA-26	5.20	1.49	3.42	0.17	15.13
NJ-003-H	29.57	60.50	837	0.082	GA-26	5.20	1.89	3.04	0.16	15.35

XPSWMM Sub-Basin Hydrology Output (500yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	% Impervious	Width, ft	Slope, ft/ft		Total Rainfall, in	Total Infiltration, in	Total Runoff Depth, in	Total Surface Evaporation, in	Peak Flow, cfs
NJ-003-I	28.48	86.30	336	0.037	GA-88	5.20	0.53	4.28	0.19	20.68
NJ-003-J	24.12	58.60	1232	0.038	GA-89	5.20	1.99	2.95	0.16	12.12
NJ-003-K	12.85	61.30	473	0.017	GA-90	5.20	1.85	3.07	0.16	6.75
NJ-003-L	8.16	67.70	276	0.020	GA-91	5.20	1.51	3.39	0.17	4.74
NJ-003-M	18.80	56.70	388	0.007	GA-92	5.20	2.10	2.82	0.16	9.02
NJ-003-N	47.66	59.20	1461	0.038	GA-93	5.20	1.96	2.97	0.16	24.20
NJ-003-O	18.24	52.40	440	0.081	GA-94	5.20	2.32	2.63	0.15	8.20
NJ-003-P	42.25	72.60	972	0.064	GA-95	5.20	1.25	3.64	0.17	26.30
NJ-003-Q	10.67	84.00	68	0.004	GA-96	5.20	0.65	3.99	0.18	6.00
NJ-004	67.72	59.20	1723	0.103	GA-97	5.20	1.96	2.98	0.16	34.39
NJ-004-A	13.11	47.20	821	0.065	GA-98	5.20	2.60	2.38	0.15	5.31
NJ-004-B	10.62	72.10	551	0.059	GA-99	5.20	1.28	3.63	0.17	6.57
NJ-005	22.62	41.70	2513	0.171	GA-100	5.20	2.89	2.11	0.14	8.09
NJ-005-A	8.73	95.00	148	0.062	GA-101	5.20	0.07	4.74	0.20	7.08
NJ-005-B	1.41	88.10	131	0.077	GA-102	5.20	0.43	4.44	0.19	1.07
NJ-005-C	1.88	67.80	393	0.163	GA-07	5.20	1.51	3.43	0.17	1.09
NJ-005-D	2.90	84.70	235	0.202	GA-25	5.20	0.61	4.28	0.19	2.11
NJ-005-E	2.25	75.70	424	0.148	GA-103	5.20	1.09	3.83	0.18	1.46
NJ-005-F	4.81	75.20	395	0.108	GA-35	5.20	1.11	3.80	0.18	3.10
NJ-005-G	18.18	52.80	473	0.061	GA-95	5.20	2.30	2.65	0.15	8.23
NJ-006	11.64	27.80	751	0.224	GA-104	5.20	3.63	1.41	0.13	2.78
NJ-006-A	57.93	57.50	1477	0.096	GA-105	5.20	2.05	2.89	0.16	28.57
NJ-007	50.73	66.30	1822	0.107	GA-106	5.20	1.59	3.34	0.17	28.85
NJ-007-A	22.77	57.60	866	0.097	GA-107	5.20	2.05	2.90	0.16	11.25
NJ-007-B	12.74	50.40	901	0.190	GA-19	5.20	2.43	2.55	0.15	5.51
NJ-007-C	25.96	56.30	1220	0.137	GA-26	5.20	2.12	2.84	0.16	12.54
NJ-007-D	34.86	42.90	1217	0.083	GA-108	5.20	2.83	2.16	0.14	12.83
NJ-007-E	12.24	67.80	386	0.144	GA-109	5.20	1.51	3.41	0.17	7.12
NJ-007-F	16.92	53.20	672	0.088	GA-110	5.20	2.28	2.68	0.15	7.72
NJ-007-G	30.46	71.70	903	0.114	GA-111	5.20	1.30	3.61	0.17	18.73
NJ-007-H	15.69	78.10	511	0.098	GA-112	5.20	0.96	3.93	0.18	10.51
NJ-007-I	26.86	48.80	2166	0.370	GA-113	5.20	2.51	2.47	0.15	11.24
NJ-007-J	12.83	68.40	590	0.099	GA-31	5.20	1.48	3.45	0.17	7.53
NJ-007-K	7.61	56.30	190	0.060	GA-114	5.20	2.12	2.83	0.16	3.68
NJ-007-L	118.98	31.10	1053	0.148	GA-115	5.20	3.45	1.56	0.13	31.74
NJ-007-M	9.81	63.10	135	0.036	GA-108	5.20	1.76	3.14	0.16	5.28
NJ-007-N	15.98	57.50	606	0.087	GA-25	5.20	2.05	2.90	0.16	7.88
NJ-007-O	1.63	93.40	106	0.122	GA-116	5.20	0.15	4.71	0.19	1.31
NJ-008	24.41	48.60	1332	0.156	GA-117	5.20	2.52	2.45	0.15	10.18
NJ-008-A	18.13	84.10	764	0.101	GA-27	5.20	0.64	4.23	0.18	13.08
NJ-008-B	11.84	60.90	655	0.060	GA-25	5.20	1.87	3.07	0.16	6.19
NJ-008-C	16.18	85.80	537	0.022	GA-96	5.20	0.55	4.29	0.19	11.89
NJ-008-D	1.31	91.90	42	0.006	GA-88	5.20	0.23	4.56	0.19	1.01
NJ-008-E	4.67	82.60	251	0.042	GA-96	5.20	0.72	4.15	0.18	3.31
NJ-008-F	20.76	66.20	470	0.058	GA-25	5.20	1.59	3.32	0.17	11.78
NJ-009	26.46	33.70	1803	0.286	GA-118	5.20	3.31	1.71	0.13	7.65
NJ-009-A	16.97	80.70	636	0.131	GA-19	5.20	0.82	4.06	0.18	11.75
NJ-009-B	16.29	78.80	926	0.119	GA-33	5.20	0.92	3.97	0.18	11.01
NJ-009-C	10.48	89.30	807	0.115	GA-119	5.20	0.37	4.50	0.19	8.03
NJ-009-D	7.36	60.10	467	0.134	GA-120	5.20	1.92	3.03	0.16	3.79
NJ-009-E	8.60	58.00	381	0.134	GA-121	5.20	2.03	2.93	0.16	4.28
NJ-009-F	4.43	57.40	189	0.056	GA-25	5.20	2.06	2.89	0.16	2.18
NJ-009-G	35.72	56.70	790	0.081	GA-35	5.20	2.10	2.85	0.16	17.37
NJ-009-H	22.15	54.80	536	0.092	GA-109	5.20	2.20	2.76	0.16	10.41
NJ-009-I	31.81	55.10	702	0.068	GA-108	5.20	2.18	2.77	0.16	15.03
NJ-009-J	14.75	66.00	774	0.107	GA-27	5.20	1.60	3.33	0.17	8.35
NJ-009-K	23.44	53.40	934	0.151	GA-122	5.20	2.27	2.69	0.15	10.74
NJ-009-L	3.05	81.70	98	0.065	GA-25	5.20	0.77	4.10	0.18	2.14
NJ-009-M	21.21	56.60	378	0.022	GA-88	5.20	2.10	2.82	0.16	10.26
NJ-010	37.52	46.50	1197	0.099	GA-123	5.20	2.64	2.34	0.15	14.97
NJ-010-A	16.41	87.00	418	0.013	GA-124	5.20	0.49	4.33	0.19	12.12
NJ-010-B	32.85	85.70	927	0.067	GA-88	5.20	0.56	4.30	0.19	24.14
NJ-010-C	39.69	57.20	1090	0.118	GA-33	5.20	2.07	2.88	0.16	19.47
NJ-010-D	74.95	56.80	900	0.047	GA-125	5.20	2.09	2.83	0.16	36.37
NJ-010-E	4.23	86.30	218	0.044	GA-126	5.20	0.53	4.34	0.19	3.13
NJ-010-F	18.78	16.80	472	0.086	GA-127	5.20	4.21	0.85	0.12	2.71
NJ-010-G	39.38	70.30	923	0.098	GA-18	5.20	1.37	3.53	0.17	23.74
NJ-010-H	5.06	11.70	231	0.066	GA-128	5.20	4.48	0.59	0.11	0.51
NJ-010-I	13.96	18.20	354	0.053	GA-129	5.20	4.14	0.92	0.12	2.18
NJ-010-J	54.62	46.50	472	0.097	GA-130	5.20	2.64	2.33	0.15	21.75
NJ-010-K	38.44	30.40	892	0.265	GA-131	5.20	3.49	1.54	0.13	10.02

XPSWMM Sub-Basin Hydrology Output (500yr Storm) Cedar Mill/North Johnson Creek CLOMR										
Sub-Basin ID	Sub-Basin Geometry				Infiltration Reference	Output				
	Area, ac	*% Impervious*	*Width, ft*	*Slope, ft/ft*		*Total Rainfall, in*	*Total Infiltration, in*	*Total Runoff Depth, in*	*Total Surface Evaporation, in*	*Peak Flow, cfs*
NJ-010-L	24.97	43.40	558	0.218	GA-44	5.20	2.80	2.19	0.14	9.30
NJ-011	6.22	48.10	255	0.060	GA-132	5.20	2.55	2.42	0.15	2.57
NJ-011-A	4.43	57.80	213	0.059	GA-133	5.20	2.04	2.91	0.16	2.20
NJ-011-B	12.45	54.40	365	0.073	GA-134	5.20	2.22	2.74	0.15	5.81
NJ-012	10.88	58.30	175	0.046	GA-135	5.20	2.01	2.92	0.16	5.43
NJ-013	6.71	63.50	300	0.079	GA-07	5.20	1.73	3.20	0.16	3.66
NJ-014	34.93	55.00	1446	0.101	GA-112	5.20	2.19	2.77	0.16	16.48
NJ-015	19.44	59.40	753	0.099	GA-112	5.20	1.95	2.99	0.16	9.91
NJ-015-A	4.75	81.00	365	0.108	GA-27	5.20	0.81	4.09	0.18	3.30
NJ-015-B	9.33	67.70	523	0.130	GA-136	5.20	1.51	3.42	0.17	5.42
NJ-016	173.89	20.20	1485	0.134	GA-132	5.20	4.03	1.02	0.12	30.13
NJ-016-A	16.64	27.90	1228	0.325	GA-137	5.20	3.62	1.41	0.13	3.98
NJ-016-B	5.95	60.10	281	0.043	GA-136	5.20	1.92	3.02	0.16	3.07
NJ-016-C	3.94	57.90	495	0.155	GA-138	5.20	2.03	2.93	0.16	1.96
NJ-016-D	14.47	29.30	668	0.255	GA-139	5.20	3.55	1.48	0.13	3.64
NJ-016-E	8.56	52.70	348	0.087	GA-140	5.20	2.31	2.66	0.15	3.87

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
3301505	1000	1001	Natural	3301505	-	-	6698	404.00	9.12	0.080	0.120	0.120	28.51	2.52	2.45	8.01	31.42	2.58	2.56	8.01	33.24	2.62	2.62	8.01	35.08	2.66	2.69	8.01	39.30	2.75	2.82	8.01
3301224	1001	1002	Natural	3301224	-	-	2557	281.00	3.56	0.080	0.120	0.120	35.44	2.52	2.53	8.02	38.61	2.58	2.59	8.02	40.59	2.62	2.63	8.02	42.60	2.66	2.66	8.02	47.19	2.75	2.74	8.01
3300921	1002	1003	Natural	3300921	-	-	4378	303.00	7.10	0.080	0.120	0.120	35.42	2.19	3.78	8.02	38.59	2.36	3.80	8.02	40.57	2.47	3.80	8.02	42.58	2.59	3.80	8.02	47.17	2.64	3.77	8.02
3300619	1003	1004	Natural	3300619	-	-	5271	302.00	1.92	0.080	0.120	0.120	35.26	2.19	2.26	8.05	38.40	2.36	2.25	8.05	40.35	2.47	2.25	8.05	42.33	2.59	2.25	8.05	47.15	2.64	2.25	8.03
3300376	1004	Node1372	Natural	3300376	-	-	4088	244.00	-0.14	0.080	0.120	0.120	35.64	1.43	0.60	8.08	38.85	1.47	0.63	8.08	40.83	1.49	0.65	8.08	42.86	1.51	0.67	8.08	47.70	1.56	0.70	8.07
3300102	1006	1278	Natural	3300102	-	-	7723	112.00	0.00	0.080	0.103	0.106	47.58	7.69	-0.07	8.52	51.44	7.95	-0.07	8.37	54.99	8.11	-0.07	8.39	58.00	8.27	-0.07	8.32	64.43	8.62	-0.07	8.40
3112238	1007	1014	Rectangular	3112238	8	8	64	188.00	1.06	0.035	-	-	205.62	3.68	7.16	8.22	227.70	3.94	7.41	8.21	242.08	4.11	7.56	8.19	256.11	4.27	7.70	8.19	287.76	4.61	8.00	8.19
3112995	1008	1278	Natural	3112995	-	-	15069	187.00	1.76	0.080	0.120	0.100	175.00	7.69	1.54	8.07	192.98	7.95	1.60	8.07	204.22	8.11	1.68	8.06	215.46	8.27	1.74	8.07	239.99	8.62	1.90	8.07
3113320	1010	NJ-009	Natural	3113320	-	-	16371	324.40	2.10	0.080	0.120	0.120	167.09	4.76	2.32	8.05	183.90	4.87	2.37	8.05	194.66	4.94	2.40	8.05	205.26	5.01	2.43	8.05	228.20	5.17	2.48	8.05
3113320_1	1011	1010	Natural	3113320	-	-	16371	450.00	3.68	0.080	0.120	0.120	167.14	2.74	4.03	8.04	183.95	2.81	4.06	8.04	194.71	2.85	4.08	8.04	205.32	2.89	4.09	8.04	228.27	2.98	4.12	8.04
3113770	1012	1011	Natural	3113770	-	-	43247	366.00	5.05	0.080	0.120	0.120	167.16	3.19	3.63	8.03	183.97	3.42	3.73	8.03	194.74	3.57	3.80	8.03	205.35	3.71	3.86	8.03	228.31	4.00	4.00	8.03
3114136	1013	1012	Natural	3114136	-	-	20481	282.00	4.96	0.080	0.120	0.120	76.52	3.19	2.56	8.01	81.37	3.42	2.61	8.01	84.13	3.57	2.63	8.01	86.79	3.71	2.66	8.01	92.53	4.00	2.70	8.01
3112029	1014	1015	Natural	3112029	-	-	22481	208.00	0.96	0.080	0.100	0.100	216.42	3.14	2.04	8.19	239.99	3.24	2.10	8.17	255.38	3.30	2.14	8.16	270.54	3.37	2.18	8.15	305.89	3.53	2.25	8.03
3111834	1015	NJ-008	Natural	3111834	-	-	29206	195.00	2.70	0.080	0.100	0.100	216.32	4.39	3.53	8.21	239.89	4.54	3.55	8.19	255.29	4.64	3.55	8.18	270.47	4.74	3.56	8.16	304.88	4.90	3.65	8.09
3111554	1017	1018	Natural	3111554	-	-	6954	104.00	1.73	0.080	0.100	0.110	225.40	4.00	3.05	8.21	250.71	4.15	3.10	8.15	267.13	4.25	3.13	8.14	283.47	4.35	3.16	8.13	322.04	4.50	3.22	8.07
3111403	1018	1019	Natural	3111403	-	-	7084	150.60	1.59	0.060	0.110	0.110	225.38	4.34	3.39	8.23	250.61	4.61	3.41	8.17	266.92	4.79	3.41	8.18	283.18	4.97	3.42	8.15	321.86	5.27	3.42	8.09
3111252	1019	1020	Natural	3111252	-	-	17551	151.00	1.57	0.060	0.110	0.110	225.31	4.46	4.76	8.25	250.42	4.78	4.87	8.20	266.57	4.99	4.93	8.21	282.55	5.17	4.98	8.23	321.68	5.73	5.09	8.10
3111175	1020	1021	Natural	3111175	-	-	2002	75.00	1.07	0.060	0.110	0.110	225.27	4.46	4.99	8.25	250.20	4.78	5.01	8.21	266.22	5.10	5.01	8.22	282.38	5.49	5.01	8.24	320.70	6.22	5.01	8.11
3111053	1021	1022	Natural	3111053	-	-	2494	122.00	1.06	0.060	0.110	0.110	225.06	4.98	3.04	8.26	249.30	5.68	3.04	8.20	265.25	6.23	3.04	8.22	282.00	6.67	3.04	8.25	318.16	7.46	3.04	8.11
3110968	1022	1023	Natural	3110968	-	-	2795	85.00	1.06	0.060	0.110	0.110	224.24	5.16	5.64	8.25	246.03	6.44	5.64	8.19	262.92	7.06	5.63	8.36	280.74	7.53	5.61	8.25	311.91	8.34	5.45	8.11
3110928	1023	1024	Natural	3110928	-	-	40023	40.00	1.10	0.060	0.110	0.110	222.68	5.60	3.07	8.22	244.03	6.88	3.05	8.17	259.37	7.50	3.02	8.36	275.97	7.97	2.94	8.27	307.60	8.78	2.63	8.10
3110591	1024	1025	Natural	3110591	-	-	52430	338.00	1.48	0.070	0.110	0.110	198.53	10.59	1.59	8.36	216.33	11.87	1.51	8.36	233.64	12.50	1.46	8.39	247.59	12.97	1.47	8.28	282.16	13.77	1.48	8.35
3110520	1025	1026	Natural	3110520	-	-	59176	71.00	6.44	0.070	0.110	0.110	169.69	15.16	1.74	8.46	188.94	16.44	1.75	8.65	204.70	17.07	1.76	8.44	222.59	17.54	1.76	8.50	266.21	18.34	1.76	8.39
3110181	1026	1027	Rectangular		2.3	6	14	255.00	0.00	0.024	-	-	152.10	15.16	10.75	9.61	159.81	16.44	11.27	9.76	163.45	17.07	11.51	9.86	166.14	17.54	11.69	10.00	170.68	18.34	11.99	10.38
3110057	1027	1029	Natural	3110057	-	-	26934	124.00	-1.94	0.050	0.101	0.098	152.35	4.20	0.32	9.65	160.10	4.25	0.33	9.79	163.77	4.27	0.34	9.91	166.49	4.29	0.34	10.02	171.08	4.32	0.35	10.42
3109922	1029	1030	Natural	3109922	-	-	35397	135.00	2.16	0.050	0.101	0.094	152.34	2.94	1.46	9.70	160.10	2.96	1.49	9.84	163.76	2.97	1.51	9.97	166.48	2.98	1.52	10.09	171.07	2.99	1.54	10.44
3109798	1030	1031	Natural	3109798	-	-	28137	125.00	0.88	0.050	0.098	0.107	152.32	2.94	3.56	9.72	160.08	2.96	3.56	9.86	163.75	2.97	3.56	9.98	166.47	2.98	3.56	10.11	171.07	2.99	3.56	10.47
3109269	1031	NJ-007	Natural	3109269	-	-	25155	529.00	0.00	0.050	0.088	0.091	151.76	2.45	0.39	10.07	159.78	2.53	0.40	10.16	163.60	2.57	0.40	10.25	166.42	2.60	0.40	10.31	171.30	2.66	0.40	11.17
3109065	1033	1277	Natural	3109065	-	-	25734	457.30	0.72	0.050	0.088	0.077	159.13	4.19	1.35	10.18	168.07	4.22	1.38	10.26	172.51	4.24	1.39	10.32	175.97	4.26	1.40	10.34	182.24	4.30	1.42	10.19
3107911	1035	1036	Natural	3107911	-	-	34117	553.00	0.93	0.070	0.073	0.080	224.09	5.17	2.53	8.28	245.69	5.23	2.63	8.26	258.61	5.27	2.68	8.25	271.21	5.32	2.73	8.27	299.98	5.40	2.85	8.31
3107887	1036	1055	Natural	3107887	-	-	34117	24.00	0.00	0.070	0.080	0.080	234.45	5.17	0.95	8.28	258.55	5.23	1.00	8.06	275.34	5.27	1.04	8.08	292.62	5.32	1.08	8.22	323.37	5.40	1.15	8.34
3200544	1037	1277	Natural	3200544	-	-	2117	544.00	2.52	0.080	0.070	0.100	87.13	4.19	1.35	8.12	97.16	4.22	1.36	8.12	103.73	4.24	1.37	8.13	109.98	4.26	1.37	8.14	124.01	4.30	1.41	8.17
3200544_1	1038	1037	Natural	3200544	-	-	2117	329.00	1.82	0.080	0.070	0.100	87.47	1.99	1.75	8.07	97.52	2.04	1.80	8.07	104.10	2.08	1.83	8.08	110.35	2.11	1.85	8.09	124.48	2.18	1.91	8.11
3200873	1039	1038	Natural	3200873	-	-	1598	239.00	2.31	0.080	0.070	0.100	87.53	3.29	2.96	8.04	97.58	3.36	2.96	8.05	104.16	3.41	2.96	8.05	110.41	3.45	2.96	8.06	124.53	3.54	2.96	8.08
3201112	1040	1039	Natural	3201112	-	-	2304	53.00	0.00	0.080	0.100	0.100	87.56	4.83	3.27	8.03	97.61	5.03	3.39	8.04	104.18	5.16	3.46	8.04	110.43	5.28	3.52	8.05	124.55	5.54	3.65	8.06
3201165	1041	1040	Natural	3201165	-	-	2306	59.00	8.00	0.080	0.100	0.100	87.57	4.83	4.92	8.03	97.61	5.03	5.06	8.03	104.19	5.16	5.13	8.04	110.44	5.28	5.19	8.04	124.56	5.54	5.33	8.05
3201224	1042	1041	Circular		4	-	13	87.00	0.00	0.014	-	-	87.57	4.65	6.88	8.02	97.62	5.17	7.95	8.03	104.19	5.48	8.45	8.04	110.44	5.81	8.92	8.04	124.56	6.73	9.98	8.05
3201310	1043	1042	Natural	3201310	-	-	1343	28.00	0.00	0.080	0.100	0.100	87.58	4.85	2.22	8.02	97.63	5.31	2.22	8.02	104.20	5.60	2.22	8.02	110.46	5.91	2.22	8.03	124.60	6.79	2.22	8.04
3201338	1044	1043	Natural	3201338	-	-	1343	238.00	5.61	0.080	0.100	0.100	87.69	4.85	4.66	8.01	97.81	5.31	4.67	8.01	104.42	5.60	4.68	8.01	110.78	5.91	4.69	8.01	125.47	6.79	4.70	8.01
3201576	1045	1044	Natural	3201576	-	-	4528	108.00	0.00	0.080	0.100	0.100	80.82	3.40	2.03	8.08	89.99	3.57	2.10	8.07	96.02	3.68	2.13	8.06	101.90	3.78	2.15	8.07	115.47	3.99	2.20	8.09
3201684	1046	1045	Rectangular		8	20	160	78.00	0.00	0.014	-	-	80.71	1.03	4.01	8.07	89.85	1.16	4.02	8.06	95.84	1.25	4.02	8.06	101.71	1.34	4.02	8.07	115.28	1.53	4.02	8.09
3201762	1047	1046	Natural	3201762	-	-	3987	41.00	-3.32	0.080	0.110	0.110	80.67	2.39	2.68	8.07	89.80	2.52	2.79	8.06	95.78	2.61	2.84	8.06	101.62	2.70	2.86	8.07	115.20	2.89	2.90	8.08
3201803	1048	1047	Natural	3201803	-	-	3540	177.00	5.24	0.080	0.110	0.110	80.66	3.09	4.69	8.06	89.78	3.24	4.84	8.05	95.76	3.34	4.91	8.05	101.59	3.42	4.98	8.06	115.17	3.61	5.13	8.08
3201980	1050	1048	Natural	3201980	-	-	2331	35.00	0.00	0.080	0.110	0.110	80.67	3.02	3.31	8.06	89.79	3.17	3.48	8.04	95.76	3.26	3.58	8.05	101.59	3.34	3.66	8.06	115.19	3.54	3.86	8.06
3202016	1051	1050	Circular		4	-	13	74.00	0.00	0.024	-	-	80.67	4.88	6.45	8.06	89.79	5.41	7.30	8.04	95.76	5.74	7.76	8.05	101.59	6.11	8.21	8.05	115.19	7.15	9.25	8.06
3202089	1052	1051	Natural	3202089	-	-	2417	32.00	0.00	0.080	0.110	0.110	80.69	5.05	1.99	8.04	89.81	5.51	1.99	8.03	95.80	5.82	1.99	8.03	101.65	6.17	1.99	8.04	116.21	7.17	1.99	8.06
3202121	1053	1052	Natural	3202121	-	-	2417	481.00	5.23	0.080	0.110	0.110	80.87	5.05	4.00	8.02	90.07	5.51	4.02	8.01	96.16	5.82	4.04	8.01	102.21	6.17	4.04	8.01	116.12	7.17	4.06	8.01
3107688	1055	1056	Special		10	0	79	199.00	0.00	0.014	-	-	234.47	5.15	5.12	8.29	258.66	5.21	5.59	8.06	275.51	5.25	5.92	8.09	292.65	5.29	6.24	8.23	323.40	5.37	6.80	8.35
3107600	1056	1057	Natural	3107600	-	-	5853	88.00	2.48	0.070	0.060	0.100	236.16	5.65	3.12	8.06	261.22	5.77	3.13	8.06	277.84	5.85	3.13	8.09	294.50	5.92	3.13	8.23	325.50	6.11	3.14	8.36
3107394	1057	1058	Natural	3107394	-	-	5853	206.00	0.00	0.070	0.064	0.087	229.79	5.65	1.79	8.39	254.42	5.77	1.79	8.35	267.08	5.85	1.80	8.35	285.78	5.92	1.80	8.25	319.05	6.11	1.80	8.43
3107360	1058	1059	Natural	3107360	-	-	3544	34.00	-1.21	0.070	0.067	0.100	226.22	5.01	3.79	8.50	250.67	5.18	3.78	8.40	264.31	5.30	3.77	8.46	281.68	5.38	3.77	8.37	316.04	5.66	3.76	8.49
3107321	1059	1060	Natural	3107321	-	-	3494	40.00	0.00	0.030	0.030	0.030	226.18	4.46	5.20	8.50	250.59	4.70	5.41	8.43	264.28	4.82	5.50	8.46	281.60	4.96	5.68	8.38	315.83	5.25	5.93	8.50
3107284	1060	1061	Natural	3107284	-	-	4565	38.00	1.34	0.070	0.057	0.113	226.15	4.28	5.34	8.50	250.53	4.52	5.37	8.43	264.26	4.64	5.37	8.46	281.55	4.77	5.35	8.38	315.76	5.05	5.30	8.50
3106913	1061	1062	Natural	3106913	-	-	5101	370.00	0.18	0.070	0.076	0.100	209.33	4.32	1.86	8.66	252.45	4.36	1.87	8.56	261.43	4.42	1.86	8.33	269.83	4.52	1.87	8.49	301.77	4.78	1.86	8.51
3106814	1062	NJ-005-A	Natural	3106814	-	-	10922	99.00	0.28	0.020	0.090	0.090	213.26	4.32	7.94	9.63	267.10	4.50	7.94	8.55	267.11	4.62	7.94	8.31	271.59	4.69	7.94	8.18	291.49	4.96	7.94	8.94
3106554	1064	1065	Natural	3106554	-	-	2895	7.00	31.57	0.080	0.090	0.090	214.87	3.74	8.62	9.63	255.80	3.92	9.20	8.73	264.19	4.06	9.25	9.67	271.37	4.20	9.31	8.63	294.76	4.56	9.34	9.03
3106259	1065	1066	Natural	3106259	-	-	2699	295.00	0.48	0.080	0.090	0.090	213.75	4.56	1.79	9.71	249.99	4.94	1.79	8.83	259.36	5.18	1.79	9.68	265.80	5.39	1.79	9.02	285.70	5.85	1.79	9.36
3105747	1066	1067	Natural	3105747	-	-	1471	512.00	0.92	0.080	0.090	0.090	210.62	5.31	3.32	10.10	240.66	5.71	3.41	9.52	252.24	6.20	3.41	9.34	259.76	6.22	3.42	10.41	279.79	6.29	3.41	10.22
3105584	1067	NJ-004	Natural	3105584	-	-	848	172.00	0.71	0.060	0.072	0.050	212.28	6.29	1.91	10.36	241.48	6.74	1.91	9.62	250.73	7.30	1.93	10.04	262.67	7.32	1.95	10.42	283.29	7.38	1.93	10.25
3104940	1069	1070	Natural	3104940	-	-	7277	394.00	-0.02	0.060	0.072	0.050	218.76	6.88	1.25	10.50	244.44	7.08	1.25	9.82	253.33	7.21	1.26	10.18	261.28	7.46	1.26	10.49	280.97	7.81	1.26	11.25
3104924	1070	1071	Natural	3104924	-	-	7277	15.00	0.00	0.060	0.083	0.100	218.86	6.68	1.55	10.49	243.11	6.88	1.55	9.78	250.66	7.00	1.55	10.26	257.23	7.19	1.55	10.60	274.58	7.66	1.55	11.51
3104920	1071	1072	Natural	3104920	-	-	1455	4.00	0.00	0.100	0.060	0.100	218.89	6.66	1.60	10.52	243.15	6.87	1.60	9.79	250.64	6.99	1.61	10.25	257.11	7.18	1.61	10.60	274.45	7.65	1.61	11.51
3104888	1072	1275	Natural	3104888	-	-	7277	33.00	0.00	0.060	0.100	0.100	218.81	6.66	1.57	10.49	242.93	6.86	1.58	9.90	250.44	6.98	1.58	10.26	256.86	7.17	1.58	10.60	273.94	7.64	1.58	11.51
3104823	1073	1074	Natural	3104823	-	-	2371	12.00	0.00	0.060	0.100	0.100	218.91	6.62	1.69	10.48	242.82	6.82	1.69	9.87	250.18	6.94	1.69	10.35	256.30	7.12	1.69	10.61	272.61	7.56	1.69	12.09
3104815	1074	1075	Natural	3104815	-	-	2371	8.00	0.00	0.100	0.060	0.100	218.87	6.61	1.75	10.49	242.71	6.81	1.74	9.82	250.13	6.93	1.75	10.27	256.33	7.10	1.75	10.66	272.60	7.55	1.75	12.07
3104796	1075	1076	Natural	3104796	-	-	2369	19.00	0.00	0.060	0.100	0.100	218.81	6.60	2.03	10.48	242.64	6.80	2.03	9.87	250.03	6.92	2.03	10.30	256.14	7.09	2.03	10.73	272.34	7.53	2.03	12.06
3104727	1076	1077	Natural	3104727	-	-	13342	70.00	0.47	0.070	0.067	0.050	218.64	6.58	2.54	10.57	241.70	6.98	2.54	9.91	248.80	7.14	2.54	10.36	254.95	7.34	2.54	11.01	270.98	7.80	2.54	12.16
3104712	1077	1078	Natural	3104712	-	-	13342	15.00	0.00	0.070	0.067	0.050	218.55	6.58	2.72	10.66	240.39	6.98	2.72	10.10	247.10	7.14	2.72	10.57	254.25	7.34	2.72	11.40	270.78	7.80	2.72	12.80
3104661	1078	1079	Circular		6	-	28	51.00	0.00	0.024	-	-	218.54	6.49	7.73	10.67	240.35	6.96	8.39	10.17	247.01	7.13	8.66	10.65	253.95	7.33	9.02	11.35	270.03	7.80	9.75	12.66
3104609	1079	NJ-003	Natural	3104609	-	-	524	52.00	4.40	0.070	0.067	0.039	218.53	5.12	5.55	10.68	240.34	5.37	5.69	10.17	247.00	5.66	5.70	10.65	253.93	5.81	5.69	11.37	270.02	6.12	5.69	12.67
3103884	1081	1082	Natural	3103884	-	-	4566	604.50	0.11	0.060	0.050	0.032	209.30	6.33	1.40	11.04	228.21	6.60	1.43	11.10	233.39	6.84	1.45	13.60	241.16	7.00	1.45	13.55	260.83	7.35	1.47	12.53
3103280	1082	1083	Natural	3103280	-	-	8239	605.00	0.12	0.060	0.050	0.025	185.13	7.04	1.60	15.16	202.44	7.31	1.62	12.36	214.53	7.55	1.64	13.64	217.28	7.71	1.64	14.85	241.69	8.06	1.66	16.53
3103041	1083	1084	Natural	3103041	-	-	4582	240.00	-0.15	0.060	0.050	0.052	228.77	7.04	0.77	15.17	243.39	7.30	0.77	12.37	255.11	7.55	0.77	13.65	261.34	7.71	0.77	15.02	293.34	8.06	0.78	16.56
3103030	1084	NJ-002	Natural	3103030	-	-	4582	33.00	0.00	0.060	0.050	0.052	228.37	6.68	0.95	15.21	239.17	6.94	0.96	15.29	249.73	7.19	0.96	13.65	258.10	7.35	0.96	15.47	292.83	7.70	0.96	17.66
3103008	1086	1087	Natural	3103008	-	-	4582	33.00	0.00	0.060	0.050	0.052	229.98	6.68	1.03	15.31	241.08	6.94	1.03	16.48	250.79	7.19	1.03	13.66	259.62	7.35	1.04	15.47	294.83	7.70	1.05	17.68
3102498	1087	1088	Natural	3102498	-	-	3429	510.00	0.16	0.060	0.050	0.052	228.48	7.47	1.25	15.33	240.33	7.74	1.25	16.49	245.13	7.99	1.26	13.67	257.37	8.15	1.26	16.95	293.52	8.50	1.27	17.64
3102153	1088	1089	Natural	3102153	-	-	2610	345.00	0.07	0.050	0.055	0.067	227.98	7.47	2.03	15.71	240.40	7.74	2.05	17.20	243.26	7.99	2.05	19.09	257.50	8.15	2.05	17.24	293.28	8.50	2.08	17.93
3101680	1089	1090	Natural	3101680	-	-	5055	472.00	0.02	0.050	0.067	0.067	228.46	7.39	1.92	15.73	240.92	7.52	1.96	17.18	243.73	7.56	1.97	19.18	258.08	7.72	1.99	17.28	293.95	8.10	2.07	18.03
3101198	1090	1091	Natural	3101198	-	-	929	483.00	0.04	0.050	0.067	0.067	232.43	7.10	2.92	15.76	245.67	7.23	2.92	16.38	247.57	7.28	2.94	19.20	265.15	7.40	2.95	17.03	301.45	7.74	2.97	18.11
3100898	1091	1092	Natural	3100898	-	-	968	299.00	1.97	0.050	0.067	0.067	232.68	10.89	3.92	15.82	245.90	11.15	3.98	16.37	247.77	11.31	4.03	19.23	265.40	11.42	4.08	17.06	301.61	12.19	4.31	18.21

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
3100680	1092	1093	Natural	3100680	-	-	646	219.00	0.00	0.050	0.070	0.070	233.05	10.89	1.90	15.89	246.24	11.15	1.96	16.39	248.07	11.31	2.00	19.26	265.70	11.42	2.06	17.12	301.74	12.19	2.25	18.25
3100655	1093	1094	Natural	3100655	-	-	1878	24.00	-20.54	0.050	0.070	0.020	233.79	10.80	1.33	15.88	246.94	11.05	1.36	16.32	248.80	11.21	1.38	19.21	266.40	11.32	1.37	17.20	302.40	12.03	1.43	18.29
138310	1094	1095	Rectangular		8.2	14	115	120.00	0.00	0.014	-	-	233.24	5.87	3.20	15.88	246.41	6.12	3.29	16.39	248.24	6.28	3.32	19.21	265.92	6.39	3.32	17.08	301.82	7.22	3.59	18.17
3100465	1095	1096	Natural	3100465	-	-	255	70.00	1.01	0.050	0.041	0.074	234.92	6.51	3.38	15.84	248.27	6.75	3.45	16.39	249.86	6.91	3.50	19.21	267.88	7.03	3.48	16.89	303.92	7.93	3.60	18.24
3100425	1096	126330	Natural	3100425	-	-	316	25.00	-0.44	0.050	0.026	0.070	235.46	6.49	2.77	15.84	248.77	6.73	2.83	16.35	250.32	6.89	2.88	19.13	268.50	7.01	2.85	17.00	304.56	7.88	3.02	18.23
3100112	1099	1100	Natural	3100112	-	-	287	126.00	0.46	0.050	0.065	0.044	235.90	7.16	2.96	15.86	249.21	7.40	3.03	16.41	250.71	7.56	3.08	19.35	268.86	7.68	3.05	17.06	304.58	8.47	3.15	18.27
3009090_1	1100	1101	Natural	3009090	-	-	460	112.00	1.13	0.050	0.065	0.044	241.25	8.40	2.71	17.93	249.66	8.63	2.78	16.41	253.85	8.79	2.84	21.67	269.23	8.91	2.80	16.94	337.43	9.68	2.95	11.04
3008962	1101	1102	Natural	3008962	-	-	451	127.60	-1.03	0.050	0.050	0.050	589.36	8.22	2.74	10.57	654.13	8.44	2.71	10.63	702.13	8.57	2.68	10.64	729.14	8.64	2.67	10.65	1095.81	9.63	3.18	10.98
3008863	1102	1103	Rectangular		10	20	200	98.00	0.00	0.013	-	-	589.31	6.90	4.39	10.57	654.08	7.12	4.59	10.63	702.02	7.25	4.85	10.65	729.01	7.32	4.98	10.65	1087.25	8.31	7.21	10.96
3008836	1103	1104	Natural	3008836 #2	-	-	293	65.70	0.47	0.065	0.050	0.050	589.31	6.95	3.89	10.57	654.10	7.16	3.85	10.63	702.01	7.27	3.79	10.64	728.92	7.32	3.78	10.65	1077.97	8.77	5.40	10.96
3008809	1104	1105	Natural	3008809 #3	-	-	3467	33.00	6.30	0.065	0.050	0.050	598.48	9.09	5.52	10.58	665.36	9.30	5.49	10.59	718.51	9.42	5.43	10.70	746.24	9.48	5.40	10.66	1096.02	10.64	7.51	10.96
3008797	1105	1106	Natural	3008797 #4	-	-	960	33.00	-0.82	0.050	0.050	0.050	607.33	9.09	1.32	10.30	680.26	9.29	1.31	10.60	733.99	9.41	1.29	10.65	762.21	9.47	1.30	10.66	1387.80	10.54	2.36	10.92
3008719	1106	1107	Natural	3008720	-	-	1960	77.00	0.39	0.065	0.050	0.050	717.01	9.10	2.90	8.09	706.97	9.31	2.92	20.09	736.53	9.43	2.92	10.66	765.87	9.48	2.93	10.64	2494.24	10.34	2.95	10.97
3008652	1107	1108	Natural	3008653	-	-	3044	67.10	1.79	0.065	0.050	0.050	611.23	10.25	4.72	10.61	686.19	10.47	4.70	10.60	740.98	10.61	4.71	10.68	770.96	10.69	4.71	10.67	-4063.80	11.88	4.97	10.96
3008448	1108	1109	Natural	3008448 #7	-	-	2267	204.50	1.79	0.065	0.050	0.050	610.85	13.40	2.65	10.62	685.61	13.61	2.66	10.64	739.96	13.75	2.65	10.72	769.26	13.83	2.65	10.70	1454.72	14.26	3.74	10.96
3008410	1109	1110	Natural	3008410 #8	-	-	2218	38.00	-11.76	0.055	0.050	0.050	612.10	13.40	0.68	10.64	686.80	13.61	0.74	10.67	741.17	13.75	0.79	10.74	770.52	13.83	0.81	10.72	1243.85	14.33	1.23	10.96
3008369	1110	1111	Natural	3008369	-	-	2218	40.00	0.00	0.055	0.050	0.050	611.16	8.93	1.65	10.62	685.78	9.14	1.76	10.64	740.04	9.28	1.82	10.76	769.22	9.36	1.86	10.72	1211.22	9.86	2.62	10.96
3008218	1111	1112	Natural	3008218 #10	-	-	1729	151.10	-0.09	0.055	0.050	0.050	610.42	8.83	1.29	10.63	684.80	9.02	1.32	10.66	739.03	9.16	1.37	10.75	768.40	9.24	1.39	10.74	1097.88	9.65	1.81	10.96
3007979	1112	1113	Natural	3007979	-	-	2047	239.20	-0.04	0.055	0.050	0.050	609.81	8.61	1.09	10.68	683.86	8.80	1.09	10.72	737.91	8.94	1.10	10.78	767.39	9.02	1.10	10.77	982.94	9.31	1.26	10.97
3007835	1113	1114	Natural	3007835 #11	-	-	2383	144.40	-0.77	0.055	0.050	0.050	609.12	8.49	1.10	10.74	682.92	8.68	1.10	10.80	736.67	8.82	1.10	10.84	766.31	8.89	1.10	10.82	922.64	9.15	1.10	10.98
3007705	1114	CMNJ-005	Natural	3007705 #12	-	-	1145	129.70	0.05	0.055	0.050	0.050	608.87	7.38	2.36	10.79	682.57	7.57	2.36	10.84	736.22	7.71	2.36	10.90	765.90	7.78	2.36	10.88	895.17	8.04	2.35	10.98
3007410	1116	1117	Natural	3007410	-	-	1315	33.00	1.06	0.055	0.030	0.040	617.71	7.84	3.06	10.84	692.43	8.08	3.07	10.90	746.75	8.24	3.07	10.94	777.35	8.34	3.08	10.95	893.76	8.62	3.08	10.99
3007394	1117	1118	Natural	3007394	-	-	2079	33.00	0.00	0.055	0.040	0.040	617.66	7.84	2.75	10.85	692.36	8.08	2.76	10.90	746.66	8.24	2.76	10.94	777.30	8.34	2.76	10.95	893.13	8.62	2.77	10.99
3007317	1118	1119	Natural	3007317 #15	-	-	1146	77.30	0.47	0.055	0.030	0.040	617.52	8.03	3.42	10.87	692.18	8.29	3.42	10.92	746.45	8.46	3.42	10.98	777.19	8.56	3.42	11.00	890.39	8.86	3.42	10.99
3007283	1119	1120	Natural	3007283 #16	-	-	1274	33.00	-1.03	0.055	0.030	0.040	617.37	8.00	2.78	10.88	692.00	8.26	2.79	10.94	746.28	8.43	2.79	10.98	777.07	8.53	2.79	11.04	886.66	8.84	2.80	10.99
3006600	1120	1121	Natural	3006600	-	-	1015	683.10	0.24	0.055	0.030	0.040	617.08	8.38	2.29	10.93	691.69	8.60	2.39	10.99	745.92	8.75	2.46	11.03	776.94	8.84	2.50	11.09	879.35	9.10	2.62	11.01
3006578	1121	1122	Natural	3006578 #17	-	-	984	33.00	0.67	0.055	0.040	0.040	617.31	8.57	2.10	10.96	691.93	8.79	2.22	11.03	746.72	8.94	2.30	11.06	778.18	9.03	2.34	11.17	878.70	9.28	2.48	11.02
3006561	1122	1123	Natural	3006561	-	-	1651	33.00	0.00	0.055	0.040	0.040	617.52	8.57	2.01	10.98	692.13	8.79	2.13	11.04	746.87	8.94	2.21	11.06	778.44	9.03	2.25	11.17	879.28	9.28	2.39	11.02
3006477	1123	1124	Natural	3006477	-	-	1190	84.10	-0.48	0.055	0.040	0.040	616.82	8.45	1.87	10.96	691.44	8.66	1.98	11.03	746.30	8.80	2.06	11.06	777.78	8.89	2.09	11.16	878.20	9.13	2.21	11.02
3006216	1124	1125	Natural	3006216 #19	-	-	1045	261.40	-0.03	0.055	0.040	0.040	617.86	7.98	1.78	11.00	692.60	8.19	1.88	11.03	747.84	8.33	1.96	11.05	779.51	8.42	1.99	11.16	879.15	8.66	2.12	11.02
3006194	1125	1126	Natural	3006194 #20	-	-	1328	33.00	-2.30	0.055	0.040	0.040	618.15	7.72	1.54	11.03	692.79	7.92	1.65	11.09	748.71	8.05	1.73	11.05	780.40	8.13	1.77	11.20	880.03	8.36	1.90	11.06
3006162	1126	1127	Natural	3006162 #21	-	-	1944	33.00	2.09	0.055	0.040	0.040	618.24	7.63	2.27	11.04	692.86	7.82	2.41	11.04	748.95	7.96	2.51	11.10	780.54	8.04	2.55	11.20	879.78	8.27	2.71	11.06
3006129	1127	1128	Natural	3006129	-	-	1978	33.00	0.00	0.055	0.040	0.040	618.31	7.63	1.92	11.01	693.00	7.82	2.06	11.04	748.42	7.96	2.15	11.09	780.36	8.04	2.20	11.15	879.85	8.27	2.35	11.06
3006062	1128	1129	Natural	3006062 #23	-	-	1636	66.90	0.84	0.055	0.040	0.040	618.82	8.10	1.95	11.02	693.77	8.29	2.07	11.06	749.51	8.42	2.16	11.07	781.10	8.50	2.20	11.18	880.32	8.72	2.34	11.04
3006007	1129	1130	Natural	3006007 #24	-	-	1654	54.80	0.04	0.055	0.040	0.040	618.67	8.10	2.64	11.02	693.59	8.29	2.83	11.08	749.49	8.42	2.96	11.12	781.22	8.50	3.03	11.13	879.98	8.72	3.24	11.08
3005946	1130	1131	Natural	3005946	-	-	1835	61.00	0.00	0.055	0.040	0.040	618.64	8.03	2.69	10.99	693.56	8.20	2.89	11.08	749.23	8.33	3.04	11.08	780.78	8.40	3.11	11.27	879.57	8.61	3.33	11.09
3005723	1131	CMNJ-003	Natural	3005723 #26	-	-	1926	222.80	0.62	0.060	0.040	0.040	655.00	8.71	3.16	11.00	735.25	8.81	3.12	11.04	794.27	8.89	3.10	11.08	830.79	8.94	3.09	11.04	939.56	9.08	3.06	11.04
3005262	1133	1134	Natural	3005262 #28	-	-	6124	224.90	-0.93	0.060	0.040	0.040	-923.96	8.87	-2.69	7.71	-937.20	8.97	-2.66	7.27	-921.78	9.04	-2.65	6.95	-915.68	9.09	-2.64	6.69	934.96	9.23	-2.68	11.12
3005198	1134	1135	Natural	3005198 #29	-	-	6719	64.00	3.58	0.060	0.040	0.040	-2237.34	9.06	3.97	7.70	-2248.17	9.16	4.00	7.26	-2277.83	9.23	3.98	6.94	-2241.48	9.28	4.01	6.68	-2172.28	9.41	3.98	6.14
3005163	1135	1136	Natural	3005163 #30	-	-	3143	33.00	-6.06	0.060	0.040	0.040	654.10	9.01	2.41	11.35	734.20	9.11	2.41	11.35	790.73	9.18	2.41	11.35	830.17	9.23	2.41	11.47	928.04	9.36	2.41	11.32
3005087	1136	CMNJ-002	Natural	3005087	-	-	6575	76.00	0.00	0.060	0.050	0.050	654.06	7.01	3.57	11.35	733.84	7.11	3.93	11.39	790.24	7.18	4.17	11.40	829.66	7.23	4.34	11.46	927.50	7.36	4.73	11.33
3004815	1138	1139	Natural	3004815 #33	-	-	3246	150.00	0.86	0.060	0.050	0.050	-714.74	9.23	4.06	23.42	-809.00	9.36	4.06	25.40	793.87	9.45	4.07	11.41	833.52	9.51	4.06	11.47	932.05	9.68	4.06	11.34
3004529	1139	1140	Natural	3004529 #34	-	-	2180	286.20	0.86	0.060	0.050	0.050	657.01	10.29	3.73	11.39	737.03	10.46	3.73	11.42	793.56	10.58	3.72	11.43	833.23	10.67	3.72	11.53	930.70	10.87	3.73	11.40
3004500	1140	1141	Natural	3004500 #35	-	-	2448	33.00	-9.39	0.050	0.050	0.050	657.60	10.27	1.14	11.47	737.84	10.45	1.14	11.45	794.54	10.56	1.14	11.45	834.30	10.65	1.14	11.57	931.20	10.85	1.14	11.44
3004480	1141	1142	Natural	3004481	-	-	2448	33.00	0.00	0.060	0.050	0.050	657.13	7.17	3.35	11.43	737.17	7.35	3.35	11.44	793.58	7.46	3.34	11.46	833.30	7.55	3.35	11.59	930.01	7.75	3.34	11.44
3004418	1142	1143	Natural	3004418 #37	-	-	2915	63.00	2.84	0.060	0.050	0.050	656.69	8.07	6.01	11.44	736.66	8.32	6.02	11.47	792.94	8.49	6.01	11.47	832.74	8.61	6.00	11.59	929.41	8.87	5.99	11.45
3004106	1143	1144	Natural	3004106 #38	-	-	4292	311.80	-0.10	0.060	0.050	0.050	654.60	7.96	1.41	11.53	734.85	8.22	1.42	11.53	790.89	8.39	1.42	11.54	831.39	8.51	1.42	11.65	926.77	8.77	1.43	11.51
3003796	1144	1145	Natural	3003796 #39	-	-	5908	310.10	-0.10	0.065	0.050	0.050	657.37	7.60	0.60	11.69	738.54	7.85	0.60	11.67	794.75	8.02	0.62	11.68	836.53	8.15	0.63	11.76	931.75	8.41	0.65	11.64
3003755	1145	1146	Natural	3003755 #40	-	-	1555	40.00	-6.02	0.065	0.050	0.050	656.86	7.24	1.53	11.78	738.06	7.50	1.63	11.75	794.23	7.67	1.70	11.75	836.16	7.79	1.74	11.85	931.24	8.05	1.85	11.71
3003713	1146	1147	Natural	3003713 #41	-	-	3910	42.00	0.00	0.065	0.050	0.050	656.85	4.83	2.76	11.79	738.05	5.09	2.85	11.75	794.22	5.26	2.91	11.76	836.15	5.38	2.95	11.86	931.23	5.64	3.06	11.72
3003682	1147	1148	Natural	3003682 #42	-	-	4212	30.00	6.90	0.065	0.050	0.050	656.84	6.42	8.33	11.79	738.04	6.63	8.62	11.76	794.21	6.77	8.82	11.76	836.14	6.87	8.96	11.86	931.22	7.06	9.25	11.72
3003622	1148	CMNJ-001	Natural	3003622	-	-	1485	65.00	0.00	0.065	0.050	0.050	656.82	6.42	4.67	11.79	738.03	6.63	4.83	11.76	794.20	6.77	4.95	11.76	836.13	6.87	5.04	11.87	931.21	7.06	5.25	11.72
3003445	1150	1151	Natural	3003445	-	-	11910	33.00	0.00	0.065	0.070	0.070	668.18	4.54	2.90	11.91	751.82	4.66	2.91	11.84	809.11	4.74	2.92	11.84	852.76	4.80	2.92	11.94	949.49	4.92	2.93	11.81
3003205	1151	1152	Natural	3003205 #45	-	-	12395	246.30	0.37	0.065	0.060	0.060	666.92	5.42	2.09	12.00	750.70	5.53	2.10	11.92	807.91	5.61	2.10	11.91	851.84	5.67	2.10	12.01	947.97	5.79	2.10	11.89
3002510	1152	1153	Natural	3002510 #46	-	-	6986	694.80	0.47	0.065	0.060	0.060	665.79	6.82	2.52	12.14	749.65	6.96	2.52	12.05	806.77	7.05	2.52	12.04	850.87	7.13	2.52	12.12	946.55	7.27	2.52	12.02
3002500	1153	1154	Natural	3002500	-	-	8032	33.00	0.61	0.065	0.070	0.070	664.84	7.01	2.16	12.26	748.73	7.15	2.16	12.15	805.76	7.24	2.16	12.14	850.03	7.31	2.16	12.21	945.38	7.46	2.16	12.11
3001680	1154	1155	Natural	3001679 #48	-	-	2862	820.10	0.27	0.065	0.070	0.070	664.81	7.01	2.31	12.34	748.62	7.15	2.31	12.23	805.62	7.24	2.31	12.21	849.91	7.31	2.31	12.28	945.20	7.46	2.32	12.19
3001309	1155	1156	Natural	3001309 #49	-	-	4348	370.50	0.16	0.065	0.070	0.070	663.63	6.81	2.19	12.47	747.74	6.95	2.19	12.34	804.69	7.04	2.20	12.32	849.13	7.11	2.20	12.39	944.09	7.25	2.20	12.29
3000720	1156	1157	Natural	3000719 #50	-	-	3960	589.50	0.04	0.065	0.070	0.070	662.60	6.60	1.44	12.59	746.95	6.73	1.44	12.44	803.89	6.81	1.44	12.42	848.47	6.88	1.44	12.48	943.20	7.01	1.45	12.38
300709	1157	1158	Natural	3000709	-	-	4800	33.00	0.00	0.065	0.070	0.070	662.24	6.47	2.23	12.65	746.66	6.56	2.23	12.49	803.58	6.63	2.23	12.46	848.20	6.67	2.23	12.52	942.87	6.77	2.24	12.43
3000227	1158	1159	Natural	3000227 #52	-	-	6175	485.00	0.63	0.065	0.070	0.070	662.11	7.52	3.21	12.70	746.54	7.63	3.20	12.53	803.46	7.71	3.20	12.51	848.10	7.76	3.20	12.57	942.75	7.87	3.21	12.47
3000119	1159	1	Natural	3000119 #53	-	-	5273	119.00	0.84	0.065	0.080	0.080	661.91	7.52	4.13	12.77	746.36	7.63	4.13	12.60	803.27	7.71	4.13	12.58	847.93	7.76	4.13	12.63	942.60	7.87	4.13	12.52
3009090	1161	1101	Natural	3009090	-	-	460	94.10	2.82	0.050	0.065	0.044	405.52	8.40	4.84	10.38	452.11	8.63	4.74	10.48	491.78	8.79	4.64	10.48	513.89	8.91	4.75	10.21	669.44	9.68	5.46	10.85
3009192	1162	1161	Natural	3009192	-	-	454	84.00	0.00	0.060	0.050	0.050	405.57	6.47	4.41	10.37	452.17	6.75	4.66	10.48	491.88	6.95	4.89	10.47	514.06	7.08	5.01	10.21	642.05	7.73	5.69	10.84
3009276	1163	1162	Natural	3009276	-	-	268	48.90	0.00	0.060	0.020	0.020	405.60	6.74	4.16	10.37	452.20	7.04	4.39	10.48	491.93	7.26	4.60	10.47	514.12	7.39	4.71	10.21	646.78	8.03	5.35	10.84
3009325	1164	1163	Natural	3009325	-	-	1160	340.70	0.17	0.060	0.050	0.050	406.39	7.37	2.65	10.29	453.08	7.51	2.65	10.41	493.25	7.63	2.65	10.40	516.08	7.69	2.65	10.14	630.28	8.07	2.65	10.75
3009665	1165	1164	Natural	3009665	-	-	735	245.30	1.09	0.060	0.062	0.050	406.67	7.37	3.57	10.25	453.46	7.51	3.67	10.37	493.89	7.63	3.74	10.35	517.14	7.69	3.79	10.11	634.09	8.07	3.91	10.69
3009911	1166	1165	Natural	3009911	-	-	1056	33.00	1.27	0.060	0.050	0.050	406.99	7.17	2.78	10.23	453.88	7.35	2.78	10.34	494.42	7.50	2.78	10.33	517.67	7.58	2.78	10.07	634.96	7.97	2.79	10.68
3009931	1167	1166	Natural	3009931	-	-	818	33.00	0.00	0.050	0.060	0.050	407.11	7.23	2.33	10.22	453.98	7.41	2.49	10.35	494.42	7.56	2.61	10.35	517.75	7.65	2.68	10.08	635.32	8.04	3.02	10.67
3009936	1168	1167	Natural	3009936	-	-	818	33.00	1.27	0.060	0.050	0.050	406.99	7.23	2.53	10.23	453.88	7.41	2.69	10.36	494.37	7.56	2.82	10.33	517.63	7.65	2.89	10.06	635.12	8.04	3.23	10.67
3009951	1169	1168	Natural	3009951	-	-	74	224.10	0.97	0.060	0.056	0.050	406.74	6.86	4.07	10.22	453.58	7.04	4.26	10.34	494.05	7.20	4.41	10.32	517.34	7.29	4.50	10.07	635.05	7.69	4.90	10.66
3010175	1170	1169	Natural	3010175	-	-	647	136.70	0.67	0.060	0.066	0.050	406.77	6.07	3.15	10.20	453.62	6.30	3.24	10.33	494.09	6.48	3.30	10.30	517.40	6.59	3.34	10.06	635.36	7.08	3.49	10.65
3010352	1172	CM-001	Natural	3010352	-	-	358	42.00	0.00	0.080	0.060	0.050	404.87	6.71	3.61	10.19	451.51	6.93	3.77	10.32	491.82	7.12	3.90	10.29	514.86	7.22	3.97	10.04	632.84	7.72	4.30	10.63
3010394	1173	1172	Natural	3010394	-	-	575	33.00	2.42	0.080	0.100	0.021	335.54	6.71	3.68	9.58	342.64	6.93	3.68	9.57	347.47	7.12	3.68	9.54	352.21	7.22	3.67	9.49	358.56	7.72	3.64	9.15
3010420	1174	1173	Natural	3010420	-	-	871	89.50	0.22	0.080	0.100	0.026	335.66	6.83	3.28	9.58	342.88	6.95	3.28	9.58	347.86	7.05	3.28	9.54	352.73	7.13	3.27	9.50	359.27	7.37	3.26	9.15
3010510	1175	1174	Natural	3010510	-	-	893	164.00	0.27	0.080	0.100	0.100	335.78	7.38	3.14	9.57	343.12	7.47	3.15	9.58	348.22	7.53	3.16	9.54	353.23	7.60	3.16	9.49	359.95	7.71	3.18	9.15
3010691	1176	1175	Natural	3010691	-	-	777	529.00	0.81	0.070	0.100	0.100	335.95	7.38	4.07	9.54	343.39	7.47	4.09	9.56	348.64	7.53	4.10	9.52	353.82	7.60	4.11	9.48	360.82	7.71	4.13	9.13
3011220	1177	1176	Natural	3011220	-	-	256	93.00	1.70	0.070	0.100	0.100	336.01	7.07	3.08	9.52	343.46	7.15	3.10	9.53	348.74	7.20	3.11	9.49	353.95	7.25	3.12	9.45	361.10	7.31	3.14	9.11
3011313	1178	1177	Natural	3011313	-	-	703	33.00	0.00	0.070	0.020	0.020	336.05	5.92	2.37	9.50	343.50	5.98	2.36	9.52	348.79	6.03	2.35	9.48	354.02	6.07	2.35	9.44	361.26	6.12	2.34	9.10
3011339	1179	1178	Natural	3011339	-	-	703	112.00	0.19	0.070	0.020	0.020	336.17	6.07	2.30	9.48	343.61	6.11	2.28	9.49	348.92	6.14	2.28	9.45	354.20	6.17	2.27	9.41	361.73	6.22	2.27	9.08

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
3011451	1180	1179	Natural	3011451	-	-	275	208.00	0.29	0.070	0.080	0.080	336.30	6.85	3.05	9.45	343.73	6.92	3.03	9.46	349.08	6.97	3.02	9.42	354.43	7.01	3.01	9.38	362.42	7.05	3.01	9.05
3011659	1181	1180	Natural	3011659	-	-	285	50.00	-3.42	0.070	0.080	0.080	336.50	8.56	2.60	9.41	343.86	8.63	2.58	9.43	349.26	8.68	2.57	9.37	354.56	8.72	2.56	9.36	362.95	8.76	2.62	9.02
3011709	1182	1181	Natural	3011709	-	-	3280	33.00	0.00	0.070	0.080	0.080	336.53	8.96	3.50	9.40	343.89	9.05	3.51	9.41	349.29	9.12	3.51	9.37	354.58	9.16	3.51	9.35	363.06	9.23	3.81	9.02
3011713	1183	1182	Natural	3011713	-	-	219	37.00	2.30	0.070	0.080	0.080	336.56	8.96	3.91	9.39	343.92	9.05	3.92	9.41	349.33	9.12	3.92	9.36	354.61	9.16	3.91	9.34	363.18	9.23	4.25	9.02
3012178	1185	CM-002	Natural	3012178	-	-	255	68.00	0.21	0.070	0.080	0.040	335.81	8.60	2.74	9.35	343.01	8.69	2.74	9.37	348.33	8.76	2.74	9.31	353.49	8.83	2.74	9.31	362.33	9.39	2.74	9.01
3012246	1186	1185	Natural	3012246	-	-	514	33.00	-1.36	0.070	0.060	0.040	336.16	9.05	2.08	9.38	343.37	9.14	2.09	9.36	348.72	9.21	2.09	9.30	353.89	9.28	2.10	9.28	362.82	9.84	2.12	9.01
3050100	1188	1172	Natural	3050100	-	-	144	100.00	3.68	0.080	0.080	0.080	83.93	6.71	2.44	10.44	122.92	6.93	2.92	10.46	157.35	7.12	3.25	10.43	173.75	7.22	3.38	10.47	308.15	7.72	3.76	10.36
3050100_1	1189	1188	Natural	3050100	-	-	144	100.00	2.00	0.080	0.080	0.080	83.90	3.80	3.29	10.43	122.90	4.34	3.48	10.45	157.32	4.70	3.65	10.42	173.73	5.08	3.69	10.46	308.13	5.74	3.69	10.35
3050474	1191	CM-002-A	Natural	3050474	-	-	1181	316.00	0.00	0.080	0.080	0.080	106.95	3.81	1.14	9.90	145.65	4.35	1.13	10.00	178.17	4.71	1.11	9.97	206.73	5.09	1.09	9.87	313.74	5.75	1.00	10.08
3050789	1192	1191	Natural	3050789	-	-	35	53.00	1.89	0.080	0.080	0.080	134.76	3.81	3.17	9.84	176.76	4.35	3.47	9.83	210.12	4.71	3.70	9.77	240.74	5.09	3.85	9.84	336.23	5.75	4.08	9.90
3050842	1193	1192	Natural	3050842	-	-	1429	292.00	1.37	0.080	0.080	0.080	157.56	3.31	0.52	9.66	210.16	3.74	0.54	9.67	256.05	4.07	0.60	9.61	296.57	4.37	0.64	9.58	415.22	5.13	0.73	9.62
3051135	1194	1193	Natural	3051135	-	-	2902	162.00	1.23	0.080	0.080	0.080	160.00	0.76	0.78	9.57	212.21	0.88	0.87	9.58	258.42	0.98	0.94	9.52	299.03	1.06	1.00	9.50	415.22	1.18	1.16	9.62
3051295	1195	1194	Natural	3051295	-	-	5421	95.00	0.00	0.080	0.080	0.080	160.39	0.53	0.47	9.53	212.52	0.60	0.54	9.54	258.77	0.66	0.59	9.49	299.39	0.71	0.64	9.46	415.70	0.83	0.75	9.59
3051390	1196	1195	Natural	3051390	-	-	8953	314.00	0.64	0.080	0.080	0.080	160.94	0.53	0.67	9.49	213.02	0.60	0.75	9.50	259.35	0.66	0.81	9.45	300.06	0.71	0.86	9.43	416.70	0.83	0.98	9.55
3051704	1197	1196	Natural	3051704	-	-	6778	227.00	0.57	0.080	0.080	0.080	161.92	0.33	0.66	9.43	214.06	0.40	0.74	9.43	260.53	0.44	0.80	9.39	301.41	0.49	0.85	9.36	418.78	0.59	0.97	9.50
3051932	1198	1197	Natural	3051932	-	-	3358	128.00	0.55	0.080	0.080	0.080	162.43	0.78	0.74	9.38	214.59	0.85	0.82	9.38	261.05	0.91	0.89	9.34	302.13	0.96	0.94	9.32	420.02	1.08	1.07	9.45
3052060	1199	1198	Natural	3052060	-	-	4991	195.00	1.21	0.080	0.080	0.080	162.68	0.78	1.09	9.35	214.86	0.85	1.23	9.35	261.20	0.91	1.33	9.32	302.45	0.96	1.42	9.29	420.41	1.08	1.62	9.43
3012777	1200	1279	Natural	3012777	-	-	164	33.00	0.00	0.060	0.074	0.080	213.40	8.51	2.34	10.90	212.00	8.59	2.37	11.40	211.25	8.66	2.37	11.74	210.91	8.71	2.37	12.53	210.88	8.87	2.38	14.03
3052260	1200	1199	Natural	3052260	-	-	2251	200.00	-4.03	0.080	0.080	0.080	163.64	8.53	0.06	9.32	215.53	8.61	0.08	9.31	262.07	8.68	0.10	9.27	303.12	8.73	0.11	9.26	421.49	8.87	0.15	9.39
3012762	1202	1203	Natural	3012762	-	-	165	33.00	0.09	0.060	0.074	0.080	213.83	8.67	2.34	10.90	212.27	8.76	2.37	11.33	211.50	8.83	2.38	11.73	211.09	8.89	2.38	12.53	211.08	9.07	2.39	14.03
3012302	1203	Node1328	Natural	3012302	-	-	287	459.00	0.68	0.070	0.026	0.043	338.80	10.83	2.46	9.29	345.26	10.92	2.44	9.30	350.61	10.99	2.42	9.21	355.59	11.05	2.42	9.24	365.59	11.57	2.41	9.07
3012782	1204	1200	Natural	3012782	-	-	163	412.00	0.99	0.060	0.074	0.080	236.68	8.53	3.71	9.14	241.87	8.61	3.70	9.18	247.02	8.68	3.71	9.08	251.37	8.73	3.71	9.10	259.60	8.88	3.73	9.04
3013194	1205	1204	Natural	3013194	-	-	207	436.00	-0.07	0.060	0.074	0.080	236.91	7.23	2.76	9.09	242.05	7.35	2.73	9.15	247.35	7.41	2.71	9.05	251.68	7.46	2.70	9.06	259.93	7.55	2.71	9.02
3013630	1206	1205	Natural	3013630	-	-	506	82.00	2.45	0.060	0.074	0.080	237.22	7.55	5.55	9.05	242.38	7.67	5.51	9.07	247.61	7.73	5.49	9.00	251.94	7.78	5.50	9.02	260.22	7.87	5.50	8.97
3013720	1207	1206	Circular		8	-	50	76.00	0.00	0.024	-	-	237.29	6.60	5.42	9.04	242.45	6.70	5.42	9.08	247.67	6.76	5.48	9.00	252.00	6.82	5.54	9.02	260.28	6.92	5.66	8.97
3013788	1208	1207	Natural	3013788	-	-	564	47.00	-1.68	0.060	0.074	0.080	237.60	7.39	2.37	9.04	242.76	7.49	2.36	9.06	247.99	7.55	2.35	9.00	252.32	7.61	2.35	9.01	260.61	7.71	2.38	8.96
3013835	1209	1208	Natural	3013835	-	-	957	62.00	0.00	0.060	0.074	0.080	237.35	7.63	2.79	9.04	242.52	7.73	2.78	9.07	247.74	7.79	2.77	9.00	252.06	7.85	2.76	9.01	260.34	7.95	2.77	8.98
3014814	1212	CM-003	Natural	3014814	-	-	489	33.00	0.00	0.060	0.074	0.080	515.00	10.63	3.98	8.90	570.93	10.90	4.09	8.94	629.21	11.16	4.17	8.87	675.15	11.35	4.19	8.90	774.34	11.69	4.31	8.84
3014824	1213	1212	Natural	3014824	-	-	1536	185.00	2.43	0.060	0.080	0.080	515.09	10.63	6.22	8.89	571.04	10.90	6.36	8.93	629.50	11.16	6.51	8.87	675.36	11.35	6.60	8.89	774.55	11.69	6.89	8.83
3015009	1214	1213	Natural	3015009	-	-	6848	243.00	0.67	0.060	0.080	0.080	468.13	8.67	4.66	8.81	520.74	9.07	4.65	8.86	579.00	9.39	4.64	8.80	618.82	9.55	4.63	8.83	713.23	9.82	4.59	8.76
3015251	1215	1214	Natural	3015251	-	-	371	389.00	1.02	0.060	0.080	0.080	468.57	8.67	5.34	8.79	522.03	9.07	5.47	8.82	580.38	9.39	5.62	8.77	618.95	9.55	5.72	8.81	713.51	9.82	6.01	8.74
3015640	1216	1215	Natural	3015640	-	-	544	33.00	0.45	0.070	0.080	0.080	468.69	8.14	3.51	8.77	522.29	8.58	3.52	8.81	580.71	9.01	3.53	8.76	619.01	9.25	3.53	8.81	713.61	9.77	3.54	8.73
3015663	1217	1216	Rectangular		7	7	49	176.00	0.00	0.013	-	-	468.72	8.73	9.55	8.77	522.34	9.31	10.64	8.81	580.76	9.90	11.83	8.76	619.01	10.26	12.60	8.81	713.64	11.12	14.52	8.73
3015852	1218	1217	Natural	3015852	-	-	770	98.00	1.48	0.020	0.080	0.080	468.88	8.73	2.21	8.76	522.63	9.31	2.25	8.79	582.22	9.90	2.27	8.74	619.47	10.26	2.29	8.79	713.90	11.12	2.34	8.71
3015950	1219	1218	Natural	3015950	-	-	8790	57.00	1.16	0.080	0.080	0.080	469.46	7.29	2.89	8.73	524.25	7.87	2.86	8.74	583.82	8.47	2.84	8.70	622.64	8.83	2.83	8.68	719.61	9.69	2.81	8.64
3016007	1220	1219	Natural	3016007	-	-	3631	33.00	0.00	0.060	0.060	0.060	469.90	7.21	4.54	8.72	525.99	7.85	4.54	8.74	588.60	8.24	4.53	8.66	628.22	8.47	4.52	8.64	728.37	9.14	4.48	8.55
3016021	1221	1220	Natural	3016021	-	-	3688	33.00	1.12	0.060	0.060	0.060	470.19	7.21	3.33	8.71	527.17	7.85	3.31	8.73	591.64	8.24	3.29	8.65	631.78	8.47	3.29	8.63	734.04	9.14	3.26	8.60
3016053	1222	1221	Natural	3016053	-	-	2546	121.00	1.11	0.060	0.060	0.060	471.17	6.93	3.85	8.69	529.51	7.62	3.84	8.70	595.41	7.98	3.82	8.63	636.48	8.19	3.81	8.62	742.54	8.79	3.78	8.59
3016174	1223	1222	Natural	3016174	-	-	4042	36.00	-1.11	0.060	0.060	0.060	471.97	6.56	3.36	8.67	531.92	7.13	3.36	8.66	597.77	7.49	3.36	8.62	639.08	7.66	3.36	8.61	747.12	8.18	3.32	8.57
3016222_1	1224	1223	Rectangular		4.7	12	56	53.00	0.00	0.014	-	-	472.24	6.89	8.35	8.67	532.96	7.47	9.42	8.66	598.52	7.85	10.58	8.61	639.89	8.06	11.31	8.60	748.58	8.64	13.22	8.56
3016264	1225	1224	Natural	3016264	-	-	1526	50.00	1.48	0.060	0.060	0.060	472.37	6.89	4.83	8.67	533.41	7.47	4.84	8.65	599.17	7.85	4.84	8.61	640.85	8.06	4.83	8.59	750.76	8.64	4.78	8.54
3016313	1226	1225	Natural	3016313	-	-	1404	140.00	0.55	0.060	0.060	0.060	472.82	6.56	4.12	8.66	539.67	7.53	4.13	8.71	602.95	7.63	4.13	8.57	646.02	7.85	4.13	8.56	755.21	8.29	4.12	8.52
3016457	1227	1226	Natural	3016453	-	-	687	33.00	8.45	0.040	0.060	0.060	473.26	6.56	8.53	8.64	552.40	7.53	8.58	8.71	603.32	7.63	8.61	8.56	648.78	7.76	8.63	8.54	757.30	8.06	8.82	8.51
3016512_1	1228	1227	Natural	3016512	-	-	20578	33.00	0.00	0.040	0.060	0.060	473.30	4.69	11.63	8.64	549.50	5.42	11.82	8.71	603.34	5.54	12.47	8.56	648.87	5.57	12.54	8.54	757.35	5.86	12.54	8.51
3016512	1229	1228	Natural	3016512	-	-	20578	33.00	0.30	0.040	0.060	0.060	473.32	5.55	9.68	8.64	543.40	5.86	9.73	8.59	603.42	5.96	9.74	8.55	648.94	6.03	9.75	8.54	758.13	6.27	9.75	8.49
3016541	1230	1229	Natural	3016541	-	-	1312	156.00	0.38	0.040	0.060	0.060	473.64	5.64	4.06	8.62	543.79	5.95	4.06	8.58	604.29	6.10	4.07	8.53	649.42	6.20	4.07	8.52	758.61	6.45	4.06	8.47
3016697	1231	1230	Natural	3016697	-	-	2678	33.00	1.94	0.060	0.060	0.060	474.28	5.64	5.12	8.59	543.99	5.95	5.13	8.57	604.71	6.10	5.13	8.52	650.18	6.20	5.13	8.50	759.45	6.45	5.12	8.48
3016726	1232	1231	Natural	3016726	-	-	2133	33.00	0.00	0.060	0.060	0.060	474.51	5.91	4.84	8.58	544.06	6.19	4.85	8.56	604.86	6.33	4.85	8.51	650.48	6.42	4.85	8.49	759.91	6.58	4.85	8.46
3016733	1233	1232	Natural	3016733	-	-	2133	33.00	-1.42	0.060	0.060	0.060	474.88	6.38	3.76	8.57	544.24	6.66	3.76	8.55	605.12	6.80	3.76	8.50	652.13	6.89	3.76	8.49	761.50	7.05	3.75	8.45
3016747	1234	1233	Natural	3016747	-	-	2247	136.00	1.09	0.060	0.060	0.060	476.68	6.53	3.93	8.53	545.47	6.76	3.92	8.52	606.87	6.89	3.92	8.47	658.03	6.98	3.91	8.46	765.70	7.13	3.91	8.44
3016952	1236	CM-004	Natural	3016952	-	-	883	33.00	2.88	0.060	0.060	0.060	473.21	6.65	4.12	8.49	541.94	7.01	4.13	8.48	600.06	7.13	4.33	8.45	658.86	7.41	4.40	8.46	766.30	7.53	4.67	8.44
3016976	1237	1236	Rectangular		4	10	40	78.00	0.00	0.014	-	-	469.39	6.36	11.70	8.49	537.63	6.89	13.39	8.48	594.54	7.21	14.81	8.45	643.34	7.65	16.01	8.43	748.46	8.21	18.62	8.46
3017054	1238	1237	Natural	3017054	-	-	2117	52.00	-2.88	0.060	0.060	0.110	469.56	7.86	3.06	8.49	537.80	8.39	3.06	8.47	594.45	8.71	3.06	8.45	643.62	9.15	3.06	8.44	747.98	9.71	3.07	8.42
3017107	1239	1238	Natural	3017107	-	-	939	606.00	0.81	0.070	0.060	0.110	471.81	8.07	3.83	8.46	540.07	8.57	3.92	8.44	595.34	8.89	3.99	8.41	644.11	9.29	4.04	8.37	747.58	9.82	4.09	8.38
3018406	1241	CM-005	Natural	3018406	-	-	1075	447.00	0.67	0.070	0.090	0.110	471.47	8.23	3.15	8.30	538.60	8.57	3.13	8.30	596.02	8.83	3.14	8.25	642.74	9.03	3.09	8.24	740.98	9.32	3.07	8.28
3018854	1242	1241	Natural	3018854	-	-	923	696.00	0.92	0.080	0.090	0.090	475.31	7.59	2.81	8.17	539.63	7.85	2.81	8.24	598.64	8.05	2.81	8.19	643.78	8.20	2.83	8.19	740.00	8.49	2.95	8.24
3019550	1243	1242	Natural	3019550	-	-	1049	459.00	1.20	0.080	0.100	0.100	477.79	7.11	3.41	8.10	541.57	7.30	3.41	8.18	603.10	7.47	3.41	8.12	646.72	7.60	3.40	8.12	742.30	7.85	3.47	8.18
3020010	1244	1243	Natural	3020010	-	-	1144	179.00	11.91	0.080	0.100	0.100	458.26	6.54	8.23	8.15	523.08	6.72	8.60	8.20	580.44	6.90	8.64	8.13	621.05	7.02	8.64	8.13	711.96	7.28	8.68	8.17
3020189	1245	1244	Natural	3020189	-	-	568	33.00	7.76	0.080	0.100	0.100	455.31	3.33	7.25	8.16	520.13	3.51	7.60	8.20	575.85	3.77	7.80	8.13	615.62	3.97	7.92	8.13	706.39	4.34	8.18	8.16
3020214	1246	1245	Natural	3022015	-	-	32	51.00	0.00	0.060	0.070	0.070	455.31	5.87	8.27	8.16	520.13	6.24	8.82	8.20	575.85	6.56	9.25	8.13	615.62	6.77	9.54	8.13	706.39	7.23	10.18	8.16
3020279	1247	1246	Natural	3020279	-	-	1684	108.00	1.18	0.060	0.050	0.050	455.32	5.87	4.97	8.16	520.15	6.24	5.06	8.19	575.87	6.56	5.07	8.13	615.63	6.77	5.08	8.12	706.40	7.23	5.09	8.15
3020396	1248	1247	Natural	3020396	-	-	2485	406.00	0.28	0.060	0.050	0.050	416.60	5.53	2.69	8.22	477.55	5.94	2.74	8.21	522.39	6.27	2.71	8.17	559.20	6.49	2.70	8.18	646.12	6.94	2.70	8.19
3020794	1249	1248	Natural	3020794	-	-	3527	667.00	0.55	0.060	0.080	0.070	419.31	6.09	3.47	8.15	486.42	6.30	3.47	8.14	522.98	6.35	3.47	8.12	559.06	6.42	3.47	8.13	648.48	6.58	3.47	8.12
3021461	1250	1249	Natural	3021461	-	-	4932	185.00	0.88	0.060	0.070	0.070	425.49	6.09	3.24	8.08	484.65	6.30	3.25	8.08	522.83	6.35	3.23	8.08	559.37	6.42	3.24	8.09	647.41	6.58	3.24	8.07
3021857	1252	CM-006	Natural	3021857	-	-	1471	164.00	0.99	0.060	0.070	0.070	424.27	5.87	4.23	8.05	482.44	6.09	4.21	8.05	519.76	6.24	4.16	8.06	556.27	6.36	4.15	8.06	643.04	6.57	4.15	8.06
3022015	1254	1252	Natural	3022015	-	-	1318	51.00	1.16	0.060	0.070	0.070	424.40	6.69	5.71	8.04	482.58	6.88	5.73	8.04	519.86	7.04	5.74	8.04	556.31	7.17	5.74	8.05	643.07	7.43	5.75	8.04
3022068	1255	1254	Natural	3022103	-	-	1115	33.00	5.09	0.080	0.100	0.100	424.45	6.69	4.57	8.03	482.63	6.88	4.56	8.04	519.93	7.04	4.57	8.04	556.35	7.17	4.56	8.04	643.11	7.43	4.56	8.04
3022103	1256	1255	Natural	3022103	-	-	1115	33.00	1.45	0.080	0.100	0.100	424.49	5.31	3.78	8.03	482.67	5.51	3.78	8.04	520.00	5.65	3.78	8.03	556.40	5.77	3.77	8.04	643.16	6.03	3.77	8.03
3022130	1257	1256	Circular		5	-	20	33.00	0.00	0.024	-	-	424.51	8.07	21.52	8.03	482.68	9.12	24.40	8.03	520.03	9.85	26.24	8.03	556.42	10.60	28.03	8.04	643.21	12.51	32.33	8.03
3022160	1258	1257	Natural	3022160	-	-	849	33.00	3.97	0.080	0.100	0.100	424.67	8.07	3.39	8.02	482.97	9.12	3.39	8.03	520.41	9.85	3.39	8.02	556.91	10.60	3.39	8.03	645.34	12.51	3.38	8.02
3022192	1259	1258	Natural	3022192	-	-	849	192.00	3.67	0.080	0.100	0.100	405.04	6.87	5.53	8.02	461.13	7.87	5.53	8.04	497.40	8.58	5.53	8.05	533.22	9.32	5.53	8.06	616.82	11.22	5.53	8.07
3022384	1260	1259	Rectangular		6	10	60	76.00	0.00	0.014	-	-	395.91	4.29	9.30	8.05	449.79	4.62	9.81	8.06	484.59	4.85	10.05	8.05	519.70	5.10	10.25	8.05	603.15	5.98	10.49	8.05
3022460	1261	1260	Natural	3022460	-	-	2417	44.00	5.61	0.080	0.100	0.100	395.77	4.29	6.30	8.05	449.37	4.62	6.41	8.04	484.57	4.85	6.41	8.04	519.70	5.10	6.41	8.05	603.11	5.98	6.41	8.04
3040088	1262	1203	Natural	3040088	-	-	881	123.00	8.02	0.080	0.080	0.080	277.77	0.00	0.47	9.23	330.67	0.00	0.55	9.25	379.03	0.00	0.61	9.19	421.55	0.00	0.67	9.18	512.63	0.00	0.78	9.15
3040281	1263	1262	Natural	3040281	-	-	1430	143.00	0.31	0.080	0.080	0.080	277.82	0.96	1.11	9.21	330.72	1.05	1.19	9.24	379.10	1.12	1.27	9.18	421.64	1.18	1.33	9.17	512.70	1.31	1.45	9.13
3040680	1264	1263	Natural	3040680	-	-	168	88.00	0.68	0.080	0.080	0.080	278.17	0.96	0.80	9.17	331.07	1.05	0.84	9.20	379.53	1.12	0.88	9.14	422.11	1.18	0.91	9.14	513.07	1.31	0.96	9.10
3040913	1265	1264	Natural	3040913	-	-	4650	376.00	0.47	0.080	0.080	0.080	279.16	0.75	0.69	9.12	332.18	0.81	0.74	9.15	381.51	0.87	0.78	9.08	424.38	0.92	0.81	9.08	515.58	1.02	0.87	9.04
3041128	1266	1265	Natural	3041128	-	-	2879	135.00	0.60	0.080	0.080	0.080	280.63	0.91	1.06	9.05	333.45	0.98	1.13	9.09	384.06	1.05	1.18	9.00	427.04	1.11	1.22	9.02	518.06	1.21	1.30	8.97
3104835	1275	1073	Natural	3104835	-	-	2369	53.00	0.09	0.060	0.100	0.100	218.72	6.62	1.73	10.49	242.74	6.82	1.73	9.82	250.15	6.94	1.73	10.26	256.41	7.14	1.73	10.62	272.95	7.60	1.73	11.52
3108607	1277	NJ-006	Natural	3108607	-	-	73288	200.00	0.53	0.070	0.078	0.100	223.46	4.32	2.70	8.24	244.95	4.37	2.70	8.23	257.78	4.41	2.70	8.22	270.14	4.44	2.70	8.23	298.89	4.53	2.70	8.27

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
3112425	1278	1007	Natural	3112425	-	-	16316	187.50	-2.13	0.080	0.100	0.091	208.34	7.68	0.20	8.15	230.66	7.94	0.21	8.14	245.26	8.11	0.22	8.13	258.91	8.27	0.23	8.13	290.67	8.61	0.24	8.11
3012767	1279	1202	Natural	3012767	-	-	165	33.00	0.42	0.060	0.074	0.080	213.73	8.64	2.37	10.90	212.25	8.73	2.40	11.40	211.51	8.80	2.41	11.74	211.17	8.86	2.41	12.53	211.09	9.03	2.42	14.03
CM10N1_4B	101223	CM-006-E	Natural	CM10N1_4B	-	-	828	610.00	7.52	0.040	0.080	0.080	12.88	1.29	2.19	8.01	14.58	1.35	2.26	8.01	15.71	1.38	2.30	8.01	16.84	1.42	2.34	8.01	19.49	1.50	2.43	8.01
136765	101224	101251	Circular		1.75	-	2	90.00	4.53	0.013	-	-	12.89	1.00	12.52	8.00	14.58	1.07	12.96	8.00	15.72	1.11	13.23	8.00	16.85	1.15	13.48	8.00	19.49	1.24	14.02	8.00
136739	101225	101224	Circular		1.25	-	1	112.00	7.29	0.013	-	-	4.25	0.75	10.63	8.01	4.82	0.81	11.03	8.01	5.19	0.84	11.27	8.01	5.57	0.88	11.50	8.01	6.45	0.96	11.96	8.01
136764	101227	101224	Circular		1.25	-	1	28.00	10.32	0.013	-	-	8.64	0.75	15.46	8.00	9.77	0.81	15.99	8.00	10.53	0.84	16.30	8.00	11.28	0.88	16.60	8.00	13.05	0.96	17.22	8.00
136444	101240	125002	Circular		1	-	1	300.00	4.25	0.013	-	-	3.09	1.67	7.92	8.01	3.51	2.04	8.34	8.01	3.79	2.30	8.59	8.01	4.07	2.56	8.79	8.01	4.73	3.20	8.96	8.01
136469	101242	101249	Circular		0.833	-	1	33.00	56.73	0.014	-	-	3.09	0.41	20.14	8.00	3.51	0.44	20.90	8.00	3.79	0.46	21.37	8.00	4.07	0.48	21.82	8.00	4.73	0.52	22.77	8.00
136493	101243	101242	Circular		0.833	-	1	178.00	18.47	0.014	-	-	3.09	0.38	13.13	8.00	3.51	0.41	13.58	8.00	3.79	0.43	13.85	8.00	4.07	0.45	14.10	8.00	4.73	0.50	14.62	8.00
136446	101249	101240	Circular		1.25	-	1	96.00	4.17	0.013	-	-	3.09	0.45	8.65	8.01	3.51	0.49	8.95	8.01	3.79	0.51	9.14	8.01	4.07	0.53	9.31	8.01	4.73	0.61	9.62	8.01
136770	101251	101223	Circular		2	-	3	44.00	1.11	0.013	-	-	12.89	1.00	8.84	8.01	14.58	1.07	9.25	8.00	15.72	1.11	9.50	8.00	16.85	1.15	9.76	8.00	19.49	1.24	10.28	8.00
137316	101956	CM-003-S	Circular		1.75	-	2	250.00	1.09	0.013	-	-	8.42	1.17	6.62	8.01	9.53	1.28	6.79	8.01	10.27	1.37	6.87	8.01	11.01	1.46	6.93	8.01	12.74	3.71	6.98	8.01
NJ10S2_1	102059	NJ-010-C	Natural	NJ10S2_1	-	-	721	683.00	8.64	0.030	0.050	0.050	15.70	1.08	2.12	8.01	17.77	1.10	2.25	8.01	19.15	1.11	2.32	8.01	20.53	1.13	2.40	8.01	23.74	1.15	2.56	8.01
144964	102060	102059	Circular		2	-	3	60.00	27.55	0.013	-	-	15.71	0.55	23.60	8.00	17.78	0.58	24.35	8.00	19.15	0.61	24.82	8.00	20.53	0.63	25.27	8.00	23.74	0.69	26.24	8.00
135764	102061	102060	Circular		2	-	3	180.00	2.32	0.013	-	-	15.71	1.08	9.64	8.00	17.78	1.17	9.98	8.00	19.15	1.22	10.18	8.00	20.53	1.27	10.37	8.00	23.74	1.40	10.76	8.00
137282	102131	101956	Circular		1.5	-	2	304.00	6.77	0.013	-	-	8.42	0.89	12.65	8.00	9.53	0.96	13.07	8.00	10.27	1.01	13.32	8.00	11.01	1.07	13.56	8.00	12.73	2.58	13.93	8.00
137203	102136	CM-003-T	Circular		1.5	-	2	290.00	2.53	0.013	-	-	4.42	0.61	7.82	8.00	5.00	0.65	8.09	8.00	5.39	0.68	8.26	8.00	5.78	0.71	8.42	8.00	6.68	0.77	8.75	8.00
137015	102161	102164	Circular		1.5	-	2	239.00	6.09	0.013	-	-	20.62	1.35	15.77	8.00	23.34	1.46	16.20	8.00	25.15	1.54	16.27	8.00	26.12	1.58	16.27	8.00	27.29	2.91	16.33	8.04
137018	102164	102165	Circular		2	-	3	57.00	1.63	0.013	-	-	23.17	1.35	10.84	8.01	26.23	1.46	11.27	8.01	28.26	1.54	11.53	8.01	29.45	1.58	11.68	8.01	31.13	1.65	11.86	8.02
137021	102165	121683	Circular		1.25	-	1	33.00	0.21	0.013	-	-	3.33	0.73	4.64	8.01	3.84	0.79	4.90	8.01	4.18	0.82	5.07	8.01	4.39	0.85	5.17	8.01	4.70	0.88	5.31	8.02
137022	102165	102195	Circular		1.5	-	2	64.00	17.30	0.013	-	-	20.97	0.87	23.88	8.01	23.68	0.91	24.72	8.01	25.47	0.94	25.21	8.01	26.56	0.96	25.49	8.01	28.17	0.99	25.87	8.02
145762	102166	102165	Circular		1.25	-	1	24.00	1.79	0.013	-	-	1.14	0.73	3.36	8.02	1.29	0.79	3.45	8.02	1.40	0.82	3.51	8.01	1.50	0.85	3.53	8.01	1.74	0.88	3.65	8.01
CM9N1_2	102167	102164	Natural	CM9N1_2	-	-	77	45.00	10.00	0.040	0.080	0.080	2.55	1.35	1.04	8.01	2.88	1.46	1.09	8.01	3.11	1.54	1.11	8.01	3.33	1.58	1.14	8.01	3.85	1.65	1.20	8.01
137057	102168	102167	Circular		3.5	-	10	130.00	0.36	0.013	-	-	2.55	0.51	3.11	8.01	2.88	0.54	3.25	8.01	3.11	0.56	3.34	8.01	3.33	0.58	3.42	8.01	3.85	0.61	3.60	8.01
137082	102169	102168	Circular		3.5	-	10	162.00	0.53	0.013	-	-	2.55	0.51	3.48	8.00	2.88	0.54	3.61	8.00	3.11	0.56	3.70	8.00	3.33	0.58	3.77	8.00	3.85	0.61	3.95	8.00
137047	102190	102161	Circular		6	-	28	153.00	0.33	0.013	-	-	4.82	1.01	2.72	8.01	5.46	1.11	2.76	8.02	5.96	1.23	2.78	8.03	6.42	1.31	2.80	7.59	8.99	2.91	2.92	8.21
CM9N1_3	102195	121681	Natural	CM9N1_3	-	-	280	45.00	4.44	0.040	0.080	0.080	20.97	0.87	4.09	8.01	23.68	0.91	4.23	8.01	25.47	0.94	4.31	8.01	26.56	0.96	4.36	8.01	28.17	0.99	4.42	8.02
CM10N-1	102213	1247	Natural	CM10N-1	-	-	1616	1016.00	4.27	0.040	0.080	0.080	55.00	5.53	3.49	8.01	62.23	5.94	3.53	8.01	67.02	6.27	3.47	8.01	71.88	6.49	3.54	8.01	83.21	6.94	3.75	8.00
136650	102268	102269	Circular		1.5	-	2	10.00	1.00	0.024	-	-	5.75	3.27	3.23	8.01	6.53	3.50	3.66	8.01	7.03	3.63	3.94	8.01	7.54	3.76	4.23	8.01	8.72	4.06	4.88	8.01
CM12_3A	102269	Node1347	Natural	CM12_3A	-	-	364	50.00	0.80	0.040	0.080	0.080	5.69	3.57	0.49	8.02	6.50	3.77	0.54	8.02	7.00	3.88	0.56	8.02	7.51	3.99	0.59	8.02	8.70	4.23	0.66	8.02
136589	102278	102281	Circular		2	-	3	45.00	5.27	0.024	-	-	5.65	0.68	6.34	8.01	6.39	0.73	6.59	8.01	6.89	0.75	6.74	8.01	7.38	0.78	6.88	8.01	8.54	0.84	7.19	8.01
CM12_3	102281	CM-007	Natural	CM12_3	-	-	364	254.00	8.52	0.040	0.080	0.080	5.65	2.11	1.34	8.02	6.39	2.31	1.35	8.02	6.89	2.38	1.36	8.02	7.38	2.45	1.36	8.02	8.54	2.60	1.35	8.02
136558	102282	102283	Circular		1.5	-	2	86.00	22.72	0.024	-	-	5.65	0.83	10.87	8.00	6.39	0.89	11.25	8.00	6.89	0.94	11.47	8.00	7.38	0.98	11.69	8.00	8.54	1.09	12.15	8.00
136559	102283	102284	Circular		1.5	-	2	143.00	4.20	0.024	-	-	5.65	0.83	5.92	8.01	6.39	0.89	6.11	8.01	6.89	0.94	6.22	8.01	7.38	0.98	6.32	8.01	8.54	1.09	6.52	8.01
136570	102284	102285	Circular		1.5	-	2	45.00	21.80	0.024	-	-	5.65	0.52	10.87	8.01	6.39	0.55	11.25	8.01	6.89	0.58	11.48	8.01	7.38	0.60	11.71	8.01	8.54	0.65	12.18	8.01
136578	102285	102286	Circular		2	-	3	25.00	40.80	0.024	-	-	5.65	1.03	10.99	8.01	6.39	1.08	11.47	8.01	6.89	1.12	11.78	8.01	7.38	1.16	12.05	8.01	8.54	1.24	12.66	8.01
136580	102286	102287	Circular		2	-	3	30.00	-0.47	0.024	-	-	5.65	0.89	3.73	8.01	6.39	0.94	3.94	8.01	6.89	0.98	4.08	8.01	7.38	1.02	4.21	8.01	8.54	1.10	4.49	8.01
136583	102287	102278	Circular		2	-	3	50.00	17.88	0.024	-	-	5.65	0.68	10.00	8.01	6.39	0.73	10.38	8.01	6.89	0.75	10.60	8.01	7.38	0.78	10.82	8.01	8.54	0.84	11.28	8.01
136466	102296	102297	Circular		1.5	-	2	63.00	3.90	0.024	-	-	4.32	0.70	5.88	8.01	4.88	0.75	6.07	8.01	5.26	0.78	6.20	8.01	5.64	0.81	6.31	8.01	6.52	0.87	6.54	8.01
136472	102297	102298	Circular		1.5	-	2	26.00	3.88	0.024	-	-	4.32	0.70	5.69	8.01	4.88	0.75	5.91	8.01	5.26	0.78	6.05	8.01	5.64	0.81	6.19	8.01	6.52	0.87	6.47	8.01
136460	102298	102299	Circular		1.5	-	2	90.00	30.22	0.024	-	-	4.32	0.39	12.38	8.01	4.88	0.41	12.83	8.01	5.26	0.43	13.11	8.01	5.64	0.44	13.37	8.01	6.52	0.48	13.93	8.01
145371	102299	102300	Circular		1.5	-	2	20.00	27.70	0.024	-	-	4.32	2.30	8.63	8.01	4.88	2.43	9.22	8.01	5.26	2.51	9.59	8.01	5.64	2.59	9.93	8.01	6.52	2.76	10.68	8.01
CM13_2A	102300	Node1348	Natural	CM13_2A	-	-	753	300.00	1.67	0.040	0.080	0.080	329.59	2.44	4.04	8.02	374.47	2.58	4.22	8.02	404.19	2.68	4.32	8.02	433.99	2.78	4.42	8.02	503.24	3.02	4.62	8.02
136461	102305	102306	Circular		1.5	-	2	152.00	8.06	0.024	-	-	4.32	0.61	6.75	8.00	4.88	0.66	6.99	8.00	5.26	0.68	7.13	8.00	5.64	0.71	7.26	8.00	6.52	0.77	7.54	8.00
136462	102306	102307	Circular		1.75	-	2	28.00	12.96	0.013	-	-	4.32	0.49	12.94	8.00	4.88	0.52	13.43	8.00	5.26	0.54	13.71	8.00	5.64	0.57	13.99	8.00	6.52	0.61	14.58	8.00
136463	102307	102296	Circular		1.5	-	2	144.00	10.80	0.024	-	-	4.32	0.65	8.23	8.00	4.88	0.69	8.51	8.00	5.26	0.72	8.69	8.00	5.64	0.75	8.86	8.00	6.52	0.82	9.21	8.00
136675	102309	102310	Circular		1.75	-	2	25.00	0.12	0.013	-	-	4.61	1.31	2.41	8.00	5.22	1.41	2.52	8.00	5.62	1.48	2.60	8.00	6.03	1.55	2.67	8.00	6.97	1.78	2.87	8.00
136676	102310	102311	Circular		1.75	-	2	110.00	0.10	0.013	-	-	4.61	1.31	2.40	8.00	5.22	1.41	2.52	8.00	5.62	1.48	2.60	8.00	6.03	1.55	2.68	8.00	6.97	1.76	2.89	8.00
136651	102311	102312	Circular		2	-	3	200.00	0.13	0.024	-	-	4.61	1.30	2.29	8.01	5.22	1.39	2.40	8.01	5.62	1.45	2.47	8.01	6.03	1.51	2.54	8.01	6.97	1.66	2.68	8.01
CM12A_1	102312	102313	Natural	CM12A_1	-	-	2247	206.00	6.12	0.040	0.080	0.080	4.61	0.55	3.66	8.01	5.22	0.58	3.90	8.01	5.62	0.60	4.06	8.01	6.03	0.62	4.22	8.01	6.97	0.65	4.40	8.01
136604	102313	102314	Circular		2	-	3	12.00	2.08	0.024	-	-	4.61	0.66	5.26	8.01	5.22	0.70	5.50	8.01	5.62	0.73	5.64	8.01	6.03	0.75	5.78	8.01	6.97	0.81	6.08	8.01
136591	102314	102315	Circular		2	-	3	24.00	2.87	0.013	-	-	4.61	0.56	7.87	8.01	5.22	0.60	8.12	8.01	5.62	0.62	8.27	8.01	6.03	0.65	8.41	8.01	6.97	0.70	8.71	8.01
136587	102315	102316	Circular		2	-	3	12.00	3.00	0.013	-	-	4.61	0.77	6.08	8.01	5.22	0.81	6.29	8.01	5.62	0.84	6.42	8.01	6.03	0.86	6.54	8.01	6.97	0.92	6.79	8.01
CM12B	102316	126122	Natural	CM12B	-	-	2247	109.00	0.92	0.040	0.080	0.080	4.61	0.85	1.90	8.02	5.22	0.90	1.95	8.02	5.62	0.94	1.98	8.02	6.03	0.97	2.01	8.02	6.97	1.05	2.08	8.01
135571	102628	102629	Circular		1.5	-	2	157.00	8.58	0.013	-	-	2.56	0.29	10.55	8.00	2.90	0.31	10.93	8.00	3.12	0.32	11.17	8.00	3.35	0.33	11.40	8.00	3.87	0.36	11.90	8.00
135563	102629	102642	Circular		1.5	-	2	163.00	8.56	0.013	-	-	2.56	0.43	9.88	8.00	2.90	0.45	10.24	8.00	3.12	0.47	10.46	8.00	3.35	0.49	10.68	8.00	3.87	0.53	11.14	8.00
135541	102635	102642	Circular		1.5	-	2	123.00	7.57	0.013	-	-	3.70	0.43	11.00	8.00	4.19	0.45	11.39	8.00	4.51	0.47	11.63	8.00	4.84	0.49	11.87	8.00	5.59	0.53	12.37	7.97
135568	102642	126119	Circular		1.5	-	2	45.00	23.00	0.013	-	-	8.29	0.43	20.39	8.00	9.38	0.45	21.10	8.00	10.11	0.47	21.54	8.00	10.84	0.49	21.96	8.00	12.53	0.53	22.85	8.00
137872	102654	102659	Circular		1.25	-	1	44.00	0.45	0.013	-	-	3.86	4.27	3.10	8.01	4.33	4.55	3.47	7.79	4.45	4.63	3.57	7.51	4.82	4.73	3.87	8.74	4.78	4.87	3.83	8.03
137894	102659	102682	Circular		1.5	-	2	210.00	0.71	0.013	-	-	3.85	5.49	2.60	8.01	4.33	5.75	2.65	7.80	4.45	5.85	2.70	7.51	4.48	5.95	2.74	7.37	4.45	6.15	2.82	7.21
137764	102670	CM-003-C	Circular		0.833	-	1	130.00	0.38	0.014	-	-	2.49	5.19	4.44	8.04	2.89	6.31	5.10	8.08	2.99	6.39	5.28	8.26	2.99	6.47	5.27	8.37	2.97	6.67	5.23	8.45
137807	102677	102680	Circular		1.25	-	1	130.00	1.08	0.013	-	-	4.47	4.66	3.83	8.00	5.03	5.23	4.03	7.66	5.12	5.38	4.10	7.62	5.23	5.53	4.18	7.69	5.55	5.72	4.43	8.00
137829	102680	102685	Circular		1.25	-	1	129.00	0.00	0.013	-	-	4.47	4.66	3.58	8.01	5.03	5.23	4.02	7.66	5.12	5.38	4.09	7.64	5.22	5.53	4.17	7.71	5.46	5.72	4.35	7.65
137914	102682	131432	Circular		1.5	-	2	150.00	0.19	0.013	-	-	8.31	5.49	4.63	8.01	9.00	5.75	5.01	7.55	9.05	5.85	5.04	7.39	8.96	5.95	4.99	7.29	8.26	6.15	4.59	7.15
186397	102685	102682	Circular		1.25	-	1	166.00	1.33	0.013	-	-	4.46	5.49	3.58	8.01	5.03	5.75	4.03	7.67	5.12	5.85	4.10	7.64	5.22	5.95	4.18	7.71	5.46	6.15	4.36	7.65
160269	102694	131432	Circular		1.5	-	2	10.00	1.90	0.013	-	-	2.79	5.44	1.88	13.41	2.43	5.58	1.86	14.52	-2.99	5.67	-1.67	7.39	-3.57	5.75	-1.99	7.29	5.33	6.02	2.98	18.12
137990	102711	102712	Circular		1.75	-	2	133.00	0.35	0.013	-	-	10.91	8.76	4.43	12.77	11.04	8.86	4.49	13.80	11.10	8.93	4.51	14.42	11.33	8.99	4.60	15.14	11.79	9.40	4.79	16.41
138045	102712	CM-003-A	Circular		1.75	-	2	40.00	0.10	0.013	-	-	10.92	8.82	4.44	12.77	11.06	8.92	4.50	13.81	11.12	8.99	4.52	14.45	11.35	9.05	4.61	15.17	11.80	9.53	4.80	16.43
146222	102773	276117	Circular		1.75	-	2	108.00	1.11	0.013	-	-	4.84	2.87	4.66	7.86	5.49	3.13	4.58	7.96	5.90	3.38	4.48	7.75	6.32	3.54	4.35	7.91	7.30	3.89	4.17	7.96
137566	102776	102777	Circular		0.83	-	1	170.00	0.47	0.014	-	-	3.05	4.95	5.47	8.25	3.10	5.10	5.56	8.34	3.13	5.21	5.61	8.34	3.15	5.33	5.64	8.11	3.16	5.59	5.64	8.16
276089	102777	276087	Circular		1	-	1	109.00	0.51	0.014	-	-	3.05	2.78	3.85	8.25	3.10	3.04	3.91	8.41	3.13	3.28	3.95	8.33	3.14	3.45	3.97	8.09	3.15	3.86	3.97	8.15
146262	102781	102782	Circular		0.83	-	1	48.00	4.37	0.014	-	-	1.50	0.37	6.66	8.01	1.69	0.40	6.89	8.01	1.83	0.41	7.02	8.01	1.96	0.43	7.15	8.01	2.26	0.47	7.43	8.01
137711	102782	NJ-003-A	Circular		1	-	1	30.00	7.37	0.014	-	-	1.50	0.64	7.10	8.01	1.69	0.69	7.36	8.01	1.83	0.72	7.52	8.01	1.96	0.75	7.68	8.01	2.26	0.87	7.95	8.01
137682	102788	102789	Circular		1.25	-	1	52.80	1.16	0.013	-	-	4.85	0.82	5.96	8.00	5.49	0.90	6.11	8.00	5.92	0.95	6.18	8.00	6.34	1.01	6.23	8.00	7.33	1.75	6.24	7.89
137680	102789	102790	Circular		1.25	-	1	100.00	0.98	0.013	-	-	4.85	0.90	5.77	8.01	5.49	1.17	5.94	8.01	5.92	1.42	6.03	8.01	6.34	1.59	6.08	8.01	7.32	1.94	6.11	7.89
137665	102790	102773	Circular		1.25	-	1	51.00	1.51	0.013	-	-	4.85	1.67	6.74	7.99	5.49	1.94	6.85	7.97	5.91	2.18	6.87	8.01	6.34	2.35	6.84	7.91	7.32	2.70	6.59	7.88
137096	102830	102831	Circular		2	-	3	2.00	0.50	0.024	-	-	0.72	0.27	3.01	7.98	0.82	0.28	3.17	7.93	0.88	0.29	3.27	7.94	0.95	0.29	3.37	7.89	1.09	0.31	3.60	7.83
NJ5_3	102831	1062	Natural	NJ5_3	-	-	31	42.00	18.88	0.040	0.080	0.080	0.72	4.13	1.58	7.99	0.82	4.17	1.70	7.99	0.88	4.23	1.77	7.99	0.95	4.33	1.84	7.94	1.09	4.59	2.06	7.85
NJ4_1	102835	1067	Natural	NJ4_1	-	-	190	171.00	4.20	0.040	0.080	0.080	7.86	5.31	1.61	8.00	8.89	5.71	1.64	7.97	9.58	6.20	1.65	7.88	10.26	6.22	1.67	7.88	11.87	6.29	1.70	7.77
137218	102843	102844	Circular		1.5	-	2	150.00	3.93	0.013	-	-	4.35	0.48	9.10	8.00	4.92	0.51	9.42	8.00	5.30	0.53	9.62	8.00	5.68	0.55	9.81	8.00	6.57	0.60	10.21	8.00

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
137239	102844	NJ-004-A	Circular		1.75	-	2	148.00	3.93	0.013	-	-	4.35	0.75	8.29	8.00	4.92	0.80	8.60	8.00	5.30	0.83	8.80	8.00	5.68	0.86	8.98	8.00	6.57	0.92	9.38	8.00
254144	102895	102898	Circular		2	-	3	408.00	0.50	0.013	-	-	10.89	1.23	5.46	8.01	12.33	1.42	5.58	8.01	13.20	2.17	5.62	8.00	14.24	3.06	5.63	8.00	16.49	4.97	5.65	7.96
258509	102898	128025	Circular		2	-	3	101.00	0.50	0.013	-	-	10.88	1.29	5.40	8.01	12.27	1.58	5.43	7.98	13.15	2.37	5.44	8.03	14.25	3.17	5.44	8.01	16.50	4.89	5.44	8.01
139534	102900	102901	Circular		2.5	-	5	405.00	1.11	0.013	-	-	3.21	1.56	4.99	8.00	3.64	1.86	5.15	8.00	3.92	2.13	5.23	8.00	4.20	2.36	5.29	8.00	4.86	2.86	5.35	8.00
139608	102901	CMNJ-004-D	Circular		3	-	7	25.00	1.68	0.013	-	-	12.67	1.80	4.95	8.01	14.73	2.28	5.05	7.83	14.78	2.55	5.04	7.63	14.86	2.78	5.15	7.50	16.63	3.28	5.07	7.36
139518	102906	102911	Circular		4	-	13	242.00	0.73	0.013	-	-	23.31	5.41	4.07	8.00	26.44	5.88	4.18	7.96	28.25	6.14	4.23	8.01	30.84	6.36	4.27	8.00	35.97	6.84	4.41	8.00
147483	102911	120512	Circular		4	-	13	81.00	0.88	0.013	-	-	64.17	5.99	6.10	8.05	70.07	6.44	6.21	8.06	73.08	6.69	6.27	8.06	76.59	6.90	6.32	8.06	85.91	7.35	6.81	8.08
139420	102916	102922	Circular		2.25	-	4	250.00	0.25	0.013	-	-	20.43	4.34	5.11	8.00	23.27	4.76	5.81	8.00	25.16	5.23	6.28	8.00	27.06	5.68	6.74	8.00	31.48	6.66	7.82	8.00
139287	102920	102921	Circular		2	-	3	200.00	0.40	0.013	-	-	2.09	3.44	2.18	7.77	2.32	3.60	2.23	8.01	2.50	3.71	2.25	8.00	2.68	3.79	2.26	8.01	3.11	3.99	2.35	8.00
139370	102921	102922	Circular		2.25	-	4	199.00	0.45	0.013	-	-	2.12	4.34	1.56	7.77	2.33	4.50	1.60	8.01	2.51	4.61	1.63	8.01	2.70	4.69	1.66	8.01	3.13	4.89	1.72	8.01
139444	102922	1131	Circular		2.5	-	5	78.00	0.91	0.013	-	-	22.43	5.02	5.11	8.00	25.58	5.18	5.27	8.00	27.66	5.29	5.61	8.00	29.74	5.36	6.03	8.01	34.59	5.55	7.01	8.01
135799	102924	106522	Circular		1.5	-	2	59.00	2.95	0.013	-	-	2.19	1.69	4.33	8.01	2.47	1.83	4.39	8.01	2.66	1.93	4.42	7.52	2.85	2.02	4.44	8.01	3.30	2.26	4.45	8.01
135820	102925	102924	Circular		1.5	-	2	215.00	2.29	0.013	-	-	2.18	0.41	6.23	8.00	2.47	0.48	6.37	8.00	2.66	0.51	6.46	8.00	2.85	0.54	6.57	8.00	3.30	0.60	6.80	8.00
135895	102938	106669	Circular		2	-	3	6.00	50.67	0.013	-	-	12.93	8.55	12.52	6.39	12.35	8.91	12.51	10.28	15.78	9.06	12.42	5.18	12.43	9.25	12.42	5.13	12.66	9.59	12.45	4.20
CM8N2_A	105012	CM-003-Q	Natural	CM8N2_A	-	-	363	291.00	3.44	0.040	0.080	0.080	21.50	3.28	2.40	8.01	24.12	4.19	2.40	8.02	26.61	4.64	2.40	8.01	28.55	5.06	2.40	8.01	33.06	5.91	2.40	8.01
137409	105015	156274	Circular		2.5	-	5	248.00	0.91	0.013	-	-	16.79	1.24	7.56	8.01	19.00	1.33	7.80	8.01	20.48	1.39	7.95	8.01	21.95	1.44	8.09	8.01	25.39	1.56	8.38	8.01
137407	105017	105015	Circular		2	-	3	130.00	8.62	0.013	-	-	16.79	1.15	16.07	8.01	19.00	1.24	16.64	8.01	20.48	1.29	16.99	8.01	21.95	1.35	17.32	8.00	25.39	1.48	18.03	8.00
284980	105022	284979	Circular		2	-	3	157.00	7.32	0.013	-	-	6.71	0.45	12.77	8.01	7.59	0.48	13.27	8.01	8.18	0.49	13.55	8.01	8.76	0.51	13.82	8.01	10.14	0.55	14.42	8.01
137382	105023	105022	Circular		1.5	-	2	181.00	7.18	0.013	-	-	6.71	0.52	12.45	8.01	7.59	0.56	12.88	8.01	8.18	0.58	13.14	8.01	8.76	0.61	13.39	8.01	10.14	0.66	13.91	8.01
137371	105024	123330	Circular		1.5	-	2	96.00	5.21	0.013	-	-	6.71	0.56	11.29	8.00	7.59	0.60	11.69	8.00	8.18	0.63	11.93	8.00	8.76	0.65	12.16	8.00	10.14	0.70	12.64	8.00
137365	105026	CM-003-V	Circular		1.25	-	1	45.00	13.33	0.013	-	-	4.96	0.72	13.54	8.00	5.61	0.78	14.01	8.00	6.05	0.81	14.31	8.00	6.48	0.85	14.59	8.00	7.50	0.94	15.17	8.00
136531	105449	NJ-007-B	Circular		4	-	13	149.00	5.37	0.013	-	-	75.24	1.97	19.90	8.02	83.91	2.01	20.69	8.02	89.68	2.03	21.19	8.02	95.45	2.06	21.65	8.02	108.78	2.11	22.64	8.02
NJ9N1_2	105507	NJ-009-F	Natural	NJ9N1_2	-	-	994	866.00	6.83	0.040	0.080	0.080	5.60	0.49	3.33	8.61	5.68	0.49	3.35	9.11	5.72	0.49	3.37	9.18	5.77	0.49	3.38	9.24	5.86	0.50	3.41	9.46
136359	105508	105507	Circular		1.5	-	2	85.00	2.60	0.024	-	-	5.60	0.95	5.04	8.47	5.68	0.96	5.05	9.04	5.72	0.96	5.07	9.09	5.77	0.97	5.08	9.14	5.86	0.98	5.10	9.34
136342	105509	105508	Circular		1.5	-	2	111.00	3.24	0.013	-	-	5.60	0.95	8.50	8.46	5.68	0.96	8.53	9.04	5.72	0.96	8.55	9.08	5.77	0.97	8.57	9.13	5.86	0.98	8.60	9.34
136325	105510	105509	Circular		1	-	1	124.00	3.69	0.024	-	-	5.60	8.45	7.13	8.46	5.68	8.68	7.21	9.03	5.72	8.83	7.26	9.08	5.77	8.98	7.31	9.13	5.86	9.26	7.41	9.33
NJ7N2-2A	105524	NJ-007-D	Natural	NJ7N2-2A	-	-	625	100.00	12.39	0.040	0.080	0.080	4.71	0.90	1.06	8.01	5.33	0.94	1.12	8.01	5.74	0.97	1.15	8.01	6.16	0.99	1.18	8.01	7.12	1.06	1.23	8.01
136416	105525	105524	Circular		1.5	-	2	61.00	12.49	0.024	-	-	4.71	0.59	7.96	8.00	5.33	0.63	8.23	8.00	5.74	0.65	8.40	8.00	6.16	0.68	8.56	8.00	7.12	0.74	8.89	8.00
136397	105529	105525	Circular		1.25	-	1	105.00	1.13	0.024	-	-	4.71	2.17	4.04	8.00	5.33	2.81	4.54	8.00	5.74	3.24	4.86	8.00	6.16	3.68	5.19	8.00	7.12	4.73	5.93	8.00
136002	105543	118891	Circular		3	-	7	109.00	0.73	0.024	-	-	18.93	1.63	5.14	7.95	20.51	1.70	5.29	8.01	21.48	1.74	5.38	8.01	22.48	1.78	5.47	8.01	24.72	1.88	5.67	8.01
Link730	105544	105543	Circular		3	-	7	10.00	2.00	0.014	-	-	18.90	1.63	5.77	8.01	20.51	1.70	5.88	8.00	21.48	1.74	5.94	8.00	22.48	1.78	6.00	8.00	24.72	1.88	6.13	8.00
135999	105545	105544	Circular		3	-	7	57.00	14.04	0.013	-	-	18.90	1.39	16.60	8.00	20.51	1.46	16.99	8.00	21.48	1.50	17.21	8.00	22.48	1.55	17.42	8.00	24.72	1.64	17.86	8.00
136451	105547	118893	Rectangular		2	4	8	50.00	2.00	0.013	-	-	75.26	1.74	12.51	8.01	83.93	1.82	13.03	8.01	89.69	1.87	13.32	8.01	95.46	1.91	13.49	8.01	108.80	2.20	13.62	8.01
NJ7N21_A	105548	Node1354	Natural	NJ7N21_A	-	-	523	285.00	8.07	0.040	0.080	0.080	16.00	1.13	2.64	8.01	16.83	1.20	2.68	8.01	17.38	1.25	2.68	8.01	17.93	1.29	2.69	8.01	19.17	1.38	2.72	8.01
136317	105549	105548	Circular		2	-	3	39.00	2.56	0.013	-	-	16.01	0.99	11.15	8.01	16.83	1.01	11.34	8.01	17.39	1.03	11.46	8.01	17.94	1.05	11.58	8.01	19.17	1.09	11.84	8.01
145298	105552	105549	Circular		2	-	3	164.00	8.54	0.013	-	-	16.01	0.99	16.24	8.00	16.83	1.01	16.47	8.00	17.39	1.03	16.63	8.00	17.94	1.05	16.78	8.01	19.17	1.09	17.10	8.00
Link691	105983	CMNJ-002-C	Circular		2	-	0	20.00	1.45	0.014	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147814	105984	105983	Circular		1.75	-	0	30.00	10.93	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139911	105985	105984	Circular		1.5	-	0	85.00	0.22	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139887	105986	105985	Circular		1.5	-	0	8.00	4.50	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139485	106064	CMNJ-004-K	Circular		2	-	3	240.00	4.04	0.013	-	-	7.64	1.25	9.04	8.01	8.67	1.35	9.37	8.01	9.35	1.43	9.57	8.01	10.04	1.50	9.76	8.01	11.64	1.68	10.17	8.01
139505	106065	106064	Circular		2	-	3	107.00	2.12	0.013	-	-	7.64	0.69	8.15	8.01	8.67	0.74	8.46	8.01	9.36	0.77	8.65	8.01	10.04	0.80	8.84	8.01	11.64	0.86	9.22	8.01
139560	106066	106065	Circular		1.75	-	2	171.00	3.90	0.013	-	-	3.93	0.69	8.09	8.01	4.47	0.74	8.40	8.01	4.83	0.77	8.60	8.01	5.19	0.80	8.78	8.01	6.02	0.86	9.17	8.01
139590	106067	106066	Circular		1.75	-	2	228.00	1.38	0.013	-	-	3.93	0.60	5.67	8.01	4.47	0.64	5.88	8.01	4.83	0.66	6.02	8.01	5.19	0.69	6.14	8.01	6.02	0.75	6.41	8.01
139576	106069	CMNJ-004-M	Circular		1.5	-	2	265.00	2.32	0.013	-	-	2.51	0.55	6.29	8.02	2.87	0.58	6.53	8.02	3.10	0.61	6.68	8.02	3.33	0.63	6.82	8.02	3.88	0.69	7.12	8.02
139589	106070	106069	Circular		1.25	-	1	130.00	2.87	0.013	-	-	2.52	0.41	7.20	8.01	2.87	0.44	7.46	8.01	3.10	0.46	7.62	8.01	3.34	0.48	7.77	8.01	3.88	0.52	8.09	8.01
139639	106071	106070	Circular		1.25	-	1	181.00	0.20	0.013	-	-	2.52	0.86	2.99	8.01	2.87	0.93	3.13	8.01	3.10	0.98	3.21	8.01	3.34	1.03	3.29	8.01	3.88	1.18	3.44	8.01
147576	106073	106070	Circular		1.25	-	0	55.00	0.71	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
139493	106113	106065	Circular		1.25	-	1	47.00	4.02	0.013	-	-	3.71	0.69	8.50	8.00	4.20	0.74	8.81	8.00	4.53	0.77	9.00	8.00	4.86	0.80	9.18	8.00	5.62	0.86	9.55	8.00
1385081	106155	1105	Circular		3	-	7	70.00	2.86	0.014	-	-	25.27	4.33	7.61	9.37	24.63	4.54	7.72	9.01	24.44	4.66	7.89	8.76	24.08	4.72	8.04	8.54	30.67	5.88	8.33	10.96
138508	106156	106155	Circular		3	-	7	70.00	2.86	0.024	-	-	23.48	4.56	5.13	9.37	22.96	4.54	5.13	9.01	22.87	4.67	5.15	8.76	22.69	4.73	5.16	8.54	30.18	6.18	5.16	10.96
138445	106157	106156	Circular		3	-	7	263.00	1.03	0.024	-	-	16.77	2.69	4.95	7.99	17.45	2.62	5.00	8.02	17.84	2.75	5.03	8.02	18.17	2.83	5.11	8.03	19.15	3.29	5.21	8.00
138355	106159	106157	Circular		2.25	-	4	277.00	1.26	0.024	-	-	16.76	1.70	5.27	8.02	17.45	1.76	5.30	8.01	17.84	1.80	5.32	8.01	18.12	1.83	5.33	8.02	19.06	1.94	5.35	7.99
138241	106161	CMNJ-005-K	Circular		2.167	-	4	398.00	2.29	0.024	-	-	14.04	2.05	6.14	8.04	14.36	2.41	6.16	8.04	14.52	2.52	6.18	8.08	14.82	2.97	6.19	8.08	15.01	3.49	6.20	8.06
138211	106162	106161	Circular		2.167	-	4	400.00	0.50	0.024	-	-	14.04	3.53	3.96	8.02	14.36	3.69	4.04	8.02	14.52	3.77	4.08	8.06	14.68	3.81	4.12	8.05	14.92	3.90	4.18	8.03
138202	106163	106162	Circular		1.75	-	2	216.00	0.60	0.024	-	-	14.05	7.83	5.72	8.01	14.37	8.23	5.85	8.01	14.53	8.43	5.91	8.05	14.69	8.60	5.97	8.04	14.93	8.87	6.06	8.04
138169	106164	106163	Circular		1.75	-	2	499.00	1.82	0.024	-	-	2.80	7.83	2.44	8.04	3.17	8.23	2.45	8.04	3.40	8.43	2.46	8.04	3.65	8.60	2.47	8.03	4.23	8.87	2.49	8.03
138163	106166	106164	Circular		1.75	-	2	405.00	3.77	0.024	-	-	2.79	0.79	4.71	8.02	3.17	0.91	4.80	8.02	3.42	0.99	4.86	8.02	3.67	1.07	4.92	8.02	4.25	1.25	5.07	8.02
138152	106167	106166	Circular		1.75	-	2	120.00	1.13	0.024	-	-	2.79	0.72	3.13	8.02	3.17	0.77	3.25	8.02	3.42	0.80	3.33	8.02	3.67	0.83	3.40	8.02	4.25	0.90	3.55	8.01
138114	106168	106167	Circular		1.75	-	2	258.00	1.12	0.024	-	-	2.80	0.72	3.29	8.01	3.17	0.77	3.40	8.01	3.42	0.80	3.47	8.01	3.67	0.83	3.54	8.01	4.25	0.90	3.68	8.01
258849	106169	106168	Circular		1.5	-	2	254.00	1.64	0.024	-	-	2.80	0.67	3.83	8.01	3.17	0.71	3.96	8.01	3.42	0.74	4.04	8.01	3.67	0.77	4.12	8.01	4.26	0.84	4.27	8.01
152175	106323	1095	Circular		1.5	-	2	32.00	3.34	0.013	-	-	9.39	5.86	6.29	7.84	10.44	6.10	6.58	7.61	11.16	6.27	6.72	7.91	11.96	6.38	6.88	7.98	13.82	7.22	7.70	8.00
152174	106324	106323	Circular		1.5	-	2	80.00	2.55	0.013	-	-	4.37	4.81	4.24	7.50	4.76	5.06	4.38	7.59	5.01	5.23	4.48	8.02	5.35	5.34	4.57	7.98	6.21	6.21	4.77	8.02
138292	106325	106324	Circular		1.5	-	2	184.00	1.99	0.013	-	-	4.18	2.78	5.95	7.83	4.65	3.03	6.00	7.60	4.99	3.20	6.01	8.00	5.37	3.32	6.02	8.01	6.21	4.44	5.99	7.53
146640	106326	106325	Circular		1	-	1	70.00	11.19	0.014	-	-	4.10	0.55	12.54	8.01	4.64	0.61	12.88	8.01	4.99	0.65	13.09	8.01	5.35	0.73	13.28	8.01	6.19	0.89	13.65	8.01
152173	106332	106323	Circular		1.75	-	2	152.00	0.61	0.013	-	-	5.28	4.81	3.00	7.83	5.85	5.06	3.08	7.54	6.18	5.23	3.12	7.38	6.61	5.34	3.17	7.79	7.64	6.21	3.28	7.59
146720	106333	126136	Circular		1.75	-	2	20.00	0.60	0.013	-	-	-0.16	3.07	0.36	9.01	-0.18	3.32	0.29	8.62	-0.17	3.49	0.28	8.29	-0.10	3.61	0.33	6.94	-0.17	4.35	-0.40	11.21
146723	106334	126137	Circular		1.75	-	2	20.00	0.65	0.013	-	-	-0.22	2.92	0.59	9.01	-0.21	3.17	0.40	8.62	-0.22	3.34	0.44	8.30	-0.14	3.47	0.43	6.95	-0.22	4.23	0.54	11.21
138410_3	106335	126137	Circular		1.75	-	2	18.00	0.67	0.013	-	-	5.12	2.92	3.49	7.84	5.77	3.17	3.60	7.62	6.17	3.34	3.64	7.91	6.62	3.47	3.65	7.78	7.65	4.23	3.76	7.80
CM4S1_1	106338	106374	Natural	CM4S1_1	-	-	221	505.00	0.48	0.040	0.080	0.080	3.79	2.11	0.44	8.03	4.33	2.38	0.44	8.02	4.66	2.55	0.45	8.02	4.94	2.62	0.45	8.02	5.45	2.90	0.47	8.03
138633	106339	106338	Circular		1.5	-	2	25.00	0.72	0.013	-	-	4.15	0.68	5.69	8.01	4.69	0.72	5.95	8.01	5.06	0.75	6.12	8.00	5.42	0.78	6.28	8.00	6.27	0.85	6.62	8.00
138568	106340	106339	Circular		1.5	-	2	150.00	0.79	0.013	-	-	4.15	0.71	5.13	8.00	4.69	0.76	5.30	8.00	5.06	0.80	5.40	8.00	5.42	0.83	5.50	8.00	6.27	0.91	5.70	8.00
Link1137	106344	1090	Circular		4	-	13	33.00	7.52	0.013	-	-	113.43	7.10	16.10	6.29	174.97	7.23	21.61	5.86	199.10	7.28	32.00	5.63	122.96	7.40	17.43	5.23	89.03	7.74	13.89	4.85
138110	106345	106344	Circular		1.5	-	2	110.00	0.65	0.013	-	-	8.30	5.07	4.80	6.34	8.03	5.16	4.77	5.87	9.55	5.32	5.63	5.64	9.20	5.09	5.19	5.39	7.84	5.26	4.96	4.88
138116	106346	106345	Circular		1.5	-	2	33.00	0.85	0.013	-	-	9.73	3.98	5.48	6.33	9.60	4.17	5.30	5.90	9.71	4.24	5.48	5.64	9.16	4.34	5.15	5.39	8.81	4.73	4.97	4.88
138102	106347	123985	Circular		1.5	-	2	236.00	0.55	0.013	-	-	11.72	4.72	6.55	8.02	11.74	5.02	6.56	8.06	11.76	5.20	6.57	8.07	11.76	5.36	6.56	8.02	11.78	5.77	6.56	8.12
226064	106351	226058	Circular		2	-	3	66.00	0.39	0.013	-	-	10.05	3.95	3.60	8.09	10.33	4.21	3.72	8.42	10.48	4.36	3.79	8.25	10.21	4.45	3.85	7.97	10.37	5.09	3.86	8.34
138506	106352	106351	Circular		1.5	-	2	56.00	2.50	0.024	-	-	9.98	3.71	5.62	8.21	10.29	4.00	5.79	8.24	10.48	4.15	5.89	8.25	10.21	4.26	5.74	7.97	10.36	5.06	5.79	8.45
138528	106353	106352	Circular		1.25	-	1	124.00	1.29	0.013	-	-	9.97	3.90	8.02	8.21	10.28	4.34	8.25	8.26	10.48	4.67	8.40	8.26	10.22	5.15	8.20	7.98	10.36	6.04	8.25	8.46
138544	106374	1104	Circular		2	-	3	30.00	0.33	0.013	-	-	20.75	2.17	7.08	8.17	21.80	2.38	7.31	8.15	22.46	2.55	7.45	8.15	23.01	2.62	7.57	8.12	37.05	3.99	11.75	10.98

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
138691	106382	CMNJ-005-F	Circular		2	-	3	403.00	0.31	0.013	-	-	15.96	2.26	4.93	8.04	16.22	2.36	5.02	8.04	16.38	2.56	5.25	8.04	16.56	2.75	5.30	8.03	16.93	3.23	5.35	8.03
138729	106383	106382	Circular		2	-	3	334.00	0.30	0.013	-	-	15.95	2.90	5.04	8.02	16.22	3.06	5.12	8.02	16.38	3.27	5.19	8.02	16.55	3.38	5.25	8.02	16.93	4.00	5.36	8.02
138760	106384	106383	Circular		2	-	3	202.00	2.16	0.013	-	-	15.95	2.90	9.13	8.01	16.22	3.06	9.15	8.01	16.38	3.27	9.16	8.02	16.55	3.38	9.17	8.02	16.92	4.00	9.02	8.02
138739	106385	106384	Circular		2	-	3	64.00	0.98	0.024	-	-	14.52	1.72	5.32	8.35	14.63	1.73	5.30	8.73	14.69	1.73	5.30	9.08	14.74	1.74	5.30	9.43	14.83	1.76	5.29	10.24
Link1065	106386	106385	Circular		1.5	-	2	20.00	5.00	0.014	-	-	14.52	1.72	9.56	8.35	14.63	1.73	9.55	8.73	14.69	1.73	9.55	9.08	14.74	1.74	9.55	9.43	14.83	1.76	9.52	10.24
146820	106387	285297	Circular		1.5	-	2	335.00	1.49	0.013	-	-	14.56	3.63	8.22	7.19	14.63	3.81	8.24	8.71	14.69	3.92	8.26	9.07	14.74	4.01	8.26	9.42	14.83	4.17	8.30	10.23
138537	106388	106387	Circular		1.25	-	1	95.00	1.05	0.013	-	-	14.81	7.20	11.83	7.17	14.98	7.44	11.94	7.13	15.11	7.58	12.04	7.10	15.23	7.69	12.13	7.09	15.39	7.91	12.25	7.05
138475	106409	106410	Circular		1.25	-	1	170.00	2.94	0.013	-	-	5.20	0.64	8.47	8.01	5.89	0.69	8.75	8.00	6.35	0.72	8.92	8.00	6.80	0.75	9.07	8.00	7.87	0.83	9.38	8.00
138474	106410	CMNJ-005-D	Circular		1.25	-	1	105.00	4.76	0.013	-	-	5.20	0.74	10.14	8.01	5.89	0.79	10.48	8.01	6.35	0.82	10.70	8.01	6.80	0.84	10.91	8.01	7.87	0.90	11.35	8.01
Link1194	106415	1000	Circular		4	-	13	10.00	15.00	0.014	-	-	6.89	0.32	14.39	8.01	7.80	0.34	14.85	8.00	8.40	0.36	15.16	8.00	9.00	0.37	15.45	8.00	10.41	0.39	16.14	8.00
136309	106416	106415	Circular		1.5	-	2	10.00	2.50	0.013	-	-	6.89	0.63	10.36	8.00	7.80	0.67	10.84	8.00	8.40	0.70	11.15	8.00	9.00	0.72	11.44	8.00	10.41	0.77	12.07	8.00
136340	106417	106416	Circular		1.5	-	2	155.00	1.53	0.013	-	-	6.89	0.83	7.15	8.00	7.80	0.89	7.38	8.00	8.40	0.94	7.51	8.00	9.00	0.98	7.64	8.00	10.41	1.09	7.90	8.00
NJ9N1_1	106440	1001	Natural	NJ9N1_1	-	-	633	430.00	5.81	0.040	0.080	0.080	6.97	0.65	3.99	8.02	7.21	0.66	4.02	8.02	7.38	0.67	4.05	8.02	7.55	0.67	4.07	8.02	7.92	0.69	4.13	8.01
145335	106442	106440	Circular		2.5	-	5	200.00	4.00	0.024	-	-	6.97	0.68	6.51	8.01	7.22	0.69	6.57	8.01	7.39	0.70	6.60	8.01	7.55	0.71	6.64	8.01	7.93	0.73	6.71	8.01
145151	106452	NJ-013	Circular		1.25	-	1	60.00	20.00	0.013	-	-	0.00	1.24	0.00	0.00	0.00	1.29	0.00	0.00	0.00	1.32	0.00	0.00	0.00	1.36	0.00	0.00	0.00	1.43	0.00	0.00
136005	106453	NJ-013	Circular		3	-	7	80.00	12.50	0.013	-	-	54.10	1.24	26.07	7.99	61.21	1.29	27.11	7.99	65.95	1.32	27.76	8.00	70.69	1.36	28.35	8.00	81.75	1.43	29.64	8.00
136156	106458	NJ-009-E	Circular		3	-	7	100.00	20.00	0.013	-	-	18.86	1.50	17.58	8.02	20.48	1.55	18.12	8.02	21.45	1.57	18.43	8.02	22.45	1.60	18.74	8.02	24.68	1.66	19.40	8.02
NJ9N1_B	106459	106458	Natural	NJ9N1_B	-	-	809	172.00	9.30	0.040	0.080	0.080	18.86	0.87	5.73	8.02	20.48	0.91	5.86	8.02	21.45	0.92	5.94	8.02	22.45	0.94	6.01	8.02	24.68	0.99	6.18	8.02
136114	106461	106459	Circular		3	-	7	130.00	6.15	0.013	-	-	18.87	0.87	14.93	8.01	20.49	0.91	15.32	8.01	21.46	0.92	15.53	8.01	22.45	0.94	15.74	8.01	24.69	0.99	16.19	8.01
145180	106475	NJ-010	Circular		2	-	3	85.00	4.18	0.013	-	-	67.33	5.87	21.15	8.11	70.95	6.67	22.22	8.12	73.01	7.15	22.82	8.12	74.97	7.60	23.40	8.14	79.05	8.59	24.59	8.16
NJ10S2_C2	106476	NJ-010-F	Natural	NJ10S2_C2	-	-	1036	85.00	1.18	0.040	0.080	0.080	13.28	1.42	1.55	8.01	13.58	1.48	1.54	8.02	13.73	1.52	1.54	8.02	13.95	1.56	1.54	8.02	14.45	1.66	1.54	8.03
135729	106477	106476	Circular		2	-	3	445.00	6.74	0.013	-	-	12.95	0.67	14.33	8.02	13.19	0.67	14.41	8.01	13.31	0.67	14.58	8.01	13.50	0.67	14.80	8.01	13.91	0.68	15.30	8.01
135696	106478	106477	Circular		2	-	3	324.00	0.93	0.013	-	-	12.95	1.24	6.69	8.01	13.19	1.26	6.72	8.01	13.31	1.27	6.74	8.01	13.50	1.28	6.76	8.01	13.92	1.31	6.80	8.01
135680	106479	106478	Circular		2	-	3	96.00	3.13	0.013	-	-	12.95	1.24	10.52	8.01	13.19	1.26	10.57	8.01	13.32	1.27	10.60	8.01	13.50	1.28	10.63	8.01	13.92	1.31	10.71	8.01
135686	106480	106479	Circular		2	-	3	305.00	8.85	0.013	-	-	12.95	0.78	15.81	8.01	13.19	0.79	15.89	8.01	13.32	0.80	15.94	8.01	13.50	0.80	16.00	8.01	13.92	0.81	16.14	8.01
135681	106481	106480	Circular		2	-	3	43.00	11.63	0.013	-	-	12.95	0.59	18.05	8.00	13.19	0.60	18.15	8.00	13.32	0.60	18.20	8.00	13.50	0.61	18.27	8.00	13.92	0.62	18.42	8.00
135676	106483	NJ-010-I	Circular		1	-	1	90.00	4.44	0.014	-	-	11.60	7.14	14.29	8.20	11.73	7.36	14.43	8.30	11.80	7.49	14.50	8.36	11.86	7.62	14.57	8.44	11.99	7.87	14.70	9.12
135683	106484	106483	Circular		2	-	3	155.00	0.65	0.013	-	-	14.59	7.14	5.48	8.74	13.28	7.36	5.49	8.03	13.71	7.49	5.49	8.03	14.40	7.62	5.46	9.77	15.07	7.87	5.44	8.04
144978	106521	NJ-014	Circular		3	-	7	40.00	2.75	0.013	-	-	43.27	2.08	11.40	8.00	48.93	2.13	12.06	7.99	52.66	2.16	12.47	7.99	56.44	2.19	12.87	8.00	65.27	2.26	13.75	8.01
135792	106522	106521	Circular		3	-	7	106.00	4.17	0.024	-	-	43.22	1.69	10.68	7.99	48.89	1.83	10.98	8.00	52.65	1.93	11.16	8.00	56.44	2.02	11.32	7.99	65.27	2.26	11.64	8.00
135786	106523	106522	Circular		3	-	7	70.00	2.60	0.013	-	-	37.43	1.69	12.61	8.01	42.35	1.83	12.89	8.01	45.63	1.93	13.05	8.01	48.91	2.02	13.18	8.01	56.58	2.26	13.41	8.01
135753	106524	106523	Circular		3	-	7	171.00	3.20	0.024	-	-	37.42	1.77	8.96	8.00	42.34	1.90	9.26	8.00	45.62	2.00	9.45	8.00	48.90	2.09	9.61	8.00	56.55	2.32	9.95	8.00
135790	106529	106522	Circular		1.5	-	2	26.00	10.85	0.013	-	-	3.59	1.69	8.14	8.00	4.06	1.83	8.82	8.00	4.37	1.93	9.29	8.00	4.69	2.02	9.54	7.90	5.42	2.26	10.11	8.00
135789	106530	106529	Circular		1.5	-	2	45.00	10.84	0.013	-	-	3.59	0.33	12.64	8.00	4.06	0.35	13.11	8.00	4.37	0.36	13.40	8.00	4.69	0.38	13.63	8.00	5.42	0.45	14.02	8.00
NJ9N1_4	106534	NJ-009-I	Natural	NJ9N1_4	-	-	933	409.00	4.72	0.040	0.080	0.080	9.12	1.12	2.37	8.26	9.43	1.17	2.37	8.32	9.56	1.19	2.37	8.38	9.72	1.22	2.36	8.44	10.01	1.29	2.36	8.66
145104	106537	106534	Circular		4	-	13	105.00	4.47	0.014	-	-	9.12	0.66	9.74	8.21	9.43	0.67	9.84	8.27	9.57	0.67	9.88	8.32	9.72	0.68	9.93	8.39	10.01	0.69	10.02	8.59
NJ9N2_1	106550	NJ-009-J	Natural	NJ9N2_1	-	-	1995	526.00	5.78	0.040	0.080	0.080	6.98	4.61	2.79	7.44	7.93	4.97	2.76	8.04	8.47	5.12	2.74	8.07	9.01	5.31	2.78	8.08	10.04	5.66	2.78	8.07
144985	106551	106550	Circular		1.5	-	2	74.00	3.04	0.024	-	-	7.11	1.03	5.79	7.92	8.04	1.13	5.95	7.79	8.62	1.18	6.04	8.04	9.19	1.26	6.10	8.04	10.32	1.66	6.32	7.99
135802	106552	106551	Circular		1.5	-	2	30.00	8.83	0.024	-	-	7.11	1.03	8.59	8.01	8.04	1.13	8.86	8.01	8.62	1.18	8.96	8.03	9.19	1.26	9.03	8.04	10.32	1.66	9.02	8.02
135801	106553	106552	Circular		1.5	-	2	66.00	4.24	0.024	-	-	7.11	0.90	6.62	8.01	8.04	0.97	6.83	8.01	8.62	1.02	6.95	8.03	9.19	1.06	7.06	8.03	10.33	1.15	7.36	8.02
135785	106554	106553	Circular		1.25	-	1	136.00	7.54	0.024	-	-	7.11	0.90	8.45	8.01	8.04	0.97	8.66	8.01	8.62	1.02	8.76	8.03	9.19	1.06	8.84	8.03	10.32	1.93	8.87	8.03
NJ7N4_1A	106555	Node1360	Natural	NJ7N4_1A	-	-	98	56.00	20.00	0.040	0.080	0.080	2.43	0.81	4.98	8.00	2.75	0.89	5.06	8.00	2.96	0.94	5.11	8.00	3.18	0.99	5.16	8.00	3.68	1.09	5.27	8.00
144991	106556	106555	Circular		1	-	1	100.00	22.80	0.014	-	-	2.43	0.49	12.89	8.00	2.75	0.51	13.44	8.00	2.96	0.53	13.77	8.00	3.18	0.54	14.09	8.00	3.68	0.58	14.77	8.00
135766	106562	106554	Circular		1.25	-	1	125.00	7.54	0.024	-	-	7.11	0.80	8.57	8.01	8.04	0.88	8.77	8.01	8.62	0.93	8.85	8.02	9.19	0.98	8.91	8.03	10.43	2.76	8.92	8.02
135756	106563	106562	Circular		1.25	-	1	31.00	5.81	0.013	-	-	7.11	0.80	11.83	8.01	8.04	0.88	12.11	8.01	8.62	0.93	12.27	8.02	9.19	0.98	12.35	8.02	10.66	2.76	12.40	8.00
144955	106564	106563	Circular		1.25	-	1	55.00	5.80	0.024	-	-	7.11	0.99	7.12	8.01	8.04	1.14	7.21	8.01	8.62	1.88	7.33	8.02	9.19	2.31	7.78	8.02	10.99	3.15	9.02	8.00
NJ9N2_2	106565	106564	Natural	NJ9N2_2	-	-	717	305.00	6.95	0.040	0.080	0.080	7.11	0.96	2.00	8.00	8.04	1.11	2.03	8.00	8.66	1.85	2.04	8.01	9.29	2.28	2.05	8.00	10.73	3.12	2.08	8.01
144909	106566	106565	Circular		1.25	-	1	60.00	7.13	0.024	-	-	7.11	0.94	7.59	8.00	8.04	1.06	7.67	8.00	8.66	1.88	7.80	8.00	9.29	2.63	7.97	8.00	10.74	4.45	9.11	7.66
135687	106567	106566	Circular		1.25	-	1	31.00	4.26	0.013	-	-	7.11	0.94	10.12	8.00	8.04	1.06	10.32	8.00	8.66	1.88	10.19	8.00	9.29	2.63	10.20	8.00	10.74	4.45	10.19	7.68
144856	106599	NJ-016	Circular		3	-	7	90.00	11.11	0.024	-	-	10.93	0.77	10.19	8.00	12.37	0.81	10.59	8.00	13.32	0.83	10.84	8.00	14.28	0.85	11.08	8.00	16.51	0.91	11.58	8.00
NJ9N1_5	106668	106537	Natural	NJ9N1_5	-	-	767	450.00	6.50	0.040	0.080	0.080	9.12	0.49	1.71	8.21	9.43	0.50	1.73	8.26	9.57	0.50	1.74	8.32	9.72	0.51	1.75	8.38	10.01	0.52	1.76	8.59
145056	106669	106668	Circular		1	-	1	75.00	3.00	0.014	-	-	9.12	8.55	11.10	8.15	9.43	8.91	11.46	8.20	9.57	9.06	11.61	8.26	9.73	9.25	11.79	8.31	10.02	9.59	12.12	8.53
138883	106671	CMNJ-004-P	Circular		1.25	-	1	33.00	0.48	0.013	-	-	1.71	0.50	3.91	8.03	1.94	0.53	4.11	8.02	2.10	0.55	4.24	8.03	2.25	0.57	4.36	8.03	2.62	0.61	4.63	8.02
138916	106672	106671	Circular		1.25	-	1	125.00	0.30	0.013	-	-	1.71	0.62	2.90	8.02	1.94	0.66	3.02	8.02	2.10	0.69	3.10	8.02	2.26	0.72	3.17	8.02	2.62	0.79	3.32	8.02
138950	106673	106672	Circular		1.25	-	1	242.00	0.30	0.013	-	-	1.71	0.62	2.85	8.01	1.94	0.66	2.94	8.01	2.10	0.70	3.00	8.01	2.26	0.73	3.05	8.01	2.62	0.81	3.15	8.01
CM9N1_1	106751	102166	Natural	CM9N1_1	-	-	28	882.00	1.78	0.040	0.080	0.080	1.14	0.30	1.24	8.01	1.29	0.32	1.29	8.01	1.40	0.32	1.33	8.01	1.50	0.33	1.36	8.01	1.74	0.35	1.43	8.01
137177	106752	106751	Circular		1.25	-	1	33.00	0.73	0.013	-	-	1.16	0.39	3.68	8.00	1.31	0.41	3.84	8.00	1.42	0.43	3.94	8.00	1.52	0.44	4.04	8.00	1.76	0.48	4.25	8.00
135896	106934	CM-008-P	Circular		1.5	-	2	37.00	0.89	0.013	-	-	5.11	1.42	4.31	8.01	5.78	1.50	4.42	8.01	6.22	1.55	4.49	8.01	6.67	1.60	4.56	8.01	7.71	1.71	4.73	8.01
135920	107094	106934	Circular		1.5	-	2	104.00	0.78	0.013	-	-	5.11	1.13	5.04	8.00	5.78	1.24	5.17	8.00	6.22	1.31	5.24	8.00	6.67	1.39	5.31	8.00	7.71	1.56	5.44	8.00
136747	107203	116390	Circular		1.25	-	1	219.70	1.39	0.013	-	-	0.66	0.25	3.75	8.02	0.75	0.27	3.89	8.02	0.81	0.28	3.98	8.02	0.87	0.29	4.06	8.02	1.01	0.31	4.25	8.01
Link1230	107204	107203	Circular		1.25	-	1	274.00	0.80	0.013	-	-	0.66	0.30	2.98	8.01	0.75	0.32	3.09	8.01	0.81	0.33	3.16	8.01	0.87	0.35	3.23	8.01	1.01	0.37	3.37	8.01
NJ9_1	107216	NJ-009	Natural	NJ9_1	-	-	654	458.00	23.48	0.040	0.080	0.080	1.38	4.76	0.03	8.01	1.56	4.87	0.03	8.01	1.69	4.94	0.03	8.01	1.81	5.01	0.03	8.01	2.10	5.17	0.03	8.01
NJ9_2	107218	NJ-009	Natural	NJ9_2	-	-	385	563.00	19.39	0.040	0.080	0.080	6.72	4.76	0.41	8.01	7.64	4.87	0.45	8.01	8.24	4.94	0.46	8.01	8.85	5.01	0.48	8.01	10.25	5.17	0.52	8.01
1453261	107220	159526	Circular		1	-	1	33.00	-0.30	0.013	-	-	7.94	2.40	10.26	8.00	9.01	2.84	11.56	8.00	9.73	3.19	12.42	8.00	10.44	3.56	13.27	8.00	12.11	4.48	15.24	8.00
225625	112588	NJ-010-K	Circular		1.5	-	2	24.00	7.87	0.013	-	-	6.15	1.20	10.83	8.01	6.97	1.29	11.15	8.01	7.51	1.35	11.27	8.01	8.05	1.41	11.38	8.01	9.32	1.56	11.54	8.01
135553	112598	112599	Circular		1	-	1	272.00	9.56	0.014	-	-	6.15	0.58	13.55	8.00	6.96	0.62	13.95	8.00	7.50	0.65	14.18	8.00	8.04	0.68	14.39	8.00	9.30	0.75	14.77	8.00
135569	112599	112601	Circular		1.25	-	1	55.00	5.45	0.013	-	-	6.15	0.58	11.26	8.00	6.96	0.62	11.64	8.00	7.50	0.65	11.87	8.00	8.04	0.68	12.08	8.00	9.30	0.74	12.54	8.00
135619	112601	112602	Circular		1.25	-	1	278.00	8.27	0.013	-	-	6.15	0.57	13.32	8.00	6.96	0.61	13.76	8.00	7.50	0.64	14.04	8.00	8.04	0.67	14.29	8.00	9.30	0.73	14.82	8.00
135624	112602	112603	Circular		1.25	-	1	40.00	5.00	0.013	-	-	6.15	0.57	11.30	8.00	6.96	0.61	11.66	8.00	7.50	0.64	11.88	8.00	8.04	0.67	12.08	8.00	9.30	0.73	12.50	8.00
144835	112603	112604	Circular		1.25	-	1	38.00	0.00	0.013	-	-	6.15	1.07	5.84	8.01	6.96	1.18	6.15	8.01	7.50	1.31	6.30	8.01	8.04	1.39	6.61	8.01	9.30	1.71	7.90	8.01
Link728	112604	225634	Circular		1.5	-	2	94.00	4.26	0.013	-	-	6.15	0.58	10.47	8.01	6.96	0.62	10.84	8.01	7.50	0.64	11.07	8.01	8.04	0.66	11.29	8.01	9.30	0.70	11.76	8.01
NJ7_1A	112749	1027	Natural	NJ7_1A	-	-	464	195.00	19.18	0.040	0.080	0.080	0.86	4.20	0.69	8.00	0.98	4.26	1.11	8.00	1.05	4.28	1.14	8.00	1.13	4.30	1.33	8.00	1.31	4.33	1.11	8.00
189231	115033	189233	Circular		1	-	1	123.00	0.33	0.014	-	-	3.45	2.61	4.35	8.01	3.70	2.98	4.66	8.04	3.75	3.05	4.71	8.07	3.82	3.13	4.80	8.06	4.00	3.43	5.02	8.14
137363	115034	115037	Circular		1.5	-	2	225.00	1.78	0.013	-	-	5.03	0.65	7.06	8.00	5.69	0.69	7.30	8.00	6.13	0.72	7.45	8.00	6.57	0.75	7.59	8.00	7.60	0.82	7.88	8.00
137344	115035	115034	Circular		1.5	-	2	70.00	2.86	0.013	-	-	5.03	0.65	8.44	8.00	5.69	0.69	8.72	8.00	6.13	0.72	8.90	8.00	6.57	0.75	9.06	8.00	7.60	0.82	9.41	8.00
137355	115037	128600	Circular		1.5	-	2	138.00	3.62	0.013	-	-	5.03	0.57	8.56	8.01	5.69	0.61	8.87	8.01	6.13	0.63	9.06	8.01	6.57	0.66	9.23	8.01	7.60	0.71	9.61	8.01
CM8N2_3	115038	270217	Natural	CM8N2_3	-	-	214	350.00	1.29	0.040	0.080	0.080	30.14	3.72	1.30	8.02	31.23	4.16	1.30	8.02	31.82	4.42	1.30	8.01	32.28	4.65	1.30	8.01	33.01	5.19	1.30	8.01
137621	115039	115038	Circular		1.25	-	1	65.00	1.38	0.013	-	-	1.56	0.99	3.64	7.81	1.76	1.00	3.79	7.95	1.90	1.01	3.89	7.77	2.03	1.01	3.98	7.81	2.35	1.02	4.20	7.66
CM8N2_1	115041	128611	Natural	CM8N2_1	-	-	101	120.00	0.02	0.040	0.080	0.080	23.02	4.13	1.81	8.42	23.13	4.62	1.80	9.09	23.39	4.85	1.80	9.34	23.53	5.03	1.80	8.65	24.23	5.22	1.78	9.42
137546	115042	115041	Circular		2	-	3	40.00	2.50	0.013	-	-	22.62	4.11	8.48	7.43	22.67	4.60	8.53	9.09	22.75	4.83	8.56	9.38	22.86	5.01	8.57	9.61	23.13	5.20	8.56	10.52

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
CM8N1_1A	115046	Node1341	Natural	CM8N1_1A	-	-	1406	640.00	0.52	0.040	0.080	0.080	29.25	0.75	1.49	8.04	29.65	0.76	1.51	8.04	29.91	0.76	1.51	9.03	30.17	0.76	1.52	9.03	30.78	0.77	1.53	10.81
CM8N1_3	115070	Node1341	Natural	CM8N1_3	-	-	451	260.00	4.62	0.040	0.080	0.080	7.84	0.57	3.10	8.01	8.87	0.57	3.23	8.01	9.57	0.58	3.32	8.01	10.26	0.58	3.40	8.01	11.86	0.60	3.58	8.01
146322	115071	115070	Circular		1.5	-	2	50.00	2.00	0.013	-	-	7.84	0.82	8.34	8.01	8.88	0.88	8.66	8.01	9.57	0.92	8.86	8.01	10.26	0.96	9.05	8.01	11.86	1.06	9.46	8.01
CM8N1_4	115072	115071	Natural	CM8N1_4	-	-	451	16.00	6.25	0.040	0.080	0.080	7.84	0.82	3.00	8.00	8.88	0.88	3.07	8.00	9.57	0.92	3.12	8.00	10.26	0.96	3.17	8.00	11.86	1.06	3.26	8.00
137864	115075	CM-003-J	Circular		1.5	-	2	306.00	0.33	0.013	-	-	0.98	1.04	2.03	8.04	1.12	1.14	2.06	8.04	1.21	1.20	2.08	8.04	1.32	1.27	2.09	8.04	1.78	1.73	2.22	8.04
137982	115078	115075	Circular		1.5	-	2	300.00	0.67	0.013	-	-	0.97	0.42	3.10	8.02	1.09	0.47	3.20	8.01	1.18	0.50	3.25	8.01	1.27	0.54	3.29	8.01	1.47	0.83	3.27	8.01
138005	115079	115078	Circular		1.5	-	2	74.00	2.70	0.024	-	-	0.97	0.34	3.39	8.01	1.10	0.36	3.52	8.01	1.18	0.38	3.60	8.01	1.27	0.39	3.67	8.01	1.47	0.42	3.83	8.01
138041	115080	115079	Circular		1.5	-	2	80.00	3.75	0.013	-	-	0.00	0.33	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.40	0.00	0.00
137998	115085	115079	Circular		1.25	-	1	61.00	1.64	0.024	-	-	0.97	0.42	2.76	8.01	1.10	0.45	2.86	8.01	1.18	0.47	2.93	8.01	1.27	0.48	2.99	8.01	1.47	0.52	3.12	8.01
138039	115199	NJ-002-A	Circular		1	-	1	422.00	3.26	0.014	-	-	4.62	12.64	7.04	9.36	4.66	12.91	7.03	12.00	4.73	13.06	7.10	13.17	4.77	13.19	7.06	14.23	4.83	13.47	7.71	18.07
138062	115200	115199	Circular		1	-	1	143.00	1.10	0.014	-	-	4.54	2.88	5.80	9.80	4.59	3.09	5.85	12.11	4.64	3.22	5.92	13.27	4.69	3.34	5.96	14.32	4.75	3.61	6.04	18.15
138042	115206	106347	Circular		1.25	-	1	248.00	0.55	0.013	-	-	11.72	10.74	9.14	8.02	11.74	11.00	9.14	8.06	11.76	11.15	9.15	8.07	11.77	11.30	9.15	8.02	11.78	11.59	9.15	8.10
138043	115219	115200	Circular		1	-	1	123.00	0.76	0.014	-	-	4.54	4.24	5.67	9.80	4.59	4.44	5.72	12.12	4.64	4.56	5.79	13.27	4.68	4.69	5.84	14.32	4.75	4.98	5.91	18.15
Link738	115224	115219	Circular		1	-	1	20.00	0.50	0.014	-	-	7.83	4.61	9.79	7.14	7.65	4.79	9.56	7.09	7.45	4.90	9.31	7.07	7.44	5.01	9.24	8.01	7.53	5.26	9.35	8.04
138040	115226	NJ-002-B	Circular		1	-	1	27.00	1.26	0.014	-	-	2.34	3.42	3.59	7.14	2.33	3.59	3.69	7.10	2.56	3.70	3.63	14.14	2.73	3.81	3.75	16.66	2.63	4.05	3.83	21.28
137888	115228	115226	Circular		1	-	1	460.00	1.97	0.014	-	-	3.25	2.66	5.77	8.01	3.68	2.84	5.90	8.01	3.96	2.94	5.96	8.01	4.24	3.05	5.97	7.91	4.59	3.31	5.97	8.02
137845	115232	115228	Circular		1.25	-	1	115.00	0.92	0.013	-	-	3.25	0.66	5.10	8.00	3.68	0.73	5.22	8.00	3.96	0.81	5.26	8.00	4.25	0.94	5.28	7.92	4.60	2.75	5.32	8.01
LAKE WEIR	115242	1083			0	0	0			0.000	-	-	60.66	0.00	0.00	9.39	66.19	0.00	0.00	9.28	69.70	0.00	0.00	9.21	73.09	0.00	0.00	9.16	80.73	0.00	0.00	9.03
137639	115245	NJ-003-D	Circular		0.83	-	1	235	3.02	0.014	-	-	5.52	12.84	9.40	16.14	5.58	13.07	9.49	19.87	5.61	13.21	9.54	21.57	5.65	13.34	9.60	24.19	5.73	13.59	9.72	25.95
137624	115246	115245	Circular		1.25	-	1	253	2.98	0.013	-	-	8.17	12.84	6.98	10.43	8.19	13.07	6.99	11.26	8.21	13.21	6.99	11.79	8.23	13.34	7.00	12.43	8.27	13.59	7.00	13.92
145748	115306	NJ-003-F	Circular		2.5	-	5	260	2.27	0.013	-	-	55.52	1.98	13.75	8.01	59.12	2.12	13.84	8.01	61.31	2.22	13.89	8.01	63.30	2.40	13.96	8.02	66.61	3.56	14.22	8.01
136959	115307	115306	Circular		2.5	-	5	357	2.03	0.013	-	-	55.52	1.98	13.52	8.01	59.13	2.12	13.54	8.01	61.32	2.22	13.54	8.01	63.32	2.85	13.55	8.01	66.62	5.62	13.56	8.01
136969	115308	115307	Circular		2	-	3	158	3.65	0.013	-	-	35.27	1.95	14.59	8.01	37.36	2.08	14.59	8.01	38.73	2.19	14.60	8.01	40.05	2.85	14.60	8.01	42.84	5.62	14.60	8.01
136960	115310	NJ-003-J	Circular		2.5	-	5	425	1.23	0.013	-	-	27.27	1.44	9.65	8.01	28.30	1.50	9.72	8.01	28.97	1.55	9.75	8.01	29.60	1.60	9.78	8.01	32.88	5.94	9.80	8.06
136904	115312	123994	Circular		2.5	-	5	56	1.80	0.013	-	-	23.56	1.18	10.66	9.02	24.10	1.20	10.71	9.34	24.39	1.21	10.74	9.64	24.66	1.21	10.77	10.02	25.07	1.23	10.82	11.17
136908	115317	NJ-003-G	Circular		1.25	-	1	329	2.96	0.013	-	-	10.52	1.19	10.29	9.00	10.83	1.36	10.31	9.49	11.00	2.99	10.32	9.63	11.35	4.42	10.32	8.07	12.00	7.41	10.32	8.19
136876	115320	115317	Circular		1	-	1	240	5.28	0.014	-	-	10.52	10.40	12.72	9.01	10.83	11.55	12.97	9.45	11.00	12.09	13.13	9.60	11.12	12.50	13.25	9.76	11.33	13.13	13.43	12.22
136932	115350	115312	Circular		1	-	1	523	2.75	0.013	-	-	6.41	3.11	8.37	8.31	6.48	3.41	8.37	8.45	6.52	3.61	8.37	8.58	6.57	3.82	8.40	8.84	6.67	4.29	8.40	9.16
136886	115358	115312	Circular		2	-	3	110	1.80	0.013	-	-	17.27	1.15	9.96	9.34	17.72	1.17	10.02	9.98	17.98	1.17	10.06	10.48	18.21	1.18	10.09	11.13	18.62	1.19	10.15	12.69
136863	115408	115358	Circular		1.5	-	2	185	1.10	0.013	-	-	17.25	4.12	9.88	9.32	17.70	4.33	10.12	9.68	17.96	4.46	10.26	10.09	18.19	4.57	10.38	10.54	18.60	4.81	10.59	12.58
136849	115409	115408	Circular		1.5	-	2	158	1.79	0.013	-	-	17.25	5.43	9.61	9.33	17.70	5.84	9.84	9.67	17.96	6.09	9.97	10.09	18.19	6.32	10.10	10.53	18.60	6.75	10.30	12.57
136838	115410	115409	Circular		1.5	-	2	131	1.79	0.013	-	-	17.25	6.49	9.56	9.33	17.70	7.07	9.79	9.67	17.96	7.41	9.92	10.08	18.19	7.74	10.04	10.53	18.60	8.31	10.23	12.56
NJ3S22_2	115415	NJ-003-N	Natural	NJ3S22_2	-	-	384	493	3.10	0.040	0.080	0.080	22.72	7.27	1.60	8.03	23.54	7.96	1.65	8.03	24.08	8.37	1.68	8.03	24.62	8.74	1.71	8.02	25.97	9.44	1.52	8.02
NJ3S22_3	115416	115415	Natural	NJ3S22_3	-	-	384	55	4.91	0.040	0.080	0.080	17.73	0.71	3.28	8.14	17.95	0.72	3.29	8.42	18.05	0.73	3.30	8.69	18.15	0.74	3.30	9.01	18.31	0.76	3.29	9.81
136710	115417	115416	Circular		1.5	-	2	320	3.23	0.013	-	-	17.73	5.93	10.60	8.14	17.95	6.25	10.71	8.42	18.05	6.40	10.77	8.68	18.15	6.55	10.82	9.01	18.31	6.78	10.90	9.81
136702	115419	115417	Circular		1.5	-	2	60	3.38	0.013	-	-	17.73	5.93	11.35	8.13	17.95	6.25	11.36	8.39	18.05	6.40	11.36	8.66	18.15	6.55	11.36	8.99	18.49	6.78	11.37	9.74
136669	115420	115419	Circular		1.5	-	2	207	6.80	0.013	-	-	20.74	5.55	15.47	8.02	21.00	5.90	15.51	8.07	21.16	6.07	15.53	8.09	21.31	6.23	15.55	8.12	21.56	6.53	15.58	8.21
136637	115422	115420	Circular		1.5	-	2	310	8.46	0.013	-	-	20.75	1.12	18.12	8.02	21.00	1.15	18.16	8.06	21.17	1.17	18.16	8.09	21.31	1.18	18.16	8.12	21.56	1.23	18.18	8.20
136577	115424	115422	Circular		1.5	-	2	313	3.41	0.013	-	-	20.75	4.62	12.04	8.02	21.00	4.85	12.17	8.06	21.17	5.01	12.25	8.09	21.31	5.15	12.32	8.12	21.56	5.39	12.45	8.20
136502	115426	NJ-003-P	Circular		1.5	-	2	192	2.81	0.013	-	-	4.92	8.71	6.40	8.05	8.29	9.20	7.49	8.39	8.46	9.52	7.63	8.66	8.00	9.79	7.25	8.98	9.69	10.28	7.97	9.74
136449	115428	115426	Circular		1.5	-	2	272	9.91	0.013	-	-	3.68	3.56	11.56	8.01	4.27	4.10	11.69	8.01	4.66	4.47	11.72	8.01	5.06	4.79	11.72	8.01	5.99	5.42	11.32	8.01
136781	115446	115415	Circular		1.25	-	1	158	0.72	0.013	-	-	5.43	1.02	5.21	8.01	6.14	1.20	5.32	8.01	6.62	1.46	5.36	8.01	7.09	1.86	5.97	8.01	8.20	2.55	6.86	8.00
136775	115447	115446	Circular		1.25	-	1	35	0.63	0.013	-	-	5.43	1.05	4.94	8.00	6.14	1.29	4.97	8.00	6.61	1.58	5.36	8.00	7.09	2.06	5.75	8.00	8.20	2.89	6.63	8.00
136316	116071	116074	Circular		2	-	3	110	2.10	0.013	-	-	7.83	0.77	7.73	8.00	8.86	0.82	8.04	8.00	9.54	0.85	8.23	8.00	10.23	0.88	8.41	8.00	11.83	0.95	8.79	8.00
CM13S1_B	116074	CM-008-G	Natural	CM13S1_1A	-	-	1320	33	6.88	0.040	0.080	0.080	7.83	1.16	1.55	8.01	8.86	1.22	1.63	8.01	9.54	1.26	1.68	8.00	10.23	1.30	1.73	8.00	11.83	1.39	1.84	8.00
136310	116075	116071	Circular		2	-	3	60	9.47	0.013	-	-	7.83	0.77	13.23	8.00	8.86	0.82	13.73	8.00	9.54	0.85	14.02	8.00	10.23	0.88	14.31	8.00	11.83	0.95	14.93	8.00
136792	116198	124690	Circular		1.5	-	2	6	3.33	0.013	-	-	7.23	0.62	10.72	8.00	8.18	0.66	11.15	8.00	8.81	0.68	11.56	8.00	9.45	0.70	11.83	8.00	10.92	0.76	12.35	8.00
136788	116200	116204	Circular		1.25	-	1	192	11.17	0.013	-	-	7.23	0.51	15.78	8.00	8.18	0.55	16.31	8.00	8.81	0.57	16.63	8.00	9.45	0.60	16.93	8.00	10.92	0.65	17.56	8.00
136791	116204	116198	Circular		1.25	-	1	147	10.07	0.013	-	-	7.23	0.62	14.85	8.00	8.18	0.66	15.37	8.00	8.81	0.68	15.69	8.00	9.45	0.70	15.99	8.00	10.92	0.76	16.61	8.00
136621	116381	NJ-008	Circular		2	-	3	60	2.25	0.013	-	-	8.50	0.68	8.99	8.01	9.63	0.73	9.30	8.01	10.38	0.76	9.50	8.01	11.14	0.79	9.67	8.01	12.90	0.86	10.06	8.01
136638	116382	116381	Circular		2	-	3	125	3.42	0.013	-	-	8.50	0.68	10.26	8.00	9.63	0.73	10.63	8.00	10.38	0.76	10.86	8.00	11.14	0.79	11.07	8.00	12.90	0.86	11.53	8.00
136657	116383	116382	Circular		2	-	3	130	20.09	0.013	-	-	8.50	0.61	18.01	8.00	9.63	0.65	18.68	8.00	10.39	0.68	19.08	8.00	11.14	0.71	19.48	8.00	12.90	0.76	20.33	8.00
254496	116383	241951	Circular		2	-	3	242	-2.19	0.013	-	-	0.00	5.30	0.00	0.00	0.00	5.30	0.00	0.00	0.00	5.30	0.00	0.00	0.00	5.30	0.00	0.00	0.00	5.30	0.00	0.00
145488	116384	116382	Circular		1.25	-	1	22	2.86	0.013	-	-	0.00	0.61	0.00	0.00	0.01	0.65	0.11	8.01	-0.04	0.68	0.27	8.03	-0.07	0.71	0.46	8.03	-0.17	0.76	0.94	8.04
136721	116390	116393	Circular		1.25	-	1	71.6	1.58	0.013	-	-	0.66	0.25	3.95	8.02	0.75	0.27	4.10	8.02	0.81	0.28	4.19	8.02	0.87	0.29	4.28	8.02	1.01	0.31	4.48	8.02
136703	116393	116394	Circular		1.25	-	1	63.8	2.19	0.013	-	-	0.66	0.25	3.96	8.03	0.75	0.27	4.12	8.02	0.81	0.28	4.22	8.02	0.87	0.29	4.31	8.02	1.01	0.31	4.52	8.02
136698	116394	NJ-008-C	Circular		1.5	-	2	75	19.40	0.013	-	-	0.66	0.48	6.05	8.03	0.75	0.51	6.29	8.03	0.81	0.53	6.44	8.03	0.87	0.55	6.58	8.02	1.01	0.59	6.90	8.02
136648	116399	241727	Circular		1.25	-	1	30	1.50	0.013	-	-	2.19	0.47	5.53	8.00	2.48	0.50	5.77	8.00	2.67	0.52	5.92	8.00	2.86	0.54	6.06	8.00	3.31	0.58	6.38	8.00
NJ3_11	116693	102781	Trapezoidal		3	3	18	53	0.75	0.040	-	-	1.50	0.34	1.36	8.00	1.69	0.36	1.42	8.00	1.83	0.38	1.46	8.00	1.96	0.39	1.50	8.00	2.26	0.43	1.58	8.00
NJ7N3_1A	116826	Node1359	Natural	NJ7N3_1A	-	-	177	79	30.67	0.040	0.080	0.080	6.96	1.65	5.04	8.00	7.87	1.75	4.15	8.00	8.48	1.78	5.03	8.00	9.09	1.81	5.02	8.00	10.51	1.89	5.58	8.00
NJ9N1_3	118891	106461	Natural	NJ9N1_3	-	-	879	851	5.29	0.040	0.080	0.080	18.87	0.81	4.12	8.01	20.49	0.84	4.23	8.01	21.46	0.85	4.30	8.01	22.45	0.86	4.36	8.01	24.69	0.89	4.50	8.01
NJ7N2_1_1	118893	105449	Natural	NJ7N2_1_1	-	-	625	415	3.86	0.040	0.080	0.080	75.24	1.74	5.40	8.02	83.91	1.82	5.50	8.02	89.68	1.87	5.55	8.02	95.45	1.91	5.60	8.02	108.78	1.99	5.78	8.02
CM3_1	119348	1135	Natural	CM3_1	-	-	650	1177	0.79	0.030	0.050	0.050	1.40	9.06	0.49	9.02	1.58	9.16	0.52	9.03	1.69	9.23	0.53	9.03	1.79	9.28	0.54	9.03	2.02	9.41	0.60	9.04
139932	119349	119348	Circular		0.833	-	1	33	0.61	0.013	-	-	3.24	1.50	5.90	7.99	3.67	1.74	6.68	7.99	3.96	1.92	7.20	8.00	4.24	2.09	7.71	7.99	4.90	2.54	8.89	7.79
139928	119350	119349	Circular		2	-	3	33	0.91	0.013	-	-	3.25	1.50	2.30	7.99	3.68	1.74	2.20	8.00	3.97	1.92	2.16	7.97	4.25	2.09	2.20	7.99	4.92	2.54	2.51	7.99
Link1068	119577	Node1328	Circular		4	-	13	20	0.00	0.014	-	-	12.53	10.83	0.99	12.78	12.61	10.92	0.99	13.80	12.72	10.99	1.00	14.42	13.02	11.05	1.03	14.98	-17.70	11.57	-1.39	9.25
CM3N1_4	120512	1131	Circular		4	-	13	81	3.06	0.040	-	-	59.06	7.92	4.68	8.20	62.27	8.08	4.94	8.24	64.51	8.19	5.11	8.48	66.78	8.26	5.29	8.36	70.43	8.45	5.57	8.65
138473	120903	106388	Circular		1.25	-	1	215	2.33	0.013	-	-	9.01	7.20	7.30	7.46	9.04	7.44	7.41	7.29	9.05	7.58	7.22	7.23	9.07	7.69	7.36	7.19	9.08	7.91	7.39	7.42
138403	120904	120903	Circular		1.25	-	1	220	2.27	0.013	-	-	9.02	5.97	7.97	7.45	9.05	6.06	7.98	7.28	9.06	6.12	7.99	7.23	9.07	6.20	8.00	7.19	9.09	6.38	7.94	7.41
138386	120905	120904	Circular		1.25	-	1	40	5.00	0.013	-	-	9.05	4.95	11.06	7.45	9.20	5.05	11.09	8.06	9.39	5.11	11.11	8.07	9.55	5.17	11.13	8.08	9.85	5.34	11.14	8.09
136984	121393	1056	Circular		1.5	-	2	40	15.00	0.013	-	-	3.02	0.80	13.46	8.00	3.42	0.83	13.93	7.50	3.68	0.84	13.98	8.00	3.95	0.86	13.81	8.00	4.56	0.89	12.48	8.00
136973	121394	126061	Circular		1.5	-	2	146	7.23	0.013	-	-	3.02	0.37	9.47	8.00	3.42	0.39	9.81	7.51	3.68	0.40	10.03	8.00	3.95	0.42	10.24	8.00	4.56	0.45	10.67	8.00
CM9_1A	121681	1243	Natural	CM9_1A	-	-	1202	100	19.65	0.040	0.080	0.080	24.30	6.54	0.93	8.01	27.52	6.72	1.00	8.01	29.65	6.90	1.04	8.01	30.95	7.02	1.08	8.01	32.87	7.28	1.14	8.03
137014	121682	121681	Circular		1.25	-	1	15	77.07	0.013	-	-	3.33	0.61	18.66	8.01	3.84	0.66	19.48	8.01	4.18	0.68	20.13	8.01	4.39	0.69	20.59	8.01	4.70	0.69	21.25	8.03
137017	121683	121682	Circular		1.25	-	1	38	3.79	0.013	-	-	3.33	0.50	7.83	8.01	3.84	0.54	8.17	8.01	4.18	0.56	8.38	8.01	4.39	0.58	8.51	8.01	4.70	0.60	8.69	8.03
136216	121920	CM-008-I	Circular		1	-	1	53	10.28	0.014	-	-	4.31	0.49	12.64	8.01	4.87	0.53	13.04	8.01	5.25	0.56	13.29	8.01	5.63	0.58	13.53	8.01	6.51	0.63	14.01	8.01
136214	121921	121920	Circular		1	-	1	73	36.77	0.014	-	-	4.31	0.44	19.21	8.01	4.87	0.48	19.87	8.01	5.25	0.50	20.28	8.01	5.63	0.52	20.68	8.01	6.51	0.57	21.49	8.01
136215	121922	121921	Circular		1	-	1	96	23.83	0.014	-	-	4.31	0.37	16.52	8.01	4.87	0.40	17.09	8.01	5.25	0.41	17.44	8.01	5.63	0.43	17.77	8.01	6.51	0.47	18.47	8.01
136187	121923	121922	Circular		1	-	1	129	15.18	0.014	-	-	4.31	0.41	14.31	8.01	4.87	0.44	14.79	8.01	5.25	0.46	15.08	8.01	5.63	0.48	15.36	8.01	6.51	0.52	15.93	8.01
136186	121924	121923	Circular		1	-	1	49	27.67	0.014	-	-	4.31	0.41	17.82	8.00	4.87	0.44	18.45	8.00	5.25	0.46	18.82	8.00	5.63	0.48	19.18	8.00	6.51	0.52	19.93	8.00

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
136184	121925	121924	Circular		1.25	-	1	66	2.82	0.013	-	-	4.31	0.61	7.63	8.00	4.87	0.66	7.90	8.00	5.25	0.69	8.07	8.00	5.63	0.71	8.23	8.00	6.51	0.78	8.57	8.00
136151	121926	121925	Circular		1.25	-	1	149	9.34	0.013	-	-	4.31	0.61	11.93	8.00	4.87	0.66	12.35	8.00	5.25	0.69	12.61	8.00	5.63	0.71	12.86	8.00	6.51	0.78	13.38	8.00
136034	123120	NJ-012	Circular		3	-	7	130	6.15	0.013	-	-	56.52	1.26	20.47	8.00	63.94	1.35	21.08	8.00	68.90	1.41	21.46	8.00	73.85	1.47	21.84	8.00	85.40	1.61	22.64	8.00
136192	123123	NJ-011	Special		3	0	11	45	8.89	0.024	-	-	60.09	1.06	14.14	8.01	68.00	1.15	14.64	8.01	73.27	1.20	14.95	8.01	78.54	1.26	15.24	8.01	90.83	1.39	15.86	8.00
161325	123213	133468	Circular		1.25	-	1	120	1.93	0.013	-	-	4.52	0.73	7.16	9.85	4.57	0.74	7.18	10.48	4.60	0.74	7.20	10.93	4.63	0.74	7.21	11.38	4.70	0.75	7.24	12.47
161324	123215	123213	Circular		1.25	-	1	255	2.29	0.013	-	-	4.52	0.63	7.75	9.85	4.57	0.63	7.77	10.48	4.60	0.64	7.79	10.93	4.63	0.64	7.80	11.38	4.70	0.64	7.83	12.47
136249	123216	123215	Circular		1	-	1	442	1.50	0.014	-	-	4.52	3.72	5.89	9.84	4.57	3.88	5.94	10.47	4.60	3.98	5.98	10.92	4.63	4.07	6.01	11.37	4.70	4.28	6.09	12.46
136227	123217	123216	Circular		1	-	1	107	3.67	0.014	-	-	5.36	3.72	8.11	8.23	5.52	3.88	8.09	8.29	5.63	3.98	7.90	8.32	5.72	4.07	7.93	8.34	5.91	4.28	7.89	8.34
137381	123327	105023	Circular		1.5	-	2	99	7.07	0.013	-	-	6.71	0.52	12.90	8.01	7.59	0.56	13.35	8.01	8.18	0.58	13.63	8.01	8.76	0.61	13.89	8.01	10.14	0.66	14.44	8.01
137374	123328	123327	Circular		1.5	-	2	427	4.92	0.013	-	-	6.71	0.58	10.91	8.01	7.59	0.62	11.29	8.01	8.18	0.64	11.52	8.01	8.76	0.67	11.74	8.01	10.14	0.73	12.20	8.01
168843	123330	123328	Circular		1.5	-	2	101	6.93	0.013	-	-	6.71	0.58	12.63	8.00	7.59	0.62	13.08	8.00	8.18	0.64	13.34	8.00	8.76	0.67	13.60	8.00	10.14	0.73	14.14	8.00
Link1138	123984	1090	Circular		4	-	13	33	7.52	0.013	-	-	176.60	7.10	15.71	6.33	220.29	7.23	35.05	6.01	206.29	7.28	34.01	5.64	281.22	7.40	22.34	5.39	262.55	7.74	20.86	4.87
138112	123985	285302	Circular		1.5	-	2	56	0.55	0.013	-	-	7.37	3.99	4.13	6.37	8.59	4.19	4.84	5.86	11.25	4.30	6.33	5.63	8.65	4.43	4.83	5.37	7.57	4.76	4.41	4.91
138113	123985	106346	Circular		1.5	-	2	33	0.09	0.013	-	-	8.46	3.73	4.75	6.33	9.21	3.95	5.18	6.01	9.88	4.03	5.56	5.70	11.89	4.19	6.69	5.39	11.24	4.55	6.32	4.87
146228	123987	115242	Circular		2	-	3	160	0.68	0.013	-	-	-16.97	5.99	-5.39	0.15	-16.89	6.08	-5.35	0.15	-16.83	6.15	-5.33	0.15	-16.77	6.20	-5.31	0.15	-16.57	6.33	-5.23	0.15
136929	123990	NJ-003-K	Circular		2.5	-	5	206	1.92	0.013	-	-	23.56	1.48	10.70	9.03	24.10	1.51	10.76	9.35	24.39	1.54	10.79	9.65	24.66	1.56	10.82	10.03	25.07	1.86	10.86	11.17
136924	123992	123990	Circular		2.5	-	5	33	1.03	0.013	-	-	23.56	1.26	9.64	9.02	24.10	1.28	9.69	9.35	24.39	1.29	9.72	9.64	24.66	1.30	9.75	10.02	25.07	1.31	9.80	11.17
136914	123994	123992	Circular		2.5	-	5	35	1.80	0.013	-	-	23.56	1.26	10.25	9.02	24.10	1.28	10.30	9.35	24.39	1.29	10.33	9.64	24.66	1.30	10.36	10.02	25.07	1.31	10.40	11.17
NJ7_1	124233	NJ-007	Natural	NJ7_1	-	-	739	421	9.26	0.040	0.080	0.080	5.22	2.41	1.94	8.00	5.90	2.49	2.04	8.00	6.36	2.53	2.10	8.00	6.82	2.57	2.15	8.00	7.88	2.63	2.26	8.00
170233	124246	126751	Circular		1.25	-	1	103	1.74	0.013	-	-	7.45	1.00	7.49	8.00	8.42	1.13	7.65	8.00	9.08	1.46	7.75	8.00	9.73	1.98	8.28	8.00	11.25	2.77	9.48	8.00
Link1161	124247	1044	Circular		4	-	13	10	38.10	0.014	-	-	7.45	2.68	7.38	8.00	8.42	2.86	8.64	8.00	9.08	2.98	9.21	8.00	9.73	3.09	9.63	8.00	11.26	3.31	10.79	7.92
170462_459	124268	170463	Circular		1	-	1	871	3.50	0.013	-	-	4.46	0.75	7.62	8.00	5.04	0.84	7.74	8.00	5.43	4.47	7.85	8.01	5.57	5.55	7.88	8.02	5.61	5.84	7.88	8.04
170265	124285	1258	Circular		2	-	3	84	1.00	0.013	-	-	21.59	1.56	8.19	8.00	24.43	1.78	8.32	8.00	26.32	2.05	8.54	8.00	28.21	2.19	8.70	8.00	32.63	2.76	10.39	8.00
170260	124290	1259	Circular		1	-	1	103	13.54	0.014	-	-	10.76	4.02	15.85	8.00	12.14	4.34	15.93	8.01	12.95	5.55	16.03	8.01	13.50	6.87	16.60	7.81	13.83	7.42	17.01	8.34
170283	124294	124285	Circular		2	-	3	53	0.21	0.013	-	-	21.59	1.90	7.12	8.00	24.43	2.25	7.50	8.00	26.32	2.65	8.35	8.00	28.21	2.89	8.92	8.00	32.63	3.75	10.33	8.00
170258	124299	124294	Circular		1.75	-	2	175	3.07	0.013	-	-	7.70	1.90	8.11	8.01	8.71	2.25	8.63	8.01	9.43	2.65	8.88	8.01	10.12	2.89	8.95	8.01	11.76	3.75	9.09	8.01
170257	124301	124299	Circular		1.75	-	2	130	9.21	0.013	-	-	7.70	0.63	13.96	8.01	8.71	0.67	14.46	8.01	9.38	0.73	14.66	8.00	10.06	0.78	14.87	8.00	11.64	0.94	15.20	8.00
170286	124308	CM-006-O	Circular		1.5	-	2	46	6.65	0.013	-	-	4.93	0.60	11.03	8.01	5.58	0.64	11.43	8.01	6.01	0.67	11.68	8.01	6.45	0.70	11.91	8.01	7.46	0.75	12.42	8.01
170288	124312	124308	Circular		1.5	-	2	170	6.40	0.013	-	-	4.93	0.44	11.44	8.01	5.58	0.47	11.85	8.01	6.01	0.49	12.11	8.01	6.45	0.51	12.34	8.01	7.46	0.55	12.86	8.01
170287	124313	124312	Circular		1.5	-	2	140	5.38	0.013	-	-	4.93	0.47	10.61	8.01	5.58	0.50	10.99	8.01	6.01	0.52	11.22	8.01	6.45	0.54	11.44	8.01	7.46	0.58	11.92	8.01
170278	124314	124315	Circular		1.5	-	2	105	7.51	0.013	-	-	4.93	0.57	11.56	8.00	5.58	0.61	11.97	8.00	6.01	0.64	12.23	8.00	6.45	0.66	12.47	8.00	7.46	0.72	12.98	8.00
170285	124315	124313	Circular		1.5	-	2	170	2.89	0.013	-	-	4.93	0.57	8.19	8.00	5.58	0.61	8.49	8.00	6.01	0.64	8.66	8.00	6.45	0.66	8.83	8.00	7.46	0.72	9.19	8.00
187559	124492	1128	Circular		3	-	7	40	0.50	0.013	-	-	3.33	4.67	2.35	7.97	3.79	4.86	2.40	8.00	5.18	4.99	2.44	10.97	5.70	5.07	2.49	11.27	6.90	5.30	2.58	10.99
187558	124494	124492	Circular		3	-	7	73	0.52	0.013	-	-	3.34	4.47	2.40	8.01	3.79	4.66	2.43	8.00	5.12	4.81	2.48	10.97	5.64	4.92	2.52	11.27	6.83	5.16	2.61	10.99
187565	124498	124500	Circular		1.75	-	2	70	4.00	0.013	-	-	4.00	4.78	5.26	7.95	4.55	4.99	5.41	8.01	4.91	5.13	5.47	7.99	5.27	5.22	5.57	8.00	6.12	5.47	5.74	8.00
Link1057	124500	1124	Circular		2.5	-	5	78	1.04	0.014	-	-	-4.21	5.59	2.98	20.21	4.56	5.80	3.08	8.01	4.92	5.94	3.11	8.01	5.28	6.03	3.14	7.99	6.11	6.27	3.25	7.97
187557	124514	124494	Circular		2.5	-	5	189	2.01	0.013	-	-	3.34	4.09	4.02	8.01	3.79	4.28	4.15	8.01	4.47	4.48	4.21	11.16	5.13	4.58	4.03	11.03	6.59	4.88	4.34	10.98
CM11_1	124679	CM-006-L	Natural	CM11_1	-	-	507	67	22.91	0.040	0.080	0.080	7.23	0.64	6.12	8.00	8.18	1.95	6.28	8.00	8.81	3.78	6.30	8.01	9.45	5.17	6.32	8.01	10.92	5.85	6.33	8.01
136793	124690	124679	Circular		1.5	-	2	41	7.32	0.013	-	-	7.23	0.56	12.50	8.00	8.18	0.60	12.98	8.00	8.81	0.62	13.67	7.94	9.45	0.63	13.97	7.82	10.92	0.68	14.50	8.00
136420	124706	107218	Circular		1.5	-	2	101	0.52	0.013	-	-	6.75	2.43	3.81	8.01	7.65	2.44	4.31	8.01	8.25	2.54	4.65	8.01	8.85	2.64	4.99	8.01	10.26	2.90	5.77	8.00
136439	125002	125003	Circular		1.25	-	1	24	2.17	0.013	-	-	14.23	1.67	12.09	8.01	16.12	2.04	13.61	8.01	17.37	2.30	14.62	8.01	18.63	2.56	15.62	8.01	21.56	3.20	17.92	8.01
CM13_3B	125003	CM-008	Natural	CM13_3B	-	-	1137	734	5.55	0.040	0.080	0.080	17.12	2.92	2.10	8.01	19.40	3.05	2.11	8.01	20.91	3.13	2.11	8.01	22.43	3.20	2.13	8.01	25.96	3.38	2.15	8.01
CM13N1_1	125012	125002	Natural	CM13N1_1	-	-	2097	463	9.45	0.040	0.080	0.080	11.15	1.67	4.39	8.00	12.61	2.04	4.41	8.00	13.59	2.30	4.40	8.00	14.57	2.56	4.40	8.00	16.84	3.20	4.38	8.00
136982	126061	121393	Circular		1.5	-	2	35	20.00	0.013	-	-	3.02	0.28	14.75	8.00	3.42	0.29	15.46	7.51	3.68	0.31	15.64	8.00	3.95	0.32	15.98	8.00	4.56	0.34	16.66	8.00
Link1054	126075	CMNJ-004-I	Circular		6	-	28	10	1.00	0.014	-	-	9.88	0.87	4.46	8.02	10.98	0.92	4.57	8.02	11.70	0.95	4.64	8.01	12.43	0.98	4.71	8.01	13.91	1.05	4.87	7.93
Link1053	126076	CMNJ-004-I	Circular		10	-	79	10	1.00	0.014	-	-	9.88	0.87	3.55	8.02	10.98	0.92	3.68	8.02	11.70	0.95	3.75	8.01	12.43	0.98	3.83	8.01	13.91	1.05	3.98	7.93
Link1052	126077	CMNJ-004-I	Circular		10	-	79	10	1.00	0.013	-	-	9.88	0.87	3.59	8.02	10.98	0.92	3.71	8.02	11.70	0.95	3.79	8.01	12.43	0.98	3.87	8.01	13.91	1.05	4.02	7.93
135573	126119	NJ-016-A	Circular		2.25	-	4	85	17.65	0.013	-	-	8.29	1.04	14.13	8.00	9.38	1.09	14.74	8.00	10.11	1.12	15.17	8.00	10.84	1.14	15.59	8.00	12.53	1.20	16.47	8.00
136562	126122	126123	Circular		1.5	-	2	3	0.00	0.013	-	-	4.61	0.85	4.49	8.02	5.22	0.90	4.71	8.02	5.62	0.94	4.85	8.02	6.03	0.97	4.99	8.02	6.97	1.05	5.30	8.02
136557	126123	102282	Circular		1.5	-	2	365	10.00	0.013	-	-	5.65	0.47	13.80	8.00	6.39	0.50	14.28	8.00	6.89	0.52	14.59	8.00	7.38	0.54	14.88	8.00	8.54	0.58	15.49	8.00
138410_1	126136	106332	Circular		1.75	-	2	123	0.69	0.013	-	-	5.28	3.91	3.33	7.84	5.83	4.16	3.43	7.54	6.17	4.33	3.47	7.38	6.61	4.45	3.48	7.74	7.64	5.24	3.58	7.59
138410_2	126137	126136	Circular		1.75	-	2	21	0.71	0.013	-	-	5.20	3.07	3.54	7.84	5.79	3.32	3.64	7.62	6.17	3.49	3.63	7.90	6.62	3.61	3.66	7.65	7.65	4.35	3.80	7.98
3100308	126330	NJ-001	Rectangular		8.2	14	115	149	0.00	0.014	-	-	235.17	6.38	3.05	15.84	248.48	6.62	3.11	16.39	250.08	6.78	3.17	19.33	268.18	6.90	3.14	17.07	304.28	7.77	3.41	18.18
170232	126751	124247	Circular		1.25	-	1	67	13.12	0.013	-	-	7.45	0.57	14.63	8.00	8.42	0.61	15.12	8.00	9.08	0.64	15.42	8.00	9.73	0.67	15.70	8.00	11.25	0.73	16.28	7.99
170252	126758	124301	Circular		1.75	-	2	140	8.11	0.013	-	-	7.70	0.50	13.78	8.00	8.71	0.53	14.27	8.00	9.38	0.55	14.58	8.00	10.06	0.57	14.87	8.00	11.64	0.62	15.49	8.00
170277	126765	124314	Circular		1.5	-	2	35	18.17	0.013	-	-	4.93	0.42	16.06	8.00	5.58	0.45	16.66	8.00	6.01	0.47	17.01	8.00	6.45	0.48	17.35	8.00	7.46	0.52	18.10	8.00
CMN1A	127377	Node1339	Natural	CMN1A	-	-	915	200	0.50	0.040	0.080	0.080	13.72	1.72	1.38	8.01	15.55	1.80	1.40	8.01	16.76	1.85	1.42	8.01	17.98	1.90	1.44	8.01	20.80	2.02	1.48	8.01
137406	127447	128610	Circular		1.25	-	1	160	4.02	0.013	-	-	8.19	1.10	10.60	8.00	9.06	3.26	10.75	8.01	9.50	4.30	10.82	8.01	9.83	5.03	10.88	7.85	10.25	6.10	10.99	8.01
137389	127448	127447	Circular		1	-	1	50	2.80	0.014	-	-	3.45	0.72	7.15	8.01	3.71	0.89	7.41	8.03	3.78	1.13	7.46	8.04	4.14	2.22	7.47	8.05	4.28	3.57	7.53	8.12
146027	127449	127448	Circular		1	-	1	40	2.00	0.014	-	-	3.45	0.65	6.53	8.01	3.70	0.68	6.67	8.05	3.75	0.68	6.69	8.08	3.98	1.41	6.69	8.05	4.15	2.60	6.74	8.12
137397	127450	127447	Circular		1.25	-	1	38	5.26	0.013	-	-	4.74	0.72	10.07	8.00	5.36	0.89	10.36	8.00	5.78	1.13	10.47	8.00	6.19	2.22	10.57	8.00	7.16	3.57	10.75	8.00
NJ7N3N_2A	127599	NJ-007-I	Natural	NJ7N3N_2A	-	-	405	135	9.63	0.040	0.080	0.080	4.98	0.75	2.92	8.00	5.64	0.78	3.08	8.00	6.07	0.80	3.19	8.00	6.51	0.82	3.29	8.00	7.53	0.87	3.50	8.00
186755	127600	127599	Circular		1.5	-	2	83.6	4.78	0.013	-	-	4.98	0.55	9.14	8.00	5.64	0.58	9.49	8.00	6.07	0.61	9.70	8.00	6.51	0.63	9.90	8.00	7.53	0.68	10.34	8.00
253358	128025	CMNJ-004-F	Circular		2	-	3	179	1.24	0.013	-	-	14.58	2.30	6.65	8.01	16.46	2.97	6.62	8.02	17.66	3.53	6.60	8.03	19.15	4.12	6.59	8.01	22.15	5.42	6.98	8.01
164472A	128026	128025	Circular		2	-	3	169	13.81	0.014	-	-	3.70	1.29	7.80	8.01	4.20	1.58	7.85	8.01	4.54	2.37	7.79	8.01	4.87	3.17	7.71	8.01	5.63	4.87	8.42	8.00
256940	128029	128026	Circular		1.25	-	1	133	0.65	0.013	-	-	3.70	0.83	4.60	8.01	4.20	0.91	4.78	8.01	4.54	0.95	4.88	8.01	4.87	1.01	4.97	8.01	5.63	1.21	5.11	8.00
NJ2_1	128140	1089	Natural	NJ2_1	-	-	40	33	10.21	0.040	0.080	0.080	-361.64	7.39	4.36	6.57	-392.77	7.52	4.51	6.03	-377.52	7.56	4.54	5.69	-394.64	7.72	4.80	5.40	-380.83	8.10	4.38	4.88
137352	128600	128601	Circular		1.75	-	2	328	9.45	0.013	-	-	5.03	0.46	12.67	8.01	5.69	0.49	13.14	8.01	6.13	0.51	13.43	8.01	6.57	0.53	13.70	8.01	7.60	0.57	14.28	8.01
137335	128601	CM-004-A	Circular		1.75	-	2	180	4.44	0.013	-	-	5.03	0.73	9.21	8.01	5.69	0.78	9.55	8.01	6.13	0.81	9.75	8.01	6.57	0.84	9.95	8.01	7.60	0.91	10.37	8.01
137303	128603	128604	Circular		2	-	3	240	2.08	0.013	-	-	8.42	0.79	7.74	8.00	9.55	0.85	8.16	8.00	10.32	0.88	8.54	7.93	11.07	1.48	8.75	7.84	12.81	1.77	9.22	7.71
Link1081	128604	1236	Circular		4	-	13	78	7.15	0.014	-	-	8.42	5.77	4.42	8.00	9.52	6.12	4.86	7.92	10.29	6.26	5.14	7.97	20.39	6.58	6.49	8.44	24.32	6.77	7.19	8.47
137442	128610	128611	Circular		1.25	-	1	458	2.20	0.013	-	-	8.18	4.13	7.86	8.01	9.05	4.62	7.93	8.01	9.50	4.85	8.00	8.01	9.82	5.03	8.06	7.86	10.25	6.10	8.16	8.01
137543	128611	128612	Circular		1.75	-	2	224	2.20	0.013	-	-	28.77	4.13	11.86	8.07	29.72	4.62	12.21	8.14	30.15	4.85	12.37	8.13	30.49	5.03	12.50	8.14	30.83	5.22	12.62	8.19
137550	128612	128613	Circular		1.75	-	2	25	2.24	0.013	-	-	28.77	1.79	12.03	8.07	29.72	1.84	12.14	8.14	30.15	1.87	12.25	8.13	30.49	1.89	12.34	8.14	30.83	1.91	12.43	8.19
CM8N2_2	128613	115038	Natural	CM8N2_2	-	-	144	290	2.59	0.040	0.080	0.080	28.76	1.55	4.32	8.09	29.71	1.58	4.35	8.14	30.15	1.59	4.37	8.15	30.48	1.59	4.38	8.16	30.83	1.60	4.39	8.22
160642	128710	124706	Circular		2	-	3	52	2.00	0.013	-	-	6.75	2.31	3.68	8.00	7.65	2.44	3.70	8.00	8.25	2.54	3.71	8.00	8.85	2.64	3.72	8.00	10.26	2.90	3.71	8.00
226005	128963	128968	Circular		2	-	3	54.87	2.04	0.013	-	-	14.84	1.03	9.85	8.01	16.80	1.11	10.13	8.01	18.10	1.17	10.30	8.01	19.41	1.22	10.46	8.01	22.45	1.34	10.79	8.01
226006	128964	128963	Circular		2	-	3	141.5	0.54	0.013	-	-	14.84	1.40	6.58	8.00	16.80	1.52	6.84	8.00	18.10	1.60	7.00	8.00	19.41	1.69	7.14	8.00	22.45	2.07	7.41	8.00
226004	128968	165270	Circular		2	-	3	28	2.18	0.013	-	-	14.84	1.23	8.98	8.01	16.80	1.31	9.28	8.01	18.10	1.37	9.47	8.01	19.40	1.42	9.65	8.01	22.45	1.52	10.02	7.96
165566	129963	129964	Circular		2	-	3	80	4.50	0.013	-	-	5.46	1.06	8.37	8.10	5.55	1.06	8.42	8.15	5.61	1.07	8.46	8.17	5.67	1.07	8.49	8.20	5.77	1.08	8.55	8.26

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
NJ7N21_1A1	129964	NJ-007-F	Natural	NJ7N21_1A	-	-	526	33	0.00	0.080	0.040	0.080	5.47	1.06	0.79	8.06	5.55	1.06	0.80	8.14	5.62	1.07	0.80	8.15	5.67	1.07	0.80	8.18	5.77	1.08	0.81	8.24
165565	129965	129966	Circular		2	-	3	80	4.50	0.013	-	-	5.46	1.06	8.37	8.10	5.55	1.06	8.42	8.15	5.61	1.07	8.46	8.17	5.67	1.07	8.49	8.20	5.77	1.08	8.55	8.26
NJ7N21_1A	129966	NJ-007-F	Natural	NJ7N21_1A	-	-	526	33	0.00	0.080	0.040	0.080	5.47	1.06	0.79	8.06	5.55	1.06	0.80	8.14	5.62	1.07	0.80	8.15	5.67	1.07	0.80	8.18	5.77	1.08	0.81	8.24
158067	130307	222429	Circular		1.25	-	1	103.7	7.16	0.013	-	-	3.47	0.42	10.84	8.00	3.94	0.45	11.24	8.00	4.25	0.47	11.48	8.00	4.56	0.49	11.70	8.00	5.28	0.53	12.19	8.00
158068	130308	130309	Circular		1.25	-	1	41	3.66	0.013	-	-	3.47	0.50	7.93	8.01	3.94	0.54	8.23	8.01	4.25	0.56	8.42	8.01	4.56	0.58	8.60	8.01	5.28	0.63	8.98	8.01
158069	130309	130310	Circular		1.25	-	1	25.08	21.53	0.013	-	-	3.47	0.64	13.59	8.01	3.94	0.69	14.09	8.01	4.25	0.72	14.39	8.01	4.56	0.76	14.68	8.01	5.28	0.83	15.30	8.01
184831	130310	169625	Circular		1.25	-	1	116	1.26	0.013	-	-	3.47	0.64	5.63	8.01	3.94	0.69	5.83	8.01	4.25	0.72	5.95	8.01	4.56	0.76	6.06	8.01	5.28	0.83	6.30	8.01
157614	130319	130320	Circular		1.25	-	1	58.88	-0.88	0.013	-	-	4.18	0.91	3.56	8.01	4.76	0.95	4.00	8.01	5.14	1.09	4.49	8.01	5.52	1.19	4.81	8.01	6.42	1.45	5.56	8.01
157615	130320	130321	Circular		1.25	-	1	57.43	9.21	0.013	-	-	4.18	0.39	12.70	8.01	4.76	0.42	13.16	8.01	5.14	0.44	13.45	8.01	5.52	0.45	13.73	8.01	6.42	0.49	14.30	8.01
157617	130321	130327	Circular		1.25	-	1	23.8	12.73	0.013	-	-	4.18	0.52	13.40	8.01	4.76	0.58	13.78	8.01	5.14	0.62	14.02	8.01	5.52	0.66	14.23	8.01	6.42	0.77	14.66	8.01
157619	130324	130325	Circular		1.25	-	1	244.81	28.01	0.013	-	-	4.18	0.33	17.07	8.02	4.76	0.35	17.82	8.02	5.14	0.36	18.29	8.01	5.52	0.37	18.72	8.01	6.41	0.40	19.69	8.01
CM13_2C	130325	Node1349	Natural	CM13_2C	-	-	919	33	8.91	0.040	0.080	0.080	4.18	1.79	0.59	8.02	4.75	1.88	0.62	8.02	5.14	1.93	0.64	8.02	5.52	1.99	0.65	8.02	6.41	2.11	0.69	8.02
157618	130327	130324	Circular		1.25	-	1	200.68	1.76	0.013	-	-	4.18	0.72	6.14	8.01	4.76	0.78	6.34	8.01	5.14	0.82	6.46	8.01	5.52	0.86	6.57	8.01	6.41	0.97	6.77	8.01
170031	130730	130731	Circular		1.25	-	1	200	0.60	0.013	-	-	1.06	0.41	3.21	8.00	1.20	0.44	3.33	8.00	1.29	0.45	3.40	8.00	1.39	0.47	3.47	8.00	1.60	0.50	3.62	7.84
170030	130731	130732	Circular		1.25	-	1	54	0.50	0.013	-	-	1.06	0.41	3.19	7.74	1.20	0.44	3.34	7.79	1.29	0.45	3.43	8.00	1.39	0.47	3.52	8.00	1.60	0.50	3.71	8.00
CM2_1	130732	130733	Natural	CM2_1	-	-	173	1204	1.22	0.040	0.080	0.080	1.06	0.29	1.03	8.01	1.20	0.31	1.07	8.01	1.29	0.32	1.10	8.01	1.38	0.34	1.12	8.01	1.60	0.36	1.18	8.01
170023	130733	130734	Circular		2	-	3	18	1.00	0.013	-	-	1.06	0.29	3.68	8.02	1.20	0.31	3.82	8.02	1.29	0.32	3.90	8.02	1.38	0.34	3.98	8.02	1.60	0.36	4.16	8.02
170021	130734	130735	Circular		2	-	3	49	0.51	0.013	-	-	1.06	0.35	2.98	8.02	1.20	0.37	3.09	8.02	1.29	0.39	3.18	8.02	1.38	0.40	3.26	8.02	1.60	0.42	3.43	8.02
CM2_1B	130735	249362	Natural	CM2_1B	-	-	226	69	5.51	0.040	0.080	0.080	1.30	2.78	0.83	7.73	1.20	2.83	0.86	7.60	1.29	2.86	0.88	8.04	1.38	2.88	0.91	8.01	1.60	2.93	0.96	8.03
154091	131097	131098	Circular		2	-	3	29.7	8.79	0.013	-	-	6.98	0.55	13.28	8.00	7.23	0.56	13.41	8.00	7.39	0.57	13.50	8.00	7.56	0.58	13.58	8.00	7.93	0.59	13.77	8.00
NJ9N1_2_1	131098	106442	Natural	NJ9N1_2_1	-	-	1283	161	5.90	0.040	0.080	0.080	6.98	0.68	3.28	8.00	7.22	0.69	3.31	8.00	7.39	0.70	3.33	8.00	7.56	0.71	3.35	8.00	7.93	0.73	3.40	8.00
Link1069	131427	1203	Circular		4	-	13	10	7.70	0.013	-	-	-54.28	8.67	-7.04	2.24	-59.04	8.76	-7.61	2.07	-64.08	8.83	7.83	2.05	-63.68	8.89	-7.75	1.96	-79.93	9.07	6.79	23.30
160264	131429	CM-003-B	Circular		1.5	-	2	62.1	0.19	0.013	-	-	10.72	7.67	5.94	11.25	-10.30	7.76	-5.68	8.36	-10.06	7.83	-5.55	8.28	-9.80	7.89	-5.41	8.03	-9.42	8.07	-5.19	8.99
160263	131430	131429	Circular		1.5	-	2	113.9	0.17	0.013	-	-	-7.72	7.18	-4.27	8.65	-7.61	7.29	-4.21	8.76	-7.53	7.35	-4.16	8.73	-7.43	7.41	-4.11	8.81	-7.31	7.57	-4.04	9.19
160261	131431	102711	Circular		1.75	-	2	33	0.30	0.013	-	-	9.87	8.33	4.03	7.24	9.21	8.45	3.76	7.18	8.12	8.52	3.32	6.35	7.96	8.59	3.25	6.63	10.61	8.84	4.34	23.34
160262	131431	131430	Circular		1.5	-	2	62.5	0.11	0.013	-	-	-4.97	6.56	-2.96	24.40	-6.64	6.67	-3.71	18.12	-5.08	6.74	-2.95	24.09	-5.10	6.81	-2.95	24.09	-9.06	7.01	-5.06	23.34
160260	131432	131431	Circular		1.5	-	2	166.7	1.75	0.013	-	-	7.21	8.28	4.11	7.36	6.66	8.40	4.27	7.64	6.26	8.48	4.38	7.57	5.74	8.55	4.47	7.43	4.73	8.78	4.64	16.75
152787	131718	125003	Circular		1.5	-	2	146.34	2.10	0.013	-	-	2.92	0.70	6.13	8.01	3.30	0.74	6.37	8.01	3.56	0.76	6.52	8.01	3.82	0.79	6.66	8.01	4.42	0.84	6.95	8.01
152792	131719	131718	Circular		1	-	1	135	16.50	0.014	-	-	2.92	0.32	13.66	8.01	3.30	0.34	14.14	8.01	3.56	0.35	14.45	8.01	3.82	0.37	14.73	8.01	4.42	0.40	15.33	8.01
152778	131720	131719	Circular		1	-	1	164.9	16.50	0.014	-	-	2.92	0.32	13.66	8.01	3.30	0.34	14.14	8.01	3.56	0.35	14.45	8.01	3.82	0.37	14.73	8.01	4.42	0.40	15.33	8.01
152777	131721	131720	Circular		1	-	1	20	4.50	0.013	-	-	2.92	0.46	8.59	8.00	3.30	0.49	8.91	8.00	3.56	0.52	9.12	8.00	3.82	0.54	9.30	8.00	4.42	0.58	9.71	8.00
152785	131724	131721	Circular		1.25	-	1	10	3.00	0.013	-	-	2.92	0.46	7.48	8.00	3.30	0.49	7.73	8.00	3.56	0.52	7.88	8.00	3.82	0.54	8.02	8.00	4.42	0.58	8.32	8.00
157624	131998	1053	Circular		0.5	-	0	45	5.58	0.013	-	-	2.43	6.87	11.53	13.76	2.47	7.11	11.70	14.44	2.50	7.26	11.83	17.68	2.55	7.40	12.14	24.57	2.66	7.68	12.56	24.65
Link1162	132013	1052	Circular		4	-	13	10	70.40	0.013	-	-	0.00	5.05	0.00	0.00	0.00	5.51	0.00	0.00	0.00	5.82	0.00	0.00	0.00	6.17	0.00	0.00	-5.47	7.17	1.23	8.07
157639	132014	132013	Circular		0.5	-	0	10	0.40	0.014	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	0.34	1.75	8.02
157638	132015	132014	Circular		1.5	-	2	15	27.60	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
CM9_2	132126	1241	Natural	CM9_2	-	-	1257	33	3.76	0.040	0.080	0.080	3.65	7.59	1.13	7.54	4.09	7.85	1.24	7.42	4.40	8.05	1.31	7.38	4.71	8.20	1.38	7.34	5.55	8.49	1.55	7.99
NJ3S22_4	132717	115350	Natural	NJ3S22_4	-	-	260	155	2.99	0.040	0.080	0.080	3.13	3.11	1.35	8.01	3.54	3.41	1.36	8.01	3.82	3.61	1.36	8.01	4.09	3.82	1.36	8.01	4.73	4.29	1.34	8.01
157951	132718	132717	Circular		1.5	-	2	115.99	1.19	0.013	-	-	3.13	0.59	5.13	8.01	3.54	0.63	5.33	8.01	3.82	0.66	5.45	8.00	4.09	0.68	5.57	8.00	4.73	0.74	5.81	8.00
164495	132720	115350	Circular		1.5	-	2	130.65	0.97	0.013	-	-	4.65	3.11	4.98	8.02	4.74	3.41	4.98	8.25	4.83	3.61	4.98	8.27	4.94	3.82	4.99	8.34	5.13	4.29	5.07	8.51
157941	132721	132720	Circular		1.5	-	2	190.4	0.20	0.013	-	-	4.78	2.09	3.42	7.51	4.94	2.39	3.45	7.37	5.05	2.60	3.47	7.32	5.11	2.84	3.48	7.27	5.32	3.32	3.53	7.21
NJ8_1	133316	1026	Natural	NJ8_1	-	-	946	104	6.32	0.040	0.080	0.080	-19.81	15.16	0.66	7.82	48.45	16.44	0.69	11.66	42.19	17.07	0.72	12.73	54.39	17.54	0.75	13.80	-94.38	18.34	0.82	8.46
160373	133317	133316	Circular		2	-	3	23	13.04	0.013	-	-	12.77	8.59	17.48	7.91	30.65	9.87	14.80	11.74	26.54	10.50	14.23	12.73	28.81	10.97	14.49	13.79	19.28	11.77	14.47	7.37
160372	133318	133317	Circular		2	-	3	53.01	24.15	0.013	-	-	12.75	5.60	22.95	8.00	14.43	6.88	23.52	8.00	15.54	7.51	23.37	8.00	16.66	7.98	22.91	7.97	19.27	8.79	19.86	7.99
160371	133319	133318	Circular		2	-	3	134.9	1.05	0.013	-	-	12.75	1.15	7.38	8.00	14.42	1.23	7.67	8.01	15.54	1.29	7.85	8.00	16.66	1.34	8.02	8.00	19.26	1.48	8.37	8.00
160370	133320	133319	Circular		2	-	3	31.53	9.55	0.013	-	-	12.75	1.15	14.74	8.01	14.42	1.23	15.28	8.01	15.54	1.29	15.61	8.01	16.66	1.34	15.92	8.01	19.26	1.48	16.59	8.01
160369	133321	133320	Circular		2	-	3	195	4.91	0.013	-	-	12.75	0.74	12.47	8.01	14.42	0.79	12.90	8.01	15.54	0.82	13.18	8.01	16.66	0.85	13.43	8.01	19.26	0.93	13.97	8.01
160335	133334	1014	Circular		3.5	-	10	16.33	0.49	0.013	-	-	9.99	3.48	1.09	8.01	11.31	3.60	1.20	7.99	12.18	3.67	1.27	8.00	13.06	3.74	1.35	8.01	15.11	3.91	1.54	8.01
160334	133335	133334	Circular		2.5	-	5	120.83	16.83	0.013	-	-	9.98	3.41	10.29	8.00	11.30	3.52	11.14	8.00	12.17	3.59	11.67	8.01	13.05	3.66	12.19	8.01	15.09	3.83	13.33	8.00
160338	133336	133335	Circular		2.5	-	5	24.39	2.05	0.013	-	-	9.98	0.71	9.21	8.00	11.30	0.75	9.62	8.01	12.17	0.78	9.88	8.01	13.05	0.80	10.12	8.00	15.09	0.86	10.65	8.00
160333	133337	133336	Circular		2.5	-	5	344.47	6.36	0.013	-	-	4.41	0.71	8.92	8.01	4.99	0.75	9.27	8.01	5.37	0.78	9.49	8.01	5.74	0.80	9.70	8.01	6.65	0.86	10.14	8.01
255482	133337	133342	Circular		3	-	7	64	3.03	0.013	-	-	3.38	0.47	6.90	8.01	3.83	0.50	7.16	8.01	4.14	0.52	7.32	8.01	4.44	0.54	7.48	8.01	5.14	0.59	7.81	8.01
160320	133338	133337	Circular		2.5	-	5	198.84	1.13	0.013	-	-	7.79	0.81	6.10	8.01	8.82	0.86	6.34	8.00	9.50	0.89	6.49	8.00	10.19	0.93	6.64	8.00	11.78	1.00	6.95	8.00
160319	133339	133338	Circular		2.5	-	5	205.8	1.67	0.013	-	-	7.79	0.81	7.44	8.00	8.82	0.86	7.72	8.00	9.50	0.89	7.88	8.00	10.19	0.93	8.04	8.00	11.78	1.00	8.39	8.00
160341	133340	133336	Circular		2	-	3	53.28	0.49	0.013	-	-	5.57	0.82	4.59	8.01	6.31	0.88	4.75	8.00	6.81	0.92	4.84	8.01	7.30	0.96	4.93	8.01	8.45	1.04	5.13	8.00
160332	133341	133340	Circular		2	-	3	161	5.24	0.013	-	-	5.57	0.44	10.75	8.01	6.31	0.47	11.16	8.01	6.81	0.49	11.41	8.01	7.30	0.51	11.64	8.01	8.45	0.55	12.14	8.01
160331	133342	133341	Circular		2	-	3	139.6	4.36	0.013	-	-	5.57	0.47	9.89	8.01	6.31	0.50	10.25	8.01	6.81	0.52	10.47	8.01	7.30	0.54	10.69	8.00	8.45	0.59	11.15	8.00
160321	133343	133342	Circular		2	-	3	29.3	3.72	0.013	-	-	0.00	0.47	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.59	0.00	0.00
256120	133343	241951	Circular		2	-	3	219.2	2.36	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160312	133347	1014	Circular		2	-	3	12.19	0.57	0.013	-	-	7.79	3.48	2.47	7.91	8.81	3.60	2.79	7.99	9.49	3.67	3.01	7.96	10.17	3.74	3.22	7.86	11.76	3.91	3.72	7.98
160311	133348	133347	Circular		1.5	-	2	67.36	12.50	0.013	-	-	7.77	3.42	12.97	8.01	8.80	3.54	13.77	8.01	9.48	3.62	14.27	7.97	10.16	3.69	14.74	8.00	11.75	3.87	15.47	7.98
160310	133349	133348	Circular		1.5	-	2	73.53	6.31	0.013	-	-	7.77	0.60	12.19	8.01	8.80	0.64	12.61	8.01	9.48	0.67	12.88	7.97	10.16	0.69	13.17	7.99	11.75	0.75	13.81	7.99
160318	133350	133349	Circular		1.5	-	2	207.61	2.13	0.013	-	-	7.77	0.82	8.14	8.00	8.80	0.89	8.40	8.00	9.48	0.93	8.56	7.97	10.16	0.97	8.70	8.00	11.75	1.08	8.97	8.00
160309	133352	133349	Circular		1.25	-	1	40	7.90	0.013	-	-	0.00	0.60	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.75	0.00	0.00
160339	133357	133340	Circular		1.5	-	2	9.54	1.05	0.013	-	-	-0.09	0.82	-0.75	1.02	-0.10	0.88	-0.80	0.90	-0.12	0.92	-0.83	0.84	-0.12	0.96	-0.86	0.78	-0.13	1.04	-0.92	0.68
160340	133358	133336	Circular		1.25	-	1	41.22	2.52	0.013	-	-	0.00	0.71	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.86	0.00	0.00
160308	133371	133350	Circular		1.25	-	1	214.99	3.07	0.013	-	-	7.77	0.82	9.84	8.00	8.80	0.89	10.11	8.00	9.48	0.93	10.26	8.00	10.16	0.97	10.37	8.00	11.75	1.08	10.48	8.00
160289	133379	Node1372	Circular		2	-	3	7.54	0.66	0.013	-	-	15.11	1.38	6.54	8.00	17.10	1.49	6.80	8.00	18.42	1.55	7.06	8.00	19.75	1.61	7.31	8.00	22.83	1.72	7.95	8.00
160288	133380	133379	Circular		1.25	-	1	39.94	1.05	0.013	-	-	15.11	3.09	12.16	8.00	17.10	3.79	13.72	8.00	18.42	4.29	14.79	8.00	19.75	4.82	15.83	8.00	22.83	6.12	18.20	8.00
160287	133386	133380	Circular		1.25	-	1	74.59	9.01	0.013	-	-	7.29	3.09	12.09	8.00	8.25	3.79	12.11	8.00	8.88	4.29	12.13	8.00	9.52	4.82	12.13	8.00	11.10	6.12	12.13	8.01
160283	133406	133321	Circular		2	-	3	152.99	2.94	0.013	-	-	12.75	0.81	10.84	8.00	14.42	0.87	11.21	8.00	15.54	0.91	11.43	8.00	16.66	0.94	11.65	8.00	19.26	1.02	12.10	8.00
157890	133407	133406	Circular		1.25	-	1	227	9.91	0.013	-	-	12.75	0.81	17.22	8.00	14.42	0.87	17.73	8.00	15.54	0.91	18.03	8.00	16.66	0.94	18.30	8.00	19.26	1.02	18.75	8.00
157897	133408	133407	Circular		1.25	-	1	100	10.99	0.013	-	-	12.75	0.72	18.13	8.00	14.42	0.78	18.64	8.00	15.54	0.82	18.93	8.00	16.66	0.86	19.20	8.00	19.26	0.97	19.64	8.00
157835	133415	NJ-008-A	Circular		1.25	-	1	180.24	5.59	0.013	-	-	4.09	0.70	9.77	8.01	4.63	0.76	10.10	8.00	4.99	0.80	10.30	8.00	5.35	0.84	10.49	8.00	6.19	0.94	10.87	8.00
157895	133417	133415	Circular		1.25	-	1	138.25	8.63	0.013	-	-	4.09	0.44	12.12	8.00	4.63	0.47	12.55	8.00	4.99	0.49	12.81	8.00	5.35	0.51	13.06	8.00	6.19	0.55	13.59	8.00
157894	133418	133417	Circular		1.25	-	1	156.76	5.71	0.013	-	-	4.09	0.46	10.15	8.00	4.63	0.49	10.51	8.00	4.99	0.51	10.73	8.00	5.35	0.53	10.93	8.00	6.19	0.58	11.37	8.00
160282	133419	133418	Circular		1.25	-	1	31.24	5.92	0.013	-	-	4.09	0.46	10.67	8.00	4.63	0.49	11.05	8.00	4.99	0.51	11.27	8.00	5.35	0.53	11.49	8.00	6.19	0.58	11.94	8.00
CM13_1	133444	Node1348	Natural	CM13_1	-	-	1588	1062	1.79	0.040	0.080	0.080	45.77	2.44	3.73	8.01	51.22	2.58	3.84	8.01	54.85	2.68	3.91	8.01	58.48	2.78	3.98	8.01	66.99	3.02	4.12	8.01
161347	133445	133444	Circular		2	-	3	50	33.30	0.013	-	-	7.34	1.35	14.61	8.00	7.73	1.42	14.68	8.00	8.00	1.47	14.78	8.00	8.26	1.52	14.96	8.00	8.88	1.62	15.20	8.00
161346	133446	133445	Circular		2	-	3	13	19.92	0.013	-	-	7.34	0.38	17.80	8.00	7.73	0.39	18.09	8.00	8.00	0.40	18.27	8.00	8.26	0.41	18.45	8.00	8.88	0.42	18.84	8.00

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
161335	133447	161307	Circular		1.5	-	2	28	6.39	0.013	-	-	4.98	0.46	11.47	8.01	5.07	0.46	11.54	8.01	5.13	0.46	11.58	8.01	5.18	0.46	11.62	8.01	5.32	0.47	11.73	8.01
161334	133448	133447	Circular		1.5	-	2	112	15.95	0.013	-	-	4.98	0.44	15.36	8.01	5.07	0.44	15.44	8.01	5.13	0.45	15.49	8.01	5.18	0.45	15.54	8.01	5.32	0.46	15.66	8.01
161333	133449	133448	Circular		1.5	-	2	16	15.13	0.013	-	-	4.98	0.36	15.57	8.01	5.07	0.36	15.65	8.01	5.13	0.36	15.70	8.01	5.18	0.36	15.75	8.01	5.32	0.37	15.87	8.01
161331	133450	161300	Circular		1.5	-	2	219	14.10	0.013	-	-	4.98	0.37	14.84	8.01	5.07	0.37	14.91	8.01	5.13	0.38	14.96	8.01	5.18	0.38	15.01	8.01	5.32	0.38	15.12	8.01
161328	133452	CM-008-D	Circular		1.5	-	2	99.5	4.81	0.013	-	-	4.52	0.47	10.11	9.86	4.57	0.47	10.14	10.49	4.60	0.47	10.16	10.94	4.63	0.48	10.18	11.39	4.70	0.48	10.22	12.48
161352	133457	133446	Circular		1.5	-	2	128.15	7.07	0.013	-	-	2.36	0.38	9.20	8.00	2.67	0.39	9.60	8.00	2.87	0.40	9.85	8.00	3.08	0.41	10.09	8.00	3.56	0.42	10.61	8.00
CM13_1A	133462	133444	Natural	CM13_1A	-	-	1043	33	36.36	0.040	0.080	0.080	19.22	1.35	6.59	8.01	21.74	1.42	6.93	8.01	23.43	1.47	7.12	8.01	25.11	1.52	7.27	8.01	29.05	1.62	7.62	8.00
CM13_1B	133463	133444	Natural	CM13_1B	-	-	906	33	36.36	0.040	0.080	0.080	19.23	1.35	6.72	8.01	21.76	1.42	7.00	8.01	23.45	1.47	7.17	8.01	25.13	1.52	7.34	8.01	29.07	1.62	7.70	8.00
161351	133464	133462	Circular		3	-	7	68	2.94	0.013	-	-	19.22	0.93	11.10	8.00	21.74	0.99	11.55	8.00	23.43	1.02	11.83	8.00	25.11	1.06	12.10	8.00	29.05	1.14	12.69	8.00
161350	133465	133463	Circular		3	-	7	68	2.94	0.013	-	-	19.23	0.93	11.10	8.00	21.76	0.99	11.56	8.00	23.45	1.02	11.84	8.00	25.13	1.06	12.11	8.00	29.07	1.14	12.69	8.00
161327	133468	133452	Circular		1.25	-	1	192	1.67	0.013	-	-	4.52	0.73	6.34	9.86	4.57	0.74	6.36	10.49	4.60	0.74	6.37	10.94	4.63	0.74	6.38	11.39	4.70	0.75	6.41	12.48
NJ10S1_A	133737	159520	Natural	NJ10S1_A	-	-	108	33	3.70	0.040	0.080	0.080	13.13	3.32	3.73	9.41	13.28	3.46	3.73	10.06	13.35	3.54	3.73	10.58	13.47	3.63	3.73	10.98	13.69	3.83	3.73	12.58
162346	133738	133737	Circular		1.25	-	1	59.75	0.44	0.013	-	-	12.92	4.17	10.39	9.42	13.10	4.36	10.52	10.07	13.20	4.49	10.59	10.57	13.31	4.61	10.67	11.15	13.53	4.89	10.84	12.66
Link707	133753	CM-005-F	Circular		1	-	1	1430	8.79	0.014	-	-	8.41	0.82	13.85	8.01	9.52	0.89	14.09	8.01	10.27	0.95	14.13	8.01	10.32	4.47	14.35	8.22	10.26	4.77	14.44	8.68
187658	156274	CM-003-R	Circular		2.5	-	5	40	0.60	0.013	-	-	16.82	1.24	6.99	8.01	19.03	1.33	7.24	8.01	20.51	1.39	7.43	8.01	21.99	1.44	7.60	8.01	25.44	1.56	7.99	8.01
Link1221	159518	Node1373	Trapezoidal		10	5	250	707	24.79	0.035	-	-	12.87	1.53	5.92	9.48	13.06	1.58	5.92	10.13	13.17	1.61	5.95	10.62	13.28	1.63	5.97	11.20	13.51	1.70	6.07	12.70
162315	159519	159518	Circular		1.5	-	2	55	1.71	0.013	-	-	12.87	1.19	9.37	9.46	13.06	1.20	9.40	10.10	13.17	1.21	9.42	10.60	13.28	1.22	9.44	11.19	13.51	1.24	9.47	12.68
162316	159520	159519	Circular		1.25	-	1	110	0.42	0.013	-	-	12.87	4.89	10.34	9.47	13.06	5.03	10.48	10.11	13.17	5.11	10.55	10.60	13.28	5.20	10.64	11.19	13.52	5.40	10.81	12.69
NJ10_1	159526	1012	Natural	NJ10_1	-	-	52	721	13.73	0.040	0.080	0.080	23.84	3.19	2.69	8.01	26.99	3.42	2.69	8.01	29.15	3.57	2.69	8.01	31.26	3.71	2.69	8.01	34.81	4.00	2.68	8.01
172616	159527	159526	Circular		2	-	3	46.83	1.60	0.013	-	-	15.95	1.07	9.74	8.04	18.07	1.15	10.14	8.04	19.46	1.19	10.39	8.04	20.86	1.24	10.63	8.04	22.74	1.31	10.95	8.08
172615	159528	159527	Circular		2	-	3	207.09	1.89	0.013	-	-	15.95	1.07	9.89	8.04	18.07	1.15	10.22	8.04	19.46	1.19	10.40	8.04	20.87	1.24	10.57	8.03	22.74	1.31	10.77	8.07
172613	159529	159528	Circular		2	-	3	269.58	0.88	0.013	-	-	15.95	1.36	7.26	8.04	18.07	1.49	7.48	8.04	19.46	1.57	7.60	8.03	20.87	1.67	7.71	8.03	22.74	1.84	7.86	8.07
172614	159530	159529	Circular		2	-	3	90.37	1.02	0.013	-	-	15.95	1.36	7.54	8.03	18.06	1.49	7.71	8.03	19.47	1.57	7.79	8.03	20.87	1.67	7.84	8.02	22.74	1.84	7.87	8.05
172620	159531	159530	Circular		2	-	3	156.96	0.68	0.013	-	-	15.95	1.41	6.87	8.03	18.06	1.54	7.05	8.02	19.47	1.65	7.13	8.02	20.87	1.77	7.20	8.02	22.74	2.17	7.25	8.05
172618	159532	159531	Circular		2	-	3	160.07	0.60	0.013	-	-	15.95	1.49	6.44	8.03	18.06	1.65	6.57	8.02	19.47	1.79	6.61	8.02	20.87	2.12	6.66	8.02	22.75	2.81	7.20	8.04
172619	159533	159532	Circular		1.75	-	2	70.77	0.86	0.013	-	-	15.95	1.53	7.17	8.02	18.06	1.90	7.29	8.02	19.47	2.25	8.07	8.01	20.87	2.72	8.62	8.01	22.75	3.64	9.39	8.04
172621	159534	159533	Circular		1.75	-	2	68.29	0.94	0.013	-	-	15.96	1.53	7.19	8.02	18.07	2.07	7.21	8.01	19.47	2.63	8.07	8.01	20.87	3.26	8.63	8.01	22.75	4.39	9.37	8.03
172625	159536	159534	Circular		1.75	-	2	26.21	1.03	0.013	-	-	15.96	1.53	7.27	8.02	18.09	2.12	7.28	8.01	19.49	2.76	8.07	8.00	20.89	3.44	8.63	8.00	22.77	4.65	9.37	8.04
172624	159537	159536	Circular		1.75	-	2	48.74	5.83	0.013	-	-	15.96	1.50	13.52	8.02	18.07	2.12	13.50	8.01	19.47	2.76	13.50	8.00	20.87	3.44	13.50	8.00	22.75	4.65	13.51	8.02
172622	159538	159537	Circular		1.75	-	2	65.59	0.79	0.013	-	-	15.96	1.38	8.26	8.02	18.07	1.52	8.53	8.01	19.47	1.66	8.55	8.01	20.87	1.98	8.56	8.01	22.75	3.62	9.40	8.03
172627	159539	159538	Circular		1.75	-	2	53.52	0.82	0.013	-	-	15.96	1.48	7.43	8.01	18.07	1.76	7.68	8.01	19.47	1.95	7.79	8.01	20.87	2.46	8.62	8.01	22.75	4.26	9.37	8.02
172623	159540	159539	Circular		1.75	-	2	160.19	0.55	0.013	-	-	15.96	2.16	6.61	8.01	18.07	2.95	7.48	8.00	19.47	3.44	8.01	8.00	20.87	4.32	8.60	8.00	22.75	6.60	9.30	8.02
3013898	159953	1209	Natural	3013898	-	-	1291	421	0.60	0.060	0.074	0.080	237.41	7.63	3.32	9.02	242.58	7.73	3.31	9.04	247.77	7.79	3.30	8.97	252.08	7.85	3.30	8.99	260.37	7.95	3.33	8.94
3041133	159953	1266	Natural	3041133	-	-	2879	250	-2.33	0.080	0.080	0.080	283.67	6.73	0.05	8.98	335.90	6.80	0.06	9.02	388.62	6.87	0.07	8.93	430.71	6.93	0.07	8.96	520.46	7.03	0.09	8.90
161332	161300	133449	Circular		1.5	-	2	55	17.58	0.013	-	-	4.98	0.36	16.40	8.01	5.07	0.36	16.49	8.01	5.13	0.36	16.54	8.01	5.18	0.36	16.60	8.01	5.32	0.37	16.73	8.01
161336	161307	133446	Circular		1.5	-	2	82	7.00	0.013	-	-	4.98	0.46	11.33	8.00	5.07	0.46	11.46	8.00	5.12	0.46	11.54	8.00	5.18	0.46	11.63	8.00	5.32	0.47	11.82	8.00
NJ5_21	161641	NJ-005-E	Trapezoidal		10	25	350	130	3.10	0.014	-	-	2.05	0.05	1.85	8.01	2.32	0.05	1.94	8.01	2.50	0.05	2.00	8.00	2.68	0.06	2.06	8.00	3.10	0.06	2.18	8.00
187309	161642	161641	Circular		2	-	3	7.93	1.51	0.013	-	-	2.05	0.33	6.63	8.00	2.32	0.35	6.96	8.00	2.50	0.36	7.16	8.00	2.68	0.37	7.37	8.00	3.10	0.39	7.81	8.00
187308	161643	161642	Circular		2	-	3	7.82	48.47	0.013	-	-	2.05	0.33	14.66	8.00	2.32	0.35	15.23	8.00	2.50	0.36	15.59	8.00	2.68	0.37	15.93	8.00	3.10	0.39	16.70	8.00
187307	161644	161643	Circular		2	-	3	52.5	3.77	0.013	-	-	2.05	0.34	6.30	8.00	2.32	0.36	6.54	8.00	2.50	0.37	6.69	8.00	2.68	0.38	6.85	8.00	3.10	0.41	7.17	8.00
138993	165270	126075	Circular		2	-	3	97	0.35	0.013	-	-	9.88	1.23	4.92	8.01	10.98	1.31	5.08	8.01	11.70	1.37	5.19	8.01	12.43	1.42	5.29	8.01	13.91	1.52	5.49	7.93
139002	165270	126077	Circular		2	-	3	97	0.35	0.013	-	-	9.88	1.23	4.92	8.01	10.98	1.31	5.08	8.01	11.70	1.37	5.19	8.01	12.43	1.42	5.29	8.01	13.91	1.52	5.49	7.93
147126	165270	126076	Circular		2	-	3	97	0.35	0.013	-	-	9.88	1.23	4.92	8.01	10.98	1.31	5.08	8.01	11.70	1.37	5.19	8.01	12.43	1.42	5.29	8.01	13.91	1.52	5.49	7.93
160375	167812	133318	Circular		1.5	-	2	10	3.00	0.013	-	-	-0.18	0.46	1.55	8.10	-0.24	0.49	1.67	8.09	-0.23	0.51	1.66	8.13	-0.24	0.52	1.72	8.14	-0.26	0.56	1.73	8.20
CM13S2	168343	CM-008-I	Natural	CM13S2	-	-	975	2347	8.16	0.040	0.080	0.080	12.34	0.77	4.93	8.00	13.97	0.83	5.18	8.00	15.05	0.87	5.33	8.00	16.13	0.91	5.48	8.00	18.67	0.96	5.70	8.00
184841	169621	NJ-007-L	Circular		1.333	-	1	18.5	6.76	0.013	-	-	3.47	0.59	9.90	8.02	3.93	0.62	10.29	8.02	4.25	0.64	10.54	8.02	4.56	0.66	10.75	8.02	5.28	0.71	11.17	8.02
184840	169622	169621	Circular		1.333	-	1	39	4.54	0.013	-	-	3.47	0.42	9.29	8.02	3.93	0.45	9.63	8.02	4.24	0.46	9.83	8.02	4.56	0.48	10.03	8.02	5.28	0.52	10.44	8.02
184834	169623	169622	Circular		1.333	-	1	69	1.58	0.013	-	-	3.47	0.59	6.09	8.01	3.93	0.63	6.32	8.01	4.25	0.66	6.46	8.01	4.56	0.68	6.60	8.01	5.28	0.74	6.89	8.01
184833	169624	169623	Circular		1.333	-	1	90	2.32	0.013	-	-	3.47	0.59	7.12	8.01	3.93	0.63	7.37	8.01	4.25	0.66	7.52	8.01	4.56	0.68	7.67	8.01	5.28	0.74	7.97	8.01
184832	169625	169624	Circular		1.333	-	1	104	2.39	0.013	-	-	3.47	0.50	7.37	8.01	3.94	0.53	7.63	8.01	4.25	0.56	7.79	8.01	4.56	0.58	7.93	8.01	5.28	0.63	8.24	8.01
CM9_1	170463	1244	Natural	CM9_1	-	-	1202	228	7.16	0.040	0.080	0.080	4.46	3.25	0.55	8.00	5.04	3.51	0.57	8.00	5.43	3.77	0.56	8.01	5.57	3.97	0.57	8.04	5.61	4.34	0.61	8.08
NJ1_1	172817	106326	Natural	NJ1_1	-	-	27	311	0.00	0.040	0.080	0.080	4.10	1.11	0.99	8.00	4.64	1.17	1.04	8.00	4.99	1.20	1.07	8.01	5.35	1.24	1.10	8.01	6.19	1.31	1.17	8.00
188849	172818	172817	Circular		1.25	-	1	230	1.50	0.013	-	-	4.10	1.11	6.01	8.00	4.64	1.17	6.25	8.00	5.00	1.20	6.38	8.00	5.35	1.24	6.46	8.00	6.19	1.31	6.67	7.99
187564	187570	124498	Circular		1.75	-	2	248	1.25	0.013	-	-	4.03	1.98	5.83	8.01	4.57	2.20	5.90	8.01	4.93	2.34	5.84	8.01	5.28	2.43	5.54	8.00	6.12	2.68	5.58	8.01
189232	189233	127449	Circular		1	-	1	117	0.33	0.014	-	-	3.45	1.69	4.52	8.01	3.70	1.87	4.83	8.04	3.75	1.90	4.88	8.07	3.83	2.08	4.95	8.06	4.00	2.77	5.16	8.13
CM10N2_3	189268	CM-006-B	Natural	CM10N2_3	-	-	677	404	8.17	0.040	0.080	0.080	4.61	1.08	2.83	8.00	5.22	1.14	2.94	8.00	5.62	1.18	3.02	8.00	6.03	1.22	3.09	8.00	6.97	1.31	3.25	8.00
191155	189612	133380	Circular		1.25	-	1	163.73	10.28	0.013	-	-	7.82	3.09	13.66	8.00	8.85	3.79	14.37	8.00	9.54	4.29	14.71	8.00	10.22	4.82	14.78	8.00	11.82	6.12	14.82	8.00
NJ10_2	189625	1012	Natural	NJ10_2	-	-	2718	483	8.90	0.040	0.080	0.080	67.08	3.19	6.26	8.01	75.91	3.42	6.44	8.01	81.79	3.57	6.57	8.01	87.67	3.71	6.68	8.01	101.40	4.00	6.84	8.01
191182	189626	189625	Circular		1.25	-	1	219.08	4.65	0.013	-	-	5.30	1.18	9.29	8.02	5.99	1.24	9.72	8.01	6.46	1.28	9.99	8.01	6.92	1.32	10.24	8.01	8.01	1.41	10.78	8.01
191183	189627	189626	Circular		1.25	-	1	36.86	2.69	0.013	-	-	0.00	0.54	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.68	0.00	0.00
193509	193397	189612	Circular		1.25	-	1	97.08	2.51	0.013	-	-	5.31	0.68	8.07	8.00	6.01	0.73	8.34	8.00	6.48	0.76	8.51	8.00	6.94	0.79	8.70	8.00	8.03	0.86	9.10	8.00
CM10N3_11	194360	Node1345	Natural	CM10N3_11	-	-	669	100	0.65	0.040	0.080	0.080	1.39	0.44	1.01	8.00	1.57	0.46	1.04	8.00	1.70	0.48	1.06	8.00	1.82	0.49	1.08	8.00	2.10	0.52	1.12	8.00
194431	194361	194360	Circular		1.5	-	2	26.6	1.32	0.013	-	-	1.39	0.43	4.19	8.00	1.57	0.46	4.33	8.00	1.70	0.47	4.42	8.00	1.82	0.49	4.51	8.00	2.10	0.51	4.73	8.00
CM10N3_2	194363	Node1345	Natural	CM10N3_2	-	-	669	100	9.00	0.040	0.080	0.080	2.87	0.44	3.08	8.01	3.25	0.46	3.17	8.00	3.51	0.48	3.23	8.00	3.76	0.49	3.28	8.00	4.35	0.52	3.40	8.00
194429	194364	194363	Circular		1.5	-	2	33.7	1.63	0.013	-	-	2.88	5.03	2.22	8.00	3.26	5.04	2.29	8.00	3.51	5.05	2.26	7.99	3.76	5.06	2.10	8.00	4.36	5.09	2.43	8.00
222691	222429	130308	Circular		1.25	-	1	122.3	4.88	0.013	-	-	3.47	0.50	9.33	8.00	3.94	0.54	9.67	8.00	4.25	0.56	9.87	8.00	4.56	0.58	10.06	8.00	5.28	0.63	10.47	8.00
NJ5_2	225122	1058	Natural	NJ5_2	-	-	47	250	10.15	0.040	0.080	0.080	1.39	5.42	0.06	8.00	1.58	5.59	0.06	8.00	1.70	5.71	0.07	8.00	1.82	5.79	0.07	8.00	2.11	6.01	0.07	8.00
CM10N2_B	225327	CM-006-E	Natural	CM10N2_B	-	-	677	50	16.28	0.040	0.080	0.080	5.23	1.29	2.98	8.00	5.91	1.35	3.14	8.00	6.37	1.38	3.24	8.00	6.83	1.42	3.34	8.00	7.90	1.50	3.53	8.00
NJ10S3_1	225632	NJ-010-F	Natural	NJ10S3_1	-	-	882	1263	8.39	0.040	0.080	0.080	12.78	1.42	1.03	8.00	14.46	1.48	1.06	8.00	15.58	1.52	1.08	8.00	16.70	1.56	1.09	8.00	19.31	1.66	1.12	8.00
225627	225634	112588	Circular		1.5	-	2	378	4.42	0.013	-	-	6.15	0.58	10.05	8.01	6.96	0.62	10.46	8.00	7.50	0.64	10.73	8.00	8.04	0.66	11.01	8.00	9.30	0.70	11.65	8.00
226031	226008	165270	Circular		2.5	-	5	65	0.31	0.013	-	-	10.35	1.23	4.69	8.01	11.18	1.31	4.75	8.03	11.70	1.37	4.80	8.01	12.27	1.42	4.85	8.03	13.14	1.52	4.97	8.15
226033	226009	226008	Circular		2.5	-	5	78	0.27	0.013	-	-	-2.32	1.21	-1.13	8.22	-2.53	1.28	-1.16	8.21	-2.71	1.33	-1.19	8.21	-2.82	1.37	-1.22	8.20	-3.30	1.46	-1.29	8.23
226032	226011	165270	Circular		2.5	-	5	70	0.30	0.013	-	-	4.49	1.23	2.36	8.03	5.00	1.31	2.41	8.03	5.33	1.37	2.44	8.03	5.67	1.42	2.47	8.03	6.24	1.52	2.56	7.95
226034	226012	226011	Circular		2.5	-	5	79	0.30	0.013	-	-	4.47	1.05	2.90	8.01	4.98	1.13	2.94	8.01	5.31	1.18	2.97	8.01	5.64	1.24	3.00	8.01	6.23	1.34	3.06	7.94
226076	226046	1106	Circular		2	-	3	274	0.53	0.013	-	-	8.09	7.43	3.07	7.99	7.92	7.63	3.13	7.58	8.27	7.75	3.16	8.02	9.45	7.81	3.19	7.99	9.60	8.88	3.26	8.01
226067	226052	226057	Circular		1.25	-	1	15	44.93	0.013	-	-	6.28	5.71	17.28	7.99	7.07	5.97	17.78	8.01	7.63	6.11	18.03	8.01	8.31	6.21	18.24	7.99	9.55	6.77	18.34	8.01
226068	226053	226052	Circular		1.25	-	1	44	0.64	0.013	-	-	6.22	0.96	6.64	8.01	7.07	1.05	6.91	8.01	7.63	1.13	7.05	8.01	8.23	1.34	7.07	7.99	9.55	1.71	8.20	8.01
226069	226054	226053	Circular		1.25	-	1	28	0.96	0.013	-	-	6.22	0.98	6.05	8.01	7.07	1.09	6.24	8.01	7.63	1.21	6.32	8.01	8.22	1.48	6.43	8.00	9.55	2.05	7.75	8.01
226066	226057	226046	Circular		2	-	3	114	0.29	0.013	-	-	7.81	6.02	2.88	7.99	7.67	6.27	2.93	7.57	8.27	6.40	2.97	8.02	9.30	6.48	3.03	7.99	9.60	7.13	3.16	8.01
138518	226058	1107	Circular		2	-	3	341	0.31	0.014	-	-	9.96	6.51	3.15	8.04	10.09	6.72	3.19	7.73	9.79	6.84	3.10	7.47	9.57	6.89	3.02	7.97	9.58	7.75	3.01	8.01

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
226065	226058	226057	Circular		2	-	3	39	0.46	0.013	-	-	-4.75	5.71	2.28	25.91	-4.64	5.97	2.35	28.47	-4.69	6.11	2.38	28.92	-4.73	6.21	2.41	29.47	-5.10	6.77	2.47	25.80
226079	226059	226008	Circular		1.5	-	2	42	1.90	0.013	-	-	12.33	1.21	8.96	8.13	13.31	1.28	9.12	8.11	13.92	1.33	9.23	8.19	14.60	1.37	9.31	8.11	16.33	1.52	9.54	8.15
226081	226060	226059	Circular		1.25	-	1	33	0.58	0.013	-	-	5.68	1.05	5.21	8.09	6.49	1.15	5.54	8.09	6.91	1.23	5.73	8.11	7.53	1.32	6.03	8.09	8.95	1.63	7.29	8.15
226080	226061	226059	Circular		1	-	1	55	0.80	0.014	-	-	6.96	2.95	8.76	8.70	7.29	3.18	9.16	9.08	7.48	3.31	9.40	9.30	7.64	3.43	9.59	9.55	7.99	3.69	10.01	10.34
CM3N2_1	239056	226061	Natural	CM3N2_1	-	-	22	625	1.87	0.040	0.080	0.080	11.84	4.45	1.08	8.02	12.51	4.68	1.10	8.02	12.95	4.81	1.09	8.02	13.37	4.93	1.07	8.01	14.35	5.19	1.05	8.01
138815	239057	239056	Circular		2	-	3	10.31	1.07	0.013	-	-	11.91	0.95	8.52	8.01	12.57	0.98	8.65	8.01	13.00	0.99	8.74	8.01	13.42	1.01	8.80	8.01	14.40	1.05	8.93	8.01
270214	239058	239057	Circular		1.333	-	1	68.79	0.73	0.013	-	-	4.22	0.95	4.61	8.01	4.77	0.98	4.82	8.00	5.14	0.99	4.96	8.00	5.51	1.01	5.09	8.00	6.38	1.06	5.37	8.00
253979	241675	241865	Circular		1.5	-	2	110.4	5.43	0.013	-	-	5.45	0.51	10.46	8.00	6.16	0.55	10.84	8.00	6.64	0.57	11.07	8.00	7.12	0.59	11.29	8.00	8.23	0.64	11.76	8.00
257493	241697	242825	Circular		1.75	-	2	150	0.67	0.013	-	-	5.45	0.84	5.04	8.01	6.16	0.90	5.25	8.01	6.64	0.94	5.37	8.01	7.12	0.97	5.49	8.01	8.23	1.06	5.76	8.01
255564	241713	242738	Circular		1.5	-	2	44	1.32	0.014	-	-	4.20	1.60	4.42	8.07	4.93	2.86	4.44	8.07	5.30	3.85	4.44	8.06	5.76	5.54	4.44	8.16	8.98	6.64	4.99	8.23
136646	241727	133342	Circular		2	-	3	96	14.76	0.013	-	-	2.19	0.47	9.72	8.00	2.48	0.50	10.09	8.00	2.67	0.52	10.33	8.00	2.86	0.54	10.53	8.00	3.31	0.59	10.99	8.00
250133	241865	241916	Circular		1.5	-	2	341	10.26	0.013	-	-	5.45	0.44	13.86	8.00	6.16	0.46	14.36	8.00	6.64	0.48	14.67	8.00	7.12	0.50	14.96	8.00	8.23	0.54	15.58	8.00
1382181	241875	106163	Circular		1.25	-	1	40	1.50	0.014	-	-	11.62	8.55	9.20	8.82	11.84	8.94	9.34	9.01	11.97	9.12	9.43	9.01	12.05	9.26	9.49	9.05	12.31	9.54	9.65	9.14
254593	241902	241697	Circular		1.75	-	2	150	5.33	0.013	-	-	5.45	0.84	9.66	8.01	6.16	0.90	10.02	8.01	6.64	0.94	10.24	8.01	7.12	0.97	10.45	8.01	8.23	1.06	10.90	8.01
254420	241916	241902	Circular		1.5	-	2	312	8.01	0.013	-	-	5.45	0.46	12.72	8.00	6.16	0.49	13.17	8.00	6.64	0.51	13.46	8.00	7.12	0.52	13.72	8.00	8.23	0.56	14.30	8.00
CM2-1C	242043	249362	Natural	CM2_1C	-	-	58	25	0.40	0.040	0.080	0.080	5.64	2.78	0.26	7.73	5.67	2.83	0.25	7.28	6.38	2.86	0.26	6.96	5.98	2.88	0.25	6.70	5.82	2.93	0.25	28.19
258244	242046	NJ-005	Circular		1.25	-	1	41	12.20	0.013	-	-	0.71	0.51	6.22	8.00	0.80	0.55	6.46	8.00	0.86	0.56	6.61	8.00	0.92	0.57	6.75	8.00	1.07	0.60	7.07	8.00
256549	242092	241875	Circular		1.75	-	2	500	1.70	0.024	-	-	8.79	8.55	3.66	8.01	9.95	8.94	4.06	8.01	10.73	9.12	4.36	8.00	11.49	9.26	4.65	8.01	12.62	10.68	5.09	7.42
257901	242738	244268	Circular		1.5	-	2	244.21	0.82	0.013	-	-	9.38	1.79	5.71	8.01	10.62	2.86	5.98	8.02	11.58	3.85	6.49	8.03	12.61	5.54	7.03	8.05	14.08	6.64	7.82	8.18
256431	242783	246870	Circular		1.5	-	2	240.96	1.20	0.024	-	-	4.01	0.88	3.74	8.06	4.56	0.98	3.84	8.06	4.94	1.38	3.83	8.06	5.40	3.59	3.82	8.06	5.93	5.08	3.81	8.07
258144	242825	244742	Circular		1.75	-	2	19	5.26	0.013	-	-	5.45	0.47	10.70	8.01	6.16	0.50	11.10	8.01	6.64	0.52	11.34	8.01	7.12	0.53	11.58	8.01	8.23	0.58	12.08	8.01
CM2_1A	243646	CMNJ-002	Natural	CM2_1A	-	-	97	86	5.35	0.040	0.080	0.080	-88.59	6.78	0.71	23.43	-82.23	6.83	0.73	25.42	-85.63	6.86	0.76	26.41	-86.01	6.88	0.94	27.10	-101.15	6.93	0.87	28.16
256630	243904	247186	Circular		1.5	-	2	125.06	0.90	0.024	-	-	4.03	0.98	3.34	8.02	4.58	1.07	3.44	8.02	4.95	1.13	3.50	8.01	5.32	1.20	3.54	8.01	6.17	1.44	3.60	8.02
251590	243985	248061	Circular		6	-	28	140	0.71	0.024	-	-	0.00	0.51	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.59	0.00	0.00
254676	244218	245663	Circular		1.5	-	2	139.47	1.20	0.024	-	-	4.02	0.93	3.60	8.04	4.57	1.01	3.72	8.04	4.94	1.06	3.80	8.04	5.31	1.11	3.90	8.04	5.93	2.04	3.97	8.05
257987	244268	CMNJ-002-A	Circular		1.5	-	2	214.88	0.47	0.013	-	-	9.34	1.79	5.24	8.01	10.65	2.39	6.10	8.02	11.61	3.04	6.60	8.03	12.69	4.32	7.17	8.04	14.09	5.38	7.96	8.17
256038	244331	246896	Circular		2	-	3	118	0.08	0.013	-	-	5.48	0.98	3.84	8.00	6.20	1.10	3.98	8.00	6.67	1.23	4.11	7.97	7.12	2.88	4.13	8.00	8.30	4.12	4.20	8.00
256215	244742	248061	Circular		2	-	3	124	5.65	0.013	-	-	5.45	0.51	10.80	8.01	6.16	0.55	11.20	8.01	6.64	0.56	11.45	8.01	7.12	0.57	11.69	8.01	8.23	0.59	12.19	8.01
253298	245626	244218	Circular		1.5	-	2	112.53	1.20	0.024	-	-	4.02	0.93	3.71	8.04	4.57	1.01	3.81	8.04	4.94	1.06	3.87	8.04	5.31	1.11	3.93	8.04	6.00	1.87	3.99	7.94
251017	245663	242783	Circular		1.5	-	2	202.5	2.40	0.024	-	-	4.01	0.88	4.73	8.05	4.57	0.95	4.88	8.05	4.93	1.02	4.97	8.05	5.35	2.74	4.96	8.05	5.93	4.73	4.95	8.09
254055	246326	248963	Circular		1.5	-	2	131.29	1.20	0.024	-	-	4.00	0.96	3.75	8.06	4.83	2.31	3.75	8.07	5.21	3.32	3.76	8.08	5.59	5.03	3.76	8.08	7.92	6.08	4.41	8.32
250657	246531	243904	Circular		1.5	-	2	150.43	1.86	0.024	-	-	4.03	0.98	4.28	8.01	4.58	1.07	4.42	8.01	4.95	1.13	4.50	8.01	5.32	1.20	4.57	8.01	6.18	1.44	4.64	8.01
255417	246758	245626	Circular		1.5	-	2	100.76	1.20	0.024	-	-	4.02	0.88	3.75	8.03	4.57	0.96	3.85	8.03	4.94	1.01	3.91	8.03	5.31	1.07	3.96	8.03	6.07	1.66	4.01	7.95
250141	246870	246326	Circular		1.5	-	2	249.76	1.20	0.024	-	-	4.01	0.90	3.74	8.07	4.62	1.54	3.75	8.06	5.16	2.67	3.75	8.07	5.49	4.51	3.74	8.08	5.83	5.59	3.71	7.89
250443	246896	242738	Circular		1.5	-	2	53.96	5.37	0.013	-	-	5.48	1.60	9.08	8.01	6.20	2.86	9.24	8.00	6.64	3.85	9.33	7.92	7.10	5.54	9.40	8.01	8.30	6.64	9.55	8.00
251343	247093	243646	Circular		3	-	7	48.19	-1.60	0.013	-	-	21.08	2.98	-5.57	7.73	21.75	3.03	5.54	7.28	22.42	3.06	5.70	6.96	21.81	3.08	-5.69	6.70	20.98	3.13	-5.86	6.16
251403	247186	246758	Circular		1.5	-	2	230.25	1.20	0.024	-	-	4.02	0.88	3.75	8.02	4.57	0.96	3.85	8.02	4.94	1.01	3.91	8.02	5.31	1.07	3.96	8.02	6.13	1.46	4.01	7.97
NJ5_1A	248061	1062	Natural	NJ5_1A	-	-	61	675	1.18	0.040	0.080	0.080	5.02	4.13	0.36	8.04	5.80	4.17	0.39	8.04	6.53	4.23	0.41	8.02	7.04	4.33	0.42	8.02	8.08	4.59	0.45	8.02
254971	248622	1144	Circular		3	-	7	708	2.74	0.013	-	-	19.65	7.60	8.89	8.01	22.28	7.86	9.47	8.00	23.97	8.03	9.82	7.96	25.67	8.15	10.15	8.00	27.96	8.41	10.57	8.00
251865	248781	CMNJ-002-C	Circular		1.667	-	0	70	1.20	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
251236	248963	241713	Circular		1.5	-	2	11.12	0.72	0.013	-	-	4.08	1.02	4.73	8.07	4.90	2.37	4.75	8.08	5.26	3.37	4.75	8.08	5.67	5.08	4.76	8.08	8.94	6.14	4.97	8.24
256019	249361	242043	Circular		2	-	3	35	8.57	0.013	-	-	0.00	2.68	0.00	0.00	0.00	2.73	0.00	0.00	0.00	2.76	0.00	0.00	0.00	2.78	0.00	0.00	0.00	2.83	0.00	0.00
256547	249362	247093	Circular		3	-	7	10	2.00	0.013	-	-	20.46	2.98	5.83	7.73	21.11	3.03	5.98	7.28	21.76	3.06	6.11	6.96	21.16	3.08	6.00	6.70	20.38	3.13	5.80	6.16
272120	270217	270218	Circular		1.25	-	1	13.12	7.62	0.013	-	-	24.90	3.72	20.07	8.71	25.65	4.16	20.60	9.22	26.08	4.42	20.93	9.52	26.42	4.65	21.17	9.81	27.06	5.19	21.63	10.75
272119	270218	270219	Circular		1.25	-	1	12.14	57.66	0.013	-	-	24.91	8.16	28.19	8.71	25.65	8.37	28.26	9.22	26.08	8.50	28.33	9.52	26.42	8.60	28.30	9.82	27.06	8.91	28.37	10.76
272118	270219	270233	Circular		1.5	-	2	52.81	0.44	0.013	-	-	29.31	8.16	17.65	8.01	29.73	8.37	17.89	8.01	29.98	8.50	18.03	8.01	30.19	8.60	18.14	9.01	30.78	8.91	18.47	10.78
272117	270220	270219	Circular		2	-	3	8.9	11.24	0.013	-	-	12.02	8.16	5.77	6.23	11.03	8.37	5.73	5.48	11.37	8.50	5.68	5.04	11.17	8.60	5.71	4.38	12.03	8.91	5.77	13.47
271732	270222	270220	Circular		1.5	-	2	121.36	1.65	0.013	-	-	4.83	7.17	4.88	7.45	5.30	7.38	4.96	7.31	5.55	7.51	4.92	7.25	5.77	7.61	4.96	7.21	5.85	7.91	4.96	7.13
271731	270223	270222	Circular		1.5	-	2	22.96	13.07	0.013	-	-	4.99	5.30	10.66	7.98	5.65	5.52	10.14	7.99	6.09	5.65	10.17	7.88	6.53	5.76	10.03	8.00	7.54	5.98	10.05	7.99
271730	270228	270223	Circular		1.5	-	2	100.37	1.05	0.013	-	-	4.99	2.33	5.73	7.98	5.65	2.55	5.79	7.99	6.09	2.69	5.76	7.88	6.53	2.80	5.67	8.00	7.55	3.03	5.28	8.00
137705	270233	115046	Rectangular		6	6	36	33	13.42	0.014	-	-	29.31	0.75	14.22	8.01	29.73	0.76	14.31	8.01	29.98	0.76	14.37	8.01	30.19	0.76	14.41	9.01	30.78	0.77	14.51	10.78
271740	270240	270220	Circular		1.25	-	1	113.16	11.49	0.013	-	-	3.40	7.17	9.37	8.01	3.85	7.38	9.81	8.01	4.14	7.51	10.02	8.00	4.44	7.61	10.24	8.00	5.14	7.91	10.64	8.01
271741	270241	270240	Circular		1.25	-	1	59.04	1.69	0.013	-	-	3.40	0.60	6.17	8.01	3.85	0.64	6.41	8.00	4.14	0.67	6.57	8.00	4.44	0.69	6.71	8.00	5.14	0.75	7.02	8.00
271742	270243	270241	Circular		1.25	-	1	85.28	3.52	0.013	-	-	3.40	0.60	8.10	8.00	3.85	0.64	8.39	8.00	4.14	0.67	8.57	8.00	4.44	0.69	8.73	8.00	5.14	0.75	9.08	8.00
NJ3S22_1	275683	132721	Natural	NJ3S22_1	-	-	50	572	1.47	0.040	0.080	0.080	5.79	2.06	2.10	8.02	6.54	2.37	2.12	8.02	7.06	2.58	2.13	8.02	7.55	2.82	2.14	8.00	8.43	3.30	2.16	7.85
275691	275684	275683	Circular		1.25	-	1	45	0.91	0.013	-	-	5.89	0.93	6.12	8.01	6.70	1.02	6.36	8.01	7.23	1.08	6.51	8.01	7.77	1.16	6.66	8.01	9.02	1.43	7.11	8.01
NJ3_2	276086	1081	Natural	NJ3_2	-	-	95	300	0.76	0.040	0.080	0.080	-7.66	5.65	0.77	25.07	5.03	5.91	0.80	5.57	4.92	6.15	0.82	5.28	4.90	6.32	0.84	5.01	4.71	6.67	0.89	4.50
276088	276087	276086	Circular		1.25	-	1	77.16	0.53	0.013	-	-	3.05	3.37	2.99	8.26	3.10	3.63	3.10	8.41	3.13	3.87	3.15	8.32	3.14	4.04	3.19	8.08	3.15	4.39	3.19	8.14
NJ3_1	276116	1083	Natural	NJ3_1	-	-	110	360	1.05	0.040	0.080	0.080	-7.88	7.04	0.81	25.10	4.89	7.31	0.84	7.95	5.23	7.55	0.86	7.73	5.33	7.71	0.89	7.45	6.58	8.06	0.96	7.66
276120	276117	276116	Circular		1.75	-	2	202.96	0.22	0.013	-	-	4.81	3.31	2.28	7.86	5.48	3.58	2.36	7.96	5.89	3.82	2.41	7.74	6.32	3.98	2.62	7.91	7.30	4.33	3.03	7.96
Link1129	277324	116075	Trapezoidal		6	25	186	185	20.94	0.035	-	-	7.83	0.45	2.57	8.00	8.86	0.48	2.71	8.00	9.54	0.50	2.80	8.00	10.23	0.52	2.88	8.00	11.83	0.56	3.06	8.00
277327	277325	277324	Circular		1.25	-	1	27	1.30	0.013	-	-	7.83	0.90	9.18	8.00	8.86	0.98	9.56	8.00	9.54	1.03	9.77	8.00	10.23	1.10	9.95	8.00	11.83	1.74	10.63	8.00
283651	277751	283650	Circular		1.5	-	2	43	5.79	0.024	-	-	5.80	0.77	6.74	8.00	6.56	0.83	6.98	8.00	7.07	0.87	7.11	8.00	7.58	0.91	7.25	8.00	8.77	0.99	7.52	8.00
277756	277752	277751	Circular		1.5	-	2	40	13.80	0.013	-	-	5.80	0.77	13.77	8.00	6.56	0.83	14.26	8.00	7.07	0.87	14.56	8.00	7.58	0.91	14.84	8.00	8.77	0.99	15.45	8.00
277756_1	277753	277752	Circular		1.5	-	2	24	12.00	0.014	-	-	5.80	0.43	13.90	8.00	6.56	0.46	14.40	8.00	7.07	0.48	14.70	8.00	7.58	0.50	15.01	8.00	8.77	0.54	15.63	8.00
NJ3S21	279636	NJ-003-H	Natural	NJ3S21	-	-	1012	700	6.29	0.040	0.080	0.080	12.97	8.89	1.64	8.03	14.82	10.16	1.66	8.03	15.44	10.76	1.66	8.19	15.66	11.21	1.67	8.24	16.06	12.00	1.73	8.62
279635	279643	279636	Circular		1.5	-	2	140	0.71	0.013	-	-	13.47	3.59	8.14	8.01	15.32	4.65	9.19	8.01	15.62	4.80	9.36	8.05	15.80	4.91	9.46	8.09	16.10	5.07	9.62	8.46
279660	279670	279676	Circular		1.5	-	2	81.8	30.07	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
279661	279671	279670	Circular		1.5	-	2	24	29.17	0.013	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CM9_1B	279676	1243	Natural	CM9_1B	-	-	1202	100	37.65	0.040	0.080	0.080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NJ6_1	279722	1036	Circular		2	-	3	1600	4.57	0.014	-	-	18.91	5.17	12.11	8.01	21.39	5.23	12.73	8.01	22.77	5.27	13.04	8.03	23.16	5.32	13.12	8.04	23.76	5.40	13.25	8.08
279721	279726	279722	Circular		1.5	-	2	103	3.88	0.013	-	-	18.91	1.21	12.82	8.01	21.39	1.60	13.12	8.01	22.77	2.28	14.10	8.02	23.16	2.42	14.41	8.03	23.76	2.65	14.25	8.07
279724	279727	279726	Circular		1.5	-	2	330	5.15	0.013	-	-	18.91	1.21	14.66	8.00	21.39	1.60	14.89	8.00	22.77	2.28	14.91	8.01	23.16	2.42	14.90	8.03	23.76	2.65	14.91	8.06
NJ10S2_B	281745	NJ-010-C	Natural	NJ10S2_B	-	-	161	104	0.22	0.040	0.080	0.080	2.33	1.08	0.15	8.07	2.50	1.10	0.15	8.03	2.70	1.11	0.15	8.03	2.89	1.13	0.15	8.03	3.35	1.15	0.15	8.03
281755	281746	281745	Circular		1.5	-	2	86.35	0.69	0.013	-	-	2.07	0.85	3.46	8.00	2.34	0.87	3.61	8.00	2.53	0.88	3.71	8.00	2.71	0.90	3.80	8.00	3.13	0.93	3.99	8.00
NJ10S2_C1	281797	106476	Natural	NJ10S2_C1	-	-	89	107	5.72	0.040	0.080	0.080	0.34	0.58	1.29	8.00	0.38	0.59	1.36	8.00	0.41	0.60	1.40	8.00	0.44	0.62	1.45	7.99	0.51	0.68	1.56	7.97
281803	281798	281797	Circular		2.5	-	5	55.6	0.16	0.013	-	-	0.34	0.24	1.37	8.00	0.38	0.26	1.43	7.99	0.41	0.27	1.47	7.98	0.44	0.28	1.51	7.95	0.51	0.29	1.59	7.99
CM13S11_1	282082	123217	Natural	CM13S11_1	-	-	64	715	0.47	0.040	0.080	0.080	8.04	2.33	1.69	7.80	8.94	2.57	1.70	7.81	9.49	2.72	1.68	8.02	10.09	2.86	1.65	8.02	11.57	3.17	1.60	8.02
282090	282083	282082	Circular		1.25	-	1	26.2	3.82	0.013	-	-	8.25	1.19	9.27	8.00	9.33	1.28	9.54	8.00	10.06	1.34	9.70	8.00	10.78	1.40	9.85	8.00	12.47	1.54	10.15	8.00
282089	282084	282083	Circular		1.25	-	1	360.6	4.16	0.013	-	-	8.25	0.83	11.11	8.00	9.33	0.93	11.40	8.00	10.06	1.01	11.56	8.00	10.78	1.09	11.70	8.00	12.47	1.45	11.92	8.00

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
282088	282085	282084	Circular		1.25	-	1	56.9	7.03	0.013	-	-	8.25	0.72	13.52	8.00	9.33	0.78	13.94	8.00	10.06	0.82	14.18	8.00	10.78	0.86	14.41	8.00	12.47	0.98	14.83	8.00
CM10N2_A1	282731	Node1343	Natural	CM10N2_A1	-	-	655	115	21.19	0.040	0.080	0.080	2.89	1.81	0.90	8.01	3.27	1.90	0.93	8.01	3.52	1.96	0.96	8.01	3.78	2.02	0.98	8.01	4.37	2.14	1.03	8.00
282751	282732	282731	Circular		1.5	-	2	25.32	1.26	0.013	-	-	2.89	0.51	5.86	8.00	3.27	0.54	6.12	8.00	3.52	0.56	6.28	8.00	3.78	0.58	6.44	8.00	4.37	0.62	6.79	8.00
282750	282733	282732	Circular		1.5	-	2	60.56	0.50	0.013	-	-	2.89	0.65	3.94	8.00	3.27	0.70	4.08	8.00	3.52	0.73	4.16	8.00	3.78	0.76	4.24	8.00	4.37	0.83	4.41	8.00
CM10N_2	282756	CM-006-E	Natural	CM10N_2	-	-	367	434	6.76	0.040	0.080	0.080	6.01	1.29	1.04	8.01	6.80	1.35	1.09	8.01	7.33	1.38	1.11	8.01	7.86	1.42	1.13	8.01	9.08	1.50	1.18	8.01
282766	282757	282756	Circular		1.5	-	2	53.79	1.32	0.013	-	-	6.01	0.78	6.99	8.00	6.80	0.84	7.29	8.00	7.33	0.87	7.47	8.00	7.86	0.91	7.64	8.00	9.09	0.99	8.02	8.00
CM13_4A	283057	Node1348	Natural	CM13_4A	-	-	1100	463	12.68	0.040	0.080	0.080	2.11	2.44	0.54	8.01	2.40	2.58	0.56	8.01	2.60	2.68	0.57	8.01	2.79	2.78	0.57	8.01	3.24	3.02	0.59	8.01
283062	283058	283057	Circular		1.5	-	2	24	0.00	0.013	-	-	2.13	0.53	4.09	8.01	2.42	0.56	4.30	8.01	2.62	0.58	4.43	8.01	2.81	0.60	4.56	8.01	3.27	0.64	4.83	8.01
CM13_4B	283065	Node1348	Natural	CM13_4B	-	-	1100	463	13.42	0.040	0.080	0.080	0.68	2.44	0.24	8.03	0.77	2.58	0.24	8.03	0.83	2.68	0.24	8.02	0.89	2.78	0.24	8.02	1.03	3.02	0.24	8.02
283067	283066	283065	Circular		1.25	-	1	108.25	0.47	0.013	-	-	0.68	0.36	2.51	8.01	0.78	0.38	2.62	8.01	0.84	0.40	2.69	8.01	0.90	0.41	2.76	8.01	1.04	0.44	2.90	8.01
CM3N1B	283249	Node1339	Natural	CM3N1B	-	-	915	200	2.00	0.040	0.080	0.080	2.21	1.72	0.89	8.00	2.50	1.80	0.92	8.00	2.69	1.85	0.94	8.00	2.88	1.90	0.95	8.00	3.34	2.02	0.98	8.00
CM12C	283650	102268	Natural	CM12C	-	-	462	716	10.29	0.040	0.080	0.080	5.80	3.27	1.22	8.00	6.56	3.50	1.28	8.00	7.07	3.63	1.31	8.00	7.58	3.76	1.35	8.00	8.77	4.06	1.45	8.00
137395	284978	CM-003-S	Circular		2	-	3	20	0.00	0.013	-	-	6.72	1.22	3.38	8.02	7.60	1.33	3.46	8.02	8.20	1.41	3.49	8.02	8.78	1.50	3.51	8.02	10.30	3.74	3.52	8.02
284981	284979	284978	Circular		2	-	3	166	9.34	0.013	-	-	6.71	1.22	10.58	8.01	7.59	1.33	10.93	8.01	8.18	1.41	11.13	8.01	8.76	1.50	11.30	8.01	10.14	3.74	11.35	8.01
285298	285297	106386	Circular		1.5	-	2	375	1.60	0.013	-	-	14.52	2.32	9.09	8.35	14.63	2.42	9.06	8.72	14.69	2.48	9.04	9.08	14.74	2.52	9.07	9.42	14.83	2.61	9.07	10.24
285303	285302	123984	Circular		1.5	-	2	128	0.56	0.013	-	-	9.17	5.19	5.19	6.37	9.48	5.26	5.35	6.02	9.36	5.23	5.23	5.67	9.58	5.35	5.40	5.39	9.23	5.32	5.22	4.90
285315	285304	189626	Circular		1.75	-	2	15.56	0.84	0.013	-	-	5.30	0.65	6.61	8.01	5.99	0.70	6.89	8.01	6.46	0.72	7.06	8.01	6.92	0.75	7.22	8.01	8.01	0.81	7.55	8.01
285314	285305	285304	Circular		1.75	-	2	100.45	0.78	0.013	-	-	5.30	0.76	5.42	8.01	5.99	0.81	5.62	8.01	6.46	0.84	5.75	8.01	6.92	0.88	5.87	8.01	8.01	0.95	6.12	8.01
285313	285306	285305	Circular		1.75	-	2	17.13	0.99	0.013	-	-	5.30	0.76	5.54	8.01	5.99	0.81	5.73	8.01	6.46	0.84	5.84	8.01	6.92	0.88	5.95	8.01	8.01	0.95	6.17	8.01
285312	285307	285306	Circular		1.75	-	2	76.75	0.53	0.013	-	-	5.30	0.82	4.89	8.01	5.99	0.87	5.07	8.01	6.46	0.91	5.18	8.01	6.92	0.95	5.29	8.01	8.01	1.03	5.52	8.01
285311	285308	285307	Circular		1.75	-	2	22.62	13.40	0.013	-	-	3.85	0.82	10.57	8.01	4.35	0.87	10.96	8.00	4.69	0.91	11.21	8.00	5.02	0.95	11.45	8.00	5.81	1.03	11.94	8.00
285310	285309	285308	Circular		1.5	-	2	20	27.95	0.013	-	-	3.85	0.31	17.65	8.00	4.35	0.32	18.31	8.00	4.69	0.34	18.72	8.00	5.02	0.35	19.11	8.00	5.81	0.37	19.93	8.00
285326	285318	285309	Circular		1.5	-	2	200.05	2.61	0.013	-	-	3.85	0.56	6.78	8.00	4.35	0.60	7.03	8.00	4.69	0.63	7.17	8.00	5.02	0.65	7.32	8.00	5.81	0.71	7.62	8.00
285325	285319	285318	Circular		1.5	-	2	276.71	5.69	0.013	-	-	3.85	0.56	9.66	8.00	4.35	0.60	10.01	8.00	4.69	0.63	10.22	8.00	5.02	0.65	10.42	8.00	5.81	0.71	10.86	8.00
285334	285330	285307	Circular		1.25	-	1	210.01	0.59	0.013	-	-	1.45	0.82	3.18	8.00	1.65	0.87	3.29	8.00	1.77	0.91	3.37	8.00	1.90	0.95	3.43	8.00	2.20	1.03	3.52	8.00
285355	285336	285330	Circular		1.25	-	1	24	0.50	0.014	-	-	1.45	0.50	3.21	8.00	1.65	0.53	3.33	8.00	1.77	0.55	3.41	8.00	1.90	0.57	3.48	8.00	2.20	0.62	3.63	8.00
NJ7N22_1A	287846	Node1356	Natural	NJ7N22_1A	-	-	280	1060	3.96	0.040	0.080	0.080	10.92	0.70	4.13	8.10	11.10	0.71	4.15	8.14	11.22	0.71	4.17	8.17	11.33	0.71	4.18	8.20	11.54	0.72	4.21	8.25
287856	287847	287846	Circular		1.5	-	2	25	0.52	0.013	-	-	10.93	1.09	8.40	8.03	11.11	1.10	8.43	8.07	11.24	1.10	8.46	8.08	11.35	1.11	8.47	8.11	11.55	1.12	8.52	8.14
287855	287848	287847	Circular		1.5	-	2	12	2.33	0.013	-	-	10.94	0.94	9.60	8.04	11.12	0.95	9.63	8.07	11.24	0.95	9.64	8.07	11.35	0.96	9.66	8.09	11.56	0.97	9.70	8.12
287854	287849	287848	Circular		1.25	-	1	130	0.53	0.013	-	-	10.93	4.14	8.79	8.04	11.11	4.32	8.93	8.06	11.24	4.41	9.03	8.08	11.35	4.48	9.11	8.10	11.55	4.62	9.27	8.14
146124	288606	115042	Circular		2	-	3	80	1.75	0.013	-	-	22.68	3.48	9.81	7.44	22.74	3.98	9.83	7.28	22.78	4.21	9.85	7.25	22.81	4.40	9.86	9.61	23.08	4.59	9.86	10.52
288618	288607	288606	Circular		2	-	3	65	3.00	0.024	-	-	22.81	2.86	7.91	7.42	22.83	3.43	7.93	7.29	22.83	3.71	7.94	7.24	22.83	3.93	7.94	9.61	23.09	4.25	7.95	10.52
288617	288608	288607	Circular		2	-	3	89	3.00	0.024	-	-	22.83	2.95	7.69	7.42	22.83	3.59	7.70	7.29	22.95	3.90	7.70	9.38	22.96	4.16	7.70	9.63	23.03	4.60	7.70	10.56
288616	288609	288608	Circular		2	-	3	90	3.00	0.024	-	-	22.85	3.03	7.69	7.43	22.94	3.75	7.69	9.07	22.88	4.10	7.69	7.33	23.04	4.40	7.68	9.68	23.05	4.95	7.68	10.58
Link1073	289642	CM-003-G	Circular		4	-	13	10	5.00	0.014	-	-	17.21	2.67	5.71	6.13	18.49	2.70	5.85	5.43	17.81	2.71	5.81	5.10	18.04	2.73	5.70	4.49	18.01	2.77	5.74	3.59
289652	289643	289642	Circular		1.25	-	1	70	0.90	0.013	-	-	6.93	2.29	5.62	7.33	7.05	2.38	5.72	7.18	7.23	2.44	5.86	8.11	7.40	2.49	5.99	8.14	7.74	2.60	6.26	8.21
Link1074	289660	CM-003-G	Circular		4	-	13	10	5.00	0.014	-	-	-15.47	2.67	5.23	5.80	-17.00	2.70	5.19	5.44	-16.06	2.71	5.27	4.79	-16.33	2.73	5.11	4.46	-15.15	2.77	5.09	3.47
289664	289661	289660	Circular		1.75	-	2	36	0.86	0.013	-	-	5.47	2.17	3.57	8.00	6.19	2.19	3.63	7.90	6.66	2.21	3.60	7.82	7.14	2.22	3.88	7.96	8.26	2.26	3.82	7.98
3010312	CM-001	1170	Natural	3010312	-	-	549	40	-0.70	0.060	0.066	0.050	406.78	6.15	2.60	10.20	453.65	6.35	2.73	10.32	494.12	6.52	2.83	10.30	517.44	6.62	2.88	10.04	635.59	7.08	3.12	10.64
3011750	CM-002	1183	Natural	3011750	-	-	152	428	0.57	0.070	0.080	0.080	336.69	8.51	3.82	9.37	344.01	8.60	3.84	9.38	349.44	8.67	3.85	9.34	354.68	8.73	3.87	9.33	372.66	9.38	4.03	10.43
3050256	CM-002-A	1189	Natural	Natural	-	-	484	156.1	0.00	0.080	0.080	0.080	87.01	3.80	0.34	10.29	124.71	4.35	0.34	10.35	158.31	4.70	0.35	10.31	175.55	5.08	0.35	10.08	308.34	5.74	0.34	10.32
3014317	CM-003	159953	Natural	3014317	-	-	1143	496	-0.23	0.060	0.074	0.080	522.73	9.25	3.03	8.92	579.62	9.48	3.12	8.96	638.42	9.69	3.22	8.89	685.09	9.86	3.29	8.92	785.91	10.16	3.43	8.85
146496	CM-003-A	119577	Circular		3	-	7	295	0.68	0.024	-	-	12.50	10.83	1.75	12.78	12.57	10.92	1.76	13.76	12.69	10.99	1.78	14.42	13.00	11.05	1.82	15.01	13.49	11.57	1.89	16.00
160265	CM-003-B	131427	Circular		2.5	-	5	142.2	0.13	0.013	-	-	17.29	7.90	3.48	11.24	-11.38	7.99	-2.29	8.30	-10.51	8.06	-2.11	8.21	-9.91	8.12	-1.99	8.27	10.22	8.30	2.06	14.43
137795	CM-003-C	102677	Circular		1.25	-	1	30	0.33	0.013	-	-	4.48	3.90	3.60	8.00	5.03	4.66	4.03	7.65	5.13	4.85	4.10	7.62	5.23	5.03	4.18	7.69	5.55	5.35	4.43	8.00
137806	CM-003-D	102654	Circular		1.25	-	1	310	0.47	0.013	-	-	3.86	4.22	3.11	8.00	4.38	4.52	3.51	8.00	4.72	4.72	3.78	8.00	5.07	5.04	4.05	8.00	5.86	5.81	4.67	8.00
146298	CM-003-E	102670	Circular		1.25	-	1	425	1.08	0.013	-	-	2.46	5.19	3.85	8.00	2.82	6.31	3.81	8.00	3.04	6.39	3.77	8.00	3.26	6.47	3.84	8.00	3.77	6.67	3.96	8.00
172631	CM-003-F	159953	Circular		1.5	-	2	122.6	0.03	0.013	-	-	1.16	1.51	1.34	8.00	1.32	1.59	1.25	7.98	1.43	1.65	1.28	7.99	1.53	1.71	1.24	7.99	1.77	1.81	1.31	7.76
CM8N1_2	CM-003-G	1213	Natural	CM8N1_2	-	-	100	910	1.42	0.040	0.080	0.080	72.96	8.46	1.82	8.00	78.52	8.77	1.96	8.00	82.19	9.07	2.06	8.00	85.80	9.27	2.15	8.00	94.12	9.65	2.34	8.00
289651	CM-003-H	289643	Circular		1.25	-	1	139	0.84	0.013	-	-	6.93	2.61	5.62	7.33	7.05	2.83	5.71	7.18	7.22	2.97	5.84	8.11	7.39	3.09	5.97	8.14	7.73	3.35	6.24	8.21
289663	CM-003-I	289661	Circular		1.25	-	1	233	3.94	0.013	-	-	5.47	1.89	8.91	8.00	6.18	1.93	9.36	8.00	6.66	1.96	9.63	8.00	7.14	1.99	9.89	8.00	8.26	2.06	10.30	7.99
137792	CM-003-J	115072	Circular		1.5	-	2	107	0.93	0.013	-	-	7.84	1.04	6.41	8.00	8.88	1.14	6.64	8.00	9.57	1.20	6.78	8.00	10.26	1.27	6.90	8.00	11.86	1.73	7.02	8.00
137967	CM-003-K	115085	Circular		1.25	-	1	260	0.77	0.013	-	-	0.97	0.42	3.35	8.00	1.10	0.45	3.47	8.00	1.18	0.47	3.54	8.00	1.27	0.48	3.62	8.00	1.47	0.52	3.77	8.00
271727	CM-003-L	270228	Circular		1.25	-	1	42.05	9.39	0.013	-	-	5.00	1.50	11.78	8.00	5.65	1.79	12.00	7.97	6.09	1.98	12.08	8.00	6.53	2.14	12.31	8.00	7.55	2.49	12.74	8.00
271743	CM-003-M	270243	Circular		1.25	-	1	116.44	1.72	0.013	-	-	3.40	0.59	6.21	8.00	3.85	0.63	6.43	8.00	4.14	0.66	6.57	8.00	4.44	0.68	6.69	8.00	5.14	0.75	6.96	8.00
146181	CM-003-N	115039	Circular		1.25	-	1	72	1.53	0.013	-	-	1.56	0.42	4.95	8.00	1.76	0.45	5.13	8.00	1.90	0.47	5.23	8.00	2.03	0.49	5.32	8.00	2.35	0.54	5.52	7.79
137375	CM-003-O	127450	Circular		1.25	-	1	44	3.64	0.013	-	-	4.74	0.56	9.16	8.00	5.36	0.60	9.48	8.00	5.78	0.62	9.71	8.00	6.20	0.80	10.02	8.00	7.16	2.03	10.21	8.00
137325	CM-003-P	115033	Circular		1.5	-	2	78	0.33	0.013	-	-	3.46	2.61	2.54	8.00	3.70	2.98	2.55	8.03	3.75	3.05	2.55	8.07	3.83	3.13	2.54	8.06	4.00	3.43	2.49	8.14
288615	CM-003-Q	288609	Circular		2	-	3	259	3.00	0.024	-	-	22.86	3.28	7.69	7.42	22.93	4.19	7.68	7.38	22.94	4.64	7.68	7.32	22.95	5.06	7.68	7.27	22.96	5.91	7.68	7.21
137399	CM-003-R	105012	Circular		2.5	-	5	40	1.10	0.013	-	-	21.91	1.19	9.83	8.00	24.80	1.28	10.18	8.00	26.73	1.33	10.40	8.00	28.66	1.37	10.67	8.00	33.15	1.48	11.31	8.00
137402	CM-003-S	105017	Circular		1.75	-	2	310	2.70	0.013	-	-	16.79	1.17	10.33	8.00	19.00	1.28	10.60	8.00	20.48	1.37	10.74	8.00	21.95	1.46	10.85	8.00	25.39	3.71	11.10	8.00
137267	CM-003-T	102131	Circular		1.5	-	2	260	5.83	0.013	-	-	8.42	0.61	12.68	8.00	9.53	0.65	13.11	8.00	10.27	0.68	13.37	8.00	11.01	0.71	13.62	8.00	12.73	0.77	14.13	8.00
137201	CM-003-U	102136	Circular		1.5	-	2	147	5.51	0.013	-	-	4.42	0.53	10.23	8.00	5.00	0.56	10.59	8.00	5.39	0.59	10.82	8.00	5.78	0.61	11.03	8.00	6.68	0.66	11.48	8.00
137372	CM-003-V	105024	Circular		1.25	-	1	33	3.03	0.013	-	-	6.71	0.72	9.44	8.00	7.59	0.78	9.77	8.00	8.18	0.81	9.97	8.00	8.76	0.85	10.16	8.00	10.14	0.94	10.55	8.00
146025	CM-003-W	105026	Circular		1.25	-	1	350	6.29	0.013	-	-	4.96	0.52	10.71	8.00	5.61	0.55	11.08	8.00	6.05	0.58	11.30	8.00	6.48	0.60	11.51	8.00	7.50	0.65	11.95	8.00
3016883	CM-004	1234	Natural	3016883	-	-	141	68	0.50	0.060	0.060	0.060	478.02	6.85	2.87	8.49	547.47	7.22	2.88	8.48	606.30	7.32	3.03	8.45	668.19	7.58	3.15	8.46	777.65	7.66	3.57	8.47
137333	CM-004-A	128603	Circular		2	-	3	230	1.74	0.013	-	-	8.42	0.79	8.06	8.00	9.52	0.85	8.36	8.00	10.26	0.88	8.57	8.00	11.00	0.91	8.74	8.00	12.72	0.99	9.10	8.00
145978	CM-004-B	115035	Circular		1.5	-	2	190	1.05	0.013	-	-	5.03	0.78	5.70	8.00	5.69	0.83	5.90	8.00	6.13	0.87	6.03	8.00	6.57	0.91	6.14	8.00	7.60	1.00	6.39	8.00
3017713	CM-005	1239	Natural	3017713	-	-	940	693	0.67	0.070	0.109	0.110	475.29	8.23	3.82	8.39	544.35	8.57	3.82	8.37	600.54	8.83	3.82	8.34	651.06	9.03	3.82	8.32	753.87	9.32	3.82	8.32
160069	CM-005-A	132126	Circular		1.25	-	1	56.43	35.48	0.013	-	-	3.84	6.35	12.90	8.00	4.34	6.61	17.25	8.00	4.68	6.81	16.81	8.00	5.01	6.96	16.44	8.00	5.80	7.25	16.24	8.00
170455	CM-005-B	124268	Circular		1.25	-	1	246.6	3.20	0.013	-	-	4.46	0.77	8.34	8.00	5.04	0.86	8.56	8.00	5.43	4.49	8.66	7.68	5.82	5.57	8.72	8.00	6.73	5.86	8.88	8.00
137194	CM-005-C	106752	Circular		1.25	-	1	114	2.39	0.013	-	-	1.16	0.39	5.16	8.00	1.31	0.41	5.36	8.00	1.42	0.43	5.47	8.00	1.52	0.44	5.59	8.00	1.76	0.48	5.83	8.00
145796	CM-005-D	102169	Circular		3.5	-	10	70	0.24	0.013	-	-	2.55	0.53	2.83	8.00	2.88	0.56	2.95	8.00	3.11	0.58	3.02	8.00	3.33	0.60	3.09	8.00	3.85	0.64	3.24	8.00
137088	CM-005-E	102190	Circular		6	-	28	262	0.20	0.013	-	-	4.82	0.66	2.86	8.00	5.45	0.72	2.96	8.00	5.88	0.80	3.01	8.00	6.30	0.86	3.05	7.61	7.08	2.42	3.12	7.34
137010	CM-005-F	102161	Circular		1.25	-	1	297	10.36	0.013	-	-	15.80	1.01	18.18	8.00	17.90	1.11	18.62	8.00	19.28	1.23	18.83	8.00	19.83	1.31	18.84	8.00	21.24	3.53	18.85	7.54
164978	CM-005-G	133753	Circular		1.25	-	1	282.29	1.63	0.013	-	-	8.41	2.11	7.13	8.00	9.53	3.15	7.96	8.00	10.27	3.73	8.49	8.00	11.01	7.65	8.70	8.00	11.43	8.39	9.02	7.35
3021646	CM-006	1250	Natural	3021646	-	-	2483	211	0.77	0.060	0.070	0.070	426.95	5.71	2.37	8.05	485.52	5.88	2.37	8.06	523.24	5.96	2.38	8.06	559.92	6.05	2.38	8.06	647.67	6.17	2.39	8.04
136939	CM-006-A	102213	Circular		4	-	13	161	7.19	0.024	-	-	55.06	1.57	13.77	8.00	62.30	1.66	14.27	8.00	67.13	1.72	14.58	8.00	71.96	1.78	14.87	8.00	83.25	1.88	15.53	8.00
CM10N1_2	CM-006-B	CM-006-A	Natural	CM10N1_2	-	-	1190	2162	5.25	0.040	0.080	0.080	47.74	1.40	6.13	8.00	54.03	1.50	6.34	8.00	58.22	1.56	6.47	8.00	62.41	1.62	6.60	8.00	72.20	1.76	6.84	8.00
189363	CM-006-C	189268	Circular		1.5	-	2	54	0.89	0.013	-	-	4.61	0.72	5.83	8.00	5.22	0.77	6.08	8.00	5.62	0.80	6.23	8.00	6.03	0.83	6.39	8.00	6.97	0.90	6.70	8.00

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
282749	CM-006-D	282733	Circular		1.5	-	2	100.66	0.76	0.013	-	-	2.89	0.65	4.47	8.00	3.27	0.70	4.61	8.00	3.52	0.73	4.70	8.00	3.78	0.76	4.78	8.00	4.37	0.83	4.95	8.00
CM10N1_4A1	CM-006-E	Node1343	Natural	CM10N1_4A1	-	-	1985	650	5.38	0.040	0.080	0.080	30.72	1.81	5.63	8.00	34.77	1.90	5.81	8.00	37.46	1.96	5.92	8.00	40.16	2.02	6.03	8.00	46.46	2.14	6.28	8.00
282765	CM-006-F	282757	Circular		1.25	-	1	138.73	3.32	0.013	-	-	6.01	0.78	9.35	8.00	6.80	0.84	9.66	8.00	7.33	0.87	9.85	8.00	7.86	0.91	10.02	8.00	9.09	0.99	10.36	8.00
239469	CM-006-G	225327	Circular		1.333	-	1	61.33	7.83	0.013	-	-	5.23	0.50	11.56	8.00	5.91	0.53	12.01	8.00	6.37	0.55	12.28	8.00	6.83	0.57	12.54	8.00	7.90	0.61	13.09	8.00
194418	CM-006-H	194361	Circular		1.5	-	2	31.5	4.48	0.013	-	-	1.39	0.36	6.59	8.00	1.57	0.38	6.82	8.00	1.70	0.40	6.98	8.00	1.82	0.41	7.12	8.00	2.10	0.44	7.43	8.00
136777	CM-006-I	CM-006-J	Circular		1.25	-	1	122	2.66	0.013	-	-	1.73	0.66	5.56	8.00	1.96	0.71	5.76	8.00	2.11	0.74	5.87	8.00	2.26	0.78	5.99	8.00	2.62	0.86	6.22	8.00
136760	CM-006-J	101227	Circular		1.25	-	1	136	7.13	0.013	-	-	8.64	0.66	13.50	8.00	9.77	0.71	13.93	8.00	10.53	0.74	14.18	8.00	11.28	0.78	14.41	8.00	13.05	0.86	14.88	8.00
194413	CM-006-K	194364	Circular		1.5	-	2	128.05	1.23	0.013	-	-	2.87	4.50	1.73	8.00	3.25	4.53	1.83	8.00	3.51	4.54	1.97	7.99	3.76	4.56	2.11	8.00	4.35	4.60	2.44	8.00
145595	CM-006-L	124290	Circular		1.5	-	2	30	7.37	0.013	-	-	10.76	0.86	14.43	8.00	12.14	3.76	14.57	8.00	12.95	5.55	14.61	8.00	14.30	6.87	14.62	8.08	16.07	7.42	14.59	8.00
136787	CM-006-M	116200	Circular		1.25	-	1	20	10.65	0.013	-	-	7.23	0.75	15.53	8.00	8.18	0.96	16.06	8.00	8.81	1.12	16.42	8.00	9.45	1.31	16.68	8.00	10.92	1.82	17.36	8.00
170272	CM-006-N	124294	Circular		1.25	-	1	30	6.30	0.013	-	-	13.89	2.44	11.95	8.00	15.72	3.45	12.75	8.00	16.94	4.24	13.70	7.54	18.15	5.07	14.64	7.99	20.99	6.74	16.80	7.99
170251	CM-006-O	126758	Circular		1.75	-	2	112	4.46	0.013	-	-	7.70	0.60	10.72	8.00	8.71	0.64	11.11	8.00	9.38	0.67	11.35	8.00	10.06	0.70	11.57	8.00	11.64	0.75	12.05	8.00
170276	CM-006-P	126765	Circular		1.5	-	2	25	5.00	0.013	-	-	4.93	0.51	9.87	8.00	5.58	0.54	10.26	8.00	6.01	0.56	10.48	8.00	6.45	0.58	10.72	8.00	7.46	0.63	11.19	8.00
CM12_2	CM-007	Node1347	Natural	CM12_2	-	-	1574	387	3.10	0.040	0.080	0.080	390.56	3.57	5.70	8.02	443.26	3.77	5.72	8.01	478.03	3.88	5.73	8.01	512.96	3.99	5.80	8.01	594.02	4.23	6.05	8.01
277755	CM-007-A	277753	Circular		1.5	-	2	50.05	10.07	0.013	-	-	5.80	0.43	14.10	8.00	6.56	0.51	14.60	8.00	7.07	0.56	14.92	8.00	7.58	0.61	15.21	8.00	8.77	0.73	15.84	8.00
136555	CM-007-B	126123	Circular		1.333	-	1	100	9.90	0.013	-	-	1.04	0.19	8.56	8.00	1.17	0.20	8.90	8.00	1.27	0.21	9.12	8.00	1.36	0.21	9.33	8.00	1.57	0.23	9.71	8.00
145520	CM-007-C	102309	Circular		1.5	-	2	88	2.80	0.013	-	-	4.61	1.30	7.00	8.00	5.22	1.41	7.27	8.00	5.62	1.48	7.33	8.00	6.03	1.55	7.38	8.00	6.97	1.78	7.44	8.00
CM13_3A	CM-008	Node1349	Natural	CM13_3A	-	-	1137	614	5.21	0.040	0.080	0.080	321.35	2.92	6.34	8.01	365.08	3.05	6.34	8.01	394.03	3.13	6.33	8.01	423.07	3.20	6.34	8.01	490.54	3.38	6.36	8.01
283077	CM-008-A	283066	Circular		1.25	-	1	221	0.51	0.013	-	-	0.68	0.36	2.65	8.00	0.78	0.38	2.75	8.00	0.84	0.40	2.82	8.00	0.90	0.41	2.87	8.00	1.04	0.44	3.00	8.00
283061	CM-008-B	283058	Circular		1.25	-	1	49.73	1.67	0.013	-	-	2.13	0.48	5.58	8.00	2.42	0.51	5.78	8.00	2.62	0.53	5.91	8.00	2.81	0.55	6.02	8.00	3.27	0.59	6.28	8.00
161353	CM-008-C	133457	Circular		1.5	-	2	149	16.60	0.013	-	-	2.36	0.29	12.55	8.00	2.67	0.31	13.00	8.00	2.87	0.33	13.29	8.00	3.08	0.34	13.56	8.00	3.56	0.36	14.17	8.00
161330	CM-008-D	133450	Circular		1.5	-	2	141	6.63	0.013	-	-	4.98	0.47	10.90	8.00	5.07	0.47	10.96	8.00	5.13	0.47	10.99	8.00	5.18	0.48	11.03	8.00	5.32	0.48	11.11	8.00
282087	CM-008-E	282085	Circular		1.25	-	1	21.5	4.65	0.013	-	-	8.25	0.71	11.76	8.00	9.33	0.76	12.16	8.00	10.06	0.80	12.38	8.00	10.78	0.84	12.61	8.00	12.47	0.93	13.04	8.00
277398	CM-008-F	277325	Circular		1.25	-	1	88.5	7.23	0.013	-	-	7.83	0.90	12.92	8.00	8.86	0.98	13.35	8.00	9.54	1.03	13.60	8.00	10.23	1.10	13.83	8.00	11.83	1.74	14.14	8.00
Link1217	CM-008-G	133464	Circular		4	-	13	33	0.00	0.013	-	-	19.22	1.16	6.54	8.00	21.74	1.22	6.85	8.00	23.43	1.26	7.06	8.00	25.11	1.30	7.25	8.00	29.05	1.39	7.66	8.00
Link1218	CM-008-G	133465	Circular		4	-	13	33	0.00	0.013	-	-	19.23	1.16	6.54	8.00	21.76	1.22	6.86	8.00	23.45	1.26	7.06	8.00	25.13	1.30	7.25	8.00	29.07	1.39	7.67	8.00
136116	CM-008-H	121926	Circular		1.25	-	1	171	1.04	0.013	-	-	4.31	0.83	5.31	8.00	4.87	0.91	5.48	8.00	5.25	0.96	5.58	8.00	5.63	1.01	5.67	8.00	6.51	1.38	5.84	8.00
CM13_1A2	CM-008-I	CM-008-G	Natural	CM13S1_1A	-	-	1320	740	3.24	0.040	0.080	0.080	28.36	1.16	2.87	8.00	32.09	1.22	3.02	8.00	34.58	1.26	3.11	8.00	37.06	1.30	3.20	8.00	42.87	1.39	3.40	8.00
168341	CM-008-J	168343	Circular		1.5	-	2	121.5	9.70	0.013	-	-	12.35	0.77	16.75	8.00	13.98	0.83	17.30	8.00	15.06	0.87	17.64	8.00	16.14	0.91	17.96	8.00	18.67	0.96	18.70	8.00
136459	CM-008-K	102305	Circular		1.333	-	1	122	8.11	0.013	-	-	4.32	0.61	11.30	8.00	4.88	0.66	11.71	8.00	5.26	0.68	11.95	8.00	5.64	0.71	12.19	8.00	6.52	0.77	12.69	8.00
157613	CM-008-L	130319	Circular		1.25	-	1	64.14	0.36	0.013	-	-	4.19	1.36	3.28	8.00	4.76	1.57	3.85	8.00	5.14	1.79	4.18	8.00	5.53	1.95	4.49	8.00	6.42	2.36	5.20	8.00
152788	CM-008-M	131724	Circular		1.25	-	1	20.07	1.99	0.013	-	-	2.92	0.49	6.67	8.00	3.30	0.52	6.92	8.00	3.56	0.54	7.08	8.00	3.82	0.56	7.21	8.00	4.42	0.61	7.53	8.00
136503	CM-008-N	101243	Circular		1.25	-	1	57	11.25	0.013	-	-	3.09	0.38	12.14	8.00	3.51	0.41	12.58	8.00	3.79	0.43	12.85	8.00	4.07	0.45	13.10	8.00	4.73	0.50	13.64	8.00
145418	CM-008-O	125012	Circular		1.5	-	2	56	0.34	0.013	-	-	11.15	1.35	7.14	8.00	12.61	1.64	7.32	8.00	13.59	1.92	8.16	8.00	14.57	2.12	8.72	8.00	16.84	2.59	10.01	8.00
CM13E1_1A	CM-008-P	CM-009	Natural	CM13E1_1A	-	-	1697	2800	6.23	0.040	0.080	0.080	134.85	2.00	7.90	8.01	153.33	2.12	8.20	8.01	165.64	2.20	8.40	8.01	177.95	2.26	8.60	8.01	206.64	2.39	9.02	8.00
135948	CM-008-Q	107094	Circular		1.25	-	1	268	0.86	0.013	-	-	5.11	0.90	5.51	7.88	5.78	1.00	5.62	7.78	6.22	1.08	5.67	7.83	6.67	1.39	5.74	8.00	7.72	2.72	6.26	7.91
CM13_4G	CM-009	CM-008	Natural	CM13_4G	-	-	4542	600	2.83	0.040	0.080	0.080	293.10	2.92	6.21	8.01	332.73	3.05	6.49	8.00	359.15	3.13	6.66	8.00	385.64	3.20	6.80	8.00	447.19	3.38	7.06	8.00
CM14_1A	CM-010	CM-009	Natural	CM14_1A	-	-	1792	2900	5.82	0.040	0.080	0.080	66.64	2.00	8.08	8.00	75.45	2.12	8.39	8.00	81.32	2.20	8.58	8.00	87.19	2.26	8.76	8.00	100.88	2.39	9.16	8.00
145395	CM-010-A	CM-010	Circular		1.25	-	1	41	0.85	0.013	-	-	7.44	1.95	6.04	8.00	8.41	2.20	6.82	8.00	9.07	2.37	7.35	8.00	9.72	2.55	7.87	8.00	11.24	3.00	9.08	8.00
3003458	CMNJ-001	1150	Natural	3003458 #43	-	-	11910	159.51	-0.35	0.065	0.050	0.050	669.52	5.10	0.91	11.84	752.92	5.22	0.91	11.79	810.27	5.30	0.91	11.80	853.63	5.36	0.91	11.89	951.02	5.48	0.92	11.76
3004965	CMNJ-002	1138	Natural	3004965 #32	-	-	2722	122.2	0.86	0.060	0.050	0.050	657.15	7.65	3.22	11.36	737.23	7.67	3.23	11.38	793.87	7.68	3.23	11.41	833.53	7.69	3.23	11.47	932.06	7.71	3.23	11.33
252197	CMNJ-002-A	248622	Circular		1.5	-	2	92.26	5.42	0.013	-	-	19.66	1.86	14.14	8.00	22.28	1.91	14.22	8.00	23.97	1.95	14.22	7.96	25.68	2.46	14.48	8.00	27.97	3.48	15.70	8.00
255360	CMNJ-002-B	244331	Circular		2	-	3	33	3.03	0.013	-	-	5.48	0.98	7.14	8.00	6.20	1.10	7.28	8.00	6.68	1.23	7.38	8.00	7.16	2.88	7.42	8.00	8.31	4.12	7.49	8.00
256134	CMNJ-002-C	246531	Circular		1.5	-	2	239.09	0.78	0.013	-	-	4.03	0.77	5.00	8.01	4.59	0.83	5.16	8.01	4.95	0.87	5.25	8.01	5.32	0.91	5.33	8.00	6.19	1.03	5.48	8.00
170029	CMNJ-002-D	130730	Circular		1.25	-	1	73	1.00	0.013	-	-	1.06	0.34	3.89	8.00	1.20	0.37	4.03	8.00	1.29	0.38	4.11	8.00	1.39	0.39	4.19	8.00	1.60	0.43	4.37	8.00
3005487	CMNJ-003	1133	Natural	3005487 #27	-	-	5009	235.7	0.07	0.060	0.040	0.040	656.12	8.87	0.89	11.04	736.47	8.97	0.90	11.09	795.18	9.04	0.91	11.09	831.86	9.10	0.92	11.05	939.12	9.23	0.94	11.05
147805	CMNJ-003-A	119350	Circular		1.5	-	2	33	3.33	0.013	-	-	3.25	0.42	8.08	8.00	3.67	0.45	8.38	8.00	3.96	0.46	8.55	8.00	4.24	0.48	8.71	8.00	4.91	0.75	8.98	7.99
147466	CMNJ-004	102911	Circular		1.5	-	2	38	0.84	0.013	-	-	1.30	5.41	1.78	7.49	1.47	5.88	1.98	7.47	1.58	6.14	2.04	7.47	1.69	6.36	2.23	7.54	1.96	6.84	2.45	7.50
152667	CMNJ-004-A	102920	Circular		2	-	3	20	0.25	0.013	-	-	2.04	2.64	2.07	8.00	2.32	2.80	2.13	8.00	2.51	2.91	2.13	7.99	2.69	2.99	2.14	7.99	3.11	3.19	2.21	8.00
139412	CMNJ-004-B	102916	Circular		2.25	-	4	20	0.30	0.013	-	-	20.45	4.12	5.12	8.00	23.28	4.81	5.81	8.00	25.20	5.30	6.28	8.00	27.08	5.76	6.74	8.00	31.51	6.80	7.82	8.00
187563	CMNJ-004-C	124514	Circular		1.5	-	2	295	0.48	0.013	-	-	3.34	0.79	3.80	8.01	3.80	0.84	3.95	8.01	4.10	0.88	4.05	8.01	4.40	0.97	4.14	8.00	5.10	1.32	4.32	8.00
139616	CMNJ-004-D	102906	Circular		4	-	13	320	0.58	0.013	-	-	24.32	3.67	5.63	8.00	27.38	4.14	5.66	7.80	28.96	4.41	5.54	7.71	31.06	4.63	5.41	8.00	36.07	5.11	5.30	8.00
139527	CMNJ-004-E	102900	Circular		2.5	-	5	30	0.67	0.013	-	-	3.21	0.51	4.52	8.00	3.64	0.54	4.70	8.00	3.92	0.56	4.81	8.00	4.20	0.58	4.93	8.00	4.86	0.62	5.16	8.00
139778	CMNJ-004-F	CMNJ-004-D	Circular		2.25	-	4	466	0.16	0.013	-	-	16.50	2.30	4.26	8.01	18.54	2.97	4.68	7.96	19.77	3.53	4.96	8.00	21.57	4.12	5.37	8.00	24.95	5.42	6.22	8.00
152685	CMNJ-004-G	128029	Circular		1.25	-	1	158	0.65	0.013	-	-	3.70	0.83	4.55	8.00	4.21	0.91	4.67	8.00	4.54	0.95	4.73	8.00	4.88	1.01	4.77	8.00	5.65	1.32	4.78	8.00
255784	CMNJ-004-H	102895	Circular		1.5	-	2	179	0.50	0.013	-	-	10.89	2.22	6.23	8.00	12.34	2.84	6.99	8.00	13.30	3.46	7.46	8.00	14.25	4.95	7.96	8.00	16.50	8.29	9.09	8.00
CM3N1_2	CMNJ-004-I	Node1339	Natural	CM3N1_2	-	-	83	1476	1.15	0.040	0.080	0.080	41.38	1.72	1.43	8.02	46.32	1.80	1.47	8.02	49.57	1.85	1.50	8.02	52.34	1.90	1.51	8.02	60.01	2.02	1.52	8.01
283251	CMNJ-004-J	283249	Circular		1.5	-	2	189.9	4.16	0.013	-	-	2.21	0.42	7.49	8.00	2.50	0.44	7.78	8.00	2.69	0.46	7.96	8.00	2.88	0.47	8.13	8.00	3.34	0.50	8.49	8.00
139435	CMNJ-004-K	127377	Circular		2	-	3	128	0.73	0.013	-	-	13.75	1.28	6.63	8.00	15.59	1.35	6.92	8.00	16.81	1.43	7.07	8.00	18.03	1.50	7.22	8.00	20.88	1.68	7.54	8.00
147512	CMNJ-004-L	106113	Circular		1.25	-	1	28	2.29	0.013	-	-	3.71	0.55	7.37	8.00	4.20	0.58	7.65	8.00	4.53	0.61	7.83	8.00	4.86	0.63	7.98	8.00	5.62	0.69	8.33	8.00
139600	CMNJ-004-M	106067	Circular		1.75	-	2	103	1.39	0.013	-	-	3.93	0.60	6.07	8.00	4.47	0.64	6.29	8.00	4.83	0.66	6.43	8.00	5.19	0.69	6.55	8.00	6.03	0.75	6.82	8.00
147610	CMNJ-004-N	106071	Circular		1.25	-	1	52	1.21	0.013	-	-	2.52	0.86	4.30	8.00	2.87	0.93	4.44	8.00	3.11	0.98	4.51	8.00	3.34	1.03	4.57	8.00	3.89	1.18	4.62	8.00
226007	CMNJ-004-O	128964	Circular		2	-	3	59.61	2.72	0.013	-	-	14.84	1.40	9.83	8.00	16.80	1.52	10.02	8.00	18.10	1.60	10.11	8.00	19.41	1.69	10.16	8.00	22.45	2.07	10.20	8.00
CM3N2_2	CMNJ-004-P	226060	Natural	CM3N2_2	-	-	57	1100	2.52	0.040	0.080	0.080	5.76	1.05	0.61	8.03	6.60	1.15	0.61	8.02	7.17	1.23	0.61	8.02	7.71	1.32	0.61	8.02	8.97	1.63	0.62	8.01
147084	CMNJ-004-Q	106673	Circular		1.25	-	1	80	0.30	0.013	-	-	1.71	0.61	2.86	8.00	1.95	0.66	2.95	8.00	2.10	0.70	3.00	8.00	2.26	0.73	3.05	8.00	2.63	0.81	3.15	8.00
226035	CMNJ-004-R	226012	Circular		2.5	-	5	50	-0.36	0.013	-	-	4.47	1.07	2.16	8.00	4.98	1.14	2.22	8.00	5.31	1.19	2.25	8.00	5.64	1.24	2.28	8.00	6.24	1.33	2.39	7.93
226036	CMNJ-004-R	226009	Circular		2.5	-	5	55	-0.25	0.013	-	-	-2.34	1.13	-1.50	8.21	-2.56	1.20	-1.53	8.21	-2.74	1.24	-1.54	8.22	-2.85	1.29	-1.57	8.19	-3.32	1.38	-1.63	8.24
270215	CMNJ-004-S	239058	Circular		1.333	-	1	99.43	0.61	0.013	-	-	4.22	0.82	4.67	8.00	4.77	0.90	4.80	8.00	5.14	0.95	4.88	8.00	5.51	1.00	4.95	8.00	6.38	1.14	5.08	8.00
138669	CMNJ-004-T	239057	Circular		1.25	-	1	840	1.03	0.013	-	-	7.69	4.00	6.31	8.01	7.80	4.27	6.38	8.04	7.86	4.43	6.42	8.04	7.91	4.57	6.46	8.05	8.03	4.87	6.54	8.09
3007436	CMNJ-005	1116	Natural	3007436 #13	-	-	1346	269	0.61	0.055	0.040	0.040	617.89	7.60	4.27	10.82	692.70	7.82	4.26	10.87	747.06	7.97	4.27	10.92	777.58	8.07	4.27	10.91	896.69	8.34	4.27	10.99
187566	CMNJ-005-A	187570	Circular		1.5	-	2	252	1.60	0.013	-	-	4.04	0.57	6.59	8.00	4.57	0.61	6.82	8.00	4.93	0.63	6.96	8.00	5.29	0.66	7.09	7.99	6.13	0.74	7.34	8.00
226070	CMNJ-005-B	226054	Circular		1.25	-	1	118	0.75	0.013	-	-	6.22	1.14	5.39	8.00	7.08	1.60	5.80	8.00	7.64	1.95	6.21	8.00	8.22	2.48	6.63	8.00	9.55	3.70	7.69	8.00
138550	CMNJ-005-C	106353	Circular		1.25	-	1	127	1.29	0.013	-	-	2.25	3.90	3.62	7.97	2.54	4.34	3.62	8.00	2.74	4.67	3.60	8.00	2.93	5.15	3.62	7.98	3.39	6.04	3.42	8.00
CM5	CMNJ-005-D	106353	Natural	CM5	-	-	171	518	3.86	0.040	0.080	0.080	10.55	3.90	2.30	8.01	12.13	4.34	2.26	8.00	13.09	4.67	2.26	8.01	14.03	5.15	2.26	8.00	16.39	6.04	2.27	8.01
138449	CMNJ-005-E	106409	Circular		1.25	-	1	240	2.08	0.013	-	-	5.20	0.68	7.70	8.00	5.89	0.74	7.93	8.00	6.35	0.77	8.07	8.00	6.80	0.81	8.19	8.00	7.87	0.90	8.43	8.00
138647	CMNJ-005-F	106374	Circular		2	-	3	183	0.68	0.013	-	-	17.87	2.11	6.68	8.01	18.39	2.38	6.69	8.01	18.68	2.55	6.68	8.02	19.08	2.62	6.67	8.01	19.86	2.90	6.65	8.01
146823	CMNJ-005-G	106340	Circular		1.5	-	2	26	0.19	0.013	-	-	4.15	0.83	4.21	8.00	4.69	0.89	4.40	8.00	5.06	0.93	4.51	8.00	5.42	0.96	4.62	8.00	6.27	1.05	4.84	8.00
138782	CMNJ-005-H	106384	Circular		1.25	-	1	200	0.81	0.013	-	-	1.52	1.10	3.33	8.00	1.74	1.13	3.52	8.00	1.88	1.17	3.63	8.00	2.03	1.19	3.71	8.01	2.36	1.34	3.81	8.01
146809	CMNJ-005-I	106388	Circular		1.25	-	1	40	5.00	0.013	-	-	8.85	7.20	8.54	8.02	9.41	7.44	8.53	8.02	9.77	7.58	8.54	8.02	10.10	7.69	8.53	8.02	10.78	7.91	8.55	8.03
138366	CMNJ-005-J	120905	Circular		1.25	-	1	130	0.77	0.013	-	-	9.09	5.07	7.28	7.45	9.20	5.36	7.35	8.06	9.39	5.52	7.49	8.07	9.55	5.68	7.62	8.08	9.85	5.98	7.85	8.09

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
138276	CMNJ-005-K	106159	Circular		2.25	-	4	400	0.88	0.024	-	-	16.77	2.05	4.49	8.01	17.46	2.41	4.50	8.01	17.85	2.52	4.50	8.01	18.18	2.97	4.62	8.01	19.07	3.49	4.82	8.00
138218	CMNJ-005-L	241875	Circular		1.25	-	1	95	2.74	0.013	-	-	8.47	8.15	7.15	9.61	8.49	8.54	7.15	10.26	8.63	8.72	7.14	11.73	8.64	8.86	7.14	11.49	8.82	9.14	7.15	13.47
252489	CMNJ-005-M	242092	Circular		1.75	-	2	404	3.77	0.024	-	-	8.80	5.15	6.24	8.00	9.96	6.90	6.28	8.00	10.73	8.04	6.30	8.00	11.50	9.23	6.30	8.00	13.31	10.68	6.32	8.00
138068	CMNJ-005-N	106169	Circular		1.25	-	1	349	1.51	0.013	-	-	2.80	0.65	5.71	8.00	3.17	0.69	5.91	8.00	3.42	0.72	6.03	8.00	3.67	0.75	6.14	8.00	4.26	0.82	6.38	8.00
3100238	NJ-001	1099	Natural	3100238	-	-	287	53	0.64	0.050	0.080	0.080	235.47	6.66	3.14	15.87	248.73	6.90	3.21	16.42	250.32	7.06	3.25	19.36	268.44	7.17	3.22	16.91	304.52	7.86	3.32	18.23
1384491	NJ-001-A	126330	Circular		1.25	-	1	240	0.13	0.013	-	-	2.00	6.49	1.60	7.83	2.22	6.73	1.77	7.59	2.31	6.89	1.84	7.29	2.33	7.01	1.85	8.01	2.80	7.88	2.23	7.53
138356	NJ-001-B	106335	Circular		1.25	-	1	270	1.36	0.013	-	-	5.10	2.80	5.70	7.84	5.75	3.06	5.65	7.63	6.17	3.23	5.58	7.90	6.61	3.35	5.52	7.83	7.65	4.12	6.16	7.95
188848	NJ-001-C	172818	Circular		1.25	-	1	7	108.14	0.013	-	-	4.10	0.64	22.16	8.00	4.64	0.69	22.93	8.00	5.00	0.73	23.34	8.00	5.36	0.77	23.70	7.99	6.22	0.86	24.55	7.98
3103025	NJ-002	1086	Natural	3103025	-	-	4582	33	0.00	0.060	0.050	0.052	230.19	6.68	1.02	15.13	241.24	6.94	1.02	15.17	251.46	7.19	1.03	13.65	260.27	7.35	1.03	15.47	295.30	7.70	1.05	16.71
138023	NJ-002-A	115206	Circular		1.25	-	1	79	0.56	0.013	-	-	11.72	12.64	9.05	8.02	11.74	12.91	9.04	8.04	11.77	13.06	9.05	8.06	11.77	13.19	9.05	8.03	11.78	13.47	9.05	8.10
146487	NJ-002-B	115224	Circular		1.25	-	1	43	3.84	0.013	-	-	7.84	4.61	6.33	7.14	7.65	4.79	6.18	7.09	7.46	4.90	6.02	7.07	7.44	5.01	5.98	8.01	7.53	5.26	6.05	8.04
146355	NJ-002-C	115232	Special		3.417	0	12	114	0.32	0.014	-	-	3.25	0.64	2.25	8.00	3.68	0.70	2.32	8.00	3.96	0.74	2.36	8.00	4.25	0.79	2.39	7.93	4.77	2.26	2.43	8.00
138004	NJ-002-D	128140	Circular		1.25	-	1	215	1.40	0.013	-	-	2.60	4.02	4.20	7.72	2.95	4.15	4.19	7.66	3.17	4.19	4.16	7.82	3.40	4.35	4.09	7.57	3.93	4.73	4.25	8.00
3104365	NJ-003	1081	Natural	3104365	-	-	241	244	0.59	0.060	0.050	0.050	219.07	5.65	3.56	10.69	240.94	5.91	3.73	10.17	247.50	6.15	3.75	10.66	254.39	6.32	3.74	11.51	270.64	6.67	3.74	12.69
137732	NJ-003-A	102788	Circular		1.25	-	1	245	2.13	0.013	-	-	4.85	0.78	7.52	8.00	5.49	0.86	7.74	8.00	5.92	0.91	7.87	8.00	6.34	0.97	7.99	8.00	7.33	1.75	8.16	7.97
146251	NJ-003-B	116693	Circular		1.25	-	1	27	0.81	0.024	-	-	1.50	0.59	2.76	8.00	1.70	0.63	2.88	8.00	1.83	0.65	2.95	8.00	1.96	0.67	3.03	8.00	2.26	0.73	3.19	8.00
288566	NJ-003-C	102776	Circular		1.25	-	1	18.2	3.41	0.013	-	-	5.70	4.95	4.73	8.00	6.45	5.10	5.17	8.00	6.95	5.21	5.56	8.00	7.45	5.33	5.96	8.00	8.61	5.59	6.89	8.00
137657	NJ-003-D	123987	Circular		2	-	3	40	0.60	0.013	-	-	-14.81	5.20	-4.68	0.16	-14.72	5.36	-4.65	0.16	-14.38	5.46	-4.54	0.16	-15.15	5.55	-4.78	0.16	14.30	5.75	4.50	8.02
137611	NJ-003-E	115246	Circular		1.25	-	1	372	2.27	0.013	-	-	10.71	8.96	8.41	8.10	10.75	9.22	8.43	8.14	10.77	9.39	8.43	8.17	10.80	9.54	8.45	8.19	10.86	9.86	8.49	8.26
NJ3S1_1	NJ-003-F	115242	Natural	NJ3S1_1	-	-	1084	3000	0.74	0.040	0.080	0.080	74.27	5.99	0.94	8.03	80.74	6.08	0.98	8.03	84.89	6.15	1.01	8.03	88.82	6.20	1.03	8.03	96.86	6.33	1.08	8.02
136952	NJ-003-G	115307	Circular		1.5	-	2	312	4.33	0.013	-	-	20.26	1.95	13.41	8.00	21.79	2.08	13.40	8.00	22.61	2.99	13.40	7.90	23.32	4.42	13.40	8.00	25.27	7.41	13.99	8.18
136866	NJ-003-H	115320	Circular		1.25	-	1	84	4.20	0.013	-	-	10.52	10.40	10.90	9.01	10.83	11.55	10.89	9.44	11.00	12.09	10.90	9.59	11.12	12.50	10.89	9.75	12.14	13.13	10.89	9.12
279641	NJ-003-I	279643	Circular		1.5	-	2	200	2.00	0.013	-	-	13.47	3.59	8.39	8.00	15.32	4.79	8.55	8.00	15.62	5.10	8.71	8.05	15.80	5.30	8.80	8.08	16.41	5.76	9.12	8.11
136988	NJ-003-J	115308	Circular		2	-	3	265	3.30	0.013	-	-	35.27	1.44	14.65	8.00	37.36	1.50	14.83	8.00	38.73	1.55	14.88	8.00	40.06	1.81	14.86	8.00	42.85	5.94	14.85	8.00
136950	NJ-003-K	115310	Circular		2.5	-	5	297	1.07	0.013	-	-	27.28	1.48	9.12	8.01	28.32	1.51	9.20	8.01	28.98	1.54	9.25	8.01	29.61	1.56	9.30	8.01	31.14	3.09	9.32	8.03
157950	NJ-003-L	132718	Circular		1.25	-	1	62.79	0.35	0.013	-	-	3.13	0.84	3.58	8.00	3.54	0.91	3.75	8.00	3.82	0.95	3.86	8.00	4.09	0.99	3.96	8.00	4.74	1.09	4.21	8.00
275690	NJ-003-M	275684	Circular		1.25	-	1	193.27	0.44	0.013	-	-	5.89	1.69	4.89	8.00	6.70	2.22	5.51	8.00	7.24	2.60	5.91	8.00	7.77	3.02	6.30	8.00	9.02	4.21	7.22	8.00
136825	NJ-003-N	115410	Circular		1.5	-	2	84	1.64	0.013	-	-	17.25	7.27	9.53	9.33	17.70	7.96	9.75	9.66	17.96	8.37	9.88	10.07	18.19	8.74	9.99	10.52	19.01	9.44	10.41	11.08
136759	NJ-003-O	115447	Circular		1.25	-	1	278	0.36	0.013	-	-	5.43	1.98	4.45	8.00	6.14	2.77	4.96	8.00	6.61	3.46	5.33	8.00	7.09	4.34	5.69	8.00	8.20	6.21	6.53	8.00
136524	NJ-003-P	115424	Circular		1.5	-	2	306	2.38	0.013	-	-	20.75	8.71	11.41	8.01	21.00	9.20	11.53	8.05	21.17	9.52	11.60	8.08	21.31	9.79	11.67	8.11	21.56	10.28	11.79	8.19
136410	NJ-003-Q	115428	Circular		1.75	-	2	255	6.02	0.013	-	-	3.68	0.38	9.80	8.01	4.27	0.41	10.24	8.01	4.66	0.42	10.52	8.01	5.06	0.44	10.77	8.01	5.99	0.48	11.32	8.01
3105334	NJ-004	1069	Natural	3105334	-	-	2764	250	0.73	0.060	0.072	0.050	218.90	6.95	3.02	10.44	247.79	7.15	3.04	9.71	260.14	7.30	3.06	10.07	272.16	7.53	3.05	9.90	293.55	7.88	3.02	10.25
145925	NJ-004-A	102835	Circular		2	-	3	31	1.23	0.013	-	-	7.86	0.75	7.51	8.00	8.89	0.80	7.86	8.00	9.58	0.83	8.06	8.00	10.27	0.86	8.27	8.00	11.88	0.92	8.71	8.00
137205	NJ-004-B	102843	Circular		1.5	-	2	52	3.92	0.013	-	-	4.35	0.48	9.27	8.00	4.92	0.51	9.59	8.00	5.30	0.53	9.80	8.00	5.68	0.55	9.99	8.00	6.57	0.60	10.39	8.00
NJ5_1	NJ-005	1062	Natural	NJ5_1	-	-	61	1000	0.59	0.030	0.050	0.050	5.35	4.13	0.54	8.01	6.27	4.17	0.57	8.01	7.12	4.23	0.58	8.01	7.70	4.33	0.59	8.01	8.87	4.59	0.63	8.01
3106561	NJ-005-A	1064	Rectangular		6	6	36	254	0.00	0.013	-	-	214.87	4.37	8.37	9.63	254.36	4.85	8.93	8.73	264.17	4.97	9.10	9.67	270.65	5.04	9.15	8.88	294.72	5.31	9.45	9.02
255123	NJ-005-B	242046	Circular		1.25	-	1	38	7.89	0.013	-	-	0.71	0.18	6.80	8.00	0.80	0.19	7.06	8.00	0.86	0.19	7.22	8.00	0.92	0.20	7.39	8.00	1.07	0.22	7.70	8.00
137095	NJ-005-C	102830	Circular		2	-	3	57	1.00	0.024	-	-	0.72	0.35	2.03	7.99	0.82	0.37	2.11	7.94	0.88	0.39	2.16	7.94	0.95	0.40	2.21	7.93	1.09	0.43	2.30	7.94
225408	NJ-005-D	225122	Circular		1.25	-	1	208	9.88	0.013	-	-	1.39	6.20	5.40	8.00	1.58	6.21	5.83	8.00	1.70	6.22	6.11	8.00	1.82	6.22	6.38	8.00	2.11	6.23	6.95	8.00
187310	NJ-005-E	121394	Circular		1.5	-	2	35.22	24.47	0.013	-	-	3.02	0.37	14.89	8.00	3.42	0.39	15.43	8.00	3.68	0.40	15.77	8.00	3.95	0.42	16.10	8.00	4.56	0.45	16.81	8.00
187313	NJ-005-F	161644	Circular		1.25	-	1	208.68	0.53	0.013	-	-	2.05	0.63	3.50	8.00	2.32	0.68	3.64	8.00	2.50	0.71	3.72	8.00	2.68	0.74	3.80	8.00	3.10	0.80	3.96	8.00
253749	NJ-005-G	241675	Circular		1.5	-	2	112	7.14	0.013	-	-	5.45	0.51	12.04	8.00	6.16	0.55	12.47	8.00	6.64	0.57	12.73	8.00	7.12	0.59	12.98	8.00	8.23	0.64	13.51	8.00
3108465	NJ-006	1035	Natural	3108465	-	-	10348	143	0.00	0.070	0.073	0.100	224.27	4.32	3.30	8.25	245.86	4.37	3.30	8.24	258.76	4.41	3.31	8.23	271.18	4.44	3.31	8.24	300.10	4.53	3.31	8.28
279723	NJ-006-A	279727	Circular		1.5	-	2	247.2	0.81	0.013	-	-	18.91	7.47	10.76	8.00	21.39	9.05	12.01	8.00	22.77	10.06	12.61	8.01	23.16	10.41	12.78	8.02	23.77	11.02	13.00	8.03
3109065_1	NJ-007	1033	Natural	3109065	-	-	25734	204	1.82	0.050	0.088	0.077	159.13	2.81	2.63	10.15	168.07	2.82	2.68	10.22	172.51	2.83	2.71	10.29	175.97	2.84	2.73	10.30	182.24	2.85	2.76	10.15
170229	NJ-007-A	124246	Circular		1.25	-	1	28	3.14	0.013	-	-	7.45	1.00	8.93	8.00	8.42	1.13	8.95	8.00	9.08	1.46	8.96	8.00	9.73	1.98	8.96	8.00	11.25	2.77	9.10	8.00
3202603	NJ-007-B	1053	Natural	3202603	-	-	9988	554	10.81	0.080	0.110	0.110	78.79	3.10	4.41	8.01	87.98	3.25	4.45	8.00	94.07	3.35	4.48	8.00	100.16	3.45	4.50	8.00	114.22	3.69	4.53	8.00
157623	NJ-007-C	131998	Circular		1.333	-	1	118	2.51	0.013	-	-	8.29	6.87	5.84	8.00	9.38	7.11	6.59	8.00	10.11	7.26	7.09	8.00	10.84	7.40	7.59	8.00	12.53	7.68	8.74	8.00
NJ7N2_2_1	NJ-007-D	105547	Natural	NJ7N2_2_1	-	-	625	190	2.63	0.040	0.080	0.080	75.27	1.48	2.34	8.00	83.95	1.59	2.38	8.00	89.73	1.66	2.40	8.00	95.49	1.75	2.41	8.00	108.91	2.20	2.43	8.00
136396	NJ-007-E	105529	Circular		1.25	-	1	30	9.33	0.013	-	-	4.71	2.17	10.03	8.00	5.33	2.81	10.08	8.00	5.74	3.24	10.13	8.00	6.16	3.68	10.17	8.00	7.12	4.73	10.25	8.00
NJ7N21_1	NJ-007-F	105552	Natural	NJ7N21_1	-	-	523	465	6.86	0.040	0.080	0.080	16.01	0.84	3.83	8.00	16.83	0.85	3.90	8.00	17.39	0.85	3.94	8.00	17.94	0.86	3.99	8.00	19.17	0.88	4.08	8.00
287853	NJ-007-G	287849	Circular		1.25	-	1	170	0.83	0.013	-	-	10.93	7.37	8.65	8.03	11.11	7.70	8.78	8.06	11.24	7.88	8.87	8.08	11.35	8.04	8.95	8.09	11.55	8.35	9.10	8.14
136233	NJ-007-H	116826	Circular		1.25	-	1	56	3.87	0.013	-	-	6.96	0.73	9.84	8.00	7.87	0.79	10.17	8.00	8.48	0.83	10.35	8.00	9.09	0.87	10.53	8.00	10.51	0.97	10.85	8.00
NJ7N3_2A	NJ-007-I	Node1359	Natural	NJ7N3_21	-	-	1231	895	4.13	0.040	0.080	0.080	39.23	1.65	2.08	8.00	44.42	1.75	2.16	8.00	47.87	1.78	2.22	8.00	51.33	1.81	2.28	8.00	59.39	1.89	2.41	8.00
186754	NJ-007-J	127600	Circular		1.5	-	2	141.51	7.95	0.013	-	-	4.98	0.55	11.91	8.00	5.64	0.58	12.34	8.00	6.07	0.61	12.60	8.00	6.51	0.63	12.86	8.00	7.53	0.68	13.39	8.00
135814	NJ-007-K	106556	Circular		3	-	7	92	0.50	0.024	-	-	2.43	0.65	2.32	8.00	2.75	0.69	2.43	8.00	2.96	0.71	2.50	8.00	3.18	0.73	2.56	8.00	3.68	0.78	2.69	8.00
NJ7N4_1	NJ-007-L	Node1360	Natural	NJ7N4_1	-	-	1004	1385	10.56	0.040	0.080	0.080	24.45	0.81	5.88	8.00	27.68	0.89	6.02	8.00	29.83	0.94	6.11	8.00	31.99	0.99	6.20	8.00	37.00	1.09	6.38	8.00
158066	NJ-007-M	130307	Circular		1.25	-	1	99	7.17	0.013	-	-	3.47	0.38	11.01	8.00	3.94	0.41	11.41	8.00	4.25	0.42	11.66	8.00	4.56	0.44	11.89	8.00	5.28	0.47	12.38	8.00
170223	NJ-007-N	124233	Circular		1.5	-	2	127	10.21	0.013	-	-	5.22	0.49	13.34	8.00	5.90	0.52	13.84	8.00	6.36	0.53	14.18	8.00	6.82	0.54	14.51	8.00	7.88	0.56	15.21	8.00
145572	NJ-007-O	112749	Circular		1.25	-	1	65	1.82	0.013	-	-	0.86	0.30	4.05	8.00	0.98	0.32	4.20	8.00	1.05	0.33	4.30	8.00	1.13	0.35	4.40	8.00	1.31	0.37	4.61	8.00
3111657	NJ-008	1017	Natural	3111657	-	-	24930	177	-0.15	0.080	0.100	0.110	225.46	4.26	0.82	8.18	251.00	4.41	0.86	8.07	267.41	4.51	0.88	8.05	283.94	4.61	0.91	8.08	322.41	4.76	0.97	8.05
157896	NJ-008-A	133408	Circular		1.25	-	1	85	10.85	0.013	-	-	12.75	0.70	18.11	8.00	14.42	0.76	18.63	8.00	15.54	0.80	18.95	8.00	16.66	0.84	19.20	8.00	19.26	0.94	19.68	8.00
160281	NJ-008-B	133419	Circular		1.25	-	1	120.31	5.59	0.013	-	-	4.09	0.45	10.49	8.00	4.63	0.48	10.86	8.00	4.99	0.50	11.08	8.00	5.35	0.52	11.30	8.00	6.19	0.56	11.75	8.00
136690	NJ-008-C	116383	Circular		2	-	3	104.2	11.64	0.013	-	-	8.50	0.48	15.22	8.00	9.63	0.51	15.78	8.00	10.39	0.53	16.13	8.00	11.14	0.55	16.46	8.00	12.90	0.59	17.18	8.00
136794	NJ-008-D	107204	Circular		1.25	-	1	82	1.00	0.013	-	-	0.66	0.30	3.33	8.00	0.75	0.32	3.46	8.00	0.81	0.33	3.54	8.00	0.87	0.35	3.61	8.00	1.01	0.37	3.77	8.00
145491	NJ-008-E	116399	Circular		1.25	-	1	35	7.14	0.013	-	-	2.19	0.47	8.87	8.00	2.48	0.50	9.20	8.00	2.67	0.52	9.40	8.00	2.86	0.54	9.60	8.00	3.31	0.58	10.02	8.00
136607	NJ-008-F	133339	Circular		3	-	7	128	9.89	0.013	-	-	7.79	0.65	12.79	8.00	8.82	0.69	13.26	8.00	9.50	0.72	13.57	8.00	10.19	0.74	13.85	8.00	11.78	0.80	14.47	8.00
3112995_1	NJ-009	1008	Natural	3112995	-	-	15069	383	0.74	0.080	0.120	0.100	178.75	4.92	1.83	8.02	197.17	5.12	1.81	8.02	208.94	5.25	1.83	8.01	220.47	5.38	1.85	8.01	245.67	5.67	1.90	8.01
160306	NJ-009-A	133371	Circular		1.25	-	1	184.52	5.73	0.013	-	-	7.77	0.76	12.28	8.00	8.80	0.83	12.65	8.00	9.48	0.88	12.87	8.00	10.16	0.93	13.06	8.00	11.75	1.08	13.42	8.00
160286	NJ-009-B	133386	Circular		1.25	-	1	48.65	2.01	0.013	-	-	7.29	0.88	8.31	8.00	8.25	0.95	8.62	8.00	8.88	1.00	8.80	8.00	9.52	1.05	8.94	8.00	11.01	1.81	9.14	8.00
193522	NJ-009-C	193397	Circular		1.25	-	1	16.86	14.00	0.013	-	-	5.31	0.68	14.33	8.00	6.01	0.83	14.82	8.00	6.48	0.96	15.14	8.00	6.94	1.11	15.44	8.00	8.03	1.50	16.10	8.00
191156	NJ-009-D	189612	Circular		1.25	-	1	236.36	7.98	0.013	-	-	2.51	0.53	9.42	8.00	2.84	0.57	9.75	8.00	3.06	0.60	9.94	8.00	3.28	0.64	10.08	8.00	3.79	0.74	10.37	8.00
NJ9N1_A	NJ-009-E	1000	Natural	NJ9N1_A	-	-	733	690	5.80	0.040	0.080	0.080	21.64	1.50	6.44	8.01	23.64	1.55	6.50	8.01	24.86	1.57	6.54	8.01	26.10	1.60	6.58	8.01	28.91	1.66	6.68	8.01
154090	NJ-009-F	131097	Circular		2	-	3	53.34	9.69	0.013	-	-	6.98	0.44	14.24	8.00	7.23	0.44	14.38	8.00	7.39	0.45	14.47	8.00	7.56	0.45	14.57	8.00	7.93	0.46	14.78	8.00
136303	NJ-009-G	105510	Circular		4	-	13	126	1.13	0.024	-	-	11.53	8.45	2.89	8.00	13.05	8.68	2.88	7.98	14.06	8.83	2.89	8.00	15.07	8.98	2.88	7.91	17.41	9.26	2.88	7.96
136338	NJ-009-H	106417	Circular		1.25	-	1	150	4.57	0.013	-	-	6.89	0.83	10.80	8.00	7.80	0.89	11.15	8.00	8.40	0.94	11.36	8.00	9.00	0.98	11.55	8.00	10.41	1.09	11.94	8.00
145140	NJ-009-I	105545	Circular		2.5	-	5	33	6.06	0.024	-	-	18.90	1.12	9.51	8.00	20.51	1.17	9.75	8.00	21.48	1.19	9.90	8.00	22.48	1.22	10.03	8.00	24.72	1.29	10.33	8.00
135889	NJ-009-J	102938	Circular		2	-	3	31	3.10	0.013	-	-	10.59	5.52	7.67	8.01	11.36	5.87	7.67	8.01	11.94	6.03	7.67	8.01	12.64	6.21	7.67	8.01	14.20	6.56	7.67	7.99
144892	NJ-009-K	106567	Circular		1.25	-	1	80	4.63	0.024	-	-	7.11	1.11	6.47	8.00	8.04	2.16	6.78	8.00	8.71	2.52	7.22	7.45	9.29	3.77	7.48	8.00	10.74	7.42	8.50	7.73
145393	NJ-009-L	107216	Circular		2	-	3	105	0.48	0.013	-	-	1.41	0.43	3.14	8.00	1.60	0.46	3.28	8.00	1.72	0.47	3.37	8.00	1.85	0.49	3.46	8.00	2.14	0.52	3.64	8.00

XPSWMM Link Hydrologic Output
Cedar Mill/North Johnson Creek CLOMR

Link ID	US Node ID	DS Node ID	Cross-Section Geometry					Length, ft	Slope, %	Manning's "n"			10-Year Storm				25-Year Storm				50-Year Storm				100-Year Storm				500-Year Storm			
			Shape	Natural Section ID	Diameter/ Height, ft	Width, ft	Maximum Area, sq-ft			Main Channel	Right Overbank	Left Overbank	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs	Peak Flow, cfs	Max Depth, ft	Peak Velocity, ft/s	Time to Peak, hrs
160645	NJ-009-M	128710	Circular		2	-	3	29	0.55	0.013	-	-	6.75	1.13	4.50	8.00	7.66	1.31	4.52	8.00	8.26	1.45	4.54	8.00	8.86	1.59	4.54	8.00	10.27	1.93	4.54	8.00
NJ10_3	NJ-010	1013	Natural	NJ10_3	-	-	1555	910	2.78	0.040	0.080	0.080	76.55	2.11	5.51	8.01	81.40	2.16	5.59	8.01	84.17	2.20	5.64	8.01	86.83	2.22	5.69	8.01	92.59	2.29	5.79	8.01
145326	NJ-010-A	107220	Circular		1.25	-	1	30	6.67	0.013	-	-	7.94	2.40	9.51	8.00	9.01	2.84	9.41	8.00	9.73	3.19	9.41	8.00	10.44	3.56	9.41	8.00	12.12	4.48	9.75	8.00
172626	NJ-010-B	159540	Circular		1.5	-	2	300.78	0.92	0.013	-	-	15.96	6.15	8.87	8.00	18.07	8.69	9.94	8.00	19.47	10.44	10.64	8.00	20.87	12.63	11.31	8.00	22.81	16.67	12.19	7.37
NJ10S1_2	NJ-010-C	Node1373	Natural	NJ10S1_2	-	-	424	771	8.04	0.040	0.080	0.080	58.48	1.53	4.45	8.00	64.70	1.58	4.42	8.00	68.82	1.61	4.38	8.00	72.97	1.63	4.45	8.00	82.69	1.70	4.64	8.00
162349	NJ-010-D	133738	Circular		1.25	-	1	214.21	4.58	0.013	-	-	16.52	7.18	13.09	8.07	16.71	7.52	13.22	8.10	16.81	7.71	13.29	8.11	16.88	7.88	13.34	8.13	16.99	8.23	13.40	8.18
281754	NJ-010-E	281746	Circular		1.5	-	2	68.2	1.01	0.013	-	-	2.07	0.52	4.48	8.00	2.34	0.56	4.63	8.00	2.53	0.58	4.71	8.00	2.71	0.61	4.80	8.00	3.13	0.66	4.97	8.00
NJ10S2_2	NJ-010-F	NJ-010-C	Natural	NJ10S2_2	-	-	686	563	5.33	0.040	0.080	0.080	27.83	1.42	5.76	8.00	30.03	1.48	5.75	8.00	31.45	1.52	5.75	8.00	32.92	1.56	5.75	8.01	36.37	1.66	5.75	8.01
144950	NJ-010-G	102061	Circular		2	-	3	100	4.00	0.013	-	-	15.71	1.08	12.53	8.00	17.78	1.17	12.95	8.00	19.15	1.22	13.21	8.00	20.53	1.27	13.45	8.00	23.74	1.40	13.95	8.00
281802	NJ-010-H	281798	Circular		1.5	-	2	21.7	1.43	0.013	-	-	0.34	0.17	3.07	8.00	0.38	0.18	3.19	8.00	0.41	0.19	3.26	8.00	0.44	0.19	3.33	7.94	0.51	0.21	3.48	7.95
135682	NJ-010-I	106481	Circular		2	-	3	190	2.11	0.013	-	-	12.95	0.98	8.93	8.00	13.19	0.99	8.95	8.00	13.32	1.00	8.97	8.00	13.50	1.01	9.01	8.00	13.92	1.03	9.09	8.00
135684	NJ-010-J	106484	Circular		2	-	3	49	8.16	0.013	-	-	14.59	6.57	12.36	7.65	16.26	6.82	12.45	8.00	17.52	6.96	12.51	8.00	18.79	7.10	12.55	8.00	21.74	7.37	12.00	8.00
283437	NJ-010-K	225632	Circular		2	-	3	45	3.11	0.024	-	-	12.79	1.20	7.10	8.00	14.47	1.29	7.38	8.00	15.59	1.35	7.55	8.00	16.71	1.41	7.72	8.00	19.32	1.56	8.04	8.00
135511	NJ-010-L	112598	Circular		1.25	-	1	50	10.00	0.013	-	-	6.15	0.56	14.19	8.00	6.96	0.61	14.66	8.00	7.50	0.64	14.93	8.00	8.04	0.67	15.19	8.00	9.30	0.75	15.70	8.00
NJ10_2_1	NJ-011	189625	Natural	NJ10_2_1	-	-	1039	575	8.17	0.040	0.080	0.080	61.79	1.18	5.55	8.00	69.92	1.24	5.58	8.00	75.34	1.28	5.58	8.00	80.75	1.32	5.59	8.00	93.39	1.41	5.59	8.00
285341	NJ-011-A	285336	Circular		1.25	-	1	38.61	11.66	0.013	-	-	1.45	4.70	3.98	8.00	1.65	4.73	3.78	8.00	1.77	4.75	4.02	8.00	1.90	4.77	3.84	8.00	2.20	4.82	4.03	8.00
285324	NJ-011-B	285319	Circular		1.5	-	2	126.21	12.38	0.013	-	-	3.85	0.40	13.10	8.00	4.35	0.42	13.58	8.00	4.69	0.44	13.89	8.00	5.02	0.46	14.16	8.00	5.81	0.49	14.76	8.00
NJ10C	NJ-012	123123	Natural	NJ10C	-	-	130	891	3.25	0.040	0.080	0.080	60.10	1.10	4.84	8.00	68.00	1.16	5.01	8.00	73.27	1.20	5.10	8.00	78.54	1.26	5.16	8.00	90.83	1.39	5.25	8.00
NJ102_D	NJ-013	123120	Natural	NJ102_D	-	-	778	186	5.91	0.040	0.080	0.080	56.52	1.26	6.52	8.00	63.95	1.35	6.67	7.99	68.90	1.41	6.77	8.00	73.85	1.47	6.87	8.00	85.40	1.61	7.09	8.00
NJ11_1	NJ-014	106453	Natural	NJ11_1	-	-	1512	1500	4.74	0.040	0.080	0.080	54.10	0.98	5.36	7.99	61.21	1.04	5.56	7.99	65.95	1.09	5.69	8.00	70.69	1.13	5.81	8.00	81.75	1.22	6.07	8.00
144945	NJ-015	106524	Circular		3	-	7	158	3.20	0.024	-	-	37.42	1.77	9.39	8.00	42.34	1.90	9.65	8.00	45.62	2.00	9.81	8.00	48.90	2.09	9.95	8.00	56.55	2.32	10.19	8.00
145005	NJ-015-A	102925	Circular		1.25	-	1	85	0.46	0.013	-	-	2.18	0.62	3.78	8.00	2.47	0.66	3.95	8.00	2.66	0.69	4.05	8.00	2.85	0.72	4.15	8.00	3.30	0.78	4.36	8.00
144974	NJ-015-B	106530	Circular		1.5	-	2	21	10.86	0.013	-	-	3.59	0.40	12.64	8.00	4.06	0.48	13.11	8.00	4.37	0.53	13.41	8.00	4.69	0.58	13.67	8.00	5.42	0.71	14.25	8.00
NJ13_1	NJ-016	NJ-015	Natural	NJ13_1	-	-	754	1000	5.51	0.040	0.080	0.080	30.87	1.64	4.03	8.00	34.92	1.77	4.16	8.00	37.63	1.87	4.24	8.00	40.33	1.96	4.32	8.00	46.64	2.19	4.44	8.00
NJ13_2	NJ-016-A	106599	Natural	NJ13_2	-	-	405	403	6.70	0.040	0.080	0.080	10.93	1.04	4.70	8.00	12.37	1.09	4.90	8.00	13.32	1.12	4.99	8.00	14.28	1.14	5.08	8.00	16.51	1.20	5.27	8.00
135615	NJ-016-B	102642	Circular		1.25	-	1	261	0.66	0.013	-	-	2.03	0.58	3.78	8.00	2.30	0.62	3.91	8.00	2.48	0.65	4.00	8.00	2.65	0.67	4.07	8.00	3.07	0.74	4.24	8.00
144787	NJ-016-C	102635	Circular		1.5	-	2	35	13.34	0.013	-	-	1.30	0.36	8.69	8.00	1.47	0.39	9.01	8.00	1.58	0.40	9.21	8.00	1.69	0.42	9.40	8.00	1.96	0.48	9.83	7.95
135518	NJ-016-D	102635	Circular		1.5	-	2	148	7.66	0.013	-	-	2.41	0.36	9.60	8.00	2.72	0.39	9.95	8.00	2.93	0.40	10.17	7.99	3.15	0.42	10.38	8.00	3.64	0.45	10.83	8.00
135588	NJ-016-E	102628	Circular		1.5	-	2	302	0.72	0.013	-	-	2.56	0.63	3.92	8.00	2.90	0.67	4.07	8.00	3.12	0.70	4.16	8.00	3.35	0.73	4.25	8.00	3.87	0.79	4.43	8.00
3012258	Node1328	1186	Natural	3012258	-	-	579	45	-3.76	0.070	0.060	0.040	336.14	10.78	1.43	9.34	343.39	10.88	1.41	9.35	348.68	10.95	1.40	9.31	353.87	11.01	1.40	9.29	363.01	11.55	1.39	9.02
3022505	Node1331	1261	Natural	3022505	-	-	1700	499	2.81	0.080	0.100	0.100	395.73	4.45	4.37	8.05	449.36	4.54	4.37	8.04	484.58	4.59	4.37	8.04	519.72	4.66	4.37	8.04	603.33	4.84	4.37	8.03
CM3N1_1	Node1339	102911	Natural	CM3N1_1	-	-	915	1261	1.11	0.040	0.080	0.080	55.78	5.09	2.36	8.05	61.90	5.56	2.37	8.05	65.95	5.82	2.37	8.05	69.47	6.04	2.37	8.06	78.80	6.52	2.38	8.06
CM8N1_1B	Node1341	CM-003-G	Natural	CM8N1_1B	-	-	1406	690	2.32	0.040	0.080	0.080	37.01	2.67	1.61	8.03	38.44	2.70	1.64	8.03	39.38	2.71	1.65	8.03	40.26	2.73	1.67	8.03	42.29	2.77	1.71	8.03
CM10N1_4A2	Node1343	CM-006-B	Natural	CM10N1_4A2	-	-	1985	550	2.00	0.040	0.080	0.080	33.61	1.81	3.80	8.01	38.03	1.90	3.95	8.01	40.98	1.96	4.05	8.01	43.93	2.02	4.14	8.01	50.82	2.14	4.34	8.00
CM10N3_1A	Node1345	101225	Natural	CM10N3_1A	-	-	669	1157	5.91	0.040	0.080	0.080	4.25	0.44	3.00	8.01	4.82	0.46	3.12	8.01	5.19	0.48	3.19	8.01	5.57	0.49	3.26	8.01	6.45	0.53	3.38	8.01
CM12_1	Node1347	Node1331	Natural	CM12_1	-	-	3411	500	2.80	0.040	0.080	0.080	395.80	4.45	6.20	8.04	449.44	4.54	6.34	8.03	484.67	4.59	6.44	8.03	520.06	4.66	6.51	8.03	602.29	4.84	6.68	8.02
CM12_4	Node1348	CM-007	Natural	CM12_4	-	-	2884	332	3.61	0.040	0.080	0.080	377.80	2.44	8.57	8.03	428.44	2.58	8.96	8.03	462.03	2.68	9.12	8.03	495.73	2.78	9.24	8.02	573.97	3.02	9.26	8.02
CM13_2B	Node1349	102300	Natural	CM13_2B	-	-	746	220	5.91	0.040	0.080	0.080	325.48	2.30	5.84	8.02	369.77	2.43	6.09	8.02	399.12	2.51	6.24	8.02	428.53	2.59	6.40	8.01	496.90	2.76	6.73	8.01
NJ7N2_3	Node1354	NJ-007-D	Natural	NJ7N2_3	-	-	1710	772	2.20	0.040	0.080	0.080	62.10	1.13	4.03	8.01	69.04	1.20	4.15	8.01	73.66	1.25	4.23	8.01	78.27	1.29	4.31	8.01	88.99	1.38	4.49	8.01
NJ7N22_1A1	Node1356	129963	Natural	NJ7N22_1A1	-	-	554	33	19.73	0.040	0.080	0.080	5.46	0.46	5.71	8.10	5.55	0.46	5.73	8.14	5.61	0.46	5.75	8.17	5.67	0.46	5.76	8.20	5.77	0.47	5.79	8.26
NJ7N22_1A2	Node1356	129965	Natural	NJ7N22_1A1	-	-	554	33	19.73	0.040	0.080	0.080	5.46	0.46	5.71	8.10	5.55	0.46	5.73	8.14	5.61	0.46	5.75	8.17	5.67	0.46	5.76	8.20	5.77	0.47	5.79	8.26
NJ7N3_1	Node1359	Node1354	Natural	NJ7N3_1	-	-	1756	640	3.59	0.040	0.080	0.080	46.16	1.65	4.69	8.01	52.27	1.75	4.86	8.01	56.34	1.78	4.94	8.01	60.40	1.81	5.01	8.01	69.89	1.89	5.18	8.01
NJ7N3_3	Node1360	NJ-007-I	Natural	NJ7N3_3	-	-	2097	1546	4.53	0.040	0.080	0.080	26.85	0.81	4.48	8.01	30.40	0.89	4.65	8.01	32.77	0.94	4.76	8.01	35.13	0.99	4.86	8.01	40.65	1.09	5.10	8.00
3300102_1	Node1372	1006	Natural	3300102	-	-	7723	273	2.93	0.080	0.103	0.106	49.99	7.69	0.46	8.01	55.11	7.95	0.48	8.01	58.39	8.11	0.49	8.01	61.67	8.27	0.50	8.01	69.73	8.62	0.52	8.01
NJ10S1_1	Node1373	106475	Natural	NJ10S1_1	-	-	2511	640	3.31	0.040	0.080	0.080	70.67	5.87	4.12	8.01	76.92	6.67	4.12	8.01	81.04	7.15	4.12	8.01	85.21	7.60	4.12	8.01	95.04	8.59	4.11	8.01

About Cardno

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

Cardno Zero Harm

Cardno ZERO HARM EVERY JOB. EVERY DAY.

At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field. Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.