

**APPENDIX A**  
**HYDROLOGIC ANALYSIS**

The US Army Corps of Engineers (USACE) HEC-HMS model was used to develop design flows for the primary systems. The secondary systems were modeled in the Storm Water Management Model (SWMM). For each system analyzed, the hydrologic model(s) was selected based on the complexity of the stormwater conveyance system.

The US Army Corps of Engineers (USACE) HEC-HMS model was selected to model the primary systems defined as the main stems of Harris Mill Run, Schoolhouse Branch and Sam's Branch. HEC-HMS simulates the surface runoff response to precipitation for an interconnected system of surfaces, channels, and ponds. Input data for the HEC-HMS model was developed using topographic, land use, and soils maps in GIS to delineate and calculate the basin areas and SCS hydrologic parameters. The HEC-HMS model offers a variety of methods for simulating the rainfall-runoff response, hydrograph development, channel and pond routing. The selection of methods for the analyses is based on the study objectives, data availability, and watershed characteristics. The precipitation data for the 24-hour duration, NRCS Type III storm was used to represent the synthetic rainfall event. The NRCS curve number approach was selected to calculate runoff volumes from the precipitation data, and the sub-basin unit hydrographs for these flood volumes were developed using the NRCS lag times. Where appropriate, reservoir routing was selected to model attenuation behind culvert embankments.

For the larger secondary systems that may: (a) have significant backwater effects from rising water surface elevations within the Primary Systems, (b) have attenuation within drainage ditches or behind roadways, and (c) show a sensitivity to the timing response of runoff to rainfall, the SWMM model developed by the US Environmental Protection Agency (EPA) was selected as the hydrologic and hydraulic model. The NRCS curve number approach was selected to calculate runoff volumes from the precipitation data, and the sub-basin unit hydrographs for these flood volumes were developed using the watershed width parameter. SWMM simulates the surface runoff response to precipitation for an interconnected system of surfaces, channels, and ponds. Input data for the SWMM model was developed using topographic data, land use data, and soils maps in GIS to delineate and calculate the basin areas and NRCS hydrologic parameters. The SWMM model offers a variety of methods for simulating the rainfall-runoff response, hydrograph development, and channel routing. One advantage to using SWMM to model both hydrology and hydraulics is that channel routing is modeled in the EXTRAN (hydraulics) block automatically based on the geometry and nature of the conveyance system. This eliminates the need to iterate between a hydrologic model and a hydraulic model to produce reasonable flows.

**Table A-1** lists the different systems and the modeling methodology applied to each system.

**Table A-1: Project Area Model Selection**

Project Area	Model Selection
Harris Mill Run Primary System	HEC-HMS
Schoolhouse Branch Primary System	HEC-HMS
Sains Branch Primary System	HEC-HMS
Sams Branch Primary System	HEC-HMS
Davis and Vance Streets System	SWMM
N Jarvis Street and 1st Street System	SWMM
N Harding Street and 1st Street System	SWMM
Elm Street and 4 <sup>th</sup> Street System	SWMM

**Watershed Delineation and Connectivity**

Watersheds were delineated for the Primary Systems and for each of the five (4) secondary systems utilizing digital LiDAR data available from the State of North Carolina and the stormwater inventory. The preliminary watersheds were created using automated procedures in a GIS platform and then adjusted as necessary based on the conveyance system and known ridge lines. Each flood control project watershed for the Primary Systems was subdivided into sub-watersheds selected at hydrologically and hydraulically significant points, such as major roadway crossings, stream convergences, known problem areas, etc. Each sub-watershed for the secondary systems was selected as the area that drained to each inlet modeled on the secondary system. One hundred (100) sub-watersheds were delineated for the Primary Systems ranging in size from 14-147 acres. Sub-watersheds were delineated as necessary for the secondary systems to accurately model the hydraulics of the system. The watershed maps included in Appendix C illustrate the sub-watershed and hydrologic connectivity for the primary system.

**Soils**

The NRCS curve number method uses basin characteristics, such as soil types and land use, to compute the runoff response. The infiltration rate of a soil influences the volume of surface runoff that results from given storm events. Soils with high infiltration rates produce lower runoff than soils with lower infiltration rates. The Soil Conservation Service has prepared soil maps for Pitt County that identify four primary soil groups. This data is available digitally and was obtained for the City of Greenville.

The groups (A, B, C, and D) correspond to decreasing rates of infiltration. A general description of the four soil groups taken from the USDA, SCS, NEH-4 (1972) is presented in **Table A-2**.

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**Table A-2: Hydrologic Soils Groups**

Soil Group	Description
A	Group A soils have high infiltration rates even when thoroughly wetted and consist chiefly of deep, well to excessively drained sand or gravels. These soils have a high rate of water transmission. (greater than 0.3 inches per hour)
B	Group B soils have moderate infiltration rates even when thoroughly wetted and consist chiefly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse texture. These soils have a moderate rate of water transmission. (0.15 to 0.3 inches per hour)
C	Group C soils have slow infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of water transmission. (0.5 to 0.15 inches per hour)
D	Group D soils have a very slow infiltration rate when thoroughly wetted and consist chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a clay pan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very slow rate of water transmission. (0 to 0.05 inches per hour)
A/D	The first letter applies to the drained condition and the second to the undrained condition. For the purpose of hydrologic soil group, adequately drained means that the seasonal high water table is kept at least 60 centimeters (24 inches) below the surface.
B/D	The first letter applies to the drained condition and the second to the undrained condition. For the purpose of hydrologic soil group, adequately drained means that the seasonal high water table is kept at least 60 centimeters (24 inches) below the surface.

Soils within the watershed are predominantly NRCS hydrologic soil groups A and D soils, although six (6) different hydrologic soil groups are represented in some quantity in the watershed (See **Table A-3** and Appendix C).

**Table A-3A: Area Distribution of Hydrologic Soil Groups**

Soil Group	Total Area (acre)	Percent of Total Area
A	436	20.3%
B	134	6.3%
C	250	11.7%
D	1,297	60.5
Water	27	1.3%

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**Table A-3B: Area Distribution of Hydrologic Soil Groups**

Soil Group	Total Area (acre)	Percent of Total Area
A	273	26.6%
B	169	16.5%
C	53	5.2%
D	529	51.5
Water	3	0.3%

### Land Use

Land use is the watershed cover condition as it relates to the actual type of development and zoning within the watershed. Land use influences the runoff characteristics of a watershed, and combined with other basin characteristics, is used to determine the NRCS (SCS) curve number for the basin.

The existing zoned land uses for the watershed were provided by the City of Greenville. These zoning maps were used to develop peak flows for the watershed. Nine land use categories were delineated within the watershed based on the information provided and field observation of the current uses (See Appendix C).

In its entirety, including area in the Tar River floodplain, the watershed covers an area of approximately 7,805 acres (12 square miles). The majority of the basin is developed currently to its zoned land use. While a few isolated parcels may be developed, it is unlikely they will significantly increase peak flows. Therefore, for the purposes of this study, the existing conditions land use was considered the same as the build-out conditions land use. Percentages of each existing land use group and the correlating acreage are listed in **Tables A-4A to A-4D** below.

**Table A-4A: Watershed Existing Land Use – Harris Mill Run**

Land Use Category	Area (acres)	Percent of Basin Area
Commercial	7	0.3%
Institutional	27	1.1%
Low density residential	5	0.2%
Medium density residential	216	9.3%
Multi-family	173	7.5%
Open space	1710	74%
Right-of-way	180	7.7%
Commercial	7	0.3%
Institutional	27	1.1%
TOTAL	2,317	100%

**Table A-4B: Watershed Existing Land Use – Schoolhouse Branch**

Land Use Category	Area (acres)	Percent of Basin Area
Commercial	24	2.3%
Office/Institutional/Multifamily	469	45.7%

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Industrial	0	0.0%
High Density Residential	0	0.0%
Medium Density Residential	32	3.1%
Low Density Residential	9	0.9%
Conservation/Open Space	407	39.6%
Agricultural/Cropland	0	0.0%
Right-of-Way	86	8.4%
TOTAL	1,027	100%

**Table A-4C: Watershed Existing Land Use – Sains Branch**

Land Use Category	Area (acres)	Percent of Basin Area
Medium Density Residential	23	3.0%
Low Density Residential	268	35%
Conservation/Open Space	453	60%
Right-of-Way	16	2.1%
TOTAL	760	100%

**Table A-4D: Watershed Existing Land Use – Sams Branch**

Land Use Category	Area (acres)	Percent of Basin Area
Commercial	4	0.8%
Office/Institutional/Multifamily	2	0.4%
Medium Density Residential	100	19.9%
Low Density Residential	1	0.2%
Conservation/Open Space	380	72%
Right-of-Way	39	7.4%
TOTAL	526	100%

For the purposes of this study, the future conditions land use was considered the fully built-out conditions based on the available zoning information. Percentages of each existing land use group and the correlating acreage are listed in **Tables A-5A to A-5D** below.

**Table A-5A: Watershed Future Land Use – Harris Mill Run**

Land Use Category	Area (acres)	Percent of Basin Area
Commercial	94	4.1%
High density residential	166	7.2%
Medium density residential	1162	50%
Multi-family	273	12%
Open space	510	22%
Right-of-way	113	4.9%
Commercial	94	4.1%
TOTAL	2,318	100%

**Table A-5B: Watershed Future Land Use – Schoolhouse Branch**

<b>Land Use Category</b>	<b>Area (acres)</b>	<b>Percent of Basin Area</b>
Commercial	50	4.9%
High Density Residential	100	10%
Medical	26	2.6%
Medical Core	177	17%
Medical Transition	164	16%
Multi-Family	307	30%
Open Space	152	15%
Right-of-way	49	4.8%
TOTAL	1,027	100%

**Table A-5C: Watershed Future Land Use – Sains Branch**

<b>Land Use Category</b>	<b>Area (acres)</b>	<b>Percent of Basin Area</b>
Medium density residential	371	49%
Open space	113	15%
Right-of-way	8	1.1%
Very low density residential	268	35%
TOTAL	760	100%

**Table A-5D: Watershed Future Land Use – Sams Branch**

<b>Land Use Category</b>	<b>Area (acres)</b>	<b>Percent of Basin Area</b>
Commercial	20	3.8%
Medium Density Residential	247	47%
Multi-family	43	8.1%
Open space	203	39%
Right-of-way	12	2.4%
TOTAL	525	100%

**NRCS Curve Numbers**

The NRCS curve number approach was used in computing the runoff response. Runoff curve numbers (RCNs) were generated by using the NRCS (SCS) document entitled Urban Hydrology for Small Watersheds, dated June 1986 and commonly referred to as TR-55. This method relates the drainage characteristics of the hydrologic soil group, land use category, and antecedent moisture conditions (AMC) to a runoff curve number. The runoff curve number and an estimate of the initial surface moisture storage capacity are used to calculate a total runoff depth for a storm in a basin.

The AMC refers to the total rainfall in a 5-day period preceding a storm and relates to the soil moisture condition at the beginning of the storm event. The AMC value can be used as a calibration tool in the hydrologic computations where AMC-1 represents "dry" conditions and AMC-3 represents "wet" conditions. The average antecedent moisture conditions (AMC-2) are generally considered most representative for the humid southeastern portion of the country and

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were used for the hydrologic calculations in this study.

Runoff curve numbers were determined for each sub-basin based on the soil group, land use, and average antecedent moisture condition for the area. The curve numbers calculated for this study are listed in **Table A-6** below.

**Table A-6: Curve Numbers Based on Land Use and Soil Groups**

Land Use Category	Soil Group			
	A	B	C	D
Commercial	89	92	94	95
Office/Institutional/Multifamil	77	85	90	92
High Density Residential	61	75	83	87
Medium Density Residential	54	70	80	85
Low Density Residential	51	68	79	84
Conservation/Open Space	49	69	79	84
Agricultural/Cropland	67	78	85	89
Right-of-Way	83	89	92	93

For each sub-basin, the curve number was determined and weighted by area to calculate the composite curve number for each sub-basin. A summary of the hydrologic input data for the Primary Systems, including the runoff curve numbers, is shown in **Table A-7**. The detailed calculations are included in Appendix E (runoff curve numbers) and Appendix F (times of concentration).

**Table A-7A: Summary of Hydrologic Input Data – Harris Mill Run**

Drainage Basin ID	Drainage Area (acre)	Existing Conditions RCN	Future Conditions RCN	Time of Concentration (min)
HMR_100	252	77.8	81.7	313
HMR_200	23	75.3	82.1	34
HMR_210	57	81.6	86.9	148
HMR_220	24	64.5	82.2	51
HMR_300	48	70.7	80.1	33
HMR_400	71	71.5	80.2	86
HMR_500	83	63.3	83.6	115
HMR_600	65	64.7	85.0	86
HMR_700	67	61.3	79.7	61
HMR_710	56	60.6	76.8	27
HMR_715	65	69.8	87.6	22
HMR_720	79	65.9	85.9	142
HMR_730	94	73.9	83.2	157
HMR_735	94	76.0	83.8	243



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<b>Drainage Basin ID</b>	<b>Drainage Area (acre)</b>	<b>Existing Conditions RCN</b>	<b>Future Conditions RCN</b>	<b>Time of Concentration (min)</b>
HMR_740	14	74.5	83.6	55
HMR_750	87	77.7	85.7	262
HMR_760	147	76.5	85.3	372
HMR_770	131	75.7	85.0	447
HMR_800	143	63.4	85.8	48
HMR_900	34	56.0	68.7	53
HMR_1000	30	63.6	75.0	77
HMR_1100	53	62.5	72.4	70
HMR_1110	39	72.3	79.0	57
HMR_1200	187	61.0	70.4	189
HMR_1300	82	71.4	80.5	151
HMR_1400	92	72.3	81.7	183
HMR_1500	25	75.2	84.6	169

**Table A-7B: Summary of Hydrologic Input Data - Schoolhouse Branch**

<b>Drainage Basin ID</b>	<b>Drainage Area (acre)</b>	<b>Existing Conditions RCN</b>	<b>Future Conditions RCN</b>	<b>Time of Concentration (min)</b>
SHB_001	2	84.0	84.0	168
SHB_002	2	84.0	84.0	16
SHB_003	21	89.2	86.0	50
SHB_004	13	88.9	85.6	12
SHB_005	14	76.2	80.6	39
SHB_007	62	80.0	80.9	25
SHB_010	11	84.0	84.0	47
SHB_012	16	82.8	81.6	14
SHB_014	73	75.8	80.3	27
SHB_016	4	86.1	83.5	64
SHB_018	69	81.2	83.3	185
SHB_020	24	86.0	88.3	33
SHB_022	28	85.4	92.1	105
SHB_024	3	92.0	87.3	30
SHB_026	19	80.0	87.8	49
SHB_028	66	72.6	85.6	94
SHB_030	18	67.3	79.5	148
SHB_101	3	84.0	84.0	14
SHB_102	21	80.3	82.8	15
SHB_103	9	81.7	82.7	27
SHB_104	34	82.8	89.9	21

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Drainage Basin ID	Drainage Area (acre)	Existing Conditions RCN	Future Conditions RCN	Time of Concentration (min)
SHB_105	36	91.8	94.1	61
SHB_107	11	84.9	88.0	12
SHB_108	41	84.2	90.8	38
SHB_201	71	81.8	88.7	12
SHB_203	10	80.5	85.6	38
SHB_205	14	78.6	86.9	15
SHB_207	34	89.2	90.7	41
SHB_209	38	81.3	87.1	40
SHB_211	15	82.6	89.2	35
SHB_213	28	88.8	90.8	73
SHB_220	14	81.3	86.9	59
SHB_221	38	88.8	90.0	12
SHB_223	32	84.9	86.4	21
SHB_501	3	84.3	92.0	19
SHB_503	53	80.0	86.6	66
SHB_505	39	77.4	82.3	58
SHB_507	37	74.7	84.2	151

**Table A-7C: Summary of Hydrologic Input Data - Sains Branch**

Drainage Basin ID	Drainage Area (acre)	Existing Conditions RCN	Future Conditions RCN	Time of Concentration (min)
SB1_100	3	65.8	65.8	79
SB1_200	13	71.3	71.3	33
SB1_300	15	73.4	73.4	71
SB1_310	25	72.2	72.2	101
SB1_400	35	67.2	67.1	41
SB1_500	38	70.5	69.5	84
SB1_600	8	62.7	63.1	44
SB1_610	28	64.2	65.1	126
SB1_700	13	81.3	80.5	111
SB1_800	61	72.4	72.0	301
SB1_900	60	74.6	75.8	124
SB1_1000	42	69.2	69.1	46
SB1_1010	18	81.7	81.9	101
SB1_1011	75	82.5	83.0	301
SB1_1020	8	81.5	81.5	49
SB1_1021	119	83.3	83.4	321
SB1_1100	20	80.3	81.3	133

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Drainage Basin ID	Drainage Area (acre)	Existing Conditions RCN	Future Conditions RCN	Time of Concentration (min)
SB1_1110	93	83.6	83.7	389
SB1_1200	32	71.1	73.0	116
SB1_1300	53	78.9	79.9	195

**Table A-7D: Summary of Hydrologic Input Data - Sams Branch**

Drainage Basin ID	Drainage Area (acre)	Existing Conditions RCN	Future Conditions RCN	Time of Concentration (min)
SB2_100	8	57.1	57.1	34
SB2_200	3	56.4	56.4	111
SB2_220	29	59.4	58.5	79
SB2_300	50	65.4	64.9	79
SB2_400	6	87.4	87.5	15
SB2_500	2	84.2	84.0	12
SB2_600	47	71.1	68.4	48
SB2_610	143	71.9	75.6	74
SB2_620	80	68.5	80.2	111
SB2_700	3	81.9	77.1	13
SB2_800	66	65.4	62.0	50
SB2_900	14	51.8	51.5	29
SB2_910	13	52.6	59.3	33
SB2_1000	28	69.9	67.8	30
SB2_1100	32	71.6	70.4	79

### Rainfall

Rainfall distributions for Greenville are derived using the NRCS Type III standard distribution. Total rainfall volumes for the modeled frequency storms were based on data published on the NOAA website, [http://hdsc.nws.noaa.gov/hdsc/pfds/orb/nc\\_pfds.html](http://hdsc.nws.noaa.gov/hdsc/pfds/orb/nc_pfds.html). **Table A-8** shows the total rainfall volumes used for this study based on precipitation data collected in Greenville, North Carolina

**Table A-8: Design Storm Rainfall Depths**

Design Storm	Rainfall Depth (in)
2-year, 24-hour	3.76
10-year, 24-hour	5.81
25-year, 24-hour	7.23
50-year, 24-hour	8.47
100-year, 24-hour	9.84

While the depth-duration-frequency curves are calculated based on real rainfall data, the rainfall

data used for the SWMM and HEC-HMS models represent the Type III synthetic rainfall distribution. Actual runoff is based on several factors including rainfall intensity, duration and the antecedent moisture conditions of the watershed.

### **Hydrograph Translation**

The lag time, as defined by the SCS (NRCS) for use in the SCS dimensionless unit hydrograph method, is the time, or lag, between the center of mass of rainfall excess and the peak of the unit hydrograph. The lag time is based on the sub-watershed time of concentration, or travel time, and is a function of the sub-watershed size, shape, slope, cover, and other basin characteristics. For the SCS method, the sub-watershed lag time is calculated to be 0.6 times the time of concentration for each sub-watershed.

The Snyder Unit Hydrograph (UH) method was used instead of the SCS UH to allow adjustment of the peak rate factor in the HMS model. For flat coastal plan terrain, a peak rate factor between 250-350 is most appropriate for the SCS UH (Sheridan et al, 2002). A peaking factor of 0.4 was applied with the Snyder UH method which is essentially equivalent to using the NRCS UH with the lower peak rate factor.

The times of concentration for the sub-watersheds were calculated from the methodology described in TR-55. A summary of the calculations is shown in Appendix F. The longest flow path is divided into three types of flow; overland flow, shallow concentrated flow, and channel flow. A spreadsheet was developed to tabulate the incremental travel times for each type of flow for each sub-basin. The incremental travel times were totaled and multiplied by 0.6 to compute the lag time for each sub-basin. The equation detailing the travel time for sheet flow is as follows:

$$T_t = \frac{.007 (nL)^{0.8}}{(P_2)^{0.5} S^{0.4}}$$

- Tt = Travel Time in hours
- n = Manning Roughness Coefficient (Paved=0.011, Unpaved=0.24)
- L = flow length in feet
- P2 = 2-year, 24 hour rainfall = 3.76 inches
- S = slope of hydraulic grade line (land slope in ft/ft)

For shallow concentrated flow, the velocity (V) is calculated for either paved or unpaved sections by using the following equations:

$$\begin{aligned} \text{Unpaved } V &= 16.1345 (S)^{1/2} \\ \text{Paved } V &= 20.3282 (S)^{1/2} \end{aligned}$$

The travel time for shallow flow is then calculated by dividing the flow length (L in feet) by velocity as follows:

$$T_t = \text{Travel Time} = L / (3600 * V)$$

The open channel travel times are determined by a modified version of the Manning equation, which is as follows:

$$V = \frac{1.49 R^{2/3} S^{0.5}}{n}$$

- V = Average full-flow velocity (ft/s)
- R = Hydraulic radius (ft)
- S = Slope of hydraulic grade line (ft/ft)
- n = Manning roughness coefficient

Instead of a time of concentration parameter, the SWMM model uses a watershed width parameter to create the unit hydrograph used in the model that will translate the rainfall into runoff. The watershed width is a parameter unique to SWMM that typically represents the watershed area divided by the longest flow path. The width parameter is typically calibrated to flow gauge data, if available. The watershed lacks flow gauge data, so the peak flows from SWMM were compared to flows developed using the Rational Method. Based on the flow comparison, the watershed widths for each basin were increased in some instances to produce reasonable flows. Increasing the watershed width parameters is not an uncommon practice for calibrating models for areas with gradual slopes and moderate conveyance systems.

### **Channel Elements**

Flood peaks attenuate, or reduce, as they travel downstream due to the storage characteristic of the stream reach. The Muskingum-Cunge routing method in HEC-HMS was selected to define the storage characteristic of selected stream reaches in the PC/JMR Watersheds. It can be described as a hydrologic routing method based on physical parameters of the channel and floodplain. Input data for this method consists of representative channel/floodplain sections, reach length, Manning's roughness coefficient, and channel bed slope. This method provides advantages over other hydrologic techniques based on the relative size and slope of the channels and floodplains in the watershed.

### **Structure and Pond Routing**

For channels within the extents of the HEC-RAS modeled streams, modified Puls storage routing was used for routing hydrographs through the storage reaches. This method accounts for storage upstream from undersized structures (culverts) as well as most accurately throughout all reaches using the channel and floodplain dimensions included in the HEC-RAS model. HEC-HMS is able to model the effects of an undersized culvert through inputs defining the relationship between water volume or area and elevation and the relationship between outflow and water surface elevations. The relationship between outflow and water surface elevations is developed using an iterative process between HEC-HMS and HEC-RAS. A rating curve generated using HEC-RAS defines the outflow of the water leaving this system.

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However, the method described in the previous paragraph does not account for the reduction in tailwater on the structure due to the attenuation effects of the upstream storage, which in turn can affect the stage-discharge relation of the structure. Therefore, an iterative process for storage structures was followed with an objective to obtain a set of peak discharge values, runoff volumes, and water surface elevations that are “balanced” between the two models. The process was initiated by inputting a set of discharges into the HEC-RAS model to develop a set of discharge-storage relations for each reach. This initial set of relations was input into the HEC- HMS model. These values were supplemented by the depth-storage relation for each structure.

The HEC-HMS model was run with these values to derive new discharges at downstream locations. These new values were input into the HEC-RAS model and it was recomputed. The new discharges and water surface elevations listed in the HEC-HMS summary output were compared with the discharges listed in the previous HEC-RAS run. When the values stabilized, the model was considered “balanced”. If not then additional iterations were performed. Typically, three iterations are adequate to derive a balanced model.

### Summary of Hydrologic Model Results

The HEC-HMS model was used to compute peak runoff for the 2-, 10-, 25-, 50-, and 100- year design storms for the existing conditions.

The results of the hydrologic model are summarized in **Table A-9** for existing conditions and **Table A-10** for future conditions. The HEC-HMS input and output are included in Appendix H. Additionally, a CD is included in Appendix J and contains the digital files for the HEC-HMS model.

**Table A-9A: Existing Conditions Flows from HEC-HMS**

HEC-HMS Node	Road Name / Location	HEC-RAS Station	Storm Event				
			2-year (cfs)	10-year (cfs)	25-year (cfs)	50-year (cfs)	100-year (cfs)
<b>Harris Mill Run</b>							
J_HMR_1300	U/S Limit of Harris Mill Run	XS-18138	23	57	83	107	134
J_HMR_1100	Rock Spring Road	XS-15394	42	109	163	214	273
J_HMR_1000	US Hwy 264	XS-14197	41	106	157	206	262
J_HMR_700	0.3 mile below US Hwy 264	XS-12085	125	301	461	618	801
J_HMR_400	State Hwy 43	XS-8501	147	373	574	763	984
J_HMR_300	0.4 mile below State Hwy 43 Bridge	XS-6212	150	390	599	796	1,027
J_HMR_200	D/S Limit of Harris	XS-4881	164	411	626	833	1,078

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HEC-HMS Node	Road Name / Location	HEC-RAS Station	Storm Event				
			2-year (cfs)	10-year (cfs)	25-year (cfs)	50-year (cfs)	100-year (cfs)
	Mill Run						
<b>Schoolhouse Branch</b>							
J_SHB_030	U/S Limit of Schoolhouse Branch	XS-12202	3	7	10	13	16
J_SHB_028	0.3 mile below B S Barbeque Rd	XS-10469	19	46	66	85	106
J_SHB_020	NC Alcohol Rehab Center Entrance Road	XS-7243	98	200	283	354	432
J_SHB_020	Nursing Home Entrance Road	XS-6790	98	200	283	354	432
J_SHB_018	W Arlington Boulevard	XS-6468	113	231	324	404	493
J_SHB_016	W 5th Street (State Hwy 43)	XS-5879	295	557	743	908	1,105
J_SHB_012	D/S Limit of Schoolhouse Branch	XS-1913	379	743	1,022	1,265	1,549
<b>Sains Branch</b>							
J_SB1_1300	U/S Limit of Sam's Branch 1 (west)	XS-7695	12	24	33	41	50
J_SB1_800	State Hwy 43	XS-4373	100	202	277	345	421
J_SB1_OUT	D/S Limit of Sam's Branch 1 (west)	XS-557	125	266	376	477	594
<b>Sams Branch</b>							
J_SB2_1100	U/S Limit of Sam's Branch 2 (east)	XS-6528	3	10	16	22	29
J_SB2_900	Golf Cart Crossing #3	XS-5065	16	45	71	95	122
J_SB2_800	Golf View Drive	XS-4011	18	62	102	140	186
J_SB2_500	River Walk Drive (Private)	XS-3392	93	222	323	418	526
J_SB2_200	D/S Limit of Sam's Branch 2 (east)	XS-825	122	271	391	500	627

**Table A-10: Future Conditions Flows from HEC-HMS**

HEC-HMS Node	Road Name / Location	HEC-RAS Station	Storm Event				
			2-year (cfs)	10-year (cfs)	25-year (cfs)	50-year (cfs)	100-year (cfs)
<b>Harris Mill Run</b>							
J_HMR_1300	25	59	86	110	138	25	59
J_HMR_1100	47	116	172	225	285	47	116

## APPENDIX A HYDROLOGIC ANALYSIS

HEC-HMS Node	Road Name / Location	HEC-RAS Station	Storm Event				
			2-year (cfs)	10-year (cfs)	25-year (cfs)	50-year (cfs)	100-year (cfs)
J_HMR_1000	46	113	167	216	273	46	113
J_HMR_700	195	436	620	791	990	195	436
J_HMR_400	State Hwy 43	XS-8501	241	537	769	981	1220
J_HMR_300	0.4 mile below State Hwy 43 Bridge	XS-6212	247	555	797	1017	1266
J_HMR_200	D/S Limit of Harris Mill Run	XS-4881	259	581	835	1068	1333
<b>Schoolhouse Branch</b>							
J_SHB_030	U/S Limit of Schoolhouse Branch	XS-12202	5	10	14	17	21
J_SHB_028	0.3 mile below B S Barbeque Rd	XS-10469	37	69	92	111	133
J_SHB_020	NC Alcohol Rehab Center Entrance Road	XS-7243	137	254	338	409	488
J_SHB_020	Nursing Home Entrance Road	XS-6790	137	254	338	409	488
J_SHB_018	W Arlington Boulevard	XS-6468	154	286	380	462	552
J_SHB_016	W 5th Street (State Hwy 43)	XS-5879	353	624	814	995	1194
J_SHB_012	D/S Limit of Schoolhouse Branch	XS-1913	462	851	1133	1378	1671
<b>Sains Branch</b>							
J_SB1_1300	U/S Limit of Sam's Branch 1 (west)	XS-7695	12	25	34	42	51
J_SB1_800	State Hwy 43	XS-4373	102	205	281	349	425
J_SB1_OUT	D/S Limit of Sam's Branch 1 (west)	XS-557	127	270	381	483	601
<b>Sams Branch</b>							
J_SB2_1100	U/S Limit of Sam's Branch 2 (east)	XS-6528	7	17	25	32	40
J_SB2_900	Golf Cart Crossing #3	XS-5065	17	47	73	97	126
J_SB2_800	Golf View Drive	XS-4011	27	80	124	167	216
J_SB2_500	River Walk Drive (Private)	XS-3392	100	238	345	445	556
J_SB2_200	D/S Limit of Sam's Branch 2 (east)	XS-825	107	258	379	491	621

### Comparison of Peak Flows

For comparison purposes, flood peaks were estimated using the U.S. Geological Survey (USGS)



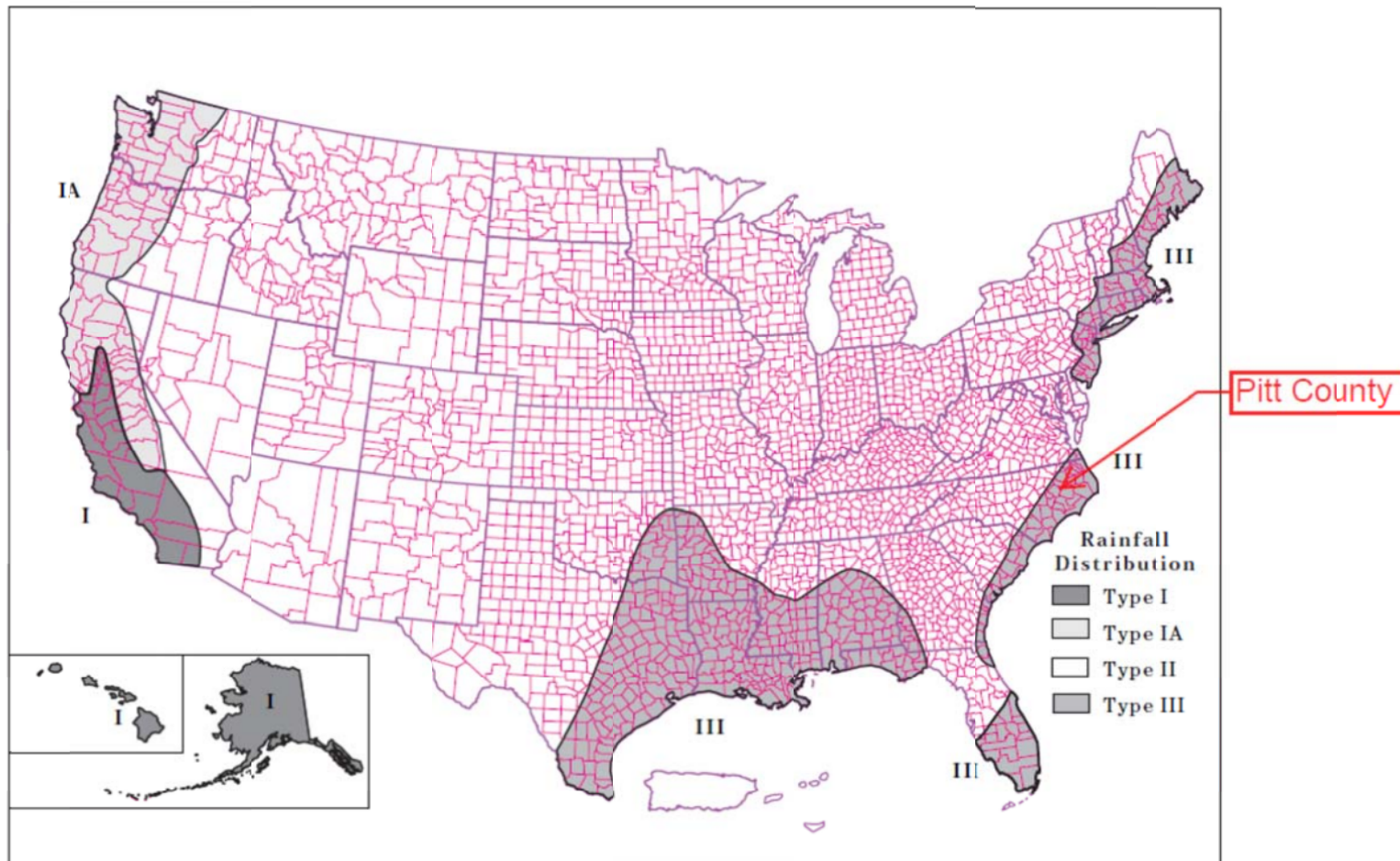
## APPENDIX A HYDROLOGIC ANALYSIS

publication entitled "The National Flood-Frequency Program – Methods for Estimating Flood Magnitude and Frequency in Rural and Urban Areas in North Carolina – USGS Fact Sheet 007-00" (2001) at key locations within the watershed. **Table A-11** compares the peak flows determined from the USGS regional regression equations the Coastal-Plain region versus the peak flows from HEC-HMS.

**Table A-11: Comparison of Existing Conditions Peak Flows**

Methodology	Location	2-Year (cfs)	10- Year (cfs)	25- Year (cfs)	50- Year (cfs)	100- Year (cfs)
Harris Mill Run						
HEC-HMS	At W 5th Street	147	373	574	763	984
USGS Regression Coastal-Plains (2001)	At W 5th Street	127	347	508	654	823
Schoolhouse Branch						
HEC-HMS	D/S Limit of Schoolhouse Branch	309	600	809	998	1,216
USGS Regression Coastal-Plains (2001)	D/S Limit of Schoolhouse Branch	276	633	931	1,093	1,251
Sains Branch						
HEC-HMS	D/S Limit of Sam's Branch 1 (west)	125	265	376	477	594
USGS Regression Coastal-Plains (2001)	D/S Limit of Sam's Branch 1 (west)	73	209	311	405	516
Sams Branch						
HEC-HMS	D/S Limit of Sam's Branch 2 (east)	93	222	323	418	526
USGS Regression Coastal-Plains (2001)	D/S Limit of Sam's Branch 2 (east)	49	147	222	291	373

**Figure B-2** Approximate geographic boundaries for NRCS (SCS) rainfall distributions



Source: TR-55 (June, 1986)

**APPENDIX B**  
**HYDRAULIC ANALYSIS**

## APPENDIX B HYDRAULIC ANALYSIS

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The purpose of the hydraulic modeling analysis is to determine an existing level of flooding for the stormwater drainage network and to develop proposed solutions to mitigate flooding, on both the primary systems and the secondary systems. Three different modeling methodologies were used depending on the complexity and location of the conveyance system. For the primary systems comprised of Parkers Creek and Johnsons Mill Run, the Hydrologic Engineering Center River Analysis System (HEC-RAS) was used for hydraulic modeling. For secondary systems, the Storm Water Management Model (SWMM) developed by the US Environmental Protection Agency (EPA) was used to calculate the hydraulic grade lines using an energy grade based approach. Table B-1 lists the project areas that were modeled using each approach.

**Table B-1: Project Area Model Selection**

<b>Project Area</b>	<b>Model Selection</b>
Parkers Creek Primary System	HEC-RAS
Parkers Creek Tributary 1 Primary System	HEC-RAS
Parkers Creek Tributary 2 Primary System	HEC-RAS
Johnsons Mill Run Primary System	HEC-RAS
Countryside/Oak Grove Estates System	SWMM
Greenfield Terrace System	SWMM
Haw Drive System	SWMM

### **HEC-RAS Model**

The HEC-RAS model calculates water surface profiles for steady, gradually varied flow, both sub-critical and supercritical, for user-specified discharges. The standard step backwater analysis for sub-critical flow was modeled for the Parkers Creek and Johnsons Mill Run Primary Systems. The model calculates the effect of obstructions, such as culverts, and building structures in the channel and floodplain on the water surface profile. The hydraulic computations are based on the solution of a one-dimensional energy equation with energy loss due to friction evaluated by Manning's equation.

Input data for the HEC-RAS computer model includes the following:

- Cross-section geometry of the channel and floodplain.
- Roughness coefficients to describe the characteristics of the channel and floodplain.
- Size, shape, and characteristics of culverts and roadways along the stream reach.
- Energy loss coefficients for flow in the channel and at roadway crossings.

### **Primary System Study Limits**

As discussed with City of Greenville stormwater staff, study limits for the hydraulic evaluation of the primary systems include Parkers Creek from its confluence with the Tar River at the downstream end to approximately 1,700 feet upstream of the Highway 264 northwest access entrance ramp and Johnsons Mill Run from its confluence with the Tar River at the downstream end to approximately 2,800 feet upstream of Mount Pleasant Church Road.

#### **Stormwater Inventory**

For the Parkers Creek/Johnsons Mill Run PC/JMR Watershed Master Plan, stormwater utility infrastructure throughout the watershed was collected by CDM Smith personnel to compile a Geographic Information System (GIS) stormwater inventory database for the City. This was accomplished by using Global Positioning Systems (GPS) as the primary means of data capture. CDM Smith employed survey grade GPS to locate the x, y, and z coordinates of each visible stormwater system structure and conventional surveying techniques to obtain other attributes including but not limited to size, material, slope, and length. Additionally, attributes were also collected for select streams and open channel. Data was obtained for those streams and open channels required to complete connectivity for modeling purposes. The data was collected using horizontal datum NAD 1983 and vertical datum NAVD 1988

Attributes collected as part of the inventory were used to populate the various models. Field visits and digital photographs for each structure and channel were used to estimate the roughness coefficients and energy loss coefficients. The topographic data used for the PC/JMR Watershed Master Plan was the State of North Carolina's LiDAR data.

#### **Cross Sections**

Cross section surveys had recently been completed for sections of both Parkers Creek and Johnsons Mill Run as part of the State's floodplain mapping program. These surveyed cross sections were augmented with additional cross sections surveyed by CDM Smith. The surveyed cross section points were then merged with the digital elevation model based on the LiDAR data. Cross sections were located perpendicular to the flow and at intervals along the stream to characterize the flow capacity of the channel and floodplain for the primary system. Along stream reaches where the shape, size, and geometry of the cross-section are varying, cross sections were cut at closer intervals than for reaches having little change in channel characteristic. Additional sections were cut as required by the HEC-RAS program to sufficiently model structures such as culverts.

Surveyed cross sections are identified by station number, which for the HEC-RAS model, refers to the approximate linear distance upstream from a reference point on the main channel or tributary reach. The cross sections depict the locations of cut sections from field topographic surveys. Similarly, the cross section at each road crossing represents the top-of-road cross section. The cross sections just upstream and just downstream of highest point of roadway (commonly referred to as the weir) represent the locations of the upstream and downstream faces, respectively, of the bridge or culvert in an area not impacted by roadway fill.

#### **Roughness Coefficients**

Manning's roughness coefficients, or 'n' values, represent the resistance to flow and influence the flow capacity of channels and floodplains. The HEC-RAS model uses these coefficients to compute friction loss longitudinally in the channel and floodplain. The roughness value is a function of the type and density of the vegetation, channel bottom and stream bank material, degree of channel meandering, and depth of flow.

Roughness coefficients were determined for all stream reaches for which hydraulic analyses were performed. The "horizontal variation in n-values" option was enabled to allow for correct modeling of the widely varied surfaces on a given cross-section. For example, many cross-

## APPENDIX B HYDRAULIC ANALYSIS

sections sufficient to represent the roughness of the floodplain and channel in the study area, one for the channel section, one for the right overbank floodplain, and one for the left overbank floodplain. The right or left bank of the stream is referenced facing downstream. Roughness coefficients used in this study are listed in Table B-2.

**Table B-2A: Roughness Coefficients – Parkers Creek**

Location	Range of 'n' values
Main Channel	0.04 - 0.065
Left Overbank	0.06 - 0.15
Right Overbank	0.03 - 0.15

**Table B-2B: Roughness Coefficients – Parkers Creek Lateral I (south)**

Location	Range of 'n' values
Main Channel	0.04 - 0.055
Left Overbank	0.035 - 0.12
Right Overbank	0.035 - 0.12

**Table B-2C: Roughness Coefficients – Parkers Creek Lateral I (south)**

Location	Range of 'n' values
Main Channel	0.045
Left Overbank	0.06 - 0.10
Right Overbank	0.03 - 0.10

**Table B-2D: Roughness Coefficients – Johnsons Mill Run**

Location	Range of 'n' values
Main Channel	0.055 - 0.065
Left Overbank	0.06 - 0.15
Right Overbank	0.06 - 0.15

All roughness coefficients were estimated through field observation and by referencing standard engineering manuals.

### **Culvert and Roadway Data**

Culverts generally have different characteristics than the channel and floodplains away from roadway crossings. Often culverts constrict flood flows in the channel and floodplain, which may create backwater effects upstream of the structure. The constriction can produce increased velocities and result in localized scour.

For culvert analysis, the HEC-RAS model utilizes the concepts of "inlet" control and "outlet" control to simplify complicated culvert hydraulics. Inlet control flow occurs when the flow carrying capacity of the culvert entrance is less than the flow capacity of the culvert barrel. Outlet control flow occurs when the culvert carrying capacity is limited by downstream conditions or by the flow capacity of the culvert barrel.

## APPENDIX B

### HYDRAULIC ANALYSIS

During inlet control computations, the culvert inlet acts as either a weir or an orifice, and the resulting headwater is computed. The equations used by HEC-RAS are the same as those developed by the Federal Highway Administration during extensive laboratory testing, which describe the inlet control headwater under various conditions.

For outlet control flow conditions, the required headwater is computed considering various conditions. For culverts flowing full, a form of the Bernoulli Equation, which considers friction losses, entrance losses and exit losses is utilized. Friction losses are based on Manning's equation. Entrance losses are computed as a coefficient times the velocity head in the culvert at the upstream end. Exit losses are computed as a coefficient times the change in velocity head from just inside the culvert (at the downstream end) to outside the culvert.

When the culvert is not flowing full, the direct step backwater procedure is used to calculate the profile through the culvert up to the culvert inlet. An entrance loss is then computed and added to the energy inside the culvert to obtain the upstream headwater. Culvert input data for the HEC-RAS model include:

- Shape and dimensions of the structure openings;
- Culvert length;
- Entrance loss coefficient, exit loss coefficient and coefficient of discharge for weir flow during roadway overtopping;
- Upstream and downstream invert elevations;
- Federal Highway Administration chart number for the culvert type;
- Top-of-road elevations to describe the weir during roadway overtopping and the weir crest length; and
- Four cross sections are required; one cross section sufficiently downstream of the culvert that flow is not affected by the culvert, one at the downstream end of the culvert, one at the upstream end of the culvert, and one located far enough upstream that the culvert has no effect on flow.

#### Energy Loss Coefficients

Contraction and expansion of flow produces energy losses caused by the transition. The magnitude of these losses is related to the velocity and the estimated loss coefficient. Where the transitions are gradual, the losses are small. At abrupt changes in cross-sectional area, the losses are higher. Energy losses resulting from expansion are greater than losses associated with contraction. Energy loss coefficients used for the watershed hydraulic models are presented in Table B-3.

**Table B-3: Energy Loss Coefficients**

Type of Transition	Expansion	Contraction
None	0	0
Gradual	0.3	0.1
Culvert sections	0.5	0.3

#### Starting Water Surface Elevation

The starting water surface elevations for the Parkers Creek and Johnsons Mill Run HEC-RAS models were calculated using the slope-area method, which is based on normal depth. The

calculated slopes are as follows:

- Parkers Creek – 0.0004 feet/feet;
- Parkers Creek Lateral 1 – 0.0005;
- Parkers Creek Lateral 2 – 0.0005; and
- Johnsons Mill Run–0.005feet/feet

#### **Model Run Descriptions and Assumptions**

The HEC-RAS model was used to compute flood elevations at each cross-section for Parkers Creek and Johnsons Mill Run Primary System for the 2-, 10-, 25-, 50- and 100-year floods. A hard copy of the HEC- RAS input and output is included in Appendix H, while a digital copy of the input and output is located on the CD in Appendix J.

The hydraulic analysis for this study is based only on the condition of unobstructed flow. Therefore, flood elevations shown on the profiles are considered valid only if hydraulic structures remain unobstructed and do not fail. Flood elevations may be raised by debris blockage of the culvert, channel, or floodplain.

#### **Model Validation**

Efforts were made to verify the models for various storm events. Feedback obtained from the questionnaires was reviewed for relevant information that could be used to verify the model. The comments and responses received were not specific enough to verify the model. Likewise, the information received during the public meetings was not useful for the purposes of verifying the models. The City Staff was able to provide some feedback that was useful during the model validation process.

During the validation process, the flows and water surface elevations calculated were determined to be significantly higher than the FEMA flow and base flood elevations. Furthermore, the results from the initial existing conditions model were not aligned with some of the feedback received from the City. At this point, the decision was made to use a Type III NRCS Storm versus a Type II. The Type III storm was selected based on the location of the City of Greenville. It is located close to the boundary of between Type II and III. The results presented in this report have incorporated this change.

#### **Open Channel Systems and Roadway Flooding**

Thirteen (13) crossings were analyzed for flooding potential in the PC/JMR Watershed Master Plan. All roadway crossings that were analyzed in this study are listed in Tables B-5A and B including the minimum top-of-road elevations and the 2-, 10-, 25-, 50- and 100-year flood elevations at the crossing for existing and proposed conditions.



## APPENDIX B HYDRAULIC ANALYSIS

**Table B-4A: Overtopping Analysis of Roadway Crossings – Parkers Creek**

Location	Minimum Elevation at Top of Road (feet NAVD)	Calculated Water Surface Elevations (feet NAVD)				
		2-year flood	10-year flood	25-year flood	50-year flood	100-year flood
<b>Existing Conditions</b>						
US Hwy 264 Entrance Ramp	34.07	24.91	26.70	27.67	28.48	29.77
Memorial Drive and US Hwy 264	34.00	24.71	26.47	27.39	28.09	29.21
Railroad Bridge	28.67	24.54	26.08	26.78	27.28	27.79
Staton Road	23.62	21.22	<b>23.75</b>	<b>24.20</b>	<b>24.39</b>	<b>24.56</b>
Industrial Boulevard	20.63	19.21	20.10	<b>21.01</b>	<b>21.34</b>	<b>21.66</b>
Old Creek Road	20.66	18.86	19.68	20.29	<b>20.73</b>	<b>21.36</b>
Farm Culvert 2	16.90	<b>18.47</b>	<b>19.33</b>	<b>20.05</b>	<b>20.51</b>	<b>21.02</b>
Farm Culvert 1	17.59	<b>18.22</b>	<b>19.12</b>	<b>19.95</b>	<b>20.42</b>	<b>20.92</b>
Pactolus Highway	21.70	11.33	13.18	14.22	15.15	16.18
<b>Alternative 1</b>						
US Hwy 264 Entrance Ramp	34.07	24.74	26.45	27.43	28.26	29.28
Memorial Drive and US Hwy 264	34.00	24.51	26.18	27.11	27.82	28.66
Railroad Bridge	28.67	24.31	25.74	26.44	26.93	27.43
Staton Road	23.62	18.72	21.23	22.26	23.31	<b>24.00</b>
Industrial Boulevard	20.63	17.56	19.93	20.28	<b>20.67</b>	<b>21.09</b>
Old Creek Road	20.66	17.15	19.77	19.96	20.15	20.40
Farm Culvert 2	16.90	16.77	<b>19.68</b>	<b>19.77</b>	<b>19.84</b>	<b>19.90</b>
Farm Culvert 1	17.59	16.06	<b>19.66</b>	<b>19.50</b>	<b>19.37</b>	<b>19.80</b>
Pactolus Highway	21.70	10.19	12.00	13.00	13.88	14.73
Mumford Road	15.77	6.57	8.14	9.06	9.82	10.51
<b>Alternative 2</b>						
US Hwy 264 Entrance Ramp	34.07	24.91	26.63	27.64	28.49	29.80
Memorial Drive and US Hwy 264	34.00	24.71	26.39	27.34	28.06	29.20
Railroad Bridge	28.67	24.53	25.99	26.73	27.25	27.78
Staton Road	23.62	21.12	22.62	23.30	<b>24.02</b>	<b>24.28</b>
Industrial Boulevard	20.63	19.96	<b>20.79</b>	<b>21.33</b>	<b>21.54</b>	<b>21.66</b>
Old Creek Road	20.66	19.79	20.20	<b>20.73</b>	<b>20.81</b>	<b>21.36</b>
Farm Culvert 2	16.90	<b>19.69</b>	<b>19.85</b>	<b>20.06</b>	<b>20.52</b>	<b>21.02</b>
Farm Culvert 1	17.59	<b>19.58</b>	<b>19.36</b>	<b>19.96</b>	<b>20.44</b>	<b>20.92</b>
Pactolus Highway	21.70	11.33	13.18	14.22	15.15	16.18

## APPENDIX B HYDRAULIC ANALYSIS

**Table B-4B: Overtopping Analysis of Roadway Crossings – Parkers Creek - Lateral 1 (south)**

Location	Minimum Elevation at Top of Road (feet NAVD)	Calculated Water Surface Elevations (feet NAVD)				
		2-year flood	10-year flood	25-year flood	50-year flood	100-year flood
<b>Existing Conditions</b>						
Memorial Drive Culverts	23.71	14.04	16.28	18.09	18.46	18.82
Railroad Bridge	22.28	13.80	16.13	17.90	18.14	18.29
N. Greene Street Culvert	17.78	13.78	16.10	<b>17.87</b>	<b>18.10</b>	<b>18.24</b>
<b>Alternative 1</b>						
Memorial Drive (Existing Twin 7'x7' RCBC)	23.71	13.57	15.00	15.97	16.65	17.44
Railroad Bridge (Existing Bridge)	22.28	12.82	14.29	15.28	15.96	16.65
N. Greene Street (Proposed Twin 7'x7' RCBC)	17.78	12.71	14.20	15.17	15.83	16.50

\*Bold print indicates overtopping and red indicates not meeting designated LOS.

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**Table B-4C: Overtopping Analysis of Roadway Crossings – Parkers Creek - Lateral 2 (north)**

Location	Minimum Elevation at Top of Road (feet NAVD)	Calculated Water Surface Elevations (feet NAVD)				
		2-year flood	10-year flood	25-year flood	50-year flood	100-year flood
<b>Existing Conditions</b>						
Greenfield Park Access Road	25.20	21.14	23.92	26.10	26.77	26.98
Greenfield Farm Culvert	24.97	21.11	23.88	26.09	26.77	26.98
Memorial Drive	26.19	21.07	23.77	26.06	26.76	26.97
Railroad Culvert	28.57	20.88	22.90	24.08	25.00	26.00
Private crossing (bridge)	24.60	20.74	22.66	23.66	24.34	24.99
<b>Alternative 1</b>						
Greenfield Park Access Road (Existing 60" CMP)	25.20	21.60	23.93	<b>25.40</b>	<b>26.61</b>	<b>27.03</b>
Greenfield Farm Culvert (Existing 48" CMP)	24.97	21.57	23.89	<b>25.36</b>	<b>26.61</b>	<b>27.03</b>
Memorial Drive (Proposed Double Arch Culvert by opening sealed barrel)	26.19	21.53	23.77	25.31	<b>26.60</b>	<b>27.02</b>
Railroad Culvert (Existing Triple 2-66" and 1-60" RCP)	28.57	21.47	23.46	24.66	25.63	26.71
Private crossing (Existing Bridge)	24.60	21.32	23.11	24.04	<b>24.68</b>	<b>25.29</b>
<b>Alternative 2</b>						
Greenfield Park Access Road (Existing 60" CMP)	25.20	20.98	23.11	24.50	<b>25.40</b>	<b>26.52</b>
Greenfield Farm Culvert (Existing 48" CMP)	24.97	20.93	23.06	24.43	<b>25.32</b>	<b>26.51</b>
Memorial Drive (Proposed Quadruple 66" RCP)	26.19	20.89	22.95	24.22	25.25	<b>26.50</b>
Railroad Culvert (Proposed Triple 2-66" and 1-60" RCP)	28.57	20.87	22.83	23.93	24.75	25.60
Private crossing (Existing Bridge)	24.60	20.74	22.66	23.66	24.34	<b>24.99</b>

\*Bold print indicates overtopping and red indicates not meeting LOS.

**Table B-4D: Overtopping Analysis of Roadway Crossings – Johnsons Mill Run**

Location	Minimum Elevation at Top of Road (feet NAVD)	Calculated Water Surface Elevations (feet NAVD)				
		2-year flood	10-year flood	25-year flood	50-year flood	100-year flood
<b>Existing Conditions</b>						
Mount Pleasant Church Road	27.90	23.25	25.64	26.96	<b>28.16</b>	<b>29.01</b>
Belvoir Highway (NC 33)	28.06	21.85	23.86	24.92	25.78	26.75
Old River Road	20.63	15.58	17.05	18.70	20.48	<b>22.20</b>

\*Bold print indicates overtopping and red indicates not meeting designated LOS.

**SWMM**

SWMM is a dynamic rainfall-runoff model capable of modeling the hydrologic response of a watershed and hydraulic routing throughout a stormwater conveyance system. The model calculates the effect of backwater, flat or negative slopes, energy losses, and minor headlosses associated with bends, entrances and exits.

Input data for the EPA SWMM (hydraulics) computer model include the following:

- Conveyance pipes including structure inverts, pipe sizes and lengths;
- Open channel cross section geometries;
- Roughness coefficients for pipes and channels;
- Energy loss coefficients for flow in the pipes and channels;
- Storage rating curves; and
- Overland flow characteristics.

SWMM provides an accurate evaluation of the existing and proposed conditions because it combines hydrology and hydraulics while accounting for the routing effects of the channel and over bank storage areas. Because hydrology and hydraulics are combined, changes to peak flows or water surface elevations resulting from proposed modifications to the existing channels or culverts are calculated in the model in one step. Additionally, changes to flows from proposed pipes and channel improvements are seen both upstream and downstream, reducing the potential for a stormwater system having increased flooding downstream.

**Energy Loss Coefficients**

Contraction and expansion of flow produces energy losses caused by the transition. The magnitude of these losses is related to the velocity and the estimated loss coefficient. Where the transitions are gradual, the losses are small. At abrupt changes in cross-sectional area, the losses are higher. Energy losses resulting from expansion are greater than losses associated with contraction. Energy loss coefficients used for the hydraulic SWMM models are presented in Table B-6 below:

**Table B-6: Energy Loss Coefficients for SWMM Models**

Type of Transition	Expansion	Contraction
None	0	0
Manhole/Inlet	0.7	0.5
Open Channel	1	0.5–Headwall/ 0.9 - Projecting

Additional energy losses for structures having bends were divided between the two joining pipes. The bend losses used for this project are based on NCDOT values, and are shown below in Table B-7.

**Table B-7: Bend Loss Coefficients**

Angle (°)	Loss Coefficient	Angle (°)	Loss Coefficient
90	0.70	40	0.38
80	0.66	30	0.28
70	0.61	25	0.22
60	0.55	20	0.16
50	0.47	15	0.10

**APPENDIX C  
WATERSHED MAP, LAND USE MAP,  
AND SOILS MAP**





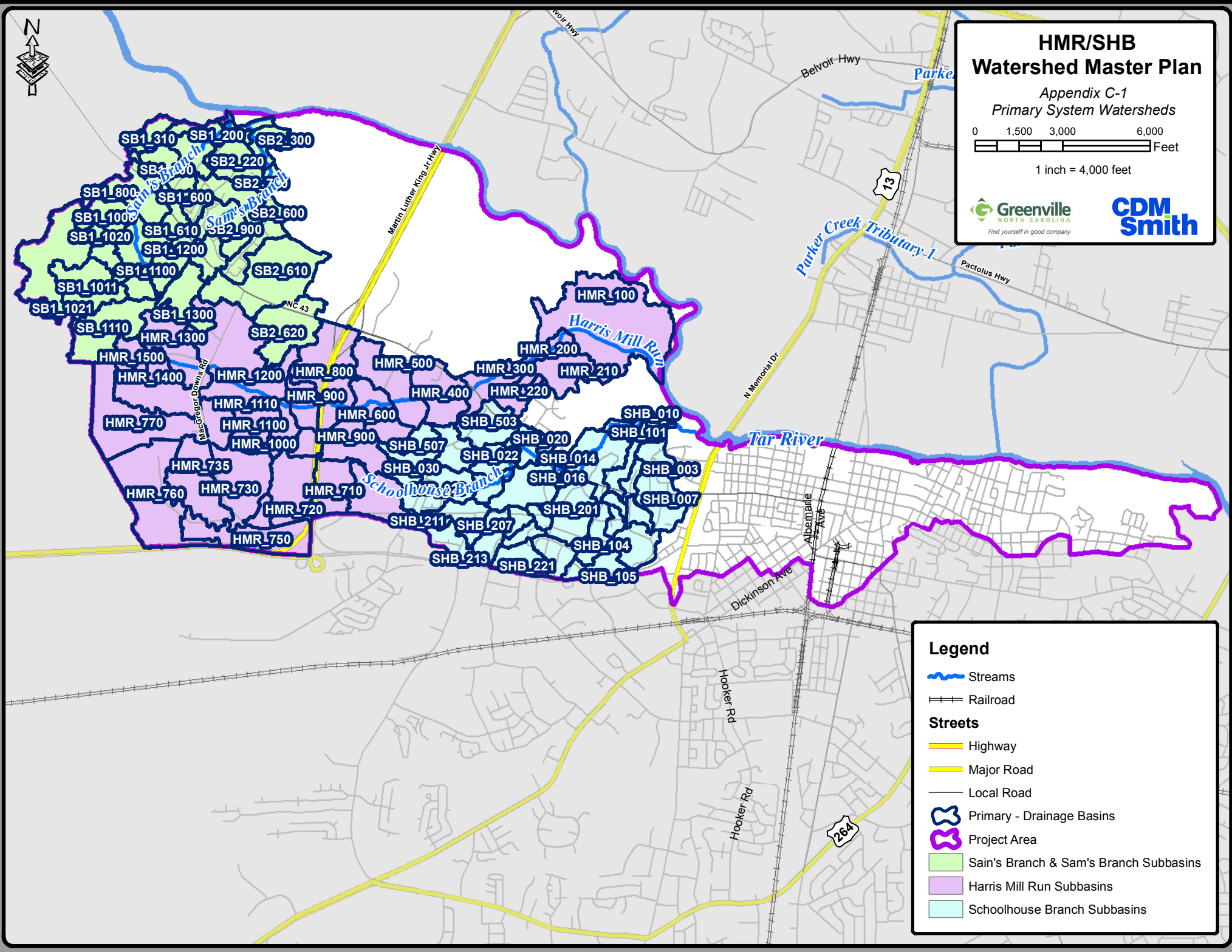
## HMR/SHB Watershed Master Plan

Appendix C-1  
Primary System Watersheds











0 1,500 3,000 6,000  
Feet

1 inch = 4,000 feet



### Legend

-  Streams
-  Railroad
- Streets**
-  Highway
-  Major Road
-  Local Road
-  Primary - Drainage Basins
-  Project Area
-  Sain's Branch & Sam's Branch Subbasins
-  Harris Mill Run Subbasins
-  Schoolhouse Branch Subbasins



# HMR/SHB Watershed Master Plan

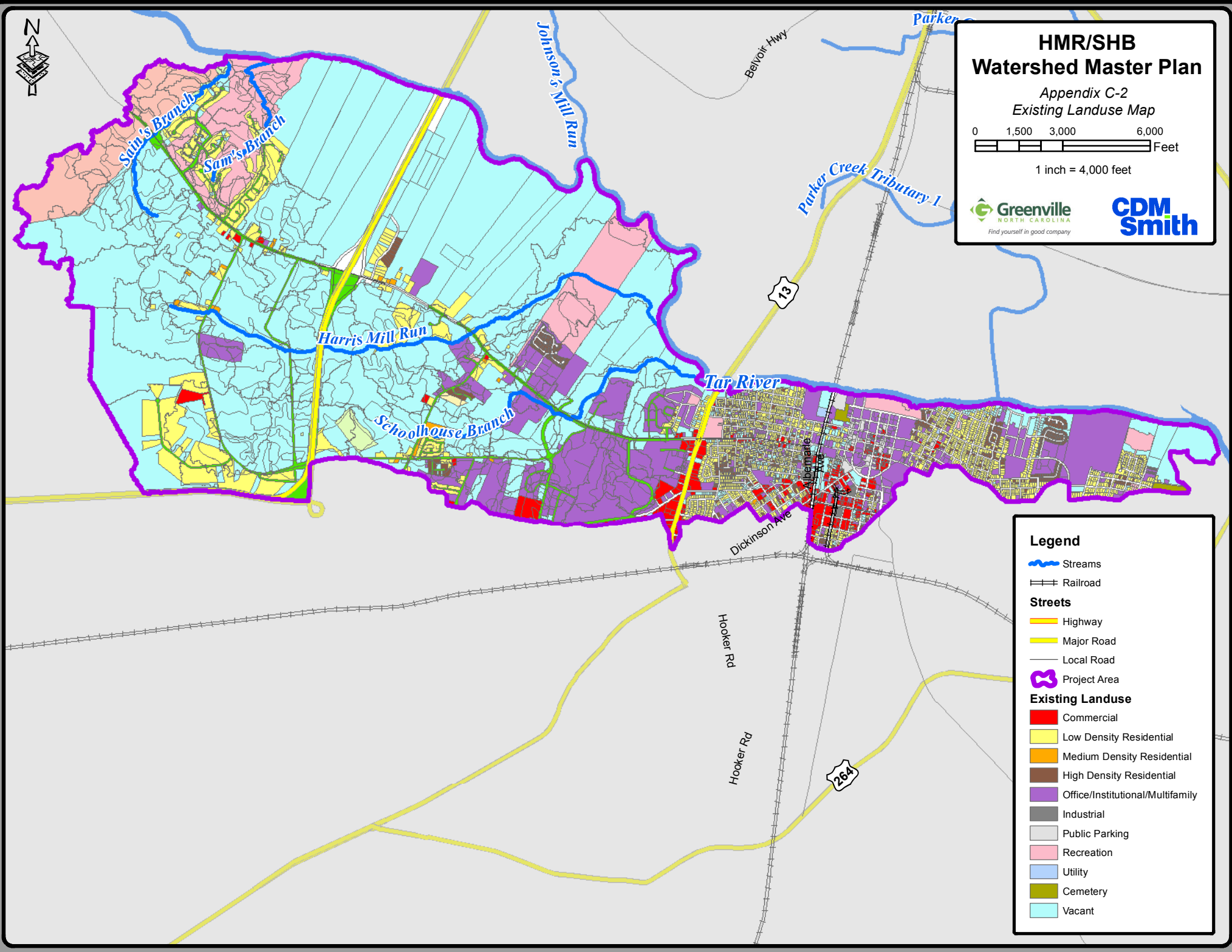
Appendix C-2  
Existing Landuse Map

0 1,500 3,000 6,000  
Feet

1 inch = 4,000 feet

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CDM  
Smith



### Legend

- Streams
- Railroad
- Streets**
- Highway
- Major Road
- Local Road
- Project Area
- Existing Landuse**
- Commercial
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Office/Institutional/Multifamily
- Industrial
- Public Parking
- Recreation
- Utility
- Cemetery
- Vacant



# HMR/SHB Watershed Master Plan

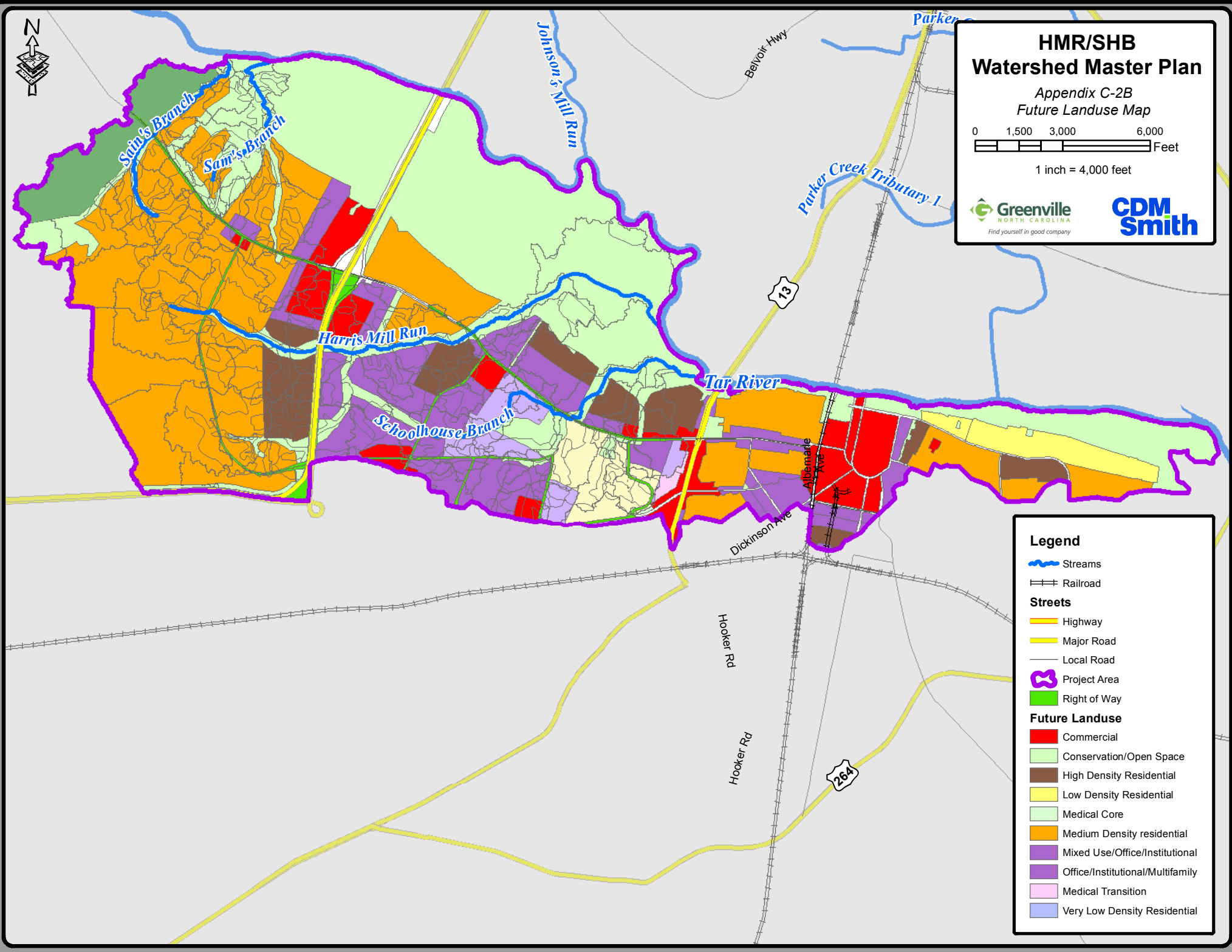
Appendix C-2B  
Future Landuse Map

0 1,500 3,000 6,000  
Feet

1 inch = 4,000 feet

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### Legend

- Streams
- Railroad
- Streets**
- Highway
- Major Road
- Local Road
- Project Area
- Right of Way
- Future Landuse**
- Commercial
- Conservation/Open Space
- High Density Residential
- Low Density Residential
- Medium Density residential
- Mixed Use/Office/Institutional
- Office/Institutional/Multifamily
- Medical Transition
- Very Low Density Residential





# HMR/SHB Watershed Master Plan

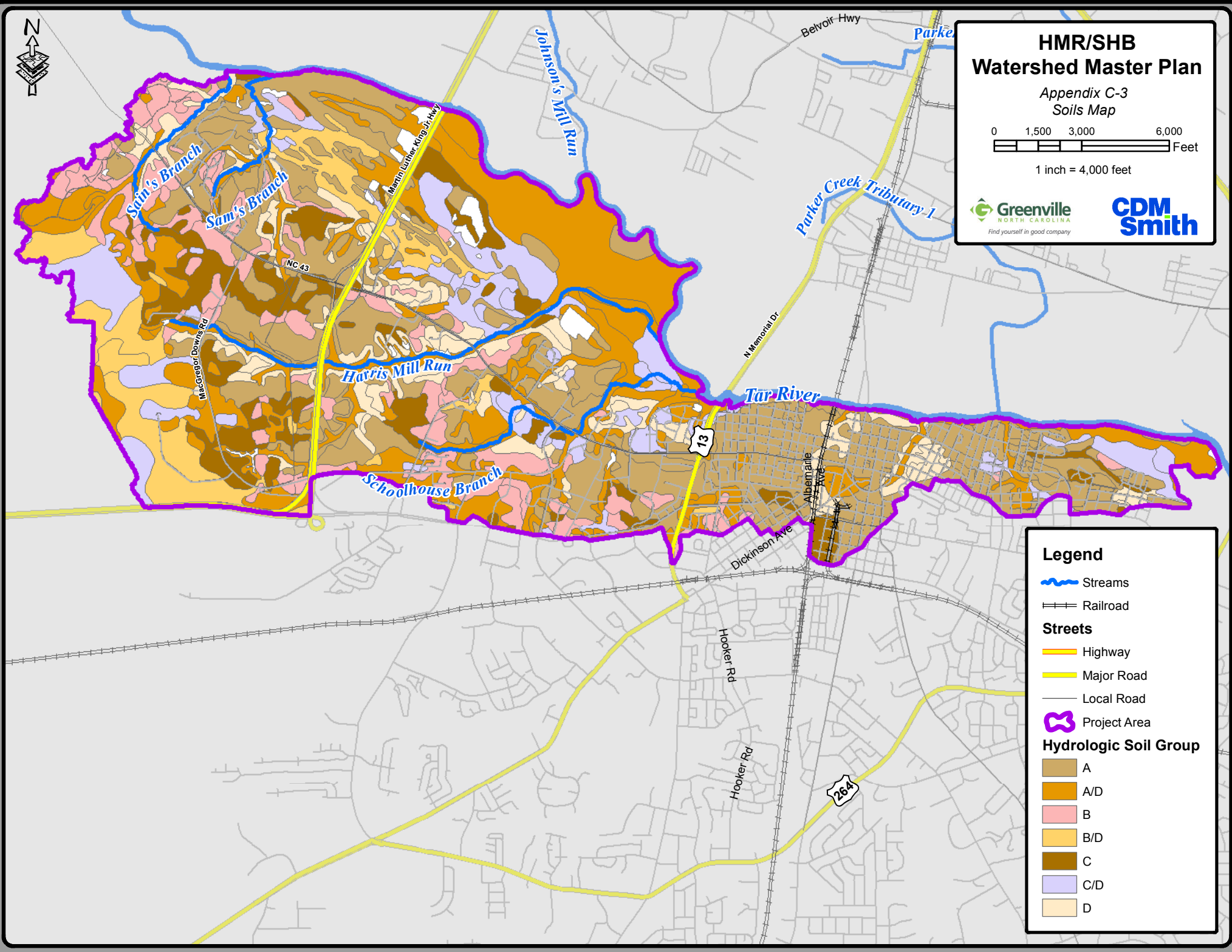
Appendix C-3  
Soils Map

0 1,500 3,000 6,000  
Feet

1 inch = 4,000 feet

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### Legend

- Streams
- Railroad
- Streets**
- Highway
- Major Road
- Local Road
- Project Area
- Hydrologic Soil Group**
- A
- A/D
- B
- B/D
- C
- C/D
- D



**APPENDIX D  
CITIZEN INPUT**

## Appendix D

### Citizen Input – Results of Surveys

Table D-1: General Survey Results

Survey Question Number	Question	Survey Response		
		Yes	No	Maybe
2	Have you ever experienced flooding on your property during a (non-Hurricane) storm?	8	7	-
3	Have you ever noticed flooded streets in your neighborhood?	9	5	-
4	Has flooding increased on your property due to the filling of lots adjacent to, or near, your property?	2	11	-
5	Have you had any erosion on your property?	2	13	-
6	If a cost-sharing program was made available along with training, would you be willing to install a stormwater BMP (e.g. rain garden, cistern, backyard wetland, etc.)?	5	1	8
7	Are you aware that the City of Greenville is currently analyzing and looking for possible solutions to erosion, flooding and water quality issues throughout the City with a watershed master planning process?	8	6	-
8	Are you aware of how the City of Greenville currently spends or utilizes its stormwater utility fee?	1	13	-

Table D-2: Frequency and Location of Flooding Question and Responses (Question 2)

Frequency of Flooding	Flooding Location						
	Storage Building	Air Conditioning	Crawl Space	Living Space	Yard Flooding from Stream/Ditch	Yard Flooding from Street Runoff	Yard Flooding From Adjacent Property
Not Specified	14	14	12	11	12	13	12
Less than once a year	-	1	-	-	-	-	-
Once a year	1	-	-	1	-	-	-
2-3 times a year	-	-	1	1	-	1	-

More than 3 times a year	-	-	1	1	3	1	3
Every time it rains	-	-	1	1	-	-	-

Table D-3: Threatened by Erosion (Question 5)

Item	Number of Responses
Street	2
Yard	2
Building/House	-
Fence	-
Other	-

Table D-4: Willingness to Participate in a Stream Maintenance Program (Question 6)

Item	Number of Responses
Yes	5
No	1
Maybe	8

Table D-5: How should City utilize funds to address stormwater runoff issues (Question 9)

Item	Number of Responses
Develop cost-sharing program for installation of water harvesting practices to reduce stormwater flows	8
Develop incentives for replanting riparian areas (directly adjacent to streams)	10
Develop a program to address erosion on private property	7
Construct and maintain regional detention facilities to store stormwater	6
Stream restoration	9
Buyout of endangered properties	5
Other	1

**APPENDIX E**  
**SCS HYDROLOGIC INPUT DATA**

### Harris Mill Run Watershed Hydrologic Parameters

	Subbasin	DA (sq.mi)	Existing Land Use CN	Adjusted EX CN (-10%)	Future Land Use CN	Adjusted FU CN (-10%)	Lag Time (min)	Adjusted Lag Time (min) (135%)	Lag Time (Hr)
1	HMR_100	0.394	86.4	77.8	81.7	73.5	188	253	4.22
2	HMR_200	0.036	83.7	75.3	82.1	73.9	21	28	0.46
3	HMR_210	0.089	90.6	81.6	86.9	78.2	89	120	1.99
4	HMR_220	0.038	71.7	64.5	82.2	74.0	30	41	0.69
5	HMR_300	0.074	78.6	70.7	80.1	72.1	20	26	0.44
6	HMR_400	0.110	79.4	71.5	80.2	72.2	52	70	1.16
7	HMR_500	0.129	70.4	63.3	83.6	75.3	69	93	1.55
8	HMR_600	0.102	71.8	64.7	85.0	76.5	51	69	1.16
9	HMR_700	0.104	68.1	61.3	79.7	71.7	36	49	0.82
10	HMR_710	0.088	67.3	60.6	76.8	69.2	16	22	0.36
11	HMR_715	0.102	77.6	69.8	87.6	78.8	13	18	0.30
12	HMR_720	0.123	73.3	65.9	76.0	68.4	39	52	0.87
13	HMR_730	0.147	82.1	73.9	83.2	74.9	94	127	2.12
14	HMR_735	0.146	84.4	76.0	83.8	75.5	146	197	3.28
15	HMR_740	0.022	82.7	74.5	83.6	75.2	33	45	0.75
16	HMR_750	0.135	86.4	77.7	86.1	77.5	157	212	3.54
17	HMR_760	0.230	85.0	76.5	85.3	76.8	223	302	5.03
18	HMR_770	0.204	84.1	75.7	85.0	76.5	268	362	6.04
19	HMR_800	0.224	70.5	63.4	85.8	77.3	29	39	0.64
20	HMR_900	0.053	62.2	56.0	68.7	61.8	32	43	0.72
21	HMR_1000	0.047	70.7	63.6	75.0	67.5	46	62	1.04
22	HMR_1100	0.083	69.4	62.5	72.4	65.1	42	57	0.95
23	HMR_1110	0.060	80.4	72.3	79.0	71.1	34	46	0.77
24	HMR_1200	0.291	67.7	61.0	70.4	63.4	113	153	2.55
25	HMR_1300	0.128	79.4	71.4	80.5	72.5	91	123	2.04
26	HMR_1400	0.144	80.4	72.3	81.7	73.5	110	149	2.48
27	HMR_1500	0.039	83.6	75.2	84.6	76.1	102	137	2.28

3.343

### Schoolhouse Branch Watershed Hydrologic Parameters

	Subbasin	DA (sq.mi)	Existing Land Use CN	Future Land Use CN	Lag Time (min)	Lag Time (Hr)
1	SHB_001	0.003	84.0	84.0	101	1.68
2	SHB_002	0.004	84.0	84.0	9	0.16
3	SHB_003	0.033	89.2	86.0	30	0.50
4	SHB_004	0.020	88.9	85.6	7	0.12
5	SHB_005	0.023	76.2	80.6	23	0.39
6	SHB_007	0.098	80.0	80.9	15	0.25
7	SHB_010	0.018	84.0	84.0	28	0.47
8	SHB_012	0.025	82.8	81.6	8	0.14
9	SHB_014	0.114	75.8	80.3	16	0.27
10	SHB_016	0.006	86.1	83.5	38	0.64
11	SHB_018	0.108	81.2	83.3	111	1.85
12	SHB_020	0.037	86.0	88.3	20	0.33
13	SHB_022	0.044	85.4	92.1	63	1.05
14	SHB_024	0.005	92.0	87.3	18	0.30
15	SHB_026	0.030	80.0	87.8	29	0.49
16	SHB_028	0.103	72.6	85.6	56	0.94
17	SHB_030	0.028	67.3	79.5	89	1.48
18	SHB_101	0.005	84.0	84.0	9	0.14
19	SHB_102	0.033	80.3	82.8	9	0.15
20	SHB_103	0.013	81.7	82.7	16	0.27
21	SHB_104	0.053	82.8	89.9	13	0.21
22	SHB_105	0.056	91.8	94.1	36	0.61
23	SHB_107	0.017	84.9	88.0	7	0.12
24	SHB_108	0.065	84.2	90.8	23	0.38
25	SHB_201	0.111	81.8	88.7	7	0.12
26	SHB_203	0.016	80.5	85.6	23	0.38
27	SHB_205	0.022	78.6	86.9	9	0.15
28	SHB_207	0.053	89.2	90.7	25	0.41
29	SHB_209	0.059	81.3	87.1	24	0.40
30	SHB_211	0.023	82.6	89.2	21	0.35
31	SHB_213	0.043	88.8	90.8	44	0.73
32	SHB_220	0.021	81.3	86.9	35	0.59
33	SHB_221	0.059	88.8	90.0	7	0.12
34	SHB_223	0.050	84.9	86.4	12	0.21
35	SHB_501	0.005	84.3	92.0	11	0.19
36	SHB_503	0.083	80.0	86.6	40	0.66
37	SHB_505	0.061	77.4	82.3	35	0.58
38	SHB_507	0.057	74.7	84.2	90	1.51

1.604



**Sams Branch #1 Watershed Hydrologic Parameters**

	Subbasin	DA (sq.mi)	Existing Land Use CN	Future Land Use CN	Lag Time (min)	Lag Time (Hr)
1	SB1_100	0.004	65.8	65.8	48	0.79
2	SB1_200	0.020	71.3	71.3	20	0.33
3	SB1_300	0.024	73.4	73.4	43	0.71
4	SB1_310	0.038	72.2	72.2	60	1.01
5	SB1_400	0.055	67.2	67.1	25	0.41
6	SB1_500	0.060	70.5	69.5	50	0.84
7	SB1_600	0.013	62.7	63.1	26	0.44
8	SB1_610	0.044	64.2	65.1	76	1.26
9	SB1_700	0.020	81.3	80.5	67	1.11
10	SB1_800	0.095	72.4	72.0	181	3.01
11	SB1_900	0.094	74.6	75.8	74	1.24
12	SB1_1000	0.066	69.2	69.1	28	0.46
13	SB1_1010	0.028	81.7	81.9	61	1.01
14	SB1_1011	0.118	82.5	83.0	181	3.01
15	SB1_1020	0.013	81.5	81.5	29	0.49
16	SB1_1021	0.186	83.3	83.4	193	3.21
17	SB1_1100	0.032	80.3	81.3	80	1.33
18	SB1_1110	0.146	83.6	83.7	233	3.89
19	SB1_1200	0.050	71.1	73.0	70	1.16
20	SB1_1300	0.083	78.9	79.9	117	1.95

1.188

### Sams Branch #2 Watershed Hydrologic Parameters

	Subbasin	DA (sq.mi)	Existing Land Use CN	Future Land Use CN	Lag Time (min)	Adjusted Lag (min) (135%)	Lag Time (Hr)
1	SB2_100	0.012	57.1	57.1	21	28	0.47
2	SB2_200	0.005	56.4	56.4	66	90	1.50
3	SB2_220	0.045	59.4	58.5	47	64	1.07
4	SB2_300	0.078	65.4	64.9	48	64	1.07
5	SB2_400	0.009	87.4	87.5	9	12	0.20
6	SB2_500	0.003	84.2	84.0	7	10	0.17
7	SB2_600	0.073	71.1	68.4	29	39	0.64
8	SB2_610	0.224	71.9	75.6	45	60	1.01
9	SB2_620	0.125	68.5	80.2	67	90	1.50
10	SB2_700	0.005	81.9	77.1	8	11	0.18
11	SB2_800	0.104	65.4	62.0	30	41	0.68
12	SB2_900	0.022	51.8	51.5	17	23	0.39
13	SB2_910	0.020	52.6	59.3	20	27	0.44
14	SB2_1000	0.044	69.9	67.8	18	25	0.41
15	SB2_1100	0.050	71.6	70.4	48	64	1.07

0.82



**APPENDIX F**  
**TIME OF CONCENTRATION CALCULATIONS**

**Time of Concentration - Harris Mill Run Primary System**

Subbasin	Sheet Flow						Shallow Concentration					Channel Flow									Lag (min)
	Description	Manning's n	Flow Length (ft)	P-2 (in)	Land Slope (ft/ft)	Tt (min)	Surface Description	Flow Length (ft)	Slope (ft/ft)	Velocity (ft/s)	Tt (min)	Channel Area (sf)	Channel Perimeter (ft)	Hydraulic Radius (ft)	Slope (ft/ft)	Manning's n	Velocity (ft/s)	Flow Length (ft)	Tt (min)	Tc (min)	
HMR_100	wetlands/woods	0.4	100	3.76	0.00	0.75	Woodlands	1604	0.004	0.33	1.34	11.25	8.83	1.27	0.0013	0.12	0.53	5975	3.14	5.22	58.99
HMR_1000	crops	0.17	300	3.76	0.00	0.95	Grassed Waterway	2075	0.014	1.90	0.30	78	27.60	2.83	0.0001	0.065	0.46	50	0.03	1.28	46.03
HMR_1100	crops	0.17	300	3.76	0.01	0.69	Cultivated Crops	1271	0.009	0.83	0.42	156	60.76	2.57	0.0156	0.065	5.36	1190	0.06	1.18	42.28
HMR_1110	crops	0.17	300	3.76	0.01	0.69	Grassed Waterway	1271	0.009	1.54	0.23	72.5	23.87	3.04	0.0156	0.04	9.75	1190	0.03	0.96	34.34
HMR_1200	crops	0.17	300	3.76	0.00	1.33	Cultivated Crops	4358	0.006	0.70	1.74	187.5	80.51	2.33	0.0045	0.065	2.69	826	0.09	3.16	113.42
HMR_1300	crops	0.17	300	3.76	0.00	1.18	Grassed Waterway	2627	0.004	0.97	0.75	262.5	66.93	3.92	0.0001	0.065	0.57	1221	0.60	2.53	90.77
HMR_1400	woods	0.4	100	3.76	0.00	0.90	Cultivated Crops	1632	0.001	0.22	2.08	105	41.19	2.55	0.0051	0.055	3.59	1163	0.09	3.06	110.03
HMR_1500	woods	0.4	100	3.76	0.01	0.49	Cultivated Crops	1876	0.001	0.23	2.31	72	50.28	1.43	0.0075	0.065	2.51	236	0.03	2.83	101.54
HMR_200	wetlands	0.8	100	3.76	0.13	0.27	Woodlands	197.7	0.019	0.70	0.08	52.5	25.81	2.03	0.0049	0.065	2.56	2011	0.22	0.57	20.51
HMR_210	Field	0.17	300	3.76	0.02	0.44	Cultivated Crops	1319	0.020	1.25	0.29	45	22.40	2.01	0.0001	0.12	0.20	1220	1.73	2.47	88.59
HMR_220	Grass	0.41	300	3.76	0.05	0.54	Cultivated Crops	619	0.015	1.08	0.16	40	24.94	1.60	0.0051	0.045	3.22	1674	0.14	0.85	30.45
HMR_300	Woods	0.4	100	3.76	0.04	0.24	Grassed Waterway	1230	0.034	2.97	0.11	79.5	32.22	2.47	0.0054	0.065	3.07	2046	0.19	0.54	19.56
HMR_400	grass	0.41	300	3.76	0.02	0.84	Woodlands	1067	0.042	1.03	0.29	230	75.90	3.03	0.0010	0.065	1.50	1672	0.31	1.43	51.53
HMR_500	grass	0.41	300	3.76	0.01	1.05	Cultivated Crops	2998	0.017	1.15	0.72	157.5	75.40	2.09	0.0026	0.065	1.90	974	0.14	1.92	68.91
HMR_600	crops	0.17	300	3.76	0.00	0.85	Woodlands	1676	0.028	0.84	0.55	172.5	80.40	2.15	0.0015	0.065	1.48	164	0.03	1.43	51.45
HMR_700	crops	0.17	300	3.76	0.00	0.71	Cultivated Crops	307.6	0.010	0.86	0.10	27	14.49	1.86	0.0145	0.065	4.16	3022	0.20	1.01	36.33
HMR_710	grass	0.41	100	3.76	0.13	0.16	Grassed Waterway	1163	0.017	2.11	0.15	120	60.45	1.99	0.0103	0.065	3.66	1847	0.14	0.45	16.19
HMR_715	crops	0.17	100	3.76	0.13	0.08	Grassed Waterway	1163	0.017	2.11	0.15	52.5	26.16	2.01	0.0103	0.065	3.69	1847	0.14	0.37	13.29
HMR_720	crops	0.17	300	3.76	0.00	0.70	Grassed Waterway	941	0.003	0.95	0.27	155	46.73	3.32	0.0083	0.065	4.62	1585	0.10	1.07	38.56
HMR_730	crops	0.17	300	3.76	0.00	0.78	Grassed Waterway	2622	0.001	0.42	1.74	275	71.62	3.84	0.0069	0.055	5.52	1935	0.10	2.62	94.06
HMR_735	crops	0.17	300	3.76	0.00	0.72	Woodlands	1469	0.001	0.13	3.11	28	17.66	1.59	0.0022	0.055	1.73	1416	0.23	4.05	145.58
HMR_740	crops	0.17	300	3.76	0.00	0.80	Grassed Waterway	112.1	0.014	1.92	0.02	40	25.77	1.55	0.0089	0.055	3.42	1284	0.10	0.92	33.21
HMR_750	woods	0.4	300	3.76	0.00	1.97	Grassed Waterway	1245	0.000	0.16	2.14	42	25.94	1.62	0.0022	0.055	1.76	1708	0.27	4.38	157.31
HMR_760	woods	0.4	100	3.76	0.02	0.32	Forest	1224	0.001	0.06	5.26	69	29.66	2.33	0.0013	0.055	1.72	3962	0.64	6.22	223.38
HMR_770	grass	0.4	100	3.76	0.01	0.42	Cultivated Crops	4918	0.000	0.20	6.99	112.5	50.71	2.22	0.0196	0.55	0.64	137	0.06	7.47	268.42
HMR_800	grass	0.4	100	3.76	0.03	0.29	Grassed Waterway	2451	0.009	1.55	0.44	287.5	76.40	3.76	0.0154	0.065	6.87	1558	0.06	0.80	28.57
HMR_900	prairie	0.15	100	3.76	0.01	0.18	Woodlands	1604	0.020	0.72	0.62	136	50.98	2.67	0.0022	0.065	2.08	691	0.09	0.89	32.02

**Time of Concentration - Schoolhouse Branch Primary System**

Subbasin	Sheet Flow						Shallow Concentration					Channel Flow									
	Description	Manning's n	Flow Length (ft)	P-2 (in)	Land Slope (ft/ft)	Tt (min)	Surface Description	Flow Length (ft)	Slope (ft/ft)	Velocity (ft/s)	Tt (min)	Channel Area (sf)	Channel Perimeter (ft)	Hydraulic Radius (ft)	Slope (ft/ft)	Manning's n	Velocity (ft/s)	Flow Length (ft)	Tt (min)	Tc (min)	Lag (min)
SHB_001	Wood, light underbrush	0.4	99.77	3.76	0.000	2.744	Nearly Bare	41	0.013	1.117	0.010	25	16.18	1.55	0.01	0.07	3.13	611.46	0.05	2.81	100.89
SHB_002	Wood, light underbrush	0.4	99.84	3.76	0.090	0.180	Grassed Waterway	115	0.058	3.890	0.008	25	16.18	1.55	0.01	0.07	1.00	260.67	0.07	0.26	9.38
SHB_003	Grass	0.41	96.99	3.76	0.019	0.337	Short Grass	1240	0.011	0.718	0.480	50	26.18	1.91	0.04	0.06	8.18	300.62	0.01	0.83	29.73
SHB_004	Paved	0.011	100.05	3.76	0.034	0.015	Paved	579	0.030	3.522	0.046	4	6.47	0.62	0.01	0.05	2.13	1069.83	0.14	0.20	7.20
SHB_005	Grass	0.41	93.56	3.76	0.007	0.479	Paved	1539	0.016	2.607	0.164	3.75	5.16	0.73	0.02	0.06	2.85	65.89	0.01	0.65	23.35
SHB_007	paved	0.024	88	3.76	0.008	0.045	Grassed Waterway	2068	0.016	2.010	0.286	6.75	7.24	0.93	0.01	0.05	3.36	1073.47	0.09	0.42	15.06
SHB_010	Wood, light underbrush	0.4	95.42	3.76	0.049	0.223	Woodlands	1174	0.018	0.673	0.485	37.5	21.16	1.77	0.00	0.05	1.70	510.37	0.08	0.79	28.42
SHB_012	Paved	0.024	93.85	3.76	0.037	0.026	Woodlands	319	0.038	0.980	0.090	80	31.54	2.54	0.00	0.06	3.50	1482.32	0.12	0.23	8.41
SHB_014	paved	0.024	100.01	3.76	0.006	0.057	Paved	1536	0.023	3.065	0.139	150	51.25	2.93	0.00	0.06	2.06	1931.42	0.26	0.46	16.41
SHB_016	Wood, light underbrush	0.4	235.95	3.76	0.022	0.636	Forest	447	0.014	0.297	0.418	21	12.49	1.68	0.02	0.07	4.13	259.58	0.02	1.07	38.49
SHB_018	Wood, light underbrush	0.4	266.23	3.76	0.025	0.665	Forest	2650	0.015	0.304	2.424	50	22.00	2.27	0.03	0.07	6.64	137.29	0.01	3.09	111.20
SHB_020	Prairie grass	0.15	80.64	3.76	0.014	0.145	Grassed Waterway	981	0.007	1.379	0.198	93.75	50.50	1.86	0.00	0.04	0.56	423.95	0.21	0.55	19.83
SHB_022	Field	0.17	214.13	3.76	0.004	0.599	Forest	1570	0.026	0.402	1.085	21	12.49	1.68	0.01	0.07	2.57	716.78	0.08	1.76	63.26
SHB_024	Wood, light underbrush	0.4	84.11	3.76	0.024	0.269	Forest	289	0.021	0.366	0.219	60	22.81	2.63	0.02	0.07	6.08	177.32	0.01	0.50	17.82
SHB_026	Wood, light underbrush	0.4	193.72	3.76	0.016	0.620	Forest	272	0.056	0.597	0.127	52	22.12	2.35	0.01	0.07	4.31	1023.02	0.07	0.81	29.20
SHB_028	Wood, light underbrush	0.4	254.33	3.76	0.006	1.102	Grassed Waterway	1519	0.005	1.159	0.364	110	36.00	3.06	0.01	0.07	4.77	1769.01	0.10	1.57	56.38
SHB_030	Wood, light underbrush	0.4	281.84	3.76	0.002	1.880	Nearly Bare	1162	0.003	0.551	0.586	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.47	88.60
SHB_101	Crops	0.17	100.04	3.76	0.021	0.163	Cultivated Crops	159	0.090	2.633	0.017	14	11.21	1.25	0.01	0.07	2.64	558.31	0.06	0.24	8.56
SHB_102	Paved	0.011	82.46	3.76	0.010	0.021	Paved	570	0.013	2.315	0.068	50	26.18	1.91	0.01	0.07	3.74	2169.36	0.16	0.25	8.98
SHB_103	Grass	0.4	96.05	3.76	0.033	0.263	Paved	802	0.019	2.828	0.079	40	17.81	2.25	0.02	0.06	1.00	415.32	0.12	0.46	16.41
SHB_104	Urban	0.024	88.82	3.76	0.011	0.040	Paved	2381	0.011	2.114	0.313	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	12.67
SHB_105	paved	0.024	101.82	3.76	0.000	0.294	Paved	2324	0.002	0.899	0.718	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	36.37
SHB_107	Urban	0.024	94.04	3.76	0.010	0.043	Paved	1484	0.017	2.634	0.156	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	7.17
SHB_108	paved	0.024	75.39	3.76	0.016	0.030	Paved	2262	0.003	1.040	0.604	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	22.78
SHB_201	Paved	0.011	94.47	3.76	0.023	0.017	Paved	1141	0.021	2.927	0.108	490	120.98	4.05	0.01	0.07	6.65	1909.96	0.08	0.20	7.36
SHB_203	Wood, light underbrush	0.4	264.08	3.76	0.035	0.571	Grassed Waterway	502	0.039	3.206	0.044	130.5	65.42	1.99	0.01	0.07	3.52	207.16	0.02	0.63	22.68
SHB_205	paved	0.011	96.21	3.76	0.013	0.021	Short Grass	907	0.029	1.182	0.213	212.5	61.40	3.46	0.01	0.07	6.26	537.10	0.02	0.26	9.28
SHB_207	Grass	0.41	91.07	3.76	0.014	0.357	Grassed Waterway	1688	0.010	1.617	0.290	75	40.59	1.85	0.01	0.07	3.26	447.44	0.04	0.69	24.61
SHB_209	urban	0.41	88.48	3.76	0.013	0.366	Grassed Waterway	1338	0.011	1.665	0.223	26	20.56	1.26	0.01	0.05	3.02	945.25	0.09	0.68	24.29
SHB_211	Grass	0.41	88.48	3.76	0.013	0.366	Grassed Waterway	1338	0.011	1.665	0.223	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	21.16
SHB_213	Paved	0.011	95.6	3.76	0.000	0.150	Short Grass	1639	0.004	0.425	1.072	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	43.89
SHB_220	grass	0.41	92.05	3.76	0.002	0.813	Grassed Waterway	1329	0.021	2.358	0.157	240	61.76	3.89	0.02	0.07	7.04	434.52	0.02	0.99	35.45
SHB_221	Paved	0.024	96.82	3.76	0.011	0.043	Paved	1390	0.016	2.543	0.152	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	7.01
SHB_223	Paved	0.024	95.77	3.76	0.003	0.069	Paved	2219	0.012	2.227	0.277	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	12.41
SHB_501	Prairie	0.15	84.5	3.76	0.004	0.255	Grassed Waterway	84	0.028	2.689	0.009	37.5	17.81	2.11	0.00	0.05	2.69	449.73	0.05	0.31	11.13
SHB_503	Wooded	0.4	243.5	3.76	0.008	0.985	Grassed Waterway	763	0.036	3.061	0.069	100	32.81	3.05	0.01	0.05	6.70	1239.57	0.05	1.11	39.73
SHB_505	Crops	0.17	260.9	3.76	0.008	0.523	Cultivated Crops	913	0.005	0.612	0.414	120	46.05	2.61	0.02	0.05	7.97	774.75	0.03	0.96	34.67
SHB_507	Crops	0.17	245.84	3.76	0.007	0.533	Cultivated Crops	2467	0.002	0.346	1.981	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.51	90.33

**Time of Concentration - Sam's Branch 1 Primary System**

Subbasin	Sheet Flow						Shallow Concentration					Channel Flow									
	Description	Manning's n	Flow Length (ft)	P-2 (in)	Land Slope (ft/ft)	Tt (min)	Surface Description	Flow Length (ft)	Slope (ft/ft)	Velocity (ft/s)	Tt (min)	Channel Area (sf)	Channel Perimeter (ft)	Hydraulic Radius (ft)	Slope (ft/ft)	Manning's n	Velocity (ft/s)	Flow Length (ft)	Tt (min)	Tc (min)	Lag (min)
SB1_100	WOODS	0.4	300	3.76	0.006	1.28	Woodlands	198.7	0.08	1.41	0.04	125	34.1	3.661	0.012	0.05	7.60	255.20	0.01	1.32	47.56
SB1_1000	URBAN	0.024	100	3.76	0.007	0.05	Grassed Waterway	1097	0.01	1.20	0.25	3.0	61.9	0.048	0.037	0.055	0.69	1062.00	0.43	0.77	27.80
SB1_1010	WOODS	0.4	100	3.76	0.002	0.76	Forest	1154	0.02	0.36	0.89	3.0	51.9	0.058	0.038	0.05	0.86	121.80	0.04	1.69	60.68
SB1_1011	WOODS	0.4	300	3.76	0.002	2.20	Cultivated Crops	2321	0.00	0.25	2.58	3.0	55.9	0.054	0.013	0.05	0.49	444.50	0.25	5.03	180.72
SB1_1020	WOODS	0.4	100	3.76	0.015	0.37	Forest	176.7	0.08	0.72	0.07	3.0	46.4	0.065	0.017	0.055	0.56	759.80	0.37	0.81	29.18
SB1_1021	WOODS	0.4	300	3.76	0.004	1.45	Cultivated Crops	3766	0.00	0.31	3.42	3.0	46.6	0.064	0.014	0.055	0.51	903.80	0.49	5.36	192.64
SB1_1100	CROPS	0.17	300	3.76	0.001	1.64	Cultivated Crops	636.4	0.01	0.73	0.24	3.0	36.1	0.083	0.016	0.055	0.65	781.50	0.33	2.22	79.67
SB1_1110	FOREST	0.4	100	3.76	0.009	0.46	Cultivated Crops	4298	0.00	0.20	6.03	3.0	30.8	0.097	0.007	0.045	0.57	17.75	0.01	6.50	233.39
SB1_1200	CROPS	0.17	300	3.76	0.001	1.21	Cultivated Crops	875.3	0.01	0.77	0.32	3.0	56.4	0.053	0.015	0.05	0.52	767.00	0.41	1.94	69.70
SB1_1300	CROPS	0.17	300	3.76	0.003	0.86	Grassed Waterway	2501	0.00	0.37	1.88	3.0	56.6	0.053	0.002	0.035	0.30	550.30	0.52	3.26	117.11
SB1_200	GRASS	0.41	100	3.76	0.018	0.35	Woodlands	764.9	0.06	1.19	0.18	137.5	38.0	3.616	0.009	0.05	6.73	490.30	0.02	0.55	19.70
SB1_300	GRASS	0.41	300	3.76	0.012	0.98	Short Grass	765.7	0.04	1.37	0.16	117.5	33.4	3.518	0.020	0.065	7.55	1288.00	0.05	1.19	42.58
SB1_310	GRASS	0.41	300	3.76	0.006	1.31	Grassed Waterway	1782	0.01	1.37	0.36	50	19.4	2.573	0.101	0.12	7.38	157.20	0.01	1.68	60.37
SB1_400	GRASS	0.41	100	3.76	0.021	0.33	Short Grass	717.8	0.01	0.65	0.31	120	60.4	1.985	0.035	0.065	6.71	1246.00	0.05	0.69	24.82
SB1_500	GRASS	0.41	300	3.76	0.012	0.99	Short Grass	790.9	0.03	1.29	0.17	3.0	60.9	0.049	0.031	0.055	0.63	535.10	0.23	1.40	50.26
SB1_600	GRASS	0.41	100	3.76	0.015	0.37	Short Grass	610.4	0.02	0.92	0.18	3.0	32.0	0.094	0.041	0.05	1.24	777.60	0.17	0.73	26.27
SB1_610	CROPS	0.17	300	3.76	0.001	1.43	Short Grass	1852	0.01	0.76	0.68	3.0	21.7	0.138	0.188	0.05	3.45	25.97	0.00	2.11	75.66
SB1_700	GRASS	0.41	300	3.76	0.005	1.39	Grassed Waterway	473.9	0.01	1.17	0.11	3.0	45.4	0.066	0.042	0.055	0.91	1135.00	0.35	1.85	66.57
SB1_800	GRASS	0.41	300	3.76	0.002	1.94	Short Grass	894.9	0.01	0.82	0.30	3.0	45.4	0.066	0.002	0.055	0.22	819.60	1.04	5.03	180.76
SB1_900	FIELDS	0.41	100	3.76	0.010	0.45	Woodlands	1350	0.02	0.62	0.61	3.0	63.3	0.047	0.015	0.055	0.43	1574.00	1.01	2.07	74.26

**Time of Concentration - Sam's Branch 2 Primary System**

Subbasin	Sheet Flow						Shallow Concentration					Channel Flow									
	Description	Manning's n	Flow Length (ft)	P-2 (in)	Land Slope (ft/ft)	Tt (min)	Surface Description	Flow Length (ft)	Slope (ft/ft)	Velocity (ft/s)	Tt (min)	Channel Area (sf)	Channel Perimeter (ft)	Hydraulic Radius (ft)	Slope (ft/ft)	Manning's n	Velocity (ft/s)	Flow Length (ft)	Tt (min)	Tc (min)	Lag (min)
SB2_100	GRASS	0.41	100	3.76	0.025	0.308	Short Grass	466.4	0.02	1.02	0.13	63	29.23	2.16	0.01	0.12	1.83	921.8	0.14	0.58	20.69
SB2_1000	GRASS	0.41	100	3.76	0.025	0.308	Grassed Waterway	1205	0.02	2.17	0.15	95	28.62	3.32	0.02	0.08	5.97	916.0	0.04	0.51	18.16
SB2_1100	CROPS	0.17	300	3.76	0.002	0.960	Grassed Waterway	1901	0.01	1.46	0.36	27	14.49	1.86	0.04	0.055	8.66	19.0	0.00	1.32	47.53
SB2_200	GRASS	0.41	300	3.76	0.003	1.754	Short Grass	173.4	0.01	0.66	0.07	39	19.66	1.98	0.01	0.08	2.90	237.4	0.02	1.85	66.46
SB2_220	GRASS	0.41	100	3.76	0.002	0.775	Short Grass	1609	0.03	1.20	0.37	33	17.00	1.94	0.00	0.05	0.46	189.1	0.11	1.32	47.38
SB2_300	GRASS	0.41	300	3.76	0.027	0.720	Short Grass	1762	0.02	1.10	0.45	75	23.66	3.17	0.00	0.08	2.02	1161.0	0.16	1.33	47.67
SB2_400	FIELDS	0.017	100	3.76	0.022	0.026	Short Grass	267.1	0.01	0.66	0.11	2750	292	9.41	0.00	0.04	1.00	389.5	0.11	0.25	8.87
SB2_500	WOODS	0.4	100	3.76	0.121	0.161	Woodlands	42.51	0.19	2.20	0.01	80	25.62	3.12	0.00	0.08	2.54	349.1	0.04	0.20	7.34
SB2_600	GRASS	0.41	100	3.76	0.039	0.259	Grassed Waterway	3264	0.02	2.00	0.45	142.5	46.48	3.07	0.01	0.08	3.68	1106.0	0.08	0.80	28.62
SB2_610	CROPS	0.17	100	3.76	0.004	0.311	Grassed Waterway	2938	0.00	1.01	0.81	210	44.41	4.73	0.02	0.12	4.35	1979.0	0.13	1.24	44.70
SB2_620	CROPS	0.17	300	3.76	0.004	0.738	Cultivated Crops	2005	0.00	0.53	1.05	37.5	17.81	2.11	0.00	0.08	1.40	332.1	0.07	1.85	66.52
SB2_700	GRASS	0.41	100	3.76	0.107	0.172	Grassed Waterway	488.9	0.05	3.56	0.04	80	24.81	3.22	0.02	0.065	6.73	170.3	0.01	0.22	7.81
SB2_800	GRASS	0.41	100	3.76	0.022	0.324	Grassed Waterway	3263	0.01	1.83	0.50	80	24.81	3.22	0.02	0.065	6.17	363.5	0.02	0.84	30.04
SB2_900	GRASS	0.41	100	3.76	0.026	0.301	Short Grass	618.6	0.03	1.13	0.15	136.5	31.80	4.29	0.02	0.08	7.69	748.6	0.03	0.48	17.24
SB2_910	GRASS	0.41	100	3.76	0.063	0.213	Short Grass	1029	0.02	0.90	0.32	27	14.49	1.86	0.00	0.04	0.56	33.6	0.02	0.55	19.66



**APPENDIX G  
PRELIMINARY OPINION OF PROBABLE  
CONSTRUCTION COSTS**

**City of Greenville, NC - Watershed Masterplan**  
**Appendix G - Summary of Unit Costs**

<b>No</b>	<b>Description</b>	<b>Unit</b>	<b>Unit Cost</b>
1	Mobilization (10%)	LS	
2	Comprehensive Grading (20%)	LS	
3	Excavation	CY	\$ 25.00
4	Hauling	CY	\$ 4.00
5	Clearing & Grubbing	AC	\$ 5,000.00
6	Channel Grading including seeding	SY	\$ 15.00
7	Construction Staking (Less than 300000)	LS	\$ 3,000.00
8	Construction Staking (300000-800000)	LS	\$ 6,000.00
9	Construction Staking (Greater than 800000)	LS	\$ 10,000.00
10	Select Material	CY	\$ 25.00
11	Flowable Fill	CY	\$ 500.00
12	12" R.C. Pipe Culvert, Class III	LF	\$ 45.00
13	15" R.C. Pipe Culvert, Class III	LF	\$ 50.00
14	18" R.C. Pipe Culvert, Class III	LF	\$ 55.00
15	18" R.C. Pipe Culvert, Class IV	LF	\$ 60.00
16	24" R.C. Pipe Culvert, Class III	LF	\$ 70.00
17	24" R.C. Pipe Culvert, Class IV	LF	\$ 75.00
18	30" R.C. Pipe Culvert, Class III	LF	\$ 90.00
19	30" R.C. Pipe Culvert, Class IV, 0' - 6' depth	LF	\$ 100.00
20	36" R.C. Pipe Culvert, Class III	LF	\$ 120.00
21	36" R.C. Pipe Culvert, Class IV	LF	\$ 130.00
22	36" Steel Pipe Culvert (Tunnel Installation)	LF	\$ 800.00
23	42" R.C. Pipe Culvert, Class III	LF	\$ 150.00
24	42" R.C. Pipe Culvert, Class IV	LF	\$ 165.00
25	48" R.C. Pipe Culvert, Class III	LF	\$ 180.00
26	48" R.C. Pipe Culvert, Class IV	LF	\$ 195.00
27	48" Steel Pipe Culvert (Tunnel Installation)	LF	\$ 1,100.00
28	54" R.C. Pipe Culvert, Class III	LF	\$ 200.00
29	60" R.C. Pipe Culvert, Class III	LF	\$ 225.00
30	60" Steel Pipe Culvert (Tunnel Installation)	LF	\$ 1,500.00
31	66" R.C. Pipe Culverts, Class III	LF	\$ 260.00
32	72" R.C. Pipe Culvert, Class III	LF	\$ 320.00
33	72" R.C. Pipe Culvert, Class IV	LF	\$ 370.00
34	72" Steel Pipe Culvert (Tunnel Installation)	LF	\$ 1,800.00
35	4' x 4' Precast R.C. Box Culvert	LF	\$ 400.00
36	5' x 3' Precast R.C. Box Culvert	LF	\$ 450.00
37	5' x 4' Precast R.C. Box Culvert	LF	\$ 500.00
38	6' x 3' Precast R.C. Box Culvert	LF	\$ 600.00
39	6' x 4' Precast R.C. Box Culvert	LF	\$ 650.00
40	6' x 5' Precast R.C. Box Culvert	LF	\$ 700.00
41	7' x 5' Precast R.C. Box Culvert	LF	\$ 750.00
42	7' x 6' Precast R.C. Box Culvert	LF	\$ 850.00
43	7' x 7' Reinforced Concrete Box Culvert	LF	\$ 1,200.00
44	8' x 4' Precast R.C. Box Culvert	LF	\$ 750.00
45	8' X 6' Reinforced Concrete Box Culvert	LF	\$ 1,200.00
46	9' x 5' Precast R.C. Box Culvert	LF	\$ 1,100.00
47	9' X 6' Reinforced Concrete Box Culvert	LF	\$ 1,400.00

**City of Greenville, NC - Watershed Masterplan**

**Appendix G - Summary of Unit Costs**

48	11' x 6' Precast R.C. Box Culvert	LF	\$ 1,500.00
49	11' x 7' Precast R.C. Box Culvert	LF	\$ 1,800.00
50	Drainage Structures, Manhole	EA	\$ 3,500.00
51	Drainage Structures, Inlet	EA	\$ 3,000.00
52	Drainage Structures, DOT Standard Endwall	EA	\$ 6,000.00
53	Drainage Structures, Box Culvert Custom Endwall	EA	\$ 15,000.00
54	Flared End Section, 18 inch	EA	\$ 1,000.00
55	Flared End Section, 36 inch	EA	\$ 2,500.00
56	Flared End Section, 42 inch	EA	\$ 2,500.00
57	Custom Junction Box	EA	\$ 15,000.00
58	Concrete Curb and Gutter	LF	\$ 35.00
59	6" Concrete Driveway Replacement	EA	\$ 1,500.00
60	4" Concrete Sidewalk	LF	\$ 40.00
61	Concrete Pipe Plug	EA	\$ 450.00
62	Asphalt Milling/Overlay	SY	\$ 30.00
63	Asphalt Replacement (Surface, Base Course, & Milling)	SY	\$ 55.00
64	ABC Stone	TN	\$ 35.00
65	Rip Rap Stone, Class B	TN	\$ 65.00
66	Rip Rap Stone, Class 1	TN	\$ 70.00
67	Rip Rap Stone, Class A	TN	\$ 65.00
68	#5 stone	TN	\$ 50.00
69	#57 stone	TN	\$ 65.00
70	Gravel Walkway #78 stone	TN	\$ 65.00
71	Stone Boulder	TN	\$ 200.00
72	Sand 2S	CY	\$ 60.00
73	Rock Grade Control	EA	\$ 10,000.00
74	Traffic Control	LS	\$ 10,000.00
75	Traffic Control (4+ lane road or multiple 2-lane roads)	LS	\$ 20,000.00
76	Erosion Control	LS	\$ 15,000.00
77	Erosion Control (2-5 acre LOD)	LS	\$ 30,000.00
78	Erosion Control (Greater than 5 acre LOD)	LS	\$ 50,000.00
79	Erosion Control Matting	SY	\$ 10.00
80	Fence Removal / Replacement	LF	\$ 50.00
81	Soil Media	CY	\$ 50.00
82	BMP Plantings	SF	\$ 2.00
83	Riparian Seed Mix	SY	\$ 1.50
84	Live Staking	SY	\$ 15.00
85	Seeding and Mulching	AC	\$ 7,500.00
86	Wood Retaining Wall (4' high)	LF	\$ 100.00
87	Log Grade Control Structure	EA	\$ 2,000.00
88	Gabion Wall	LF	\$ 300.00
89	Foundation Protection	EA	\$ 15,000.00
90	Utility Relocations (Minor Water line adjustments)	LS	\$ 5,000.00
91	Utility Relocations (Substantial Water line adjustments including)	LS	\$ 15,000.00
92	Utility Relocations (Substantial sanitary sewer and water line adjustments)	LS	\$ 30,000.00
93	PVC underdrain cleanout	EA	\$ 110.00
94	Mulch	CY	\$ 50.00
95	5" Porous Asphalt	SF	\$ 7.00
96	8" Perforated PVC Underdrain	LF	\$ 10.00

**City of Greenville, NC - Watershed Masterplan**

**Appendix G - Summary of Unit Costs**

97	8" PVC Pipe, SDR 35	LF	\$ 10.00
98	6' Chain Link Fence	LF	\$ 16.00
99	Pipe removal (15" - 18" dia)	LF	\$ 20.00
100	4' Personnel Gates	EA	\$ 375.00
101	20' Roadway Gates	EA	\$ 400.00
102	15" PVC Pipe, SDR 35	LF	\$ 18.00
103	BMP Outlet Structure	EA	\$ 4,000.00
104	Convert Yard Inlet to Junction Box	EA	\$ 1,500.00
105	Curb Cut	EA	\$ 400.00

# PRIMARY SYSTEM

**HMR/SHB Watershed Master Plan  
Proposed Primary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Primary System: W 5th Street Crossing (Schoolhouse Branch)  
Alternative 1 Description: Replace 60" CMP, Twin 5.5' x 5.5' Box Culverts with Triple 8' x 5' RCBC**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 45,800	\$ 45,800
2	Comprehensive Grading (20%)*	1	LS	\$ 91,600	\$ 91,600
3	Excavation	195	CY	\$ 25	\$ 4,900
4	Erosion Control Matting	200	SY	\$ 10	\$ 2,000
5	Seeding and Mulching	0.2	AC	\$ 7,500	\$ 1,500
6	24" R.C. Pipe Culvert, Class III	40	LF	\$ 70	\$ 2,800
7	Construction Staking	1	LS	\$ 3,000	\$ 3,000
8	Select Material	503	CY	\$ 25	\$ 12,600
9	Triple 8' x 5' Precast R.C. Box Culvert	97	LF	\$ 3,600	\$ 349,200
10	Drainage Structures, Box Culvert Custom Endwall	2	EA	\$ 15,000	\$ 30,000
11	Rip Rap Stone, Class 1	50	TN	\$ 70	\$ 3,500
12	Asphalt Replacement (Surface, Base Course, & Milling)	155	SY	\$ 55	\$ 8,500
13	Traffic Control (4+ lane road or multiple 2-lane roads)	1	LS	\$ 20,000	\$ 20,000
14	Erosion Control	1	LS	\$ 15,000	\$ 15,000
15	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-15:	\$	595,400
30% Contingency	\$	178,620
<b>Total</b>	<b>\$</b>	<b>774,020</b>
Design, Administration, Fiscal and Legal (30% of Construction Costs)	\$	232,206
<b>Total Opinion of Project Cost</b>	<b>\$</b>	<b>1,010,000</b>

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**HMR/SHB Watershed Master Plan  
Proposed Primary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Primary System: W 5th Street Crossing (Schoolhouse Branch)  
Alternative 2 Description: Replace 60" CMP, Twin 5.5' x 5.5' Box Culverts with Quadruple 72" RCP**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 24,910	\$ 24,900
2	Comprehensive Grading (20%)*	1	LS	\$ 49,820	\$ 49,800
3	Excavation	195	CY	\$ 25	\$ 4,900
5	Erosion Control Matting	4	SY	\$ 10	\$ 100
6	Seeding and Mulching	0.00141	AC	\$ 7,500	\$ 100
7	24" R.C. Pipe Culvert, Class III	40	LF	\$ 70	\$ 2,800
8	Construction Staking	1	LS	\$ 3,000	\$ 3,000
9	Select Material	503	CY	\$ 25	\$ 12,600
10	Quadruple 72" R.C. Pipe Culvert, Class IV	97	LF	\$ 1,480	\$ 143,600
11	Drainage Structures, Box Culvert Custom Endwall	2	EA	\$ 15,000	\$ 30,000
12	Rip Rap Stone, Class 1	50	TN	\$ 70	\$ 3,500
13	Asphalt Replacement (Surface, Base Course, & Milling)	155	SY	\$ 55	\$ 8,500
14	Traffic Control (4+ lane road or multiple 2-lane roads)	1	LS	\$ 20,000	\$ 20,000
15	Erosion Control	1	LS	\$ 15,000	\$ 15,000
16	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-16: \$ 323,800

30% Contingency \$ 97,140

**Total \$ 420,940**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 126,282

**Total Opinion of Project Cost \$ 550,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

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**HMR/SHB Watershed Master Plan  
Proposed Primary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Primary System: Rehabilitation Center (Schoolhouse Branch)  
Improvement Description: Replace Existing with 3-48" RCP**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 12,110	\$ 12,100
2	Comprehensive Grading (20%)*	1	LS	\$ 24,220	\$ 24,200
3	Excavation	50	CY	\$ 25	\$ 1,300
5	Erosion Control Matting	4	SY	\$ 10	\$ 100
6	Seeding and Mulching	0.01	AC	\$ 7,500	\$ 100
7	48" R.C. Pipe Culvert, Class III	234	LF	\$ 180	\$ 42,100
8	Construction Staking	1	LS	\$ 3,000	\$ 3,000
9	Select Material	100	CY	\$ 25	\$ 2,500
11	Drainage Structures, Box Culvert Custom Endwall	2	EA	\$ 15,000	\$ 30,000
12	Rip Rap Stone, Class 1	50	TN	\$ 70	\$ 3,500
13	Asphalt Replacement (Surface, Base Course, & Milling)	155	SY	\$ 55	\$ 8,500
14	Traffic Control	1	LS	\$ 10,000	\$ 10,000
15	Erosion Control	1	LS	\$ 15,000	\$ 15,000
16	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-16: \$ 157,400

30% Contingency \$ 47,220

**Total \$ 204,620**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 61,386

**Total Opinion of Project Cost \$ 270,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**HMR/SHB Watershed Master Plan  
Proposed Primary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Primary System: Greenfield Place Nursing Home Driveway (Schoolhouse Branch)  
Improvement Description: Replace Existing with 3-48" RCP**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 13,560	\$ 13,600
2	Comprehensive Grading (20%)*	1	LS	\$ 27,120	\$ 27,100
3	Excavation	200	CY	\$ 25	\$ 5,000
5	Erosion Control Matting	4	SY	\$ 10	\$ 100
6	Seeding and Mulching	0.01	AC	\$ 7,500	\$ 100
7	48" R.C. Pipe Culvert, Class III	294	LF	\$ 180	\$ 52,900
8	Construction Staking	1	LS	\$ 3,000	\$ 3,000
9	Select Material	100	CY	\$ 25	\$ 2,500
11	Drainage Structures, Box Culvert Custom Endwall	2	EA	\$ 15,000	\$ 30,000
12	Rip Rap Stone, Class 1	50	TN	\$ 70	\$ 3,500
13	Asphalt Replacement (Surface, Base Course, & Milling)	155	SY	\$ 55	\$ 8,500
14	Traffic Control	1	LS	\$ 10,000	\$ 10,000
15	Erosion Control	1	LS	\$ 15,000	\$ 15,000
16	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-16: \$ 176,300

30% Contingency \$ 52,890

**Total \$ 229,190**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 68,757

**Total Opinion of Project Cost \$ 300,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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# SECONDARY SYSTEM

**HMR/SHB Watershed Master Plan  
Proposed Secondary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Secondary System: Davis Street and Vance Street  
Improvements Description: 1,800 Linear Feet of Stormwater System Improvements**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 51,770	\$ 51,800
2	Comprehensive Grading (20%)*	1	LS	\$ 104,140	\$ 104,100
3	Construction Staking	1	LS	\$ 3,000	\$ 3,000
4	Select Material	2,800	CY	\$ 25	\$ 70,000
5	24" R.C. Pipe Culvert, Class III	453	LF	\$ 70	\$ 31,700
6	30" R.C. Pipe Culvert, Class III	906	LF	\$ 90	\$ 81,500
7	36" R.C. Pipe Culvert, Class III	24	LF	\$ 120	\$ 2,900
8	42" R.C. Pipe Culvert, Class III	6	LF	\$ 150	\$ 900
9	48" R.C. Pipe Culvert, Class III	388	LF	\$ 180	\$ 69,800
10	Drainage Structures, Manhole	9	EA	\$ 3,500	\$ 31,500
11	Drainage Structures, Inlet	9	EA	\$ 3,000	\$ 27,000
12	Concrete Curb and Gutter	1,720	LF	\$ 35	\$ 60,200
13	Asphalt Replacement (Surface, Base Course, & Milling)	1,185	SY	\$ 55	\$ 65,200
14	6" Concrete Driveway Replacement	8	EA	\$ 1,500	\$ 12,000
15	Traffic Control (4+ lane road or multiple 2-lane roads)	1	LS	\$ 20,000	\$ 20,000
16	Erosion Control	1	LS	\$ 15,000	\$ 15,000
17	Utility Relocations**	6	EA	\$ 5,000	\$ 30,000

Subtotal, Items 1-20: \$ 676,600

30% Contingency \$ 202,980

**Total \$ 879,580**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 263,900

**Total Opinion of Project Cost \$ 1,150,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**HMR/SHB Watershed Master Plan  
Proposed Secondary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Secondary System: Jarvis Street  
Improvements Description: 1,500 Linear Feet of Stormwater System Improvements**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 44,740	\$ 44,700
2	Comprehensive Grading (20%)*	1	LS	\$ 90,080	\$ 90,100
3	Construction Staking	1	LS	\$ 3,000	\$ 3,000
4	Select Material	2,719	CY	\$ 25	\$ 68,000
5	15" R.C. Pipe Culvert, Class III	133	LF	\$ 50	\$ 6,700
6	24" R.C. Pipe Culvert, Class III	53	LF	\$ 70	\$ 3,700
7	36" R.C. Pipe Culvert, Class III	746	LF	\$ 120	\$ 89,500
8	42" R.C. Pipe Culvert, Class III	567	LF	\$ 150	\$ 85,100
9	Concrete Pipe Plug	6	EA	\$ 450	\$ 2,700
10	Flowable Fill	5	CY	\$ 500	\$ 2,500
11	Drainage Structures, Manhole	4	EA	\$ 3,500	\$ 14,000
12	Drainage Structures, Inlet	8	EA	\$ 3,000	\$ 24,000
13	Concrete Curb and Gutter	950	LF	\$ 35	\$ 33,300
14	Asphalt Replacement (Surface, Base Course, & Milling)	999	SY	\$ 55	\$ 54,900
15	6" Concrete Driveway Replacement	12	EA	\$ 1,500	\$ 18,000
16	Traffic Control (4+ lane road or multiple 2-lane roads)	1	LS	\$ 20,000	\$ 20,000
17	Erosion Control	1	LS	\$ 15,000	\$ 15,000
18	Utility Relocations**	2	EA	\$ 5,000	\$ 10,000

Subtotal, Items 1-18 \$ 585,200

30% Contingency \$ 175,560

**Total \$ 760,760**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 228,228

**Total Opinion of Project Cost \$ 990,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**HMR/SHB Watershed Master Plan  
Proposed Secondary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Secondary System: Harding Street  
Improvements Description: 1,800 Linear Feet of Stormwater System Improvements**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 56,010	\$ 56,000
2	Comprehensive Grading (20%)*	1	LS	\$ 112,620	\$ 112,600
3	Construction Staking	1	LS	\$ 3,000	\$ 3,000
4	Select Material	3,420	CY	\$ 25	\$ 85,500
5	24" R.C. Pipe Culvert, Class III	16	LF	\$ 70	\$ 1,100
6	30" R.C. Pipe Culvert, Class III	531	LF	\$ 90	\$ 47,800
7	36" R.C. Pipe Culvert, Class III	179	LF	\$ 120	\$ 21,500
8	42" R.C. Pipe Culvert, Class III	1039	LF	\$ 150	\$ 155,900
9	Concrete Pipe Plug	4	EA	\$ 450	\$ 1,800
10	Flowable Fill	77	CY	\$ 500	\$ 38,500
11	Flared End Section, 42 inch	2	EA	\$ 2,500	\$ 5,000
12	Drainage Structures, Manhole	3	EA	\$ 3,500	\$ 10,500
13	Drainage Structures, Inlet	3	EA	\$ 3,000	\$ 9,000
14	Concrete Curb and Gutter	1309	LF	\$ 35	\$ 45,800
15	Asphalt Replacement (Surface, Base Course, & Milling)	1,177	SY	\$ 55	\$ 64,700
16	6" Concrete Driveway Replacement	12	EA	\$ 1,500	\$ 18,000
17	Traffic Control (4+ lane road or multiple 2-lane roads)	1	LS	\$ 20,000	\$ 20,000
18	Erosion Control	1	LS	\$ 15,000	\$ 15,000
19	Utility Relocations**	4	EA	\$ 5,000	\$ 20,000

Subtotal, Items 1-19 \$ 731,700

30% Contingency \$ 219,510

**Total \$ 951,210**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 285,363

**Total Opinion of Project Cost \$ 1,240,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

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**HMR/SHB Watershed Master Plan  
Proposed Secondary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Secondary System: Elm Street  
Improvements Description: 6,600 Linear Feet of Stormwater System Improvements**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 152,590	\$ 152,600
2	Comprehensive Grading (20%)*	1	LS	\$ 305,780	\$ 305,800
3	Construction Staking	1	LS	\$ 3,000	\$ 3,000
4	Select Material	1,400	CY	\$ 25	\$ 35,000
5	18" R.C. Pipe Culvert, Class III	112	LF	\$ 55	\$ 6,200
6	24" R.C. Pipe Culvert, Class III	727	LF	\$ 70	\$ 50,900
8	36" R.C. Pipe Culvert, Class III	607	LF	\$ 120	\$ 72,800
9	42" R.C. Pipe Culvert, Class III	4,902	LF	\$ 150	\$ 735,300
10	48" R.C. Pipe Culvert, Class III	188	LF	\$ 180	\$ 33,800
11	Concrete Pipe Plug	4	EA	\$ 450	\$ 1,800
12	Flowable Fill	222	CY	\$ 500	\$ 111,000
13	Drainage Structures, Manhole	10	EA	\$ 3,500	\$ 35,000
14	Drainage Structures, Inlet	10	EA	\$ 3,000	\$ 30,000
15	Concrete Curb and Gutter	3,782	LF	\$ 35	\$ 132,400
17	Asphalt Replacement (Surface, Base Course, & Milling)	3,259	SY	\$ 55	\$ 179,200
18	6" Concrete Driveway Replacement	25	EA	\$ 1,500	\$ 37,500
19	Traffic Control (4+ lane road or multiple 2-lane roads)	1	LS	\$ 20,000	\$ 20,000
20	Erosion Control	1	LS	\$ 15,000	\$ 15,000
21	Utility Relocations**	6	EA	\$ 5,000	\$ 30,000

Subtotal, Items 1-21 \$ 1,957,300

30% Contingency \$ 587,190

**Total \$ 2,544,490**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 763,347

**Total Opinion of Project Cost \$ 3,310,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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# WATER QUALITY

**HMR/SHB Watershed Master Plan  
Proposed Water Quality Improvements  
Opinion of Probable Project Cost  
June 2016**

**Water Quality Project 1: Ironwood Golf and Country Club Wet Pond  
Project Description:**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 7,220	\$ 7,200
2	Comprehensive Grading (20%)*	1	LS	\$ 29,880	\$ 29,900
3	Excavation	3087	CY	\$ 25	\$ 77,200
4	Erosion Control Matting	68	SY	\$ 10	\$ 700
5	Seeding and Mulching	0.3	AC	\$ 7,500	\$ 2,300
6	15" R.C. Pipe Culvert, Class III	100	LF	\$ 50	\$ 5,000
7	Construction Staking	1	LS	\$ 3,000	\$ 3,000
8	Drainage Structures, DOT Standard Endwall	1	EA	\$ 6,000	\$ 6,000
9	30" R.C. Pipe Culvert, Class III	32	LF	\$ 90	\$ 2,900
10	18" R.C. Pipe Culvert, Class III	33	LF	\$ 55	\$ 1,800
11	Rip Rap Stone, Class 1	200	TN	\$ 70	\$ 14,000
12	Drainage Structures, Manhole	1	EA	\$ 3,500	\$ 3,500
13	Drainage Structures, Inlet	1	EA	\$ 3,000	\$ 3,000
14	Traffic Control	1	LS	\$ 10,000	\$ 10,000
15	Erosion Control	1	LS	\$ 15,000	\$ 15,000
16	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-16 \$ 186,500

30% Contingency \$ 55,950

**Total \$ 242,450**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 72,735

**Total Opinion of Project Cost \$ 320,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**Water Quality Project 2: Moyewood Pond  
Project Description: Retrofit existing pond into stormwater wetland**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 1,730	\$ 2,230
2	Comprehensive Grading (20%)*	1	LS	\$ 3,720	\$ 3,700
3	Excavation	50	CY	\$ 25	\$ 1,300
4	Erosion Control Matting	100	SY	\$ 10	\$ 1,000
5	Seeding and Mulching	1	AC	\$ 7,500	\$ 7,500
6	Construction Staking	1	LS	\$ 3,000	\$ 3,000
7	Select Material	70	CY	\$ 25	\$ 1,800
8	Drainage Structures, Precast Concrete Outlet w/ Orifice	1	EA	\$ 4,000	\$ 4,000

Subtotal, Items 1-8	\$	24,530
30% Contingency	\$	7,359
<b>Total</b>	<b>\$</b>	<b>31,889</b>
Design, Administration, Fiscal and Legal (30% of Construction Costs)	\$	9,567
<b>Total Opinion of Project Cost</b>	<b>\$</b>	<b>42,000</b>

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**Water Quality Project 3: Thomas Foreman Park  
Project Description: Bioretention**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 5,430	\$ 5,400
2	Comprehensive Grading (20%)*	1	LS	\$ 11,220	\$ 11,200
3	Excavation	70	CY	\$ 25	\$ 1,800
4	Soil Media	70	CY	\$ 50	\$ 3,500
5	Mulch	12	CY	\$ 50	\$ 600
6	Drainage Structures, Manhole	1	EA	\$ 3,500	\$ 3,500
7	Curb Cut	3	EA	\$ 400	\$ 1,200
8	8" Perforated PVC Underdrain	150	LF	\$ 10	\$ 1,500
9	Construction Staking	1	LS	\$ 3,000	\$ 3,000
10	BMP Plantings	1000	SF	\$ 2	\$ 2,000
11	Seeding and Mulching	0.1	AC	\$ 7,500	\$ 800
12	18" R.C. Pipe Culvert, Class III	40	LF	\$ 55	\$ 2,200
13	Drainage Structures, Inlet	1	EA	\$ 3,000	\$ 3,000
14	4" Concrete Sidewalk	200	LF	\$ 40	\$ 8,000
15	Traffic Control	1	LS	\$ 10,000	\$ 10,000
16	Erosion Control	1	LS	\$ 15,000	\$ 15,000

Subtotal, Items 1-15 \$ 72,700

30% Contingency \$ 21,810

**Total \$ 94,510**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 28,353

**Total Opinion of Project Cost \$ 130,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**Water Quality Project 4: Thomas Foreman Park  
Project Description: Permeable Pavement**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 6,877	\$ 6,900
2	Comprehensive Grading (20%)*	1	LS	\$ 24,354	\$ 24,354
3	Demolition of Existing asphalt (incl saw cutting)	3,300	SY	\$ 10	\$ 33,000
4	Excavation	215	CY	\$ 25	\$ 5,375
5	Hauling	215	CY	\$ 4	\$ 860
6	Concrete Curb and Gutter	120	LF	\$ 35	\$ 4,200
7	5" Porous Asphalt	2,048	SF	\$ 7	\$ 14,336
8	Construction Staking	1	LS	\$ 3,000	\$ 3,000
9	Rip Rap Stone, Class 1	100	TN	\$ 70	\$ 7,000
10	ABC Stone	400	TN	\$ 35	\$ 14,000
11	Drainage Structures, Manhole	2	EA	\$ 3,500	\$ 7,000
12	Drainage Structures, Inlet	1	EA	\$ 3,000	\$ 3,000
13	Traffic Control	1	LS	\$ 10,000	\$ 10,000
14	Erosion Control	1	LS	\$ 15,000	\$ 15,000
15	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-15 \$ 148,025

30% Contingency \$ 44,408

**Total \$ 192,433**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 57,730

**Total Opinion of Project Cost \$ 260,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**Water Quality Project 4: Third Street Community Center Bioretention  
Project Description: Bioretention**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 4,650.0	\$ 4,700
2	Comprehensive Grading (20%)*	1	LS	\$ 10,560	\$ 10,600
3	Excavation	253	CY	\$ 25	\$ 6,300
4	Drainage Structures, Inlet	1	EA	\$ 3,000	\$ 3,000
5	Curb Cut	3	EA	\$ 400	\$ 1,200
6	8" Perforated PVC Underdrain	50	LF	\$ 10	\$ 500
7	Construction Staking	1	LS	\$ 3,000	\$ 3,000
8	Hauling	253	CY	\$ 4	\$ 1,000
9	Soil Media	253	CY	\$ 50	\$ 12,700
10	Mulch	42	CY	\$ 50	\$ 2,100
11	BMP Plantings	1,000	SF	\$ 2	\$ 2,000
12	Seeding and Mulching	0.1	AC	\$ 7,500	\$ 800
13	18" R.C. Pipe Culvert, Class III	40	LF	\$ 55	\$ 2,200
14	Drainage Structures, Inlet	1	EA	\$ 3,000	\$ 3,000
15	Erosion Control	1	LS	\$ 15,000	\$ 15,000

Subtotal, Items 1-15 \$ 68,100

30% Contingency \$ 20,430

**Total \$ 88,530**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 26,559

**Total Opinion of Project Cost \$ 120,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

The Engineer's opinions of probable construction costs are made on the basis of the Engineer's experience and qualifications and represent the Engineer's best judgement as a professional generally familiar with the construction industry. Since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, over the contractors methods of determining prices; or over competitive bidding or marketing conditions, the Engineer's cannot and does not guarantee that proposal, bids or actual construction costs will not vary from opinions of probable construction costs prepared by the Engineer.

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**Water Quality Project 5: Town Common on Tar River Bioretention  
Project Description: Tiered Bioretention**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 6,980	\$ 7,000
2	Comprehensive Grading (20%)*	1	LS	\$ 17,360	\$ 17,400
3	Excavation	678	CY	\$ 25	\$ 17,000
4	Soil Media	678	CY	\$ 50	\$ 33,900
5	Mulch	113	CY	\$ 50	\$ 5,700
6	8" Perforated PVC Underdrain	150	LF	\$ 10	\$ 1,500
7	Construction Staking	1	LS	\$ 3,000	\$ 3,000
8	Hauling	678	CY	\$ 4	\$ 2,700
9	BMP Plantings	1000	SF	\$ 2	\$ 2,000
10	Seeding and Mulching	0.1	AC	\$ 7,500	\$ 800
11	18" R.C. Pipe Culvert, Class III	40	LF	\$ 55	\$ 2,200
12	Drainage Structures, Inlet	1	EA	\$ 3,000	\$ 3,000
13	Erosion Control	1	LS	\$ 15,000	\$ 15,000

Subtotal, Items 1-13 \$ 111,200

30% Contingency \$ 33,360

**Total \$ 144,560**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 43,368

**Total Opinion of Project Cost \$ 190,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**Water Quality Project 6: South Tar River Greenway Open Daylight Existing Drainage Pipe  
Project Description: Pipe Daylighting**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 3,480	\$ 3,500
2	Comprehensive Grading (20%)*	1	LS	\$ 14,080	\$ 14,100
3	Excavation	624	CY	\$ 25	\$ 15,600
4	Channel Grading including seeding	356	SY	\$ 15	\$ 5,300
5	Erosion Control Matting	14	SY	\$ 10	\$ 100
6	Seeding and Mulching	0.451	AC	\$ 7,500	\$ 3,400
7	15" R.C. Pipe Culvert, Class III	20	LF	\$ 50	\$ 1,000
8	Construction Staking	1	LS	\$ 3,000	\$ 3,000
9	Drainage Structures, DOT Standard Endwall	1	EA	\$ 6,000	\$ 6,000
10	48" R.C. Pipe Culvert, Class III	50	LF	\$ 180	\$ 9,000
11	Rip Rap Stone, Class 1	100	TN	\$ 70	\$ 7,000
12	Erosion Control	1	LS	\$ 15,000	\$ 15,000
13	Utility Relocations**	1	EA	\$ 5,000	\$ 5,000

Subtotal, Items 1-13 \$ 88,000

30% Contingency \$ 26,400

**Total \$ 114,400**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 34,320

**Total Opinion of Project Cost \$ 150,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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**Water Quality Project 7: N. Summit Street Bioretention  
Project Description: Bioretention**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 9,680	\$ 9,700
2	Comprehensive Grading (20%)*	1	LS	\$ 24,360	\$ 24,400
3	Excavation	1,000	CY	\$ 25	\$ 25,000
4	Soil Media	1,000	CY	\$ 50	\$ 50,000
5	Mulch	200	CY	\$ 50	\$ 10,000
6	8" Perforated PVC Underdrain	250	LF	\$ 10	\$ 2,500
7	Construction Staking	1	LS	\$ 3,000	\$ 3,000
8	Hauling	678	CY	\$ 4	\$ 2,700
9	BMP Plantings	1000	SF	\$ 2	\$ 2,000
10	Seeding and Mulching	0.1	AC	\$ 7,500	\$ 800
11	36" R.C. Pipe Culvert, Class III	40	LF	\$ 120	\$ 4,800
12	Drainage Structures, Inlet	2	EA	\$ 3,000	\$ 6,000
13	Erosion Control	1	LS	\$ 15,000	\$ 15,000

Subtotal, Items 1-13 \$ 155,900

30% Contingency \$ 46,770

**Total \$ 202,670**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 60,801

**Total Opinion of Project Cost \$ 270,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities.

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# STREAM STABILIZATION



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**Stream Stabilization Project 1: Ironwood Golf Course Project 1  
Project Description: 4 Reaches, 1,400 linear feet total**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 39,040	\$ 39,000
2	Comprehensive Grading (20%)	1	LS	\$ 65,060	\$ 65,100
3	Construction Staking	1	LS	\$ 3,000	\$ 3,000
4	Channel Grading including seeding	3,200	SY	\$ 15	\$ 48,000
5	Erosion Control Matting	1,600	SY	\$ 10	\$ 16,000
5	Excavation	500	CY	\$ 25	\$ 12,500
6	Live Staking	800	SY	\$ 15	\$ 12,000
7	Riparian Seed Mix	3200	SY	\$ 2	\$ 4,800
8	Rock Grade Control	4	EA	\$ 10,000	\$ 40,000
9	Rip Rap Stone, Class 1	200	TN	\$ 70	\$ 14,000
10	Wood Retaining Wall (4' high)	1,300	LF	\$ 100	\$ 130,000
11	Log Grade Control Structure	10	EA	\$ 2,000	\$ 20,000
12	Dewatering during Construction	1	LS	\$ 10,000	\$ 10,000
13	Erosion Control	1	LS	\$ 15,000	\$ 15,000

Subtotal, Items 1-13 \$ 429,400

30% Contingency \$ 128,820

**Total \$ 558,220**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 167,466

**Total Opinion of Project Cost \$ 730,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

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**Stream Stabilization Project 2: Schoolhouse Branch Stabilization of Unnamed Tributary at Beasley Drive  
Project Description: 400 LF of Channel Grading and Armoring**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 32,120	\$ 32,100
2	Comprehensive Grading (20%)	1	LS	\$ 26,760	\$ 26,800
3	Construction Staking	1	LS	\$ 3,000	\$ 3,000
4	Channel Grading including seeding	2,400	SY	\$ 15	\$ 36,000
5	Erosion Control Matting	1,200	SY	\$ 10	\$ 12,000
6	Live Staking	600	SY	\$ 15	\$ 9,000
7	Riparian Seed Mix	1200	SY	\$ 2	\$ 1,800
8	Rock Grade Control	4	EA	\$ 10,000	\$ 40,000
9	Rip Rap Stone, Class 1	100	TN	\$ 70	\$ 7,000
10	Traffic Control	1	LS	\$ 10,000	\$ 10,000
11	Erosion Control	1	LS	\$ 15,000	\$ 15,000

	Subtotal, Items 1-11	\$ 192,700
	30% Contingency	\$ 57,810
	<b>Total</b>	<b>\$ 250,510</b>
Design, Administration, Fiscal and Legal (30% of Construction Costs)	\$	75,153
	<b>Total Opinion of Project Cost</b>	<b>\$ 330,000</b>

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

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**Stream Stabilization Project #5: Schoolhouse Branch Earthen Dam  
Project Description:**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 9,380	\$ 9,400
2	Comprehensive Grading*	1	LS	\$ 15,000	\$ 15,000
3	Construction Staking	1	1	\$ 10,000	\$ 10,000
4	Channel Grading including seeding	2,400	SY	\$ 15	\$ 36,000
5	Erosion Control Matting	1,200	SY	\$ 10	\$ 12,000
6	Live Staking	600	SY	\$ 15	\$ 9,000
7	Riparian Seed Mix	1200	SY	\$ 2	\$ 1,800
8	Rock Grade Control	2	EA	\$ 10,000	\$ 20,000
9	Rip Rap Stone, Class 1	100	TN	\$ 70	\$ 7,000
10	Log Grade Control Structure	4	EA	\$ 2,000	\$ 8,000
11	Erosion Control	1	LS	\$ 15,000	\$ 15,000

Subtotal, Items 1-11	\$ 143,200
30% Contingency	\$ 42,960
<b>Total</b>	<b>\$ 186,160</b>
Design, Administration, Fiscal and Legal (30% of Construction Costs)	\$ 55,848
<b>Total Opinion of Project Cost</b>	<b>\$ 250,000</b>

Channel grading includes dam breach and grading

coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

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**Maintenance Project: Arlington Boulevard Shopping Center Pond Riser  
Improvements Description: Detention Pond Discharge Riser Replacement**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 2,060	\$ 2,100
2	Comprehensive Grading (20%)*	1	LS	\$ 4,120	\$ 4,100
3	Select Material	28	CY	\$ 25	\$ 700
4	30" R.C. Pipe Culvert, Class III	60	LF	\$ 90	\$ 5,400
5	Flared End Section, 36 inch	1	EA	\$ 2,500	\$ 2,500
6	Drainage Structures, Manhole	1	EA	\$ 3,500	\$ 3,500
7	BMP Outlet Structure	1	EA	\$ 4,000	\$ 4,000
8	Rip Rap Stone, Class 1	60	TN	\$ 70	\$ 4,200
9	#57 stone	4	TN	\$ 65	\$ 300

Subtotal, Items 1-9 \$ 26,800

30% Contingency \$ 8,040

**Total \$ 34,840**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 10,452

**Total Opinion of Project Cost \$ 46,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities

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**Maintenance Project: Golf View Drive  
Improvements Description: Culvert Sediment Removal**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 100	\$ 100
2	Comprehensive Grading (20%)*	1	LS	\$ 200	\$ 200
3	Excavation	40	CY	\$ 25	\$ 1,000

Subtotal, Items 1-9 \$ 1,300

30% Contingency \$ 390

**Total \$ 1,690**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 507

**Total Opinion of Project Cost \$ 3,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities

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**Maintenance Project: Willow Street Apartments Pipe Inlet  
Improvements Description: Replace Blocked Inlet**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 510	\$ 500
2	Comprehensive Grading (20%)*	1	LS	\$ 1,020	\$ 1,000
3	Select Material	9	CY	\$ 25	\$ 200
4	24" R.C. Pipe Culvert, Class III	20	LF	\$ 70	\$ 1,400
5	Flared End Section, 36 inch	1	EA	\$ 2,500	\$ 2,500
6	Rip Rap Stone, Class 1	10	TN	\$ 70	\$ 700
7	#57 stone	4	TN	\$ 65	\$ 300

Subtotal, Items 1-7 \$ 6,600

30% Contingency \$ 1,980

**Total \$ 8,580**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 2,574

**Total Opinion of Project Cost \$ 12,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities

The Engineer's opinions of probable construction costs are made on the basis of the Engineer's experience and qualifications and represent the Engineer's best judgement as a professional generally familiar with the construction industry. Since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, over the contractors methods of determining prices; or over competitive bidding or marketing conditions, the Engineer's cannot and does not guarantee that proposal, bids or actual construction costs will not vary from opinions of probable construction costs prepared by the Engineer.

**HMR/SHB Watershed Master Plan  
Proposed Secondary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Maintenance Project: Wyndham Circle Structure (TRM01025)  
Improvements Description: Catch Basin and Surface Repair**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 130	\$ 100
2	Comprehensive Grading (20%)*	1	LS	\$ 260	\$ 300
3	Select Material	2	CY	\$ 25	\$ 100
4	Flowable Fill	1	CY	\$ 500	\$ 500
5	Asphalt Replacement (Surface, Base Course, & Milling)	10	SY	\$ 55	\$ 600
6	#57 stone	1	TN	\$ 65	\$ 100

Subtotal, Items 1-6 \$ 1,700

30% Contingency \$ 510

**Total \$ 2,210**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 663

**Total Opinion of Project Cost \$ 3,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities

The Engineer's opinions of probable construction costs are made on the basis of the Engineer's experience and qualifications and represent the Engineer's best judgement as a professional generally familiar with the construction industry. Since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, over the contractors methods of determining prices; or over competitive bidding or marketing conditions, the Engineer's cannot and does not guarantee that proposal, bids or actual construction costs will not vary from opinions of probable construction costs prepared by the Engineer.

**HMR/SHB Watershed Master Plan  
Proposed Secondary Improvements  
Opinion of Probable Project Cost  
June 2016**

**Maintenance Project: Wyndham Circle Structure (TRM01030)  
Improvements Description: Yard Inlet Repair and Surface Fill**

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Cost</i>
1	Mobilization (10%)	1	LS	\$ 120	\$ 100
2	Comprehensive Grading (20%)*	1	LS	\$ 240	\$ 200
3	Select Material	10	CY	\$ 25	\$ 300
4	Flowable Fill	1.5	CY	\$ 500	\$ 800
5	#57 stone	2	TN	\$ 65	\$ 100
6	Seeding and Mulching	0.02	AC	\$ 7,500	\$ 200

Subtotal, Items 1-6 \$ 1,500

30% Contingency \$ 450

**Total \$ 1,950**

Design, Administration, Fiscal and Legal (30% of Construction Costs) \$ 585

**Total Opinion of Project Cost \$ 3,000**

\* Cost for comprehensive grading includes roadway excavation, saw cutting, compaction of select material, geotechnical recommendations, home owner coordination, tree and structure protection, structure removal and disposal, shoring and culvert excavation.

\*\* Cost for utility conflicts include all utilities that need to be moved including sanitary sewer and potable water lines. Additional survey may be required to locate pressurized utilities

The Engineer's opinions of probable construction costs are made on the basis of the Engineer's experience and qualifications and represent the Engineer's best judgement as a professional generally familiar with the construction industry. Since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, over the contractors methods of determining prices; or over competitive bidding or marketing conditions, the Engineer's cannot and does not guarantee that proposal, bids or actual construction costs will not vary from opinions of probable construction costs prepared by the Engineer.



**APPENDIX H**  
**HYDRAULIC AND HYDROLOGIC**  
**MODELS INPUT AND OUTPUT**

Project: HarrisMillRun

Simulation Run: 2YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	14.2	01Apr2015, 17:51	1.54
HMR_770	0.204	10.5	01Apr2015, 19:01	1.44
J_HMR_770	0.204	10.5	01Apr2015, 19:01	1.44
R_HMR_760	0.204	10.5	01Apr2015, 19:56	1.42
J_HMR_760	0.434	24.3	01Apr2015, 19:06	1.48
R_HMR_750	0.434	24.2	01Apr2015, 19:21	1.48
HMR_750	0.084	3.6	01Apr2015, 17:00	0.9
J_HMR_750	0.518	27.5	01Apr2015, 19:11	1.39
R_HMR_740	0.518	27.5	01Apr2015, 19:18	1.38
HMR_730	0.147	15	01Apr2015, 14:29	1.42
HMR_735	0.146	12.1	01Apr2015, 15:51	1.55
J_HMR_735	0.146	12.1	01Apr2015, 15:51	1.55
R_HMR_730	0.146	12.1	01Apr2015, 16:03	1.55
HMR_740	0.022	5	01Apr2015, 12:55	1.46
J_HMR_730	0.833	49.7	01Apr2015, 17:41	1.42
R_HMR_720	0.833	49.7	01Apr2015, 17:48	1.42
HMR_720	0.454	7.2	01Apr2015, 16:44	0.27
J_HMR_720	1.287	56.7	01Apr2015, 17:40	1.02
R_HMR_710	1.287	56.7	01Apr2015, 17:48	1.01
HMR_715	0.102	31.3	01Apr2015, 12:29	1.16
HMR_710	0.088	11.6	01Apr2015, 12:38	0.68
J_HMR_710	1.477	61.9	01Apr2015, 17:27	1
R_HMR_700	1.477	61.9	01Apr2015, 17:39	1
HMR_1400	0.144	12	01Apr2015, 15:02	1.31
HMR_1500	0.039	4	01Apr2015, 14:38	1.5
J_HMR_1500	0.039	4	01Apr2015, 14:38	1.5
R_HMR_1400	0.039	4	01Apr2015, 14:49	1.5
J_HMR_1400	0.183	16	01Apr2015, 14:58	1.35
R_HMR_1300	0.183	12.1	01Apr2015, 16:00	1.23
HMR_1300	0.128	11.7	01Apr2015, 14:28	1.26
J_HMR_1300	0.311	23.2	01Apr2015, 15:10	1.24
R_HMR_1200	0.311	21.8	01Apr2015, 16:51	1.24
HMR_1200	0.291	11.3	01Apr2015, 16:07	0.69
HMR_1100	0.083	6.9	01Apr2015, 13:19	0.77
HMR_1110	0.06	11.7	01Apr2015, 12:58	1.31
J_HMR_1110	0.06	11.7	01Apr2015, 12:58	1.31
R_HMR_1100	0.06	11.7	01Apr2015, 13:05	1.31
J_HMR_1100	0.745	42.2	01Apr2015, 15:46	0.98

R_HMR_1000	0.745	39.3	01Apr2015, 17:22	0.98
HMR_1000	0.047	4	01Apr2015, 13:25	0.82
J_HMR_1000	0.792	41.4	01Apr2015, 17:10	0.97
R_HMR_900	0.792	41.4	01Apr2015, 17:16	0.97
HMR_900	0.053	2.7	01Apr2015, 13:16	0.48
J_HMR_900	0.845	42.8	01Apr2015, 17:08	0.94
R_HMR_800	0.845	42.8	01Apr2015, 17:15	0.94
HMR_800	0.224	26.3	01Apr2015, 12:55	0.81
HMR_700	0.104	8.6	01Apr2015, 13:11	0.71
J_HMR_700	2.65	116.7	01Apr2015, 16:51	0.96
R_HMR_600	2.65	116.7	01Apr2015, 17:00	0.95
HMR_600	0.102	8.8	01Apr2015, 13:32	0.88
J_HMR_600	2.752	122.2	01Apr2015, 16:42	0.95
R_HMR_500	2.752	122.1	01Apr2015, 16:55	0.95
HMR_500	0.129	8.2	01Apr2015, 14:13	0.81
J_HMR_500	2.881	128.7	01Apr2015, 16:43	0.94
R_HMR_400	2.881	128.6	01Apr2015, 16:53	0.94
HMR_400	0.11	15.2	01Apr2015, 13:24	1.26
J_HMR_400	2.991	137.1	01Apr2015, 16:35	0.96
R_HMR_300	2.991	136.8	01Apr2015, 16:52	0.96
HMR_300	0.074	19.1	01Apr2015, 12:37	1.21
J_HMR_300	3.065	140.1	01Apr2015, 16:41	0.96
R_HMR_200	3.065	139.2	01Apr2015, 17:17	0.96
HMR_210	0.089	14	01Apr2015, 14:10	1.97
HMR_220	0.038	4.7	01Apr2015, 12:58	0.87
J_HMR_220	0.038	4.7	01Apr2015, 12:58	0.87
R_HMR_210	0.038	4.2	01Apr2015, 13:52	0.85
HMR_200	0.036	11.8	01Apr2015, 12:37	1.51
J_HMR_200	3.228	153.3	01Apr2015, 16:46	0.99
R_HMR_100	3.228	125.1	01Apr2015, 20:44	0.98
HMR_100	0.394	29.5	01Apr2015, 16:51	1.66
OUT_HMR_100	3.622	150.3	01Apr2015, 20:13	1.06

Project: HarrisMillRun

Simulation Run: 10YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	29.8	01Apr2015, 17:26	3.16
HMR_770	0.204	22.3	01Apr2015, 18:32	2.99
J_HMR_770	0.204	22.3	01Apr2015, 18:32	2.99
R_HMR_760	0.204	22.3	01Apr2015, 19:23	2.96
J_HMR_760	0.434	51.1	01Apr2015, 18:42	3.07
R_HMR_750	0.434	51.1	01Apr2015, 18:55	3.06
HMR_750	0.084	9.3	01Apr2015, 16:16	2.22
J_HMR_750	0.518	59.5	01Apr2015, 18:42	2.93
R_HMR_740	0.518	59.5	01Apr2015, 18:48	2.92
HMR_730	0.147	33.7	01Apr2015, 14:19	3.02
HMR_735	0.146	25.9	01Apr2015, 15:34	3.21
J_HMR_735	0.146	25.9	01Apr2015, 15:34	3.21
R_HMR_730	0.146	25.9	01Apr2015, 15:44	3.21
HMR_740	0.022	11.1	01Apr2015, 12:52	3.07
J_HMR_730	0.833	108	01Apr2015, 17:15	2.99
R_HMR_720	0.833	108	01Apr2015, 17:21	2.99
HMR_720	0.454	32.5	01Apr2015, 15:05	1.07
J_HMR_720	1.287	137	01Apr2015, 16:56	2.31
R_HMR_710	1.287	137	01Apr2015, 17:03	2.31
HMR_715	0.102	76.5	01Apr2015, 12:26	2.64
HMR_710	0.088	39	01Apr2015, 12:33	1.85
J_HMR_710	1.477	150.3	01Apr2015, 16:21	2.31
R_HMR_700	1.477	150.3	01Apr2015, 16:36	2.31
HMR_1400	0.144	27.7	01Apr2015, 14:45	2.87
HMR_1500	0.039	8.9	01Apr2015, 14:29	3.14
J_HMR_1500	0.039	8.9	01Apr2015, 14:29	3.14
R_HMR_1400	0.039	8.9	01Apr2015, 14:37	3.14
J_HMR_1400	0.183	36.5	01Apr2015, 14:43	2.92
R_HMR_1300	0.183	29.7	01Apr2015, 15:00	2.77
HMR_1300	0.128	27.6	01Apr2015, 14:16	2.78
J_HMR_1300	0.311	56.7	01Apr2015, 14:39	2.78
R_HMR_1200	0.311	51.6	01Apr2015, 16:20	2.78
HMR_1200	0.291	33.5	01Apr2015, 15:13	1.88
HMR_1100	0.083	21.2	01Apr2015, 13:10	2
HMR_1110	0.06	27.4	01Apr2015, 12:54	2.87
J_HMR_1110	0.06	27.4	01Apr2015, 12:54	2.87
R_HMR_1100	0.06	27.4	01Apr2015, 12:59	2.87
J_HMR_1100	0.745	108.9	01Apr2015, 15:11	2.35

R_HMR_1000	0.745	99.8	01Apr2015, 16:49	2.35
HMR_1000	0.047	11.9	01Apr2015, 13:15	2.1
J_HMR_1000	0.792	105.5	01Apr2015, 16:38	2.33
R_HMR_900	0.792	105.5	01Apr2015, 16:43	2.33
HMR_900	0.053	11.2	01Apr2015, 12:58	1.49
J_HMR_900	0.845	109.7	01Apr2015, 16:34	2.28
R_HMR_800	0.845	109.7	01Apr2015, 16:40	2.28
HMR_800	0.224	79.1	01Apr2015, 12:49	2.08
HMR_700	0.104	27.7	01Apr2015, 13:02	1.9
J_HMR_700	2.65	297.1	01Apr2015, 15:53	2.26
R_HMR_600	2.65	296.8	01Apr2015, 16:02	2.26
HMR_600	0.102	25.1	01Apr2015, 13:22	2.19
J_HMR_600	2.752	312.8	01Apr2015, 15:52	2.26
R_HMR_500	2.752	312.5	01Apr2015, 16:01	2.26
HMR_500	0.129	23.9	01Apr2015, 13:50	2.07
J_HMR_500	2.881	331.7	01Apr2015, 15:51	2.25
R_HMR_400	2.881	331.6	01Apr2015, 15:59	2.25
HMR_400	0.11	36.2	01Apr2015, 13:19	2.79
J_HMR_400	2.991	353.9	01Apr2015, 15:35	2.27
R_HMR_300	2.991	353.7	01Apr2015, 15:44	2.27
HMR_300	0.074	46	01Apr2015, 12:34	2.72
J_HMR_300	3.065	364.2	01Apr2015, 15:07	2.28
R_HMR_200	3.065	361.5	01Apr2015, 16:05	2.28
HMR_210	0.089	27.6	01Apr2015, 14:05	3.77
HMR_220	0.038	13.5	01Apr2015, 12:52	2.17
J_HMR_220	0.038	13.5	01Apr2015, 12:52	2.17
R_HMR_210	0.038	12	01Apr2015, 13:34	2.15
HMR_200	0.036	25.7	01Apr2015, 12:34	3.15
J_HMR_200	3.228	396	01Apr2015, 15:35	2.33
R_HMR_100	3.228	307.7	01Apr2015, 19:54	2.31
HMR_100	0.394	61.1	01Apr2015, 16:32	3.35
OUT_HMR_100	3.622	360.6	01Apr2015, 19:34	2.42

Project: HarrisMillRun

Simulation Run: 25YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	41.7	01Apr2015, 17:19	4.38
HMR_770	0.204	31.3	01Apr2015, 18:23	4.16
J_HMR_770	0.204	31.3	01Apr2015, 18:23	4.16
R_HMR_760	0.204	31.2	01Apr2015, 19:12	4.12
J_HMR_760	0.434	71.4	01Apr2015, 18:33	4.26
R_HMR_750	0.434	71.4	01Apr2015, 18:45	4.25
HMR_750	0.084	14.1	01Apr2015, 16:02	3.29
J_HMR_750	0.518	84	01Apr2015, 18:31	4.09
R_HMR_740	0.518	84	01Apr2015, 18:36	4.09
HMR_730	0.147	48.1	01Apr2015, 14:16	4.23
HMR_735	0.146	36.4	01Apr2015, 15:29	4.46
J_HMR_735	0.146	36.4	01Apr2015, 15:29	4.46
R_HMR_730	0.146	36.4	01Apr2015, 15:39	4.46
HMR_740	0.022	15.7	01Apr2015, 12:51	4.3
J_HMR_730	0.833	152.5	01Apr2015, 17:06	4.19
R_HMR_720	0.833	152.5	01Apr2015, 17:11	4.18
HMR_720	0.454	59.2	01Apr2015, 14:36	1.82
J_HMR_720	1.287	203.6	01Apr2015, 16:33	3.35
R_HMR_710	1.287	203.6	01Apr2015, 16:39	3.35
HMR_715	0.102	111.6	01Apr2015, 12:25	3.79
HMR_710	0.088	62.4	01Apr2015, 12:31	2.83
J_HMR_710	1.477	225.1	01Apr2015, 15:45	3.35
R_HMR_700	1.477	225.1	01Apr2015, 16:01	3.35
HMR_1400	0.144	39.9	01Apr2015, 14:41	4.06
HMR_1500	0.039	12.5	01Apr2015, 14:26	4.37
J_HMR_1500	0.039	12.5	01Apr2015, 14:26	4.37
R_HMR_1400	0.039	12.5	01Apr2015, 14:33	4.37
J_HMR_1400	0.183	52.4	01Apr2015, 14:39	4.13
R_HMR_1300	0.183	43.6	01Apr2015, 14:49	3.94
HMR_1300	0.128	40	01Apr2015, 14:12	3.96
J_HMR_1300	0.311	82.8	01Apr2015, 14:33	3.95
R_HMR_1200	0.311	74.8	01Apr2015, 16:11	3.95
HMR_1200	0.291	53	01Apr2015, 14:59	2.87
HMR_1100	0.083	33.3	01Apr2015, 13:07	3.02
HMR_1110	0.06	39.4	01Apr2015, 12:53	4.06
J_HMR_1110	0.06	39.4	01Apr2015, 12:53	4.06
R_HMR_1100	0.06	39.4	01Apr2015, 12:58	4.06
J_HMR_1100	0.745	163.2	01Apr2015, 15:00	3.43

R_HMR_1000	0.745	148.7	01Apr2015, 16:39	3.43
HMR_1000	0.047	18.5	01Apr2015, 13:12	3.14
J_HMR_1000	0.792	157.4	01Apr2015, 16:27	3.41
R_HMR_900	0.792	157.4	01Apr2015, 16:32	3.41
HMR_900	0.053	19.3	01Apr2015, 12:55	2.37
J_HMR_900	0.845	164.1	01Apr2015, 16:22	3.35
R_HMR_800	0.845	164	01Apr2015, 16:29	3.35
HMR_800	0.224	123.3	01Apr2015, 12:47	3.12
HMR_700	0.104	44.2	01Apr2015, 12:59	2.9
J_HMR_700	2.65	447.1	01Apr2015, 15:36	3.31
R_HMR_600	2.65	446.8	01Apr2015, 15:45	3.31
HMR_600	0.102	38.6	01Apr2015, 13:20	3.25
J_HMR_600	2.752	472.1	01Apr2015, 15:27	3.31
R_HMR_500	2.752	471.8	01Apr2015, 15:37	3.31
HMR_500	0.129	37.3	01Apr2015, 13:46	3.1
J_HMR_500	2.881	502.7	01Apr2015, 15:20	3.3
R_HMR_400	2.881	502.6	01Apr2015, 15:27	3.3
HMR_400	0.11	52.5	01Apr2015, 13:17	3.97
J_HMR_400	2.991	538.8	01Apr2015, 14:55	3.32
R_HMR_300	2.991	538.7	01Apr2015, 15:03	3.32
HMR_300	0.074	66.8	01Apr2015, 12:33	3.89
J_HMR_300	3.065	562.9	01Apr2015, 13:59	3.33
R_HMR_200	3.065	552.4	01Apr2015, 15:24	3.33
HMR_210	0.089	37.4	01Apr2015, 14:04	5.09
HMR_220	0.038	20.8	01Apr2015, 12:50	3.23
J_HMR_220	0.038	20.8	01Apr2015, 12:50	3.23
R_HMR_210	0.038	18.9	01Apr2015, 13:26	3.22
HMR_200	0.036	36.1	01Apr2015, 12:34	4.39
J_HMR_200	3.228	605.6	01Apr2015, 15:04	3.39
R_HMR_100	3.228	469.7	01Apr2015, 19:15	3.36
HMR_100	0.394	84.7	01Apr2015, 16:27	4.6
OUT_HMR_100	3.622	545.3	01Apr2015, 18:59	3.5

Project: HarrisMillRun

Simulation Run: 50YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	52.3	01Apr2015, 17:16	5.48
HMR_770	0.204	39.4	01Apr2015, 18:18	5.22
J_HMR_770	0.204	39.4	01Apr2015, 18:18	5.22
R_HMR_760	0.204	39.3	01Apr2015, 19:05	5.17
J_HMR_760	0.434	89.8	01Apr2015, 18:28	5.33
R_HMR_750	0.434	89.7	01Apr2015, 18:39	5.32
HMR_750	0.084	18.6	01Apr2015, 15:55	4.29
J_HMR_750	0.518	106.2	01Apr2015, 18:24	5.15
R_HMR_740	0.518	106.2	01Apr2015, 18:29	5.15
HMR_730	0.147	61.2	01Apr2015, 14:15	5.34
HMR_735	0.146	45.8	01Apr2015, 15:27	5.58
J_HMR_735	0.146	45.8	01Apr2015, 15:27	5.58
R_HMR_730	0.146	45.8	01Apr2015, 15:36	5.58
HMR_740	0.022	19.8	01Apr2015, 12:50	5.41
J_HMR_730	0.833	193	01Apr2015, 17:00	5.27
R_HMR_720	0.833	193	01Apr2015, 17:05	5.26
HMR_720	0.454	87	01Apr2015, 14:23	2.58
J_HMR_720	1.287	266.9	01Apr2015, 16:16	4.31
R_HMR_710	1.287	266.9	01Apr2015, 16:24	4.31
HMR_715	0.102	143.5	01Apr2015, 12:24	4.85
HMR_710	0.088	84.7	01Apr2015, 12:30	3.76
J_HMR_710	1.477	296.1	01Apr2015, 15:39	4.32
R_HMR_700	1.477	296	01Apr2015, 15:53	4.31
HMR_1400	0.144	51.1	01Apr2015, 14:38	5.14
HMR_1500	0.039	15.9	01Apr2015, 14:24	5.49
J_HMR_1500	0.039	15.9	01Apr2015, 14:24	5.49
R_HMR_1400	0.039	15.9	01Apr2015, 14:31	5.49
J_HMR_1400	0.183	66.9	01Apr2015, 14:37	5.22
R_HMR_1300	0.183	56.3	01Apr2015, 14:44	5.01
HMR_1300	0.128	51.5	01Apr2015, 14:10	5.04
J_HMR_1300	0.311	106.7	01Apr2015, 14:31	5.02
R_HMR_1200	0.311	96	01Apr2015, 16:05	5.02
HMR_1200	0.291	71.7	01Apr2015, 14:53	3.81
HMR_1100	0.083	44.9	01Apr2015, 13:06	3.98
HMR_1110	0.06	50.4	01Apr2015, 12:52	5.15
J_HMR_1110	0.06	50.4	01Apr2015, 12:52	5.15
R_HMR_1100	0.06	50.3	01Apr2015, 12:57	5.14
J_HMR_1100	0.745	214.1	01Apr2015, 14:54	4.44



R_HMR_1000	0.745	194.4	01Apr2015, 16:33	4.44
HMR_1000	0.047	24.7	01Apr2015, 13:11	4.11
J_HMR_1000	0.792	205.9	01Apr2015, 16:21	4.42
R_HMR_900	0.792	205.9	01Apr2015, 16:26	4.42
HMR_900	0.053	27.2	01Apr2015, 12:53	3.23
J_HMR_900	0.845	215.1	01Apr2015, 16:16	4.35
R_HMR_800	0.845	215	01Apr2015, 16:23	4.35
HMR_800	0.224	164.9	01Apr2015, 12:46	4.09
HMR_700	0.104	60	01Apr2015, 12:58	3.84
J_HMR_700	2.65	589.5	01Apr2015, 15:18	4.29
R_HMR_600	2.65	589.1	01Apr2015, 15:27	4.29
HMR_600	0.102	51.3	01Apr2015, 13:18	4.24
J_HMR_600	2.752	624.7	01Apr2015, 14:56	4.28
R_HMR_500	2.752	624.5	01Apr2015, 15:07	4.28
HMR_500	0.129	50	01Apr2015, 13:44	4.08
J_HMR_500	2.881	668.3	01Apr2015, 14:49	4.27
R_HMR_400	2.881	668.1	01Apr2015, 14:57	4.27
HMR_400	0.11	67.5	01Apr2015, 13:16	5.05
J_HMR_400	2.991	720.4	01Apr2015, 13:49	4.3
R_HMR_300	2.991	718.8	01Apr2015, 14:13	4.3
HMR_300	0.074	85.7	01Apr2015, 12:33	4.95
J_HMR_300	3.065	754.6	01Apr2015, 13:54	4.32
R_HMR_200	3.065	737.6	01Apr2015, 15:03	4.31
HMR_210	0.089	46.2	01Apr2015, 14:03	6.26
HMR_220	0.038	27.6	01Apr2015, 12:49	4.22
J_HMR_220	0.038	27.6	01Apr2015, 12:49	4.22
R_HMR_210	0.038	24.4	01Apr2015, 13:29	4.19
HMR_200	0.036	45.3	01Apr2015, 12:33	5.5
J_HMR_200	3.228	808.1	01Apr2015, 14:46	4.38
R_HMR_100	3.228	613.4	01Apr2015, 18:58	4.34
HMR_100	0.394	105.9	01Apr2015, 16:24	5.73
OUT_HMR_100	3.622	709	01Apr2015, 18:42	4.5

Project: HarrisMillRun

Simulation Run: 100YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	64.4	01Apr2015, 17:13	6.71
HMR_770	0.204	48.6	01Apr2015, 18:15	6.42
J_HMR_770	0.204	48.6	01Apr2015, 18:15	6.42
R_HMR_760	0.204	48.4	01Apr2015, 19:00	6.36
J_HMR_760	0.434	110.5	01Apr2015, 18:23	6.55
R_HMR_750	0.434	110.4	01Apr2015, 18:35	6.53
HMR_750	0.084	23.8	01Apr2015, 15:51	5.44
J_HMR_750	0.518	131.4	01Apr2015, 18:19	6.36
R_HMR_740	0.518	131.4	01Apr2015, 18:24	6.35
HMR_730	0.147	75.9	01Apr2015, 14:13	6.59
HMR_735	0.146	56.5	01Apr2015, 15:25	6.85
J_HMR_735	0.146	56.5	01Apr2015, 15:25	6.85
R_HMR_730	0.146	56.5	01Apr2015, 15:33	6.85
HMR_740	0.022	24.5	01Apr2015, 12:50	6.66
J_HMR_730	0.833	239	01Apr2015, 17:01	6.49
R_HMR_720	0.833	239	01Apr2015, 17:07	6.49
HMR_720	0.454	121.6	01Apr2015, 14:16	3.49
J_HMR_720	1.287	340.9	01Apr2015, 16:01	5.43
R_HMR_710	1.287	340.9	01Apr2015, 16:12	5.43
HMR_715	0.102	179.7	01Apr2015, 12:24	6.06
HMR_710	0.088	110.7	01Apr2015, 12:29	4.85
J_HMR_710	1.477	378.3	01Apr2015, 15:33	5.43
R_HMR_700	1.477	378.2	01Apr2015, 15:47	5.43
HMR_1400	0.144	63.8	01Apr2015, 14:37	6.38
HMR_1500	0.039	19.6	01Apr2015, 14:23	6.75
J_HMR_1500	0.039	19.6	01Apr2015, 14:23	6.75
R_HMR_1400	0.039	19.6	01Apr2015, 14:30	6.75
J_HMR_1400	0.183	83.3	01Apr2015, 14:35	6.46
R_HMR_1300	0.183	70.9	01Apr2015, 14:41	6.21
HMR_1300	0.128	64.5	01Apr2015, 14:09	6.26
J_HMR_1300	0.311	134.1	01Apr2015, 14:29	6.23
R_HMR_1200	0.311	120.1	01Apr2015, 16:01	6.23
HMR_1200	0.291	93.8	01Apr2015, 14:49	4.9
HMR_1100	0.083	58.4	01Apr2015, 13:04	5.1
HMR_1110	0.06	62.7	01Apr2015, 12:51	6.38
J_HMR_1110	0.06	62.7	01Apr2015, 12:51	6.38
R_HMR_1100	0.06	62.7	01Apr2015, 12:56	6.38
J_HMR_1100	0.745	273	01Apr2015, 14:50	5.6

R_HMR_1000	0.745	247.1	01Apr2015, 16:28	5.6
HMR_1000	0.047	32	01Apr2015, 13:10	5.24
J_HMR_1000	0.792	261.9	01Apr2015, 16:16	5.58
R_HMR_900	0.792	261.8	01Apr2015, 16:21	5.58
HMR_900	0.053	36.7	01Apr2015, 12:52	4.24
J_HMR_900	0.845	273.9	01Apr2015, 16:10	5.49
R_HMR_800	0.845	273.8	01Apr2015, 16:17	5.49
HMR_800	0.224	213.1	01Apr2015, 12:45	5.22
HMR_700	0.104	78.4	01Apr2015, 12:57	4.94
J_HMR_700	2.65	755.7	01Apr2015, 15:04	5.41
R_HMR_600	2.65	755.3	01Apr2015, 15:13	5.41
HMR_600	0.102	66.1	01Apr2015, 13:17	5.39
J_HMR_600	2.752	803.2	01Apr2015, 14:41	5.41
R_HMR_500	2.752	802.9	01Apr2015, 14:50	5.41
HMR_500	0.129	64.8	01Apr2015, 13:42	5.2
J_HMR_500	2.881	861.5	01Apr2015, 14:30	5.4
R_HMR_400	2.881	861.4	01Apr2015, 14:35	5.4
HMR_400	0.11	84.4	01Apr2015, 13:15	6.28
J_HMR_400	2.991	936.4	01Apr2015, 13:48	5.43
R_HMR_300	2.991	934.2	01Apr2015, 14:03	5.43
HMR_300	0.074	107.1	01Apr2015, 12:32	6.17
J_HMR_300	3.065	979.7	01Apr2015, 13:52	5.45
R_HMR_200	3.065	955.8	01Apr2015, 14:44	5.44
HMR_210	0.089	55.9	01Apr2015, 14:02	7.57
HMR_220	0.038	35.5	01Apr2015, 12:48	5.36
J_HMR_220	0.038	35.5	01Apr2015, 12:48	5.36
R_HMR_210	0.038	30.6	01Apr2015, 13:31	5.31
HMR_200	0.036	55.7	01Apr2015, 12:33	6.77
J_HMR_200	3.228	1048.4	01Apr2015, 14:31	5.52
R_HMR_100	3.228	780.7	01Apr2015, 18:49	5.48
HMR_100	0.394	129.8	01Apr2015, 16:22	7
OUT_HMR_100	3.622	898.2	01Apr2015, 18:34	5.64

Project: SchoolhouseBranch

Simulation Run: 2YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	19.2	01Apr2015, 12:43	1.65
SHB_507	0.057	7.8	01Apr2015, 13:45	1.47
J_SHB_507	0.057	7.8	01Apr2015, 13:45	1.47
R_SHB_505	0.057	7.8	01Apr2015, 13:52	1.47
J_SHB_505	0.118	22.7	01Apr2015, 12:58	1.56
R_SHB_503	0.118	22.7	01Apr2015, 13:06	1.56
SHB_503	0.083	27	01Apr2015, 12:47	1.85
J_SHB_503	0.201	49	01Apr2015, 12:54	1.68
R_SHB_501	0.201	48.6	01Apr2015, 13:02	1.68
SHB_028	0.103	17.7	01Apr2015, 13:09	1.33
SHB_030	0.028	2.5	01Apr2015, 13:53	1.02
J_SHB_030	0.028	2.5	01Apr2015, 13:53	1.02
R_SHB_028	0.028	2.5	01Apr2015, 14:09	1.02
J_SHB_028	0.131	19.4	01Apr2015, 13:15	1.26
R_SHB_026	0.131	19.4	01Apr2015, 13:21	1.26
SHB_026	0.03	11.9	01Apr2015, 12:37	1.85
J_SHB_026	0.161	28.5	01Apr2015, 13:06	1.37
R_SHB_024	0.161	28.5	01Apr2015, 13:09	1.37
SHB_024	0.005	4.1	01Apr2015, 12:22	2.89
J_SHB_024	0.166	30.7	01Apr2015, 13:05	1.42
R_SHB_022	0.166	30	01Apr2015, 13:18	1.42
SHB_022	0.044	13.1	01Apr2015, 13:09	2.28
SHB_501	0.005	4	01Apr2015, 12:16	2.19
J_SHB_022	0.416	92.3	01Apr2015, 13:07	1.64
R_SHB_020	0.416	87.3	01Apr2015, 13:31	1.64
SHB_020	0.037	23.9	01Apr2015, 12:26	2.33
J_SHB_020	0.453	97.8	01Apr2015, 13:24	1.7
R_SHB_018	0.453	96.9	01Apr2015, 13:34	1.7
SHB_018	0.108	17.6	01Apr2015, 14:02	1.94
J_SHB_018	0.561	113.4	01Apr2015, 13:39	1.75
R_SHB_016	0.561	113.1	01Apr2015, 13:44	1.75
SHB_213	0.043	18.8	01Apr2015, 12:49	2.58
SHB_211	0.023	12.6	01Apr2015, 12:28	2.05
J_SHB_211	0.066	29.9	01Apr2015, 12:41	2.39
R_SHB_209	0.066	29.8	01Apr2015, 12:48	2.39
SHB_209	0.059	28.2	01Apr2015, 12:31	1.94
J_SHB_209	0.125	56.1	01Apr2015, 12:41	2.18
R_SHB_207	0.125	56	01Apr2015, 12:44	2.18

SHB_207	0.053	33.8	01Apr2015, 12:30	2.62
J_SHB_207	0.178	87.9	01Apr2015, 12:39	2.31
R_SHB_205	0.178	87.9	01Apr2015, 12:43	2.31
SHB_221	0.059	69.2	01Apr2015, 12:11	2.58
SHB_223	0.05	39.2	01Apr2015, 12:17	2.24
J_SHB_221	0.109	105.7	01Apr2015, 12:12	2.42
R_SHB_220	0.109	105.5	01Apr2015, 12:15	2.42
SHB_205	0.022	15.5	01Apr2015, 12:13	1.74
SHB_220	0.021	7.8	01Apr2015, 12:43	1.94
J_SHB_220	0.33	182.6	01Apr2015, 12:26	2.29
R_SHB_203	0.33	182	01Apr2015, 12:30	2.29
SHB_203	0.016	7.6	01Apr2015, 12:30	1.88
J_SHB_203	0.346	189.6	01Apr2015, 12:30	2.27
R_SHB_201	0.346	188.9	01Apr2015, 12:40	2.27
SHB_201	0.111	100.4	01Apr2015, 12:11	1.98
SHB_016	0.006	2.6	01Apr2015, 12:44	2.34
J_SHB_016	1.024	295.3	01Apr2015, 12:38	1.95
R_SHB_014	1.024	274.5	01Apr2015, 12:59	1.95
SHB_014	0.114	52.1	01Apr2015, 12:24	1.54
J_SHB_014	1.138	308.6	01Apr2015, 12:54	1.91
R_SHB_012	1.138	273	01Apr2015, 13:27	1.91
SHB_108	0.065	36.1	01Apr2015, 12:29	2.18
J_SHB_108	0.065	36.1	01Apr2015, 12:29	2.18
R_SHB_107	0.065	36.1	01Apr2015, 12:29	2.18
SHB_105	0.056	30.5	01Apr2015, 12:41	2.87
J_SHB_105	0.056	30.5	01Apr2015, 12:41	2.87
R_SHB_104	0.056	30.5	01Apr2015, 12:59	2.87
SHB_104	0.053	38.2	01Apr2015, 12:17	2.06
SHB_107	0.017	17.4	01Apr2015, 12:11	2.24
J_SHB_104	0.191	98.4	01Apr2015, 12:27	2.35
R_SHB_103	0.191	98.4	01Apr2015, 12:27	2.35
SHB_103	0.013	7.8	01Apr2015, 12:22	1.98
Reservoir-SHB_103	0.204	105.3	01Apr2015, 12:30	2.33
R_SHB_102	0.204	105	01Apr2015, 12:43	2.33
SHB_102	0.033	25.2	01Apr2015, 12:13	1.87
J_SHB_102	0.237	118.7	01Apr2015, 12:39	2.26
R_SHB_101	0.237	118.1	01Apr2015, 12:55	2.26
SHB_012	0.025	22	01Apr2015, 12:12	2.06
SHB_101	0.005	4.6	01Apr2015, 12:12	2.16
J_SHB_012	1.405	379.3	01Apr2015, 13:12	1.97
R_SHB_010	1.405	313.6	01Apr2015, 14:02	1.97
SHB_007	0.098	57.2	01Apr2015, 12:21	1.85
SHB_005	0.023	8.7	01Apr2015, 12:32	1.57
J_SHB_005	0.023	8.7	01Apr2015, 12:32	1.57
R_SHB_004	0.023	8.7	01Apr2015, 12:40	1.57
SHB_004	0.02	23.5	01Apr2015, 12:11	2.59
J_SHB_004	0.141	82	01Apr2015, 12:20	1.91

R_SHB_003	0.141	82	01Apr2015, 12:23	1.91
SHB_003	0.033	18.7	01Apr2015, 12:35	2.62
J_SHB_003	0.174	99.1	01Apr2015, 12:26	2.04
R_SHB_002	0.174	99.1	01Apr2015, 12:26	2.04
SHB_002	0.004	3.5	01Apr2015, 12:13	2.16
Reservoir-SHB_002	0.178	77.2	01Apr2015, 12:49	1.95
R_SHB_001	0.178	68.7	01Apr2015, 12:49	1.76
SHB_010	0.018	8.7	01Apr2015, 12:35	2.16
SHB_001	0.003	0.6	01Apr2015, 13:48	2.16
OUT_SHB_001	1.604	357	01Apr2015, 13:58	1.95

Project: SchoolhouseBranch

Simulation Run: 10YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	40.2	01Apr2015, 12:41	3.35
SHB_507	0.057	17.4	01Apr2015, 13:39	3.09
J_SHB_507	0.057	17.4	01Apr2015, 13:39	3.09
R_SHB_505	0.057	17.4	01Apr2015, 13:45	3.09
J_SHB_505	0.118	49.1	01Apr2015, 12:54	3.23
R_SHB_503	0.118	49.1	01Apr2015, 13:01	3.23
SHB_503	0.083	54.2	01Apr2015, 12:45	3.61
J_SHB_503	0.201	102.1	01Apr2015, 12:51	3.39
R_SHB_501	0.201	100.7	01Apr2015, 13:00	3.38
SHB_028	0.103	41.2	01Apr2015, 13:04	2.89
SHB_030	0.028	6.5	01Apr2015, 13:42	2.41
J_SHB_030	0.028	6.5	01Apr2015, 13:42	2.41
R_SHB_028	0.028	6.4	01Apr2015, 13:56	2.41
J_SHB_028	0.131	45.8	01Apr2015, 13:11	2.79
R_SHB_026	0.131	45.6	01Apr2015, 13:17	2.79
SHB_026	0.03	23.8	01Apr2015, 12:35	3.61
J_SHB_026	0.161	63.9	01Apr2015, 13:04	2.94
R_SHB_024	0.161	63.8	01Apr2015, 13:07	2.94
SHB_024	0.005	6.9	01Apr2015, 12:22	4.88
J_SHB_024	0.166	67.5	01Apr2015, 13:04	3
R_SHB_022	0.166	66	01Apr2015, 13:17	3
SHB_022	0.044	24.3	01Apr2015, 13:07	4.17
SHB_501	0.005	7.4	01Apr2015, 12:15	4.05
J_SHB_022	0.416	191.5	01Apr2015, 13:06	3.32
R_SHB_020	0.416	181	01Apr2015, 13:29	3.32
SHB_020	0.037	43.1	01Apr2015, 12:25	4.23
J_SHB_020	0.453	199.6	01Apr2015, 13:23	3.4
R_SHB_018	0.453	197.7	01Apr2015, 13:33	3.4
SHB_018	0.108	34.9	01Apr2015, 13:57	3.73
J_SHB_018	0.561	230.7	01Apr2015, 13:37	3.46
R_SHB_016	0.561	230.1	01Apr2015, 13:42	3.46
SHB_213	0.043	32.9	01Apr2015, 12:48	4.53
SHB_211	0.023	23.9	01Apr2015, 12:27	3.87
J_SHB_211	0.066	53.8	01Apr2015, 12:40	4.3
R_SHB_209	0.066	53.8	01Apr2015, 12:46	4.3
SHB_209	0.059	54.8	01Apr2015, 12:30	3.74
J_SHB_209	0.125	105.6	01Apr2015, 12:38	4.04
R_SHB_207	0.125	105.4	01Apr2015, 12:43	4.04

SHB_207	0.053	58.4	01Apr2015, 12:29	4.57
J_SHB_207	0.178	160.5	01Apr2015, 12:39	4.2
R_SHB_205	0.178	160.3	01Apr2015, 12:43	4.2
SHB_221	0.059	119.3	01Apr2015, 12:10	4.53
SHB_223	0.05	71.8	01Apr2015, 12:16	4.11
J_SHB_221	0.109	186.6	01Apr2015, 12:12	4.34
R_SHB_220	0.109	185.9	01Apr2015, 12:15	4.34
SHB_205	0.022	31.5	01Apr2015, 12:13	3.47
SHB_220	0.021	15.3	01Apr2015, 12:41	3.74
J_SHB_220	0.33	330.4	01Apr2015, 12:26	4.17
R_SHB_203	0.33	329.7	01Apr2015, 12:30	4.16
SHB_203	0.016	15	01Apr2015, 12:29	3.66
J_SHB_203	0.346	344.6	01Apr2015, 12:30	4.14
R_SHB_201	0.346	343.6	01Apr2015, 12:39	4.14
SHB_201	0.111	192.2	01Apr2015, 12:11	3.79
SHB_016	0.006	4.7	01Apr2015, 12:43	4.24
J_SHB_016	1.024	557.4	01Apr2015, 12:35	3.73
R_SHB_014	1.024	525.5	01Apr2015, 12:56	3.73
SHB_014	0.114	111.6	01Apr2015, 12:22	3.2
J_SHB_014	1.138	599.7	01Apr2015, 12:50	3.68
R_SHB_012	1.138	539.5	01Apr2015, 13:20	3.68
SHB_108	0.065	67	01Apr2015, 12:28	4.04
J_SHB_108	0.065	67	01Apr2015, 12:28	4.04
R_SHB_107	0.065	67	01Apr2015, 12:28	4.04
SHB_105	0.056	51	01Apr2015, 12:40	4.86
J_SHB_105	0.056	51	01Apr2015, 12:40	4.86
R_SHB_104	0.056	51	01Apr2015, 12:58	4.86
SHB_104	0.053	72.3	01Apr2015, 12:17	3.89
SHB_107	0.017	31.7	01Apr2015, 12:11	4.11
J_SHB_104	0.191	180.8	01Apr2015, 12:25	4.25
R_SHB_103	0.191	180.8	01Apr2015, 12:25	4.25
SHB_103	0.013	15.1	01Apr2015, 12:21	3.78
Reservoir-SHB_103	0.204	194.7	01Apr2015, 12:28	4.22
R_SHB_102	0.204	193.8	01Apr2015, 12:42	4.22
SHB_102	0.033	49.6	01Apr2015, 12:13	3.64
J_SHB_102	0.237	220.4	01Apr2015, 12:38	4.14
R_SHB_101	0.237	218.8	01Apr2015, 12:55	4.13
SHB_012	0.025	41.5	01Apr2015, 12:12	3.89
SHB_101	0.005	8.5	01Apr2015, 12:12	4.02
J_SHB_012	1.405	742.6	01Apr2015, 13:09	3.76
R_SHB_010	1.405	609.8	01Apr2015, 13:57	3.76
SHB_007	0.098	113.5	01Apr2015, 12:20	3.61
SHB_005	0.023	18.7	01Apr2015, 12:30	3.24
J_SHB_005	0.023	18.7	01Apr2015, 12:30	3.24
R_SHB_004	0.023	18.6	01Apr2015, 12:36	3.24
SHB_004	0.02	40.5	01Apr2015, 12:10	4.54
J_SHB_004	0.141	160.2	01Apr2015, 12:20	3.68



R_SHB_003	0.141	160.2	01Apr2015, 12:22	3.68
SHB_003	0.033	32.3	01Apr2015, 12:35	4.57
J_SHB_003	0.174	189.5	01Apr2015, 12:25	3.85
R_SHB_002	0.174	189.5	01Apr2015, 12:25	3.85
SHB_002	0.004	6.4	01Apr2015, 12:13	4.02
Reservoir-SHB_002	0.178	194.9	01Apr2015, 12:25	3.76
R_SHB_001	0.178	178.5	01Apr2015, 12:25	3.42
SHB_010	0.018	16.3	01Apr2015, 12:34	4.02
SHB_001	0.003	1.1	01Apr2015, 13:45	4.02
OUT_SHB_001	1.604	669.6	01Apr2015, 13:49	3.73

Project: SchoolhouseBranch

Simulation Run: 25YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	55.7	01Apr2015, 12:40	4.62
SHB_507	0.057	24.7	01Apr2015, 13:37	4.32
J_SHB_507	0.057	24.7	01Apr2015, 13:37	4.32
R_SHB_505	0.057	24.7	01Apr2015, 13:42	4.32
J_SHB_505	0.118	68.8	01Apr2015, 12:52	4.47
R_SHB_503	0.118	68.8	01Apr2015, 12:58	4.47
SHB_503	0.083	73.9	01Apr2015, 12:45	4.91
J_SHB_503	0.201	141.4	01Apr2015, 12:50	4.65
R_SHB_501	0.201	139.1	01Apr2015, 12:59	4.65
SHB_028	0.103	59.3	01Apr2015, 13:03	4.09
SHB_030	0.028	9.7	01Apr2015, 13:39	3.52
J_SHB_030	0.028	9.7	01Apr2015, 13:39	3.52
R_SHB_028	0.028	9.6	01Apr2015, 13:53	3.52
J_SHB_028	0.131	66.2	01Apr2015, 13:09	3.97
R_SHB_026	0.131	66	01Apr2015, 13:15	3.97
SHB_026	0.03	32.4	01Apr2015, 12:35	4.91
J_SHB_026	0.161	90.8	01Apr2015, 13:04	4.14
R_SHB_024	0.161	90.7	01Apr2015, 13:06	4.14
SHB_024	0.005	8.7	01Apr2015, 12:22	6.28
J_SHB_024	0.166	95.4	01Apr2015, 13:03	4.21
R_SHB_022	0.166	93.2	01Apr2015, 13:16	4.21
SHB_022	0.044	32.1	01Apr2015, 13:06	5.52
SHB_501	0.005	9.8	01Apr2015, 12:15	5.39
J_SHB_022	0.416	264.8	01Apr2015, 13:05	4.57
R_SHB_020	0.416	256.1	01Apr2015, 13:22	4.57
SHB_020	0.037	56.4	01Apr2015, 12:25	5.59
J_SHB_020	0.453	282.5	01Apr2015, 13:17	4.66
R_SHB_018	0.453	281.6	01Apr2015, 13:22	4.66
SHB_018	0.108	47.5	01Apr2015, 13:56	5.04
J_SHB_018	0.561	323.7	01Apr2015, 13:26	4.73
R_SHB_016	0.561	322.5	01Apr2015, 13:32	4.73
SHB_213	0.043	42.6	01Apr2015, 12:47	5.91
SHB_211	0.023	31.9	01Apr2015, 12:26	5.2
J_SHB_211	0.066	70.6	01Apr2015, 12:39	5.66
R_SHB_209	0.066	70.4	01Apr2015, 12:46	5.66
SHB_209	0.059	73.9	01Apr2015, 12:29	5.05
J_SHB_209	0.125	139.6	01Apr2015, 12:38	5.37
R_SHB_207	0.125	139.4	01Apr2015, 12:43	5.37

SHB_207	0.053	75.3	01Apr2015, 12:29	5.96
J_SHB_207	0.178	210.5	01Apr2015, 12:38	5.55
R_SHB_205	0.178	210.2	01Apr2015, 12:43	5.55
SHB_221	0.059	153.8	01Apr2015, 12:10	5.91
SHB_223	0.05	94.6	01Apr2015, 12:16	5.46
J_SHB_221	0.109	242.7	01Apr2015, 12:12	5.7
R_SHB_220	0.109	241.7	01Apr2015, 12:15	5.7
SHB_205	0.022	43.1	01Apr2015, 12:12	4.75
SHB_220	0.021	20.7	01Apr2015, 12:40	5.05
J_SHB_220	0.33	433.4	01Apr2015, 12:27	5.51
R_SHB_203	0.33	432.4	01Apr2015, 12:30	5.51
SHB_203	0.016	20.3	01Apr2015, 12:28	4.96
J_SHB_203	0.346	452.7	01Apr2015, 12:30	5.49
R_SHB_201	0.346	451.3	01Apr2015, 12:39	5.49
SHB_201	0.111	257.2	01Apr2015, 12:11	5.11
SHB_016	0.006	6.2	01Apr2015, 12:43	5.6
J_SHB_016	1.024	742.8	01Apr2015, 12:35	5.03
R_SHB_014	1.024	706.2	01Apr2015, 12:56	5.03
SHB_014	0.114	155.6	01Apr2015, 12:21	4.44
J_SHB_014	1.138	809.3	01Apr2015, 12:48	4.97
R_SHB_012	1.138	746.1	01Apr2015, 13:17	4.97
SHB_108	0.065	88.8	01Apr2015, 12:28	5.38
J_SHB_108	0.065	88.8	01Apr2015, 12:28	5.38
R_SHB_107	0.065	88.8	01Apr2015, 12:28	5.38
SHB_105	0.056	65	01Apr2015, 12:40	6.26
J_SHB_105	0.056	65	01Apr2015, 12:40	6.26
R_SHB_104	0.056	65	01Apr2015, 12:58	6.26
SHB_104	0.053	96.4	01Apr2015, 12:16	5.22
SHB_107	0.017	41.7	01Apr2015, 12:10	5.46
J_SHB_104	0.191	238.7	01Apr2015, 12:24	5.6
R_SHB_103	0.191	238.7	01Apr2015, 12:24	5.6
SHB_103	0.013	20.3	01Apr2015, 12:21	5.1
Reservoir-SHB_103	0.204	257.1	01Apr2015, 12:27	5.57
R_SHB_102	0.204	255.7	01Apr2015, 12:42	5.57
SHB_102	0.033	67.1	01Apr2015, 12:12	4.94
J_SHB_102	0.237	291.6	01Apr2015, 12:37	5.48
R_SHB_101	0.237	289.4	01Apr2015, 12:54	5.48
SHB_012	0.025	55.2	01Apr2015, 12:12	5.22
SHB_101	0.005	11.3	01Apr2015, 12:12	5.36
J_SHB_012	1.405	1022	01Apr2015, 13:05	5.06
R_SHB_010	1.405	837.9	01Apr2015, 13:54	5.06
SHB_007	0.098	153.9	01Apr2015, 12:19	4.91
SHB_005	0.023	26	01Apr2015, 12:29	4.48
J_SHB_005	0.023	26	01Apr2015, 12:29	4.48
R_SHB_004	0.023	25.9	01Apr2015, 12:35	4.48
SHB_004	0.02	52.2	01Apr2015, 12:10	5.92
J_SHB_004	0.141	216.5	01Apr2015, 12:19	4.98

R_SHB_003	0.141	216.4	01Apr2015, 12:22	4.98
SHB_003	0.033	41.8	01Apr2015, 12:34	5.96
J_SHB_003	0.174	253.8	01Apr2015, 12:24	5.17
R_SHB_002	0.174	253.8	01Apr2015, 12:24	5.17
SHB_002	0.004	8.5	01Apr2015, 12:13	5.36
Reservoir-SHB_002	0.178	261	01Apr2015, 12:24	5.08
R_SHB_001	0.178	241	01Apr2015, 12:24	4.65
SHB_010	0.018	21.6	01Apr2015, 12:33	5.36
SHB_001	0.003	1.5	01Apr2015, 13:44	5.36
OUT_SHB_001	1.604	919.1	01Apr2015, 13:46	5.02

Project: SchoolhouseBranch

Simulation Run: 50YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	69.5	01Apr2015, 12:40	5.76
SHB_507	0.057	31.2	01Apr2015, 13:36	5.43
J_SHB_507	0.057	31.2	01Apr2015, 13:36	5.43
R_SHB_505	0.057	31.2	01Apr2015, 13:41	5.43
J_SHB_505	0.118	86.5	01Apr2015, 12:52	5.6
R_SHB_503	0.118	86.5	01Apr2015, 12:58	5.6
SHB_503	0.083	91.3	01Apr2015, 12:44	6.07
J_SHB_503	0.201	175.9	01Apr2015, 12:50	5.79
R_SHB_501	0.201	173.2	01Apr2015, 12:59	5.79
SHB_028	0.103	75.7	01Apr2015, 13:02	5.18
SHB_030	0.028	12.8	01Apr2015, 13:37	4.55
J_SHB_030	0.028	12.8	01Apr2015, 13:37	4.55
R_SHB_028	0.028	12.6	01Apr2015, 13:51	4.55
J_SHB_028	0.131	84.8	01Apr2015, 13:08	5.05
R_SHB_026	0.131	84.5	01Apr2015, 13:14	5.05
SHB_026	0.03	40	01Apr2015, 12:34	6.07
J_SHB_026	0.161	115.1	01Apr2015, 13:03	5.24
R_SHB_024	0.161	115	01Apr2015, 13:06	5.24
SHB_024	0.005	10.4	01Apr2015, 12:22	7.51
J_SHB_024	0.166	120.6	01Apr2015, 13:03	5.3
R_SHB_022	0.166	117.9	01Apr2015, 13:16	5.3
SHB_022	0.044	39	01Apr2015, 13:06	6.72
SHB_501	0.005	11.9	01Apr2015, 12:15	6.58
J_SHB_022	0.416	330.3	01Apr2015, 13:05	5.7
R_SHB_020	0.416	320.9	01Apr2015, 13:20	5.7
SHB_020	0.037	68.1	01Apr2015, 12:24	6.79
J_SHB_020	0.453	353.6	01Apr2015, 13:15	5.79
R_SHB_018	0.453	352.7	01Apr2015, 13:20	5.79
SHB_018	0.108	58.7	01Apr2015, 13:55	6.21
J_SHB_018	0.561	404.1	01Apr2015, 13:24	5.87
R_SHB_016	0.561	402.7	01Apr2015, 13:30	5.87
SHB_213	0.043	51.1	01Apr2015, 12:47	7.12
SHB_211	0.023	39	01Apr2015, 12:26	6.38
J_SHB_211	0.066	85.2	01Apr2015, 12:39	6.86
R_SHB_209	0.066	84.9	01Apr2015, 12:47	6.86
SHB_209	0.059	90.7	01Apr2015, 12:29	6.22
J_SHB_209	0.125	169.5	01Apr2015, 12:38	6.56
R_SHB_207	0.125	169.2	01Apr2015, 12:43	6.56

SHB_207	0.053	90	01Apr2015, 12:29	7.17
J_SHB_207	0.178	253.9	01Apr2015, 12:38	6.74
R_SHB_205	0.178	253.6	01Apr2015, 12:43	6.74
SHB_221	0.059	183.7	01Apr2015, 12:10	7.12
SHB_223	0.05	114.5	01Apr2015, 12:16	6.66
J_SHB_221	0.109	291.4	01Apr2015, 12:12	6.91
R_SHB_220	0.109	290.2	01Apr2015, 12:15	6.91
SHB_205	0.022	53.3	01Apr2015, 12:12	5.9
SHB_220	0.021	25.4	01Apr2015, 12:40	6.22
J_SHB_220	0.33	523.9	01Apr2015, 12:27	6.71
R_SHB_203	0.33	522.5	01Apr2015, 12:30	6.71
SHB_203	0.016	25	01Apr2015, 12:28	6.13
J_SHB_203	0.346	547.4	01Apr2015, 12:30	6.68
R_SHB_201	0.346	545.5	01Apr2015, 12:39	6.68
SHB_201	0.111	314.2	01Apr2015, 12:10	6.28
SHB_016	0.006	7.5	01Apr2015, 12:42	6.8
J_SHB_016	1.024	907.6	01Apr2015, 12:41	6.19
R_SHB_014	1.024	874.9	01Apr2015, 12:58	6.19
SHB_014	0.114	195	01Apr2015, 12:21	5.56
J_SHB_014	1.138	997.6	01Apr2015, 12:49	6.13
R_SHB_012	1.138	929.2	01Apr2015, 13:16	6.13
SHB_108	0.065	107.8	01Apr2015, 12:28	6.57
J_SHB_108	0.065	107.8	01Apr2015, 12:28	6.57
R_SHB_107	0.065	107.8	01Apr2015, 12:28	6.57
SHB_105	0.056	77.2	01Apr2015, 12:40	7.48
J_SHB_105	0.056	77.2	01Apr2015, 12:40	7.48
R_SHB_104	0.056	77.2	01Apr2015, 12:58	7.48
SHB_104	0.053	117.5	01Apr2015, 12:16	6.4
SHB_107	0.017	50.4	01Apr2015, 12:10	6.66
J_SHB_104	0.191	289.3	01Apr2015, 12:23	6.8
R_SHB_103	0.191	289.3	01Apr2015, 12:23	6.8
SHB_103	0.013	24.8	01Apr2015, 12:21	6.27
Reservoir-SHB_103	0.204	312.1	01Apr2015, 12:27	6.77
R_SHB_102	0.204	310.3	01Apr2015, 12:41	6.76
SHB_102	0.033	82.5	01Apr2015, 12:12	6.1
J_SHB_102	0.237	355.1	01Apr2015, 12:37	6.67
R_SHB_101	0.237	352.2	01Apr2015, 12:53	6.67
SHB_012	0.025	67.2	01Apr2015, 12:12	6.4
SHB_101	0.005	13.7	01Apr2015, 12:12	6.55
J_SHB_012	1.405	1264.5	01Apr2015, 13:04	6.23
R_SHB_010	1.405	1042.3	01Apr2015, 13:51	6.23
SHB_007	0.098	189.6	01Apr2015, 12:19	6.07
SHB_005	0.023	32.5	01Apr2015, 12:29	5.61
J_SHB_005	0.023	32.5	01Apr2015, 12:29	5.61
R_SHB_004	0.023	32.5	01Apr2015, 12:35	5.61
SHB_004	0.02	62.3	01Apr2015, 12:10	7.14
J_SHB_004	0.141	266	01Apr2015, 12:19	6.14

R_SHB_003	0.141	265.9	01Apr2015, 12:22	6.14
SHB_003	0.033	49.9	01Apr2015, 12:34	7.17
J_SHB_003	0.174	310.9	01Apr2015, 12:24	6.34
R_SHB_002	0.174	310.9	01Apr2015, 12:24	6.34
SHB_002	0.004	10.3	01Apr2015, 12:13	6.55
Reservoir-SHB_002	0.178	319.7	01Apr2015, 12:24	6.25
R_SHB_001	0.178	298.1	01Apr2015, 12:24	5.87
SHB_010	0.018	26.3	01Apr2015, 12:33	6.55
SHB_001	0.003	1.8	01Apr2015, 13:43	6.55
OUT_SHB_001	1.604	1143.9	01Apr2015, 13:45	6.19

Project: SchoolhouseBranch

Simulation Run: 100YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	84.8	01Apr2015, 12:40	7.04
SHB_507	0.057	38.6	01Apr2015, 13:35	6.69
J_SHB_507	0.057	38.6	01Apr2015, 13:35	6.69
R_SHB_505	0.057	38.6	01Apr2015, 13:40	6.69
J_SHB_505	0.118	106.3	01Apr2015, 12:51	6.87
R_SHB_503	0.118	106.3	01Apr2015, 12:59	6.87
SHB_503	0.083	110.6	01Apr2015, 12:44	7.37
J_SHB_503	0.201	214.4	01Apr2015, 12:50	7.07
R_SHB_501	0.201	210.9	01Apr2015, 12:59	7.07
SHB_028	0.103	94.2	01Apr2015, 13:01	6.42
SHB_030	0.028	16.2	01Apr2015, 13:36	5.73
J_SHB_030	0.028	16.2	01Apr2015, 13:36	5.73
R_SHB_028	0.028	16	01Apr2015, 13:50	5.73
J_SHB_028	0.131	105.9	01Apr2015, 13:07	6.27
R_SHB_026	0.131	105.5	01Apr2015, 13:13	6.27
SHB_026	0.03	48.4	01Apr2015, 12:34	7.37
J_SHB_026	0.161	142.6	01Apr2015, 13:03	6.48
R_SHB_024	0.161	142.4	01Apr2015, 13:05	6.48
SHB_024	0.005	12.1	01Apr2015, 12:22	8.87
J_SHB_024	0.166	149	01Apr2015, 13:03	6.55
R_SHB_022	0.166	145.6	01Apr2015, 13:15	6.55
SHB_022	0.044	46.5	01Apr2015, 13:06	8.05
SHB_501	0.005	14.2	01Apr2015, 12:15	7.91
J_SHB_022	0.416	403.5	01Apr2015, 13:05	6.97
R_SHB_020	0.416	392.7	01Apr2015, 13:20	6.97
SHB_020	0.037	80.9	01Apr2015, 12:24	8.12
J_SHB_020	0.453	431.8	01Apr2015, 13:14	7.07
R_SHB_018	0.453	430.7	01Apr2015, 13:19	7.07
SHB_018	0.108	71.1	01Apr2015, 13:54	7.52
J_SHB_018	0.561	493	01Apr2015, 13:23	7.16
R_SHB_016	0.561	491.4	01Apr2015, 13:29	7.16
SHB_213	0.043	60.4	01Apr2015, 12:47	8.47
SHB_211	0.023	46.8	01Apr2015, 12:26	7.7
J_SHB_211	0.066	101.3	01Apr2015, 12:39	8.2
R_SHB_209	0.066	100.9	01Apr2015, 12:47	8.2
SHB_209	0.059	109.2	01Apr2015, 12:29	7.53
J_SHB_209	0.125	202.5	01Apr2015, 12:38	7.89
R_SHB_207	0.125	202.1	01Apr2015, 12:43	7.88



SHB_207	0.053	106.2	01Apr2015, 12:29	8.52
J_SHB_207	0.178	302	01Apr2015, 12:38	8.07
R_SHB_205	0.178	301.7	01Apr2015, 12:43	8.07
SHB_221	0.059	216.6	01Apr2015, 12:10	8.47
SHB_223	0.05	136.3	01Apr2015, 12:16	7.99
J_SHB_221	0.109	345	01Apr2015, 12:12	8.25
R_SHB_220	0.109	343.5	01Apr2015, 12:15	8.25
SHB_205	0.022	64.7	01Apr2015, 12:12	7.19
SHB_220	0.021	30.7	01Apr2015, 12:40	7.53
J_SHB_220	0.33	622.9	01Apr2015, 12:26	8.04
R_SHB_203	0.33	620.9	01Apr2015, 12:30	8.04
SHB_203	0.016	30.1	01Apr2015, 12:28	7.43
J_SHB_203	0.346	650.9	01Apr2015, 12:30	8.01
R_SHB_201	0.346	648.7	01Apr2015, 12:38	8.01
SHB_201	0.111	377.2	01Apr2015, 12:10	7.6
SHB_016	0.006	8.9	01Apr2015, 12:42	8.14
J_SHB_016	1.024	1105.4	01Apr2015, 12:41	7.5
R_SHB_014	1.024	1066	01Apr2015, 12:57	7.5
SHB_014	0.114	238.8	01Apr2015, 12:21	6.83
J_SHB_014	1.138	1216.3	01Apr2015, 12:50	7.43
R_SHB_012	1.138	1142.8	01Apr2015, 13:12	7.43
SHB_108	0.065	128.7	01Apr2015, 12:27	7.9
J_SHB_108	0.065	128.7	01Apr2015, 12:27	7.9
R_SHB_107	0.065	128.7	01Apr2015, 12:27	7.9
SHB_105	0.056	90.7	01Apr2015, 12:40	8.84
J_SHB_105	0.056	90.7	01Apr2015, 12:40	8.84
R_SHB_104	0.056	90.7	01Apr2015, 12:58	8.84
SHB_104	0.053	140.8	01Apr2015, 12:16	7.72
SHB_107	0.017	60	01Apr2015, 12:10	7.99
J_SHB_104	0.191	345.1	01Apr2015, 12:23	8.13
R_SHB_103	0.191	345.1	01Apr2015, 12:23	8.13
SHB_103	0.013	29.9	01Apr2015, 12:20	7.58
Reservoir-SHB_103	0.204	372.7	01Apr2015, 12:26	8.1
R_SHB_102	0.204	370.6	01Apr2015, 12:40	8.1
SHB_102	0.033	99.5	01Apr2015, 12:12	7.41
J_SHB_102	0.237	425.6	01Apr2015, 12:36	8
R_SHB_101	0.237	421.8	01Apr2015, 12:52	8
SHB_012	0.025	80.4	01Apr2015, 12:12	7.72
SHB_101	0.005	16.3	01Apr2015, 12:12	7.87
J_SHB_012	1.405	1549.4	01Apr2015, 13:03	7.53
R_SHB_010	1.405	1277	01Apr2015, 13:47	7.53
SHB_007	0.098	229.1	01Apr2015, 12:19	7.37
SHB_005	0.023	39.8	01Apr2015, 12:29	6.88
J_SHB_005	0.023	39.8	01Apr2015, 12:29	6.88
R_SHB_004	0.023	39.7	01Apr2015, 12:34	6.88
SHB_004	0.02	73.5	01Apr2015, 12:10	8.49
J_SHB_004	0.141	320.9	01Apr2015, 12:19	7.45

R_SHB_003	0.141	320.7	01Apr2015, 12:22	7.45
SHB_003	0.033	58.9	01Apr2015, 12:34	8.52
J_SHB_003	0.174	373.9	01Apr2015, 12:24	7.65
R_SHB_002	0.174	373.9	01Apr2015, 12:24	7.65
SHB_002	0.004	12.3	01Apr2015, 12:13	7.87
Reservoir-SHB_002	0.178	384.4	01Apr2015, 12:24	7.56
R_SHB_001	0.178	362	01Apr2015, 12:24	7.34
SHB_010	0.018	31.5	01Apr2015, 12:33	7.87
SHB_001	0.003	2.2	01Apr2015, 13:43	7.87
OUT_SHB_001	1.604	1405.8	01Apr2015, 13:40	7.52

Project: SainsBranch

Simulation Run: 2YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	22	01Apr2015, 15:29	2.1
J_SB1_1021	0.186	22	01Apr2015, 15:29	2.1
R_SB1_1020	0.186	22	01Apr2015, 15:29	2.1
SB1_1011	0.118	14.1	01Apr2015, 15:17	2.04
J_SB1_1011	0.118	14.1	01Apr2015, 15:17	2.04
R_SB1_1010	0.118	14.1	01Apr2015, 15:20	2.04
SB1_1010	0.028	7.3	01Apr2015, 13:08	1.98
SB1_1020	0.013	5.5	01Apr2015, 12:37	1.96
J_SB1_1010	0.345	41.9	01Apr2015, 15:11	2.06
SB1_1110	0.146	15.1	01Apr2015, 16:12	2.11
J_SB1_1110	0.146	15.1	01Apr2015, 16:12	2.11
R_SB1_1000	0.345	41.9	01Apr2015, 15:14	2.06
R_SB1_1100	0.146	15.1	01Apr2015, 16:16	2.11
SB1_1300	0.083	11.7	01Apr2015, 14:11	1.76
J_SB1_1300	0.083	11.7	01Apr2015, 14:11	1.76
R_SB1_1200	0.083	11.7	01Apr2015, 14:13	1.76
SB1_1200	0.05	6.7	01Apr2015, 13:25	1.24
SB1_1100	0.032	6.4	01Apr2015, 13:29	1.87
J_SB1_1100	0.311	34.5	01Apr2015, 15:19	1.85
R_SB1_900	0.311	34.4	01Apr2015, 15:29	1.85
SB1_900	0.094	14.8	01Apr2015, 13:27	1.46
SB1_1000	0.066	15.1	01Apr2015, 12:39	1.13
J_SB1_900	0.816	92.8	01Apr2015, 15:01	1.84
R_SB1_800	0.816	92.7	01Apr2015, 15:10	1.84
SB1_800	0.095	6.9	01Apr2015, 15:44	1.32
J_SB1_800	0.911	99.5	01Apr2015, 15:12	1.78
R_SB1_700	0.911	99.5	01Apr2015, 15:14	1.78
SB1_610	0.044	3.5	01Apr2015, 13:42	0.85
J_SB1_610	0.044	3.5	01Apr2015, 13:42	0.85
R_SB1_600	0.044	3.5	01Apr2015, 13:42	0.85
SB1_700	0.02	4.8	01Apr2015, 13:14	1.94
SB1_600	0.013	1.8	01Apr2015, 12:42	0.78
J_SB1_600	0.988	106.4	01Apr2015, 15:09	1.73
R_SB1_500	0.988	106.4	01Apr2015, 15:12	1.73
SB1_500	0.06	9.9	01Apr2015, 13:03	1.2
J_SB1_500	1.048	112.4	01Apr2015, 15:06	1.7
R_SB1_400	1.048	112.3	01Apr2015, 15:11	1.7
SB1_400	0.055	11.7	01Apr2015, 12:37	1.01

SB1_310	0.038	6.1	01Apr2015, 13:14	1.31
J_SB1_310	0.038	6.1	01Apr2015, 13:14	1.31
R_SB1_300	0.038	6.1	01Apr2015, 13:21	1.31
SB1_300	0.024	5.3	01Apr2015, 12:53	1.38
J_SB1_300	1.165	123.1	01Apr2015, 14:57	1.65
R_SB1_200	1.165	123.1	01Apr2015, 15:00	1.65
SB1_200	0.02	6.4	01Apr2015, 12:30	1.25
J_SB1_200	1.185	124.6	01Apr2015, 14:57	1.64
R_SB1_100	1.185	124.6	01Apr2015, 14:59	1.64
SB1_100	0.004	0.5	01Apr2015, 13:03	0.93
OUT_SB1_100	1.189	124.9	01Apr2015, 14:58	1.64

Project: SainsBranch

Simulation Run: 10YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	42	01Apr2015, 15:21	3.94
J_SB1_1021	0.186	42	01Apr2015, 15:21	3.94
R_SB1_1020	0.186	42	01Apr2015, 15:21	3.94
SB1_1011	0.118	27.4	01Apr2015, 15:09	3.86
J_SB1_1011	0.118	27.4	01Apr2015, 15:09	3.86
R_SB1_1010	0.118	27.4	01Apr2015, 15:12	3.86
SB1_1010	0.028	14.3	01Apr2015, 13:06	3.78
SB1_1020	0.013	10.8	01Apr2015, 12:35	3.76
J_SB1_1010	0.345	80.4	01Apr2015, 15:06	3.89
SB1_1110	0.146	28.7	01Apr2015, 16:04	3.95
J_SB1_1110	0.146	28.7	01Apr2015, 16:04	3.95
R_SB1_1000	0.345	80.4	01Apr2015, 15:09	3.89
R_SB1_1100	0.146	28.7	01Apr2015, 16:07	3.95
SB1_1300	0.083	24	01Apr2015, 14:05	3.5
J_SB1_1300	0.083	24	01Apr2015, 14:05	3.5
R_SB1_1200	0.083	24	01Apr2015, 14:07	3.5
SB1_1200	0.05	16.2	01Apr2015, 13:19	2.76
SB1_1100	0.032	12.9	01Apr2015, 13:25	3.64
J_SB1_1100	0.311	69.3	01Apr2015, 14:50	3.6
R_SB1_900	0.311	69.2	01Apr2015, 15:02	3.6
SB1_900	0.094	33.1	01Apr2015, 13:22	3.08
SB1_1000	0.066	37.7	01Apr2015, 12:36	2.58
J_SB1_900	0.816	186.3	01Apr2015, 14:42	3.58
R_SB1_800	0.816	186.1	01Apr2015, 14:50	3.58
SB1_800	0.095	15.8	01Apr2015, 15:20	2.87
J_SB1_800	0.911	201.6	01Apr2015, 14:55	3.51
R_SB1_700	0.911	201.6	01Apr2015, 14:57	3.51
SB1_610	0.044	9.9	01Apr2015, 13:29	2.15
J_SB1_610	0.044	9.9	01Apr2015, 13:29	2.15
R_SB1_600	0.044	9.9	01Apr2015, 13:29	2.15
SB1_700	0.02	9.5	01Apr2015, 13:12	3.74
SB1_600	0.013	5.7	01Apr2015, 12:37	2.02
J_SB1_600	0.988	218.3	01Apr2015, 14:48	3.43
R_SB1_500	0.988	218.3	01Apr2015, 14:51	3.43
SB1_500	0.06	24.1	01Apr2015, 12:59	2.7
J_SB1_500	1.048	233	01Apr2015, 14:38	3.39
R_SB1_400	1.048	233	01Apr2015, 14:43	3.39
SB1_400	0.055	31	01Apr2015, 12:34	2.41

SB1_310	0.038	14.2	01Apr2015, 13:09	2.86
J_SB1_310	0.038	14.2	01Apr2015, 13:09	2.86
R_SB1_300	0.038	14.2	01Apr2015, 13:14	2.86
SB1_300	0.024	12	01Apr2015, 12:50	2.97
J_SB1_300	1.165	261.2	01Apr2015, 14:12	3.32
R_SB1_200	1.165	261.2	01Apr2015, 14:15	3.32
SB1_200	0.02	15.1	01Apr2015, 12:27	2.77
J_SB1_200	1.185	265.5	01Apr2015, 14:07	3.31
R_SB1_100	1.185	265.5	01Apr2015, 14:09	3.31
SB1_100	0.004	1.4	01Apr2015, 12:57	2.28
OUT_SB1_100	1.189	266.5	01Apr2015, 14:08	3.31

Project: SainsBranch

Simulation Run: 25YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	56.5	01Apr2015, 15:19	5.27
J_SB1_1021	0.186	56.5	01Apr2015, 15:19	5.27
R_SB1_1020	0.186	56.5	01Apr2015, 15:19	5.27
SB1_1011	0.118	37	01Apr2015, 15:07	5.19
J_SB1_1011	0.118	37	01Apr2015, 15:07	5.19
R_SB1_1010	0.118	37	01Apr2015, 15:10	5.19
SB1_1010	0.028	19.4	01Apr2015, 13:05	5.1
SB1_1020	0.013	14.5	01Apr2015, 12:35	5.08
J_SB1_1010	0.345	108.2	01Apr2015, 15:05	5.22
SB1_1110	0.146	38.5	01Apr2015, 16:01	5.27
J_SB1_1110	0.146	38.5	01Apr2015, 16:01	5.27
R_SB1_1000	0.345	108.2	01Apr2015, 15:07	5.22
R_SB1_1100	0.146	38.5	01Apr2015, 16:04	5.27
SB1_1300	0.083	33.1	01Apr2015, 14:03	4.78
J_SB1_1300	0.083	33.1	01Apr2015, 14:03	4.78
R_SB1_1200	0.083	33.1	01Apr2015, 14:05	4.78
SB1_1200	0.05	23.6	01Apr2015, 13:17	3.93
SB1_1100	0.032	17.6	01Apr2015, 13:24	4.94
J_SB1_1100	0.311	95.2	01Apr2015, 14:37	4.89
R_SB1_900	0.311	95.1	01Apr2015, 14:49	4.89
SB1_900	0.094	46.9	01Apr2015, 13:21	4.31
SB1_1000	0.066	55.5	01Apr2015, 12:35	3.72
J_SB1_900	0.816	255.7	01Apr2015, 14:32	4.87
R_SB1_800	0.816	255.5	01Apr2015, 14:40	4.87
SB1_800	0.095	22.8	01Apr2015, 15:15	4.07
J_SB1_800	0.911	277.4	01Apr2015, 14:48	4.79
R_SB1_700	0.911	277.4	01Apr2015, 14:50	4.79
SB1_610	0.044	15.4	01Apr2015, 13:26	3.2
J_SB1_610	0.044	15.4	01Apr2015, 13:26	3.2
R_SB1_600	0.044	15.4	01Apr2015, 13:26	3.2
SB1_700	0.02	12.8	01Apr2015, 13:11	5.05
SB1_600	0.013	8.9	01Apr2015, 12:35	3.04
J_SB1_600	0.988	302.1	01Apr2015, 14:38	4.7
R_SB1_500	0.988	302	01Apr2015, 14:41	4.7
SB1_500	0.06	35.1	01Apr2015, 12:57	3.86
J_SB1_500	1.048	324.2	01Apr2015, 14:25	4.65
R_SB1_400	1.048	324.1	01Apr2015, 14:30	4.65
SB1_400	0.055	46.3	01Apr2015, 12:32	3.51

SB1_310	0.038	20.5	01Apr2015, 13:07	4.05
J_SB1_310	0.038	20.5	01Apr2015, 13:07	4.05
R_SB1_300	0.038	20.5	01Apr2015, 13:12	4.05
SB1_300	0.024	17.2	01Apr2015, 12:49	4.18
J_SB1_300	1.165	368.3	01Apr2015, 13:53	4.57
R_SB1_200	1.165	368.3	01Apr2015, 13:56	4.57
SB1_200	0.02	21.8	01Apr2015, 12:26	3.95
J_SB1_200	1.185	375.6	01Apr2015, 13:48	4.56
R_SB1_100	1.185	375.5	01Apr2015, 13:50	4.56
SB1_100	0.004	2.1	01Apr2015, 12:56	3.37
OUT_SB1_100	1.189	377.2	01Apr2015, 13:49	4.55



Project: SainsBranch

Simulation Run: 50YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	69.3	01Apr2015, 15:18	6.46
J_SB1_1021	0.186	69.3	01Apr2015, 15:18	6.46
R_SB1_1020	0.186	69.3	01Apr2015, 15:18	6.46
SB1_1011	0.118	45.5	01Apr2015, 15:06	6.36
J_SB1_1011	0.118	45.5	01Apr2015, 15:06	6.36
R_SB1_1010	0.118	45.5	01Apr2015, 15:08	6.36
SB1_1010	0.028	23.9	01Apr2015, 13:04	6.27
SB1_1020	0.013	17.8	01Apr2015, 12:34	6.25
J_SB1_1010	0.345	132.8	01Apr2015, 15:04	6.4
SB1_1110	0.146	47.2	01Apr2015, 15:59	6.45
J_SB1_1110	0.146	47.2	01Apr2015, 15:59	6.45
R_SB1_1000	0.345	132.8	01Apr2015, 15:06	6.4
R_SB1_1100	0.146	47.2	01Apr2015, 16:02	6.45
SB1_1300	0.083	41.3	01Apr2015, 14:02	5.93
J_SB1_1300	0.083	41.3	01Apr2015, 14:02	5.93
R_SB1_1200	0.083	41.3	01Apr2015, 14:04	5.93
SB1_1200	0.05	30.3	01Apr2015, 13:16	5
SB1_1100	0.032	21.8	01Apr2015, 13:24	6.1
J_SB1_1100	0.311	118.5	01Apr2015, 14:29	6.04
R_SB1_900	0.311	118.4	01Apr2015, 14:37	6.04
SB1_900	0.094	59.4	01Apr2015, 13:20	5.42
SB1_1000	0.066	71.7	01Apr2015, 12:34	4.78
J_SB1_900	0.816	318	01Apr2015, 14:22	6.02
R_SB1_800	0.816	317.8	01Apr2015, 14:29	6.02
SB1_800	0.095	29.1	01Apr2015, 15:12	5.15
J_SB1_800	0.911	345.3	01Apr2015, 14:42	5.93
R_SB1_700	0.911	345.3	01Apr2015, 14:44	5.93
SB1_610	0.044	20.5	01Apr2015, 13:24	4.18
J_SB1_610	0.044	20.5	01Apr2015, 13:24	4.18
R_SB1_600	0.044	20.5	01Apr2015, 13:24	4.18
SB1_700	0.02	15.8	01Apr2015, 13:10	6.22
SB1_600	0.013	11.9	01Apr2015, 12:34	4.01
J_SB1_600	0.988	377.8	01Apr2015, 14:28	5.83
R_SB1_500	0.988	377.8	01Apr2015, 14:31	5.83
SB1_500	0.06	45.3	01Apr2015, 12:56	4.93
J_SB1_500	1.048	407.6	01Apr2015, 14:14	5.78
R_SB1_400	1.048	407.5	01Apr2015, 14:18	5.78
SB1_400	0.055	60.5	01Apr2015, 12:32	4.54

SB1_310	0.038	26.3	01Apr2015, 13:06	5.13
J_SB1_310	0.038	26.3	01Apr2015, 13:06	5.13
R_SB1_300	0.038	26.3	01Apr2015, 13:11	5.13
SB1_300	0.024	21.8	01Apr2015, 12:48	5.28
J_SB1_300	1.165	467.2	01Apr2015, 13:50	5.69
R_SB1_200	1.165	467.1	01Apr2015, 13:52	5.69
SB1_200	0.02	27.8	01Apr2015, 12:26	5.03
J_SB1_200	1.185	476.5	01Apr2015, 13:44	5.68
R_SB1_100	1.185	476.5	01Apr2015, 13:46	5.68
SB1_100	0.004	2.8	01Apr2015, 12:54	4.37
OUT_SB1_100	1.189	478.7	01Apr2015, 13:45	5.67

Project: SainsBranch

Simulation Run: 100YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	83.6	01Apr2015, 15:16	7.78
J_SB1_1021	0.186	83.6	01Apr2015, 15:16	7.78
R_SB1_1020	0.186	83.6	01Apr2015, 15:16	7.78
SB1_1011	0.118	54.9	01Apr2015, 15:04	7.68
J_SB1_1011	0.118	54.9	01Apr2015, 15:04	7.68
R_SB1_1010	0.118	54.9	01Apr2015, 15:07	7.68
SB1_1010	0.028	28.8	01Apr2015, 13:04	7.58
SB1_1020	0.013	21.5	01Apr2015, 12:34	7.56
J_SB1_1010	0.345	160.1	01Apr2015, 15:03	7.72
SB1_1110	0.146	56.8	01Apr2015, 15:58	7.77
J_SB1_1110	0.146	56.8	01Apr2015, 15:58	7.77
R_SB1_1000	0.345	160.1	01Apr2015, 15:06	7.72
R_SB1_1100	0.146	56.8	01Apr2015, 16:00	7.77
SB1_1300	0.083	50.4	01Apr2015, 14:01	7.23
J_SB1_1300	0.083	50.4	01Apr2015, 14:01	7.23
R_SB1_1200	0.083	50.4	01Apr2015, 14:03	7.23
SB1_1200	0.05	38	01Apr2015, 13:15	6.22
SB1_1100	0.032	26.4	01Apr2015, 13:23	7.41
J_SB1_1100	0.311	144.7	01Apr2015, 14:22	7.34
R_SB1_900	0.311	144.6	01Apr2015, 14:31	7.34
SB1_900	0.094	73.5	01Apr2015, 13:19	6.68
SB1_1000	0.066	90.1	01Apr2015, 12:34	5.98
J_SB1_900	0.816	387.7	01Apr2015, 14:15	7.31
R_SB1_800	0.816	387.5	01Apr2015, 14:23	7.31
SB1_800	0.095	36.4	01Apr2015, 15:10	6.39
J_SB1_800	0.911	421.3	01Apr2015, 14:38	7.22
R_SB1_700	0.911	421.3	01Apr2015, 14:39	7.22
SB1_610	0.044	26.5	01Apr2015, 13:23	5.32
J_SB1_610	0.044	26.5	01Apr2015, 13:23	5.32
R_SB1_600	0.044	26.5	01Apr2015, 13:23	5.32
SB1_700	0.02	19.1	01Apr2015, 13:10	7.53
SB1_600	0.013	15.4	01Apr2015, 12:34	5.13
J_SB1_600	0.988	462.7	01Apr2015, 14:22	7.11
R_SB1_500	0.988	462.7	01Apr2015, 14:25	7.11
SB1_500	0.06	56.8	01Apr2015, 12:56	6.15
J_SB1_500	1.048	501	01Apr2015, 14:07	7.06
R_SB1_400	1.048	500.9	01Apr2015, 14:11	7.05
SB1_400	0.055	76.6	01Apr2015, 12:31	5.72

SB1_310	0.038	32.8	01Apr2015, 13:06	6.37
J_SB1_310	0.038	32.8	01Apr2015, 13:06	6.37
R_SB1_300	0.038	32.8	01Apr2015, 13:10	6.37
SB1_300	0.024	27	01Apr2015, 12:48	6.52
J_SB1_300	1.165	580.7	01Apr2015, 13:38	6.96
R_SB1_200	1.165	580.6	01Apr2015, 13:40	6.96
SB1_200	0.02	34.6	01Apr2015, 12:26	6.25
J_SB1_200	1.185	593.8	01Apr2015, 13:36	6.95
R_SB1_100	1.185	593.7	01Apr2015, 13:38	6.95
SB1_100	0.004	3.5	01Apr2015, 12:54	5.53
OUT_SB1_100	1.189	596.6	01Apr2015, 13:37	6.94

Project: SamsBranch

Simulation Run: 2YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB2_610	0.224	59.1	01Apr2015, 13:08	1.99
SB2_620	0.125	9.5	01Apr2015, 14:00	0.91
J_SB2_620	0.125	9.5	01Apr2015, 14:00	0.91
R_SB2_610	0.125	9.5	01Apr2015, 14:11	0.91
J_SB2_610	0.349	65.3	01Apr2015, 13:17	1.61
R_SB2_600	0.349	65.2	01Apr2015, 13:22	1.61
SB2_1100	0.05	2.9	01Apr2015, 13:41	0.62
J_SB2_1100	0.05	2.9	01Apr2015, 13:41	0.62
R_SB2_1000	0.05	2.9	01Apr2015, 13:49	0.62
SB2_1000	0.044	3.3	01Apr2015, 12:45	0.49
SB2_900	0.022	5.8	01Apr2015, 12:35	1.17
SB2_910	0.02	5.5	01Apr2015, 12:37	1.27
J_SB2_910	0.02	5.5	01Apr2015, 12:37	1.27
R_SB2_900	0.02	5.5	01Apr2015, 12:41	1.27
J_SB2_900	0.136	15.6	01Apr2015, 12:44	0.76
R_SB2_800	0.136	15.4	01Apr2015, 12:50	0.76
SB2_800	0.104	3.5	01Apr2015, 13:35	0.35
J_SB2_800	0.24	18.4	01Apr2015, 12:55	0.58
R_SB2_700	0.24	18.3	01Apr2015, 12:58	0.58
SB2_600	0.073	12.7	01Apr2015, 12:51	1.08
SB2_700	0.005	0.3	01Apr2015, 12:32	0.32
J_SB2_600	0.667	94.5	01Apr2015, 13:14	1.17
R_SB2_500	0.667	92.7	01Apr2015, 13:28	1.17
SB2_500	0.003	1.4	01Apr2015, 12:16	1.29
J_SB2_500	0.67	93.1	01Apr2015, 13:28	1.17
R_SB2_400	0.67	91.7	01Apr2015, 13:42	1.17
SB2_400	0.009	3.7	01Apr2015, 12:19	1.24
J_SB2_400	0.679	92.7	01Apr2015, 13:41	1.17
R_SB2_300	0.679	90.3	01Apr2015, 14:00	1.17
SB2_300	0.078	21.8	01Apr2015, 13:10	2.18
SB2_220	0.045	14.3	01Apr2015, 13:09	2.45
J_SB2_220	0.045	14.3	01Apr2015, 13:09	2.45
R_SB2_200	0.045	14.3	01Apr2015, 13:10	2.45
SB2_200	0.005	0.4	01Apr2015, 14:00	0.91
J_SB2_200	0.807	122.2	01Apr2015, 13:52	1.34
R_SB2_100	0.807	121.5	01Apr2015, 14:01	1.34
SB2_100	0.012	0.9	01Apr2015, 12:49	0.52
OUT_SB2_100	0.819	122.1	01Apr2015, 14:01	1.33

Project: SamsBranch

Simulation Run: 10YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB2_610	0.224	115.4	01Apr2015, 13:06	3.8
SB2_620	0.125	26.3	01Apr2015, 13:45	2.25
J_SB2_620	0.125	26.3	01Apr2015, 13:45	2.25
R_SB2_610	0.125	26.3	01Apr2015, 13:53	2.25
J_SB2_610	0.349	135	01Apr2015, 13:16	3.25
R_SB2_600	0.349	134.9	01Apr2015, 13:22	3.25
SB2_1100	0.05	9.9	01Apr2015, 13:20	1.75
J_SB2_1100	0.05	9.9	01Apr2015, 13:20	1.75
R_SB2_1000	0.05	9.8	01Apr2015, 13:29	1.75
SB2_1000	0.044	13.9	01Apr2015, 12:37	1.52
SB2_900	0.022	14.3	01Apr2015, 12:32	2.65
SB2_910	0.02	12.9	01Apr2015, 12:34	2.8
J_SB2_910	0.02	12.9	01Apr2015, 12:34	2.8
R_SB2_900	0.02	12.9	01Apr2015, 12:37	2.8
J_SB2_900	0.136	45.4	01Apr2015, 12:40	1.97
R_SB2_800	0.136	44.9	01Apr2015, 12:47	1.97
SB2_800	0.104	17.8	01Apr2015, 12:58	1.23
J_SB2_800	0.24	62.2	01Apr2015, 12:50	1.65
R_SB2_700	0.24	62.1	01Apr2015, 12:53	1.65
SB2_600	0.073	32.6	01Apr2015, 12:47	2.52
SB2_700	0.005	1.7	01Apr2015, 12:24	1.18
J_SB2_600	0.667	221.9	01Apr2015, 13:10	2.58
R_SB2_500	0.667	220.7	01Apr2015, 13:17	2.58
SB2_500	0.003	3.3	01Apr2015, 12:15	2.83
J_SB2_500	0.67	221.5	01Apr2015, 13:16	2.58
R_SB2_400	0.67	219.5	01Apr2015, 13:25	2.58
SB2_400	0.009	8.7	01Apr2015, 12:17	2.76
J_SB2_400	0.679	221.9	01Apr2015, 13:25	2.58
R_SB2_300	0.679	210.7	01Apr2015, 13:49	2.58
SB2_300	0.078	41.1	01Apr2015, 13:09	4.04
SB2_220	0.045	25.7	01Apr2015, 13:08	4.38
J_SB2_220	0.045	25.7	01Apr2015, 13:08	4.38
R_SB2_200	0.045	25.7	01Apr2015, 13:09	4.38
SB2_200	0.005	1.1	01Apr2015, 13:45	2.25
J_SB2_200	0.807	271.3	01Apr2015, 13:44	2.82
R_SB2_100	0.807	270	01Apr2015, 13:51	2.82
SB2_100	0.012	3.6	01Apr2015, 12:41	1.57
OUT_SB2_100	0.819	272.2	01Apr2015, 13:51	2.8

Project: SamsBranch

Simulation Run: 25YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB2_610	0.224	155.9	01Apr2015, 13:05	5.12
SB2_620	0.125	40.1	01Apr2015, 13:41	3.32
J_SB2_620	0.125	40.1	01Apr2015, 13:41	3.32
R_SB2_610	0.125	40.1	01Apr2015, 13:49	3.32
J_SB2_610	0.349	187.1	01Apr2015, 13:15	4.48
R_SB2_600	0.349	186.9	01Apr2015, 13:22	4.48
SB2_1100	0.05	16.1	01Apr2015, 13:16	2.71
J_SB2_1100	0.05	16.1	01Apr2015, 13:16	2.71
R_SB2_1000	0.05	16	01Apr2015, 13:25	2.71
SB2_1000	0.044	23.7	01Apr2015, 12:35	2.41
SB2_900	0.022	20.9	01Apr2015, 12:31	3.8
SB2_910	0.02	18.6	01Apr2015, 12:33	3.98
J_SB2_910	0.02	18.6	01Apr2015, 12:33	3.98
R_SB2_900	0.02	18.5	01Apr2015, 12:36	3.98
J_SB2_900	0.136	70.7	01Apr2015, 12:39	2.97
R_SB2_800	0.136	69.9	01Apr2015, 12:45	2.97
SB2_800	0.104	32.4	01Apr2015, 12:54	2.04
J_SB2_800	0.24	101.8	01Apr2015, 12:48	2.57
R_SB2_700	0.24	101.7	01Apr2015, 12:50	2.57
SB2_600	0.073	48.3	01Apr2015, 12:46	3.65
SB2_700	0.005	3.2	01Apr2015, 12:19	1.96
J_SB2_600	0.667	323.8	01Apr2015, 13:08	3.68
R_SB2_500	0.667	322.2	01Apr2015, 13:14	3.68
SB2_500	0.003	4.7	01Apr2015, 12:14	4.01
J_SB2_500	0.67	323.4	01Apr2015, 13:14	3.68
R_SB2_400	0.67	320.6	01Apr2015, 13:22	3.68
SB2_400	0.009	12.6	01Apr2015, 12:16	3.93
J_SB2_400	0.679	324.1	01Apr2015, 13:22	3.69
R_SB2_300	0.679	309.7	01Apr2015, 13:43	3.69
SB2_300	0.078	54.7	01Apr2015, 13:08	5.38
SB2_220	0.045	33.6	01Apr2015, 13:07	5.75
J_SB2_220	0.045	33.6	01Apr2015, 13:07	5.75
R_SB2_200	0.045	33.6	01Apr2015, 13:08	5.75
SB2_200	0.005	1.6	01Apr2015, 13:41	3.32
J_SB2_200	0.807	391.4	01Apr2015, 13:39	3.96
R_SB2_100	0.807	389.4	01Apr2015, 13:46	3.96
SB2_100	0.012	6.2	01Apr2015, 12:39	2.48
OUT_SB2_100	0.819	393	01Apr2015, 13:46	3.94

Project: SamsBranch

Simulation Run: 50YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB2_610	0.224	191.6	01Apr2015, 13:04	6.3
SB2_620	0.125	53.2	01Apr2015, 13:39	4.32
J_SB2_620	0.125	53.2	01Apr2015, 13:39	4.32
R_SB2_610	0.125	53.2	01Apr2015, 13:46	4.32
J_SB2_610	0.349	233.8	01Apr2015, 13:15	5.59
R_SB2_600	0.349	233.6	01Apr2015, 13:22	5.59
SB2_1100	0.05	22.2	01Apr2015, 13:14	3.62
J_SB2_1100	0.05	22.2	01Apr2015, 13:14	3.62
R_SB2_1000	0.05	22	01Apr2015, 13:23	3.62
SB2_1000	0.044	33.3	01Apr2015, 12:34	3.27
SB2_900	0.022	26.8	01Apr2015, 12:30	4.86
SB2_910	0.02	23.7	01Apr2015, 12:33	5.06
J_SB2_910	0.02	23.7	01Apr2015, 12:33	5.06
R_SB2_900	0.02	23.7	01Apr2015, 12:35	5.06
J_SB2_900	0.136	94.6	01Apr2015, 12:38	3.92
R_SB2_800	0.136	93.5	01Apr2015, 12:45	3.92
SB2_800	0.104	47.3	01Apr2015, 12:52	2.84
J_SB2_800	0.24	140.2	01Apr2015, 12:47	3.45
R_SB2_700	0.24	140.1	01Apr2015, 12:49	3.45
SB2_600	0.073	62.8	01Apr2015, 12:45	4.69
SB2_700	0.005	4.8	01Apr2015, 12:17	2.74
J_SB2_600	0.667	417.6	01Apr2015, 13:07	4.7
R_SB2_500	0.667	416.6	01Apr2015, 13:11	4.7
SB2_500	0.003	6	01Apr2015, 12:14	5.1
J_SB2_500	0.67	418.2	01Apr2015, 13:11	4.7
R_SB2_400	0.67	414.5	01Apr2015, 13:19	4.7
SB2_400	0.009	16.1	01Apr2015, 12:16	5
J_SB2_400	0.679	419.2	01Apr2015, 13:18	4.71
R_SB2_300	0.679	399.3	01Apr2015, 13:41	4.71
SB2_300	0.078	66.7	01Apr2015, 13:07	6.57
SB2_220	0.045	40.5	01Apr2015, 13:07	6.96
J_SB2_220	0.045	40.5	01Apr2015, 13:07	6.96
R_SB2_200	0.045	40.5	01Apr2015, 13:08	6.96
SB2_200	0.005	2.1	01Apr2015, 13:39	4.32
J_SB2_200	0.807	499.6	01Apr2015, 13:36	5.01
R_SB2_100	0.807	497.9	01Apr2015, 13:42	5.01
SB2_100	0.012	8.6	01Apr2015, 12:38	3.35
OUT_SB2_100	0.819	502.9	01Apr2015, 13:41	4.98



Project: SamsBranch

Simulation Run: 100YR-EX(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-EX(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB2_610	0.224	231.2	01Apr2015, 13:04	7.61
SB2_620	0.125	68.2	01Apr2015, 13:38	5.48
J_SB2_620	0.125	68.2	01Apr2015, 13:38	5.48
R_SB2_610	0.125	68.2	01Apr2015, 13:44	5.48
J_SB2_610	0.349	286.2	01Apr2015, 13:15	6.85
R_SB2_600	0.349	286.1	01Apr2015, 13:21	6.85
SB2_1100	0.05	29.3	01Apr2015, 13:13	4.69
J_SB2_1100	0.05	29.3	01Apr2015, 13:13	4.69
R_SB2_1000	0.05	29	01Apr2015, 13:22	4.69
SB2_1000	0.044	44.6	01Apr2015, 12:33	4.29
SB2_900	0.022	33.6	01Apr2015, 12:29	6.07
SB2_910	0.02	29.5	01Apr2015, 12:32	6.29
J_SB2_910	0.02	29.5	01Apr2015, 12:32	6.29
R_SB2_900	0.02	29.5	01Apr2015, 12:35	6.29
J_SB2_900	0.136	122.4	01Apr2015, 12:38	5.02
R_SB2_800	0.136	121.5	01Apr2015, 12:43	5.02
SB2_800	0.104	65.3	01Apr2015, 12:51	3.79
J_SB2_800	0.24	185.9	01Apr2015, 12:46	4.49
R_SB2_700	0.24	185.8	01Apr2015, 12:47	4.49
SB2_600	0.073	79.2	01Apr2015, 12:44	5.89
SB2_700	0.005	6.6	01Apr2015, 12:16	3.68
J_SB2_600	0.667	525	01Apr2015, 13:06	5.87
R_SB2_500	0.667	524	01Apr2015, 13:09	5.87
SB2_500	0.003	7.4	01Apr2015, 12:14	6.33
J_SB2_500	0.67	526	01Apr2015, 13:09	5.87
R_SB2_400	0.67	522.4	01Apr2015, 13:16	5.87
SB2_400	0.009	20.1	01Apr2015, 12:16	6.22
J_SB2_400	0.679	528.4	01Apr2015, 13:15	5.87
R_SB2_300	0.679	505.7	01Apr2015, 13:36	5.87
SB2_300	0.078	80	01Apr2015, 13:07	7.9
SB2_220	0.045	48.1	01Apr2015, 13:07	8.3
J_SB2_220	0.045	48.1	01Apr2015, 13:07	8.3
R_SB2_200	0.045	48.1	01Apr2015, 13:08	8.3
SB2_200	0.005	2.7	01Apr2015, 13:38	5.48
J_SB2_200	0.807	627.4	01Apr2015, 13:32	6.2
R_SB2_100	0.807	625.6	01Apr2015, 13:37	6.2
SB2_100	0.012	11.5	01Apr2015, 12:37	4.39
OUT_SB2_100	0.819	632.4	01Apr2015, 13:37	6.18

**PRIMARY SYSTEM  
FUTURE  
CONDITIONS:  
HEC-HMS OUTPUT**

Project: HarrisMillRun

Simulation Run: 2YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	14.4	01Apr2015, 17:50	1.56
HMR_770	0.204	10.9	01Apr2015, 18:57	1.49
J_HMR_770	0.204	10.9	01Apr2015, 18:57	1.49
R_HMR_760	0.204	10.9	01Apr2015, 19:52	1.47
J_HMR_760	0.434	24.9	01Apr2015, 19:04	1.52
R_HMR_750	0.434	24.9	01Apr2015, 19:20	1.51
HMR_750	0.084	7	01Apr2015, 16:06	1.63
J_HMR_750	0.518	30.9	01Apr2015, 18:58	1.53
R_HMR_740	0.518	30.9	01Apr2015, 19:04	1.53
HMR_730	0.147	15.8	01Apr2015, 14:27	1.48
HMR_735	0.146	11.8	01Apr2015, 15:53	1.52
J_HMR_735	0.146	11.8	01Apr2015, 15:53	1.52
R_HMR_730	0.146	11.8	01Apr2015, 16:05	1.52
HMR_740	0.022	5.2	01Apr2015, 12:55	1.5
J_HMR_730	0.833	53.7	01Apr2015, 17:33	1.52
R_HMR_720	0.833	53.7	01Apr2015, 17:40	1.52
HMR_720	0.454	60.2	01Apr2015, 14:10	1.65
J_HMR_720	1.287	101.1	01Apr2015, 15:47	1.57
R_HMR_710	1.287	101.1	01Apr2015, 15:55	1.57
HMR_715	0.102	51.1	01Apr2015, 12:25	1.76
HMR_710	0.088	23.4	01Apr2015, 12:33	1.13
J_HMR_710	1.477	114	01Apr2015, 14:31	1.55
R_HMR_700	1.477	114	01Apr2015, 14:40	1.55
HMR_1400	0.144	12.8	01Apr2015, 14:58	1.39
HMR_1500	0.039	4.2	01Apr2015, 14:37	1.56
J_HMR_1500	0.039	4.2	01Apr2015, 14:37	1.56
R_HMR_1400	0.039	4.2	01Apr2015, 14:47	1.56
J_HMR_1400	0.183	17	01Apr2015, 14:54	1.43
R_HMR_1300	0.183	12.9	01Apr2015, 15:51	1.3
HMR_1300	0.128	12.4	01Apr2015, 14:26	1.33
J_HMR_1300	0.311	24.9	01Apr2015, 15:03	1.31
R_HMR_1200	0.311	23.2	01Apr2015, 16:46	1.31
HMR_1200	0.291	13.5	01Apr2015, 15:51	0.81
HMR_1100	0.083	8.5	01Apr2015, 13:16	0.9
HMR_1110	0.06	10.9	01Apr2015, 12:58	1.24
J_HMR_1110	0.06	10.9	01Apr2015, 12:58	1.24
R_HMR_1100	0.06	10.9	01Apr2015, 13:05	1.24
J_HMR_1100	0.745	46.5	01Apr2015, 15:40	1.06

R_HMR_1000	0.745	43.2	01Apr2015, 17:17	1.06
HMR_1000	0.047	5.4	01Apr2015, 13:19	1.03
J_HMR_1000	0.792	45.8	01Apr2015, 17:04	1.06
R_HMR_900	0.792	45.8	01Apr2015, 17:09	1.06
HMR_900	0.053	5	01Apr2015, 13:02	0.73
J_HMR_900	0.845	47.7	01Apr2015, 16:59	1.04
R_HMR_800	0.845	47.7	01Apr2015, 17:06	1.04
HMR_800	0.224	65.4	01Apr2015, 12:47	1.65
HMR_700	0.104	18.7	01Apr2015, 13:01	1.28
J_HMR_700	2.65	195.4	01Apr2015, 14:24	1.39
R_HMR_600	2.65	195	01Apr2015, 14:31	1.39
HMR_600	0.102	18.7	01Apr2015, 13:20	1.59
J_HMR_600	2.752	210.8	01Apr2015, 14:24	1.39
R_HMR_500	2.752	210.4	01Apr2015, 14:34	1.39
HMR_500	0.129	17.9	01Apr2015, 13:47	1.51
J_HMR_500	2.881	227.3	01Apr2015, 14:30	1.4
R_HMR_400	2.881	227	01Apr2015, 14:39	1.4
HMR_400	0.11	15.8	01Apr2015, 13:24	1.31
J_HMR_400	2.991	240.5	01Apr2015, 14:33	1.39
R_HMR_300	2.991	239.4	01Apr2015, 14:51	1.39
HMR_300	0.074	20.8	01Apr2015, 12:37	1.3
J_HMR_300	3.065	246.5	01Apr2015, 14:44	1.39
R_HMR_200	3.065	240	01Apr2015, 15:34	1.39
HMR_210	0.089	11.9	01Apr2015, 14:14	1.71
HMR_220	0.038	8.8	01Apr2015, 12:52	1.42
J_HMR_220	0.038	8.8	01Apr2015, 12:52	1.42
R_HMR_210	0.038	7.9	01Apr2015, 13:37	1.41
HMR_200	0.036	10.9	01Apr2015, 12:37	1.42
J_HMR_200	3.228	258.5	01Apr2015, 15:25	1.4
R_HMR_100	3.228	190.4	01Apr2015, 19:36	1.39
HMR_100	0.394	23.8	01Apr2015, 17:08	1.37
OUT_HMR_100	3.622	212.5	01Apr2015, 19:25	1.39

Project: HarrisMillRun

Simulation Run: 10YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	30.1	01Apr2015, 17:25	3.19
HMR_770	0.204	22.9	01Apr2015, 18:30	3.07
J_HMR_770	0.204	22.9	01Apr2015, 18:30	3.07
R_HMR_760	0.204	22.9	01Apr2015, 19:21	3.04
J_HMR_760	0.434	52	01Apr2015, 18:41	3.12
R_HMR_750	0.434	52	01Apr2015, 18:54	3.11
HMR_750	0.084	14.6	01Apr2015, 15:49	3.32
J_HMR_750	0.518	64.5	01Apr2015, 18:33	3.14
R_HMR_740	0.518	64.5	01Apr2015, 18:39	3.14
HMR_730	0.147	34.9	01Apr2015, 14:19	3.11
HMR_735	0.146	25.5	01Apr2015, 15:34	3.16
J_HMR_735	0.146	25.5	01Apr2015, 15:34	3.16
R_HMR_730	0.146	25.5	01Apr2015, 15:44	3.16
HMR_740	0.022	11.3	01Apr2015, 12:52	3.14
J_HMR_730	0.833	114.1	01Apr2015, 17:10	3.14
R_HMR_720	0.833	114.1	01Apr2015, 17:16	3.14
HMR_720	0.454	127.1	01Apr2015, 14:03	3.35
J_HMR_720	1.287	215.6	01Apr2015, 15:25	3.21
R_HMR_710	1.287	215.6	01Apr2015, 15:32	3.21
HMR_715	0.102	103.6	01Apr2015, 12:24	3.49
HMR_710	0.088	58.2	01Apr2015, 12:30	2.58
J_HMR_710	1.477	244.9	01Apr2015, 14:16	3.19
R_HMR_700	1.477	244.9	01Apr2015, 14:32	3.19
HMR_1400	0.144	28.9	01Apr2015, 14:43	2.98
HMR_1500	0.039	9.1	01Apr2015, 14:28	3.23
J_HMR_1500	0.039	9.1	01Apr2015, 14:28	3.23
R_HMR_1400	0.039	9.1	01Apr2015, 14:36	3.23
J_HMR_1400	0.183	38.1	01Apr2015, 14:42	3.03
R_HMR_1300	0.183	31.1	01Apr2015, 14:57	2.88
HMR_1300	0.128	28.7	01Apr2015, 14:15	2.89
J_HMR_1300	0.311	59.2	01Apr2015, 14:37	2.88
R_HMR_1200	0.311	53.8	01Apr2015, 16:17	2.88
HMR_1200	0.291	37.7	01Apr2015, 15:05	2.08
HMR_1100	0.083	24.1	01Apr2015, 13:08	2.22
HMR_1110	0.06	26.2	01Apr2015, 12:54	2.76
J_HMR_1110	0.06	26.2	01Apr2015, 12:54	2.76
R_HMR_1100	0.06	26.2	01Apr2015, 13:00	2.76
J_HMR_1100	0.745	116.3	01Apr2015, 15:08	2.48

R_HMR_1000	0.745	106.4	01Apr2015, 16:47	2.48
HMR_1000	0.047	14.2	01Apr2015, 13:13	2.43
J_HMR_1000	0.792	113	01Apr2015, 16:34	2.48
R_HMR_900	0.792	112.9	01Apr2015, 16:39	2.48
HMR_900	0.053	15.9	01Apr2015, 12:55	1.95
J_HMR_900	0.845	118.3	01Apr2015, 16:28	2.45
R_HMR_800	0.845	118.2	01Apr2015, 16:35	2.45
HMR_800	0.224	137.7	01Apr2015, 12:45	3.34
HMR_700	0.104	44.4	01Apr2015, 12:57	2.81
J_HMR_700	2.65	436.2	01Apr2015, 14:14	2.95
R_HMR_600	2.65	435.4	01Apr2015, 14:24	2.95
HMR_600	0.102	40.2	01Apr2015, 13:16	3.27
J_HMR_600	2.752	468.8	01Apr2015, 14:16	2.96
R_HMR_500	2.752	468.3	01Apr2015, 14:24	2.96
HMR_500	0.129	39.3	01Apr2015, 13:41	3.15
J_HMR_500	2.881	505.3	01Apr2015, 14:18	2.97
R_HMR_400	2.881	505.1	01Apr2015, 14:24	2.97
HMR_400	0.11	37.2	01Apr2015, 13:18	2.86
J_HMR_400	2.991	536.8	01Apr2015, 14:10	2.97
R_HMR_300	2.991	536.4	01Apr2015, 14:22	2.97
HMR_300	0.074	48.5	01Apr2015, 12:34	2.85
J_HMR_300	3.065	555.3	01Apr2015, 14:06	2.96
R_HMR_200	3.065	540.1	01Apr2015, 15:03	2.96
HMR_210	0.089	24.8	01Apr2015, 14:07	3.43
HMR_220	0.038	19.9	01Apr2015, 12:48	3.03
J_HMR_220	0.038	19.9	01Apr2015, 12:48	3.03
R_HMR_210	0.038	18.1	01Apr2015, 13:23	3.02
HMR_200	0.036	24.5	01Apr2015, 12:35	3.02
J_HMR_200	3.228	581.1	01Apr2015, 14:56	2.98
R_HMR_100	3.228	426.3	01Apr2015, 18:53	2.95
HMR_100	0.394	52.9	01Apr2015, 16:40	2.94
OUT_HMR_100	3.622	475.6	01Apr2015, 18:44	2.95

Project: HarrisMillRun

Simulation Run: 25YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	42	01Apr2015, 17:19	4.41
HMR_770	0.204	32	01Apr2015, 18:22	4.25
J_HMR_770	0.204	32	01Apr2015, 18:22	4.25
R_HMR_760	0.204	31.9	01Apr2015, 19:10	4.21
J_HMR_760	0.434	72.4	01Apr2015, 18:33	4.32
R_HMR_750	0.434	72.4	01Apr2015, 18:44	4.31
HMR_750	0.084	20.4	01Apr2015, 15:45	4.58
J_HMR_750	0.518	89.8	01Apr2015, 18:23	4.35
R_HMR_740	0.518	89.8	01Apr2015, 18:28	4.35
HMR_730	0.147	49.5	01Apr2015, 14:16	4.34
HMR_735	0.146	35.9	01Apr2015, 15:30	4.4
J_HMR_735	0.146	35.9	01Apr2015, 15:30	4.4
R_HMR_730	0.146	35.9	01Apr2015, 15:39	4.4
HMR_740	0.022	16	01Apr2015, 12:51	4.37
J_HMR_730	0.833	159.7	01Apr2015, 17:02	4.36
R_HMR_720	0.833	159.7	01Apr2015, 17:07	4.35
HMR_720	0.454	177.1	01Apr2015, 14:01	4.62
J_HMR_720	1.287	302.3	01Apr2015, 15:17	4.45
R_HMR_710	1.287	302.3	01Apr2015, 15:27	4.45
HMR_715	0.102	141.6	01Apr2015, 12:23	4.77
HMR_710	0.088	85.4	01Apr2015, 12:29	3.72
J_HMR_710	1.477	343.5	01Apr2015, 14:18	4.43
R_HMR_700	1.477	343.5	01Apr2015, 14:33	4.42
HMR_1400	0.144	41.3	01Apr2015, 14:40	4.19
HMR_1500	0.039	12.9	01Apr2015, 14:25	4.47
J_HMR_1500	0.039	12.9	01Apr2015, 14:25	4.47
R_HMR_1400	0.039	12.9	01Apr2015, 14:33	4.47
J_HMR_1400	0.183	54.2	01Apr2015, 14:38	4.25
R_HMR_1300	0.183	45.1	01Apr2015, 14:47	4.06
HMR_1300	0.128	41.4	01Apr2015, 14:12	4.08
J_HMR_1300	0.311	85.7	01Apr2015, 14:32	4.07
R_HMR_1200	0.311	77.3	01Apr2015, 16:09	4.07
HMR_1200	0.291	58.3	01Apr2015, 14:55	3.12
HMR_1100	0.083	36.9	01Apr2015, 13:06	3.29
HMR_1110	0.06	38	01Apr2015, 12:53	3.93
J_HMR_1110	0.06	38	01Apr2015, 12:53	3.93
R_HMR_1100	0.06	38	01Apr2015, 12:58	3.93
J_HMR_1100	0.745	172.4	01Apr2015, 14:58	3.6

R_HMR_1000	0.745	156.8	01Apr2015, 16:37	3.6
HMR_1000	0.047	21.3	01Apr2015, 13:11	3.54
J_HMR_1000	0.792	166.5	01Apr2015, 16:24	3.6
R_HMR_900	0.792	166.5	01Apr2015, 16:29	3.6
HMR_900	0.053	25.3	01Apr2015, 12:53	2.95
J_HMR_900	0.845	174.6	01Apr2015, 16:17	3.55
R_HMR_800	0.845	174.6	01Apr2015, 16:24	3.55
HMR_800	0.224	191	01Apr2015, 12:44	4.61
HMR_700	0.104	64.2	01Apr2015, 12:56	3.99
J_HMR_700	2.65	620.2	01Apr2015, 14:12	4.14
R_HMR_600	2.65	619.5	01Apr2015, 14:21	4.14
HMR_600	0.102	56.2	01Apr2015, 13:15	4.52
J_HMR_600	2.752	667.1	01Apr2015, 13:54	4.16
R_HMR_500	2.752	666.8	01Apr2015, 14:07	4.16
HMR_500	0.129	55.6	01Apr2015, 13:39	4.39
J_HMR_500	2.881	721.3	01Apr2015, 13:53	4.17
R_HMR_400	2.881	720.8	01Apr2015, 14:02	4.17
HMR_400	0.11	53.7	01Apr2015, 13:16	4.05
J_HMR_400	2.991	769.4	01Apr2015, 13:52	4.16
R_HMR_300	2.991	767.6	01Apr2015, 14:07	4.16
HMR_300	0.074	69.6	01Apr2015, 12:33	4.04
J_HMR_300	3.065	796.7	01Apr2015, 13:57	4.16
R_HMR_200	3.065	775.3	01Apr2015, 14:48	4.16
HMR_210	0.089	34.4	01Apr2015, 14:05	4.71
HMR_220	0.038	28.3	01Apr2015, 12:47	4.24
J_HMR_220	0.038	28.3	01Apr2015, 12:47	4.24
R_HMR_210	0.038	24.9	01Apr2015, 13:27	4.21
HMR_200	0.036	34.7	01Apr2015, 12:34	4.23
J_HMR_200	3.228	834.9	01Apr2015, 14:40	4.17
R_HMR_100	3.228	605.2	01Apr2015, 18:34	4.14
HMR_100	0.394	75.4	01Apr2015, 16:32	4.13
OUT_HMR_100	3.622	675.9	01Apr2015, 18:25	4.14



Project: HarrisMillRun

Simulation Run: 50YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	52.7	01Apr2015, 17:15	5.51
HMR_770	0.204	40.1	01Apr2015, 18:17	5.31
J_HMR_770	0.204	40.1	01Apr2015, 18:17	5.31
R_HMR_760	0.204	40	01Apr2015, 19:04	5.27
J_HMR_760	0.434	90.8	01Apr2015, 18:27	5.4
R_HMR_750	0.434	90.8	01Apr2015, 18:38	5.38
HMR_750	0.084	25.5	01Apr2015, 15:42	5.71
J_HMR_750	0.518	112.6	01Apr2015, 18:17	5.44
R_HMR_740	0.518	112.6	01Apr2015, 18:22	5.43
HMR_730	0.147	62.7	01Apr2015, 14:14	5.46
HMR_735	0.146	45.3	01Apr2015, 15:27	5.52
J_HMR_735	0.146	45.3	01Apr2015, 15:27	5.52
R_HMR_730	0.146	45.3	01Apr2015, 15:36	5.52
HMR_740	0.022	20.1	01Apr2015, 12:50	5.49
J_HMR_730	0.833	200.9	01Apr2015, 16:56	5.45
R_HMR_720	0.833	200.9	01Apr2015, 17:00	5.45
HMR_720	0.454	222	01Apr2015, 14:00	5.76
J_HMR_720	1.287	380.6	01Apr2015, 15:11	5.56
R_HMR_710	1.287	380.6	01Apr2015, 15:23	5.56
HMR_715	0.102	175.3	01Apr2015, 12:23	5.92
HMR_710	0.088	110.3	01Apr2015, 12:28	4.78
J_HMR_710	1.477	432.5	01Apr2015, 14:20	5.54
R_HMR_700	1.477	432.4	01Apr2015, 14:34	5.53
HMR_1400	0.144	52.6	01Apr2015, 14:38	5.29
HMR_1500	0.039	16.2	01Apr2015, 14:24	5.6
J_HMR_1500	0.039	16.2	01Apr2015, 14:24	5.6
R_HMR_1400	0.039	16.2	01Apr2015, 14:31	5.6
J_HMR_1400	0.183	68.8	01Apr2015, 14:36	5.35
R_HMR_1300	0.183	58.1	01Apr2015, 14:43	5.15
HMR_1300	0.128	53	01Apr2015, 14:10	5.17
J_HMR_1300	0.311	110	01Apr2015, 14:30	5.16
R_HMR_1200	0.311	98.8	01Apr2015, 16:04	5.15
HMR_1200	0.291	77.9	01Apr2015, 14:50	4.09
HMR_1100	0.083	49	01Apr2015, 13:05	4.29
HMR_1110	0.06	48.8	01Apr2015, 12:52	5
J_HMR_1110	0.06	48.8	01Apr2015, 12:52	5
R_HMR_1100	0.06	48.8	01Apr2015, 12:57	5
J_HMR_1100	0.745	224.6	01Apr2015, 14:52	4.63

R_HMR_1000	0.745	203.6	01Apr2015, 16:31	4.63
HMR_1000	0.047	27.9	01Apr2015, 13:09	4.57
J_HMR_1000	0.792	216.3	01Apr2015, 16:18	4.63
R_HMR_900	0.792	216.2	01Apr2015, 16:24	4.63
HMR_900	0.053	34.2	01Apr2015, 12:51	3.9
J_HMR_900	0.845	227	01Apr2015, 16:11	4.58
R_HMR_800	0.845	226.9	01Apr2015, 16:18	4.58
HMR_800	0.224	238.4	01Apr2015, 12:44	5.74
HMR_700	0.104	82.3	01Apr2015, 12:55	5.07
J_HMR_700	2.65	790.6	01Apr2015, 12:57	5.23
R_HMR_600	2.65	785.9	01Apr2015, 14:24	5.23
HMR_600	0.102	70.7	01Apr2015, 13:14	5.65
J_HMR_600	2.752	852.2	01Apr2015, 13:24	5.24
R_HMR_500	2.752	849	01Apr2015, 13:36	5.24
HMR_500	0.129	70.2	01Apr2015, 13:38	5.5
J_HMR_500	2.881	919.1	01Apr2015, 13:37	5.25
R_HMR_400	2.881	917.1	01Apr2015, 13:47	5.25
HMR_400	0.11	68.7	01Apr2015, 13:15	5.13
J_HMR_400	2.991	981.3	01Apr2015, 13:43	5.25
R_HMR_300	2.991	977.5	01Apr2015, 13:57	5.25
HMR_300	0.074	88.8	01Apr2015, 12:33	5.12
J_HMR_300	3.065	1017	01Apr2015, 13:50	5.24
R_HMR_200	3.065	989.1	01Apr2015, 14:37	5.24
HMR_210	0.089	43	01Apr2015, 14:04	5.85
HMR_220	0.038	35.8	01Apr2015, 12:47	5.35
J_HMR_220	0.038	35.8	01Apr2015, 12:47	5.35
R_HMR_210	0.038	30.8	01Apr2015, 13:30	5.29
HMR_200	0.036	43.9	01Apr2015, 12:33	5.34
J_HMR_200	3.228	1067.6	01Apr2015, 14:28	5.26
R_HMR_100	3.228	767.4	01Apr2015, 18:29	5.22
HMR_100	0.394	95.8	01Apr2015, 16:28	5.22
OUT_HMR_100	3.622	857.1	01Apr2015, 18:19	5.22

Project: HarrisMillRun

Simulation Run: 100YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Harris Mill Run-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
HMR_760	0.23	64.8	01Apr2015, 17:12	6.75
HMR_770	0.204	49.4	01Apr2015, 18:14	6.51
J_HMR_770	0.204	49.4	01Apr2015, 18:14	6.51
R_HMR_760	0.204	49.1	01Apr2015, 18:59	6.46
J_HMR_760	0.434	111.6	01Apr2015, 18:23	6.61
R_HMR_750	0.434	111.5	01Apr2015, 18:34	6.6
HMR_750	0.084	31.3	01Apr2015, 15:40	6.99
J_HMR_750	0.518	138.3	01Apr2015, 18:13	6.66
R_HMR_740	0.518	138.3	01Apr2015, 18:17	6.66
HMR_730	0.147	77.5	01Apr2015, 14:13	6.72
HMR_735	0.146	55.9	01Apr2015, 15:25	6.78
J_HMR_735	0.146	55.9	01Apr2015, 15:25	6.78
R_HMR_730	0.146	55.9	01Apr2015, 15:34	6.78
HMR_740	0.022	24.8	01Apr2015, 12:50	6.75
J_HMR_730	0.833	247.5	01Apr2015, 16:57	6.69
R_HMR_720	0.833	247.5	01Apr2015, 17:04	6.69
HMR_720	0.454	272.4	01Apr2015, 13:59	7.04
J_HMR_720	1.287	468.5	01Apr2015, 15:04	6.81
R_HMR_710	1.287	468.4	01Apr2015, 15:17	6.81
HMR_715	0.102	212.6	01Apr2015, 12:23	7.22
HMR_710	0.088	138.5	01Apr2015, 12:28	5.98
J_HMR_710	1.477	533.5	01Apr2015, 14:19	6.79
R_HMR_700	1.477	533.3	01Apr2015, 14:32	6.78
HMR_1400	0.144	65.5	01Apr2015, 14:36	6.53
HMR_1500	0.039	20	01Apr2015, 14:22	6.87
J_HMR_1500	0.039	20	01Apr2015, 14:22	6.87
R_HMR_1400	0.039	20	01Apr2015, 14:29	6.87
J_HMR_1400	0.183	85.4	01Apr2015, 14:34	6.61
R_HMR_1300	0.183	72.8	01Apr2015, 14:40	6.36
HMR_1300	0.128	66.1	01Apr2015, 14:08	6.41
J_HMR_1300	0.311	137.5	01Apr2015, 14:28	6.38
R_HMR_1200	0.311	123.1	01Apr2015, 15:59	6.38
HMR_1200	0.291	100.7	01Apr2015, 14:47	5.22
HMR_1100	0.083	62.9	01Apr2015, 13:04	5.44
HMR_1110	0.06	61.1	01Apr2015, 12:52	6.22
J_HMR_1110	0.06	61.1	01Apr2015, 12:52	6.22
R_HMR_1100	0.06	61.1	01Apr2015, 12:56	6.22
J_HMR_1100	0.745	284.7	01Apr2015, 14:48	5.81

R_HMR_1000	0.745	257.3	01Apr2015, 16:26	5.81
HMR_1000	0.047	35.5	01Apr2015, 13:09	5.76
J_HMR_1000	0.792	273.4	01Apr2015, 16:13	5.8
R_HMR_900	0.792	273.3	01Apr2015, 16:18	5.8
HMR_900	0.053	44.5	01Apr2015, 12:50	5.01
J_HMR_900	0.845	287.2	01Apr2015, 16:06	5.75
R_HMR_800	0.845	287.1	01Apr2015, 16:13	5.75
HMR_800	0.224	291.4	01Apr2015, 12:43	7.02
HMR_700	0.104	102.7	01Apr2015, 12:54	6.3
J_HMR_700	2.65	990.2	01Apr2015, 12:56	6.46
R_HMR_600	2.65	976.2	01Apr2015, 14:24	6.46
HMR_600	0.102	86.8	01Apr2015, 13:14	6.92
J_HMR_600	2.752	1061.6	01Apr2015, 13:16	6.47
R_HMR_500	2.752	1055.5	01Apr2015, 13:29	6.47
HMR_500	0.129	86.7	01Apr2015, 13:38	6.77
J_HMR_500	2.881	1141.5	01Apr2015, 13:31	6.49
R_HMR_400	2.881	1138.3	01Apr2015, 13:41	6.48
HMR_400	0.11	85.7	01Apr2015, 13:15	6.37
J_HMR_400	2.991	1219.7	01Apr2015, 13:38	6.48
R_HMR_300	2.991	1214.8	01Apr2015, 13:50	6.48
HMR_300	0.074	110.3	01Apr2015, 12:32	6.35
J_HMR_300	3.065	1266.3	01Apr2015, 13:44	6.48
R_HMR_200	3.065	1232.4	01Apr2015, 14:28	6.47
HMR_210	0.089	52.6	01Apr2015, 14:03	7.14
HMR_220	0.038	44.3	01Apr2015, 12:46	6.6
J_HMR_220	0.038	44.3	01Apr2015, 12:46	6.6
R_HMR_210	0.038	37.5	01Apr2015, 13:31	6.52
HMR_200	0.036	54.2	01Apr2015, 12:33	6.59
J_HMR_200	3.228	1332.7	01Apr2015, 14:19	6.49
R_HMR_100	3.228	930.8	01Apr2015, 18:31	6.45
HMR_100	0.394	119	01Apr2015, 16:26	6.45
OUT_HMR_100	3.622	1041.4	01Apr2015, 18:18	6.45

Project: Schoolhouse Branch

Simulation Run: 2YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	24.1	01Apr2015, 12:42	2.02
SHB_507	0.057	12.4	01Apr2015, 13:38	2.18
J_SHB_507	0.057	12.4	01Apr2015, 13:38	2.18
R_SHB_505	0.057	12.4	01Apr2015, 13:44	2.18
J_SHB_505	0.118	30.9	01Apr2015, 12:59	2.1
R_SHB_503	0.118	30.9	01Apr2015, 13:07	2.1
SHB_503	0.083	35.8	01Apr2015, 12:45	2.38
J_SHB_503	0.201	65.5	01Apr2015, 12:52	2.22
R_SHB_501	0.201	64.8	01Apr2015, 13:01	2.21
SHB_028	0.103	33.5	01Apr2015, 13:02	2.3
SHB_030	0.028	5	01Apr2015, 13:39	1.81
J_SHB_030	0.028	5	01Apr2015, 13:39	1.81
R_SHB_028	0.028	4.9	01Apr2015, 13:53	1.81
J_SHB_028	0.131	37	01Apr2015, 13:08	2.19
R_SHB_026	0.131	36.8	01Apr2015, 13:14	2.19
SHB_026	0.03	16.5	01Apr2015, 12:35	2.49
J_SHB_026	0.161	49.6	01Apr2015, 13:03	2.25
R_SHB_024	0.161	49.5	01Apr2015, 13:06	2.25
SHB_024	0.005	3.6	01Apr2015, 12:23	2.44
J_SHB_024	0.166	51.5	01Apr2015, 13:04	2.25
R_SHB_022	0.166	50.3	01Apr2015, 13:17	2.25
SHB_022	0.044	16.8	01Apr2015, 13:06	2.9
SHB_501	0.005	5.2	01Apr2015, 12:15	2.89
J_SHB_022	0.416	132.4	01Apr2015, 13:07	2.31
R_SHB_020	0.416	125.4	01Apr2015, 13:30	2.31
SHB_020	0.037	25.9	01Apr2015, 12:25	2.53
J_SHB_020	0.453	136.6	01Apr2015, 13:25	2.33
R_SHB_018	0.453	135.3	01Apr2015, 13:35	2.33
SHB_018	0.108	19.4	01Apr2015, 14:00	2.1
J_SHB_018	0.561	153.6	01Apr2015, 13:38	2.28
R_SHB_016	0.561	153.2	01Apr2015, 13:43	2.28
SHB_213	0.043	20.2	01Apr2015, 12:48	2.77
SHB_211	0.023	16.1	01Apr2015, 12:26	2.62
J_SHB_211	0.066	34.3	01Apr2015, 12:39	2.72
R_SHB_209	0.066	34.2	01Apr2015, 12:46	2.72
SHB_209	0.059	35.6	01Apr2015, 12:30	2.43
J_SHB_209	0.125	67.6	01Apr2015, 12:38	2.58
R_SHB_207	0.125	67.5	01Apr2015, 12:43	2.58

SHB_207	0.053	35.5	01Apr2015, 12:30	2.76
J_SHB_207	0.178	101.3	01Apr2015, 12:38	2.63
R_SHB_205	0.178	101.2	01Apr2015, 12:42	2.63
SHB_221	0.059	71.9	01Apr2015, 12:11	2.69
SHB_223	0.05	41.5	01Apr2015, 12:17	2.36
J_SHB_221	0.109	110.6	01Apr2015, 12:12	2.54
R_SHB_220	0.109	110.4	01Apr2015, 12:15	2.54
SHB_205	0.022	21.9	01Apr2015, 12:12	2.41
SHB_220	0.021	9.9	01Apr2015, 12:41	2.41
J_SHB_220	0.33	206	01Apr2015, 12:27	2.57
R_SHB_203	0.33	205.4	01Apr2015, 12:30	2.57
SHB_203	0.016	9.4	01Apr2015, 12:29	2.3
J_SHB_203	0.346	214.7	01Apr2015, 12:30	2.56
R_SHB_201	0.346	214	01Apr2015, 12:40	2.56
SHB_201	0.111	129.8	01Apr2015, 12:11	2.57
SHB_016	0.006	2.3	01Apr2015, 12:45	2.12
J_SHB_016	1.024	352.7	01Apr2015, 12:37	2.41
R_SHB_014	1.024	332.1	01Apr2015, 12:58	2.41
SHB_014	0.114	64.6	01Apr2015, 12:23	1.87
J_SHB_014	1.138	374.3	01Apr2015, 12:51	2.35
R_SHB_012	1.138	334.8	01Apr2015, 13:26	2.35
SHB_108	0.065	45.7	01Apr2015, 12:28	2.77
J_SHB_108	0.065	45.7	01Apr2015, 12:28	2.77
R_SHB_107	0.065	45.7	01Apr2015, 12:28	2.77
SHB_105	0.056	32.6	01Apr2015, 12:41	3.1
J_SHB_105	0.056	32.6	01Apr2015, 12:41	3.1
R_SHB_104	0.056	32.6	01Apr2015, 12:59	3.1
SHB_104	0.053	49.6	01Apr2015, 12:16	2.68
SHB_107	0.017	19.4	01Apr2015, 12:11	2.51
J_SHB_104	0.191	120.9	01Apr2015, 12:24	2.82
R_SHB_103	0.191	120.9	01Apr2015, 12:24	2.82
SHB_103	0.013	8.2	01Apr2015, 12:22	2.06
Reservoir-SHB_103	0.204	128	01Apr2015, 12:28	2.77
R_SHB_102	0.204	127.5	01Apr2015, 12:42	2.77
SHB_102	0.033	28	01Apr2015, 12:13	2.06
J_SHB_102	0.237	143	01Apr2015, 12:38	2.67
R_SHB_101	0.237	142.1	01Apr2015, 12:55	2.67
SHB_012	0.025	20.9	01Apr2015, 12:12	1.97
SHB_101	0.005	4.6	01Apr2015, 12:12	2.16
J_SHB_012	1.405	462.1	01Apr2015, 13:09	2.4
R_SHB_010	1.405	381	01Apr2015, 14:00	2.4
SHB_007	0.098	59.5	01Apr2015, 12:21	1.91
SHB_005	0.023	10.8	01Apr2015, 12:31	1.89
J_SHB_005	0.023	10.8	01Apr2015, 12:31	1.89
R_SHB_004	0.023	10.8	01Apr2015, 12:38	1.89
SHB_004	0.02	21	01Apr2015, 12:11	2.3
J_SHB_004	0.141	84.4	01Apr2015, 12:21	1.96

R_SHB_003	0.141	84.4	01Apr2015, 12:24	1.96
SHB_003	0.033	16.7	01Apr2015, 12:36	2.33
J_SHB_003	0.174	99.6	01Apr2015, 12:26	2.03
R_SHB_002	0.174	99.6	01Apr2015, 12:26	2.03
SHB_002	0.004	3.5	01Apr2015, 12:13	2.16
Reservoir-SHB_002	0.178	77.8	01Apr2015, 12:49	1.94
R_SHB_001	0.178	69.8	01Apr2015, 12:49	1.79
SHB_010	0.018	8.7	01Apr2015, 12:35	2.16
SHB_001	0.003	0.6	01Apr2015, 13:48	2.16
OUT_SHB_001	1.604	425.2	01Apr2015, 13:57	2.33

Project: Schoolhouse Branch

Simulation Run: 10YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	46.4	01Apr2015, 12:40	3.84
SHB_507	0.057	23.4	01Apr2015, 13:35	4.04
J_SHB_507	0.057	23.4	01Apr2015, 13:35	4.04
R_SHB_505	0.057	23.4	01Apr2015, 13:40	4.04
J_SHB_505	0.118	59.7	01Apr2015, 12:54	3.94
R_SHB_503	0.118	59.7	01Apr2015, 13:00	3.94
SHB_503	0.083	64.5	01Apr2015, 12:44	4.29
J_SHB_503	0.201	122.6	01Apr2015, 12:50	4.08
R_SHB_501	0.201	120.8	01Apr2015, 12:59	4.08
SHB_028	0.103	61.6	01Apr2015, 13:01	4.19
SHB_030	0.028	10.2	01Apr2015, 13:35	3.56
J_SHB_030	0.028	10.2	01Apr2015, 13:35	3.56
R_SHB_028	0.028	10	01Apr2015, 13:49	3.56
J_SHB_028	0.131	68.9	01Apr2015, 13:06	4.05
R_SHB_026	0.131	68.6	01Apr2015, 13:12	4.05
SHB_026	0.03	29	01Apr2015, 12:34	4.42
J_SHB_026	0.161	91	01Apr2015, 13:02	4.12
R_SHB_024	0.161	90.9	01Apr2015, 13:05	4.12
SHB_024	0.005	6.3	01Apr2015, 12:23	4.37
J_SHB_024	0.166	94.4	01Apr2015, 13:03	4.13
R_SHB_022	0.166	92.2	01Apr2015, 13:15	4.13
SHB_022	0.044	28.2	01Apr2015, 13:05	4.89
SHB_501	0.005	8.7	01Apr2015, 12:15	4.88
J_SHB_022	0.416	241.5	01Apr2015, 13:06	4.2
R_SHB_020	0.416	232.8	01Apr2015, 13:23	4.2
SHB_020	0.037	45.2	01Apr2015, 12:25	4.48
J_SHB_020	0.453	253.5	01Apr2015, 13:19	4.22
R_SHB_018	0.453	252.8	01Apr2015, 13:24	4.22
SHB_018	0.108	37.1	01Apr2015, 13:56	3.95
J_SHB_018	0.561	286	01Apr2015, 13:27	4.17
R_SHB_016	0.561	284.8	01Apr2015, 13:33	4.17
SHB_213	0.043	34.2	01Apr2015, 12:47	4.75
SHB_211	0.023	27.7	01Apr2015, 12:26	4.57
J_SHB_211	0.066	58.5	01Apr2015, 12:38	4.69
R_SHB_209	0.066	58.4	01Apr2015, 12:45	4.69
SHB_209	0.059	63.2	01Apr2015, 12:29	4.35
J_SHB_209	0.125	118.1	01Apr2015, 12:36	4.53
R_SHB_207	0.125	117.9	01Apr2015, 12:42	4.53



SHB_207	0.053	60	01Apr2015, 12:29	4.74
J_SHB_207	0.178	175.1	01Apr2015, 12:37	4.59
R_SHB_205	0.178	175	01Apr2015, 12:42	4.59
SHB_221	0.059	121.9	01Apr2015, 12:10	4.66
SHB_223	0.05	74.2	01Apr2015, 12:16	4.27
J_SHB_221	0.109	191.6	01Apr2015, 12:12	4.48
R_SHB_220	0.109	190.9	01Apr2015, 12:15	4.48
SHB_205	0.022	38.8	01Apr2015, 12:12	4.32
SHB_220	0.021	17.7	01Apr2015, 12:40	4.32
J_SHB_220	0.33	354.8	01Apr2015, 12:26	4.52
R_SHB_203	0.33	354.1	01Apr2015, 12:30	4.52
SHB_203	0.016	17.1	01Apr2015, 12:28	4.19
J_SHB_203	0.346	371.1	01Apr2015, 12:30	4.5
R_SHB_201	0.346	370	01Apr2015, 12:39	4.5
SHB_201	0.111	224	01Apr2015, 12:10	4.52
SHB_016	0.006	4.4	01Apr2015, 12:43	3.97
J_SHB_016	1.024	624.3	01Apr2015, 12:34	4.32
R_SHB_014	1.024	593.9	01Apr2015, 12:55	4.32
SHB_014	0.114	127.6	01Apr2015, 12:21	3.64
J_SHB_014	1.138	678.2	01Apr2015, 12:48	4.25
R_SHB_012	1.138	622.2	01Apr2015, 13:19	4.25
SHB_108	0.065	77.1	01Apr2015, 12:27	4.75
J_SHB_108	0.065	77.1	01Apr2015, 12:27	4.75
R_SHB_107	0.065	77.1	01Apr2015, 12:27	4.75
SHB_105	0.056	52.9	01Apr2015, 12:40	5.12
J_SHB_105	0.056	52.9	01Apr2015, 12:40	5.12
R_SHB_104	0.056	52.9	01Apr2015, 12:58	5.12
SHB_104	0.053	84.4	01Apr2015, 12:16	4.65
SHB_107	0.017	33.8	01Apr2015, 12:10	4.44
J_SHB_104	0.191	204.5	01Apr2015, 12:23	4.8
R_SHB_103	0.191	204.5	01Apr2015, 12:23	4.8
SHB_103	0.013	15.5	01Apr2015, 12:21	3.88
Reservoir-SHB_103	0.204	218.3	01Apr2015, 12:27	4.74
R_SHB_102	0.204	217.2	01Apr2015, 12:41	4.74
SHB_102	0.033	53	01Apr2015, 12:12	3.89
J_SHB_102	0.237	246	01Apr2015, 12:37	4.62
R_SHB_101	0.237	244.2	01Apr2015, 12:54	4.62
SHB_012	0.025	40.2	01Apr2015, 12:12	3.77
SHB_101	0.005	8.5	01Apr2015, 12:12	4.02
J_SHB_012	1.405	850.5	01Apr2015, 13:06	4.3
R_SHB_010	1.405	699.4	01Apr2015, 13:55	4.3
SHB_007	0.098	116.3	01Apr2015, 12:20	3.7
SHB_005	0.023	21.3	01Apr2015, 12:29	3.67
J_SHB_005	0.023	21.3	01Apr2015, 12:29	3.67
R_SHB_004	0.023	21.2	01Apr2015, 12:36	3.67
SHB_004	0.02	37.9	01Apr2015, 12:10	4.19
J_SHB_004	0.141	163.7	01Apr2015, 12:20	3.76

R_SHB_003	0.141	163.6	01Apr2015, 12:23	3.76
SHB_003	0.033	30.2	01Apr2015, 12:35	4.23
J_SHB_003	0.174	190.9	01Apr2015, 12:25	3.85
R_SHB_002	0.174	190.9	01Apr2015, 12:25	3.85
SHB_002	0.004	6.4	01Apr2015, 12:13	4.02
Reservoir-SHB_002	0.178	196.2	01Apr2015, 12:25	3.76
R_SHB_001	0.178	181.9	01Apr2015, 12:26	3.61
SHB_010	0.018	16.3	01Apr2015, 12:34	4.02
SHB_001	0.003	1.1	01Apr2015, 13:45	4.02
OUT_SHB_001	1.604	762.5	01Apr2015, 13:48	4.22

Project: Schoolhouse Branch

Simulation Run: 25YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	62.3	01Apr2015, 12:40	5.17
SHB_507	0.057	31.2	01Apr2015, 13:34	5.38
J_SHB_507	0.057	31.2	01Apr2015, 13:34	5.38
R_SHB_505	0.057	31.2	01Apr2015, 13:39	5.38
J_SHB_505	0.118	80.4	01Apr2015, 12:52	5.27
R_SHB_503	0.118	80.4	01Apr2015, 12:59	5.27
SHB_503	0.083	84.6	01Apr2015, 12:44	5.66
J_SHB_503	0.201	163.1	01Apr2015, 12:49	5.43
R_SHB_501	0.201	160.5	01Apr2015, 12:58	5.42
SHB_028	0.103	81.4	01Apr2015, 13:00	5.54
SHB_030	0.028	14	01Apr2015, 13:34	4.85
J_SHB_030	0.028	14	01Apr2015, 13:34	4.85
R_SHB_028	0.028	13.8	01Apr2015, 13:47	4.85
J_SHB_028	0.131	91.5	01Apr2015, 13:05	5.39
R_SHB_026	0.131	91.1	01Apr2015, 13:11	5.39
SHB_026	0.03	37.7	01Apr2015, 12:34	5.79
J_SHB_026	0.161	120.2	01Apr2015, 13:02	5.47
R_SHB_024	0.161	120.1	01Apr2015, 13:04	5.47
SHB_024	0.005	8.2	01Apr2015, 12:22	5.74
J_SHB_024	0.166	124.6	01Apr2015, 13:03	5.48
R_SHB_022	0.166	121.8	01Apr2015, 13:15	5.48
SHB_022	0.044	36	01Apr2015, 13:05	6.29
SHB_501	0.005	11	01Apr2015, 12:15	6.28
J_SHB_022	0.416	318.4	01Apr2015, 13:05	5.55
R_SHB_020	0.416	309.5	01Apr2015, 13:20	5.55
SHB_020	0.037	58.6	01Apr2015, 12:24	5.85
J_SHB_020	0.453	337.5	01Apr2015, 13:15	5.57
R_SHB_018	0.453	336.6	01Apr2015, 13:20	5.57
SHB_018	0.108	49.9	01Apr2015, 13:55	5.28
J_SHB_018	0.561	380.3	01Apr2015, 13:24	5.52
R_SHB_016	0.561	379	01Apr2015, 13:29	5.52
SHB_213	0.043	43.9	01Apr2015, 12:47	6.14
SHB_211	0.023	35.8	01Apr2015, 12:25	5.96
J_SHB_211	0.066	75.2	01Apr2015, 12:38	6.08
R_SHB_209	0.066	75	01Apr2015, 12:46	6.08
SHB_209	0.059	82.4	01Apr2015, 12:29	5.71
J_SHB_209	0.125	152.2	01Apr2015, 12:37	5.91
R_SHB_207	0.125	152	01Apr2015, 12:42	5.9

SHB_207	0.053	76.9	01Apr2015, 12:29	6.13
J_SHB_207	0.178	224.9	01Apr2015, 12:37	5.97
R_SHB_205	0.178	224.6	01Apr2015, 12:42	5.97
SHB_221	0.059	156.3	01Apr2015, 12:10	6.05
SHB_223	0.05	97	01Apr2015, 12:16	5.63
J_SHB_221	0.109	247.5	01Apr2015, 12:12	5.86
R_SHB_220	0.109	246.5	01Apr2015, 12:15	5.86
SHB_205	0.022	50.5	01Apr2015, 12:12	5.69
SHB_220	0.021	23.1	01Apr2015, 12:40	5.69
J_SHB_220	0.33	458.7	01Apr2015, 12:27	5.9
R_SHB_203	0.33	457.6	01Apr2015, 12:30	5.9
SHB_203	0.016	22.4	01Apr2015, 12:28	5.54
J_SHB_203	0.346	479.9	01Apr2015, 12:30	5.88
R_SHB_201	0.346	478.3	01Apr2015, 12:39	5.88
SHB_201	0.111	288.9	01Apr2015, 12:10	5.9
SHB_016	0.006	5.9	01Apr2015, 12:43	5.3
J_SHB_016	1.024	813.9	01Apr2015, 12:35	5.68
R_SHB_014	1.024	787.6	01Apr2015, 12:59	5.68
SHB_014	0.114	172.9	01Apr2015, 12:21	4.94
J_SHB_014	1.138	894.5	01Apr2015, 12:50	5.6
R_SHB_012	1.138	835.5	01Apr2015, 13:17	5.6
SHB_108	0.065	98.7	01Apr2015, 12:27	6.14
J_SHB_108	0.065	98.7	01Apr2015, 12:27	6.14
R_SHB_107	0.065	98.7	01Apr2015, 12:27	6.14
SHB_105	0.056	66.8	01Apr2015, 12:40	6.53
J_SHB_105	0.056	66.8	01Apr2015, 12:40	6.53
R_SHB_104	0.056	66.8	01Apr2015, 12:58	6.53
SHB_104	0.053	108.4	01Apr2015, 12:16	6.04
SHB_107	0.017	43.8	01Apr2015, 12:10	5.82
J_SHB_104	0.191	262	01Apr2015, 12:23	6.2
R_SHB_103	0.191	262	01Apr2015, 12:23	6.2
SHB_103	0.013	20.7	01Apr2015, 12:21	5.21
Reservoir-SHB_103	0.204	280.7	01Apr2015, 12:26	6.13
R_SHB_102	0.204	279.1	01Apr2015, 12:41	6.13
SHB_102	0.033	70.6	01Apr2015, 12:12	5.22
J_SHB_102	0.237	317.6	01Apr2015, 12:37	6.01
R_SHB_101	0.237	315	01Apr2015, 12:53	6
SHB_012	0.025	53.9	01Apr2015, 12:12	5.09
SHB_101	0.005	11.3	01Apr2015, 12:12	5.36
J_SHB_012	1.405	1132.7	01Apr2015, 13:04	5.66
R_SHB_010	1.405	932.9	01Apr2015, 13:52	5.66
SHB_007	0.098	156.9	01Apr2015, 12:19	5.01
SHB_005	0.023	28.8	01Apr2015, 12:29	4.97
J_SHB_005	0.023	28.8	01Apr2015, 12:29	4.97
R_SHB_004	0.023	28.7	01Apr2015, 12:35	4.97
SHB_004	0.02	49.6	01Apr2015, 12:10	5.54
J_SHB_004	0.141	220.3	01Apr2015, 12:19	5.08

R_SHB_003	0.141	220.2	01Apr2015, 12:22	5.08
SHB_003	0.033	39.6	01Apr2015, 12:35	5.59
J_SHB_003	0.174	255.7	01Apr2015, 12:24	5.17
R_SHB_002	0.174	255.7	01Apr2015, 12:24	5.17
SHB_002	0.004	8.5	01Apr2015, 12:13	5.36
Reservoir-SHB_002	0.178	262.8	01Apr2015, 12:25	5.09
R_SHB_001	0.178	245.1	01Apr2015, 12:25	4.9
SHB_010	0.018	21.6	01Apr2015, 12:33	5.36
SHB_001	0.003	1.5	01Apr2015, 13:44	5.36
OUT_SHB_001	1.604	1017.7	01Apr2015, 13:45	5.57

Project: Schoolhouse Branch

Simulation Run: 50YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	76.2	01Apr2015, 12:39	6.34
SHB_507	0.057	38.1	01Apr2015, 13:34	6.57
J_SHB_507	0.057	38.1	01Apr2015, 13:34	6.57
R_SHB_505	0.057	38.1	01Apr2015, 13:38	6.57
J_SHB_505	0.118	98.6	01Apr2015, 12:51	6.45
R_SHB_503	0.118	98.6	01Apr2015, 12:59	6.45
SHB_503	0.083	102	01Apr2015, 12:43	6.86
J_SHB_503	0.201	198.2	01Apr2015, 12:49	6.62
R_SHB_501	0.201	195	01Apr2015, 12:58	6.62
SHB_028	0.103	98.7	01Apr2015, 13:00	6.74
SHB_030	0.028	17.3	01Apr2015, 13:33	6.01
J_SHB_030	0.028	17.3	01Apr2015, 13:33	6.01
R_SHB_028	0.028	17.1	01Apr2015, 13:47	6.01
J_SHB_028	0.131	111.3	01Apr2015, 13:05	6.58
R_SHB_026	0.131	110.8	01Apr2015, 13:11	6.58
SHB_026	0.03	45.3	01Apr2015, 12:34	7
J_SHB_026	0.161	145.8	01Apr2015, 13:02	6.66
R_SHB_024	0.161	145.6	01Apr2015, 13:04	6.66
SHB_024	0.005	9.8	01Apr2015, 12:22	6.94
J_SHB_024	0.166	151.1	01Apr2015, 13:02	6.67
R_SHB_022	0.166	147.7	01Apr2015, 13:15	6.67
SHB_022	0.044	42.8	01Apr2015, 13:05	7.52
SHB_501	0.005	13.1	01Apr2015, 12:14	7.51
J_SHB_022	0.416	385.6	01Apr2015, 13:05	6.74
R_SHB_020	0.416	375.5	01Apr2015, 13:19	6.74
SHB_020	0.037	70.2	01Apr2015, 12:24	7.06
J_SHB_020	0.453	409.3	01Apr2015, 13:14	6.77
R_SHB_018	0.453	408.3	01Apr2015, 13:19	6.77
SHB_018	0.108	61.1	01Apr2015, 13:54	6.46
J_SHB_018	0.561	461.8	01Apr2015, 13:23	6.71
R_SHB_016	0.561	460.3	01Apr2015, 13:28	6.71
SHB_213	0.043	52.4	01Apr2015, 12:47	7.36
SHB_211	0.023	42.7	01Apr2015, 12:25	7.17
J_SHB_211	0.066	89.7	01Apr2015, 12:38	7.3
R_SHB_209	0.066	89.4	01Apr2015, 12:46	7.3
SHB_209	0.059	99.1	01Apr2015, 12:29	6.92
J_SHB_209	0.125	181.9	01Apr2015, 12:37	7.12
R_SHB_207	0.125	181.6	01Apr2015, 12:42	7.12

SHB_207	0.053	91.5	01Apr2015, 12:29	7.35
J_SHB_207	0.178	268.2	01Apr2015, 12:38	7.19
R_SHB_205	0.178	267.9	01Apr2015, 12:42	7.19
SHB_221	0.059	186	01Apr2015, 12:10	7.27
SHB_223	0.05	116.9	01Apr2015, 12:16	6.84
J_SHB_221	0.109	296.1	01Apr2015, 12:12	7.07
R_SHB_220	0.109	294.8	01Apr2015, 12:15	7.07
SHB_205	0.022	60.7	01Apr2015, 12:12	6.9
SHB_220	0.021	27.8	01Apr2015, 12:39	6.9
J_SHB_220	0.33	548.6	01Apr2015, 12:26	7.11
R_SHB_203	0.33	547	01Apr2015, 12:30	7.11
SHB_203	0.016	27.1	01Apr2015, 12:28	6.74
J_SHB_203	0.346	574	01Apr2015, 12:30	7.09
R_SHB_201	0.346	572.1	01Apr2015, 12:38	7.09
SHB_201	0.111	345.2	01Apr2015, 12:10	7.11
SHB_016	0.006	7.2	01Apr2015, 12:43	6.49
J_SHB_016	1.024	994.7	01Apr2015, 12:42	6.88
R_SHB_014	1.024	959.5	01Apr2015, 12:58	6.88
SHB_014	0.114	212.7	01Apr2015, 12:21	6.1
J_SHB_014	1.138	1090.8	01Apr2015, 12:50	6.8
R_SHB_012	1.138	1022.6	01Apr2015, 13:14	6.8
SHB_108	0.065	117.4	01Apr2015, 12:27	7.36
J_SHB_108	0.065	117.4	01Apr2015, 12:27	7.36
R_SHB_107	0.065	117.4	01Apr2015, 12:27	7.36
SHB_105	0.056	78.9	01Apr2015, 12:40	7.76
J_SHB_105	0.056	78.9	01Apr2015, 12:40	7.76
R_SHB_104	0.056	78.9	01Apr2015, 12:58	7.76
SHB_104	0.053	129.2	01Apr2015, 12:16	7.26
SHB_107	0.017	52.5	01Apr2015, 12:10	7.03
J_SHB_104	0.191	311.9	01Apr2015, 12:22	7.42
R_SHB_103	0.191	311.9	01Apr2015, 12:22	7.42
SHB_103	0.013	25.3	01Apr2015, 12:20	6.39
Reservoir-SHB_103	0.204	335	01Apr2015, 12:26	7.36
R_SHB_102	0.204	333.1	01Apr2015, 12:40	7.35
SHB_102	0.033	86	01Apr2015, 12:12	6.4
J_SHB_102	0.237	380.6	01Apr2015, 12:36	7.22
R_SHB_101	0.237	377.2	01Apr2015, 12:52	7.22
SHB_012	0.025	65.9	01Apr2015, 12:12	6.26
SHB_101	0.005	13.7	01Apr2015, 12:12	6.55
J_SHB_012	1.405	1377.6	01Apr2015, 13:04	6.86
R_SHB_010	1.405	1144.7	01Apr2015, 13:49	6.86
SHB_007	0.098	192.7	01Apr2015, 12:19	6.17
SHB_005	0.023	35.4	01Apr2015, 12:29	6.14
J_SHB_005	0.023	35.4	01Apr2015, 12:29	6.14
R_SHB_004	0.023	35.4	01Apr2015, 12:34	6.14
SHB_004	0.02	59.9	01Apr2015, 12:10	6.74
J_SHB_004	0.141	270	01Apr2015, 12:19	6.25

R_SHB_003	0.141	269.9	01Apr2015, 12:22	6.25
SHB_003	0.033	47.9	01Apr2015, 12:34	6.79
J_SHB_003	0.174	313	01Apr2015, 12:24	6.35
R_SHB_002	0.174	313	01Apr2015, 12:24	6.35
SHB_002	0.004	10.3	01Apr2015, 12:13	6.55
Reservoir-SHB_002	0.178	321.7	01Apr2015, 12:25	6.26
R_SHB_001	0.178	299.7	01Apr2015, 12:25	5.85
SHB_010	0.018	26.3	01Apr2015, 12:33	6.55
SHB_001	0.003	1.8	01Apr2015, 13:43	6.55
OUT_SHB_001	1.604	1248.9	01Apr2015, 13:43	6.75



Project: Schoolhouse Branch

Simulation Run: 100YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	91.7	01Apr2015, 12:39	7.66
SHB_507	0.057	45.7	01Apr2015, 13:33	7.9
J_SHB_507	0.057	45.7	01Apr2015, 13:33	7.9
R_SHB_505	0.057	45.7	01Apr2015, 13:38	7.9
J_SHB_505	0.118	118.8	01Apr2015, 12:51	7.77
R_SHB_503	0.118	118.8	01Apr2015, 12:59	7.77
SHB_503	0.083	121.3	01Apr2015, 12:43	8.2
J_SHB_503	0.201	237	01Apr2015, 12:49	7.95
R_SHB_501	0.201	233.1	01Apr2015, 12:58	7.94
SHB_028	0.103	117.8	01Apr2015, 12:59	8.07
SHB_030	0.028	21.1	01Apr2015, 13:32	7.3
J_SHB_030	0.028	21.1	01Apr2015, 13:32	7.3
R_SHB_028	0.028	20.8	01Apr2015, 13:46	7.3
J_SHB_028	0.131	133.2	01Apr2015, 13:04	7.91
R_SHB_026	0.131	132.7	01Apr2015, 13:10	7.91
SHB_026	0.03	53.6	01Apr2015, 12:34	8.35
J_SHB_026	0.161	174	01Apr2015, 13:01	7.99
R_SHB_024	0.161	173.9	01Apr2015, 13:04	7.99
SHB_024	0.005	11.7	01Apr2015, 12:22	8.29
J_SHB_024	0.166	180.4	01Apr2015, 13:02	8
R_SHB_022	0.166	176.2	01Apr2015, 13:14	8
SHB_022	0.044	50.2	01Apr2015, 13:05	8.88
SHB_501	0.005	15.3	01Apr2015, 12:14	8.87
J_SHB_022	0.416	459.8	01Apr2015, 13:05	8.08
R_SHB_020	0.416	448.1	01Apr2015, 13:19	8.08
SHB_020	0.037	82.9	01Apr2015, 12:24	8.41
J_SHB_020	0.453	488.2	01Apr2015, 13:14	8.1
R_SHB_018	0.453	487	01Apr2015, 13:18	8.1
SHB_018	0.108	73.6	01Apr2015, 13:54	7.79
J_SHB_018	0.561	551.5	01Apr2015, 13:22	8.04
R_SHB_016	0.561	549.9	01Apr2015, 13:27	8.04
SHB_213	0.043	61.6	01Apr2015, 12:47	8.72
SHB_211	0.023	50.4	01Apr2015, 12:25	8.52
J_SHB_211	0.066	105.6	01Apr2015, 12:38	8.65
R_SHB_209	0.066	105.2	01Apr2015, 12:46	8.65
SHB_209	0.059	117.5	01Apr2015, 12:28	8.26
J_SHB_209	0.125	214.7	01Apr2015, 12:37	8.47
R_SHB_207	0.125	214.3	01Apr2015, 12:42	8.47

SHB_207	0.053	107.6	01Apr2015, 12:29	8.71
J_SHB_207	0.178	315.9	01Apr2015, 12:38	8.54
R_SHB_205	0.178	315.5	01Apr2015, 12:43	8.54
SHB_221	0.059	218.8	01Apr2015, 12:10	8.62
SHB_223	0.05	138.7	01Apr2015, 12:16	8.17
J_SHB_221	0.109	349.4	01Apr2015, 12:12	8.42
R_SHB_220	0.109	347.8	01Apr2015, 12:15	8.42
SHB_205	0.022	71.9	01Apr2015, 12:12	8.24
SHB_220	0.021	33.1	01Apr2015, 12:39	8.24
J_SHB_220	0.33	646.7	01Apr2015, 12:26	8.46
R_SHB_203	0.33	644.7	01Apr2015, 12:30	8.46
SHB_203	0.016	32.2	01Apr2015, 12:27	8.07
J_SHB_203	0.346	676.8	01Apr2015, 12:30	8.44
R_SHB_201	0.346	674.1	01Apr2015, 12:39	8.44
SHB_201	0.111	407.1	01Apr2015, 12:10	8.46
SHB_016	0.006	8.6	01Apr2015, 12:42	7.81
J_SHB_016	1.024	1194	01Apr2015, 12:42	8.22
R_SHB_014	1.024	1152.1	01Apr2015, 12:56	8.22
SHB_014	0.114	256.8	01Apr2015, 12:20	7.41
J_SHB_014	1.138	1314.3	01Apr2015, 12:49	8.14
R_SHB_012	1.138	1239.3	01Apr2015, 13:10	8.14
SHB_108	0.065	138	01Apr2015, 12:27	8.72
J_SHB_108	0.065	138	01Apr2015, 12:27	8.72
R_SHB_107	0.065	138	01Apr2015, 12:27	8.72
SHB_105	0.056	92.2	01Apr2015, 12:40	9.13
J_SHB_105	0.056	92.2	01Apr2015, 12:40	9.13
R_SHB_104	0.056	92.2	01Apr2015, 12:58	9.13
SHB_104	0.053	152	01Apr2015, 12:16	8.61
SHB_107	0.017	62	01Apr2015, 12:10	8.37
J_SHB_104	0.191	366.8	01Apr2015, 12:22	8.78
R_SHB_103	0.191	366.8	01Apr2015, 12:22	8.78
SHB_103	0.013	30.3	01Apr2015, 12:20	7.71
Reservoir-SHB_103	0.204	394.8	01Apr2015, 12:25	8.71
R_SHB_102	0.204	392.4	01Apr2015, 12:39	8.71
SHB_102	0.033	103	01Apr2015, 12:12	7.72
J_SHB_102	0.237	450.2	01Apr2015, 12:35	8.57
R_SHB_101	0.237	446.1	01Apr2015, 12:51	8.57
SHB_012	0.025	79.2	01Apr2015, 12:12	7.57
SHB_101	0.005	16.3	01Apr2015, 12:12	7.87
J_SHB_012	1.405	1671.3	01Apr2015, 13:01	8.2
R_SHB_010	1.405	1380.7	01Apr2015, 13:45	8.2
SHB_007	0.098	232.2	01Apr2015, 12:19	7.48
SHB_005	0.023	42.7	01Apr2015, 12:28	7.44
J_SHB_005	0.023	42.7	01Apr2015, 12:28	7.44
R_SHB_004	0.023	42.7	01Apr2015, 12:33	7.44
SHB_004	0.02	71.1	01Apr2015, 12:10	8.07
J_SHB_004	0.141	325.1	01Apr2015, 12:19	7.56

R_SHB_003	0.141	324.9	01Apr2015, 12:22	7.56
SHB_003	0.033	56.9	01Apr2015, 12:34	8.12
J_SHB_003	0.174	376.2	01Apr2015, 12:24	7.67
R_SHB_002	0.174	376.2	01Apr2015, 12:24	7.67
SHB_002	0.004	12.3	01Apr2015, 12:13	7.87
Reservoir-SHB_002	0.178	386.6	01Apr2015, 12:24	7.58
R_SHB_001	0.178	363.8	01Apr2015, 12:24	7.31
SHB_010	0.018	31.5	01Apr2015, 12:33	7.87
SHB_001	0.003	2.2	01Apr2015, 13:43	7.87
OUT_SHB_001	1.604	1512.7	01Apr2015, 13:38	8.1

Project: SainsBranch

Simulation Run: 2YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	22.1	01Apr2015, 15:28	2.11
J_SB1_1021	0.186	22.1	01Apr2015, 15:28	2.11
R_SB1_1020	0.186	22.1	01Apr2015, 15:28	2.11
SB1_1011	0.118	14.4	01Apr2015, 15:16	2.08
J_SB1_1011	0.118	14.4	01Apr2015, 15:16	2.08
R_SB1_1010	0.118	14.4	01Apr2015, 15:19	2.08
SB1_1010	0.028	7.4	01Apr2015, 13:08	1.99
SB1_1020	0.013	5.5	01Apr2015, 12:37	1.96
J_SB1_1010	0.345	42.4	01Apr2015, 15:11	2.08
SB1_1110	0.146	15.1	01Apr2015, 16:12	2.12
J_SB1_1110	0.146	15.1	01Apr2015, 16:12	2.12
R_SB1_1000	0.345	42.4	01Apr2015, 15:14	2.08
R_SB1_1100	0.146	15.1	01Apr2015, 16:16	2.12
SB1_1300	0.083	12.2	01Apr2015, 14:10	1.84
J_SB1_1300	0.083	12.2	01Apr2015, 14:10	1.84
R_SB1_1200	0.083	12.2	01Apr2015, 14:12	1.84
SB1_1200	0.05	7.6	01Apr2015, 13:23	1.36
SB1_1100	0.032	6.7	01Apr2015, 13:28	1.94
J_SB1_1100	0.311	35.7	01Apr2015, 15:12	1.9
R_SB1_900	0.311	35.7	01Apr2015, 15:23	1.9
SB1_900	0.094	15.8	01Apr2015, 13:26	1.54
SB1_1000	0.066	15	01Apr2015, 12:39	1.12
J_SB1_900	0.816	95.3	01Apr2015, 14:59	1.87
R_SB1_800	0.816	95.1	01Apr2015, 15:08	1.87
SB1_800	0.095	6.8	01Apr2015, 15:45	1.29
J_SB1_800	0.911	101.8	01Apr2015, 15:10	1.81
R_SB1_700	0.911	101.8	01Apr2015, 15:11	1.81
SB1_610	0.044	3.7	01Apr2015, 13:40	0.9
J_SB1_610	0.044	3.7	01Apr2015, 13:40	0.9
R_SB1_600	0.044	3.7	01Apr2015, 13:40	0.9
SB1_700	0.02	4.6	01Apr2015, 13:15	1.88
SB1_600	0.013	1.9	01Apr2015, 12:41	0.8
J_SB1_600	0.988	108.9	01Apr2015, 15:06	1.76
R_SB1_500	0.988	108.9	01Apr2015, 15:09	1.76
SB1_500	0.06	9.2	01Apr2015, 13:04	1.14
J_SB1_500	1.048	114.6	01Apr2015, 15:03	1.73
R_SB1_400	1.048	114.6	01Apr2015, 15:09	1.73
SB1_400	0.055	11.6	01Apr2015, 12:37	1.01

SB1_310	0.038	6.1	01Apr2015, 13:14	1.31
J_SB1_310	0.038	6.1	01Apr2015, 13:14	1.31
R_SB1_300	0.038	6.1	01Apr2015, 13:21	1.31
SB1_300	0.024	5.3	01Apr2015, 12:53	1.38
J_SB1_300	1.165	125.4	01Apr2015, 14:56	1.67
R_SB1_200	1.165	125.4	01Apr2015, 14:59	1.67
SB1_200	0.02	6.4	01Apr2015, 12:30	1.25
J_SB1_200	1.185	126.9	01Apr2015, 14:56	1.66
R_SB1_100	1.185	126.9	01Apr2015, 14:58	1.66
SB1_100	0.004	0.5	01Apr2015, 13:03	0.93
OUT_SB1_100	1.189	127.3	01Apr2015, 14:58	1.66

Project: SainsBranch

Simulation Run: 10YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	42.1	01Apr2015, 15:21	3.95
J_SB1_1021	0.186	42.1	01Apr2015, 15:21	3.95
R_SB1_1020	0.186	42.1	01Apr2015, 15:21	3.95
SB1_1011	0.118	27.8	01Apr2015, 15:09	3.91
J_SB1_1011	0.118	27.8	01Apr2015, 15:09	3.91
R_SB1_1010	0.118	27.8	01Apr2015, 15:12	3.91
SB1_1010	0.028	14.4	01Apr2015, 13:06	3.8
SB1_1020	0.013	10.8	01Apr2015, 12:35	3.76
J_SB1_1010	0.345	81	01Apr2015, 15:06	3.92
SB1_1110	0.146	28.7	01Apr2015, 16:03	3.96
J_SB1_1110	0.146	28.7	01Apr2015, 16:03	3.96
R_SB1_1000	0.345	81	01Apr2015, 15:09	3.92
R_SB1_1100	0.146	28.7	01Apr2015, 16:07	3.96
SB1_1300	0.083	24.8	01Apr2015, 14:04	3.6
J_SB1_1300	0.083	24.8	01Apr2015, 14:04	3.6
R_SB1_1200	0.083	24.8	01Apr2015, 14:07	3.6
SB1_1200	0.05	17.4	01Apr2015, 13:18	2.93
SB1_1100	0.032	13.3	01Apr2015, 13:25	3.74
J_SB1_1100	0.311	71.1	01Apr2015, 14:44	3.67
R_SB1_900	0.311	71	01Apr2015, 14:56	3.67
SB1_900	0.094	34.5	01Apr2015, 13:22	3.2
SB1_1000	0.066	37.6	01Apr2015, 12:36	2.57
J_SB1_900	0.816	189.8	01Apr2015, 14:40	3.63
R_SB1_800	0.816	189.6	01Apr2015, 14:48	3.63
SB1_800	0.095	15.6	01Apr2015, 15:21	2.84
J_SB1_800	0.911	204.8	01Apr2015, 14:54	3.55
R_SB1_700	0.911	204.8	01Apr2015, 14:56	3.55
SB1_610	0.044	10.4	01Apr2015, 13:29	2.22
J_SB1_610	0.044	10.4	01Apr2015, 13:29	2.22
R_SB1_600	0.044	10.4	01Apr2015, 13:29	2.22
SB1_700	0.02	9.2	01Apr2015, 13:12	3.66
SB1_600	0.013	5.8	01Apr2015, 12:37	2.05
J_SB1_600	0.988	221.8	01Apr2015, 14:46	3.47
R_SB1_500	0.988	221.8	01Apr2015, 14:49	3.47
SB1_500	0.06	23.1	01Apr2015, 12:59	2.61
J_SB1_500	1.048	236.2	01Apr2015, 14:37	3.42
R_SB1_400	1.048	236.1	01Apr2015, 14:42	3.42
SB1_400	0.055	30.8	01Apr2015, 12:34	2.4

SB1_310	0.038	14.2	01Apr2015, 13:09	2.86
J_SB1_310	0.038	14.2	01Apr2015, 13:09	2.86
R_SB1_300	0.038	14.2	01Apr2015, 13:14	2.86
SB1_300	0.024	12	01Apr2015, 12:50	2.97
J_SB1_300	1.165	264.6	01Apr2015, 14:11	3.35
R_SB1_200	1.165	264.6	01Apr2015, 14:14	3.35
SB1_200	0.02	15.1	01Apr2015, 12:27	2.77
J_SB1_200	1.185	268.9	01Apr2015, 14:06	3.34
R_SB1_100	1.185	268.9	01Apr2015, 14:08	3.34
SB1_100	0.004	1.4	01Apr2015, 12:57	2.28
OUT_SB1_100	1.189	269.9	01Apr2015, 14:07	3.33

Project: SainsBranch

Simulation Run: 25YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	56.6	01Apr2015, 15:19	5.28
J_SB1_1021	0.186	56.6	01Apr2015, 15:19	5.28
R_SB1_1020	0.186	56.6	01Apr2015, 15:19	5.28
SB1_1011	0.118	37.4	01Apr2015, 15:07	5.24
J_SB1_1011	0.118	37.4	01Apr2015, 15:07	5.24
R_SB1_1010	0.118	37.4	01Apr2015, 15:09	5.24
SB1_1010	0.028	19.5	01Apr2015, 13:05	5.12
SB1_1020	0.013	14.5	01Apr2015, 12:35	5.08
J_SB1_1010	0.345	108.8	01Apr2015, 15:05	5.25
SB1_1110	0.146	38.6	01Apr2015, 16:01	5.29
J_SB1_1110	0.146	38.6	01Apr2015, 16:01	5.29
R_SB1_1000	0.345	108.8	01Apr2015, 15:07	5.25
R_SB1_1100	0.146	38.6	01Apr2015, 16:03	5.29
SB1_1300	0.083	34	01Apr2015, 14:02	4.9
J_SB1_1300	0.083	34	01Apr2015, 14:02	4.9
R_SB1_1200	0.083	34	01Apr2015, 14:05	4.9
SB1_1200	0.05	25	01Apr2015, 13:16	4.13
SB1_1100	0.032	18	01Apr2015, 13:24	5.05
J_SB1_1100	0.311	97.3	01Apr2015, 14:32	4.97
R_SB1_900	0.311	97.2	01Apr2015, 14:45	4.97
SB1_900	0.094	48.5	01Apr2015, 13:20	4.44
SB1_1000	0.066	55.3	01Apr2015, 12:35	3.71
J_SB1_900	0.816	259.6	01Apr2015, 14:29	4.93
R_SB1_800	0.816	259.4	01Apr2015, 14:37	4.93
SB1_800	0.095	22.5	01Apr2015, 15:16	4.02
J_SB1_800	0.911	280.9	01Apr2015, 14:46	4.83
R_SB1_700	0.911	280.9	01Apr2015, 14:48	4.83
SB1_610	0.044	15.9	01Apr2015, 13:26	3.29
J_SB1_610	0.044	15.9	01Apr2015, 13:26	3.29
R_SB1_600	0.044	15.9	01Apr2015, 13:26	3.29
SB1_700	0.02	12.6	01Apr2015, 13:11	4.96
SB1_600	0.013	9	01Apr2015, 12:35	3.08
J_SB1_600	0.988	306.1	01Apr2015, 14:36	4.74
R_SB1_500	0.988	306	01Apr2015, 14:39	4.74
SB1_500	0.06	34	01Apr2015, 12:57	3.76
J_SB1_500	1.048	327.9	01Apr2015, 14:23	4.69
R_SB1_400	1.048	327.8	01Apr2015, 14:29	4.69
SB1_400	0.055	46.2	01Apr2015, 12:32	3.5



SB1_310	0.038	20.5	01Apr2015, 13:07	4.05
J_SB1_310	0.038	20.5	01Apr2015, 13:07	4.05
R_SB1_300	0.038	20.5	01Apr2015, 13:12	4.05
SB1_300	0.024	17.2	01Apr2015, 12:49	4.18
J_SB1_300	1.165	372.1	01Apr2015, 13:53	4.6
R_SB1_200	1.165	372.1	01Apr2015, 13:56	4.6
SB1_200	0.02	21.8	01Apr2015, 12:26	3.95
J_SB1_200	1.185	379.4	01Apr2015, 13:48	4.59
R_SB1_100	1.185	379.4	01Apr2015, 13:50	4.59
SB1_100	0.004	2.1	01Apr2015, 12:56	3.37
OUT_SB1_100	1.189	381	01Apr2015, 13:49	4.58

Project: SainsBranch

Simulation Run: 50YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	69.5	01Apr2015, 15:17	6.47
J_SB1_1021	0.186	69.5	01Apr2015, 15:17	6.47
R_SB1_1020	0.186	69.5	01Apr2015, 15:17	6.47
SB1_1011	0.118	45.9	01Apr2015, 15:05	6.42
J_SB1_1011	0.118	45.9	01Apr2015, 15:05	6.42
R_SB1_1010	0.118	45.9	01Apr2015, 15:08	6.42
SB1_1010	0.028	23.9	01Apr2015, 13:04	6.3
SB1_1020	0.013	17.8	01Apr2015, 12:34	6.25
J_SB1_1010	0.345	133.4	01Apr2015, 15:03	6.43
SB1_1110	0.146	47.2	01Apr2015, 15:59	6.46
J_SB1_1110	0.146	47.2	01Apr2015, 15:59	6.46
R_SB1_1000	0.345	133.4	01Apr2015, 15:06	6.43
R_SB1_1100	0.146	47.2	01Apr2015, 16:02	6.46
SB1_1300	0.083	42.2	01Apr2015, 14:01	6.05
J_SB1_1300	0.083	42.2	01Apr2015, 14:01	6.05
R_SB1_1200	0.083	42.2	01Apr2015, 14:04	6.05
SB1_1200	0.05	31.9	01Apr2015, 13:15	5.23
SB1_1100	0.032	22.2	01Apr2015, 13:23	6.22
J_SB1_1100	0.311	120.8	01Apr2015, 14:24	6.13
R_SB1_900	0.311	120.7	01Apr2015, 14:33	6.13
SB1_900	0.094	61.1	01Apr2015, 13:19	5.56
SB1_1000	0.066	71.5	01Apr2015, 12:34	4.76
J_SB1_900	0.816	322.3	01Apr2015, 14:19	6.08
R_SB1_800	0.816	322.1	01Apr2015, 14:27	6.08
SB1_800	0.095	28.8	01Apr2015, 15:13	5.11
J_SB1_800	0.911	349	01Apr2015, 14:40	5.98
R_SB1_700	0.911	349	01Apr2015, 14:42	5.98
SB1_610	0.044	21.1	01Apr2015, 13:24	4.29
J_SB1_610	0.044	21.1	01Apr2015, 13:24	4.29
R_SB1_600	0.044	21.1	01Apr2015, 13:24	4.29
SB1_700	0.02	15.6	01Apr2015, 13:11	6.13
SB1_600	0.013	12.1	01Apr2015, 12:34	4.05
J_SB1_600	0.988	382.2	01Apr2015, 14:26	5.88
R_SB1_500	0.988	382.1	01Apr2015, 14:29	5.88
SB1_500	0.06	44.1	01Apr2015, 12:57	4.81
J_SB1_500	1.048	411.6	01Apr2015, 14:12	5.82
R_SB1_400	1.048	411.5	01Apr2015, 14:17	5.82
SB1_400	0.055	60.3	01Apr2015, 12:32	4.53

SB1_310	0.038	26.3	01Apr2015, 13:06	5.13
J_SB1_310	0.038	26.3	01Apr2015, 13:06	5.13
R_SB1_300	0.038	26.3	01Apr2015, 13:11	5.13
SB1_300	0.024	21.8	01Apr2015, 12:48	5.28
J_SB1_300	1.165	471.8	01Apr2015, 13:48	5.73
R_SB1_200	1.165	471.7	01Apr2015, 13:50	5.72
SB1_200	0.02	27.8	01Apr2015, 12:26	5.03
J_SB1_200	1.185	481.3	01Apr2015, 13:46	5.71
R_SB1_100	1.185	481.2	01Apr2015, 13:47	5.71
SB1_100	0.004	2.8	01Apr2015, 12:54	4.37
OUT_SB1_100	1.189	483.4	01Apr2015, 13:47	5.71

Project: SainsBranch

Simulation Run: 100YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sains Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	83.7	01Apr2015, 15:16	7.79
J_SB1_1021	0.186	83.7	01Apr2015, 15:16	7.79
R_SB1_1020	0.186	83.7	01Apr2015, 15:16	7.79
SB1_1011	0.118	55.4	01Apr2015, 15:04	7.74
J_SB1_1011	0.118	55.4	01Apr2015, 15:04	7.74
R_SB1_1010	0.118	55.4	01Apr2015, 15:07	7.74
SB1_1010	0.028	28.9	01Apr2015, 13:04	7.61
SB1_1020	0.013	21.5	01Apr2015, 12:34	7.56
J_SB1_1010	0.345	160.8	01Apr2015, 15:02	7.75
SB1_1110	0.146	56.9	01Apr2015, 15:58	7.78
J_SB1_1110	0.146	56.9	01Apr2015, 15:58	7.78
R_SB1_1000	0.345	160.8	01Apr2015, 15:06	7.75
R_SB1_1100	0.146	56.9	01Apr2015, 16:00	7.78
SB1_1300	0.083	51.3	01Apr2015, 14:01	7.36
J_SB1_1300	0.083	51.3	01Apr2015, 14:01	7.36
R_SB1_1200	0.083	51.3	01Apr2015, 14:03	7.36
SB1_1200	0.05	39.6	01Apr2015, 13:15	6.47
SB1_1100	0.032	26.9	01Apr2015, 13:23	7.53
J_SB1_1100	0.311	147.1	01Apr2015, 14:19	7.43
R_SB1_900	0.311	147	01Apr2015, 14:28	7.43
SB1_900	0.094	75.3	01Apr2015, 13:19	6.83
SB1_1000	0.066	89.9	01Apr2015, 12:34	5.96
J_SB1_900	0.816	392.3	01Apr2015, 14:13	7.38
R_SB1_800	0.816	392.1	01Apr2015, 14:21	7.38
SB1_800	0.095	36	01Apr2015, 15:10	6.34
J_SB1_800	0.911	425.2	01Apr2015, 14:36	7.27
R_SB1_700	0.911	425.2	01Apr2015, 14:38	7.27
SB1_610	0.044	27.1	01Apr2015, 13:23	5.44
J_SB1_610	0.044	27.1	01Apr2015, 13:23	5.44
R_SB1_600	0.044	27.1	01Apr2015, 13:23	5.44
SB1_700	0.02	18.9	01Apr2015, 13:10	7.43
SB1_600	0.013	15.6	01Apr2015, 12:34	5.18
J_SB1_600	0.988	467.4	01Apr2015, 14:20	7.16
R_SB1_500	0.988	467.3	01Apr2015, 14:23	7.16
SB1_500	0.06	55.5	01Apr2015, 12:56	6.02
J_SB1_500	1.048	505.2	01Apr2015, 14:06	7.1
R_SB1_400	1.048	505.1	01Apr2015, 14:10	7.1
SB1_400	0.055	76.4	01Apr2015, 12:31	5.7

SB1_310	0.038	32.8	01Apr2015, 13:06	6.37
J_SB1_310	0.038	32.8	01Apr2015, 13:06	6.37
R_SB1_300	0.038	32.8	01Apr2015, 13:10	6.37
SB1_300	0.024	27	01Apr2015, 12:48	6.52
J_SB1_300	1.165	585.2	01Apr2015, 13:37	7
R_SB1_200	1.165	585.1	01Apr2015, 13:40	7
SB1_200	0.02	34.6	01Apr2015, 12:26	6.25
J_SB1_200	1.185	598.3	01Apr2015, 13:36	6.98
R_SB1_100	1.185	598.2	01Apr2015, 13:37	6.98
SB1_100	0.004	3.5	01Apr2015, 12:54	5.53
OUT_SB1_100	1.189	601.1	01Apr2015, 13:37	6.98

Project: SamsBranch

Simulation Run: 2YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	22.1	01Apr2015, 15:28	2.11
J_SB1_1021	0.186	22.1	01Apr2015, 15:28	2.11
R_SB1_1020	0.186	22.1	01Apr2015, 15:28	2.11
SB1_1011	0.118	14.4	01Apr2015, 15:16	2.08
J_SB1_1011	0.118	14.4	01Apr2015, 15:16	2.08
R_SB1_1010	0.118	14.4	01Apr2015, 15:19	2.08
SB1_1010	0.028	7.4	01Apr2015, 13:08	1.99
SB1_1020	0.013	5.5	01Apr2015, 12:37	1.96
J_SB1_1010	0.345	42.4	01Apr2015, 15:11	2.08
SB1_1110	0.146	15.1	01Apr2015, 16:12	2.12
J_SB1_1110	0.146	15.1	01Apr2015, 16:12	2.12
R_SB1_1000	0.345	42.4	01Apr2015, 15:14	2.08
R_SB1_1100	0.146	15.1	01Apr2015, 16:16	2.12
SB1_1300	0.083	12.2	01Apr2015, 14:10	1.84
J_SB1_1300	0.083	12.2	01Apr2015, 14:10	1.84
R_SB1_1200	0.083	12.2	01Apr2015, 14:12	1.84
SB1_1200	0.05	7.6	01Apr2015, 13:23	1.36
SB1_1100	0.032	6.7	01Apr2015, 13:28	1.94
J_SB1_1100	0.311	35.7	01Apr2015, 15:12	1.9
R_SB1_900	0.311	35.7	01Apr2015, 15:23	1.9
SB1_900	0.094	15.8	01Apr2015, 13:26	1.54
SB1_1000	0.066	15	01Apr2015, 12:39	1.12
J_SB1_900	0.816	95.3	01Apr2015, 14:59	1.87
R_SB1_800	0.816	95.1	01Apr2015, 15:08	1.87
SB1_800	0.095	6.8	01Apr2015, 15:45	1.29
J_SB1_800	0.911	101.8	01Apr2015, 15:10	1.81
R_SB1_700	0.911	101.8	01Apr2015, 15:11	1.81
SB1_610	0.044	3.7	01Apr2015, 13:40	0.9
J_SB1_610	0.044	3.7	01Apr2015, 13:40	0.9
R_SB1_600	0.044	3.7	01Apr2015, 13:40	0.9
SB1_700	0.02	4.6	01Apr2015, 13:15	1.88
SB1_600	0.013	1.9	01Apr2015, 12:41	0.8
J_SB1_600	0.988	108.9	01Apr2015, 15:06	1.76
R_SB1_500	0.988	108.9	01Apr2015, 15:09	1.76
SB1_500	0.06	9.2	01Apr2015, 13:04	1.14
J_SB1_500	1.048	114.6	01Apr2015, 15:03	1.73
R_SB1_400	1.048	114.6	01Apr2015, 15:09	1.73
SB1_400	0.055	11.6	01Apr2015, 12:37	1.01

SB1_310	0.038	6.1	01Apr2015, 13:14	1.31
J_SB1_310	0.038	6.1	01Apr2015, 13:14	1.31
R_SB1_300	0.038	6.1	01Apr2015, 13:21	1.31
SB1_300	0.024	5.3	01Apr2015, 12:53	1.38
J_SB1_300	1.165	125.4	01Apr2015, 14:56	1.67
R_SB1_200	1.165	125.4	01Apr2015, 14:59	1.67
SB1_200	0.02	6.4	01Apr2015, 12:30	1.25
J_SB1_200	1.185	126.9	01Apr2015, 14:56	1.66
R_SB1_100	1.185	126.9	01Apr2015, 14:58	1.66
SB1_100	0.004	0.5	01Apr2015, 13:03	0.93
OUT_SB1_100	1.189	127.3	01Apr2015, 14:58	1.66

Project: SamsBranch

Simulation Run: 10YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	42.1	01Apr2015, 15:21	3.95
J_SB1_1021	0.186	42.1	01Apr2015, 15:21	3.95
R_SB1_1020	0.186	42.1	01Apr2015, 15:21	3.95
SB1_1011	0.118	27.8	01Apr2015, 15:09	3.91
J_SB1_1011	0.118	27.8	01Apr2015, 15:09	3.91
R_SB1_1010	0.118	27.8	01Apr2015, 15:12	3.91
SB1_1010	0.028	14.4	01Apr2015, 13:06	3.8
SB1_1020	0.013	10.8	01Apr2015, 12:35	3.76
J_SB1_1010	0.345	81	01Apr2015, 15:06	3.92
SB1_1110	0.146	28.7	01Apr2015, 16:03	3.96
J_SB1_1110	0.146	28.7	01Apr2015, 16:03	3.96
R_SB1_1000	0.345	81	01Apr2015, 15:09	3.92
R_SB1_1100	0.146	28.7	01Apr2015, 16:07	3.96
SB1_1300	0.083	24.8	01Apr2015, 14:04	3.6
J_SB1_1300	0.083	24.8	01Apr2015, 14:04	3.6
R_SB1_1200	0.083	24.8	01Apr2015, 14:07	3.6
SB1_1200	0.05	17.4	01Apr2015, 13:18	2.93
SB1_1100	0.032	13.3	01Apr2015, 13:25	3.74
J_SB1_1100	0.311	71.1	01Apr2015, 14:44	3.67
R_SB1_900	0.311	71	01Apr2015, 14:56	3.67
SB1_900	0.094	34.5	01Apr2015, 13:22	3.2
SB1_1000	0.066	37.6	01Apr2015, 12:36	2.57
J_SB1_900	0.816	189.8	01Apr2015, 14:40	3.63
R_SB1_800	0.816	189.6	01Apr2015, 14:48	3.63
SB1_800	0.095	15.6	01Apr2015, 15:21	2.84
J_SB1_800	0.911	204.8	01Apr2015, 14:54	3.55
R_SB1_700	0.911	204.8	01Apr2015, 14:56	3.55
SB1_610	0.044	10.4	01Apr2015, 13:29	2.22
J_SB1_610	0.044	10.4	01Apr2015, 13:29	2.22
R_SB1_600	0.044	10.4	01Apr2015, 13:29	2.22
SB1_700	0.02	9.2	01Apr2015, 13:12	3.66
SB1_600	0.013	5.8	01Apr2015, 12:37	2.05
J_SB1_600	0.988	221.8	01Apr2015, 14:46	3.47
R_SB1_500	0.988	221.8	01Apr2015, 14:49	3.47
SB1_500	0.06	23.1	01Apr2015, 12:59	2.61
J_SB1_500	1.048	236.2	01Apr2015, 14:37	3.42
R_SB1_400	1.048	236.1	01Apr2015, 14:42	3.42
SB1_400	0.055	30.8	01Apr2015, 12:34	2.4



SB1_310	0.038	14.2	01Apr2015, 13:09	2.86
J_SB1_310	0.038	14.2	01Apr2015, 13:09	2.86
R_SB1_300	0.038	14.2	01Apr2015, 13:14	2.86
SB1_300	0.024	12	01Apr2015, 12:50	2.97
J_SB1_300	1.165	264.6	01Apr2015, 14:11	3.35
R_SB1_200	1.165	264.6	01Apr2015, 14:14	3.35
SB1_200	0.02	15.1	01Apr2015, 12:27	2.77
J_SB1_200	1.185	268.9	01Apr2015, 14:06	3.34
R_SB1_100	1.185	268.9	01Apr2015, 14:08	3.34
SB1_100	0.004	1.4	01Apr2015, 12:57	2.28
OUT_SB1_100	1.189	269.9	01Apr2015, 14:07	3.33

Project: SamsBranch

Simulation Run: 25YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	56.6	01Apr2015, 15:19	5.28
J_SB1_1021	0.186	56.6	01Apr2015, 15:19	5.28
R_SB1_1020	0.186	56.6	01Apr2015, 15:19	5.28
SB1_1011	0.118	37.4	01Apr2015, 15:07	5.24
J_SB1_1011	0.118	37.4	01Apr2015, 15:07	5.24
R_SB1_1010	0.118	37.4	01Apr2015, 15:09	5.24
SB1_1010	0.028	19.5	01Apr2015, 13:05	5.12
SB1_1020	0.013	14.5	01Apr2015, 12:35	5.08
J_SB1_1010	0.345	108.8	01Apr2015, 15:05	5.25
SB1_1110	0.146	38.6	01Apr2015, 16:01	5.29
J_SB1_1110	0.146	38.6	01Apr2015, 16:01	5.29
R_SB1_1000	0.345	108.8	01Apr2015, 15:07	5.25
R_SB1_1100	0.146	38.6	01Apr2015, 16:03	5.29
SB1_1300	0.083	34	01Apr2015, 14:02	4.9
J_SB1_1300	0.083	34	01Apr2015, 14:02	4.9
R_SB1_1200	0.083	34	01Apr2015, 14:05	4.9
SB1_1200	0.05	25	01Apr2015, 13:16	4.13
SB1_1100	0.032	18	01Apr2015, 13:24	5.05
J_SB1_1100	0.311	97.3	01Apr2015, 14:32	4.97
R_SB1_900	0.311	97.2	01Apr2015, 14:45	4.97
SB1_900	0.094	48.5	01Apr2015, 13:20	4.44
SB1_1000	0.066	55.3	01Apr2015, 12:35	3.71
J_SB1_900	0.816	259.6	01Apr2015, 14:29	4.93
R_SB1_800	0.816	259.4	01Apr2015, 14:37	4.93
SB1_800	0.095	22.5	01Apr2015, 15:16	4.02
J_SB1_800	0.911	280.9	01Apr2015, 14:46	4.83
R_SB1_700	0.911	280.9	01Apr2015, 14:48	4.83
SB1_610	0.044	15.9	01Apr2015, 13:26	3.29
J_SB1_610	0.044	15.9	01Apr2015, 13:26	3.29
R_SB1_600	0.044	15.9	01Apr2015, 13:26	3.29
SB1_700	0.02	12.6	01Apr2015, 13:11	4.96
SB1_600	0.013	9	01Apr2015, 12:35	3.08
J_SB1_600	0.988	306.1	01Apr2015, 14:36	4.74
R_SB1_500	0.988	306	01Apr2015, 14:39	4.74
SB1_500	0.06	34	01Apr2015, 12:57	3.76
J_SB1_500	1.048	327.9	01Apr2015, 14:23	4.69
R_SB1_400	1.048	327.8	01Apr2015, 14:29	4.69
SB1_400	0.055	46.2	01Apr2015, 12:32	3.5

SB1_310	0.038	20.5	01Apr2015, 13:07	4.05
J_SB1_310	0.038	20.5	01Apr2015, 13:07	4.05
R_SB1_300	0.038	20.5	01Apr2015, 13:12	4.05
SB1_300	0.024	17.2	01Apr2015, 12:49	4.18
J_SB1_300	1.165	372.1	01Apr2015, 13:53	4.6
R_SB1_200	1.165	372.1	01Apr2015, 13:56	4.6
SB1_200	0.02	21.8	01Apr2015, 12:26	3.95
J_SB1_200	1.185	379.4	01Apr2015, 13:48	4.59
R_SB1_100	1.185	379.4	01Apr2015, 13:50	4.59
SB1_100	0.004	2.1	01Apr2015, 12:56	3.37
OUT_SB1_100	1.189	381	01Apr2015, 13:49	4.58

Project: SamsBranch

Simulation Run: 50YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	69.5	01Apr2015, 15:17	6.47
J_SB1_1021	0.186	69.5	01Apr2015, 15:17	6.47
R_SB1_1020	0.186	69.5	01Apr2015, 15:17	6.47
SB1_1011	0.118	45.9	01Apr2015, 15:05	6.42
J_SB1_1011	0.118	45.9	01Apr2015, 15:05	6.42
R_SB1_1010	0.118	45.9	01Apr2015, 15:08	6.42
SB1_1010	0.028	23.9	01Apr2015, 13:04	6.3
SB1_1020	0.013	17.8	01Apr2015, 12:34	6.25
J_SB1_1010	0.345	133.4	01Apr2015, 15:03	6.43
SB1_1110	0.146	47.2	01Apr2015, 15:59	6.46
J_SB1_1110	0.146	47.2	01Apr2015, 15:59	6.46
R_SB1_1000	0.345	133.4	01Apr2015, 15:06	6.43
R_SB1_1100	0.146	47.2	01Apr2015, 16:02	6.46
SB1_1300	0.083	42.2	01Apr2015, 14:01	6.05
J_SB1_1300	0.083	42.2	01Apr2015, 14:01	6.05
R_SB1_1200	0.083	42.2	01Apr2015, 14:04	6.05
SB1_1200	0.05	31.9	01Apr2015, 13:15	5.23
SB1_1100	0.032	22.2	01Apr2015, 13:23	6.22
J_SB1_1100	0.311	120.8	01Apr2015, 14:24	6.13
R_SB1_900	0.311	120.7	01Apr2015, 14:33	6.13
SB1_900	0.094	61.1	01Apr2015, 13:19	5.56
SB1_1000	0.066	71.5	01Apr2015, 12:34	4.76
J_SB1_900	0.816	322.3	01Apr2015, 14:19	6.08
R_SB1_800	0.816	322.1	01Apr2015, 14:27	6.08
SB1_800	0.095	28.8	01Apr2015, 15:13	5.11
J_SB1_800	0.911	349	01Apr2015, 14:40	5.98
R_SB1_700	0.911	349	01Apr2015, 14:42	5.98
SB1_610	0.044	21.1	01Apr2015, 13:24	4.29
J_SB1_610	0.044	21.1	01Apr2015, 13:24	4.29
R_SB1_600	0.044	21.1	01Apr2015, 13:24	4.29
SB1_700	0.02	15.6	01Apr2015, 13:11	6.13
SB1_600	0.013	12.1	01Apr2015, 12:34	4.05
J_SB1_600	0.988	382.2	01Apr2015, 14:26	5.88
R_SB1_500	0.988	382.1	01Apr2015, 14:29	5.88
SB1_500	0.06	44.1	01Apr2015, 12:57	4.81
J_SB1_500	1.048	411.6	01Apr2015, 14:12	5.82
R_SB1_400	1.048	411.5	01Apr2015, 14:17	5.82
SB1_400	0.055	60.3	01Apr2015, 12:32	4.53

SB1_310	0.038	26.3	01Apr2015, 13:06	5.13
J_SB1_310	0.038	26.3	01Apr2015, 13:06	5.13
R_SB1_300	0.038	26.3	01Apr2015, 13:11	5.13
SB1_300	0.024	21.8	01Apr2015, 12:48	5.28
J_SB1_300	1.165	471.8	01Apr2015, 13:48	5.73
R_SB1_200	1.165	471.7	01Apr2015, 13:50	5.72
SB1_200	0.02	27.8	01Apr2015, 12:26	5.03
J_SB1_200	1.185	481.3	01Apr2015, 13:46	5.71
R_SB1_100	1.185	481.2	01Apr2015, 13:47	5.71
SB1_100	0.004	2.8	01Apr2015, 12:54	4.37
OUT_SB1_100	1.189	483.4	01Apr2015, 13:47	5.71

Project: SamsBranch

Simulation Run: 100YR-FU(Sny)

Start of Run: 01Apr2015, 00:00

Basin Model: Sams Branch-FU(Snyder)

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SB1_1021	0.186	83.7	01Apr2015, 15:16	7.79
J_SB1_1021	0.186	83.7	01Apr2015, 15:16	7.79
R_SB1_1020	0.186	83.7	01Apr2015, 15:16	7.79
SB1_1011	0.118	55.4	01Apr2015, 15:04	7.74
J_SB1_1011	0.118	55.4	01Apr2015, 15:04	7.74
R_SB1_1010	0.118	55.4	01Apr2015, 15:07	7.74
SB1_1010	0.028	28.9	01Apr2015, 13:04	7.61
SB1_1020	0.013	21.5	01Apr2015, 12:34	7.56
J_SB1_1010	0.345	160.8	01Apr2015, 15:02	7.75
SB1_1110	0.146	56.9	01Apr2015, 15:58	7.78
J_SB1_1110	0.146	56.9	01Apr2015, 15:58	7.78
R_SB1_1000	0.345	160.8	01Apr2015, 15:06	7.75
R_SB1_1100	0.146	56.9	01Apr2015, 16:00	7.78
SB1_1300	0.083	51.3	01Apr2015, 14:01	7.36
J_SB1_1300	0.083	51.3	01Apr2015, 14:01	7.36
R_SB1_1200	0.083	51.3	01Apr2015, 14:03	7.36
SB1_1200	0.05	39.6	01Apr2015, 13:15	6.47
SB1_1100	0.032	26.9	01Apr2015, 13:23	7.53
J_SB1_1100	0.311	147.1	01Apr2015, 14:19	7.43
R_SB1_900	0.311	147	01Apr2015, 14:28	7.43
SB1_900	0.094	75.3	01Apr2015, 13:19	6.83
SB1_1000	0.066	89.9	01Apr2015, 12:34	5.96
J_SB1_900	0.816	392.3	01Apr2015, 14:13	7.38
R_SB1_800	0.816	392.1	01Apr2015, 14:21	7.38
SB1_800	0.095	36	01Apr2015, 15:10	6.34
J_SB1_800	0.911	425.2	01Apr2015, 14:36	7.27
R_SB1_700	0.911	425.2	01Apr2015, 14:38	7.27
SB1_610	0.044	27.1	01Apr2015, 13:23	5.44
J_SB1_610	0.044	27.1	01Apr2015, 13:23	5.44
R_SB1_600	0.044	27.1	01Apr2015, 13:23	5.44
SB1_700	0.02	18.9	01Apr2015, 13:10	7.43
SB1_600	0.013	15.6	01Apr2015, 12:34	5.18
J_SB1_600	0.988	467.4	01Apr2015, 14:20	7.16
R_SB1_500	0.988	467.3	01Apr2015, 14:23	7.16
SB1_500	0.06	55.5	01Apr2015, 12:56	6.02
J_SB1_500	1.048	505.2	01Apr2015, 14:06	7.1
R_SB1_400	1.048	505.1	01Apr2015, 14:10	7.1
SB1_400	0.055	76.4	01Apr2015, 12:31	5.7

SB1_310	0.038	32.8	01Apr2015, 13:06	6.37
J_SB1_310	0.038	32.8	01Apr2015, 13:06	6.37
R_SB1_300	0.038	32.8	01Apr2015, 13:10	6.37
SB1_300	0.024	27	01Apr2015, 12:48	6.52
J_SB1_300	1.165	585.2	01Apr2015, 13:37	7
R_SB1_200	1.165	585.1	01Apr2015, 13:40	7
SB1_200	0.02	34.6	01Apr2015, 12:26	6.25
J_SB1_200	1.185	598.3	01Apr2015, 13:36	6.98
R_SB1_100	1.185	598.2	01Apr2015, 13:37	6.98
SB1_100	0.004	3.5	01Apr2015, 12:54	5.53
OUT_SB1_100	1.189	601.1	01Apr2015, 13:37	6.98

**PRIMARY SYSTEM  
ALTERNATIVES:  
HEC-HMS OUTPUT**



Project: SchoolhouseBranch

Simulation Run: 2YR-ALT1

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt1

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	19.2	01Apr2015, 12:43	1.65
SHB_507	0.057	7.8	01Apr2015, 13:45	1.47
J_SHB_507	0.057	7.8	01Apr2015, 13:45	1.47
R_SHB_505	0.057	7.8	01Apr2015, 13:52	1.47
J_SHB_505	0.118	22.7	01Apr2015, 12:58	1.56
R_SHB_503	0.118	22.7	01Apr2015, 13:06	1.56
SHB_503	0.083	27	01Apr2015, 12:47	1.85
J_SHB_503	0.201	49	01Apr2015, 12:54	1.68
R_SHB_501	0.201	48.6	01Apr2015, 13:02	1.68
SHB_028	0.103	17.7	01Apr2015, 13:09	1.33
SHB_030	0.028	2.5	01Apr2015, 13:53	1.02
J_SHB_030	0.028	2.5	01Apr2015, 13:53	1.02
R_SHB_028	0.028	2.5	01Apr2015, 14:09	1.02
J_SHB_028	0.131	19.4	01Apr2015, 13:15	1.26
R_SHB_026	0.131	19.4	01Apr2015, 13:21	1.26
SHB_026	0.03	11.9	01Apr2015, 12:37	1.85
J_SHB_026	0.161	28.5	01Apr2015, 13:06	1.37
R_SHB_024	0.161	28.5	01Apr2015, 13:09	1.37
SHB_024	0.005	4.1	01Apr2015, 12:22	2.89
J_SHB_024	0.166	30.7	01Apr2015, 13:05	1.42
R_SHB_022	0.166	30	01Apr2015, 13:18	1.42
SHB_022	0.044	13.1	01Apr2015, 13:09	2.28
SHB_501	0.005	4	01Apr2015, 12:16	2.19
J_SHB_022	0.416	92.4	01Apr2015, 13:07	1.64
R_SHB_020	0.416	91.6	01Apr2015, 13:15	1.64
SHB_020	0.037	23.9	01Apr2015, 12:26	2.33
J_SHB_020	0.453	104.8	01Apr2015, 13:08	1.7
R_SHB_018	0.453	104.5	01Apr2015, 13:12	1.7
SHB_018	0.108	17.6	01Apr2015, 14:02	1.94
J_SHB_018	0.561	118.2	01Apr2015, 13:18	1.75
R_SHB_016	0.561	118	01Apr2015, 13:22	1.75
SHB_213	0.043	18.8	01Apr2015, 12:49	2.58
SHB_211	0.023	12.6	01Apr2015, 12:28	2.05
J_SHB_211	0.066	29.9	01Apr2015, 12:41	2.39
R_SHB_209	0.066	29.8	01Apr2015, 12:48	2.39
SHB_209	0.059	28.2	01Apr2015, 12:31	1.94
J_SHB_209	0.125	56.1	01Apr2015, 12:41	2.18
R_SHB_207	0.125	56	01Apr2015, 12:44	2.18

SHB_207	0.053	33.8	01Apr2015, 12:30	2.62
J_SHB_207	0.178	87.9	01Apr2015, 12:39	2.31
R_SHB_205	0.178	87.9	01Apr2015, 12:43	2.31
SHB_221	0.059	69.2	01Apr2015, 12:11	2.58
SHB_223	0.05	39.2	01Apr2015, 12:17	2.24
J_SHB_221	0.109	105.7	01Apr2015, 12:12	2.42
R_SHB_220	0.109	105.5	01Apr2015, 12:15	2.42
SHB_205	0.022	15.5	01Apr2015, 12:13	1.74
SHB_220	0.021	7.8	01Apr2015, 12:43	1.94
J_SHB_220	0.33	182.6	01Apr2015, 12:26	2.29
R_SHB_203	0.33	182	01Apr2015, 12:30	2.29
SHB_203	0.016	7.6	01Apr2015, 12:30	1.88
J_SHB_203	0.346	189.6	01Apr2015, 12:30	2.27
R_SHB_201	0.346	188.9	01Apr2015, 12:40	2.27
SHB_201	0.111	100.4	01Apr2015, 12:11	1.98
SHB_016	0.006	2.6	01Apr2015, 12:44	2.34
J_SHB_016	1.024	317.1	01Apr2015, 12:41	1.95
R_SHB_014	1.024	296.3	01Apr2015, 12:59	1.95
SHB_014	0.114	52.1	01Apr2015, 12:24	1.54
J_SHB_014	1.138	329.9	01Apr2015, 12:55	1.91
R_SHB_012	1.138	290.4	01Apr2015, 13:26	1.91
SHB_108	0.065	36.1	01Apr2015, 12:29	2.18
J_SHB_108	0.065	36.1	01Apr2015, 12:29	2.18
R_SHB_107	0.065	36.1	01Apr2015, 12:29	2.18
SHB_105	0.056	30.5	01Apr2015, 12:41	2.87
J_SHB_105	0.056	30.5	01Apr2015, 12:41	2.87
R_SHB_104	0.056	30.5	01Apr2015, 12:59	2.87
SHB_104	0.053	38.2	01Apr2015, 12:17	2.06
SHB_107	0.017	17.4	01Apr2015, 12:11	2.24
J_SHB_104	0.191	98.4	01Apr2015, 12:27	2.35
R_SHB_103	0.191	98.4	01Apr2015, 12:27	2.35
SHB_103	0.013	7.8	01Apr2015, 12:22	1.98
Reservoir-SHB_103	0.204	105.3	01Apr2015, 12:30	2.33
R_SHB_102	0.204	105	01Apr2015, 12:43	2.33
SHB_102	0.033	25.2	01Apr2015, 12:13	1.87
J_SHB_102	0.237	118.7	01Apr2015, 12:39	2.26
R_SHB_101	0.237	118.1	01Apr2015, 12:55	2.26
SHB_012	0.025	22	01Apr2015, 12:12	2.06
SHB_101	0.005	4.6	01Apr2015, 12:12	2.16
J_SHB_012	1.405	396.7	01Apr2015, 13:13	1.97
R_SHB_010	1.405	325.4	01Apr2015, 14:00	1.97
SHB_007	0.098	57.2	01Apr2015, 12:21	1.85
SHB_005	0.023	8.7	01Apr2015, 12:32	1.57
J_SHB_005	0.023	8.7	01Apr2015, 12:32	1.57
R_SHB_004	0.023	8.7	01Apr2015, 12:40	1.57
SHB_004	0.02	23.5	01Apr2015, 12:11	2.59
J_SHB_004	0.141	82	01Apr2015, 12:20	1.91

R_SHB_003	0.141	82	01Apr2015, 12:23	1.91
SHB_003	0.033	18.7	01Apr2015, 12:35	2.62
J_SHB_003	0.174	99.1	01Apr2015, 12:26	2.04
R_SHB_002	0.174	99.1	01Apr2015, 12:26	2.04
SHB_002	0.004	3.5	01Apr2015, 12:13	2.16
Reservoir-SHB_002	0.178	77.2	01Apr2015, 12:49	1.95
R_SHB_001	0.178	68.7	01Apr2015, 12:49	1.76
SHB_010	0.018	8.7	01Apr2015, 12:35	2.16
SHB_001	0.003	0.6	01Apr2015, 13:48	2.16
OUT_SHB_001	1.604	369	01Apr2015, 13:57	1.95

Project: SchoolhouseBranch

Simulation Run: 10YR-ALT1

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt1

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	40.2	01Apr2015, 12:41	3.35
SHB_507	0.057	17.4	01Apr2015, 13:39	3.09
J_SHB_507	0.057	17.4	01Apr2015, 13:39	3.09
R_SHB_505	0.057	17.4	01Apr2015, 13:45	3.09
J_SHB_505	0.118	49.1	01Apr2015, 12:54	3.23
R_SHB_503	0.118	49.1	01Apr2015, 13:01	3.23
SHB_503	0.083	54.2	01Apr2015, 12:45	3.61
J_SHB_503	0.201	102.1	01Apr2015, 12:51	3.39
R_SHB_501	0.201	100.7	01Apr2015, 13:00	3.38
SHB_028	0.103	41.2	01Apr2015, 13:04	2.89
SHB_030	0.028	6.5	01Apr2015, 13:42	2.41
J_SHB_030	0.028	6.5	01Apr2015, 13:42	2.41
R_SHB_028	0.028	6.4	01Apr2015, 13:56	2.41
J_SHB_028	0.131	45.8	01Apr2015, 13:11	2.79
R_SHB_026	0.131	45.6	01Apr2015, 13:17	2.79
SHB_026	0.03	23.8	01Apr2015, 12:35	3.61
J_SHB_026	0.161	63.9	01Apr2015, 13:04	2.94
R_SHB_024	0.161	63.8	01Apr2015, 13:07	2.94
SHB_024	0.005	6.9	01Apr2015, 12:22	4.88
J_SHB_024	0.166	67.5	01Apr2015, 13:04	3
R_SHB_022	0.166	66	01Apr2015, 13:16	3
SHB_022	0.044	24.3	01Apr2015, 13:07	4.17
SHB_501	0.005	7.4	01Apr2015, 12:15	4.05
J_SHB_022	0.416	191.6	01Apr2015, 13:06	3.32
R_SHB_020	0.416	189.9	01Apr2015, 13:14	3.32
SHB_020	0.037	43.1	01Apr2015, 12:25	4.23
J_SHB_020	0.453	213.4	01Apr2015, 13:08	3.4
R_SHB_018	0.453	210.5	01Apr2015, 13:18	3.4
SHB_018	0.108	34.9	01Apr2015, 13:57	3.73
J_SHB_018	0.561	240.3	01Apr2015, 13:24	3.46
R_SHB_016	0.561	240.1	01Apr2015, 13:27	3.46
SHB_213	0.043	32.9	01Apr2015, 12:48	4.53
SHB_211	0.023	23.9	01Apr2015, 12:27	3.87
J_SHB_211	0.066	53.8	01Apr2015, 12:40	4.3
R_SHB_209	0.066	53.8	01Apr2015, 12:46	4.3
SHB_209	0.059	54.8	01Apr2015, 12:30	3.74
J_SHB_209	0.125	105.6	01Apr2015, 12:38	4.04
R_SHB_207	0.125	105.4	01Apr2015, 12:43	4.04

SHB_207	0.053	58.4	01Apr2015, 12:29	4.57
J_SHB_207	0.178	160.5	01Apr2015, 12:39	4.2
R_SHB_205	0.178	160.3	01Apr2015, 12:43	4.2
SHB_221	0.059	119.3	01Apr2015, 12:10	4.53
SHB_223	0.05	71.8	01Apr2015, 12:16	4.11
J_SHB_221	0.109	186.6	01Apr2015, 12:12	4.34
R_SHB_220	0.109	185.9	01Apr2015, 12:15	4.34
SHB_205	0.022	31.5	01Apr2015, 12:13	3.47
SHB_220	0.021	15.3	01Apr2015, 12:41	3.74
J_SHB_220	0.33	330.4	01Apr2015, 12:26	4.17
R_SHB_203	0.33	329.7	01Apr2015, 12:30	4.16
SHB_203	0.016	15	01Apr2015, 12:29	3.66
J_SHB_203	0.346	344.6	01Apr2015, 12:30	4.14
R_SHB_201	0.346	343.6	01Apr2015, 12:39	4.14
SHB_201	0.111	192.2	01Apr2015, 12:11	3.79
SHB_016	0.006	4.7	01Apr2015, 12:43	4.24
J_SHB_016	1.024	598.3	01Apr2015, 12:40	3.73
R_SHB_014	1.024	568.3	01Apr2015, 12:57	3.73
SHB_014	0.114	111.6	01Apr2015, 12:22	3.2
J_SHB_014	1.138	640	01Apr2015, 12:52	3.68
R_SHB_012	1.138	577.4	01Apr2015, 13:19	3.68
SHB_108	0.065	67	01Apr2015, 12:28	4.04
J_SHB_108	0.065	67	01Apr2015, 12:28	4.04
R_SHB_107	0.065	67	01Apr2015, 12:28	4.04
SHB_105	0.056	51	01Apr2015, 12:40	4.86
J_SHB_105	0.056	51	01Apr2015, 12:40	4.86
R_SHB_104	0.056	51	01Apr2015, 12:58	4.86
SHB_104	0.053	72.3	01Apr2015, 12:17	3.89
SHB_107	0.017	31.7	01Apr2015, 12:11	4.11
J_SHB_104	0.191	180.8	01Apr2015, 12:25	4.25
R_SHB_103	0.191	180.8	01Apr2015, 12:25	4.25
SHB_103	0.013	15.1	01Apr2015, 12:21	3.78
Reservoir-SHB_103	0.204	194.7	01Apr2015, 12:28	4.22
R_SHB_102	0.204	193.8	01Apr2015, 12:42	4.22
SHB_102	0.033	49.6	01Apr2015, 12:13	3.64
J_SHB_102	0.237	220.4	01Apr2015, 12:38	4.14
R_SHB_101	0.237	218.8	01Apr2015, 12:55	4.13
SHB_012	0.025	41.5	01Apr2015, 12:12	3.89
SHB_101	0.005	8.5	01Apr2015, 12:12	4.02
J_SHB_012	1.405	781.8	01Apr2015, 13:09	3.76
R_SHB_010	1.405	635.3	01Apr2015, 13:55	3.76
SHB_007	0.098	113.5	01Apr2015, 12:20	3.61
SHB_005	0.023	18.7	01Apr2015, 12:30	3.24
J_SHB_005	0.023	18.7	01Apr2015, 12:30	3.24
R_SHB_004	0.023	18.6	01Apr2015, 12:36	3.24
SHB_004	0.02	40.5	01Apr2015, 12:10	4.54
J_SHB_004	0.141	160.2	01Apr2015, 12:20	3.68

R_SHB_003	0.141	160.2	01Apr2015, 12:22	3.68
SHB_003	0.033	32.3	01Apr2015, 12:35	4.57
J_SHB_003	0.174	189.5	01Apr2015, 12:25	3.85
R_SHB_002	0.174	189.5	01Apr2015, 12:25	3.85
SHB_002	0.004	6.4	01Apr2015, 12:13	4.02
Reservoir-SHB_002	0.178	194.9	01Apr2015, 12:25	3.76
R_SHB_001	0.178	178.5	01Apr2015, 12:25	3.42
SHB_010	0.018	16.3	01Apr2015, 12:34	4.02
SHB_001	0.003	1.1	01Apr2015, 13:45	4.02
OUT_SHB_001	1.604	696.2	01Apr2015, 13:48	3.73

Project: SchoolhouseBranch

Simulation Run: 25YR-ALT1

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt1

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	55.7	01Apr2015, 12:40	4.62
SHB_507	0.057	24.7	01Apr2015, 13:37	4.32
J_SHB_507	0.057	24.7	01Apr2015, 13:37	4.32
R_SHB_505	0.057	24.7	01Apr2015, 13:42	4.32
J_SHB_505	0.118	68.8	01Apr2015, 12:52	4.47
R_SHB_503	0.118	68.8	01Apr2015, 12:58	4.47
SHB_503	0.083	73.9	01Apr2015, 12:45	4.91
J_SHB_503	0.201	141.4	01Apr2015, 12:50	4.65
R_SHB_501	0.201	139.1	01Apr2015, 12:59	4.65
SHB_028	0.103	59.3	01Apr2015, 13:03	4.09
SHB_030	0.028	9.7	01Apr2015, 13:39	3.52
J_SHB_030	0.028	9.7	01Apr2015, 13:39	3.52
R_SHB_028	0.028	9.6	01Apr2015, 13:53	3.52
J_SHB_028	0.131	66.2	01Apr2015, 13:09	3.97
R_SHB_026	0.131	66	01Apr2015, 13:15	3.97
SHB_026	0.03	32.4	01Apr2015, 12:35	4.91
J_SHB_026	0.161	90.8	01Apr2015, 13:04	4.14
R_SHB_024	0.161	90.7	01Apr2015, 13:06	4.14
SHB_024	0.005	8.7	01Apr2015, 12:22	6.28
J_SHB_024	0.166	95.4	01Apr2015, 13:03	4.21
R_SHB_022	0.166	93.3	01Apr2015, 13:16	4.21
SHB_022	0.044	32.1	01Apr2015, 13:06	5.52
SHB_501	0.005	9.8	01Apr2015, 12:15	5.39
J_SHB_022	0.416	264.9	01Apr2015, 13:05	4.57
R_SHB_020	0.416	254.6	01Apr2015, 13:24	4.57
SHB_020	0.037	56.4	01Apr2015, 12:25	5.59
J_SHB_020	0.453	280.8	01Apr2015, 13:17	4.66
R_SHB_018	0.453	277.4	01Apr2015, 13:28	4.66
SHB_018	0.108	47.5	01Apr2015, 13:56	5.04
J_SHB_018	0.561	321.6	01Apr2015, 13:33	4.73
R_SHB_016	0.561	321.4	01Apr2015, 13:36	4.73
SHB_213	0.043	42.6	01Apr2015, 12:47	5.91
SHB_211	0.023	31.9	01Apr2015, 12:26	5.2
J_SHB_211	0.066	70.6	01Apr2015, 12:39	5.66
R_SHB_209	0.066	70.4	01Apr2015, 12:46	5.66
SHB_209	0.059	73.9	01Apr2015, 12:29	5.05
J_SHB_209	0.125	139.6	01Apr2015, 12:38	5.37
R_SHB_207	0.125	139.4	01Apr2015, 12:43	5.37

SHB_207	0.053	75.3	01Apr2015, 12:29	5.96
J_SHB_207	0.178	210.5	01Apr2015, 12:38	5.55
R_SHB_205	0.178	210.2	01Apr2015, 12:43	5.55
SHB_221	0.059	153.8	01Apr2015, 12:10	5.91
SHB_223	0.05	94.6	01Apr2015, 12:16	5.46
J_SHB_221	0.109	242.7	01Apr2015, 12:12	5.7
R_SHB_220	0.109	241.7	01Apr2015, 12:15	5.7
SHB_205	0.022	43.1	01Apr2015, 12:12	4.75
SHB_220	0.021	20.7	01Apr2015, 12:40	5.05
J_SHB_220	0.33	433.4	01Apr2015, 12:27	5.51
R_SHB_203	0.33	432.4	01Apr2015, 12:30	5.51
SHB_203	0.016	20.3	01Apr2015, 12:28	4.96
J_SHB_203	0.346	452.7	01Apr2015, 12:30	5.49
R_SHB_201	0.346	451.3	01Apr2015, 12:39	5.49
SHB_201	0.111	257.2	01Apr2015, 12:11	5.11
SHB_016	0.006	6.2	01Apr2015, 12:43	5.6
J_SHB_016	1.024	796.4	01Apr2015, 12:35	5.03
R_SHB_014	1.024	749.6	01Apr2015, 12:53	5.03
SHB_014	0.114	155.6	01Apr2015, 12:21	4.44
J_SHB_014	1.138	854.9	01Apr2015, 12:48	4.97
R_SHB_012	1.138	777.5	01Apr2015, 13:13	4.97
SHB_108	0.065	88.8	01Apr2015, 12:28	5.38
J_SHB_108	0.065	88.8	01Apr2015, 12:28	5.38
R_SHB_107	0.065	88.8	01Apr2015, 12:28	5.38
SHB_105	0.056	65	01Apr2015, 12:40	6.26
J_SHB_105	0.056	65	01Apr2015, 12:40	6.26
R_SHB_104	0.056	65	01Apr2015, 12:58	6.26
SHB_104	0.053	96.4	01Apr2015, 12:16	5.22
SHB_107	0.017	41.7	01Apr2015, 12:10	5.46
J_SHB_104	0.191	238.7	01Apr2015, 12:24	5.6
R_SHB_103	0.191	238.7	01Apr2015, 12:24	5.6
SHB_103	0.013	20.3	01Apr2015, 12:21	5.1
Reservoir-SHB_103	0.204	257.1	01Apr2015, 12:27	5.57
R_SHB_102	0.204	255.7	01Apr2015, 12:42	5.57
SHB_102	0.033	67.1	01Apr2015, 12:12	4.94
J_SHB_102	0.237	291.6	01Apr2015, 12:37	5.48
R_SHB_101	0.237	289.4	01Apr2015, 12:54	5.48
SHB_012	0.025	55.2	01Apr2015, 12:12	5.22
SHB_101	0.005	11.3	01Apr2015, 12:12	5.36
J_SHB_012	1.405	1059.5	01Apr2015, 13:04	5.06
R_SHB_010	1.405	857.2	01Apr2015, 13:51	5.06
SHB_007	0.098	153.9	01Apr2015, 12:19	4.91
SHB_005	0.023	26	01Apr2015, 12:29	4.48
J_SHB_005	0.023	26	01Apr2015, 12:29	4.48
R_SHB_004	0.023	25.9	01Apr2015, 12:35	4.48
SHB_004	0.02	52.2	01Apr2015, 12:10	5.92
J_SHB_004	0.141	216.5	01Apr2015, 12:19	4.98



R_SHB_003	0.141	216.4	01Apr2015, 12:22	4.98
SHB_003	0.033	41.8	01Apr2015, 12:34	5.96
J_SHB_003	0.174	253.8	01Apr2015, 12:24	5.17
R_SHB_002	0.174	253.8	01Apr2015, 12:24	5.17
SHB_002	0.004	8.5	01Apr2015, 12:13	5.36
Reservoir-SHB_002	0.178	261	01Apr2015, 12:24	5.08
R_SHB_001	0.178	241	01Apr2015, 12:24	4.65
SHB_010	0.018	21.6	01Apr2015, 12:33	5.36
SHB_001	0.003	1.5	01Apr2015, 13:44	5.36
OUT_SHB_001	1.604	940.3	01Apr2015, 13:44	5.02

Project: SchoolhouseBranch

Simulation Run: 50YR-ALT1

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt1

End of Run: 03Apr2015, 00:00

Meteorilgic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	69.5	01Apr2015, 12:40	5.76
SHB_507	0.057	31.2	01Apr2015, 13:36	5.43
J_SHB_507	0.057	31.2	01Apr2015, 13:36	5.43
R_SHB_505	0.057	31.2	01Apr2015, 13:41	5.43
J_SHB_505	0.118	86.5	01Apr2015, 12:52	5.6
R_SHB_503	0.118	86.5	01Apr2015, 12:58	5.6
SHB_503	0.083	91.3	01Apr2015, 12:44	6.07
J_SHB_503	0.201	175.9	01Apr2015, 12:50	5.79
R_SHB_501	0.201	173.2	01Apr2015, 12:59	5.79
SHB_028	0.103	75.7	01Apr2015, 13:02	5.18
SHB_030	0.028	12.8	01Apr2015, 13:37	4.55
J_SHB_030	0.028	12.8	01Apr2015, 13:37	4.55
R_SHB_028	0.028	12.6	01Apr2015, 13:51	4.55
J_SHB_028	0.131	84.8	01Apr2015, 13:08	5.05
R_SHB_026	0.131	84.5	01Apr2015, 13:14	5.05
SHB_026	0.03	40	01Apr2015, 12:34	6.07
J_SHB_026	0.161	115.1	01Apr2015, 13:03	5.24
R_SHB_024	0.161	115	01Apr2015, 13:06	5.24
SHB_024	0.005	10.4	01Apr2015, 12:22	7.51
J_SHB_024	0.166	120.6	01Apr2015, 13:03	5.3
R_SHB_022	0.166	117.9	01Apr2015, 13:16	5.3
SHB_022	0.044	39	01Apr2015, 13:06	6.72
SHB_501	0.005	11.9	01Apr2015, 12:15	6.58
J_SHB_022	0.416	330.4	01Apr2015, 13:05	5.7
R_SHB_020	0.416	315.8	01Apr2015, 13:25	5.7
SHB_020	0.037	68.1	01Apr2015, 12:24	6.79
J_SHB_020	0.453	346.5	01Apr2015, 13:19	5.79
R_SHB_018	0.453	341.7	01Apr2015, 13:31	5.79
SHB_018	0.108	58.7	01Apr2015, 13:55	6.21
J_SHB_018	0.561	397.1	01Apr2015, 13:35	5.87
R_SHB_016	0.561	396.8	01Apr2015, 13:38	5.87
SHB_213	0.043	51.1	01Apr2015, 12:47	7.12
SHB_211	0.023	39	01Apr2015, 12:26	6.38
J_SHB_211	0.066	85.2	01Apr2015, 12:39	6.86
R_SHB_209	0.066	84.9	01Apr2015, 12:47	6.86
SHB_209	0.059	90.7	01Apr2015, 12:29	6.22
J_SHB_209	0.125	169.5	01Apr2015, 12:38	6.56
R_SHB_207	0.125	169.2	01Apr2015, 12:43	6.56

SHB_207	0.053	90	01Apr2015, 12:29	7.17
J_SHB_207	0.178	253.9	01Apr2015, 12:38	6.74
R_SHB_205	0.178	253.6	01Apr2015, 12:43	6.74
SHB_221	0.059	183.7	01Apr2015, 12:10	7.12
SHB_223	0.05	114.5	01Apr2015, 12:16	6.66
J_SHB_221	0.109	291.4	01Apr2015, 12:12	6.91
R_SHB_220	0.109	290.2	01Apr2015, 12:15	6.91
SHB_205	0.022	53.3	01Apr2015, 12:12	5.9
SHB_220	0.021	25.4	01Apr2015, 12:40	6.22
J_SHB_220	0.33	523.9	01Apr2015, 12:27	6.71
R_SHB_203	0.33	522.5	01Apr2015, 12:30	6.71
SHB_203	0.016	25	01Apr2015, 12:28	6.13
J_SHB_203	0.346	547.4	01Apr2015, 12:30	6.68
R_SHB_201	0.346	545.5	01Apr2015, 12:39	6.68
SHB_201	0.111	314.2	01Apr2015, 12:10	6.28
SHB_016	0.006	7.5	01Apr2015, 12:42	6.8
J_SHB_016	1.024	956.5	01Apr2015, 12:34	6.19
R_SHB_014	1.024	901.7	01Apr2015, 12:52	6.19
SHB_014	0.114	195	01Apr2015, 12:21	5.56
J_SHB_014	1.138	1035.9	01Apr2015, 12:46	6.13
R_SHB_012	1.138	947.6	01Apr2015, 13:11	6.13
SHB_108	0.065	107.8	01Apr2015, 12:28	6.57
J_SHB_108	0.065	107.8	01Apr2015, 12:28	6.57
R_SHB_107	0.065	107.8	01Apr2015, 12:28	6.57
SHB_105	0.056	77.2	01Apr2015, 12:40	7.48
J_SHB_105	0.056	77.2	01Apr2015, 12:40	7.48
R_SHB_104	0.056	77.2	01Apr2015, 12:58	7.48
SHB_104	0.053	117.5	01Apr2015, 12:16	6.4
SHB_107	0.017	50.4	01Apr2015, 12:10	6.66
J_SHB_104	0.191	289.3	01Apr2015, 12:23	6.8
R_SHB_103	0.191	289.3	01Apr2015, 12:23	6.8
SHB_103	0.013	24.8	01Apr2015, 12:21	6.27
Reservoir-SHB_103	0.204	312.1	01Apr2015, 12:27	6.77
R_SHB_102	0.204	310.3	01Apr2015, 12:41	6.76
SHB_102	0.033	82.5	01Apr2015, 12:12	6.1
J_SHB_102	0.237	355.1	01Apr2015, 12:37	6.67
R_SHB_101	0.237	352.2	01Apr2015, 12:53	6.67
SHB_012	0.025	67.2	01Apr2015, 12:12	6.4
SHB_101	0.005	13.7	01Apr2015, 12:12	6.55
J_SHB_012	1.405	1293.7	01Apr2015, 13:02	6.23
R_SHB_010	1.405	1054.1	01Apr2015, 13:49	6.23
SHB_007	0.098	189.6	01Apr2015, 12:19	6.07
SHB_005	0.023	32.5	01Apr2015, 12:29	5.61
J_SHB_005	0.023	32.5	01Apr2015, 12:29	5.61
R_SHB_004	0.023	32.5	01Apr2015, 12:35	5.61
SHB_004	0.02	62.3	01Apr2015, 12:10	7.14
J_SHB_004	0.141	266	01Apr2015, 12:19	6.14

R_SHB_003	0.141	265.9	01Apr2015, 12:22	6.14
SHB_003	0.033	49.9	01Apr2015, 12:34	7.17
J_SHB_003	0.174	310.9	01Apr2015, 12:24	6.34
R_SHB_002	0.174	310.9	01Apr2015, 12:24	6.34
SHB_002	0.004	10.3	01Apr2015, 12:13	6.55
Reservoir-SHB_002	0.178	319.7	01Apr2015, 12:24	6.25
R_SHB_001	0.178	298.1	01Apr2015, 12:24	5.87
SHB_010	0.018	26.3	01Apr2015, 12:33	6.55
SHB_001	0.003	1.8	01Apr2015, 13:43	6.55
OUT_SHB_001	1.604	1158.3	01Apr2015, 13:43	6.19

Project: SchoolhouseBranch

Simulation Run: 100YR-ALT1

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt1

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	84.8	01Apr2015, 12:40	7.04
SHB_507	0.057	38.6	01Apr2015, 13:35	6.69
J_SHB_507	0.057	38.6	01Apr2015, 13:35	6.69
R_SHB_505	0.057	38.6	01Apr2015, 13:40	6.69
J_SHB_505	0.118	106.3	01Apr2015, 12:51	6.87
R_SHB_503	0.118	106.3	01Apr2015, 12:59	6.87
SHB_503	0.083	110.6	01Apr2015, 12:44	7.37
J_SHB_503	0.201	214.4	01Apr2015, 12:50	7.07
R_SHB_501	0.201	210.9	01Apr2015, 12:59	7.07
SHB_028	0.103	94.2	01Apr2015, 13:01	6.42
SHB_030	0.028	16.2	01Apr2015, 13:36	5.73
J_SHB_030	0.028	16.2	01Apr2015, 13:36	5.73
R_SHB_028	0.028	16	01Apr2015, 13:50	5.73
J_SHB_028	0.131	105.9	01Apr2015, 13:07	6.27
R_SHB_026	0.131	105.5	01Apr2015, 13:13	6.27
SHB_026	0.03	48.4	01Apr2015, 12:34	7.37
J_SHB_026	0.161	142.6	01Apr2015, 13:03	6.48
R_SHB_024	0.161	142.4	01Apr2015, 13:05	6.48
SHB_024	0.005	12.1	01Apr2015, 12:22	8.87
J_SHB_024	0.166	149	01Apr2015, 13:03	6.55
R_SHB_022	0.166	145.7	01Apr2015, 13:15	6.55
SHB_022	0.044	46.5	01Apr2015, 13:06	8.05
SHB_501	0.005	14.2	01Apr2015, 12:15	7.91
J_SHB_022	0.416	403.6	01Apr2015, 13:05	6.97
R_SHB_020	0.416	384.8	01Apr2015, 13:25	6.97
SHB_020	0.037	80.9	01Apr2015, 12:24	8.12
J_SHB_020	0.453	420.7	01Apr2015, 13:19	7.07
R_SHB_018	0.453	414.6	01Apr2015, 13:32	7.07
SHB_018	0.108	71.1	01Apr2015, 13:54	7.52
J_SHB_018	0.561	482.2	01Apr2015, 13:35	7.16
R_SHB_016	0.561	481.8	01Apr2015, 13:38	7.16
SHB_213	0.043	60.4	01Apr2015, 12:47	8.47
SHB_211	0.023	46.8	01Apr2015, 12:26	7.7
J_SHB_211	0.066	101.3	01Apr2015, 12:39	8.2
R_SHB_209	0.066	100.9	01Apr2015, 12:47	8.2
SHB_209	0.059	109.2	01Apr2015, 12:29	7.53
J_SHB_209	0.125	202.5	01Apr2015, 12:38	7.89
R_SHB_207	0.125	202.1	01Apr2015, 12:43	7.88

SHB_207	0.053	106.2	01Apr2015, 12:29	8.52
J_SHB_207	0.178	302	01Apr2015, 12:38	8.07
R_SHB_205	0.178	301.7	01Apr2015, 12:43	8.07
SHB_221	0.059	216.6	01Apr2015, 12:10	8.47
SHB_223	0.05	136.3	01Apr2015, 12:16	7.99
J_SHB_221	0.109	345	01Apr2015, 12:12	8.25
R_SHB_220	0.109	343.5	01Apr2015, 12:15	8.25
SHB_205	0.022	64.7	01Apr2015, 12:12	7.19
SHB_220	0.021	30.7	01Apr2015, 12:40	7.53
J_SHB_220	0.33	622.9	01Apr2015, 12:26	8.04
R_SHB_203	0.33	620.9	01Apr2015, 12:30	8.04
SHB_203	0.016	30.1	01Apr2015, 12:28	7.43
J_SHB_203	0.346	650.9	01Apr2015, 12:30	8.01
R_SHB_201	0.346	648.7	01Apr2015, 12:38	8.01
SHB_201	0.111	377.2	01Apr2015, 12:10	7.6
SHB_016	0.006	8.9	01Apr2015, 12:42	8.14
J_SHB_016	1.024	1132.1	01Apr2015, 12:33	7.5
R_SHB_014	1.024	1072.8	01Apr2015, 12:51	7.5
SHB_014	0.114	238.8	01Apr2015, 12:21	6.83
J_SHB_014	1.138	1238.3	01Apr2015, 12:45	7.43
R_SHB_012	1.138	1147.6	01Apr2015, 13:08	7.43
SHB_108	0.065	128.7	01Apr2015, 12:27	7.9
J_SHB_108	0.065	128.7	01Apr2015, 12:27	7.9
R_SHB_107	0.065	128.7	01Apr2015, 12:27	7.9
SHB_105	0.056	90.7	01Apr2015, 12:40	8.84
J_SHB_105	0.056	90.7	01Apr2015, 12:40	8.84
R_SHB_104	0.056	90.7	01Apr2015, 12:58	8.84
SHB_104	0.053	140.8	01Apr2015, 12:16	7.72
SHB_107	0.017	60	01Apr2015, 12:10	7.99
J_SHB_104	0.191	345.1	01Apr2015, 12:23	8.13
R_SHB_103	0.191	345.1	01Apr2015, 12:23	8.13
SHB_103	0.013	29.9	01Apr2015, 12:20	7.58
Reservoir-SHB_103	0.204	372.7	01Apr2015, 12:26	8.1
R_SHB_102	0.204	370.6	01Apr2015, 12:40	8.1
SHB_102	0.033	99.5	01Apr2015, 12:12	7.41
J_SHB_102	0.237	425.6	01Apr2015, 12:36	8
R_SHB_101	0.237	421.8	01Apr2015, 12:52	8
SHB_012	0.025	80.4	01Apr2015, 12:12	7.72
SHB_101	0.005	16.3	01Apr2015, 12:12	7.87
J_SHB_012	1.405	1567.7	01Apr2015, 13:00	7.53
R_SHB_010	1.405	1278.5	01Apr2015, 13:45	7.53
SHB_007	0.098	229.1	01Apr2015, 12:19	7.37
SHB_005	0.023	39.8	01Apr2015, 12:29	6.88
J_SHB_005	0.023	39.8	01Apr2015, 12:29	6.88
R_SHB_004	0.023	39.7	01Apr2015, 12:34	6.88
SHB_004	0.02	73.5	01Apr2015, 12:10	8.49
J_SHB_004	0.141	320.9	01Apr2015, 12:19	7.45

R_SHB_003	0.141	320.7	01Apr2015, 12:22	7.45
SHB_003	0.033	58.9	01Apr2015, 12:34	8.52
J_SHB_003	0.174	373.9	01Apr2015, 12:24	7.65
R_SHB_002	0.174	373.9	01Apr2015, 12:24	7.65
SHB_002	0.004	12.3	01Apr2015, 12:13	7.87
Reservoir-SHB_002	0.178	384.4	01Apr2015, 12:24	7.56
R_SHB_001	0.178	362	01Apr2015, 12:24	7.34
SHB_010	0.018	31.5	01Apr2015, 12:33	7.87
SHB_001	0.003	2.2	01Apr2015, 13:43	7.87
OUT_SHB_001	1.604	1410.5	01Apr2015, 13:38	7.52

Project: SchoolhouseBranch

Simulation Run: 2YR-ALT2

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt2

End of Run: 03Apr2015, 00:00

Meteorilologic Model: 2-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	19.2	01Apr2015, 12:43	1.65
SHB_507	0.057	7.8	01Apr2015, 13:45	1.47
J_SHB_507	0.057	7.8	01Apr2015, 13:45	1.47
R_SHB_505	0.057	7.8	01Apr2015, 13:52	1.47
J_SHB_505	0.118	22.7	01Apr2015, 12:58	1.56
R_SHB_503	0.118	22.7	01Apr2015, 13:06	1.56
SHB_503	0.083	27	01Apr2015, 12:47	1.85
J_SHB_503	0.201	49	01Apr2015, 12:54	1.68
R_SHB_501	0.201	48.6	01Apr2015, 13:02	1.68
SHB_028	0.103	17.7	01Apr2015, 13:09	1.33
SHB_030	0.028	2.5	01Apr2015, 13:53	1.02
J_SHB_030	0.028	2.5	01Apr2015, 13:53	1.02
R_SHB_028	0.028	2.5	01Apr2015, 14:09	1.02
J_SHB_028	0.131	19.4	01Apr2015, 13:15	1.26
R_SHB_026	0.131	19.4	01Apr2015, 13:21	1.26
SHB_026	0.03	11.9	01Apr2015, 12:37	1.85
J_SHB_026	0.161	28.5	01Apr2015, 13:06	1.37
R_SHB_024	0.161	28.5	01Apr2015, 13:09	1.37
SHB_024	0.005	4.1	01Apr2015, 12:22	2.89
J_SHB_024	0.166	30.7	01Apr2015, 13:05	1.42
R_SHB_022	0.166	30	01Apr2015, 13:18	1.42
SHB_022	0.044	13.1	01Apr2015, 13:09	2.28
SHB_501	0.005	4	01Apr2015, 12:16	2.19
J_SHB_022	0.416	92.4	01Apr2015, 13:07	1.64
R_SHB_020	0.416	91.6	01Apr2015, 13:15	1.64
SHB_020	0.037	23.9	01Apr2015, 12:26	2.33
J_SHB_020	0.453	104.8	01Apr2015, 13:08	1.7
R_SHB_018	0.453	104.5	01Apr2015, 13:12	1.7
SHB_018	0.108	17.6	01Apr2015, 14:02	1.94
J_SHB_018	0.561	118.2	01Apr2015, 13:18	1.75
R_SHB_016	0.561	118	01Apr2015, 13:22	1.75
SHB_213	0.043	18.8	01Apr2015, 12:49	2.58
SHB_211	0.023	12.6	01Apr2015, 12:28	2.05
J_SHB_211	0.066	29.9	01Apr2015, 12:41	2.39
R_SHB_209	0.066	29.8	01Apr2015, 12:48	2.39
SHB_209	0.059	28.2	01Apr2015, 12:31	1.94
J_SHB_209	0.125	56.1	01Apr2015, 12:41	2.18
R_SHB_207	0.125	56	01Apr2015, 12:44	2.18



SHB_207	0.053	33.8	01Apr2015, 12:30	2.62
J_SHB_207	0.178	87.9	01Apr2015, 12:39	2.31
R_SHB_205	0.178	87.9	01Apr2015, 12:43	2.31
SHB_221	0.059	69.2	01Apr2015, 12:11	2.58
SHB_223	0.05	39.2	01Apr2015, 12:17	2.24
J_SHB_221	0.109	105.7	01Apr2015, 12:12	2.42
R_SHB_220	0.109	105.5	01Apr2015, 12:15	2.42
SHB_205	0.022	15.5	01Apr2015, 12:13	1.74
SHB_220	0.021	7.8	01Apr2015, 12:43	1.94
J_SHB_220	0.33	182.6	01Apr2015, 12:26	2.29
R_SHB_203	0.33	182	01Apr2015, 12:30	2.29
SHB_203	0.016	7.6	01Apr2015, 12:30	1.88
J_SHB_203	0.346	189.6	01Apr2015, 12:30	2.27
R_SHB_201	0.346	188.9	01Apr2015, 12:40	2.27
SHB_201	0.111	100.4	01Apr2015, 12:11	1.98
SHB_016	0.006	2.6	01Apr2015, 12:44	2.34
J_SHB_016	1.024	316.9	01Apr2015, 12:41	1.95
R_SHB_014	1.024	296.1	01Apr2015, 12:59	1.95
SHB_014	0.114	52.1	01Apr2015, 12:24	1.54
J_SHB_014	1.138	329.7	01Apr2015, 12:55	1.91
R_SHB_012	1.138	290.3	01Apr2015, 13:26	1.91
SHB_108	0.065	36.1	01Apr2015, 12:29	2.18
J_SHB_108	0.065	36.1	01Apr2015, 12:29	2.18
R_SHB_107	0.065	36.1	01Apr2015, 12:29	2.18
SHB_105	0.056	30.5	01Apr2015, 12:41	2.87
J_SHB_105	0.056	30.5	01Apr2015, 12:41	2.87
R_SHB_104	0.056	30.5	01Apr2015, 12:59	2.87
SHB_104	0.053	38.2	01Apr2015, 12:17	2.06
SHB_107	0.017	17.4	01Apr2015, 12:11	2.24
J_SHB_104	0.191	98.4	01Apr2015, 12:27	2.35
R_SHB_103	0.191	98.4	01Apr2015, 12:27	2.35
SHB_103	0.013	7.8	01Apr2015, 12:22	1.98
Reservoir-SHB_103	0.204	105.3	01Apr2015, 12:30	2.33
R_SHB_102	0.204	105	01Apr2015, 12:43	2.33
SHB_102	0.033	25.2	01Apr2015, 12:13	1.87
J_SHB_102	0.237	118.7	01Apr2015, 12:39	2.26
R_SHB_101	0.237	118.1	01Apr2015, 12:55	2.26
SHB_012	0.025	22	01Apr2015, 12:12	2.06
SHB_101	0.005	4.6	01Apr2015, 12:12	2.16
J_SHB_012	1.405	396.5	01Apr2015, 13:13	1.97
R_SHB_010	1.405	325.3	01Apr2015, 14:00	1.97
SHB_007	0.098	57.2	01Apr2015, 12:21	1.85
SHB_005	0.023	8.7	01Apr2015, 12:32	1.57
J_SHB_005	0.023	8.7	01Apr2015, 12:32	1.57
R_SHB_004	0.023	8.7	01Apr2015, 12:40	1.57
SHB_004	0.02	23.5	01Apr2015, 12:11	2.59
J_SHB_004	0.141	82	01Apr2015, 12:20	1.91

R_SHB_003	0.141	82	01Apr2015, 12:23	1.91
SHB_003	0.033	18.7	01Apr2015, 12:35	2.62
J_SHB_003	0.174	99.1	01Apr2015, 12:26	2.04
R_SHB_002	0.174	99.1	01Apr2015, 12:26	2.04
SHB_002	0.004	3.5	01Apr2015, 12:13	2.16
Reservoir-SHB_002	0.178	77.2	01Apr2015, 12:49	1.95
R_SHB_001	0.178	68.7	01Apr2015, 12:49	1.76
SHB_010	0.018	8.7	01Apr2015, 12:35	2.16
SHB_001	0.003	0.6	01Apr2015, 13:48	2.16
OUT_SHB_001	1.604	369	01Apr2015, 13:57	1.95

Project: SchoolhouseBranch

Simulation Run: 10YR-ALT2

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt2

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 10-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	40.2	01Apr2015, 12:41	3.35
SHB_507	0.057	17.4	01Apr2015, 13:39	3.09
J_SHB_507	0.057	17.4	01Apr2015, 13:39	3.09
R_SHB_505	0.057	17.4	01Apr2015, 13:45	3.09
J_SHB_505	0.118	49.1	01Apr2015, 12:54	3.23
R_SHB_503	0.118	49.1	01Apr2015, 13:01	3.23
SHB_503	0.083	54.2	01Apr2015, 12:45	3.61
J_SHB_503	0.201	102.1	01Apr2015, 12:51	3.39
R_SHB_501	0.201	100.7	01Apr2015, 13:00	3.38
SHB_028	0.103	41.2	01Apr2015, 13:04	2.89
SHB_030	0.028	6.5	01Apr2015, 13:42	2.41
J_SHB_030	0.028	6.5	01Apr2015, 13:42	2.41
R_SHB_028	0.028	6.4	01Apr2015, 13:56	2.41
J_SHB_028	0.131	45.8	01Apr2015, 13:11	2.79
R_SHB_026	0.131	45.6	01Apr2015, 13:17	2.79
SHB_026	0.03	23.8	01Apr2015, 12:35	3.61
J_SHB_026	0.161	63.9	01Apr2015, 13:04	2.94
R_SHB_024	0.161	63.8	01Apr2015, 13:07	2.94
SHB_024	0.005	6.9	01Apr2015, 12:22	4.88
J_SHB_024	0.166	67.5	01Apr2015, 13:04	3
R_SHB_022	0.166	66	01Apr2015, 13:16	3
SHB_022	0.044	24.3	01Apr2015, 13:07	4.17
SHB_501	0.005	7.4	01Apr2015, 12:15	4.05
J_SHB_022	0.416	191.6	01Apr2015, 13:06	3.32
R_SHB_020	0.416	189.9	01Apr2015, 13:14	3.32
SHB_020	0.037	43.1	01Apr2015, 12:25	4.23
J_SHB_020	0.453	213.4	01Apr2015, 13:08	3.4
R_SHB_018	0.453	210.5	01Apr2015, 13:18	3.4
SHB_018	0.108	34.9	01Apr2015, 13:57	3.73
J_SHB_018	0.561	240.3	01Apr2015, 13:24	3.46
R_SHB_016	0.561	240.1	01Apr2015, 13:27	3.46
SHB_213	0.043	32.9	01Apr2015, 12:48	4.53
SHB_211	0.023	23.9	01Apr2015, 12:27	3.87
J_SHB_211	0.066	53.8	01Apr2015, 12:40	4.3
R_SHB_209	0.066	53.8	01Apr2015, 12:46	4.3
SHB_209	0.059	54.8	01Apr2015, 12:30	3.74
J_SHB_209	0.125	105.6	01Apr2015, 12:38	4.04
R_SHB_207	0.125	105.4	01Apr2015, 12:43	4.04

SHB_207	0.053	58.4	01Apr2015, 12:29	4.57
J_SHB_207	0.178	160.5	01Apr2015, 12:39	4.2
R_SHB_205	0.178	160.3	01Apr2015, 12:43	4.2
SHB_221	0.059	119.3	01Apr2015, 12:10	4.53
SHB_223	0.05	71.8	01Apr2015, 12:16	4.11
J_SHB_221	0.109	186.6	01Apr2015, 12:12	4.34
R_SHB_220	0.109	185.9	01Apr2015, 12:15	4.34
SHB_205	0.022	31.5	01Apr2015, 12:13	3.47
SHB_220	0.021	15.3	01Apr2015, 12:41	3.74
J_SHB_220	0.33	330.4	01Apr2015, 12:26	4.17
R_SHB_203	0.33	329.7	01Apr2015, 12:30	4.16
SHB_203	0.016	15	01Apr2015, 12:29	3.66
J_SHB_203	0.346	344.6	01Apr2015, 12:30	4.14
R_SHB_201	0.346	343.6	01Apr2015, 12:39	4.14
SHB_201	0.111	192.2	01Apr2015, 12:11	3.79
SHB_016	0.006	4.7	01Apr2015, 12:43	4.24
J_SHB_016	1.024	597.9	01Apr2015, 12:40	3.73
R_SHB_014	1.024	567.9	01Apr2015, 12:57	3.73
SHB_014	0.114	111.6	01Apr2015, 12:22	3.2
J_SHB_014	1.138	639.6	01Apr2015, 12:52	3.68
R_SHB_012	1.138	577.1	01Apr2015, 13:19	3.68
SHB_108	0.065	67	01Apr2015, 12:28	4.04
J_SHB_108	0.065	67	01Apr2015, 12:28	4.04
R_SHB_107	0.065	67	01Apr2015, 12:28	4.04
SHB_105	0.056	51	01Apr2015, 12:40	4.86
J_SHB_105	0.056	51	01Apr2015, 12:40	4.86
R_SHB_104	0.056	51	01Apr2015, 12:58	4.86
SHB_104	0.053	72.3	01Apr2015, 12:17	3.89
SHB_107	0.017	31.7	01Apr2015, 12:11	4.11
J_SHB_104	0.191	180.8	01Apr2015, 12:25	4.25
R_SHB_103	0.191	180.8	01Apr2015, 12:25	4.25
SHB_103	0.013	15.1	01Apr2015, 12:21	3.78
Reservoir-SHB_103	0.204	194.7	01Apr2015, 12:28	4.22
R_SHB_102	0.204	193.8	01Apr2015, 12:42	4.22
SHB_102	0.033	49.6	01Apr2015, 12:13	3.64
J_SHB_102	0.237	220.4	01Apr2015, 12:38	4.14
R_SHB_101	0.237	218.8	01Apr2015, 12:55	4.13
SHB_012	0.025	41.5	01Apr2015, 12:12	3.89
SHB_101	0.005	8.5	01Apr2015, 12:12	4.02
J_SHB_012	1.405	781.5	01Apr2015, 13:09	3.76
R_SHB_010	1.405	635.1	01Apr2015, 13:55	3.76
SHB_007	0.098	113.5	01Apr2015, 12:20	3.61
SHB_005	0.023	18.7	01Apr2015, 12:30	3.24
J_SHB_005	0.023	18.7	01Apr2015, 12:30	3.24
R_SHB_004	0.023	18.6	01Apr2015, 12:36	3.24
SHB_004	0.02	40.5	01Apr2015, 12:10	4.54
J_SHB_004	0.141	160.2	01Apr2015, 12:20	3.68

R_SHB_003	0.141	160.2	01Apr2015, 12:22	3.68
SHB_003	0.033	32.3	01Apr2015, 12:35	4.57
J_SHB_003	0.174	189.5	01Apr2015, 12:25	3.85
R_SHB_002	0.174	189.5	01Apr2015, 12:25	3.85
SHB_002	0.004	6.4	01Apr2015, 12:13	4.02
Reservoir-SHB_002	0.178	194.9	01Apr2015, 12:25	3.76
R_SHB_001	0.178	178.5	01Apr2015, 12:25	3.42
SHB_010	0.018	16.3	01Apr2015, 12:34	4.02
SHB_001	0.003	1.1	01Apr2015, 13:45	4.02
OUT_SHB_001	1.604	696	01Apr2015, 13:48	3.73

Project: SchoolhouseBranch

Simulation Run: 25YR-ALT2

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt2

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 25-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	55.7	01Apr2015, 12:40	4.62
SHB_507	0.057	24.7	01Apr2015, 13:37	4.32
J_SHB_507	0.057	24.7	01Apr2015, 13:37	4.32
R_SHB_505	0.057	24.7	01Apr2015, 13:42	4.32
J_SHB_505	0.118	68.8	01Apr2015, 12:52	4.47
R_SHB_503	0.118	68.8	01Apr2015, 12:58	4.47
SHB_503	0.083	73.9	01Apr2015, 12:45	4.91
J_SHB_503	0.201	141.4	01Apr2015, 12:50	4.65
R_SHB_501	0.201	139.1	01Apr2015, 12:59	4.65
SHB_028	0.103	59.3	01Apr2015, 13:03	4.09
SHB_030	0.028	9.7	01Apr2015, 13:39	3.52
J_SHB_030	0.028	9.7	01Apr2015, 13:39	3.52
R_SHB_028	0.028	9.6	01Apr2015, 13:53	3.52
J_SHB_028	0.131	66.2	01Apr2015, 13:09	3.97
R_SHB_026	0.131	66	01Apr2015, 13:15	3.97
SHB_026	0.03	32.4	01Apr2015, 12:35	4.91
J_SHB_026	0.161	90.8	01Apr2015, 13:04	4.14
R_SHB_024	0.161	90.7	01Apr2015, 13:06	4.14
SHB_024	0.005	8.7	01Apr2015, 12:22	6.28
J_SHB_024	0.166	95.4	01Apr2015, 13:03	4.21
R_SHB_022	0.166	93.3	01Apr2015, 13:16	4.21
SHB_022	0.044	32.1	01Apr2015, 13:06	5.52
SHB_501	0.005	9.8	01Apr2015, 12:15	5.39
J_SHB_022	0.416	264.9	01Apr2015, 13:05	4.57
R_SHB_020	0.416	254.2	01Apr2015, 13:24	4.57
SHB_020	0.037	56.4	01Apr2015, 12:25	5.59
J_SHB_020	0.453	280.2	01Apr2015, 13:17	4.66
R_SHB_018	0.453	276.9	01Apr2015, 13:29	4.66
SHB_018	0.108	47.5	01Apr2015, 13:56	5.04
J_SHB_018	0.561	321.2	01Apr2015, 13:34	4.73
R_SHB_016	0.561	320.9	01Apr2015, 13:37	4.73
SHB_213	0.043	42.6	01Apr2015, 12:47	5.91
SHB_211	0.023	31.9	01Apr2015, 12:26	5.2
J_SHB_211	0.066	70.6	01Apr2015, 12:39	5.66
R_SHB_209	0.066	70.4	01Apr2015, 12:46	5.66
SHB_209	0.059	73.9	01Apr2015, 12:29	5.05
J_SHB_209	0.125	139.6	01Apr2015, 12:38	5.37
R_SHB_207	0.125	139.4	01Apr2015, 12:43	5.37

SHB_207	0.053	75.3	01Apr2015, 12:29	5.96
J_SHB_207	0.178	210.5	01Apr2015, 12:38	5.55
R_SHB_205	0.178	210.2	01Apr2015, 12:43	5.55
SHB_221	0.059	153.8	01Apr2015, 12:10	5.91
SHB_223	0.05	94.6	01Apr2015, 12:16	5.46
J_SHB_221	0.109	242.7	01Apr2015, 12:12	5.7
R_SHB_220	0.109	241.7	01Apr2015, 12:15	5.7
SHB_205	0.022	43.1	01Apr2015, 12:12	4.75
SHB_220	0.021	20.7	01Apr2015, 12:40	5.05
J_SHB_220	0.33	433.4	01Apr2015, 12:27	5.51
R_SHB_203	0.33	432.4	01Apr2015, 12:30	5.51
SHB_203	0.016	20.3	01Apr2015, 12:28	4.96
J_SHB_203	0.346	452.7	01Apr2015, 12:30	5.49
R_SHB_201	0.346	451.3	01Apr2015, 12:39	5.49
SHB_201	0.111	257.2	01Apr2015, 12:11	5.11
SHB_016	0.006	6.2	01Apr2015, 12:43	5.6
J_SHB_016	1.024	795.7	01Apr2015, 12:36	5.03
R_SHB_014	1.024	749.2	01Apr2015, 12:53	5.03
SHB_014	0.114	155.6	01Apr2015, 12:21	4.44
J_SHB_014	1.138	854.5	01Apr2015, 12:48	4.97
R_SHB_012	1.138	777	01Apr2015, 13:13	4.97
SHB_108	0.065	88.8	01Apr2015, 12:28	5.38
J_SHB_108	0.065	88.8	01Apr2015, 12:28	5.38
R_SHB_107	0.065	88.8	01Apr2015, 12:28	5.38
SHB_105	0.056	65	01Apr2015, 12:40	6.26
J_SHB_105	0.056	65	01Apr2015, 12:40	6.26
R_SHB_104	0.056	65	01Apr2015, 12:58	6.26
SHB_104	0.053	96.4	01Apr2015, 12:16	5.22
SHB_107	0.017	41.7	01Apr2015, 12:10	5.46
J_SHB_104	0.191	238.7	01Apr2015, 12:24	5.6
R_SHB_103	0.191	238.7	01Apr2015, 12:24	5.6
SHB_103	0.013	20.3	01Apr2015, 12:21	5.1
Reservoir-SHB_103	0.204	257.1	01Apr2015, 12:27	5.57
R_SHB_102	0.204	255.7	01Apr2015, 12:42	5.57
SHB_102	0.033	67.1	01Apr2015, 12:12	4.94
J_SHB_102	0.237	291.6	01Apr2015, 12:37	5.48
R_SHB_101	0.237	289.4	01Apr2015, 12:54	5.48
SHB_012	0.025	55.2	01Apr2015, 12:12	5.22
SHB_101	0.005	11.3	01Apr2015, 12:12	5.36
J_SHB_012	1.405	1059.1	01Apr2015, 13:04	5.06
R_SHB_010	1.405	856.7	01Apr2015, 13:51	5.06
SHB_007	0.098	153.9	01Apr2015, 12:19	4.91
SHB_005	0.023	26	01Apr2015, 12:29	4.48
J_SHB_005	0.023	26	01Apr2015, 12:29	4.48
R_SHB_004	0.023	25.9	01Apr2015, 12:35	4.48
SHB_004	0.02	52.2	01Apr2015, 12:10	5.92
J_SHB_004	0.141	216.5	01Apr2015, 12:19	4.98

R_SHB_003	0.141	216.4	01Apr2015, 12:22	4.98
SHB_003	0.033	41.8	01Apr2015, 12:34	5.96
J_SHB_003	0.174	253.8	01Apr2015, 12:24	5.17
R_SHB_002	0.174	253.8	01Apr2015, 12:24	5.17
SHB_002	0.004	8.5	01Apr2015, 12:13	5.36
Reservoir-SHB_002	0.178	261	01Apr2015, 12:24	5.08
R_SHB_001	0.178	241	01Apr2015, 12:24	4.65
SHB_010	0.018	21.6	01Apr2015, 12:33	5.36
SHB_001	0.003	1.5	01Apr2015, 13:44	5.36
OUT_SHB_001	1.604	939.9	01Apr2015, 13:44	5.02



Project: SchoolhouseBranch

Simulation Run: 50YR-ALT2

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt2

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 50-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	69.5	01Apr2015, 12:40	5.76
SHB_507	0.057	31.2	01Apr2015, 13:36	5.43
J_SHB_507	0.057	31.2	01Apr2015, 13:36	5.43
R_SHB_505	0.057	31.2	01Apr2015, 13:41	5.43
J_SHB_505	0.118	86.5	01Apr2015, 12:52	5.6
R_SHB_503	0.118	86.5	01Apr2015, 12:58	5.6
SHB_503	0.083	91.3	01Apr2015, 12:44	6.07
J_SHB_503	0.201	175.9	01Apr2015, 12:50	5.79
R_SHB_501	0.201	173.2	01Apr2015, 12:59	5.79
SHB_028	0.103	75.7	01Apr2015, 13:02	5.18
SHB_030	0.028	12.8	01Apr2015, 13:37	4.55
J_SHB_030	0.028	12.8	01Apr2015, 13:37	4.55
R_SHB_028	0.028	12.6	01Apr2015, 13:51	4.55
J_SHB_028	0.131	84.8	01Apr2015, 13:08	5.05
R_SHB_026	0.131	84.5	01Apr2015, 13:14	5.05
SHB_026	0.03	40	01Apr2015, 12:34	6.07
J_SHB_026	0.161	115.1	01Apr2015, 13:03	5.24
R_SHB_024	0.161	115	01Apr2015, 13:06	5.24
SHB_024	0.005	10.4	01Apr2015, 12:22	7.51
J_SHB_024	0.166	120.6	01Apr2015, 13:03	5.3
R_SHB_022	0.166	117.9	01Apr2015, 13:16	5.3
SHB_022	0.044	39	01Apr2015, 13:06	6.72
SHB_501	0.005	11.9	01Apr2015, 12:15	6.58
J_SHB_022	0.416	330.4	01Apr2015, 13:05	5.7
R_SHB_020	0.416	315.1	01Apr2015, 13:26	5.7
SHB_020	0.037	68.1	01Apr2015, 12:24	6.79
J_SHB_020	0.453	345.5	01Apr2015, 13:19	5.79
R_SHB_018	0.453	340.9	01Apr2015, 13:31	5.79
SHB_018	0.108	58.7	01Apr2015, 13:55	6.21
J_SHB_018	0.561	396.4	01Apr2015, 13:35	5.87
R_SHB_016	0.561	396.1	01Apr2015, 13:38	5.87
SHB_213	0.043	51.1	01Apr2015, 12:47	7.12
SHB_211	0.023	39	01Apr2015, 12:26	6.38
J_SHB_211	0.066	85.2	01Apr2015, 12:39	6.86
R_SHB_209	0.066	84.9	01Apr2015, 12:47	6.86
SHB_209	0.059	90.7	01Apr2015, 12:29	6.22
J_SHB_209	0.125	169.5	01Apr2015, 12:38	6.56
R_SHB_207	0.125	169.2	01Apr2015, 12:43	6.56

SHB_207	0.053	90	01Apr2015, 12:29	7.17
J_SHB_207	0.178	253.9	01Apr2015, 12:38	6.74
R_SHB_205	0.178	253.6	01Apr2015, 12:43	6.74
SHB_221	0.059	183.7	01Apr2015, 12:10	7.12
SHB_223	0.05	114.5	01Apr2015, 12:16	6.66
J_SHB_221	0.109	291.4	01Apr2015, 12:12	6.91
R_SHB_220	0.109	290.2	01Apr2015, 12:15	6.91
SHB_205	0.022	53.3	01Apr2015, 12:12	5.9
SHB_220	0.021	25.4	01Apr2015, 12:40	6.22
J_SHB_220	0.33	523.9	01Apr2015, 12:27	6.71
R_SHB_203	0.33	522.5	01Apr2015, 12:30	6.71
SHB_203	0.016	25	01Apr2015, 12:28	6.13
J_SHB_203	0.346	547.4	01Apr2015, 12:30	6.68
R_SHB_201	0.346	545.5	01Apr2015, 12:39	6.68
SHB_201	0.111	314.2	01Apr2015, 12:10	6.28
SHB_016	0.006	7.5	01Apr2015, 12:42	6.8
J_SHB_016	1.024	955.9	01Apr2015, 12:34	6.19
R_SHB_014	1.024	901.1	01Apr2015, 12:52	6.19
SHB_014	0.114	195	01Apr2015, 12:21	5.56
J_SHB_014	1.138	1035.4	01Apr2015, 12:46	6.13
R_SHB_012	1.138	946.8	01Apr2015, 13:11	6.13
SHB_108	0.065	107.8	01Apr2015, 12:28	6.57
J_SHB_108	0.065	107.8	01Apr2015, 12:28	6.57
R_SHB_107	0.065	107.8	01Apr2015, 12:28	6.57
SHB_105	0.056	77.2	01Apr2015, 12:40	7.48
J_SHB_105	0.056	77.2	01Apr2015, 12:40	7.48
R_SHB_104	0.056	77.2	01Apr2015, 12:58	7.48
SHB_104	0.053	117.5	01Apr2015, 12:16	6.4
SHB_107	0.017	50.4	01Apr2015, 12:10	6.66
J_SHB_104	0.191	289.3	01Apr2015, 12:23	6.8
R_SHB_103	0.191	289.3	01Apr2015, 12:23	6.8
SHB_103	0.013	24.8	01Apr2015, 12:21	6.27
Reservoir-SHB_103	0.204	312.1	01Apr2015, 12:27	6.77
R_SHB_102	0.204	310.3	01Apr2015, 12:41	6.76
SHB_102	0.033	82.5	01Apr2015, 12:12	6.1
J_SHB_102	0.237	355.1	01Apr2015, 12:37	6.67
R_SHB_101	0.237	352.2	01Apr2015, 12:53	6.67
SHB_012	0.025	67.2	01Apr2015, 12:12	6.4
SHB_101	0.005	13.7	01Apr2015, 12:12	6.55
J_SHB_012	1.405	1293.1	01Apr2015, 13:02	6.23
R_SHB_010	1.405	1053.3	01Apr2015, 13:49	6.23
SHB_007	0.098	189.6	01Apr2015, 12:19	6.07
SHB_005	0.023	32.5	01Apr2015, 12:29	5.61
J_SHB_005	0.023	32.5	01Apr2015, 12:29	5.61
R_SHB_004	0.023	32.5	01Apr2015, 12:35	5.61
SHB_004	0.02	62.3	01Apr2015, 12:10	7.14
J_SHB_004	0.141	266	01Apr2015, 12:19	6.14

R_SHB_003	0.141	265.9	01Apr2015, 12:22	6.14
SHB_003	0.033	49.9	01Apr2015, 12:34	7.17
J_SHB_003	0.174	310.9	01Apr2015, 12:24	6.34
R_SHB_002	0.174	310.9	01Apr2015, 12:24	6.34
SHB_002	0.004	10.3	01Apr2015, 12:13	6.55
Reservoir-SHB_002	0.178	319.7	01Apr2015, 12:24	6.25
R_SHB_001	0.178	298.1	01Apr2015, 12:24	5.87
SHB_010	0.018	26.3	01Apr2015, 12:33	6.55
SHB_001	0.003	1.8	01Apr2015, 13:43	6.55
OUT_SHB_001	1.604	1157.5	01Apr2015, 13:43	6.19

Project: SchoolhouseBranch

Simulation Run: 100YR-ALT2

Start of Run: 01Apr2015, 00:00

Basin Model: Schoolhouse Branch-Alt2

End of Run: 03Apr2015, 00:00

Meteorillogic Model: 100-YR

Compute Time: 16Dec2015, 12:40:34

Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
SHB_505	0.061	84.8	01Apr2015, 12:40	7.04
SHB_507	0.057	38.6	01Apr2015, 13:35	6.69
J_SHB_507	0.057	38.6	01Apr2015, 13:35	6.69
R_SHB_505	0.057	38.6	01Apr2015, 13:40	6.69
J_SHB_505	0.118	106.3	01Apr2015, 12:51	6.87
R_SHB_503	0.118	106.3	01Apr2015, 12:59	6.87
SHB_503	0.083	110.6	01Apr2015, 12:44	7.37
J_SHB_503	0.201	214.4	01Apr2015, 12:50	7.07
R_SHB_501	0.201	210.9	01Apr2015, 12:59	7.07
SHB_028	0.103	94.2	01Apr2015, 13:01	6.42
SHB_030	0.028	16.2	01Apr2015, 13:36	5.73
J_SHB_030	0.028	16.2	01Apr2015, 13:36	5.73
R_SHB_028	0.028	16	01Apr2015, 13:50	5.73
J_SHB_028	0.131	105.9	01Apr2015, 13:07	6.27
R_SHB_026	0.131	105.5	01Apr2015, 13:13	6.27
SHB_026	0.03	48.4	01Apr2015, 12:34	7.37
J_SHB_026	0.161	142.6	01Apr2015, 13:03	6.48
R_SHB_024	0.161	142.4	01Apr2015, 13:05	6.48
SHB_024	0.005	12.1	01Apr2015, 12:22	8.87
J_SHB_024	0.166	149	01Apr2015, 13:03	6.55
R_SHB_022	0.166	145.7	01Apr2015, 13:15	6.55
SHB_022	0.044	46.5	01Apr2015, 13:06	8.05
SHB_501	0.005	14.2	01Apr2015, 12:15	7.91
J_SHB_022	0.416	403.6	01Apr2015, 13:05	6.97
R_SHB_020	0.416	383.9	01Apr2015, 13:26	6.97
SHB_020	0.037	80.9	01Apr2015, 12:24	8.12
J_SHB_020	0.453	419.4	01Apr2015, 13:20	7.07
R_SHB_018	0.453	413.5	01Apr2015, 13:32	7.07
SHB_018	0.108	71.1	01Apr2015, 13:54	7.52
J_SHB_018	0.561	481.3	01Apr2015, 13:36	7.16
R_SHB_016	0.561	480.9	01Apr2015, 13:39	7.16
SHB_213	0.043	60.4	01Apr2015, 12:47	8.47
SHB_211	0.023	46.8	01Apr2015, 12:26	7.7
J_SHB_211	0.066	101.3	01Apr2015, 12:39	8.2
R_SHB_209	0.066	100.9	01Apr2015, 12:47	8.2
SHB_209	0.059	109.2	01Apr2015, 12:29	7.53
J_SHB_209	0.125	202.5	01Apr2015, 12:38	7.89
R_SHB_207	0.125	202.1	01Apr2015, 12:43	7.88

SHB_207	0.053	106.2	01Apr2015, 12:29	8.52
J_SHB_207	0.178	302	01Apr2015, 12:38	8.07
R_SHB_205	0.178	301.7	01Apr2015, 12:43	8.07
SHB_221	0.059	216.6	01Apr2015, 12:10	8.47
SHB_223	0.05	136.3	01Apr2015, 12:16	7.99
J_SHB_221	0.109	345	01Apr2015, 12:12	8.25
R_SHB_220	0.109	343.5	01Apr2015, 12:15	8.25
SHB_205	0.022	64.7	01Apr2015, 12:12	7.19
SHB_220	0.021	30.7	01Apr2015, 12:40	7.53
J_SHB_220	0.33	622.9	01Apr2015, 12:26	8.04
R_SHB_203	0.33	620.9	01Apr2015, 12:30	8.04
SHB_203	0.016	30.1	01Apr2015, 12:28	7.43
J_SHB_203	0.346	650.9	01Apr2015, 12:30	8.01
R_SHB_201	0.346	648.7	01Apr2015, 12:38	8.01
SHB_201	0.111	377.2	01Apr2015, 12:10	7.6
SHB_016	0.006	8.9	01Apr2015, 12:42	8.14
J_SHB_016	1.024	1131.5	01Apr2015, 12:33	7.5
R_SHB_014	1.024	1071.6	01Apr2015, 12:51	7.5
SHB_014	0.114	238.8	01Apr2015, 12:21	6.83
J_SHB_014	1.138	1237.4	01Apr2015, 12:45	7.43
R_SHB_012	1.138	1146.3	01Apr2015, 13:08	7.43
SHB_108	0.065	128.7	01Apr2015, 12:27	7.9
J_SHB_108	0.065	128.7	01Apr2015, 12:27	7.9
R_SHB_107	0.065	128.7	01Apr2015, 12:27	7.9
SHB_105	0.056	90.7	01Apr2015, 12:40	8.84
J_SHB_105	0.056	90.7	01Apr2015, 12:40	8.84
R_SHB_104	0.056	90.7	01Apr2015, 12:58	8.84
SHB_104	0.053	140.8	01Apr2015, 12:16	7.72
SHB_107	0.017	60	01Apr2015, 12:10	7.99
J_SHB_104	0.191	345.1	01Apr2015, 12:23	8.13
R_SHB_103	0.191	345.1	01Apr2015, 12:23	8.13
SHB_103	0.013	29.9	01Apr2015, 12:20	7.58
Reservoir-SHB_103	0.204	372.7	01Apr2015, 12:26	8.1
R_SHB_102	0.204	370.6	01Apr2015, 12:40	8.1
SHB_102	0.033	99.5	01Apr2015, 12:12	7.41
J_SHB_102	0.237	425.6	01Apr2015, 12:36	8
R_SHB_101	0.237	421.8	01Apr2015, 12:52	8
SHB_012	0.025	80.4	01Apr2015, 12:12	7.72
SHB_101	0.005	16.3	01Apr2015, 12:12	7.87
J_SHB_012	1.405	1566.7	01Apr2015, 13:00	7.53
R_SHB_010	1.405	1277.3	01Apr2015, 13:45	7.53
SHB_007	0.098	229.1	01Apr2015, 12:19	7.37
SHB_005	0.023	39.8	01Apr2015, 12:29	6.88
J_SHB_005	0.023	39.8	01Apr2015, 12:29	6.88
R_SHB_004	0.023	39.7	01Apr2015, 12:34	6.88
SHB_004	0.02	73.5	01Apr2015, 12:10	8.49
J_SHB_004	0.141	320.9	01Apr2015, 12:19	7.45

R_SHB_003	0.141	320.7	01Apr2015, 12:22	7.45
SHB_003	0.033	58.9	01Apr2015, 12:34	8.52
J_SHB_003	0.174	373.9	01Apr2015, 12:24	7.65
R_SHB_002	0.174	373.9	01Apr2015, 12:24	7.65
SHB_002	0.004	12.3	01Apr2015, 12:13	7.87
Reservoir-SHB_002	0.178	384.4	01Apr2015, 12:24	7.56
R_SHB_001	0.178	362	01Apr2015, 12:24	7.34
SHB_010	0.018	31.5	01Apr2015, 12:33	7.87
SHB_001	0.003	2.2	01Apr2015, 13:43	7.87
OUT_SHB_001	1.604	1409.3	01Apr2015, 13:38	7.52

**PRIMARY SYSTEM  
EXISTING  
CONDITIONS:  
HEC-RAS OUTPUT**

# Harris Mill Run - Existing Conditions

HEC-RAS Plan: HMR-EX River: Harris Mill Run Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	18138	2-YR	23.00	62.00	62.80	62.80	63.01	0.062052	3.64	6.32	15.80	1.01
1	18138	10-YR	57.00	62.00	63.15	63.15	63.45	0.054939	4.36	13.06	22.72	1.01
1	18138	25-YR	83.00	62.00	63.34	63.34	63.68	0.052323	4.71	17.64	26.40	1.01
1	18138	50-YR	107.00	62.00	64.01	63.48	64.12	0.009787	2.68	39.95	39.62	0.47
1	18138	100-YR	134.00	62.00	64.16	63.62	64.29	0.009971	2.91	46.08	40.94	0.48
1	18020	2-YR	23.00	60.00	61.31		61.34	0.004417	1.35	17.01	25.88	0.29
1	18020	10-YR	57.00	60.00	61.77		61.83	0.005491	1.84	30.96	34.92	0.34
1	18020	25-YR	83.00	60.00	62.07		62.13	0.004977	1.97	42.17	39.96	0.34
1	18020	50-YR	107.00	60.00	61.48	61.48	61.86	0.050565	4.96	21.59	29.16	1.01
1	18020	100-YR	134.00	60.00	61.63	61.63	62.04	0.048252	5.15	26.01	32.01	1.01
1	17481	2-YR	23.00	56.00	57.07		57.15	0.016958	2.31	9.95	18.58	0.56
1	17481	10-YR	57.00	56.00	57.63		57.72	0.011216	2.48	22.96	28.21	0.49
1	17481	25-YR	83.00	56.00	57.80		57.94	0.013752	2.94	28.19	31.26	0.55
1	17481	50-YR	107.00	56.00	59.76		59.77	0.000476	1.00	106.54	47.18	0.12
1	17481	100-YR	134.00	56.00	59.98		60.00	0.000567	1.14	117.27	48.77	0.13
1	17077	2-YR	23.00	54.00	55.65		55.66	0.001550	0.93	24.73	30.06	0.18
1	17077	10-YR	57.00	54.00	56.27		56.29	0.001683	1.22	46.81	40.41	0.20
1	17077	25-YR	83.00	54.00	56.88		56.90	0.001006	1.12	74.09	49.22	0.16
1	17077	50-YR	107.00	54.00	59.73		59.73	0.000040	0.40	297.57	126.15	0.04
1	17077	100-YR	134.00	54.00	59.94		59.95	0.000051	0.47	325.66	133.48	0.04
1	16520	2-YR	23.00	52.00	52.86	52.86	53.08	0.060737	3.77	6.10	14.19	1.01
1	16520	10-YR	57.00	52.00	53.24	53.24	53.55	0.053003	4.50	12.67	20.46	1.01
1	16520	25-YR	83.00	52.00	56.78		56.78	0.000081	0.47	185.89	84.60	0.05
1	16520	50-YR	107.00	52.00	59.72		59.72	0.000010	0.27	496.10	125.42	0.02
1	16520	100-YR	134.00	52.00	59.93		59.93	0.000014	0.32	523.11	127.82	0.02
1	15899	2-YR	23.00	50.00	50.94		50.95	0.000132	0.29	80.35	90.64	0.05
1	15899	10-YR	57.00	50.00	53.33		53.33	0.000010	0.17	330.16	119.04	0.02
1	15899	25-YR	83.00	50.00	56.78		56.78	0.000001	0.10	967.87	217.01	0.01
1	15899	50-YR	107.00	50.00	59.72		59.72	0.000001	0.08	1650.91	246.52	0.00
1	15899	100-YR	134.00	50.00	59.93		59.93	0.000001	0.10	1703.70	248.64	0.01
1	15394	2-YR	42.00	49.20	50.75		50.76	0.000872	0.86	48.97	43.74	0.14
1	15394	10-YR	109.00	49.20	53.32		53.32	0.000062	0.47	348.02	169.35	0.05



HEC-RAS Plan: HMR-EX River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	15394	25-YR	163.00	49.20	56.78		56.78	0.000008	0.27	1009.73	210.97	0.02
1	15394	50-YR	214.00	49.20	59.72		59.72	0.000003	0.22	1677.49	244.19	0.01
1	15394	100-YR	273.00	49.20	59.93		59.93	0.000005	0.28	1729.72	247.02	0.02
1	15138	2-YR	42.00	47.43	50.53		50.55	0.000826	1.02	41.12	26.52	0.14
1	15138	10-YR	109.00	47.43	53.29		53.29	0.000153	0.74	171.34	101.05	0.07
1	15138	25-YR	163.00	47.43	56.77		56.77	0.000018	0.40	729.14	204.50	0.03
1	15138	50-YR	214.00	47.43	59.71		59.72	0.000006	0.30	1403.50	250.52	0.02
1	15138	100-YR	273.00	47.43	59.93		59.93	0.000009	0.37	1456.90	253.42	0.02
1	15094	2-YR	42.00	47.40	50.53	47.92	50.53	0.000119	0.59	70.81	31.55	0.06
1	15094	10-YR	109.00	47.40	53.28	48.36	53.29	0.000089	0.80	136.88	42.14	0.06
1	15094	25-YR	163.00	47.40	56.76	48.64	56.77	0.000041	0.74	220.46	84.25	0.04
1	15094	50-YR	214.00	47.40	59.71	48.89	59.72	0.000011	0.37	860.04	258.89	0.02
1	15094	100-YR	273.00	47.40	59.92	49.14	59.93	0.000016	0.46	915.73	268.69	0.03
1	15058		Culvert									
1	15038	2-YR	42.00	47.40	49.38	48.09	49.42	0.001466	1.63	25.75	27.66	0.20
1	15038	10-YR	109.00	47.40	50.29	48.70	50.42	0.002804	2.90	37.56	31.69	0.30
1	15038	25-YR	163.00	47.40	50.74	49.10	50.96	0.003848	3.75	43.48	33.72	0.36
1	15038	50-YR	214.00	47.40	51.07	49.44	51.38	0.004886	4.49	47.66	35.14	0.41
1	15038	100-YR	273.00	47.40	51.35	49.80	51.79	0.006179	5.31	51.41	36.42	0.47
1	15010	2-YR	42.00	47.27	48.96		49.24	0.032479	4.24	9.91	11.72	0.81
1	15010	10-YR	109.00	47.27	49.77		50.16	0.027268	5.04	21.64	17.32	0.79
1	15010	25-YR	163.00	47.27	50.20		50.66	0.026238	5.49	29.68	20.28	0.80
1	15010	50-YR	214.00	47.27	50.49		51.04	0.026979	5.94	36.03	22.35	0.82
1	15010	100-YR	273.00	47.27	50.77	50.56	51.41	0.028418	6.44	42.41	24.25	0.86
1	14796	2-YR	42.00	45.00	47.12		47.17	0.004356	1.83	22.94	21.63	0.31
1	14796	10-YR	109.00	45.00	48.00		48.09	0.004623	2.38	45.87	30.59	0.34
1	14796	25-YR	163.00	45.00	48.47		48.58	0.004692	2.66	61.61	43.24	0.35
1	14796	50-YR	214.00	45.00	48.79		48.92	0.004691	2.91	80.08	69.60	0.36
1	14796	100-YR	273.00	45.00	49.09		49.24	0.004672	3.12	104.82	91.52	0.37
1	14492	2-YR	42.00	42.07	43.55	43.55	43.94	0.052435	4.96	8.47	11.41	1.01
1	14492	10-YR	109.00	42.07	44.25	44.25	44.80	0.045267	5.96	18.29	16.77	1.01

HEC-RAS Plan: HMR-EX River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	14492	25-YR	163.00	42.07	44.63	44.63	45.28	0.043641	6.50	25.08	19.63	1.01
1	14492	50-YR	214.00	42.07	44.92	44.92	45.65	0.041932	6.85	31.23	21.91	1.01
1	14492	100-YR	273.00	42.07	45.23	45.23	46.02	0.039680	7.13	38.27	24.25	1.00
1	14197	2-YR	41.00	38.04	39.33		39.35	0.002247	1.35	30.30	27.48	0.23
1	14197	10-YR	106.00	38.04	40.21		40.27	0.002328	1.86	57.11	32.91	0.25
1	14197	25-YR	157.00	38.04	40.81		40.87	0.002113	2.02	77.68	36.53	0.24
1	14197	50-YR	206.00	38.04	41.33		41.40	0.001914	2.11	97.46	39.70	0.24
1	14197	100-YR	262.00	38.04	41.87		41.95	0.001724	2.18	120.09	43.05	0.23
1	14117	2-YR	41.00	38.00	38.99	38.52	39.06	0.006710	2.06	19.92	21.59	0.38
1	14117	10-YR	106.00	38.00	39.88	38.98	39.99	0.005154	2.63	40.25	24.27	0.36
1	14117	25-YR	157.00	38.00	40.50	39.26	40.62	0.004245	2.81	55.88	26.15	0.34
1	14117	50-YR	206.00	38.00	41.04	39.50	41.17	0.003707	2.93	70.40	27.78	0.32
1	14117	100-YR	262.00	38.00	41.60	39.75	41.74	0.003303	3.03	86.47	29.48	0.31
1	14041		Culvert									
1	13853	2-YR	41.00	37.50	38.57	37.98	38.61	0.004465	1.53	26.75	30.12	0.28
1	13853	10-YR	106.00	37.50	39.38	38.39	39.45	0.003491	2.08	51.07	37.87	0.28
1	13853	25-YR	157.00	37.50	39.97	38.62	40.05	0.002834	2.28	68.82	43.51	0.27
1	13853	50-YR	206.00	37.50	40.46	38.81	40.55	0.002566	2.47	83.45	48.17	0.26
1	13853	100-YR	262.00	37.50	40.95	39.02	41.06	0.002413	2.67	98.19	72.15	0.26
1	13711	2-YR	41.00	35.00	36.96		37.20	0.032230	3.89	10.55	10.75	0.69
1	13711	10-YR	106.00	35.00	38.47		38.63	0.010323	3.22	32.96	19.00	0.43
1	13711	25-YR	157.00	35.00	39.25		39.41	0.007641	3.17	49.54	23.29	0.38
1	13711	50-YR	206.00	35.00	39.81		39.97	0.006835	3.25	63.32	26.33	0.37
1	13711	100-YR	262.00	35.00	40.35		40.52	0.006268	3.34	78.34	29.29	0.36
1	13528	2-YR	41.00	33.02	36.58		36.60	0.001013	1.03	39.66	22.28	0.14
1	13528	10-YR	106.00	33.02	38.15		38.18	0.000963	1.29	82.38	32.12	0.14
1	13528	25-YR	157.00	33.02	38.97		39.00	0.000933	1.42	110.85	38.65	0.14
1	13528	50-YR	206.00	33.02	39.53		39.57	0.000951	1.56	134.41	45.08	0.15
1	13528	100-YR	262.00	33.02	40.07		40.12	0.000981	1.71	160.56	51.28	0.15
1	12896	2-YR	41.00	32.48	36.03		36.04	0.000765	0.90	45.35	25.56	0.12
1	12896	10-YR	106.00	32.48	37.65		37.67	0.000664	1.10	96.65	39.50	0.12

HEC-RAS Plan: HMR-EX River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	12896	25-YR	157.00	32.48	38.51		38.53	0.000585	1.21	137.62	61.00	0.12
1	12896	50-YR	206.00	32.48	39.07		39.10	0.000586	1.34	178.61	90.66	0.12
1	12896	100-YR	262.00	32.48	39.61		39.64	0.000577	1.45	235.32	111.96	0.12
1	12085	2-YR	117.00	30.00	34.05		34.15	0.004236	2.48	47.10	23.24	0.31
1	12085	10-YR	297.00	30.00	35.88		36.02	0.003745	2.99	99.20	33.73	0.31
1	12085	25-YR	447.00	30.00	36.85		37.01	0.003534	3.28	158.56	120.57	0.31
1	12085	50-YR	590.00	30.00	37.48		37.65	0.003171	3.47	239.86	136.25	0.30
1	12085	100-YR	756.00	30.00	38.08		38.26	0.002952	3.66	325.74	150.59	0.30
1	11366	2-YR	122.00	26.82	31.47		31.54	0.003136	2.15	56.80	24.42	0.25
1	11366	10-YR	313.00	26.82	33.43		33.54	0.003182	2.73	114.53	34.67	0.26
1	11366	25-YR	472.00	26.82	34.41		34.56	0.003282	3.13	156.41	58.03	0.28
1	11366	50-YR	625.00	26.82	35.13		35.31	0.003330	3.43	206.12	79.08	0.29
1	11366	100-YR	803.00	26.82	35.82		36.02	0.003249	3.72	265.63	94.89	0.29
1	10534	2-YR	129.00	25.00	29.85		29.89	0.001383	1.54	84.38	35.97	0.17
1	10534	10-YR	332.00	25.00	31.65		31.73	0.001598	2.19	166.96	65.66	0.20
1	10534	25-YR	503.00	25.00	32.52		32.62	0.001753	2.61	245.15	101.93	0.21
1	10534	50-YR	668.00	25.00	33.15		33.27	0.001891	2.95	312.07	110.34	0.23
1	10534	100-YR	862.00	25.00	33.79		33.94	0.001999	3.27	385.91	118.96	0.24
1	9972	2-YR	129.00	24.00	29.00	26.54	29.04	0.001647	1.66	77.63	32.15	0.18
1	9972	10-YR	332.00	24.00	30.61		30.70	0.002112	2.45	174.97	117.49	0.22
1	9972	25-YR	503.00	24.00	31.41		31.51	0.002220	2.78	278.45	136.64	0.23
1	9972	50-YR	668.00	24.00	31.99		32.11	0.002262	3.05	360.31	144.42	0.24
1	9972	100-YR	862.00	24.00	32.60		32.74	0.002255	3.29	451.70	152.66	0.25
1	9164	2-YR	129.00	22.00	24.50	24.50	25.14	0.053378	6.43	20.06	16.06	1.01
1	9164	10-YR	332.00	22.00	26.28		26.77	0.019915	5.63	58.99	27.55	0.68
1	9164	25-YR	503.00	22.00	27.33		27.80	0.014276	5.51	91.27	34.27	0.60
1	9164	50-YR	668.00	22.00	28.09		28.58	0.011535	5.62	120.69	43.02	0.55
1	9164	100-YR	862.00	22.00	28.80		29.33	0.010263	5.89	154.07	53.77	0.53
1	8899	2-YR	129.00	20.73	24.40		24.42	0.000482	0.98	131.38	53.39	0.11
1	8899	10-YR	332.00	20.73	26.13		26.16	0.000614	1.42	234.24	65.48	0.13
1	8899	25-YR	503.00	20.73	27.15		27.19	0.000663	1.65	304.91	75.20	0.14
1	8899	50-YR	668.00	20.73	27.93		27.98	0.000682	1.85	368.70	90.35	0.15

HEC-RAS Plan: HMR-EX River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	8899	100-YR	862.00	20.73	28.65		28.72	0.000714	2.07	440.94	109.60	0.15
1	8667	2-YR	129.00	20.50	23.28	23.28	23.98	0.052091	6.70	19.26	13.86	1.00
1	8667	10-YR	332.00	20.50	25.00		25.67	0.026567	6.59	50.38	22.41	0.77
1	8667	25-YR	503.00	20.50	25.99		26.68	0.021124	6.71	74.98	27.34	0.71
1	8667	50-YR	668.00	20.50	26.78		27.48	0.017716	6.73	105.98	51.58	0.67
1	8667	100-YR	862.00	20.50	27.57		28.22	0.014489	6.58	156.02	72.82	0.62
1	8501	2-YR	137.00	20.00	23.22	21.11	23.25	0.000764	1.42	96.26	41.30	0.16
1	8501	10-YR	354.00	20.00	24.85	21.97	24.92	0.001005	2.04	173.22	52.86	0.20
1	8501	25-YR	539.00	20.00	25.81	22.51	25.89	0.001158	2.36	227.98	62.18	0.22
1	8501	50-YR	720.00	20.00	26.56	22.96	26.67	0.001308	2.58	279.00	73.31	0.23
1	8501	100-YR	936.00	20.00	27.31	23.43	27.43	0.001414	2.77	338.34	85.05	0.24
1	8457		Bridge									
1	8220	2-YR	137.00	20.00	22.80		22.85	0.001668	1.83	75.02	34.22	0.22
1	8220	10-YR	354.00	20.00	24.22		24.34	0.002400	2.74	129.12	41.77	0.27
1	8220	25-YR	539.00	20.00	25.04		25.21	0.002807	3.26	165.14	46.12	0.30
1	8220	50-YR	720.00	20.00	25.68		25.89	0.003137	3.68	195.63	49.51	0.33
1	8220	100-YR	936.00	20.00	26.29		26.56	0.003519	4.12	230.48	67.16	0.35
1	7955	2-YR	137.00	20.00	22.18		22.23	0.003483	1.86	73.59	50.89	0.27
1	7955	10-YR	354.00	20.00	23.55		23.64	0.002793	2.33	152.15	63.60	0.27
1	7955	25-YR	539.00	20.00	24.33		24.44	0.002800	2.64	204.33	70.79	0.27
1	7955	50-YR	720.00	20.00	24.92		25.05	0.002902	2.90	247.89	76.27	0.28
1	7955	100-YR	936.00	20.00	25.49		25.65	0.002957	3.20	294.96	88.92	0.29
1	7660	2-YR	137.00	18.60	21.50		21.54	0.001682	1.49	91.95	51.33	0.20
1	7660	10-YR	354.00	18.60	22.89		22.96	0.001884	2.05	172.58	64.79	0.22
1	7660	25-YR	539.00	18.60	23.62		23.71	0.002124	2.42	222.55	72.06	0.24
1	7660	50-YR	720.00	18.60	24.19		24.30	0.002207	2.73	266.94	90.09	0.25
1	7660	100-YR	936.00	18.60	24.73		24.88	0.002317	3.07	321.64	110.40	0.26
1	7181	2-YR	137.00	18.06	20.92		20.94	0.000958	1.14	120.49	66.37	0.15
1	7181	10-YR	354.00	18.06	22.21		22.26	0.001142	1.63	221.03	95.55	0.17
1	7181	25-YR	539.00	18.06	22.88		22.94	0.001252	1.97	293.50	120.96	0.19
1	7181	50-YR	720.00	18.06	23.41		23.49	0.001331	2.24	362.35	137.36	0.20

HEC-RAS Plan: HMR-EX River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	7181	100-YR	936.00	18.06	23.89		23.99	0.001474	2.55	432.46	151.82	0.21
1	6212	2-YR	140.00	17.02	18.32		18.45	0.017660	2.97	47.08	54.73	0.56
1	6212	10-YR	364.00	17.02	18.87	18.59	19.17	0.025169	4.47	87.93	106.67	0.71
1	6212	25-YR	563.00	17.02	19.28	19.02	19.64	0.022941	4.87	145.12	212.94	0.70
1	6212	50-YR	755.00	17.02	19.45	19.40	19.90	0.027057	5.62	186.14	282.55	0.78
1	6212	100-YR	980.00	17.02	19.68	19.63	20.16	0.025640	5.97	253.11	299.38	0.77
1	5624	2-YR	140.00	14.50	16.00		16.00	0.001694	0.86	411.89	856.88	0.16
1	5624	10-YR	364.00	14.50	16.47		16.48	0.001686	0.94	982.19	1599.96	0.17
1	5624	25-YR	563.00	14.50	16.68		16.68	0.001953	1.03	1354.24	1928.30	0.18
1	5624	50-YR	755.00	14.50	16.84		16.84	0.001943	1.06	1669.38	2015.70	0.18
1	5624	100-YR	980.00	14.50	16.97		16.98	0.002069	1.18	1938.10	2097.84	0.19
1	4881	2-YR	153.00	10.00	11.66	11.66	11.95	0.064014	4.32	38.01	85.45	0.95
1	4881	10-YR	396.00	10.00	12.17	12.17	12.50	0.052779	4.90	114.98	268.42	0.91
1	4881	25-YR	606.00	10.00	12.52	12.52	12.75	0.028783	4.49	322.63	1035.39	0.71
1	4881	50-YR	808.00	10.00	12.62	12.62	12.87	0.031429	4.95	442.49	1271.82	0.75
1	4881	100-YR	1048.00	10.00	12.77	12.77	12.99	0.026875	4.92	674.85	1699.12	0.71
1	418	2-YR	153.00	0.00	4.73	1.85	4.73	0.000100	0.47	801.34	875.95	0.05
1	418	10-YR	396.00	0.00	5.88	2.74	5.88	0.000100	0.58	1933.49	1097.63	0.05
1	418	25-YR	606.00	0.00	6.55	3.04	6.55	0.000100	0.65	2704.71	1236.86	0.05
1	418	50-YR	808.00	0.00	7.11	3.29	7.11	0.000100	0.70	3475.21	1627.11	0.05
1	418	100-YR	1048.00	0.00	7.70	3.52	7.70	0.000100	0.75	4644.78	2274.06	0.05

# Schoolhouse Branch - Existing Conditions

HEC-RAS Plan: SHB-EX(R) River: Schoolhouse Br Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	12202	2-YR	3.00	73.97	74.42		74.42	0.000646	0.28	10.68	40.87	0.10
1	12202	10-YR	7.00	73.97	74.59		74.59	0.000774	0.38	18.46	51.47	0.11
1	12202	25-YR	10.00	73.97	74.68		74.68	0.000815	0.43	23.13	55.87	0.12
1	12202	50-YR	13.00	73.97	74.75		74.75	0.000837	0.48	27.42	59.37	0.12
1	12202	100-YR	16.00	73.97	74.82		74.82	0.000849	0.51	31.39	62.21	0.12
1	12134	2-YR	3.00	73.89	74.34		74.34	0.002977	0.54	5.53	24.79	0.20
1	12134	10-YR	7.00	73.89	74.49		74.50	0.003056	0.70	10.00	31.83	0.22
1	12134	25-YR	10.00	73.89	74.57		74.58	0.003091	0.79	12.71	34.53	0.23
1	12134	50-YR	13.00	73.89	74.64		74.66	0.003098	0.87	15.25	36.89	0.23
1	12134	100-YR	16.00	73.89	74.71		74.72	0.003121	0.93	17.63	38.96	0.24
1	11931	2-YR	3.00	72.16	72.45	72.45	72.53	0.119069	2.18	1.37	9.41	1.01
1	11931	10-YR	7.00	72.16	72.57	72.57	72.67	0.103583	2.56	2.73	13.27	1.00
1	11931	25-YR	10.00	72.16	72.63	72.63	72.75	0.098818	2.75	3.63	15.30	1.00
1	11931	50-YR	13.00	72.16	72.68	72.68	72.82	0.099181	2.94	4.42	16.88	1.01
1	11931	100-YR	16.00	72.16	72.73	72.73	72.88	0.096270	3.06	5.22	18.34	1.01
1	11554	2-YR	3.00	67.37	68.00	67.69	68.00	0.003021	0.58	5.18	16.46	0.18
1	11554	10-YR	7.00	67.37	68.23	67.81	68.24	0.003142	0.73	9.63	22.46	0.20
1	11554	25-YR	10.00	67.37	68.35	67.89	68.36	0.003209	0.80	12.48	25.57	0.20
1	11554	50-YR	13.00	67.37	68.44	67.94	68.46	0.003251	0.86	15.12	28.14	0.21
1	11554	100-YR	16.00	67.37	68.53	67.99	68.54	0.003299	0.91	17.57	30.34	0.21
1	11153	2-YR	3.00	64.04	64.34	64.34	64.41	0.115398	2.19	1.37	9.17	1.00
1	11153	10-YR	7.00	64.04	64.46	64.46	64.56	0.107147	2.63	2.66	12.77	1.01
1	11153	25-YR	10.00	64.04	64.52	64.52	64.64	0.102257	2.82	3.54	14.73	1.01
1	11153	50-YR	13.00	64.04	64.57	64.57	64.71	0.098774	2.98	4.37	16.36	1.01
1	11153	100-YR	16.00	64.04	64.62	64.62	64.77	0.096021	3.10	5.16	17.78	1.01
1	10850	2-YR	3.00	61.00	61.63	61.28	61.63	0.001524	0.41	7.28	23.18	0.13
1	10850	10-YR	7.00	61.00	61.97		61.97	0.000838	0.41	17.20	35.63	0.10
1	10850	25-YR	10.00	61.00	62.18		62.18	0.000556	0.39	25.38	40.56	0.09
1	10850	50-YR	13.00	61.00	62.32		62.32	0.000514	0.42	31.29	43.50	0.09
1	10850	100-YR	16.00	61.00	62.43		62.43	0.000521	0.44	36.01	45.72	0.09
1	10469	2-YR	19.00	58.00	58.23		58.27	0.014612	1.46	13.02	58.83	0.55
1	10469	10-YR	46.00	58.00	58.35	58.28	58.43	0.022244	2.31	19.91	61.94	0.72

HEC-RAS Plan: SHB-EX(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	10469	25-YR	66.00	58.00	58.38	58.36	58.52	0.035103	3.05	21.67	62.70	0.91
1	10469	50-YR	85.00	58.00	58.42	58.42	58.61	0.040770	3.50	24.29	63.83	1.00
1	10469	100-YR	106.00	58.00	58.48	58.48	58.70	0.039551	3.75	28.27	65.51	1.01
1	9946	2-YR	19.00	47.00	48.34		48.46	0.024888	2.70	7.03	10.47	0.58
1	9946	10-YR	46.00	47.00	49.07		49.19	0.014346	2.74	16.78	16.17	0.47
1	9946	25-YR	66.00	47.00	49.55		49.65	0.009911	2.61	25.27	19.85	0.41
1	9946	50-YR	85.00	47.00	49.86		49.97	0.008794	2.66	31.95	22.32	0.39
1	9946	100-YR	106.00	47.00	50.16		50.28	0.008063	2.72	38.95	24.64	0.38
1	9397	2-YR	29.00	42.00	42.84	42.40	42.88	0.006607	1.51	19.25	26.11	0.31
1	9397	10-YR	64.00	42.00	43.21		43.29	0.008926	2.17	29.51	28.94	0.38
1	9397	25-YR	91.00	42.00	43.35		43.46	0.012454	2.72	33.45	29.96	0.45
1	9397	50-YR	115.00	42.00	43.47		43.62	0.014600	3.09	37.16	30.89	0.50
1	9397	100-YR	143.00	42.00	43.60		43.79	0.016581	3.46	41.31	31.89	0.54
1	8847	2-YR	29.00	34.00	34.41	34.41	34.60	0.061893	3.53	8.21	21.40	1.01
1	8847	10-YR	64.00	34.00	34.80		35.02	0.030262	3.74	17.10	23.81	0.78
1	8847	25-YR	91.00	34.00	35.15		35.34	0.017710	3.54	25.71	25.94	0.63
1	8847	50-YR	115.00	34.00	35.39		35.59	0.014586	3.58	32.08	27.40	0.58
1	8847	100-YR	143.00	34.00	35.63		35.84	0.012715	3.67	38.95	28.90	0.56
1	8193	2-YR	29.00	31.50	33.30		33.30	0.000352	0.51	56.97	43.79	0.08
1	8193	10-YR	64.00	31.50	34.02		34.02	0.000449	0.69	101.33	147.96	0.09
1	8193	25-YR	91.00	31.50	34.29		34.30	0.000519	0.81	152.56	225.52	0.10
1	8193	50-YR	115.00	31.50	34.45		34.46	0.000589	0.91	192.20	261.45	0.11
1	8193	100-YR	143.00	31.50	34.60		34.62	0.000671	1.02	237.00	323.02	0.12
1	7804	2-YR	92.00	31.00	32.67	31.81	32.72	0.003341	1.77	52.17	45.44	0.28
1	7804	10-YR	192.00	31.00	33.46		33.51	0.002254	1.99	113.89	169.28	0.25
1	7804	25-YR	265.00	31.00	33.97		34.00	0.000966	1.52	221.38	305.46	0.17
1	7804	50-YR	330.00	31.00	34.11		34.14	0.001030	1.63	268.77	378.34	0.18
1	7804	100-YR	404.00	31.00	34.23		34.27	0.001103	1.74	322.58	460.62	0.19
1	7568	2-YR	92.00	29.50	30.32	30.32	30.69	0.050218	4.86	18.92	26.07	1.01
1	7568	10-YR	192.00	29.50	33.20		33.23	0.000738	1.37	189.03	240.50	0.15
1	7568	25-YR	265.00	29.50	33.82		33.84	0.000497	1.30	379.18	354.29	0.13
1	7568	50-YR	330.00	29.50	33.93		33.96	0.000650	1.52	417.16	360.40	0.15

HEC-RAS Plan: SHB-EX(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	7568	100-YR	404.00	29.50	34.01		34.05	0.000850	1.77	448.77	383.22	0.17
1	7243	2-YR	98.00	25.00	30.54		30.54	0.000017	0.43	227.79	73.41	0.04
1	7243	10-YR	200.00	25.00	33.21		33.21	0.000008	0.43	636.07	291.50	0.03
1	7243	25-YR	283.00	25.00	33.82		33.83	0.000010	0.52	836.51	387.98	0.04
1	7243	50-YR	354.00	25.00	33.93		33.94	0.000015	0.64	878.87	409.08	0.04
1	7243	100-YR	432.00	25.00	34.02		34.02	0.000021	0.76	914.47	421.66	0.05
1	7173	2-YR	98.00	26.00	30.53	26.75	30.54	0.000024	0.65	150.56	70.92	0.05
1	7173	10-YR	200.00	26.00	33.20	27.13	33.21	0.000021	0.83	241.03	337.66	0.05
1	7173	25-YR	283.00	26.00	33.82	27.40	33.83	0.000010	0.51	904.29	455.25	0.04
1	7173	50-YR	354.00	26.00	33.93	27.60	33.93	0.000014	0.63	952.80	463.43	0.04
1	7173	100-YR	432.00	26.00	34.01	27.82	34.02	0.000020	0.75	992.59	468.83	0.05
1	7138		Culvert									
1	7074	2-YR	98.00	26.50	29.86	27.59	29.89	0.000618	1.43	68.51	55.62	0.14
1	7074	10-YR	200.00	26.50	30.36	28.11	30.46	0.001567	2.52	79.52	74.06	0.23
1	7074	25-YR	283.00	26.50	30.59	28.47	30.77	0.002543	3.34	84.69	91.26	0.30
1	7074	50-YR	354.00	26.50	30.77	28.75	31.02	0.003429	4.00	88.56	101.79	0.35
1	7074	100-YR	432.00	26.50	31.22	29.03	31.52	0.003575	4.38	98.56	132.65	0.36
1	6897	2-YR	98.00	25.00	29.84		29.85	0.000074	0.56	197.85	92.24	0.05
1	6897	10-YR	200.00	25.00	30.33		30.34	0.000188	0.96	250.07	115.36	0.08
1	6897	25-YR	283.00	25.00	30.55		30.57	0.000299	1.26	276.49	120.19	0.10
1	6897	50-YR	354.00	25.00	30.72		30.75	0.000396	1.48	297.29	123.85	0.12
1	6897	100-YR	432.00	25.00	31.20		31.23	0.000382	1.55	368.37	184.47	0.12
1	6790	2-YR	98.00	24.00	29.84		29.84	0.000040	0.50	225.69	81.04	0.04
1	6790	10-YR	200.00	24.00	30.31		30.32	0.000112	0.89	291.78	193.53	0.07
1	6790	25-YR	283.00	24.00	30.53		30.55	0.000184	1.17	337.59	230.99	0.09
1	6790	50-YR	354.00	24.00	30.69		30.72	0.000248	1.39	376.34	243.79	0.11
1	6790	100-YR	432.00	24.00	31.18		31.20	0.000235	1.43	506.65	334.36	0.11
1	6755	2-YR	98.00	23.80	29.83	25.29	29.84	0.000070	0.65	190.99	105.05	0.05
1	6755	10-YR	200.00	23.80	30.30	25.99	30.32	0.000185	1.13	260.05	196.68	0.09
1	6755	25-YR	283.00	23.80	30.51	26.41	30.54	0.000288	1.45	302.84	210.18	0.11
1	6755	50-YR	354.00	23.80	30.67	26.71	30.70	0.000378	1.69	337.92	235.29	0.13



HEC-RAS Plan: SHB-EX(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	6755	100-YR	432.00	23.80	31.16	27.01	31.19	0.000314	1.64	471.13	325.34	0.12
1	6694		Culvert									
1	6471	2-YR	98.00	21.50	25.56	22.71	25.61	0.000295	1.86	52.79	64.99	0.16
1	6471	10-YR	200.00	21.50	27.88	23.45	27.89	0.000032	0.74	430.08	212.17	0.05
1	6471	25-YR	283.00	21.50	29.59	23.95	29.59	0.000019	0.67	910.26	364.62	0.04
1	6471	50-YR	354.00	21.50	30.34	24.35	30.35	0.000018	0.70	1217.91	446.68	0.04
1	6471	100-YR	432.00	21.50	31.16	24.75	31.17	0.000016	0.71	1607.16	494.98	0.04
1	6468	2-YR	113.00	20.60	25.58	21.47	25.59	0.000050	0.86	132.08	63.55	0.07
1	6468	10-YR	231.00	20.60	27.86	21.99	27.88	0.000058	1.19	193.62	218.09	0.08
1	6468	25-YR	324.00	20.60	29.56	22.34	29.58	0.000056	1.35	239.41	374.16	0.08
1	6468	50-YR	404.00	20.60	30.30	22.60	30.34	0.000067	1.56	259.43	459.76	0.09
1	6468	100-YR	493.00	20.60	31.16	22.87	31.17	0.000017	0.76	1710.17	500.17	0.04
1	6386		Culvert									
1	6244	2-YR	113.00	20.50	25.40	21.47	25.41	0.000137	0.87	129.87	110.30	0.07
1	6244	10-YR	231.00	20.50	27.45	22.02	27.48	0.000169	1.23	187.39	182.07	0.08
1	6244	25-YR	324.00	20.50	28.71	22.37	28.75	0.000187	1.46	222.65	326.97	0.09
1	6244	50-YR	404.00	20.50	28.98	22.62	29.03	0.000261	1.76	230.13	360.12	0.11
1	6244	100-YR	493.00	20.50	29.17	22.89	29.24	0.000360	2.09	235.40	385.43	0.13
1	6171	2-YR	113.00	21.00	25.39		25.40	0.000174	0.74	169.28	67.93	0.07
1	6171	10-YR	231.00	21.00	27.45		27.46	0.000119	0.81	357.00	114.18	0.07
1	6171	25-YR	324.00	21.00	28.72		28.72	0.000092	0.84	551.35	203.03	0.06
1	6171	50-YR	404.00	21.00	28.99		29.00	0.000117	0.97	607.04	209.77	0.07
1	6171	100-YR	493.00	21.00	29.18		29.19	0.000152	1.13	647.97	215.90	0.08
1	5879	2-YR	295.00	21.00	25.17		25.22	0.001341	1.84	160.00	61.84	0.20
1	5879	10-YR	557.00	21.00	27.30		27.35	0.000732	1.81	308.11	77.57	0.16
1	5879	25-YR	743.00	21.00	28.62		28.66	0.000420	1.62	615.61	413.79	0.13
1	5879	50-YR	908.00	21.00	28.88		28.92	0.000470	1.77	724.03	421.11	0.13
1	5879	100-YR	1105.00	21.00	29.05		29.10	0.000578	2.01	795.96	425.34	0.15
1	5803	2-YR	295.00	21.00	25.10	22.21	25.15	0.000617	1.66	177.57	67.42	0.15
1	5803	10-YR	557.00	21.00	27.24	22.82	27.30	0.000521	2.04	273.58	88.61	0.15

HEC-RAS Plan: SHB-EX(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	5803	25-YR	743.00	21.00	28.60	23.19	28.63	0.000296	1.49	652.76	463.40	0.11
1	5803	50-YR	908.00	21.00	28.86	23.49	28.89	0.000359	1.48	818.74	468.66	0.12
1	5803	100-YR	1105.00	21.00	29.03	23.81	29.06	0.000450	1.68	896.71	472.01	0.13
1	5739		Culvert									
1	5695	2-YR	295.00	20.00	22.47	21.30	22.63	0.004490	3.15	93.53	44.92	0.36
1	5695	10-YR	557.00	20.00	23.63	21.95	23.87	0.004214	3.99	139.59	52.11	0.38
1	5695	25-YR	743.00	20.00	24.20	22.34	24.53	0.004498	4.57	162.72	59.53	0.40
1	5695	50-YR	908.00	20.00	24.65	22.65	25.05	0.004736	5.02	180.70	64.88	0.42
1	5695	100-YR	1105.00	20.00	25.11	23.01	25.59	0.005100	5.56	198.84	70.72	0.44
1	5571	2-YR	295.00	18.21	22.47		22.48	0.000231	0.77	436.45	213.86	0.08
1	5571	10-YR	557.00	18.21	23.67		23.68	0.000239	0.90	747.94	294.02	0.09
1	5571	25-YR	743.00	18.21	24.28		24.30	0.000227	0.99	934.66	310.09	0.09
1	5571	50-YR	908.00	18.21	24.77		24.78	0.000220	1.05	1087.36	320.85	0.09
1	5571	100-YR	1105.00	18.21	25.26		25.28	0.000221	1.14	1248.89	331.58	0.09
1	5378	2-YR	295.00	18.50	22.26		22.37	0.002522	2.57	118.46	54.15	0.28
1	5378	10-YR	557.00	18.50	23.40		23.56	0.002577	3.27	217.22	144.55	0.30
1	5378	25-YR	743.00	18.50	24.01		24.18	0.002436	3.51	311.63	167.80	0.30
1	5378	50-YR	908.00	18.50	24.49		24.67	0.002298	3.66	400.92	199.17	0.29
1	5378	100-YR	1105.00	18.50	24.98		25.17	0.002203	3.82	512.00	252.37	0.29
1	4983	2-YR	295.00	18.06	21.30		21.40	0.002346	2.57	133.42	61.31	0.27
1	4983	10-YR	557.00	18.06	22.36		22.52	0.002655	3.39	203.60	71.55	0.31
1	4983	25-YR	743.00	18.06	22.93		23.14	0.002860	3.87	249.95	96.19	0.33
1	4983	50-YR	908.00	18.06	23.37		23.62	0.003073	4.27	295.37	109.16	0.34
1	4983	100-YR	1105.00	18.06	23.82		24.12	0.003218	4.64	348.25	121.91	0.36
1	4684	2-YR	295.00	17.00	20.23		20.38	0.005330	3.19	92.65	47.52	0.39
1	4684	10-YR	557.00	17.00	21.16		21.42	0.005382	4.10	149.86	78.51	0.42
1	4684	25-YR	743.00	17.00	21.65		21.97	0.005546	4.60	194.25	98.62	0.43
1	4684	50-YR	908.00	17.00	22.02		22.38	0.005655	4.97	232.52	107.26	0.44
1	4684	100-YR	1105.00	17.00	22.41		22.83	0.005804	5.36	276.88	122.36	0.46
1	4377	2-YR	295.00	16.00	19.24		19.31	0.002352	2.19	139.42	79.39	0.26
1	4377	10-YR	557.00	16.00	20.16		20.28	0.002538	2.79	230.97	122.72	0.29

HEC-RAS Plan: SHB-EX(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	4377	25-YR	743.00	16.00	20.65		20.79	0.002596	3.12	295.58	144.60	0.30
1	4377	50-YR	908.00	16.00	21.02		21.19	0.002616	3.36	352.91	158.84	0.30
1	4377	100-YR	1105.00	16.00	21.41		21.60	0.002665	3.62	417.33	171.59	0.31
1	4051	2-YR	309.00	15.00	18.59		18.65	0.001778	2.08	184.27	127.77	0.23
1	4051	10-YR	600.00	15.00	19.38		19.49	0.002282	2.84	295.19	147.72	0.28
1	4051	25-YR	809.00	15.00	19.80		19.94	0.002602	3.28	357.76	155.09	0.30
1	4051	50-YR	998.00	15.00	20.12		20.29	0.002837	3.62	409.38	160.92	0.32
1	4051	100-YR	1216.00	15.00	20.45		20.66	0.003087	3.98	463.55	166.82	0.34
1	3559	2-YR	309.00	14.00	17.08		17.22	0.005508	3.30	139.85	194.86	0.40
1	3559	10-YR	600.00	14.00	17.78		17.92	0.004751	3.70	297.43	288.60	0.39
1	3559	25-YR	809.00	14.00	18.14	17.37	18.28	0.004494	3.90	406.81	314.47	0.39
1	3559	50-YR	998.00	14.00	18.40	17.59	18.55	0.004484	4.11	490.36	329.21	0.39
1	3559	100-YR	1216.00	14.00	18.67	17.77	18.82	0.004461	4.31	580.60	340.78	0.39
1	2807	2-YR	309.00	11.50	13.22		13.25	0.005134	2.04	295.70	427.21	0.32
1	2807	10-YR	600.00	11.50	13.59		13.64	0.007333	2.75	490.50	651.42	0.40
1	2807	25-YR	809.00	11.50	13.75		13.81	0.008805	3.21	614.23	859.15	0.44
1	2807	50-YR	998.00	11.50	13.86		13.93	0.009663	3.51	708.51	898.95	0.47
1	2807	100-YR	1216.00	11.50	13.96		14.04	0.010671	3.83	802.16	932.79	0.50
1	1913	2-YR	379.00	7.50	8.89		8.91	0.004812	1.80	626.07	1001.50	0.31
1	1913	10-YR	743.00	7.50	9.33		9.34	0.003708	1.98	1102.00	1122.54	0.28
1	1913	25-YR	1022.00	7.50	9.60	8.73	9.61	0.003282	2.08	1407.20	1145.19	0.27
1	1913	50-YR	1265.00	7.50	9.81		9.83	0.003039	2.16	1655.73	1171.85	0.27
1	1913	100-YR	1549.00	7.50	10.05		10.07	0.002784	2.23	1943.22	1206.17	0.26
1	142	2-YR	379.00	1.85	5.51	3.61	5.53	0.001001	1.31	499.76	581.64	0.16
1	142	10-YR	743.00	1.85	6.22	4.31	6.25	0.001001	1.58	1032.87	857.39	0.16
1	142	25-YR	1022.00	1.85	6.62	4.73	6.65	0.001001	1.72	1388.83	942.29	0.17
1	142	50-YR	1265.00	1.85	6.91	4.94	6.94	0.001001	1.82	1675.61	999.31	0.17
1	142	100-YR	1549.00	1.85	7.24	5.10	7.27	0.001001	1.93	2013.42	1067.72	0.17

# Sains Branch - Existing Conditions

HEC-RAS Plan: SB1-EX(R) River: Sams Branch 1 Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	7695	2-YR	12.00	65.00	66.55		66.61	0.009466	1.80	6.66	8.57	0.36
1	7695	10-YR	24.00	65.00	66.97		67.05	0.010712	2.25	10.69	10.85	0.40
1	7695	25-YR	33.00	65.00	67.26		67.35	0.009642	2.34	14.12	12.47	0.39
1	7695	50-YR	41.00	65.00	67.51		67.60	0.008561	2.36	17.37	13.84	0.37
1	7695	100-YR	50.00	65.00	67.76		67.85	0.007633	2.38	21.05	15.23	0.36
1	7274	2-YR	35.00	60.00	62.33		62.42	0.010101	2.43	14.41	12.39	0.40
1	7274	10-YR	69.00	60.00	63.09		63.21	0.008644	2.71	25.42	16.45	0.38
1	7274	25-YR	95.00	60.00	63.49		63.62	0.008578	2.93	32.41	18.57	0.39
1	7274	50-YR	119.00	60.00	63.79		63.94	0.008719	3.12	38.14	20.15	0.40
1	7274	100-YR	145.00	60.00	64.06		64.23	0.008962	3.31	43.78	21.59	0.41
1	6837	2-YR	35.00	55.00	57.19		57.31	0.013707	2.72	12.85	11.72	0.46
1	6837	10-YR	69.00	55.00	57.67		57.88	0.018487	3.61	19.11	14.29	0.55
1	6837	25-YR	95.00	55.00	58.00		58.24	0.019134	3.96	23.98	16.01	0.57
1	6837	50-YR	119.00	55.00	58.27		58.54	0.018797	4.16	28.58	17.48	0.57
1	6837	100-YR	145.00	55.00	58.55		58.84	0.017960	4.30	33.71	18.98	0.57
1	6471	2-YR	35.00	49.00	50.93		51.09	0.021539	3.16	11.07	11.44	0.57
1	6471	10-YR	69.00	49.00	51.68		51.84	0.014722	3.25	21.24	15.85	0.49
1	6471	25-YR	95.00	49.00	52.04		52.23	0.014146	3.47	27.40	18.00	0.50
1	6471	50-YR	119.00	49.00	52.30		52.51	0.014479	3.70	32.16	19.50	0.51
1	6471	100-YR	145.00	49.00	52.51		52.76	0.015381	3.98	36.46	20.77	0.53
1	5766	2-YR	35.00	42.00	44.47		44.52	0.005128	1.83	19.17	15.51	0.29
1	5766	10-YR	69.00	42.00	45.04		45.13	0.006627	2.38	28.97	19.07	0.34
1	5766	25-YR	95.00	42.00	45.41		45.51	0.006811	2.61	36.45	21.39	0.35
1	5766	50-YR	119.00	42.00	45.73		45.85	0.006603	2.73	43.66	23.41	0.35
1	5766	100-YR	145.00	42.00	46.07		46.19	0.006196	2.80	51.86	25.51	0.35
1	5271	2-YR	93.00	38.50	41.23		41.32	0.007132	2.35	39.60	28.96	0.35
1	5271	10-YR	186.00	38.50	42.15		42.26	0.005511	2.72	70.05	37.76	0.33
1	5271	25-YR	256.00	38.50	42.68		42.81	0.005055	2.92	91.47	42.84	0.33
1	5271	50-YR	318.00	38.50	43.06		43.21	0.004926	3.10	108.77	46.54	0.33
1	5271	100-YR	388.00	38.50	43.44		43.60	0.004897	3.29	126.91	50.13	0.33
1	4991	2-YR	93.00	37.50	40.58		40.61	0.001247	1.26	78.55	44.44	0.16
1	4991	10-YR	186.00	37.50	41.55		41.59	0.001273	1.64	128.81	61.03	0.17

HEC-RAS Plan: SB1-EX(R) River: Sams Branch 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	4991	25-YR	256.00	37.50	42.09		42.14	0.001306	1.86	164.75	71.23	0.18
1	4991	50-YR	318.00	37.50	42.46		42.52	0.001400	2.06	193.50	86.14	0.19
1	4991	100-YR	388.00	37.50	42.80		42.88	0.001510	2.27	226.06	102.65	0.20
1	4759	2-YR	93.00	37.00	40.07		40.12	0.004037	1.91	48.76	31.79	0.27
1	4759	10-YR	186.00	37.00	41.09		41.16	0.002844	2.19	94.51	58.78	0.25
1	4759	25-YR	256.00	37.00	41.65		41.73	0.002511	2.36	131.90	74.47	0.24
1	4759	50-YR	318.00	37.00	42.00		42.09	0.002526	2.55	159.58	82.83	0.24
1	4759	100-YR	388.00	37.00	42.32		42.42	0.002603	2.75	187.13	88.14	0.25
1	4553	2-YR	93.00	36.50	39.75		39.78	0.000879	1.25	84.28	58.89	0.16
1	4553	10-YR	186.00	36.50	40.87		40.90	0.000660	1.46	173.42	100.97	0.15
1	4553	25-YR	256.00	36.50	41.46		41.49	0.000608	1.58	236.01	112.32	0.14
1	4553	50-YR	318.00	36.50	41.80		41.84	0.000646	1.72	275.84	118.98	0.15
1	4553	100-YR	388.00	36.50	42.11		42.16	0.000705	1.89	313.62	124.96	0.16
1	4373	2-YR	100.00	36.38	38.44	38.44	39.18	0.046800	6.91	14.47	9.86	1.00
1	4373	10-YR	202.00	36.38	39.38	39.38	40.40	0.043431	8.10	24.95	12.46	1.01
1	4373	25-YR	277.00	36.38	40.16	40.16	41.05	0.030392	7.65	40.01	32.40	0.87
1	4373	50-YR	345.00	36.38	40.63	40.63	41.40	0.024676	7.35	59.74	50.21	0.79
1	4373	100-YR	421.00	36.38	40.95	40.95	41.69	0.023544	7.46	77.50	62.02	0.78
1	4326	2-YR	100.00	34.00	36.69	35.07	36.77	0.001983	2.33	43.00	30.48	0.25
1	4326	10-YR	202.00	34.00	38.08	35.71	38.23	0.002012	3.09	65.29	36.18	0.27
1	4326	25-YR	277.00	34.00	38.96	36.10	39.15	0.001976	3.49	79.32	39.77	0.28
1	4326	50-YR	345.00	34.00	39.69	36.43	39.91	0.001940	3.79	90.99	42.75	0.28
1	4326	100-YR	421.00	34.00	40.54	36.78	40.79	0.001810	4.02	104.69	46.26	0.28
1	4302		Culvert									
1	4243	2-YR	100.00	34.00	35.87	35.02	36.02	0.005919	3.15	31.73	49.77	0.41
1	4243	10-YR	202.00	34.00	36.55	35.64	36.89	0.008519	4.66	43.38	57.97	0.51
1	4243	25-YR	277.00	34.00	36.84	36.02	37.35	0.011151	5.73	48.36	61.48	0.60
1	4243	50-YR	345.00	34.00	37.05	36.34	37.74	0.013746	6.66	51.81	63.91	0.67
1	4243	100-YR	421.00	34.00	37.21	36.67	38.14	0.017132	7.70	54.65	65.91	0.76
1	4132	2-YR	100.00	32.50	34.08	34.08	34.49	0.049599	5.12	19.52	24.65	1.01
1	4132	10-YR	202.00	32.50	34.69	34.60	35.15	0.035736	5.40	37.40	34.12	0.91

HEC-RAS Plan: SB1-EX(R) River: Sams Branch 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4132	25-YR	277.00	32.50	35.08	34.92	35.51	0.025808	5.29	57.34	63.17	0.80
1	4132	50-YR	345.00	32.50	35.39	35.13	35.79	0.019369	5.20	79.08	77.97	0.72
1	4132	100-YR	421.00	32.50	35.71		36.08	0.014936	5.13	106.19	93.10	0.65
1	4026	2-YR	100.00	31.00	33.41		33.47	0.003471	1.95	53.36	45.16	0.29
1	4026	10-YR	202.00	31.00	34.16		34.25	0.003144	2.47	92.43	59.01	0.30
1	4026	25-YR	277.00	31.00	34.60		34.71	0.003016	2.75	120.38	68.48	0.30
1	4026	50-YR	345.00	31.00	34.94		35.06	0.002965	2.97	145.10	76.18	0.31
1	4026	100-YR	421.00	31.00	35.28		35.43	0.002913	3.17	172.74	83.96	0.31
1	3827	2-YR	106.00	29.00	31.27	31.18	31.74	0.037222	5.53	19.15	16.90	0.92
1	3827	10-YR	218.00	29.00	32.03	31.92	32.66	0.033336	6.36	34.28	22.61	0.91
1	3827	25-YR	302.00	29.00	32.47	32.33	33.17	0.031011	6.71	44.98	25.90	0.90
1	3827	50-YR	378.00	29.00	32.79	32.64	33.56	0.030324	7.04	53.67	28.30	0.90
1	3827	100-YR	463.00	29.00	33.13	32.93	33.95	0.029066	7.29	63.49	30.77	0.89
1	3599	2-YR	106.00	26.50	29.60		29.68	0.003690	2.17	48.81	31.44	0.31
1	3599	10-YR	218.00	26.50	30.63		30.73	0.003383	2.53	86.21	41.39	0.31
1	3599	25-YR	302.00	26.50	31.22		31.33	0.003189	2.69	112.23	47.16	0.31
1	3599	50-YR	378.00	26.50	31.64		31.77	0.003058	2.85	133.52	54.04	0.31
1	3599	100-YR	463.00	26.50	32.06		32.20	0.002961	3.01	157.43	60.84	0.31
1	3397	2-YR	106.00	25.00	28.14		28.39	0.013175	3.98	26.64	16.96	0.56
1	3397	10-YR	218.00	25.00	29.33		29.62	0.010040	4.30	50.66	23.39	0.52
1	3397	25-YR	302.00	25.00	29.97		30.29	0.009230	4.52	66.77	26.85	0.51
1	3397	50-YR	378.00	25.00	30.43		30.78	0.008532	4.76	81.29	38.16	0.50
1	3397	100-YR	463.00	25.00	30.86		31.25	0.008033	5.01	100.47	50.40	0.49
1	2934	2-YR	112.00	21.50	25.61		25.69	0.003267	2.39	46.77	22.79	0.29
1	2934	10-YR	233.00	21.50	26.72		26.87	0.003923	3.08	75.65	28.98	0.34
1	2934	25-YR	324.00	21.50	27.33		27.52	0.004196	3.43	94.47	32.38	0.35
1	2934	50-YR	408.00	21.50	27.82		28.03	0.004340	3.68	110.88	35.08	0.36
1	2934	100-YR	501.00	21.50	28.27		28.51	0.004498	3.93	127.38	38.64	0.38
1	2442	2-YR	112.00	19.50	22.53		22.78	0.013663	4.02	27.84	18.38	0.58
1	2442	10-YR	233.00	19.50	23.84		24.10	0.008682	4.08	57.16	26.34	0.49
1	2442	25-YR	324.00	19.50	24.58		24.85	0.007216	4.13	78.45	30.86	0.46
1	2442	50-YR	408.00	19.50	25.14		25.42	0.006588	4.23	96.50	34.23	0.44

HEC-RAS Plan: SB1-EX(R) River: Sams Branch 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	2442	100-YR	501.00	19.50	25.67		25.96	0.006001	4.33	115.86	39.58	0.43
1	2037	2-YR	112.00	16.46	20.15		20.26	0.003456	2.68	41.78	16.19	0.29
1	2037	10-YR	233.00	16.46	21.58		21.77	0.004021	3.45	67.61	19.76	0.33
1	2037	25-YR	324.00	16.46	22.36		22.59	0.004360	3.87	83.73	21.69	0.35
1	2037	50-YR	408.00	16.46	22.94		23.22	0.004568	4.22	96.79	23.64	0.36
1	2037	100-YR	501.00	16.46	23.49		23.81	0.004737	4.58	110.38	25.91	0.37
1	1708	2-YR	112.00	14.50	18.65		18.80	0.005916	3.15	35.56	17.15	0.39
1	1708	10-YR	233.00	14.50	19.92		20.15	0.006139	3.84	60.75	22.41	0.41
1	1708	25-YR	324.00	14.50	20.63		20.90	0.006183	4.18	77.58	25.33	0.42
1	1708	50-YR	408.00	14.50	21.15		21.46	0.006347	4.47	91.32	27.48	0.43
1	1708	100-YR	501.00	14.50	21.66		22.01	0.006444	4.73	105.92	29.59	0.44
1	1402	2-YR	123.00	13.00	16.82		16.97	0.006096	3.11	39.56	20.73	0.40
1	1402	10-YR	261.00	13.00	18.10		18.31	0.005848	3.69	70.65	27.70	0.41
1	1402	25-YR	368.00	13.00	18.81		19.06	0.005791	4.01	91.75	31.57	0.41
1	1402	50-YR	467.00	13.00	19.34		19.62	0.005654	4.29	109.43	36.27	0.42
1	1402	100-YR	581.00	13.00	19.86		20.18	0.005561	4.58	129.55	41.60	0.42
1	1063	2-YR	123.00	11.00	15.03	13.64	15.15	0.004715	2.83	43.42	21.55	0.35
1	1063	10-YR	261.00	11.00	16.26	14.58	16.45	0.005129	3.53	73.96	28.13	0.38
1	1063	25-YR	368.00	11.00	16.94	15.11	17.17	0.005342	3.90	94.26	31.75	0.40
1	1063	50-YR	467.00	11.00	17.46	15.52	17.73	0.005504	4.19	111.44	34.52	0.41
1	1063	100-YR	581.00	11.00	17.96	15.93	18.28	0.005648	4.48	129.74	38.17	0.42
1	557	2-YR	125.00	6.50	8.97	8.97	9.61	0.045081	6.40	19.53	15.80	1.01
1	557	10-YR	266.00	6.50	9.85	9.85	10.70	0.040216	7.41	35.91	21.43	1.01
1	557	25-YR	376.00	6.50	10.36	10.36	11.33	0.037864	7.90	47.62	24.67	1.00
1	557	50-YR	477.00	6.50	10.75	10.75	11.81	0.036614	8.27	57.65	27.15	1.00
1	557	100-YR	594.00	6.50	11.13	11.13	12.30	0.035719	8.66	68.59	29.61	1.00
1	135	2-YR	125.00	2.00	5.57	3.02	5.59	0.000501	1.13	111.04	42.63	0.12
1	135	10-YR	266.00	2.00	7.19	3.63	7.22	0.000500	1.42	189.90	57.66	0.13
1	135	25-YR	376.00	2.00	8.06	4.00	8.10	0.000501	1.60	246.69	72.52	0.13
1	135	50-YR	477.00	2.00	8.72	4.31	8.76	0.000501	1.76	298.15	85.33	0.14
1	135	100-YR	594.00	2.00	9.39	4.62	9.44	0.000500	1.91	362.19	105.47	0.14

# Sams Branch - Existing Conditions

HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	6528	2-YR	3.00	65.80	66.27		66.29	0.012694	1.15	2.61	11.19	0.42
1	6528	10-YR	10.00	65.80	66.52		66.56	0.014201	1.62	6.17	17.21	0.48
1	6528	25-YR	16.00	65.80	66.64		66.70	0.015086	1.88	8.52	20.22	0.51
1	6528	50-YR	22.00	65.80	66.73		66.80	0.015781	2.12	10.44	22.38	0.53
1	6528	100-YR	29.00	65.80	66.82		66.91	0.016179	2.34	12.60	24.59	0.55
1	6226	2-YR	3.00	60.00	60.46		60.52	0.031743	1.97	1.52	5.74	0.67
1	6226	10-YR	10.00	60.00	60.80	60.66	60.89	0.025801	2.47	4.05	9.29	0.66
1	6226	25-YR	16.00	60.00	60.99		61.10	0.023215	2.67	5.99	11.28	0.65
1	6226	50-YR	22.00	60.00	61.14		61.26	0.021520	2.81	7.83	12.88	0.64
1	6226	100-YR	29.00	60.00	61.28		61.42	0.020482	2.96	9.81	14.41	0.63
1	6023	2-YR	3.00	54.00	54.72	54.61	54.79	0.025247	2.24	1.34	3.74	0.66
1	6023	10-YR	10.00	54.00	55.09	54.98	55.25	0.029960	3.23	3.10	5.69	0.77
1	6023	25-YR	16.00	54.00	55.27	55.18	55.50	0.033197	3.77	4.24	6.66	0.83
1	6023	50-YR	22.00	54.00	55.41	55.34	55.69	0.036134	4.22	5.22	7.38	0.88
1	6023	100-YR	29.00	54.00	55.56	55.49	55.88	0.037742	4.59	6.32	8.12	0.92
1	5817	2-YR	3.00	45.42	45.60	45.60	45.65	0.096967	1.75	1.71	18.11	1.00
1	5817	10-YR	10.00	45.42	45.72	45.72	45.82	0.077739	2.61	3.86	19.28	1.02
1	5817	25-YR	16.00	45.42	45.79	45.79	45.93	0.068579	3.00	5.40	20.08	1.01
1	5817	50-YR	22.00	45.42	45.86	45.86	46.03	0.062388	3.28	6.83	20.79	0.99
1	5817	100-YR	29.00	45.42	45.93	45.93	46.13	0.060378	3.60	8.25	21.48	1.00
1	5723	2-YR	3.00	41.62	42.82	42.36	42.84	0.005676	1.30	2.31	3.87	0.30
1	5723	10-YR	10.00	41.62	43.43	42.81	43.48	0.006921	1.89	5.30	5.86	0.35
1	5723	25-YR	16.00	41.62	43.76	43.05	43.83	0.007243	2.16	7.41	6.93	0.37
1	5723	50-YR	22.00	41.62	44.03	43.25	44.12	0.007257	2.34	9.40	7.80	0.38
1	5723	100-YR	29.00	41.62	44.29	43.44	44.39	0.007244	2.51	11.57	8.66	0.38
1	5714		Bridge									
1	5705	2-YR	3.00	41.62	42.57	42.37	42.65	0.022788	2.20	1.36	2.86	0.56
1	5705	10-YR	10.00	41.62	43.13	42.84	43.26	0.021612	2.91	3.43	4.54	0.59
1	5705	25-YR	16.00	41.62	43.43	43.10	43.60	0.020788	3.23	4.95	5.46	0.60
1	5705	50-YR	22.00	41.62	43.67	43.30	43.86	0.020548	3.48	6.32	6.17	0.61
1	5705	100-YR	29.00	41.62	43.88	43.50	44.10	0.020988	3.76	7.71	6.81	0.62



HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	5653	2-YR	3.00	41.20	42.22		42.24	0.003491	0.98	3.06	5.99	0.24
1	5653	10-YR	10.00	41.20	42.84		42.86	0.003128	1.27	7.86	9.60	0.25
1	5653	25-YR	16.00	41.20	43.17		43.20	0.003018	1.41	11.33	11.53	0.25
1	5653	50-YR	22.00	41.20	43.41		43.44	0.003081	1.54	14.28	12.94	0.26
1	5653	100-YR	29.00	41.20	43.61	42.63	43.66	0.003344	1.70	17.03	14.13	0.27
1	5383	2-YR	3.00	40.00	40.71		40.74	0.010258	1.35	2.22	6.26	0.40
1	5383	10-YR	10.00	40.00	40.96		41.05	0.022636	2.45	4.08	8.48	0.62
1	5383	25-YR	16.00	40.00	41.05		41.22	0.036269	3.29	4.86	9.26	0.80
1	5383	50-YR	22.00	40.00	41.15		41.37	0.041240	3.74	5.88	10.19	0.87
1	5383	100-YR	29.00	40.00	41.33		41.54	0.033660	3.71	7.81	11.74	0.80
1	5245	2-YR	3.00	38.50	39.20		39.23	0.011686	1.42	2.11	6.04	0.42
1	5245	10-YR	10.00	38.50	39.81		39.83	0.004589	1.35	7.39	11.31	0.30
1	5245	25-YR	16.00	38.50	40.21		40.24	0.002753	1.26	12.73	14.84	0.24
1	5245	50-YR	22.00	38.50	40.55		40.58	0.001988	1.20	18.26	17.78	0.21
1	5245	100-YR	29.00	38.50	40.90		40.92	0.001499	1.16	24.97	20.79	0.19
1	5205	2-YR	3.00	38.00	39.05	38.54	39.06	0.002043	0.77	3.88	7.41	0.19
1	5205	10-YR	10.00	38.00	39.71	38.87	39.72	0.001667	0.97	10.33	12.09	0.18
1	5205	25-YR	16.00	38.00	40.15	39.05	40.16	0.001262	0.98	16.31	15.19	0.17
1	5205	50-YR	22.00	38.00	40.50	39.20	40.52	0.001060	0.99	22.11	17.68	0.16
1	5205	100-YR	29.00	38.00	40.86	39.34	40.87	0.000902	1.00	28.90	20.21	0.15
1	5191		Bridge									
1	5172	2-YR	3.00	38.00	39.02	38.38	39.03	0.000262	0.36	8.35	15.58	0.08
1	5172	10-YR	10.00	38.00	39.69	38.62	39.69	0.000209	0.51	23.57	39.42	0.09
1	5172	25-YR	16.00	38.00	40.13	38.76	40.14	0.000152	0.55	42.17	46.07	0.08
1	5172	50-YR	22.00	38.00	40.49	38.86	40.49	0.000131	0.58	58.09	51.39	0.07
1	5172	100-YR	29.00	38.00	40.85	38.95	40.85	0.000118	0.62	75.04	56.79	0.07
1	5065	2-YR	16.00	37.26	38.04	38.04	38.34	0.058007	4.41	3.63	6.08	1.00
1	5065	10-YR	45.00	37.26	38.64	38.64	39.14	0.051087	5.67	7.93	8.06	1.01
1	5065	25-YR	71.00	37.26	39.03	39.03	39.64	0.047845	6.27	11.32	9.33	1.00
1	5065	50-YR	95.00	37.26	39.32	39.32	40.02	0.046651	6.71	14.15	10.27	1.01
1	5065	100-YR	122.00	37.26	39.61	39.61	40.39	0.045013	7.08	17.24	11.21	1.01

HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	5020	2-YR	16.00	33.91	35.74	35.03	35.78	0.004356	1.61	9.93	10.86	0.30
1	5020	10-YR	45.00	33.91	36.57	35.60	36.64	0.004631	2.14	21.07	15.82	0.33
1	5020	25-YR	71.00	33.91	37.08	35.94	37.17	0.004562	2.38	29.83	18.82	0.33
1	5020	50-YR	95.00	33.91	37.46	36.19	37.56	0.004461	2.54	37.95	27.21	0.34
1	5020	100-YR	122.00	33.91	37.85	36.44	37.95	0.004810	2.58	52.10	47.55	0.35
1	5006		Bridge									
1	4999	2-YR	16.00	33.91	35.39		35.51	0.018851	2.79	5.73	7.73	0.57
1	4999	10-YR	45.00	33.91	36.21		36.37	0.014450	3.27	13.75	11.97	0.54
1	4999	25-YR	71.00	33.91	36.72		36.90	0.012379	3.46	20.51	14.62	0.51
1	4999	50-YR	95.00	33.91	37.08		37.29	0.011564	3.63	26.18	16.51	0.51
1	4999	100-YR	122.00	33.91	37.44		37.66	0.010739	3.76	32.47	18.39	0.50
1	4960	2-YR	16.00	33.50	35.08		35.14	0.005058	1.95	8.22	10.42	0.39
1	4960	10-YR	45.00	33.50	36.02		36.09	0.003330	2.15	20.89	16.61	0.34
1	4960	25-YR	71.00	33.50	36.56		36.65	0.002836	2.29	31.09	21.78	0.32
1	4960	50-YR	95.00	33.50	36.96		37.05	0.002354	2.42	41.51	30.71	0.31
1	4960	100-YR	122.00	33.50	37.34		37.44	0.002069	2.56	54.91	39.34	0.30
1	4877	2-YR	16.00	32.82	34.93		34.95	0.001202	1.15	13.95	13.25	0.20
1	4877	10-YR	45.00	32.82	35.88		35.91	0.001299	1.53	29.42	19.25	0.22
1	4877	25-YR	71.00	32.82	36.43		36.48	0.001325	1.73	41.12	22.75	0.23
1	4877	50-YR	95.00	32.82	36.84		36.90	0.001339	1.86	50.96	25.33	0.23
1	4877	100-YR	122.00	32.82	37.23		37.30	0.001345	1.99	61.35	27.79	0.24
1	4860	2-YR	16.00	32.82	34.80	34.21	34.89	0.006395	2.37	6.75	6.82	0.42
1	4860	10-YR	45.00	32.82	35.67	34.94	35.83	0.007171	3.20	14.04	9.84	0.47
1	4860	25-YR	71.00	32.82	36.18	35.36	36.39	0.007451	3.64	19.48	11.59	0.50
1	4860	50-YR	95.00	32.82	36.55	35.67	36.80	0.007630	3.95	24.03	12.87	0.51
1	4860	100-YR	122.00	32.82	36.91	35.97	37.19	0.007608	4.24	28.81	14.30	0.52
1	4848		Bridge									
1	4836	2-YR	16.00	32.50	34.26	33.71	34.33	0.005184	2.08	7.71	8.74	0.39
1	4836	10-YR	45.00	32.50	35.04	34.33	35.16	0.005837	2.81	16.01	12.60	0.44
1	4836	25-YR	71.00	32.50	35.49	34.70	35.65	0.006102	3.20	22.16	14.83	0.46
1	4836	50-YR	95.00	32.50	35.82	34.96	36.01	0.006285	3.48	27.27	16.44	0.48

HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4836	100-YR	122.00	32.50	36.13	35.22	36.35	0.006414	3.74	32.65	17.99	0.49
1	4819	2-YR	16.00	32.50	34.15		34.23	0.006566	2.23	7.16	8.69	0.43
1	4819	10-YR	45.00	32.50	34.92		35.05	0.006687	2.91	15.45	12.77	0.47
1	4819	25-YR	71.00	32.50	35.37		35.54	0.006715	3.27	21.72	15.14	0.48
1	4819	50-YR	95.00	32.50	35.70		35.89	0.006757	3.52	26.96	16.86	0.49
1	4819	100-YR	122.00	32.50	36.01		36.23	0.006756	3.75	32.52	18.52	0.50
1	4633	2-YR	16.00	30.00	31.35	31.35	31.69	0.041569	4.69	3.41	5.06	1.01
1	4633	10-YR	45.00	30.00	32.03	32.03	32.56	0.036916	5.80	7.75	7.63	1.01
1	4633	25-YR	71.00	30.00	32.44	32.44	33.07	0.034752	6.36	11.16	9.16	1.01
1	4633	50-YR	95.00	30.00	32.74	32.74	33.45	0.033176	6.72	14.13	10.30	1.01
1	4633	100-YR	122.00	30.00	33.03	33.03	33.81	0.032081	7.07	17.27	11.39	1.01
1	4409	2-YR	16.00	26.99	29.21		29.26	0.002350	1.68	9.54	9.50	0.29
1	4409	10-YR	45.00	26.99	30.18		30.25	0.002287	2.15	20.92	14.16	0.31
1	4409	25-YR	71.00	26.99	30.73		30.82	0.002280	2.41	29.47	16.84	0.32
1	4409	50-YR	95.00	26.99	31.14		31.24	0.002260	2.58	36.77	18.82	0.33
1	4409	100-YR	122.00	26.99	31.55		31.67	0.002174	2.71	44.99	20.83	0.33
1	4203	2-YR	16.00	26.50	28.27		28.40	0.008843	2.91	5.50	6.21	0.54
1	4203	10-YR	45.00	26.50	29.47		29.60	0.004466	2.91	15.44	10.40	0.42
1	4203	25-YR	71.00	26.50	29.97		30.15	0.004821	3.36	21.12	12.16	0.45
1	4203	50-YR	95.00	26.50	30.37		30.57	0.004863	3.63	26.19	13.54	0.46
1	4203	100-YR	122.00	26.50	30.82		31.03	0.004475	3.74	32.60	15.11	0.45
1	4166	2-YR	16.00	26.25	28.21	27.15	28.24	0.001510	1.37	11.70	9.65	0.22
1	4166	10-YR	45.00	26.25	29.43	27.79	29.47	0.001376	1.72	26.23	14.23	0.22
1	4166	25-YR	71.00	26.25	29.93	28.18	30.00	0.001743	2.10	33.77	16.10	0.26
1	4166	50-YR	95.00	26.25	30.32	28.48	30.41	0.001936	2.35	40.39	17.58	0.27
1	4166	100-YR	122.00	26.25	30.77	28.76	30.87	0.001937	2.50	48.72	19.28	0.28
1	4151		Bridge									
1	4141	2-YR	16.00	26.25	28.18	26.79	28.19	0.000411	0.81	19.76	13.87	0.12
1	4141	10-YR	45.00	26.25	29.40	27.27	29.42	0.000485	1.14	39.43	18.45	0.14
1	4141	25-YR	71.00	26.25	29.89	27.59	29.92	0.000673	1.45	48.89	20.29	0.16
1	4141	50-YR	95.00	26.25	30.28	27.84	30.32	0.000794	1.67	57.02	21.75	0.18

HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4141	100-YR	122.00	26.25	30.72	28.08	30.77	0.000843	1.82	67.14	23.44	0.19
1	4090	2-YR	16.00	26.00	28.10		28.14	0.002556	1.62	9.89	9.42	0.28
1	4090	10-YR	45.00	26.00	29.32		29.37	0.001770	1.83	24.66	14.87	0.25
1	4090	25-YR	71.00	26.00	29.77		29.85	0.002212	2.22	31.93	16.92	0.29
1	4090	50-YR	95.00	26.00	30.14		30.24	0.002409	2.47	38.47	18.57	0.30
1	4090	100-YR	122.00	26.00	30.59		30.69	0.002304	2.59	47.19	20.57	0.30
1	4011	2-YR	18.00	26.00	27.95		27.98	0.001654	1.29	13.96	14.30	0.23
1	4011	10-YR	62.00	26.00	29.20		29.24	0.001404	1.65	37.53	23.45	0.23
1	4011	25-YR	102.00	26.00	29.62		29.69	0.001955	2.13	47.92	27.34	0.28
1	4011	50-YR	140.00	26.00	29.97		30.06	0.002130	2.44	58.54	33.05	0.30
1	4011	100-YR	186.00	26.00	30.42		30.53	0.001920	2.64	74.97	38.80	0.29
1	3985	2-YR	18.00	26.00	27.95	26.34	27.96	0.000125	0.50	35.92	21.59	0.07
1	3985	10-YR	62.00	26.00	29.20	26.78	29.22	0.000262	0.95	65.39	25.80	0.10
1	3985	25-YR	102.00	26.00	29.61	27.07	29.64	0.000490	1.33	76.78	29.42	0.14
1	3985	50-YR	140.00	26.00	29.97	27.32	30.01	0.000622	1.61	87.22	32.51	0.17
1	3985	100-YR	186.00	26.00	30.42	27.58	30.47	0.000676	1.84	100.86	36.51	0.18
1	3946		Culvert									
1	3917	2-YR	18.00	26.00	27.94	26.40	27.94	0.000108	0.43	42.18	32.00	0.06
1	3917	10-YR	62.00	26.00	29.13	26.84	29.14	0.000165	0.80	77.90	47.40	0.09
1	3917	25-YR	102.00	26.00	29.45	27.12	29.47	0.000303	1.17	87.55	51.87	0.12
1	3917	50-YR	140.00	26.00	29.67	27.34	29.70	0.000450	1.49	93.99	54.85	0.15
1	3917	100-YR	186.00	26.00	29.89	27.56	29.94	0.000633	1.85	100.65	57.84	0.18
1	3905	2-YR	18.00	26.00	27.94		27.94	0.000218	0.50	36.25	36.26	0.09
1	3905	10-YR	62.00	26.00	29.13		29.14	0.000190	0.75	88.76	51.13	0.09
1	3905	25-YR	102.00	26.00	29.45		29.47	0.000315	1.07	105.79	54.89	0.12
1	3905	50-YR	140.00	26.00	29.67		29.69	0.000443	1.34	117.85	57.41	0.14
1	3905	100-YR	186.00	26.00	29.89		29.93	0.000588	1.63	130.96	60.03	0.17
1	3756	2-YR	95.00	24.00	27.92		27.93	0.000098	0.71	175.68	78.39	0.07
1	3756	10-YR	222.00	24.00	29.09		29.11	0.000171	1.16	279.84	99.14	0.10
1	3756	25-YR	324.00	24.00	29.39		29.43	0.000285	1.57	310.20	104.54	0.13
1	3756	50-YR	418.00	24.00	29.58		29.63	0.000410	1.93	330.38	108.92	0.15

HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	3756	100-YR	525.00	24.00	29.77		29.84	0.000560	2.31	351.83	113.69	0.18
1	3575	2-YR	95.00	24.00	27.91		27.91	0.000051	0.42	228.83	98.06	0.05
1	3575	10-YR	222.00	24.00	29.08		29.09	0.000075	0.61	478.10	601.70	0.06
1	3575	25-YR	324.00	24.00	29.38		29.39	0.000107	0.77	657.44	610.22	0.07
1	3575	50-YR	418.00	24.00	29.57		29.58	0.000139	0.91	772.77	614.42	0.08
1	3575	100-YR	525.00	24.00	29.76		29.78	0.000172	1.05	892.20	618.16	0.09
1	3491	2-YR	95.00	24.20	27.08	27.08	27.82	0.033259	6.90	13.77	9.54	1.01
1	3491	10-YR	222.00	24.20	28.66	28.66	29.03	0.011651	5.45	73.54	124.31	0.64
1	3491	25-YR	324.00	24.20	28.86	28.86	29.31	0.014833	6.35	101.86	143.49	0.73
1	3491	50-YR	418.00	24.20	29.04	29.04	29.50	0.016007	6.75	127.24	151.35	0.76
1	3491	100-YR	525.00	24.20	29.33	29.33	29.70	0.012833	6.48	185.77	213.58	0.70
1	3392	2-YR	93.00	20.00	25.80	20.88	25.80	0.000032	0.57	162.85	288.45	0.04
1	3392	10-YR	222.00	20.00	26.64	21.50	26.65	0.000050	0.68	554.48	300.18	0.05
1	3392	25-YR	323.00	20.00	26.86	21.87	26.87	0.000085	0.92	619.57	304.65	0.07
1	3392	50-YR	418.00	20.00	27.02	22.19	27.03	0.000121	1.11	668.46	307.97	0.08
1	3392	100-YR	526.00	20.00	27.19	22.49	27.21	0.000163	1.32	721.97	328.90	0.10
1	3359		Culvert									
1	3336	2-YR	93.00	20.00	22.16	21.69	22.33	0.008245	3.38	27.48	26.53	0.54
1	3336	10-YR	222.00	20.00	22.70	22.39	23.18	0.013718	5.54	40.04	51.68	0.74
1	3336	25-YR	323.00	20.00	22.90	22.79	23.71	0.020249	7.24	44.61	69.63	0.92
1	3336	50-YR	418.00	20.00	23.14	23.14	24.22	0.023086	8.35	50.06	99.26	1.00
1	3336	100-YR	526.00	20.00	23.49	23.49	24.76	0.022051	9.03	58.26	177.66	1.00
1	3290	2-YR	93.00	20.50	22.19		22.19	0.000419	0.92	156.38	131.12	0.13
1	3290	10-YR	222.00	20.50	22.85		22.87	0.000602	1.39	273.57	249.39	0.16
1	3290	25-YR	323.00	20.50	23.20		23.23	0.000670	1.62	368.58	281.31	0.18
1	3290	50-YR	418.00	20.50	23.45		23.48	0.000741	1.81	442.40	306.84	0.19
1	3290	100-YR	526.00	20.50	23.69		23.73	0.000828	2.02	517.59	320.22	0.20
1	2765	2-YR	93.00	20.44	21.63		21.69	0.004624	2.21	74.04	149.67	0.39
1	2765	10-YR	222.00	20.44	22.12		22.22	0.004742	2.94	157.58	197.75	0.43
1	2765	25-YR	323.00	20.44	22.38		22.50	0.005142	3.41	224.84	332.25	0.46
1	2765	50-YR	418.00	20.44	22.56		22.69	0.005316	3.70	289.29	393.63	0.47

HEC-RAS Plan: SB2-EX River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	2765	100-YR	526.00	20.44	22.72		22.86	0.005533	3.99	358.03	440.67	0.49
1	2171	2-YR	93.00	17.00	19.72		19.75	0.002392	1.51	85.96	200.82	0.24
1	2171	10-YR	222.00	17.00	20.23	19.20	20.27	0.002291	1.87	271.37	466.74	0.25
1	2171	25-YR	324.00	17.00	20.49	19.73	20.53	0.002175	2.00	396.31	497.09	0.25
1	2171	50-YR	419.00	17.00	20.71	19.98	20.74	0.002096	2.10	508.42	564.21	0.25
1	2171	100-YR	528.00	17.00	20.92		20.95	0.001969	2.16	633.27	605.17	0.24
1	1571	2-YR	93.00	14.00	15.70	15.70	16.14	0.032784	5.31	17.51	20.59	1.01
1	1571	10-YR	222.00	14.00	16.47	16.47	17.01	0.023160	5.92	41.07	51.06	0.92
1	1571	25-YR	324.00	14.00	16.81	16.81	17.43	0.021356	6.48	59.75	57.65	0.91
1	1571	50-YR	419.00	14.00	17.09	17.09	17.75	0.020245	6.87	76.05	62.83	0.90
1	1571	100-YR	528.00	14.00	17.32	17.32	18.07	0.020570	7.39	91.58	67.38	0.92
1	825	2-YR	122.00	6.00	8.63		8.65	0.000949	1.12	207.08	201.00	0.16
1	825	10-YR	271.00	6.00	9.48		9.50	0.000810	1.38	386.27	221.40	0.16
1	825	25-YR	391.00	6.00	10.01		10.03	0.000772	1.54	506.15	232.40	0.16
1	825	50-YR	500.00	6.00	10.43		10.45	0.000744	1.65	605.60	239.34	0.16
1	825	100-YR	627.00	6.00	10.87		10.89	0.000722	1.76	712.99	246.06	0.16
1	83	2-YR	122.00	4.00	6.81	6.12	6.99	0.010004	3.39	36.19	27.78	0.50
1	83	10-YR	272.00	4.00	7.73	6.92	8.01	0.010004	4.31	68.92	39.83	0.53
1	83	25-YR	393.00	4.00	8.22	7.41	8.59	0.010001	4.94	89.81	45.49	0.55
1	83	50-YR	503.00	4.00	8.60	7.75	9.04	0.010011	5.42	107.95	50.13	0.56
1	83	100-YR	632.00	4.00	9.00	8.08	9.51	0.010003	5.91	128.89	55.00	0.57

**PRIMARY SYSTEM  
FUTURE  
CONDITIONS:  
HEC-RAS OUTPUT**

# Harris Mill Run - Future Conditions

HEC-RAS Plan: HMR-FU River: Harris Mill Run Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	18138	2-YR	25.00	62.00	62.83	62.83	63.04	0.061331	3.70	6.76	16.34	1.01
1	18138	10-YR	59.00	62.00	63.20	63.17	63.47	0.047200	4.16	14.19	23.69	0.95
1	18138	25-YR	86.00	62.00	63.36	63.36	63.70	0.052032	4.74	18.15	26.79	1.01
1	18138	50-YR	110.00	62.00	64.03	63.50	64.14	0.009866	2.71	40.58	39.76	0.47
1	18138	100-YR	138.00	62.00	64.18	63.65	64.32	0.010005	2.94	46.94	41.12	0.48
1	18020	2-YR	25.00	60.00	61.35		61.38	0.004514	1.39	17.96	26.59	0.30
1	18020	10-YR	59.00	60.00	61.75		61.81	0.006266	1.95	30.23	34.50	0.37
1	18020	25-YR	86.00	60.00	62.06		62.12	0.005580	2.07	41.57	39.84	0.36
1	18020	50-YR	110.00	60.00	61.50	61.50	61.88	0.050354	4.98	22.08	29.49	1.01
1	18020	100-YR	138.00	60.00	61.65	61.65	62.06	0.047878	5.17	26.67	32.41	1.01
1	17481	2-YR	25.00	56.00	57.11		57.20	0.016222	2.32	10.77	19.33	0.55
1	17481	10-YR	59.00	56.00	57.72		57.80	0.008930	2.30	25.66	29.83	0.44
1	17481	25-YR	86.00	56.00	57.91		58.02	0.010926	2.72	31.56	33.08	0.49
1	17481	50-YR	110.00	56.00	59.79		59.81	0.000481	1.02	108.20	47.43	0.12
1	17481	100-YR	138.00	56.00	60.01		60.03	0.000580	1.16	118.76	48.99	0.13
1	17077	2-YR	25.00	54.00	55.69		55.71	0.001563	0.95	26.24	30.97	0.18
1	17077	10-YR	59.00	54.00	56.19		56.22	0.002155	1.34	43.91	39.35	0.22
1	17077	25-YR	86.00	54.00	57.58		57.59	0.000348	0.77	112.25	59.39	0.10
1	17077	50-YR	110.00	54.00	59.76		59.76	0.000041	0.41	301.93	127.32	0.04
1	17077	100-YR	138.00	54.00	59.97		59.98	0.000053	0.48	329.60	134.47	0.04
1	16520	2-YR	25.00	52.00	52.89	52.89	53.12	0.059979	3.83	6.52	14.68	1.01
1	16520	10-YR	59.00	52.00	53.61		53.73	0.014200	2.77	21.31	26.54	0.54
1	16520	25-YR	86.00	52.00	57.54		57.54	0.000037	0.37	254.08	95.43	0.04
1	16520	50-YR	110.00	52.00	59.75		59.75	0.000010	0.27	500.38	125.81	0.02
1	16520	100-YR	138.00	52.00	59.96		59.96	0.000014	0.33	526.82	128.15	0.02
1	15899	2-YR	25.00	50.00	51.08		51.08	0.000098	0.27	93.12	92.26	0.05
1	15899	10-YR	59.00	50.00	53.67		53.67	0.000008	0.16	373.56	144.55	0.02
1	15899	25-YR	86.00	50.00	57.54		57.54	0.000001	0.09	1135.90	225.62	0.01
1	15899	50-YR	110.00	50.00	59.75		59.75	0.000001	0.09	1659.32	246.85	0.01
1	15899	100-YR	138.00	50.00	59.96		59.96	0.000001	0.11	1710.91	248.93	0.01
1	15394	2-YR	47.00	49.20	50.93		50.94	0.000714	0.82	57.02	46.54	0.13
1	15394	10-YR	116.00	49.20	53.66		53.66	0.000047	0.44	406.70	173.88	0.04



HEC-RAS Plan: HMR-FU River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	15394	25-YR	172.00	49.20	57.53		57.53	0.000006	0.25	1172.88	219.02	0.02
1	15394	50-YR	225.00	49.20	59.75		59.75	0.000004	0.24	1685.80	244.65	0.01
1	15394	100-YR	285.00	49.20	59.96		59.96	0.000005	0.29	1736.85	247.40	0.02
1	15138	2-YR	47.00	47.43	50.74		50.76	0.000728	1.00	46.91	28.32	0.14
1	15138	10-YR	116.00	47.43	53.63		53.64	0.000119	0.70	210.51	119.40	0.06
1	15138	25-YR	172.00	47.43	57.53		57.53	0.000012	0.36	889.78	218.20	0.02
1	15138	50-YR	225.00	47.43	59.75		59.75	0.000007	0.31	1411.99	250.99	0.02
1	15138	100-YR	285.00	47.43	59.96		59.96	0.000010	0.38	1464.16	253.81	0.02
1	15094	2-YR	47.00	47.40	50.74	47.95	50.74	0.000118	0.62	75.87	32.36	0.06
1	15094	10-YR	116.00	47.40	53.63	48.40	53.64	0.000083	0.80	145.22	43.47	0.06
1	15094	25-YR	172.00	47.40	57.52	48.69	57.53	0.000035	0.72	238.71	111.41	0.04
1	15094	50-YR	225.00	47.40	59.75	48.94	59.75	0.000012	0.39	868.79	260.46	0.02
1	15094	100-YR	285.00	47.40	59.95	49.18	59.96	0.000017	0.47	923.39	270.02	0.03
1	15058		Culvert									
1	15038	2-YR	47.00	47.40	49.47	48.14	49.52	0.001574	1.74	26.96	28.07	0.21
1	15038	10-YR	116.00	47.40	50.36	48.76	50.50	0.002938	3.02	38.45	31.99	0.31
1	15038	25-YR	172.00	47.40	50.81	49.16	51.04	0.004027	3.88	44.30	34.00	0.37
1	15038	50-YR	225.00	47.40	51.13	49.51	51.46	0.005119	4.65	48.44	35.41	0.42
1	15038	100-YR	285.00	47.40	51.40	49.86	51.87	0.006456	5.47	52.06	36.65	0.48
1	15010	2-YR	47.00	47.27	49.04		49.33	0.031783	4.32	10.87	12.27	0.81
1	15010	10-YR	116.00	47.27	49.83		50.24	0.027117	5.11	22.72	17.75	0.80
1	15010	25-YR	172.00	47.27	50.25		50.74	0.026354	5.57	30.85	20.68	0.80
1	15010	50-YR	225.00	47.27	50.55		51.12	0.027176	6.03	37.31	22.74	0.83
1	15010	100-YR	285.00	47.27	50.82	50.62	51.48	0.028813	6.54	43.58	24.58	0.87
1	14796	2-YR	47.00	45.00	47.21		47.26	0.004385	1.89	24.90	22.54	0.32
1	14796	10-YR	116.00	45.00	48.07		48.16	0.004622	2.41	48.07	31.31	0.34
1	14796	25-YR	172.00	45.00	48.53		48.64	0.004689	2.71	64.49	49.08	0.36
1	14796	50-YR	225.00	45.00	48.85		48.98	0.004694	2.95	84.48	74.17	0.36
1	14796	100-YR	285.00	45.00	49.15		49.30	0.004661	3.15	110.10	95.23	0.37
1	14492	2-YR	47.00	42.07	43.62	43.62	44.02	0.051658	5.07	9.26	11.93	1.01
1	14492	10-YR	116.00	42.07	44.30	44.30	44.87	0.045483	6.06	19.13	17.15	1.01

HEC-RAS Plan: HMR-FU River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	14492	25-YR	172.00	42.07	44.68	44.68	45.35	0.043426	6.57	26.16	20.05	1.01
1	14492	50-YR	225.00	42.07	44.98	44.98	45.72	0.041431	6.91	32.57	22.37	1.01
1	14492	100-YR	285.00	42.07	45.28	45.28	46.08	0.039451	7.20	39.61	24.67	1.00
1	14197	2-YR	46.00	38.04	39.41		39.44	0.002289	1.41	32.52	27.97	0.23
1	14197	10-YR	113.00	38.04	40.31		40.37	0.002252	1.87	60.38	33.51	0.25
1	14197	25-YR	167.00	38.04	40.95		41.01	0.001984	2.01	82.96	37.41	0.24
1	14197	50-YR	216.00	38.04	41.48		41.55	0.001772	2.08	103.61	40.64	0.23
1	14197	100-YR	273.00	38.04	42.05		42.12	0.001573	2.14	127.81	44.13	0.22
1	14117	2-YR	46.00	38.00	39.07	38.57	39.14	0.006634	2.14	21.52	21.81	0.38
1	14117	10-YR	113.00	38.00	39.99	39.02	40.10	0.004787	2.63	43.05	24.62	0.35
1	14117	25-YR	167.00	38.00	40.66	39.30	40.78	0.003861	2.78	60.17	26.64	0.33
1	14117	50-YR	216.00	38.00	41.21	39.55	41.34	0.003354	2.87	75.28	28.30	0.31
1	14117	100-YR	273.00	38.00	41.80	39.79	41.93	0.002963	2.95	92.41	30.08	0.30
1	14041		Culvert									
1	13853	2-YR	46.00	37.50	38.62	38.03	38.66	0.004716	1.63	28.28	30.61	0.30
1	13853	10-YR	113.00	37.50	39.54	38.43	39.60	0.002966	2.03	55.73	39.35	0.26
1	13853	25-YR	167.00	37.50	40.17	38.66	40.25	0.002422	2.23	74.86	45.44	0.25
1	13853	50-YR	216.00	37.50	40.68	38.85	40.77	0.002194	2.40	89.98	55.82	0.24
1	13853	100-YR	273.00	37.50	41.20	39.05	41.31	0.002046	2.58	105.76	74.82	0.24
1	13711	2-YR	46.00	35.00	37.26		37.43	0.019274	3.30	13.94	12.36	0.55
1	13711	10-YR	113.00	35.00	38.86		38.98	0.006658	2.77	40.76	21.13	0.35
1	13711	25-YR	167.00	35.00	39.60		39.73	0.005667	2.88	58.04	25.21	0.33
1	13711	50-YR	216.00	35.00	40.16		40.30	0.005145	2.96	72.99	28.27	0.32
1	13711	100-YR	273.00	35.00	40.73		40.87	0.004713	3.04	89.91	31.38	0.32
1	13528	2-YR	46.00	33.02	37.00		37.02	0.000698	0.93	49.70	24.95	0.12
1	13528	10-YR	113.00	33.02	38.64		38.66	0.000670	1.14	99.04	35.22	0.12
1	13528	25-YR	167.00	33.02	39.39		39.42	0.000705	1.32	128.42	43.54	0.13
1	13528	50-YR	216.00	33.02	39.95		39.99	0.000732	1.45	154.60	49.94	0.13
1	13528	100-YR	273.00	33.02	40.53		40.57	0.000725	1.58	187.07	64.69	0.13
1	12896	2-YR	46.00	32.48	36.69		36.69	0.000389	0.72	63.69	30.29	0.09
1	12896	10-YR	113.00	32.48	38.35		38.36	0.000360	0.92	128.20	54.30	0.09

HEC-RAS Plan: HMR-FU River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	12896	25-YR	167.00	32.48	39.08		39.10	0.000382	1.09	179.42	91.49	0.10
1	12896	50-YR	216.00	32.48	39.63		39.66	0.000385	1.19	237.69	112.49	0.10
1	12896	100-YR	273.00	32.48	40.22		40.24	0.000374	1.27	307.94	125.88	0.10
1	12085	2-YR	195.00	30.00	35.00		35.11	0.003847	2.72	71.63	28.66	0.30
1	12085	10-YR	436.00	30.00	36.81		36.97	0.003481	3.24	154.60	117.37	0.31
1	12085	25-YR	620.00	30.00	37.61		37.79	0.003064	3.49	258.50	139.52	0.30
1	12085	50-YR	791.00	30.00	38.22		38.40	0.002855	3.67	347.01	153.94	0.29
1	12085	100-YR	990.00	30.00	38.84		39.03	0.002738	3.90	451.95	189.49	0.29
1	11366	2-YR	211.00	26.82	32.54		32.63	0.003125	2.46	85.78	30.00	0.26
1	11366	10-YR	469.00	26.82	34.40		34.55	0.003251	3.11	156.17	57.88	0.28
1	11366	25-YR	667.00	26.82	35.32		35.50	0.003269	3.49	221.38	83.59	0.28
1	11366	50-YR	852.00	26.82	35.99		36.21	0.003216	3.78	282.91	98.96	0.29
1	11366	100-YR	1062.00	26.82	36.66		36.89	0.003180	4.07	353.37	114.06	0.29
1	10534	2-YR	227.00	25.00	30.86		30.92	0.001477	1.89	126.17	46.89	0.18
1	10534	10-YR	505.00	25.00	32.53		32.63	0.001755	2.62	246.03	102.04	0.21
1	10534	25-YR	721.00	25.00	33.33		33.46	0.001925	3.05	332.68	112.81	0.23
1	10534	50-YR	919.00	25.00	33.96		34.12	0.002028	3.36	406.51	121.26	0.24
1	10534	100-YR	1142.00	25.00	34.58		34.76	0.002128	3.67	483.77	129.50	0.25
1	9972	2-YR	227.00	24.00	29.91		29.98	0.001911	2.11	114.53	48.97	0.21
1	9972	10-YR	505.00	24.00	31.42		31.52	0.002218	2.78	279.62	136.75	0.23
1	9972	25-YR	721.00	24.00	32.17		32.29	0.002261	3.12	385.97	146.78	0.24
1	9972	50-YR	919.00	24.00	32.77		32.90	0.002258	3.36	476.91	154.86	0.25
1	9972	100-YR	1142.00	24.00	33.36		33.51	0.002267	3.59	570.60	161.47	0.25
1	9164	2-YR	227.00	22.00	25.43		25.99	0.030287	5.99	37.90	22.08	0.81
1	9164	10-YR	505.00	22.00	27.33		27.81	0.014318	5.52	91.44	34.30	0.60
1	9164	25-YR	721.00	22.00	28.29		28.80	0.011202	5.71	129.42	45.44	0.55
1	9164	50-YR	919.00	22.00	28.96		29.51	0.010090	6.01	163.22	58.72	0.53
1	9164	100-YR	1142.00	22.00	29.57		30.19	0.009373	6.37	204.88	77.44	0.53
1	8899	2-YR	227.00	20.73	25.34		25.37	0.000561	1.23	184.80	59.97	0.12
1	8899	10-YR	505.00	20.73	27.16		27.20	0.000666	1.66	305.21	75.26	0.14
1	8899	25-YR	721.00	20.73	28.13		28.19	0.000694	1.91	387.45	96.16	0.15
1	8899	50-YR	919.00	20.73	28.82		28.89	0.000734	2.14	459.31	113.25	0.16

HEC-RAS Plan: HMR-FU River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	8899	100-YR	1142.00	20.73	29.44		29.53	0.000794	2.38	533.18	123.71	0.17
1	8667	2-YR	227.00	20.50	24.22		24.89	0.033924	6.57	34.57	18.56	0.85
1	8667	10-YR	505.00	20.50	25.97		26.68	0.021542	6.76	74.65	27.28	0.72
1	8667	25-YR	721.00	20.50	26.97		27.68	0.017397	6.80	116.27	57.60	0.67
1	8667	50-YR	919.00	20.50	27.72		28.37	0.014507	6.68	166.78	75.88	0.62
1	8667	100-YR	1142.00	20.50	28.36		29.00	0.012540	6.73	220.05	91.08	0.59
1	8501	2-YR	241.00	20.00	24.11	21.57	24.16	0.000909	1.77	135.85	47.60	0.19
1	8501	10-YR	537.00	20.00	25.80	22.51	25.88	0.001157	2.36	227.37	62.08	0.22
1	8501	25-YR	769.00	20.00	26.74	23.08	26.85	0.001340	2.63	292.50	76.14	0.24
1	8501	50-YR	981.00	20.00	27.45	23.52	27.58	0.001428	2.80	350.46	87.25	0.25
1	8501	100-YR	1220.00	20.00	28.11	23.97	28.25	0.001384	2.98	416.87	116.62	0.25
1	8457		Bridge									
1	8220	2-YR	241.00	20.00	23.58		23.66	0.002089	2.34	103.16	38.33	0.25
1	8220	10-YR	537.00	20.00	25.03		25.20	0.002806	3.26	164.73	46.08	0.30
1	8220	25-YR	769.00	20.00	25.83		26.05	0.003235	3.79	202.96	51.11	0.33
1	8220	50-YR	981.00	20.00	26.41		26.68	0.003590	4.20	238.41	71.11	0.35
1	8220	100-YR	1220.00	20.00	26.96		27.28	0.003921	4.59	282.89	90.07	0.37
1	7955	2-YR	241.00	20.00	22.93		23.00	0.002956	2.11	114.27	57.82	0.26
1	7955	10-YR	537.00	20.00	24.32		24.43	0.002806	2.64	203.65	70.70	0.27
1	7955	25-YR	769.00	20.00	25.06		25.19	0.002925	2.98	258.29	79.06	0.29
1	7955	50-YR	981.00	20.00	25.60		25.76	0.002976	3.26	304.52	91.30	0.29
1	7955	100-YR	1220.00	20.00	26.12		26.32	0.002994	3.54	355.70	104.01	0.30
1	7660	2-YR	241.00	18.60	22.28		22.33	0.001743	1.79	134.97	58.89	0.21
1	7660	10-YR	537.00	18.60	23.61		23.70	0.002134	2.42	221.68	71.93	0.24
1	7660	25-YR	769.00	18.60	24.31		24.43	0.002250	2.82	278.35	95.75	0.26
1	7660	50-YR	981.00	18.60	24.83		24.98	0.002347	3.14	332.63	113.82	0.27
1	7660	100-YR	1220.00	18.60	25.33		25.51	0.002451	3.45	394.00	130.83	0.28
1	7181	2-YR	241.00	18.06	21.65		21.68	0.001077	1.39	172.87	76.53	0.16
1	7181	10-YR	537.00	18.06	22.86		22.92	0.001268	1.97	291.16	120.32	0.19
1	7181	25-YR	769.00	18.06	23.51		23.59	0.001390	2.32	375.89	140.27	0.20
1	7181	50-YR	981.00	18.06	23.97		24.07	0.001520	2.62	444.14	154.09	0.22

HEC-RAS Plan: HMR-FU River: Harris Mill Run Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	7181	100-YR	1220.00	18.06	24.43		24.55	0.001641	2.90	517.07	165.36	0.23
1	6212	2-YR	247.00	17.02	18.65		18.86	0.020287	3.71	67.42	83.51	0.63
1	6212	10-YR	555.00	17.02	19.29	19.00	19.63	0.022230	4.80	145.36	213.27	0.69
1	6212	25-YR	797.00	17.02	19.52	19.46	19.95	0.025395	5.59	205.02	287.26	0.76
1	6212	50-YR	1017.00	17.02	19.73	19.66	20.20	0.024812	5.97	266.86	302.76	0.76
1	6212	100-YR	1266.00	17.02	19.92	19.86	20.44	0.025183	6.41	325.99	315.42	0.78
1	5624	2-YR	247.00	14.50	16.26		16.27	0.001728	0.84	681.87	1202.62	0.16
1	5624	10-YR	555.00	14.50	16.67		16.67	0.001982	1.04	1332.88	1921.14	0.18
1	5624	25-YR	797.00	14.50	16.86		16.87	0.002005	1.09	1711.29	2020.93	0.18
1	5624	50-YR	1017.00	14.50	16.99		16.99	0.002108	1.21	1973.81	2122.48	0.19
1	5624	100-YR	1266.00	14.50	17.12		17.13	0.002175	1.31	2269.45	2217.68	0.20
1	4881	2-YR	259.00	10.00	11.94	11.94	12.24	0.062261	4.54	69.16	149.26	0.95
1	4881	10-YR	581.00	10.00	12.49	12.49	12.73	0.029780	4.51	297.77	966.64	0.72
1	4881	25-YR	835.00	10.00	12.65	12.65	12.89	0.030097	4.90	475.12	1373.01	0.74
1	4881	50-YR	1068.00	10.00	12.78	12.78	13.00	0.026778	4.93	689.34	1710.70	0.71
1	4881	100-YR	1333.00	10.00	12.89	12.89	13.09	0.025350	5.02	879.92	1814.86	0.69
1	418	2-YR	259.00	0.00	5.31	2.34	5.31	0.000100	0.53	1345.20	985.32	0.05
1	418	10-YR	581.00	0.00	6.48	3.01	6.48	0.000100	0.64	2613.92	1208.07	0.05
1	418	25-YR	835.00	0.00	7.18	3.31	7.18	0.000100	0.70	3589.10	1711.25	0.05
1	418	50-YR	1068.00	0.00	7.73	3.53	7.74	0.000100	0.75	4726.18	2303.68	0.05
1	418	100-YR	1333.00	0.00	8.18	3.81	8.18	0.000100	0.79	5836.75	2805.27	0.05

# Schoolhouse Branch - Future Conditions

HEC-RAS Plan: SHB-FU(R) River: Schoolhouse Br Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	12202	2-YR	5.00	73.97	74.52		74.52	0.000713	0.34	14.89	46.91	0.10
1	12202	10-YR	10.00	73.97	74.68		74.68	0.000815	0.43	23.13	55.87	0.12
1	12202	25-YR	14.00	73.97	74.77		74.78	0.000843	0.49	28.78	60.44	0.12
1	12202	50-YR	17.00	73.97	74.84		74.84	0.000851	0.53	32.59	62.84	0.13
1	12202	100-YR	21.00	73.97	74.91		74.91	0.000862	0.58	37.13	65.17	0.13
1	12134	2-YR	5.00	73.89	74.43		74.43	0.003028	0.62	8.03	29.70	0.21
1	12134	10-YR	10.00	73.89	74.57		74.58	0.003091	0.79	12.71	34.53	0.23
1	12134	25-YR	14.00	73.89	74.67		74.68	0.003104	0.89	16.06	37.61	0.23
1	12134	50-YR	17.00	73.89	74.72		74.74	0.003149	0.95	18.35	39.57	0.24
1	12134	100-YR	21.00	73.89	74.80		74.81	0.003166	1.02	21.24	41.80	0.24
1	11931	2-YR	5.00	72.16	72.52	72.52	72.61	0.112787	2.43	2.06	11.51	1.01
1	11931	10-YR	10.00	72.16	72.63	72.63	72.75	0.098818	2.75	3.63	15.30	1.00
1	11931	25-YR	14.00	72.16	72.70	72.70	72.84	0.098324	2.99	4.69	17.38	1.01
1	11931	50-YR	17.00	72.16	72.75	72.75	72.89	0.092669	3.07	5.54	18.90	1.00
1	11931	100-YR	21.00	72.16	72.80	72.80	72.96	0.091699	3.22	6.52	20.50	1.01
1	11554	2-YR	5.00	67.37	68.13	67.76	68.14	0.003087	0.66	7.53	19.86	0.19
1	11554	10-YR	10.00	67.37	68.35	67.89	68.36	0.003209	0.80	12.48	25.57	0.20
1	11554	25-YR	14.00	67.37	68.47	67.96	68.49	0.003268	0.88	15.95	28.91	0.21
1	11554	50-YR	17.00	67.37	68.55	68.00	68.57	0.003333	0.93	18.32	30.98	0.21
1	11554	100-YR	21.00	67.37	68.64	68.06	68.66	0.003364	0.99	21.27	33.16	0.22
1	11153	2-YR	5.00	64.04	64.40	64.40	64.50	0.112079	2.46	2.04	11.16	1.01
1	11153	10-YR	10.00	64.04	64.52	64.52	64.64	0.102257	2.82	3.54	14.73	1.01
1	11153	25-YR	14.00	64.04	64.59	64.59	64.73	0.097698	3.02	4.64	16.85	1.01
1	11153	50-YR	17.00	64.04	64.64	64.64	64.79	0.091673	3.09	5.49	18.34	1.00
1	11153	100-YR	21.00	64.04	64.69	64.69	64.85	0.092652	3.27	6.41	19.82	1.01
1	10850	2-YR	5.00	61.00	61.81		61.81	0.001077	0.41	12.17	29.97	0.11
1	10850	10-YR	10.00	61.00	62.21		62.21	0.000482	0.37	26.68	41.22	0.08
1	10850	25-YR	14.00	61.00	62.36		62.36	0.000518	0.43	32.86	44.25	0.09
1	10850	50-YR	17.00	61.00	62.45		62.45	0.000539	0.46	37.13	46.23	0.09
1	10850	100-YR	21.00	61.00	62.55		62.55	0.000585	0.50	41.85	48.32	0.10
1	10469	2-YR	37.00	58.00	58.34		58.39	0.016219	1.93	19.17	61.61	0.61
1	10469	10-YR	69.00	58.00	58.37	58.37	58.53	0.039110	3.20	21.54	62.65	0.96

HEC-RAS Plan: SHB-FU(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	10469	25-YR	92.00	58.00	58.44	58.44	58.64	0.039963	3.58	25.72	64.44	1.00
1	10469	50-YR	111.00	58.00	58.50	58.50	58.72	0.038827	3.79	29.30	65.93	1.00
1	10469	100-YR	133.00	58.00	58.56	58.56	58.80	0.037390	3.99	33.36	67.59	1.00
1	9946	2-YR	37.00	47.00	48.79		48.93	0.020232	2.95	12.53	13.97	0.55
1	9946	10-YR	69.00	47.00	49.62		49.72	0.009292	2.58	26.76	20.42	0.40
1	9946	25-YR	92.00	47.00	49.98	49.02	50.09	0.008311	2.66	34.63	23.23	0.38
1	9946	50-YR	111.00	47.00	50.24		50.35	0.007767	2.71	40.89	25.25	0.38
1	9946	100-YR	133.00	47.00	50.47		50.60	0.007710	2.83	46.95	27.05	0.38
1	9397	2-YR	50.00	42.00	43.12		43.18	0.007144	1.86	26.94	28.26	0.34
1	9397	10-YR	91.00	42.00	43.31		43.43	0.013682	2.81	32.40	29.69	0.47
1	9397	25-YR	120.00	42.00	43.46		43.63	0.016120	3.24	36.99	30.85	0.52
1	9397	50-YR	146.00	42.00	43.58		43.78	0.017909	3.58	40.80	31.77	0.56
1	9397	100-YR	174.00	42.00	43.73		43.96	0.018457	3.82	45.57	32.89	0.57
1	8847	2-YR	50.00	34.00	34.60	34.58	34.85	0.050672	4.05	12.35	22.56	0.96
1	8847	10-YR	91.00	34.00	35.19		35.37	0.015716	3.40	26.75	26.18	0.59
1	8847	25-YR	120.00	34.00	35.46		35.65	0.013093	3.50	34.24	27.88	0.56
1	8847	50-YR	146.00	34.00	35.69		35.89	0.011766	3.60	40.56	29.24	0.54
1	8847	100-YR	174.00	34.00	35.88		36.10	0.011407	3.76	46.23	30.40	0.54
1	8193	2-YR	50.00	31.50	33.66		33.66	0.000516	0.68	73.45	48.60	0.10
1	8193	10-YR	91.00	31.50	34.23		34.24	0.000587	0.85	139.84	211.07	0.11
1	8193	25-YR	120.00	31.50	34.44		34.45	0.000661	0.96	188.47	258.27	0.12
1	8193	50-YR	146.00	31.50	34.58		34.59	0.000740	1.07	228.48	317.20	0.12
1	8193	100-YR	174.00	31.50	34.71		34.73	0.000796	1.15	273.76	351.30	0.13
1	7804	2-YR	132.00	31.00	32.74		32.83	0.005751	2.40	55.35	47.52	0.37
1	7804	10-YR	242.00	31.00	33.90		33.93	0.000978	1.50	202.32	223.92	0.17
1	7804	25-YR	318.00	31.00	34.10		34.13	0.000988	1.59	264.33	372.70	0.17
1	7804	50-YR	386.00	31.00	34.20		34.24	0.001100	1.72	307.42	452.14	0.19
1	7804	100-YR	460.00	31.00	34.31		34.35	0.001169	1.82	359.19	486.55	0.19
1	7568	2-YR	132.00	29.50	31.37		31.47	0.005721	2.63	50.19	33.88	0.38
1	7568	10-YR	242.00	29.50	33.76		33.78	0.000460	1.23	356.91	350.64	0.12
1	7568	25-YR	318.00	29.50	33.93		33.95	0.000604	1.46	416.75	360.33	0.14
1	7568	50-YR	386.00	29.50	33.99		34.02	0.000808	1.71	439.18	368.29	0.16

HEC-RAS Plan: SHB-FU(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	7568	100-YR	460.00	29.50	34.06		34.10	0.001035	1.96	465.02	392.51	0.19
1	7243	2-YR	137.00	25.00	31.42		31.43	0.000015	0.46	307.18	108.49	0.04
1	7243	10-YR	254.00	25.00	33.76		33.76	0.000009	0.48	812.86	366.79	0.03
1	7243	25-YR	338.00	25.00	33.93		33.93	0.000013	0.61	878.43	408.92	0.04
1	7243	50-YR	409.00	25.00	33.99		34.00	0.000019	0.72	903.99	418.00	0.05
1	7243	100-YR	488.00	25.00	34.06		34.07	0.000026	0.85	932.16	427.77	0.06
1	7173	2-YR	137.00	26.00	31.41	26.90	31.42	0.000025	0.76	180.42	83.97	0.06
1	7173	10-YR	254.00	26.00	33.76	27.31	33.76	0.000008	0.47	875.97	450.07	0.03
1	7173	25-YR	338.00	26.00	33.93	27.56	33.93	0.000013	0.60	952.33	463.36	0.04
1	7173	50-YR	409.00	26.00	33.99	27.76	34.00	0.000018	0.71	980.95	467.26	0.05
1	7173	100-YR	488.00	26.00	34.06	27.96	34.07	0.000024	0.83	1012.04	471.45	0.06
1	7138		Culvert									
1	7074	2-YR	137.00	26.50	30.09	27.80	30.14	0.000955	1.86	73.53	63.35	0.18
1	7074	10-YR	254.00	26.50	30.53	28.35	30.67	0.002169	3.05	83.25	86.47	0.28
1	7074	25-YR	338.00	26.50	30.71	28.69	30.94	0.003281	3.87	87.28	98.33	0.34
1	7074	50-YR	409.00	26.50	31.00	28.95	31.30	0.003790	4.36	93.71	116.29	0.37
1	7074	100-YR	488.00	26.50	31.50	29.22	31.84	0.003733	4.66	104.66	179.08	0.38
1	6897	2-YR	137.00	25.00	30.06		30.07	0.000116	0.73	220.38	109.69	0.06
1	6897	10-YR	254.00	25.00	30.49		30.51	0.000256	1.15	269.15	118.87	0.10
1	6897	25-YR	338.00	25.00	30.66		30.69	0.000382	1.45	289.96	122.57	0.12
1	6897	50-YR	409.00	25.00	30.97		31.00	0.000418	1.58	328.45	131.38	0.12
1	6897	100-YR	488.00	25.00	31.50		31.54	0.000364	1.58	426.81	202.36	0.12
1	6790	2-YR	137.00	24.00	30.06		30.06	0.000066	0.66	248.34	138.42	0.05
1	6790	10-YR	254.00	24.00	30.47		30.49	0.000156	1.07	324.46	221.41	0.08
1	6790	25-YR	338.00	24.00	30.63		30.66	0.000240	1.35	362.16	239.92	0.10
1	6790	50-YR	409.00	24.00	30.94		30.97	0.000260	1.47	438.24	262.61	0.11
1	6790	100-YR	488.00	24.00	31.48		31.50	0.000224	1.45	620.50	428.13	0.10
1	6755	2-YR	137.00	23.80	30.05	25.60	30.06	0.000110	0.84	217.11	144.52	0.07
1	6755	10-YR	254.00	23.80	30.46	26.28	30.48	0.000248	1.33	291.18	206.59	0.10
1	6755	25-YR	338.00	23.80	30.61	26.65	30.65	0.000368	1.66	324.36	226.42	0.13
1	6755	50-YR	409.00	23.80	30.92	26.93	30.95	0.000374	1.74	399.86	268.59	0.13



HEC-RAS Plan: SHB-FU(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	6755	100-YR	488.00	23.80	31.47	27.20	31.50	0.000289	1.63	582.87	398.95	0.12
1	6694		Culvert									
1	6471	2-YR	137.00	21.50	26.16	23.01	26.17	0.000060	0.79	195.75	72.21	0.07
1	6471	10-YR	254.00	21.50	28.65	23.78	28.65	0.000030	0.77	611.34	265.21	0.05
1	6471	25-YR	338.00	21.50	30.08	24.26	30.09	0.000019	0.72	1106.38	425.35	0.05
1	6471	50-YR	409.00	21.50	30.86	24.63	30.86	0.000018	0.73	1457.52	477.34	0.04
1	6471	100-YR	488.00	21.50	31.47	25.03	31.47	0.000017	0.75	1760.21	510.62	0.04
1	6468	2-YR	154.00	20.60	26.15	21.67	26.17	0.000064	1.04	147.48	71.39	0.08
1	6468	10-YR	286.00	20.60	28.62	22.21	28.65	0.000064	1.34	214.14	272.72	0.08
1	6468	25-YR	380.00	20.60	30.05	22.52	30.08	0.000065	1.50	252.64	449.12	0.09
1	6468	50-YR	462.00	20.60	30.81	22.78	30.85	0.000074	1.69	273.15	482.10	0.09
1	6468	100-YR	552.00	20.60	31.47	23.04	31.47	0.000018	0.80	1864.96	517.33	0.04
1	6386		Culvert									
1	6244	2-YR	154.00	20.50	25.89	21.68	25.91	0.000183	1.07	143.55	132.92	0.08
1	6244	10-YR	286.00	20.50	27.97	22.23	28.00	0.000202	1.42	201.80	208.42	0.09
1	6244	25-YR	380.00	20.50	28.88	22.55	28.93	0.000240	1.67	227.38	347.39	0.10
1	6244	50-YR	462.00	20.50	29.08	22.79	29.14	0.000328	1.98	232.87	373.27	0.12
1	6244	100-YR	552.00	20.50	29.25	23.05	29.33	0.000437	2.32	237.72	391.49	0.14
1	6171	2-YR	154.00	21.00	25.88		25.89	0.000221	0.85	205.04	78.98	0.08
1	6171	10-YR	286.00	21.00	27.97		27.98	0.000123	0.88	419.14	126.44	0.07
1	6171	25-YR	380.00	21.00	28.89		28.90	0.000112	0.94	586.40	207.18	0.07
1	6171	50-YR	462.00	21.00	29.09		29.10	0.000143	1.08	628.20	212.96	0.08
1	6171	100-YR	552.00	21.00	29.26		29.28	0.000179	1.24	666.62	218.63	0.09
1	5879	2-YR	353.00	21.00	25.66		25.71	0.001140	1.85	191.23	65.28	0.19
1	5879	10-YR	624.00	21.00	27.83		27.88	0.000628	1.78	351.24	85.28	0.15
1	5879	25-YR	814.00	21.00	28.79		28.83	0.000417	1.65	686.79	419.18	0.13
1	5879	50-YR	995.00	21.00	28.97		29.02	0.000510	1.87	762.47	423.10	0.14
1	5879	100-YR	1194.00	21.00	29.13		29.18	0.000621	2.10	828.55	427.95	0.16
1	5803	2-YR	353.00	21.00	25.60	22.35	25.65	0.000596	1.77	199.81	71.21	0.15
1	5803	10-YR	624.00	21.00	27.76	22.96	27.83	0.000495	2.10	297.29	96.02	0.14

HEC-RAS Plan: SHB-FU(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	5803	25-YR	814.00	21.00	28.77	23.33	28.80	0.000315	1.38	778.31	466.91	0.11
1	5803	50-YR	995.00	21.00	28.95	23.64	28.98	0.000394	1.56	860.79	470.47	0.12
1	5803	100-YR	1194.00	21.00	29.10	23.96	29.14	0.000487	1.76	932.10	473.89	0.14
1	5739		Culvert									
1	5695	2-YR	353.00	20.00	22.78	21.46	22.95	0.004288	3.34	105.61	46.26	0.36
1	5695	10-YR	624.00	20.00	23.85	22.10	24.12	0.004311	4.20	148.42	54.94	0.38
1	5695	25-YR	814.00	20.00	24.41	22.48	24.77	0.004567	4.76	171.10	62.22	0.41
1	5695	50-YR	995.00	20.00	24.86	22.81	25.29	0.004891	5.26	189.07	67.19	0.43
1	5695	100-YR	1194.00	20.00	25.29	23.16	25.81	0.005290	5.80	206.02	80.90	0.45
1	5571	2-YR	353.00	18.21	22.78		22.79	0.000240	0.81	507.51	244.40	0.09
1	5571	10-YR	624.00	18.21	23.90		23.91	0.000233	0.93	817.87	300.34	0.09
1	5571	25-YR	814.00	18.21	24.51		24.52	0.000222	1.01	1004.75	315.10	0.09
1	5571	50-YR	995.00	18.21	25.00		25.01	0.000220	1.09	1160.92	325.78	0.09
1	5571	100-YR	1194.00	18.21	25.46		25.48	0.000223	1.17	1315.30	335.89	0.09
1	5378	2-YR	353.00	18.50	22.56		22.67	0.002569	2.75	134.96	60.42	0.28
1	5378	10-YR	624.00	18.50	23.63		23.80	0.002523	3.36	251.65	151.92	0.30
1	5378	25-YR	814.00	18.50	24.23		24.41	0.002354	3.57	351.41	184.49	0.29
1	5378	50-YR	995.00	18.50	24.72		24.90	0.002257	3.74	447.55	219.31	0.29
1	5378	100-YR	1194.00	18.50	25.19		25.37	0.002144	3.86	563.29	257.12	0.29
1	4983	2-YR	353.00	18.06	21.57		21.68	0.002429	2.78	150.09	63.89	0.28
1	4983	10-YR	624.00	18.06	22.58		22.76	0.002735	3.57	219.42	76.64	0.31
1	4983	25-YR	814.00	18.06	23.13		23.36	0.002988	4.07	270.01	103.49	0.34
1	4983	50-YR	995.00	18.06	23.58		23.85	0.003143	4.44	318.79	114.93	0.35
1	4983	100-YR	1194.00	18.06	24.02		24.33	0.003269	4.79	372.00	127.26	0.36
1	4684	2-YR	353.00	17.00	20.47		20.65	0.005278	3.42	105.05	54.52	0.39
1	4684	10-YR	624.00	17.00	21.35		21.63	0.005462	4.30	165.48	89.34	0.42
1	4684	25-YR	814.00	17.00	21.81		22.15	0.005599	4.76	210.81	102.45	0.44
1	4684	50-YR	995.00	17.00	22.20		22.58	0.005704	5.14	252.23	111.44	0.45
1	4684	100-YR	1194.00	17.00	22.58		23.01	0.005871	5.53	297.81	134.00	0.46
1	4377	2-YR	353.00	16.00	19.48		19.57	0.002396	2.34	160.01	88.72	0.27
1	4377	10-YR	624.00	16.00	20.35		20.48	0.002545	2.91	254.95	131.54	0.29

HEC-RAS Plan: SHB-FU(R) River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4377	25-YR	814.00	16.00	20.82		20.97	0.002584	3.22	321.57	151.22	0.30
1	4377	50-YR	995.00	16.00	21.20		21.37	0.002652	3.49	381.00	165.32	0.31
1	4377	100-YR	1194.00	16.00	21.57		21.77	0.002685	3.73	445.54	176.30	0.31
1	4051	2-YR	374.00	15.00	18.80		18.88	0.001898	2.27	212.47	134.05	0.24
1	4051	10-YR	678.00	15.00	19.55		19.67	0.002409	3.01	319.47	150.63	0.29
1	4051	25-YR	895.00	15.00	19.95		20.11	0.002711	3.44	381.86	157.84	0.31
1	4051	50-YR	1091.00	15.00	20.27		20.46	0.002942	3.78	433.33	163.55	0.33
1	4051	100-YR	1314.00	15.00	20.59		20.81	0.003187	4.13	486.85	169.29	0.34
1	3559	2-YR	374.00	14.00	17.26		17.40	0.005319	3.43	175.66	199.94	0.40
1	3559	10-YR	678.00	14.00	17.92	17.23	18.07	0.004595	3.77	341.14	299.65	0.39
1	3559	25-YR	895.00	14.00	18.26	17.48	18.41	0.004488	4.00	445.63	321.40	0.39
1	3559	50-YR	1091.00	14.00	18.51	17.67	18.66	0.004525	4.22	527.26	335.12	0.39
1	3559	100-YR	1314.00	14.00	18.77	17.84	18.93	0.004527	4.42	614.98	344.38	0.40
1	2807	2-YR	374.00	11.50	13.33		13.36	0.005575	2.20	344.84	488.29	0.34
1	2807	10-YR	678.00	11.50	13.66		13.71	0.007990	2.95	538.91	746.81	0.42
1	2807	25-YR	895.00	11.50	13.80		13.87	0.009177	3.35	659.33	878.04	0.45
1	2807	50-YR	1091.00	11.50	13.91		13.99	0.009865	3.62	757.43	917.88	0.48
1	2807	100-YR	1314.00	11.50	14.01		14.10	0.010732	3.92	852.60	948.66	0.50
1	1913	2-YR	462.00	7.50	9.02		9.03	0.004483	1.87	759.02	1096.91	0.30
1	1913	10-YR	851.00	7.50	9.44		9.45	0.003517	2.02	1223.40	1130.82	0.28
1	1913	25-YR	1133.00	7.50	9.70		9.71	0.003164	2.12	1521.95	1156.86	0.27
1	1913	50-YR	1378.00	7.50	9.91		9.93	0.002947	2.19	1767.93	1185.32	0.27
1	1913	100-YR	1671.00	7.50	10.14		10.16	0.002743	2.27	2050.43	1217.02	0.26
1	142	2-YR	462.00	1.85	5.71	3.77	5.73	0.001001	1.39	626.80	691.90	0.16
1	142	10-YR	851.00	1.85	6.38	4.50	6.41	0.001002	1.64	1174.21	892.30	0.17
1	142	25-YR	1133.00	1.85	6.76	4.83	6.79	0.001001	1.77	1522.29	970.56	0.17
1	142	50-YR	1378.00	1.85	7.04	5.03	7.07	0.001001	1.87	1803.98	1026.18	0.17
1	142	100-YR	1671.00	1.85	7.35	5.21	7.39	0.001000	1.97	2139.39	1082.07	0.17

# Sains Branch - Future Conditions

HEC-RAS Plan: SB-FU(R) River: Sams Branch 1 Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	7695	2-YR	12.00	65.00	66.56		66.61	0.009451	1.80	6.66	8.57	0.36
1	7695	10-YR	25.00	65.00	67.00		67.08	0.010774	2.27	11.00	11.01	0.40
1	7695	25-YR	34.00	65.00	67.29		67.38	0.009647	2.36	14.44	12.61	0.39
1	7695	50-YR	42.00	65.00	67.53		67.62	0.008558	2.37	17.69	13.96	0.37
1	7695	100-YR	51.00	65.00	67.78		67.87	0.007632	2.39	21.36	15.34	0.36
1	7274	2-YR	36.00	60.00	62.36		62.45	0.010006	2.44	14.77	12.54	0.40
1	7274	10-YR	71.00	60.00	63.13		63.24	0.008601	2.73	26.02	16.64	0.38
1	7274	25-YR	97.00	60.00	63.52		63.65	0.008565	2.95	32.94	18.72	0.39
1	7274	50-YR	121.00	60.00	63.81		63.96	0.008717	3.13	38.62	20.28	0.40
1	7274	100-YR	147.00	60.00	64.08		64.25	0.008964	3.32	44.23	21.70	0.41
1	6837	2-YR	36.00	55.00	57.21		57.33	0.013920	2.76	13.05	11.81	0.46
1	6837	10-YR	71.00	55.00	57.70		57.90	0.018691	3.65	19.44	14.41	0.55
1	6837	25-YR	97.00	55.00	58.02		58.26	0.019218	3.99	24.31	16.12	0.57
1	6837	50-YR	121.00	55.00	58.29		58.56	0.018823	4.18	28.92	17.58	0.57
1	6837	100-YR	147.00	55.00	58.57		58.86	0.017970	4.32	34.05	19.08	0.57
1	6471	2-YR	36.00	49.00	50.96		51.12	0.021043	3.16	11.40	11.61	0.56
1	6471	10-YR	71.00	49.00	51.71		51.88	0.014574	3.26	21.78	16.05	0.49
1	6471	25-YR	97.00	49.00	52.07		52.26	0.014086	3.48	27.87	18.16	0.49
1	6471	50-YR	121.00	49.00	52.32		52.53	0.014457	3.71	32.58	19.63	0.51
1	6471	100-YR	147.00	49.00	52.53		52.78	0.015369	3.99	36.85	20.88	0.53
1	5766	2-YR	36.00	42.00	44.49		44.55	0.005196	1.85	19.48	15.64	0.29
1	5766	10-YR	71.00	42.00	45.07		45.16	0.006683	2.41	29.51	19.24	0.34
1	5766	25-YR	97.00	42.00	45.43		45.54	0.006835	2.62	36.98	21.54	0.35
1	5766	50-YR	121.00	42.00	45.75		45.87	0.006608	2.74	44.20	23.55	0.35
1	5766	100-YR	147.00	42.00	46.09		46.21	0.006197	2.81	52.39	25.64	0.35
1	5271	2-YR	95.00	38.50	41.26		41.35	0.007079	2.35	40.35	29.24	0.35
1	5271	10-YR	190.00	38.50	42.18		42.29	0.005485	2.73	71.25	38.06	0.33
1	5271	25-YR	260.00	38.50	42.70		42.84	0.005043	2.94	92.62	43.10	0.33
1	5271	50-YR	322.00	38.50	43.09		43.23	0.004924	3.11	109.83	46.76	0.33
1	5271	100-YR	392.00	38.50	43.46		43.62	0.004899	3.30	127.90	50.32	0.33
1	4991	2-YR	95.00	37.50	40.61		40.63	0.001252	1.26	79.69	44.71	0.16
1	4991	10-YR	190.00	37.50	41.58		41.62	0.001280	1.65	130.70	61.61	0.17

HEC-RAS Plan: SB-FU(R) River: Sams Branch 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4991	25-YR	260.00	37.50	42.11		42.17	0.001312	1.87	166.57	72.11	0.18
1	4991	50-YR	322.00	37.50	42.48		42.54	0.001407	2.07	195.30	86.99	0.19
1	4991	100-YR	392.00	37.50	42.82		42.89	0.001516	2.28	227.90	103.60	0.20
1	4759	2-YR	95.00	37.00	40.09		40.15	0.004021	1.92	49.56	32.24	0.27
1	4759	10-YR	190.00	37.00	41.12		41.19	0.002843	2.21	96.25	59.63	0.25
1	4759	25-YR	260.00	37.00	41.67		41.75	0.002512	2.37	133.72	75.12	0.24
1	4759	50-YR	322.00	37.00	42.02		42.11	0.002532	2.56	161.16	83.15	0.25
1	4759	100-YR	392.00	37.00	42.34		42.44	0.002611	2.76	188.54	88.41	0.25
1	4553	2-YR	95.00	36.50	39.78		39.80	0.000875	1.26	85.87	59.86	0.16
1	4553	10-YR	190.00	36.50	40.90		40.93	0.000663	1.47	176.39	101.54	0.15
1	4553	25-YR	260.00	36.50	41.48		41.51	0.000611	1.59	238.71	112.78	0.15
1	4553	50-YR	322.00	36.50	41.82		41.86	0.000650	1.73	278.00	119.33	0.15
1	4553	100-YR	392.00	36.50	42.13		42.17	0.000709	1.90	315.50	125.25	0.16
1	4373	2-YR	102.00	36.38	38.47	38.47	39.21	0.046637	6.94	14.70	9.93	1.00
1	4373	10-YR	205.00	36.38	39.40	39.40	40.43	0.043440	8.13	25.22	12.52	1.01
1	4373	25-YR	281.00	36.38	40.20	40.20	41.07	0.029635	7.60	41.37	33.93	0.86
1	4373	50-YR	349.00	36.38	40.65	40.65	41.42	0.024557	7.35	60.75	50.96	0.79
1	4373	100-YR	425.00	36.38	40.96	40.96	41.71	0.023528	7.47	78.37	62.54	0.78
1	4326	2-YR	102.00	34.00	36.72	35.09	36.80	0.001985	2.34	43.50	30.61	0.25
1	4326	10-YR	205.00	34.00	38.12	35.72	38.27	0.002011	3.11	65.87	36.33	0.27
1	4326	25-YR	281.00	34.00	39.00	36.12	39.19	0.001974	3.51	80.03	39.95	0.28
1	4326	50-YR	349.00	34.00	39.73	36.45	39.95	0.001938	3.81	91.65	42.92	0.28
1	4326	100-YR	425.00	34.00	40.63	36.80	40.88	0.001766	4.01	106.08	46.61	0.27
1	4302		Culvert									
1	4243	2-YR	102.00	34.00	35.89	35.04	36.04	0.005957	3.18	32.05	49.99	0.41
1	4243	10-YR	205.00	34.00	36.57	35.65	36.91	0.008608	4.70	43.63	58.15	0.52
1	4243	25-YR	281.00	34.00	36.86	36.04	37.38	0.011279	5.78	48.61	61.66	0.60
1	4243	50-YR	349.00	34.00	37.06	36.36	37.76	0.013906	6.71	51.99	64.04	0.68
1	4243	100-YR	425.00	34.00	37.22	36.69	38.16	0.017286	7.75	54.82	66.03	0.76
1	4132	2-YR	102.00	32.50	34.10	34.10	34.51	0.049450	5.14	19.84	24.85	1.01
1	4132	10-YR	205.00	32.50	34.71	34.61	35.16	0.035379	5.40	37.96	34.37	0.91

HEC-RAS Plan: SB-FU(R) River: Sams Branch 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	4132	25-YR	281.00	32.50	35.10	34.93	35.53	0.025409	5.28	58.53	63.99	0.80
1	4132	50-YR	349.00	32.50	35.41	35.14	35.81	0.019092	5.20	80.40	78.81	0.71
1	4132	100-YR	425.00	32.50	35.72		36.10	0.014767	5.13	107.64	93.69	0.64
1	4026	2-YR	102.00	31.00	33.43		33.49	0.003423	1.96	54.46	45.65	0.29
1	4026	10-YR	205.00	31.00	34.18		34.27	0.003126	2.48	93.68	59.40	0.30
1	4026	25-YR	281.00	31.00	34.61		34.73	0.003027	2.77	121.61	68.88	0.30
1	4026	50-YR	349.00	31.00	34.96		35.08	0.002967	2.98	146.47	76.58	0.31
1	4026	100-YR	425.00	31.00	35.30		35.44	0.002915	3.18	174.10	84.32	0.31
1	3827	2-YR	109.00	29.00	31.29	31.20	31.77	0.037031	5.56	19.60	17.10	0.92
1	3827	10-YR	222.00	29.00	32.06	31.94	32.69	0.033202	6.38	34.80	22.79	0.91
1	3827	25-YR	306.00	29.00	32.49	32.34	33.19	0.031023	6.74	45.42	26.03	0.90
1	3827	50-YR	382.00	29.00	32.81	32.65	33.58	0.030275	7.06	54.13	28.42	0.90
1	3827	100-YR	467.00	29.00	33.14	32.94	33.97	0.029086	7.31	63.89	30.87	0.90
1	3599	2-YR	109.00	26.50	29.64		29.71	0.003684	2.19	49.87	31.78	0.31
1	3599	10-YR	222.00	26.50	30.66		30.76	0.003375	2.54	87.46	41.68	0.31
1	3599	25-YR	306.00	26.50	31.24		31.36	0.003178	2.70	113.38	47.56	0.31
1	3599	50-YR	382.00	26.50	31.66		31.79	0.003053	2.86	134.64	54.37	0.31
1	3599	100-YR	467.00	26.50	32.07		32.21	0.002957	3.02	158.44	61.11	0.31
1	3397	2-YR	109.00	25.00	28.18		28.43	0.013024	3.99	27.32	17.18	0.56
1	3397	10-YR	222.00	25.00	29.36		29.65	0.010035	4.32	51.37	23.55	0.52
1	3397	25-YR	306.00	25.00	30.00		30.32	0.009197	4.53	67.52	27.00	0.51
1	3397	50-YR	382.00	25.00	30.45		30.80	0.008511	4.78	82.10	38.74	0.50
1	3397	100-YR	467.00	25.00	30.88		31.26	0.008031	5.02	101.28	51.00	0.49
1	2934	2-YR	115.00	21.50	25.64		25.73	0.003291	2.42	47.58	22.98	0.30
1	2934	10-YR	236.00	21.50	26.74		26.89	0.003939	3.09	76.27	29.10	0.34
1	2934	25-YR	328.00	21.50	27.36		27.54	0.004201	3.44	95.29	32.52	0.35
1	2934	50-YR	412.00	21.50	27.84		28.05	0.004349	3.69	111.61	35.20	0.37
1	2934	100-YR	505.00	21.50	28.29		28.53	0.004502	3.95	127.99	39.13	0.38
1	2442	2-YR	115.00	19.50	22.57		22.82	0.013427	4.02	28.58	18.63	0.57
1	2442	10-YR	236.00	19.50	23.87		24.13	0.008568	4.07	58.00	26.54	0.49
1	2442	25-YR	328.00	19.50	24.61		24.87	0.007208	4.14	79.21	31.01	0.46
1	2442	50-YR	412.00	19.50	25.16		25.44	0.006561	4.23	97.36	34.38	0.44

HEC-RAS Plan: SB-FU(R) River: Sams Branch 1 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	2442	100-YR	505.00	19.50	25.69		25.99	0.005974	4.34	116.70	39.93	0.43
1	2037	2-YR	115.00	16.46	20.19		20.30	0.003473	2.70	42.52	16.30	0.30
1	2037	10-YR	236.00	16.46	21.61		21.80	0.004033	3.46	68.18	19.83	0.33
1	2037	25-YR	328.00	16.46	22.39		22.63	0.004374	3.89	84.39	21.77	0.35
1	2037	50-YR	412.00	16.46	22.96		23.24	0.004575	4.24	97.38	23.75	0.36
1	2037	100-YR	505.00	16.46	23.51		23.84	0.004746	4.60	110.94	26.00	0.37
1	1708	2-YR	115.00	14.50	18.68		18.84	0.005987	3.18	36.11	17.28	0.39
1	1708	10-YR	236.00	14.50	19.95		20.18	0.006128	3.85	61.37	22.53	0.41
1	1708	25-YR	328.00	14.50	20.65		20.92	0.006199	4.19	78.22	25.43	0.42
1	1708	50-YR	412.00	14.50	21.17		21.48	0.006350	4.48	91.97	27.58	0.43
1	1708	100-YR	505.00	14.50	21.68		22.03	0.006459	4.74	106.46	29.67	0.44
1	1402	2-YR	125.00	13.00	16.84		16.99	0.006088	3.12	40.06	20.86	0.40
1	1402	10-YR	265.00	13.00	18.13		18.34	0.005844	3.71	71.48	27.86	0.41
1	1402	25-YR	372.00	13.00	18.84		19.09	0.005790	4.02	92.50	31.70	0.41
1	1402	50-YR	472.00	13.00	19.36		19.65	0.005648	4.30	110.31	36.52	0.42
1	1402	100-YR	585.00	13.00	19.87		20.20	0.005563	4.59	130.23	41.77	0.42
1	1063	2-YR	125.00	11.00	15.05	13.66	15.18	0.004724	2.85	43.92	21.67	0.35
1	1063	10-YR	265.00	11.00	16.28	14.60	16.48	0.005154	3.55	74.68	28.26	0.38
1	1063	25-YR	372.00	11.00	16.96	15.13	17.20	0.005363	3.92	94.88	31.86	0.40
1	1063	50-YR	472.00	11.00	17.48	15.54	17.75	0.005522	4.21	112.20	34.64	0.41
1	1063	100-YR	585.00	11.00	17.98	15.95	18.29	0.005646	4.49	130.36	38.49	0.42
1	557	2-YR	127.00	6.50	8.99	8.99	9.63	0.044975	6.42	19.78	15.90	1.01
1	557	10-YR	269.00	6.50	9.87	9.87	10.72	0.040205	7.43	36.22	21.52	1.01
1	557	25-YR	379.00	6.50	10.37	10.37	11.34	0.037800	7.91	47.94	24.76	1.00
1	557	50-YR	481.00	6.50	10.76	10.76	11.83	0.036582	8.29	58.03	27.24	1.00
1	557	100-YR	598.00	6.50	11.14	11.14	12.31	0.035712	8.67	68.94	29.69	1.00
1	135	2-YR	127.00	2.00	5.61	3.03	5.63	0.000500	1.13	112.35	42.83	0.12
1	135	10-YR	270.00	2.00	7.22	3.64	7.25	0.000500	1.43	192.02	58.22	0.13
1	135	25-YR	381.00	2.00	8.10	4.02	8.14	0.000501	1.61	249.19	73.19	0.13
1	135	50-YR	483.00	2.00	8.75	4.32	8.80	0.000501	1.76	301.27	86.07	0.14
1	135	100-YR	601.00	2.00	9.43	4.64	9.48	0.000500	1.91	366.17	106.61	0.14

# Sams Branch - Future Conditions

HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	6528	2-YR	7.00	65.80	66.43		66.46	0.013964	1.47	4.75	15.10	0.46
1	6528	10-YR	17.00	65.80	66.66		66.72	0.015199	1.92	8.85	20.61	0.51
1	6528	25-YR	25.00	65.80	66.77		66.85	0.015879	2.22	11.40	23.39	0.54
1	6528	50-YR	32.00	65.80	66.86		66.95	0.016344	2.42	13.49	25.44	0.56
1	6528	100-YR	40.00	65.80	66.94	66.72	67.05	0.017310	2.66	15.52	27.19	0.58
1	6226	2-YR	7.00	60.00	60.68	60.56	60.77	0.026826	2.29	3.06	8.08	0.66
1	6226	10-YR	17.00	60.00	61.01		61.13	0.022897	2.70	6.30	11.57	0.64
1	6226	25-YR	25.00	60.00	61.20		61.33	0.021160	2.88	8.67	13.56	0.64
1	6226	50-YR	32.00	60.00	61.34		61.48	0.020092	3.01	10.63	15.01	0.63
1	6226	100-YR	40.00	60.00	61.49		61.64	0.018458	3.08	12.97	16.57	0.61
1	6023	2-YR	7.00	54.00	54.96	54.85	55.09	0.029104	2.92	2.40	5.00	0.74
1	6023	10-YR	17.00	54.00	55.30	55.21	55.53	0.033684	3.85	4.42	6.79	0.84
1	6023	25-YR	25.00	54.00	55.48	55.41	55.78	0.036496	4.37	5.72	7.73	0.89
1	6023	50-YR	32.00	54.00	55.61	55.55	55.96	0.038606	4.75	6.74	8.39	0.93
1	6023	100-YR	40.00	54.00	55.71	55.70	56.14	0.043042	5.23	7.65	8.94	1.00
1	5817	2-YR	7.00	45.42	45.67	45.67	45.76	0.079445	2.29	3.07	18.86	0.99
1	5817	10-YR	17.00	45.42	45.81	45.81	45.95	0.067527	3.06	5.64	20.20	1.00
1	5817	25-YR	25.00	45.42	45.89	45.89	46.08	0.062311	3.44	7.42	21.08	1.00
1	5817	50-YR	32.00	45.42	45.96	45.96	46.17	0.059126	3.71	8.86	21.77	1.00
1	5817	100-YR	40.00	45.42	46.04	46.03	46.27	0.052695	3.88	10.65	22.59	0.97
1	5723	2-YR	7.00	41.62	43.22	42.65	43.26	0.006566	1.69	4.14	5.17	0.33
1	5723	10-YR	17.00	41.62	43.80	43.09	43.88	0.007346	2.20	7.71	7.07	0.37
1	5723	25-YR	25.00	41.62	44.14	43.34	44.24	0.007333	2.43	10.31	8.17	0.38
1	5723	50-YR	32.00	41.62	44.39	43.51	44.49	0.007312	2.58	12.42	8.97	0.39
1	5723	100-YR	40.00	41.62	44.63	43.69	44.75	0.007336	2.73	14.66	9.74	0.39
1	5714		Bridge									
1	5705	2-YR	7.00	41.62	42.93	42.68	43.05	0.022214	2.69	2.60	3.96	0.59
1	5705	10-YR	17.00	41.62	43.46	43.13	43.63	0.021885	3.34	5.08	5.53	0.61
1	5705	25-YR	25.00	41.62	43.74	43.39	43.95	0.021879	3.68	6.79	6.39	0.63
1	5705	50-YR	32.00	41.62	43.95	43.57	44.19	0.021895	3.92	8.17	7.01	0.64
1	5705	100-YR	40.00	41.62	44.15	43.75	44.42	0.022180	4.16	9.61	7.61	0.65



HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	5653	2-YR	7.00	41.20	42.59		42.61	0.003665	1.24	5.67	8.15	0.26
1	5653	10-YR	17.00	41.20	43.13		43.17	0.003771	1.56	10.91	11.31	0.28
1	5653	25-YR	25.00	41.20	43.43		43.48	0.003760	1.71	14.58	13.08	0.29
1	5653	50-YR	32.00	41.20	43.65		43.70	0.003757	1.82	17.56	14.35	0.29
1	5653	100-YR	40.00	41.20	43.85		43.91	0.003868	1.95	20.53	15.51	0.30
1	5383	2-YR	7.00	40.00	40.96		41.00	0.011321	1.73	4.05	8.45	0.44
1	5383	10-YR	17.00	40.00	41.27		41.36	0.014800	2.39	7.12	11.21	0.53
1	5383	25-YR	25.00	40.00	41.40		41.53	0.018786	2.88	8.69	12.38	0.60
1	5383	50-YR	32.00	40.00	41.50		41.66	0.021689	3.23	9.91	13.22	0.66
1	5383	100-YR	40.00	40.00	41.62		41.81	0.022426	3.46	11.57	14.29	0.68
1	5245	2-YR	7.00	38.50	39.48		39.53	0.010260	1.67	4.18	8.51	0.42
1	5245	10-YR	17.00	38.50	39.99		40.04	0.006504	1.76	9.65	12.92	0.36
1	5245	25-YR	25.00	38.50	40.35		40.40	0.004456	1.68	14.85	16.03	0.31
1	5245	50-YR	32.00	38.50	40.66		40.70	0.003218	1.59	20.18	18.69	0.27
1	5245	100-YR	40.00	38.50	41.01		41.04	0.002271	1.47	27.20	21.70	0.23
1	5205	2-YR	7.00	38.00	39.19	38.75	39.22	0.005667	1.40	5.00	8.41	0.32
1	5205	10-YR	17.00	38.00	39.81	39.07	39.85	0.003507	1.46	11.64	12.83	0.27
1	5205	25-YR	25.00	38.00	40.23	39.26	40.26	0.002544	1.43	17.53	15.74	0.24
1	5205	50-YR	32.00	38.00	40.57	39.39	40.60	0.001956	1.37	23.28	18.14	0.21
1	5205	100-YR	40.00	38.00	40.94	39.51	40.96	0.001485	1.31	30.51	20.77	0.19
1	5191		Bridge									
1	5172	2-YR	7.00	38.00	39.11	38.54	39.12	0.000894	0.73	9.77	16.45	0.16
1	5172	10-YR	17.00	38.00	39.77	38.78	39.78	0.000471	0.81	26.71	40.60	0.13
1	5172	25-YR	25.00	38.00	40.19	38.90	40.20	0.000322	0.82	44.80	46.97	0.11
1	5172	50-YR	32.00	38.00	40.54	38.99	40.55	0.000251	0.82	60.45	52.16	0.10
1	5172	100-YR	40.00	38.00	40.92	39.08	40.92	0.000201	0.82	78.42	57.83	0.09
1	5065	2-YR	17.00	37.26	38.06	38.06	38.37	0.057830	4.48	3.79	6.17	1.01
1	5065	10-YR	47.00	37.26	38.68	38.68	39.19	0.050818	5.73	8.20	8.17	1.01
1	5065	25-YR	73.00	37.26	39.06	39.06	39.68	0.047754	6.31	11.56	9.41	1.00
1	5065	50-YR	97.00	37.26	39.34	39.34	40.05	0.046547	6.75	14.38	10.34	1.01
1	5065	100-YR	126.00	37.26	39.65	39.65	40.44	0.045109	7.14	17.65	11.32	1.01

HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	5020	2-YR	17.00	33.91	35.78	35.06	35.82	0.004382	1.64	10.37	11.10	0.30
1	5020	10-YR	47.00	33.91	36.62	35.64	36.69	0.004632	2.16	21.77	16.08	0.33
1	5020	25-YR	73.00	33.91	37.11	35.96	37.20	0.004555	2.40	30.48	19.03	0.33
1	5020	50-YR	97.00	33.91	37.49	36.21	37.59	0.004445	2.55	38.77	28.40	0.34
1	5020	100-YR	126.00	33.91	37.90	36.48	38.00	0.004735	2.56	54.85	51.10	0.35
1	5006		Bridge									
1	4999	2-YR	17.00	33.91	35.43		35.55	0.018715	2.83	6.01	7.91	0.57
1	4999	10-YR	47.00	33.91	36.25		36.42	0.014227	3.29	14.29	12.20	0.54
1	4999	25-YR	73.00	33.91	36.75		36.94	0.012314	3.48	20.99	14.78	0.51
1	4999	50-YR	97.00	33.91	37.11		37.32	0.011479	3.64	26.67	16.67	0.51
1	4999	100-YR	126.00	33.91	37.49		37.71	0.010622	3.77	33.40	18.65	0.50
1	4960	2-YR	17.00	33.50	35.12		35.18	0.004933	1.96	8.69	10.71	0.38
1	4960	10-YR	47.00	33.50	36.06		36.14	0.003280	2.17	21.71	16.93	0.34
1	4960	25-YR	73.00	33.50	36.60		36.68	0.002793	2.30	31.87	22.54	0.32
1	4960	50-YR	97.00	33.50	36.99		37.08	0.002322	2.43	42.49	31.43	0.30
1	4960	100-YR	126.00	33.50	37.40		37.50	0.002037	2.58	57.02	40.54	0.29
1	4877	2-YR	17.00	32.82	34.97		34.99	0.001215	1.17	14.54	13.53	0.20
1	4877	10-YR	47.00	32.82	35.93		35.96	0.001301	1.55	30.38	19.56	0.22
1	4877	25-YR	73.00	32.82	36.47		36.52	0.001329	1.74	41.94	22.98	0.23
1	4877	50-YR	97.00	32.82	36.88		36.93	0.001337	1.87	51.79	25.54	0.23
1	4877	100-YR	126.00	32.82	37.29		37.35	0.001345	2.00	62.86	28.13	0.24
1	4860	2-YR	17.00	32.82	34.84	34.26	34.93	0.006495	2.42	7.02	6.96	0.42
1	4860	10-YR	47.00	32.82	35.72	34.97	35.88	0.007188	3.24	14.49	10.00	0.47
1	4860	25-YR	73.00	32.82	36.21	35.38	36.42	0.007490	3.68	19.86	11.70	0.50
1	4860	50-YR	97.00	32.82	36.58	35.69	36.83	0.007616	3.97	24.42	12.98	0.51
1	4860	100-YR	126.00	32.82	36.96	36.01	37.24	0.007575	4.28	29.52	14.53	0.52
1	4848		Bridge									
1	4836	2-YR	17.00	32.50	34.30	33.74	34.37	0.005230	2.11	8.04	8.93	0.39
1	4836	10-YR	47.00	32.50	35.08	34.36	35.21	0.005865	2.85	16.51	12.80	0.44
1	4836	25-YR	73.00	32.50	35.51	34.72	35.68	0.006177	3.24	22.53	14.95	0.47
1	4836	50-YR	97.00	32.50	35.84	34.99	36.03	0.006296	3.50	27.68	16.57	0.48

HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4836	100-YR	126.00	32.50	36.17	35.26	36.39	0.006484	3.78	33.31	18.18	0.49
1	4819	2-YR	17.00	32.50	34.19		34.27	0.006589	2.27	7.49	8.89	0.44
1	4819	10-YR	47.00	32.50	34.96		35.09	0.006694	2.94	15.96	12.97	0.47
1	4819	25-YR	73.00	32.50	35.39		35.56	0.006809	3.31	22.06	15.25	0.48
1	4819	50-YR	97.00	32.50	35.72		35.92	0.006758	3.54	27.38	16.99	0.49
1	4819	100-YR	126.00	32.50	36.05		36.27	0.006831	3.80	33.18	18.71	0.50
1	4633	2-YR	17.00	30.00	31.38	31.38	31.73	0.041102	4.74	3.59	5.19	1.00
1	4633	10-YR	47.00	30.00	32.07	32.07	32.60	0.036702	5.85	8.03	7.76	1.01
1	4633	25-YR	73.00	30.00	32.48	32.48	33.10	0.033587	6.32	11.55	9.31	1.00
1	4633	50-YR	97.00	30.00	32.77	32.77	33.47	0.033086	6.75	14.37	10.39	1.01
1	4633	100-YR	126.00	30.00	33.09	33.09	33.86	0.031063	7.04	17.90	11.60	1.00
1	4409	2-YR	17.00	26.99	29.25		29.30	0.002386	1.71	9.93	9.70	0.30
1	4409	10-YR	47.00	26.99	30.24		30.32	0.002207	2.15	21.90	14.49	0.31
1	4409	25-YR	73.00	26.99	30.79		30.88	0.002184	2.39	30.58	17.15	0.32
1	4409	50-YR	97.00	26.99	31.21		31.31	0.002121	2.54	38.25	19.20	0.32
1	4409	100-YR	126.00	26.99	31.69		31.79	0.001968	2.63	47.84	21.48	0.31
1	4203	2-YR	17.00	26.50	28.40		28.51	0.006843	2.68	6.34	6.66	0.48
1	4203	10-YR	47.00	26.50	29.60		29.72	0.003902	2.80	16.78	10.84	0.40
1	4203	25-YR	73.00	26.50	30.11		30.27	0.004138	3.20	22.84	12.65	0.42
1	4203	50-YR	97.00	26.50	30.54		30.72	0.004016	3.39	28.59	14.15	0.42
1	4203	100-YR	126.00	26.50	31.04		31.22	0.004010	3.49	36.08	17.33	0.43
1	4166	2-YR	17.00	26.25	28.36	27.18	28.38	0.001255	1.30	13.11	10.19	0.20
1	4166	10-YR	47.00	26.25	29.56	27.82	29.60	0.001245	1.67	28.13	14.72	0.21
1	4166	25-YR	73.00	26.25	30.07	28.21	30.14	0.001536	2.02	36.15	16.65	0.24
1	4166	50-YR	97.00	26.25	30.50	28.50	30.58	0.001640	2.22	43.66	18.26	0.25
1	4166	100-YR	126.00	26.25	31.00	28.80	31.08	0.001638	2.37	53.14	20.12	0.26
1	4151		Bridge									
1	4141	2-YR	17.00	26.25	28.33	26.81	28.34	0.000351	0.78	21.85	14.42	0.11
1	4141	10-YR	47.00	26.25	29.53	27.30	29.55	0.000447	1.12	41.94	18.96	0.13
1	4141	25-YR	73.00	26.25	30.04	27.61	30.07	0.000603	1.40	51.97	20.86	0.16
1	4141	50-YR	97.00	26.25	30.46	27.86	30.50	0.000685	1.59	61.18	22.46	0.17

HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	4141	100-YR	126.00	26.25	30.96	28.12	31.00	0.000726	1.73	72.68	24.31	0.18
1	4090	2-YR	17.00	26.00	28.26		28.30	0.001938	1.48	11.48	10.15	0.25
1	4090	10-YR	47.00	26.00	29.46		29.51	0.001543	1.75	26.82	15.51	0.23
1	4090	25-YR	73.00	26.00	29.94		30.01	0.001861	2.10	34.78	17.66	0.26
1	4090	50-YR	97.00	26.00	30.35		30.44	0.001926	2.28	42.50	19.52	0.27
1	4090	100-YR	126.00	26.00	30.84		30.93	0.001841	2.40	52.60	21.72	0.27
1	4011	2-YR	27.00	26.00	28.06		28.10	0.002808	1.74	15.51	15.08	0.30
1	4011	10-YR	80.00	26.00	29.30		29.36	0.001987	2.01	39.89	24.18	0.28
1	4011	25-YR	124.00	26.00	29.74		29.83	0.002358	2.42	51.57	29.43	0.31
1	4011	50-YR	167.00	26.00	30.15		30.26	0.002268	2.66	64.98	35.79	0.31
1	4011	100-YR	216.00	26.00	30.66		30.78	0.001886	2.78	84.72	41.53	0.29
1	3985	2-YR	27.00	26.00	28.06	26.45	28.07	0.000233	0.71	38.27	21.94	0.09
1	3985	10-YR	80.00	26.00	29.30	26.92	29.32	0.000399	1.18	67.97	26.66	0.13
1	3985	25-YR	124.00	26.00	29.74	27.21	29.78	0.000625	1.54	80.55	30.55	0.16
1	3985	50-YR	167.00	26.00	30.15	27.47	30.20	0.000719	1.80	92.82	34.15	0.18
1	3985	100-YR	216.00	26.00	30.66	27.73	30.72	0.000723	2.00	108.14	38.64	0.19
1	3946		Culvert									
1	3917	2-YR	27.00	26.00	28.03	26.51	28.04	0.000195	0.60	44.98	32.97	0.09
1	3917	10-YR	80.00	26.00	29.19	26.98	29.20	0.000256	1.01	79.55	48.17	0.11
1	3917	25-YR	124.00	26.00	29.51	27.25	29.54	0.000421	1.39	89.18	52.62	0.14
1	3917	50-YR	167.00	26.00	29.73	27.48	29.77	0.000603	1.74	95.72	55.64	0.17
1	3917	100-YR	216.00	26.00	29.94	27.69	30.01	0.000812	2.11	102.17	58.52	0.20
1	3905	2-YR	27.00	26.00	28.03		28.04	0.000380	0.69	39.61	37.59	0.11
1	3905	10-YR	80.00	26.00	29.18		29.20	0.000290	0.95	91.55	51.76	0.11
1	3905	25-YR	124.00	26.00	29.51		29.53	0.000432	1.27	108.76	55.52	0.14
1	3905	50-YR	167.00	26.00	29.72		29.76	0.000584	1.56	121.17	58.09	0.17
1	3905	100-YR	216.00	26.00	29.94		29.99	0.000745	1.85	134.03	60.63	0.19
1	3756	2-YR	101.00	24.00	28.01		28.02	0.000100	0.74	182.97	79.85	0.07
1	3756	10-YR	238.00	24.00	29.15		29.17	0.000188	1.23	285.09	100.09	0.10
1	3756	25-YR	345.00	24.00	29.44		29.48	0.000311	1.64	315.60	105.50	0.13
1	3756	50-YR	444.00	24.00	29.64		29.69	0.000444	2.02	336.32	110.26	0.16

HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	3756	100-YR	555.00	24.00	29.82		29.90	0.000605	2.42	357.09	114.83	0.19
1	3575	2-YR	101.00	24.00	28.00		28.00	0.000052	0.42	237.94	99.98	0.05
1	3575	10-YR	238.00	24.00	29.14		29.14	0.000081	0.64	509.53	603.20	0.06
1	3575	25-YR	345.00	24.00	29.43		29.44	0.000114	0.80	688.72	611.69	0.08
1	3575	50-YR	444.00	24.00	29.62		29.63	0.000146	0.94	806.25	615.48	0.09
1	3575	100-YR	555.00	24.00	29.81		29.82	0.000181	1.08	920.99	619.06	0.10
1	3491	2-YR	101.00	24.20	27.15	27.15	27.91	0.033040	6.99	14.45	9.77	1.01
1	3491	10-YR	238.00	24.20	28.71	28.71	29.08	0.011807	5.53	80.13	130.45	0.65
1	3491	25-YR	345.00	24.20	28.89	28.89	29.36	0.015614	6.54	106.05	144.99	0.75
1	3491	50-YR	444.00	24.20	29.06	29.06	29.55	0.017059	6.99	130.77	152.30	0.79
1	3491	100-YR	555.00	24.20	29.34	29.34	29.74	0.013890	6.76	188.29	214.07	0.73
1	3392	2-YR	100.00	20.00	26.01	20.92	26.01	0.000021	0.40	366.53	292.97	0.03
1	3392	10-YR	238.00	20.00	26.69	21.57	26.69	0.000055	0.72	568.01	301.12	0.06
1	3392	25-YR	345.00	20.00	26.87	21.95	26.89	0.000095	0.97	624.34	304.98	0.07
1	3392	50-YR	445.00	20.00	27.03	22.27	27.04	0.000136	1.18	671.02	308.14	0.09
1	3392	100-YR	556.00	20.00	27.22	22.57	27.24	0.000177	1.38	732.30	332.79	0.10
1	3359		Culvert									
1	3336	2-YR	100.00	20.00	22.20	21.73	22.39	0.008611	3.52	28.44	27.05	0.56
1	3336	10-YR	238.00	20.00	22.75	22.45	23.27	0.014498	5.80	41.06	54.28	0.76
1	3336	25-YR	345.00	20.00	22.92	22.87	23.83	0.022405	7.66	45.02	71.59	0.97
1	3336	50-YR	445.00	20.00	23.23	23.23	24.36	0.022909	8.54	52.10	113.78	1.00
1	3336	100-YR	556.00	20.00	23.59	23.59	24.90	0.021824	9.20	60.42	211.56	1.00
1	3290	2-YR	100.00	20.50	22.23		22.24	0.000433	0.95	162.60	132.31	0.13
1	3290	10-YR	238.00	20.50	22.91		22.93	0.000616	1.43	289.96	263.00	0.17
1	3290	25-YR	345.00	20.50	23.27		23.29	0.000687	1.67	386.41	288.55	0.18
1	3290	50-YR	445.00	20.50	23.52		23.55	0.000759	1.86	461.95	312.23	0.19
1	3290	100-YR	556.00	20.50	23.76		23.79	0.000832	2.05	539.19	321.35	0.20
1	2765	2-YR	100.00	20.44	21.67		21.73	0.004530	2.25	79.81	151.83	0.39
1	2765	10-YR	238.00	20.44	22.17		22.26	0.004818	3.02	166.41	203.48	0.43
1	2765	25-YR	345.00	20.44	22.42		22.54	0.005168	3.48	240.29	346.76	0.46
1	2765	50-YR	445.00	20.44	22.60		22.73	0.005367	3.77	307.15	408.82	0.48

HEC-RAS Plan: SB2-FU River: Sams Branch 2 Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	2765	100-YR	556.00	20.44	22.77	22.21	22.92	0.005658	4.09	380.05	483.46	0.50
1	2171	2-YR	100.00	17.00	19.76		19.80	0.002377	1.54	95.64	234.77	0.24
1	2171	10-YR	239.00	17.00	20.28	19.27	20.32	0.002270	1.89	293.46	471.77	0.25
1	2171	25-YR	347.00	17.00	20.54	19.81	20.58	0.002165	2.03	421.78	505.21	0.25
1	2171	50-YR	448.00	17.00	20.76		20.80	0.002063	2.11	541.70	575.41	0.25
1	2171	100-YR	560.00	17.00	20.98		21.01	0.001944	2.18	668.17	616.13	0.24
1	1571	2-YR	100.00	14.00	15.75	15.75	16.20	0.032466	5.39	18.56	21.20	1.01
1	1571	10-YR	239.00	14.00	16.54	16.54	17.08	0.022614	6.02	44.47	52.32	0.91
1	1571	25-YR	347.00	14.00	16.89	16.89	17.51	0.020655	6.54	64.29	59.14	0.90
1	1571	50-YR	448.00	14.00	17.15	17.15	17.84	0.020248	7.01	80.42	64.14	0.91
1	1571	100-YR	560.00	14.00	17.39	17.39	18.16	0.020490	7.51	96.28	68.71	0.93
1	825	2-YR	107.00	6.00	8.53		8.54	0.000974	1.08	186.13	196.01	0.16
1	825	10-YR	257.00	6.00	9.41		9.43	0.000819	1.36	370.93	219.83	0.16
1	825	25-YR	377.00	6.00	9.95		9.97	0.000775	1.52	493.01	231.47	0.16
1	825	50-YR	488.00	6.00	10.39		10.41	0.000746	1.64	595.23	238.63	0.16
1	825	100-YR	616.00	6.00	10.83		10.86	0.000724	1.75	704.04	245.60	0.16
1	83	2-YR	107.00	4.00	6.68	6.01	6.85	0.010006	3.25	32.92	25.08	0.49
1	83	10-YR	258.00	4.00	7.66	6.87	7.93	0.010019	4.25	66.06	39.28	0.53
1	83	25-YR	379.00	4.00	8.17	7.35	8.53	0.010001	4.87	87.47	44.85	0.55
1	83	50-YR	491.00	4.00	8.56	7.71	8.99	0.010011	5.37	105.99	49.65	0.56
1	83	100-YR	621.00	4.00	8.97	8.04	9.47	0.010002	5.87	127.12	54.61	0.57

**PRIMARY SYSTEM  
ALTERNATIVES:  
HEC-RAS OUTPUT**

# Schoolhouse Branch - Alternative 1 Existing and Future Conditions

HEC-RAS River: Schoolhouse Br Reach: 1

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	12202	2-YR	ALT1	3.00	73.97	74.42		74.42	0.000646	0.28	10.68	40.87	0.10
1	12202	2-YR	ALT1(FU)	5.00	73.97	74.52		74.52	0.000713	0.34	14.89	46.91	0.10
1	12202	10-YR	ALT1	7.00	73.97	74.59		74.59	0.000774	0.38	18.46	51.47	0.11
1	12202	10-YR	ALT1(FU)	10.00	73.97	74.68		74.68	0.000815	0.43	23.13	55.87	0.12
1	12202	25-YR	ALT1	10.00	73.97	74.68		74.68	0.000815	0.43	23.13	55.87	0.12
1	12202	25-YR	ALT1(FU)	14.00	73.97	74.77		74.78	0.000843	0.49	28.78	60.44	0.12
1	12202	50-YR	ALT1	13.00	73.97	74.75		74.75	0.000837	0.48	27.42	59.37	0.12
1	12202	50-YR	ALT1(FU)	17.00	73.97	74.84		74.84	0.000851	0.53	32.59	62.84	0.13
1	12202	100-YR	ALT1	16.00	73.97	74.82		74.82	0.000849	0.51	31.39	62.21	0.12
1	12202	100-YR	ALT1(FU)	21.00	73.97	74.91		74.91	0.000862	0.58	37.13	65.17	0.13
1	12134	2-YR	ALT1	3.00	73.89	74.34		74.34	0.002977	0.54	5.53	24.79	0.20
1	12134	2-YR	ALT1(FU)	5.00	73.89	74.43		74.43	0.003028	0.62	8.03	29.70	0.21
1	12134	10-YR	ALT1	7.00	73.89	74.49		74.50	0.003056	0.70	10.00	31.83	0.22
1	12134	10-YR	ALT1(FU)	10.00	73.89	74.57		74.58	0.003091	0.79	12.71	34.53	0.23
1	12134	25-YR	ALT1	10.00	73.89	74.57		74.58	0.003091	0.79	12.71	34.53	0.23
1	12134	25-YR	ALT1(FU)	14.00	73.89	74.67		74.68	0.003104	0.89	16.06	37.61	0.23
1	12134	50-YR	ALT1	13.00	73.89	74.64		74.66	0.003098	0.87	15.25	36.89	0.23
1	12134	50-YR	ALT1(FU)	17.00	73.89	74.72		74.74	0.003149	0.95	18.35	39.57	0.24
1	12134	100-YR	ALT1	16.00	73.89	74.71		74.72	0.003121	0.93	17.63	38.96	0.24
1	12134	100-YR	ALT1(FU)	21.00	73.89	74.80		74.81	0.003166	1.02	21.24	41.80	0.24
1	11931	2-YR	ALT1	3.00	72.16	72.45	72.45	72.53	0.119069	2.18	1.37	9.41	1.01
1	11931	2-YR	ALT1(FU)	5.00	72.16	72.52	72.52	72.61	0.112787	2.43	2.06	11.51	1.01
1	11931	10-YR	ALT1	7.00	72.16	72.57	72.57	72.67	0.103583	2.56	2.73	13.27	1.00
1	11931	10-YR	ALT1(FU)	10.00	72.16	72.63	72.63	72.75	0.098818	2.75	3.63	15.30	1.00
1	11931	25-YR	ALT1	10.00	72.16	72.63	72.63	72.75	0.098818	2.75	3.63	15.30	1.00
1	11931	25-YR	ALT1(FU)	14.00	72.16	72.70	72.70	72.84	0.098324	2.99	4.69	17.38	1.01
1	11931	50-YR	ALT1	13.00	72.16	72.68	72.68	72.82	0.099181	2.94	4.42	16.88	1.01
1	11931	50-YR	ALT1(FU)	17.00	72.16	72.75	72.75	72.89	0.092669	3.07	5.54	18.90	1.00
1	11931	100-YR	ALT1	16.00	72.16	72.73	72.73	72.88	0.096270	3.06	5.22	18.34	1.01
1	11931	100-YR	ALT1(FU)	21.00	72.16	72.80	72.80	72.96	0.091699	3.22	6.52	20.50	1.01
1	11554	2-YR	ALT1	3.00	67.37	68.00	67.69	68.00	0.003021	0.58	5.18	16.46	0.18
1	11554	2-YR	ALT1(FU)	5.00	67.37	68.13	67.76	68.14	0.003087	0.66	7.53	19.86	0.19
1	11554	10-YR	ALT1	7.00	67.37	68.23	67.81	68.24	0.003142	0.73	9.63	22.46	0.20
1	11554	10-YR	ALT1(FU)	10.00	67.37	68.35	67.89	68.36	0.003209	0.80	12.48	25.57	0.20
1	11554	25-YR	ALT1	10.00	67.37	68.35	67.89	68.36	0.003209	0.80	12.48	25.57	0.20
1	11554	25-YR	ALT1(FU)	14.00	67.37	68.47	67.96	68.49	0.003268	0.88	15.95	28.91	0.21
1	11554	50-YR	ALT1	13.00	67.37	68.44	67.94	68.46	0.003251	0.86	15.12	28.14	0.21
1	11554	50-YR	ALT1(FU)	17.00	67.37	68.55	68.00	68.57	0.003333	0.93	18.32	30.98	0.21
1	11554	100-YR	ALT1	16.00	67.37	68.53	67.99	68.54	0.003299	0.91	17.57	30.34	0.21



HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	11554	100-YR	ALT1(FU)	21.00	67.37	68.64	68.06	68.66	0.003364	0.99	21.27	33.16	0.22
1	11153	2-YR	ALT1	3.00	64.04	64.34	64.34	64.41	0.115398	2.19	1.37	9.17	1.00
1	11153	2-YR	ALT1(FU)	5.00	64.04	64.40	64.40	64.50	0.112079	2.46	2.04	11.16	1.01
1	11153	10-YR	ALT1	7.00	64.04	64.46	64.46	64.56	0.107147	2.63	2.66	12.77	1.01
1	11153	10-YR	ALT1(FU)	10.00	64.04	64.52	64.52	64.64	0.102257	2.82	3.54	14.73	1.01
1	11153	25-YR	ALT1	10.00	64.04	64.52	64.52	64.64	0.102257	2.82	3.54	14.73	1.01
1	11153	25-YR	ALT1(FU)	14.00	64.04	64.59	64.59	64.73	0.097698	3.02	4.64	16.85	1.01
1	11153	50-YR	ALT1	13.00	64.04	64.57	64.57	64.71	0.098774	2.98	4.37	16.36	1.01
1	11153	50-YR	ALT1(FU)	17.00	64.04	64.64	64.64	64.79	0.091673	3.09	5.49	18.34	1.00
1	11153	100-YR	ALT1	16.00	64.04	64.62	64.62	64.77	0.096021	3.10	5.16	17.78	1.01
1	11153	100-YR	ALT1(FU)	21.00	64.04	64.69	64.69	64.85	0.092652	3.27	6.41	19.82	1.01
1	10850	2-YR	ALT1	3.00	61.00	61.63	61.28	61.63	0.001524	0.41	7.28	23.18	0.13
1	10850	2-YR	ALT1(FU)	5.00	61.00	61.81		61.81	0.001119	0.42	11.99	29.75	0.12
1	10850	10-YR	ALT1	7.00	61.00	61.97		61.97	0.000825	0.40	17.31	35.74	0.10
1	10850	10-YR	ALT1(FU)	10.00	61.00	62.21		62.21	0.000487	0.38	26.58	41.17	0.08
1	10850	25-YR	ALT1	10.00	61.00	62.17		62.18	0.000568	0.40	25.19	40.46	0.09
1	10850	25-YR	ALT1(FU)	14.00	61.00	62.36		62.36	0.000513	0.42	32.98	44.31	0.09
1	10850	50-YR	ALT1	13.00	61.00	62.32		62.32	0.000516	0.42	31.25	43.48	0.09
1	10850	50-YR	ALT1(FU)	17.00	61.00	62.45		62.45	0.000539	0.46	37.13	46.23	0.09
1	10850	100-YR	ALT1	16.00	61.00	62.43		62.43	0.000521	0.44	36.00	45.71	0.09
1	10850	100-YR	ALT1(FU)	21.00	61.00	62.55		62.55	0.000584	0.50	41.89	48.34	0.09
1	10469	2-YR	ALT1	19.00	58.00	58.23		58.27	0.014612	1.46	13.02	58.83	0.55
1	10469	2-YR	ALT1(FU)	37.00	58.00	58.34		58.40	0.015852	1.92	19.31	61.67	0.60
1	10469	10-YR	ALT1	46.00	58.00	58.35	58.28	58.43	0.022548	2.32	19.82	61.90	0.72
1	10469	10-YR	ALT1(FU)	69.00	58.00	58.38	58.37	58.53	0.038509	3.19	21.64	62.69	0.96
1	10469	25-YR	ALT1	66.00	58.00	58.38	58.36	58.52	0.034100	3.02	21.87	62.79	0.90
1	10469	25-YR	ALT1(FU)	92.00	58.00	58.44	58.44	58.64	0.040577	3.59	25.59	64.38	1.00
1	10469	50-YR	ALT1	85.00	58.00	58.42	58.42	58.61	0.040770	3.50	24.29	63.83	1.00
1	10469	50-YR	ALT1(FU)	111.00	58.00	58.50	58.50	58.72	0.038827	3.79	29.30	65.93	1.00
1	10469	100-YR	ALT1	106.00	58.00	58.48	58.48	58.70	0.039551	3.75	28.27	65.51	1.01
1	10469	100-YR	ALT1(FU)	133.00	58.00	58.56	58.56	58.80	0.037390	3.99	33.36	67.59	1.00
1	9946	2-YR	ALT1	19.00	47.00	48.34		48.46	0.024888	2.70	7.03	10.47	0.58
1	9946	2-YR	ALT1(FU)	37.00	47.00	48.78		48.92	0.020792	2.98	12.40	13.90	0.56
1	9946	10-YR	ALT1	46.00	47.00	49.08		49.20	0.014174	2.73	16.85	16.21	0.47
1	9946	10-YR	ALT1(FU)	69.00	47.00	49.62		49.72	0.009370	2.59	26.68	20.39	0.40
1	9946	25-YR	ALT1	66.00	47.00	49.54		49.64	0.010103	2.63	25.09	19.77	0.41
1	9946	25-YR	ALT1(FU)	92.00	47.00	50.00		50.11	0.008017	2.62	35.10	23.39	0.38
1	9946	50-YR	ALT1	85.00	47.00	49.88		49.99	0.008492	2.63	32.37	22.46	0.39

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	9946	50-YR	ALT1(FU)	111.00	47.00	50.24		50.36	0.007702	2.71	41.02	25.29	0.37
1	9946	100-YR	ALT1	106.00	47.00	50.17		50.28	0.007939	2.71	39.17	24.71	0.38
1	9946	100-YR	ALT1(FU)	133.00	47.00	50.48		50.60	0.007621	2.82	47.16	27.11	0.38
1	9397	2-YR	ALT1	29.00	42.00	42.84	42.40	42.88	0.006607	1.51	19.25	26.11	0.31
1	9397	2-YR	ALT1(FU)	50.00	42.00	43.13	42.56	43.18	0.007039	1.85	27.07	28.30	0.33
1	9397	10-YR	ALT1	64.00	42.00	43.21		43.28	0.009002	2.18	29.42	28.92	0.38
1	9397	10-YR	ALT1(FU)	91.00	42.00	43.31		43.44	0.013552	2.80	32.50	29.72	0.47
1	9397	25-YR	ALT1	91.00	42.00	43.35		43.47	0.012215	2.70	33.67	30.02	0.45
1	9397	25-YR	ALT1(FU)	120.00	42.00	43.44		43.61	0.016945	3.30	36.36	30.69	0.53
1	9397	50-YR	ALT1	115.00	42.00	43.45		43.60	0.015228	3.14	36.63	30.76	0.51
1	9397	50-YR	ALT1(FU)	146.00	42.00	43.58		43.78	0.018130	3.59	40.63	31.73	0.56
1	9397	100-YR	ALT1	143.00	42.00	43.59		43.78	0.016936	3.49	41.01	31.82	0.54
1	9397	100-YR	ALT1(FU)	174.00	42.00	43.72		43.95	0.018794	3.84	45.28	32.83	0.58
1	8847	2-YR	ALT1	29.00	34.00	34.41	34.41	34.60	0.061893	3.53	8.21	21.40	1.01
1	8847	2-YR	ALT1(FU)	50.00	34.00	34.59	34.58	34.85	0.052759	4.10	12.20	22.51	0.98
1	8847	10-YR	ALT1	64.00	34.00	34.80		35.02	0.029764	3.72	17.20	23.84	0.77
1	8847	10-YR	ALT1(FU)	91.00	34.00	35.18		35.36	0.015884	3.41	26.66	26.16	0.60
1	8847	25-YR	ALT1	91.00	34.00	35.14		35.34	0.018212	3.57	25.47	25.88	0.63
1	8847	25-YR	ALT1(FU)	120.00	34.00	35.49		35.67	0.012446	3.45	34.83	28.01	0.54
1	8847	50-YR	ALT1	115.00	34.00	35.40		35.60	0.013914	3.53	32.60	27.52	0.57
1	8847	50-YR	ALT1(FU)	146.00	34.00	35.69		35.89	0.011650	3.59	40.70	29.27	0.54
1	8847	100-YR	ALT1	143.00	34.00	35.64		35.85	0.012427	3.64	39.25	28.96	0.55
1	8847	100-YR	ALT1(FU)	174.00	34.00	35.88		36.10	0.011209	3.74	46.50	30.46	0.53
1	8193	2-YR	ALT1	29.00	31.50	33.30		33.30	0.000352	0.51	56.97	43.79	0.08
1	8193	2-YR	ALT1(FU)	50.00	31.50	33.66		33.67	0.000509	0.68	73.79	48.69	0.10
1	8193	10-YR	ALT1	64.00	31.50	34.01		34.02	0.000454	0.70	100.43	146.17	0.09
1	8193	10-YR	ALT1(FU)	91.00	31.50	34.23		34.24	0.000581	0.85	140.87	212.34	0.11
1	8193	25-YR	ALT1	91.00	31.50	34.30		34.31	0.000504	0.81	155.58	228.45	0.10
1	8193	25-YR	ALT1(FU)	120.00	31.50	34.41		34.42	0.000699	0.98	181.49	252.24	0.12
1	8193	50-YR	ALT1	115.00	31.50	34.42		34.44	0.000621	0.93	185.53	255.74	0.11
1	8193	50-YR	ALT1(FU)	146.00	31.50	34.56		34.58	0.000755	1.07	223.84	310.41	0.13
1	8193	100-YR	ALT1	143.00	31.50	34.59		34.61	0.000691	1.03	232.57	319.45	0.12
1	8193	100-YR	ALT1(FU)	174.00	31.50	34.70		34.72	0.000813	1.16	269.97	348.49	0.13
1	7804	2-YR	ALT1	92.00	31.00	32.67	31.81	32.72	0.003341	1.77	52.17	45.44	0.28
1	7804	2-YR	ALT1(FU)	132.00	31.00	32.96	32.01	33.02	0.003404	2.02	66.34	54.08	0.29
1	7804	10-YR	ALT1	192.00	31.00	33.29	32.25	33.36	0.003417	2.30	90.29	105.39	0.30
1	7804	10-YR	ALT1(FU)	242.00	31.00	33.47		33.56	0.003423	2.46	116.64	173.37	0.31
1	7804	25-YR	ALT1	265.00	31.00	33.47		33.57	0.004184	2.72	115.48	171.64	0.34

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	7804	25-YR	ALT1(FU)	318.00	31.00	33.93		33.97	0.001557	1.91	209.33	283.35	0.22
1	7804	50-YR	ALT1	330.00	31.00	33.97		34.01	0.001496	1.89	221.55	305.77	0.21
1	7804	50-YR	ALT1(FU)	386.00	31.00	34.12		34.16	0.001380	1.89	271.79	382.12	0.21
1	7804	100-YR	ALT1	404.00	31.00	34.16		34.20	0.001357	1.89	287.56	422.35	0.21
1	7804	100-YR	ALT1(FU)	460.00	31.00	34.25		34.29	0.001373	1.95	329.67	464.53	0.21
1	7568	2-YR	ALT1	92.00	29.50	30.32	30.32	30.69	0.050218	4.86	18.92	26.07	1.01
1	7568	2-YR	ALT1(FU)	132.00	29.50	30.53	30.53	30.98	0.046991	5.38	24.55	27.64	1.01
1	7568	10-YR	ALT1	192.00	29.50	30.80	30.80	31.35	0.044058	5.95	32.26	29.65	1.01
1	7568	10-YR	ALT1(FU)	242.00	29.50	31.05	31.00	31.62	0.037896	6.09	39.74	31.49	0.96
1	7568	25-YR	ALT1	265.00	29.50	31.90		32.13	0.009853	3.80	69.80	40.82	0.51
1	7568	25-YR	ALT1(FU)	318.00	29.50	33.66		33.70	0.000928	1.72	324.50	343.78	0.17
1	7568	50-YR	ALT1	330.00	29.50	33.71		33.75	0.000925	1.73	340.37	347.15	0.17
1	7568	50-YR	ALT1(FU)	386.00	29.50	33.85		33.89	0.001007	1.86	389.29	355.93	0.18
1	7568	100-YR	ALT1	404.00	29.50	33.88		33.93	0.001043	1.91	401.84	357.95	0.19
1	7568	100-YR	ALT1(FU)	460.00	29.50	33.95		34.00	0.001224	2.09	424.20	361.52	0.20
1	7243	2-YR	ALT1	105.00	25.00	29.43		29.44	0.000041	0.66	160.14	52.30	0.07
1	7243	2-YR	ALT1(FU)	137.00	25.00	29.88		29.89	0.000050	0.74	184.72	58.79	0.07
1	7243	10-YR	ALT1	213.00	25.00	30.86		30.87	0.000064	0.84	252.67	84.62	0.08
1	7243	10-YR	ALT1(FU)	254.00	25.00	31.37		31.38	0.000055	0.86	301.91	106.41	0.08
1	7243	25-YR	ALT1	281.00	25.00	32.01		32.02	0.000039	0.81	379.39	139.85	0.07
1	7243	25-YR	ALT1(FU)	338.00	25.00	33.67		33.68	0.000016	0.65	781.08	346.92	0.05
1	7243	50-YR	ALT1	347.00	25.00	33.72		33.72	0.000016	0.66	797.10	356.99	0.05
1	7243	50-YR	ALT1(FU)	409.00	25.00	33.86		33.86	0.000021	0.75	848.68	397.34	0.05
1	7243	100-YR	ALT1	421.00	25.00	33.89		33.90	0.000021	0.76	862.81	403.28	0.05
1	7243	100-YR	ALT1(FU)	488.00	25.00	33.95		33.96	0.000028	0.87	887.71	412.24	0.06
1	7173	2-YR	ALT1	105.00	26.00	29.42	26.77	29.44	0.000072	0.93	112.71	61.34	0.09
1	7173	2-YR	ALT1(FU)	137.00	26.00	29.86	26.90	29.88	0.000080	1.07	127.78	65.16	0.10
1	7173	10-YR	ALT1	213.00	26.00	30.83	27.17	30.86	0.000091	1.33	160.61	73.47	0.11
1	7173	10-YR	ALT1(FU)	254.00	26.00	31.34	27.31	31.37	0.000091	1.43	177.99	82.65	0.11
1	7173	25-YR	ALT1	281.00	26.00	31.98	27.39	32.01	0.000076	1.41	199.72	107.34	0.10
1	7173	25-YR	ALT1(FU)	338.00	26.00	33.67	27.56	33.68	0.000016	0.64	835.98	442.64	0.05
1	7173	50-YR	ALT1	347.00	26.00	33.72	27.59	33.72	0.000016	0.65	856.22	446.41	0.05
1	7173	50-YR	ALT1(FU)	409.00	26.00	33.85	27.76	33.86	0.000020	0.74	918.14	457.76	0.05
1	7173	100-YR	ALT1	421.00	26.00	33.89	27.79	33.90	0.000021	0.75	934.33	460.68	0.05
1	7173	100-YR	ALT1(FU)	488.00	26.00	33.95	27.96	33.96	0.000026	0.86	962.43	464.74	0.06
1	7138			Culvert									
1	7074	2-YR	ALT1	105.00	26.50	27.98	27.64	28.21	0.015290	3.85	27.27	34.76	0.61

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	7074	2-YR	ALT1(FU)	137.00	26.50	28.22	27.80	28.50	0.014517	4.22	32.50	37.55	0.61
1	7074	10-YR	ALT1	213.00	26.50	28.84	28.17	29.17	0.010872	4.61	46.18	44.85	0.56
1	7074	10-YR	ALT1(FU)	254.00	26.50	29.41	28.35	29.70	0.006964	4.33	58.67	50.27	0.47
1	7074	25-YR	ALT1	281.00	26.50	30.38	28.46	30.57	0.003025	3.51	80.05	75.84	0.32
1	7074	25-YR	ALT1(FU)	338.00	26.50	31.58	28.69	31.74	0.001690	3.17	106.50	185.62	0.25
1	7074	50-YR	ALT1	347.00	26.50	31.71	28.72	31.87	0.001633	3.17	109.30	192.35	0.25
1	7074	50-YR	ALT1(FU)	409.00	26.50	31.86	28.95	32.06	0.002063	3.64	112.47	199.95	0.28
1	7074	100-YR	ALT1	421.00	26.50	31.92	28.99	32.13	0.002095	3.70	113.91	203.40	0.29
1	7074	100-YR	ALT1(FU)	488.00	26.50	32.12	29.22	32.16	0.000627	1.76	404.12	214.61	0.15
1	6897	2-YR	ALT1	105.00	25.00	26.89		26.96	0.003722	2.15	48.81	32.01	0.31
1	6897	2-YR	ALT1(FU)	137.00	25.00	27.29		27.36	0.003156	2.21	62.13	34.61	0.29
1	6897	10-YR	ALT1	213.00	25.00	28.32		28.39	0.001832	2.10	102.94	46.28	0.23
1	6897	10-YR	ALT1(FU)	254.00	25.00	29.16		29.21	0.001017	1.81	146.83	60.06	0.18
1	6897	25-YR	ALT1	281.00	25.00	30.32		30.35	0.000373	1.36	249.29	115.22	0.12
1	6897	25-YR	ALT1(FU)	338.00	25.00	31.59		31.60	0.000161	1.06	444.17	212.25	0.08
1	6897	50-YR	ALT1	347.00	25.00	31.72		31.73	0.000150	1.04	473.43	231.28	0.08
1	6897	50-YR	ALT1(FU)	409.00	25.00	31.87		31.88	0.000205	1.23	510.64	285.13	0.09
1	6897	100-YR	ALT1	421.00	25.00	31.93		31.95	0.000201	1.23	530.64	288.87	0.09
1	6897	100-YR	ALT1(FU)	488.00	25.00	32.06		32.09	0.000235	1.35	568.55	295.83	0.10
1	6790	2-YR	ALT1	105.00	24.00	26.61		26.66	0.002077	1.90	55.31	32.63	0.26
1	6790	2-YR	ALT1(FU)	137.00	24.00	27.04		27.10	0.001834	1.94	70.45	36.46	0.25
1	6790	10-YR	ALT1	213.00	24.00	28.19		28.24	0.001010	1.82	118.87	49.07	0.19
1	6790	10-YR	ALT1(FU)	254.00	24.00	29.09		29.12	0.000538	1.60	170.38	66.34	0.15
1	6790	25-YR	ALT1	281.00	24.00	30.29		30.31	0.000226	1.26	287.77	189.83	0.10
1	6790	25-YR	ALT1(FU)	338.00	24.00	31.58		31.59	0.000101	0.98	663.76	448.69	0.07
1	6790	50-YR	ALT1	347.00	24.00	31.71		31.72	0.000092	0.95	724.41	461.13	0.07
1	6790	50-YR	ALT1(FU)	409.00	24.00	31.85		31.87	0.000109	1.05	792.30	498.61	0.07
1	6790	100-YR	ALT1	421.00	24.00	31.92		31.94	0.000110	1.06	828.01	524.43	0.07
1	6790	100-YR	ALT1(FU)	488.00	24.00	32.05		32.07	0.000128	1.16	896.18	540.22	0.08
1	6755	2-YR	ALT1	105.00	23.80	26.42	25.35	26.54	0.004329	2.78	37.83	22.08	0.37
1	6755	2-YR	ALT1(FU)	137.00	23.80	26.86	25.59	26.99	0.003669	2.88	47.61	24.66	0.35
1	6755	10-YR	ALT1	213.00	23.80	28.05	26.07	28.17	0.002016	2.85	74.79	35.93	0.28
1	6755	10-YR	ALT1(FU)	254.00	23.80	28.97	26.28	29.08	0.001249	2.65	95.95	60.90	0.23
1	6755	25-YR	ALT1	281.00	23.80	30.21	26.40	30.29	0.000643	2.26	124.44	173.08	0.17
1	6755	25-YR	ALT1(FU)	338.00	23.80	31.57	26.65	31.58	0.000124	1.08	626.77	433.42	0.08
1	6755	50-YR	ALT1	347.00	23.80	31.71	26.69	31.72	0.000113	1.04	686.21	450.69	0.07
1	6755	50-YR	ALT1(FU)	409.00	23.80	31.85	26.93	31.86	0.000129	1.13	752.98	504.05	0.08
1	6755	100-YR	ALT1	421.00	23.80	31.92	26.97	31.93	0.000135	1.17	789.03	537.81	0.08
1	6755	100-YR	ALT1(FU)	488.00	23.80	32.05	27.21	32.06	0.000151	1.25	858.58	550.81	0.09

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	6694			Culvert									
1	6471	2-YR	ALT1	105.00	21.50	25.05	22.36	25.07	0.000152	1.20	87.56	52.89	0.11
1	6471	2-YR	ALT1(FU)	137.00	21.50	25.42	22.52	25.45	0.000185	1.42	96.77	63.30	0.13
1	6471	10-YR	ALT1	213.00	21.50	26.77	22.86	26.79	0.000087	1.04	247.92	98.42	0.09
1	6471	10-YR	ALT1(FU)	254.00	21.50	27.11	23.02	27.13	0.000095	1.14	288.42	145.58	0.09
1	6471	25-YR	ALT1	281.00	21.50	27.87	23.12	27.89	0.000064	1.04	428.84	212.06	0.08
1	6471	25-YR	ALT1(FU)	338.00	21.50	28.31	23.33	28.33	0.000066	1.11	526.52	232.30	0.08
1	6471	50-YR	ALT1	347.00	21.50	29.00	23.36	29.01	0.000043	0.96	713.11	307.10	0.07
1	6471	50-YR	ALT1(FU)	409.00	21.50	29.63	23.58	29.64	0.000038	0.96	927.55	367.94	0.06
1	6471	100-YR	ALT1	421.00	21.50	30.56	23.62	30.56	0.000022	0.79	1317.01	462.70	0.05
1	6471	100-YR	ALT1(FU)	488.00	21.50	31.28	23.83	31.28	0.000019	0.78	1663.21	501.08	0.05
1	6468	2-YR	ALT1	118.00	20.60	25.05	21.50	25.07	0.000080	1.00	117.86	56.21	0.08
1	6468	2-YR	ALT1(FU)	154.00	20.60	25.42	21.67	25.45	0.000103	1.20	127.82	61.35	0.10
1	6468	10-YR	ALT1	240.00	20.60	26.75	22.03	26.78	0.000110	1.47	163.59	97.73	0.11
1	6468	10-YR	ALT1(FU)	286.00	20.60	27.08	22.21	27.12	0.000131	1.66	172.45	175.72	0.12
1	6468	25-YR	ALT1	322.00	20.60	27.84	22.33	27.88	0.000114	1.67	192.98	217.25	0.11
1	6468	25-YR	ALT1(FU)	380.00	20.60	28.27	22.52	28.32	0.000131	1.86	204.56	245.03	0.12
1	6468	50-YR	ALT1	397.00	20.60	28.95	22.58	29.00	0.000107	1.78	223.15	314.33	0.11
1	6468	50-YR	ALT1(FU)	462.00	20.60	29.57	22.78	29.63	0.000114	1.93	239.86	375.54	0.11
1	6468	100-YR	ALT1	482.00	20.60	30.50	22.83	30.55	0.000089	1.82	264.88	468.24	0.10
1	6468	100-YR	ALT1(FU)	552.00	20.60	31.28	23.04	31.28	0.000020	0.83	1766.76	506.51	0.05
1	6386			Culvert									
1	6244	2-YR	ALT1	118.00	20.50	24.76	21.50	24.78	0.000245	1.05	112.09	50.15	0.09
1	6244	2-YR	ALT1(FU)	154.00	20.50	25.01	21.68	25.04	0.000342	1.29	118.98	74.75	0.11
1	6244	10-YR	ALT1	240.00	20.50	26.19	22.06	26.23	0.000366	1.58	152.04	140.88	0.12
1	6244	10-YR	ALT1(FU)	286.00	20.50	26.33	22.23	26.38	0.000479	1.83	155.90	144.59	0.14
1	6244	25-YR	ALT1	322.00	20.50	27.03	22.36	27.08	0.000408	1.83	175.57	166.37	0.13
1	6244	25-YR	ALT1(FU)	380.00	20.50	27.13	22.55	27.20	0.000540	2.13	178.27	169.55	0.15
1	6244	50-YR	ALT1	397.00	20.50	27.69	22.60	27.76	0.000444	2.05	194.07	193.78	0.14
1	6244	50-YR	ALT1(FU)	462.00	20.50	27.86	22.79	27.94	0.000557	2.33	198.68	201.93	0.15
1	6244	100-YR	ALT1	482.00	20.50	28.62	22.86	28.70	0.000431	2.19	220.09	313.99	0.14
1	6244	100-YR	ALT1(FU)	552.00	20.50	28.83	23.05	28.92	0.000517	2.44	225.97	341.84	0.15
1	6171	2-YR	ALT1	118.00	21.00	24.74		24.76	0.000333	0.97	129.80	55.87	0.10
1	6171	2-YR	ALT1(FU)	154.00	21.00	24.98		25.01	0.000443	1.16	143.61	59.24	0.12
1	6171	10-YR	ALT1	240.00	21.00	26.17		26.19	0.000402	1.20	229.30	85.68	0.12
1	6171	10-YR	ALT1(FU)	286.00	21.00	26.30		26.33	0.000499	1.37	240.92	88.72	0.13

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	6171	25-YR	ALT1	322.00	21.00	27.02		27.04	0.000328	1.26	309.90	104.29	0.11
1	6171	25-YR	ALT1(FU)	380.00	21.00	27.11		27.14	0.000422	1.45	319.73	106.30	0.12
1	6171	50-YR	ALT1	397.00	21.00	27.69		27.71	0.000292	1.31	384.52	119.77	0.10
1	6171	50-YR	ALT1(FU)	462.00	21.00	27.85		27.88	0.000349	1.47	404.65	123.69	0.12
1	6171	100-YR	ALT1	482.00	21.00	28.63		28.65	0.000219	1.28	533.22	200.85	0.09
1	6171	100-YR	ALT1(FU)	552.00	21.00	28.84		28.87	0.000244	1.38	576.75	206.04	0.10
1	5879	2-YR	ALT1	317.00	21.00	24.11		24.27	0.005448	3.18	99.79	48.86	0.39
1	5879	2-YR	ALT1(FU)	353.00	21.00	24.32		24.48	0.005371	3.19	110.61	53.24	0.39
1	5879	10-YR	ALT1	598.00	21.00	25.60		25.76	0.003455	3.19	187.71	64.90	0.33
1	5879	10-YR	ALT1(FU)	624.00	21.00	25.73		25.89	0.003322	3.18	195.92	65.78	0.33
1	5879	25-YR	ALT1	796.00	21.00	26.55		26.70	0.002616	3.16	252.01	71.50	0.30
1	5879	25-YR	ALT1(FU)	814.00	21.00	26.63		26.78	0.002560	3.16	257.92	72.08	0.29
1	5879	50-YR	ALT1	957.00	21.00	27.26		27.42	0.002208	3.14	305.21	77.02	0.28
1	5879	50-YR	ALT1(FU)	995.00	21.00	27.43		27.58	0.002140	3.13	318.09	79.42	0.27
1	5879	100-YR	ALT1	1132.00	21.00	28.34		28.46	0.001322	2.77	501.61	404.58	0.22
1	5879	100-YR	ALT1(FU)	1194.00	21.00	28.60		28.69	0.001116	2.63	604.87	412.93	0.21
1	5803	2-YR	ALT1	317.00	21.00	23.87	22.26	23.97	0.002492	2.60	121.96	58.00	0.28
1	5803	2-YR	ALT1(FU)	353.00	21.00	24.09	22.35	24.20	0.002389	2.68	131.75	59.65	0.28
1	5803	10-YR	ALT1	598.00	21.00	25.41	22.91	25.56	0.001973	3.12	191.44	69.78	0.27
1	5803	10-YR	ALT1(FU)	624.00	21.00	25.54	22.96	25.70	0.001945	3.16	197.22	70.77	0.27
1	5803	25-YR	ALT1	796.00	21.00	26.35	23.29	26.53	0.001799	3.41	233.64	78.21	0.26
1	5803	25-YR	ALT1(FU)	814.00	21.00	26.43	23.33	26.61	0.001787	3.43	237.28	79.00	0.26
1	5803	50-YR	ALT1	957.00	21.00	27.05	23.57	27.26	0.001702	3.61	265.32	86.03	0.26
1	5803	50-YR	ALT1(FU)	995.00	21.00	27.21	23.64	27.42	0.001683	3.65	272.53	88.28	0.26
1	5803	100-YR	ALT1	1132.00	21.00	28.13	23.85	28.33	0.001363	3.61	313.70	446.79	0.24
1	5803	100-YR	ALT1(FU)	1194.00	21.00	28.53	23.96	28.62	0.000815	2.45	623.97	461.97	0.18
1	5739			Culvert									
1	5695	2-YR	ALT1	317.00	20.00	22.60	21.36	22.76	0.004383	3.22	98.37	45.46	0.36
1	5695	2-YR	ALT1(FU)	353.00	20.00	22.78	21.46	22.95	0.004288	3.34	105.61	46.26	0.36
1	5695	10-YR	ALT1	598.00	20.00	23.76	22.04	24.03	0.004273	4.12	145.06	53.86	0.38
1	5695	10-YR	ALT1(FU)	624.00	20.00	23.85	22.10	24.12	0.004311	4.20	148.42	54.94	0.38
1	5695	25-YR	ALT1	796.00	20.00	24.37	22.45	24.71	0.004533	4.70	169.20	61.61	0.40
1	5695	25-YR	ALT1(FU)	814.00	20.00	24.41	22.48	24.77	0.004567	4.76	171.10	62.22	0.41
1	5695	50-YR	ALT1	957.00	20.00	24.77	22.76	25.19	0.004827	5.16	185.44	66.19	0.42
1	5695	50-YR	ALT1(FU)	995.00	20.00	24.86	22.81	25.29	0.004891	5.26	189.07	67.19	0.43
1	5695	100-YR	ALT1	1132.00	20.00	25.16	23.06	25.66	0.005157	5.63	201.06	71.77	0.44
1	5695	100-YR	ALT1(FU)	1194.00	20.00	25.29	23.16	25.81	0.005290	5.80	206.02	80.90	0.45

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	5571	2-YR	ALT1	317.00	18.21	22.59		22.60	0.000237	0.78	463.52	226.66	0.09
1	5571	2-YR	ALT1(FU)	353.00	18.21	22.78		22.79	0.000240	0.81	507.51	244.40	0.09
1	5571	10-YR	ALT1	598.00	18.21	23.81		23.82	0.000235	0.92	791.09	298.06	0.09
1	5571	10-YR	ALT1(FU)	624.00	18.21	23.90		23.91	0.000233	0.93	817.87	300.34	0.09
1	5571	25-YR	ALT1	796.00	18.21	24.46		24.47	0.000222	1.01	988.62	313.95	0.09
1	5571	25-YR	ALT1(FU)	814.00	18.21	24.51		24.52	0.000222	1.01	1004.75	315.10	0.09
1	5571	50-YR	ALT1	957.00	18.21	24.90		24.91	0.000220	1.08	1128.85	323.64	0.09
1	5571	50-YR	ALT1(FU)	995.00	18.21	25.00		25.01	0.000220	1.09	1160.92	325.78	0.09
1	5571	100-YR	ALT1	1132.00	18.21	25.33		25.34	0.000221	1.15	1269.28	332.91	0.09
1	5571	100-YR	ALT1(FU)	1194.00	18.21	25.46		25.48	0.000223	1.17	1315.30	335.89	0.09
1	5378	2-YR	ALT1	317.00	18.50	22.38		22.49	0.002546	2.64	124.78	56.05	0.28
1	5378	2-YR	ALT1(FU)	353.00	18.50	22.56		22.67	0.002569	2.75	134.96	60.42	0.28
1	5378	10-YR	ALT1	598.00	18.50	23.54		23.70	0.002545	3.33	238.30	149.11	0.30
1	5378	10-YR	ALT1(FU)	624.00	18.50	23.63		23.80	0.002523	3.36	251.65	151.92	0.30
1	5378	25-YR	ALT1	796.00	18.50	24.18		24.36	0.002362	3.55	342.16	180.95	0.29
1	5378	25-YR	ALT1(FU)	814.00	18.50	24.23		24.41	0.002354	3.57	351.41	184.49	0.29
1	5378	50-YR	ALT1	957.00	18.50	24.62		24.80	0.002271	3.70	426.89	206.46	0.29
1	5378	50-YR	ALT1(FU)	995.00	18.50	24.72		24.90	0.002257	3.74	447.55	219.31	0.29
1	5378	100-YR	ALT1	1132.00	18.50	25.05		25.23	0.002184	3.83	527.73	253.83	0.29
1	5378	100-YR	ALT1(FU)	1194.00	18.50	25.19		25.37	0.002144	3.86	563.29	257.12	0.29
1	4983	2-YR	ALT1	317.00	18.06	21.41		21.51	0.002382	2.65	139.77	62.31	0.28
1	4983	2-YR	ALT1(FU)	353.00	18.06	21.57		21.68	0.002429	2.78	150.09	63.89	0.28
1	4983	10-YR	ALT1	598.00	18.06	22.49		22.67	0.002707	3.51	213.22	72.84	0.31
1	4983	10-YR	ALT1(FU)	624.00	18.06	22.58		22.76	0.002735	3.57	219.42	76.64	0.31
1	4983	25-YR	ALT1	796.00	18.06	23.08		23.31	0.002975	4.03	265.08	102.87	0.33
1	4983	25-YR	ALT1(FU)	814.00	18.06	23.13		23.36	0.002988	4.07	270.01	103.49	0.34
1	4983	50-YR	ALT1	957.00	18.06	23.49		23.75	0.003115	4.37	308.52	112.40	0.35
1	4983	50-YR	ALT1(FU)	995.00	18.06	23.58		23.85	0.003143	4.44	318.79	114.93	0.35
1	4983	100-YR	ALT1	1132.00	18.06	23.88		24.18	0.003234	4.69	355.46	123.56	0.36
1	4983	100-YR	ALT1(FU)	1194.00	18.06	24.02		24.33	0.003269	4.79	372.00	127.26	0.36
1	4684	2-YR	ALT1	317.00	17.00	20.32		20.48	0.005341	3.29	97.07	50.13	0.39
1	4684	2-YR	ALT1(FU)	353.00	17.00	20.47		20.65	0.005278	3.42	105.05	54.52	0.39
1	4684	10-YR	ALT1	598.00	17.00	21.27		21.55	0.005434	4.22	159.29	85.21	0.42
1	4684	10-YR	ALT1(FU)	624.00	17.00	21.35		21.63	0.005462	4.30	165.48	89.34	0.42
1	4684	25-YR	ALT1	796.00	17.00	21.77		22.10	0.005605	4.73	206.32	101.43	0.44
1	4684	25-YR	ALT1(FU)	814.00	17.00	21.81		22.15	0.005599	4.76	210.81	102.45	0.44
1	4684	50-YR	ALT1	957.00	17.00	22.12		22.49	0.005705	5.07	243.23	109.55	0.45
1	4684	50-YR	ALT1(FU)	995.00	17.00	22.20		22.58	0.005704	5.14	252.23	111.44	0.45
1	4684	100-YR	ALT1	1132.00	17.00	22.46		22.88	0.005840	5.42	282.81	125.77	0.46

HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	4684	100-YR	ALT1(FU)	1194.00	17.00	22.58		23.01	0.005871	5.53	297.81	134.00	0.46
1	4377	2-YR	ALT1	317.00	16.00	19.33		19.41	0.002401	2.26	146.42	82.68	0.27
1	4377	2-YR	ALT1(FU)	353.00	16.00	19.48		19.57	0.002396	2.34	160.01	88.72	0.27
1	4377	10-YR	ALT1	598.00	16.00	20.27		20.39	0.002583	2.88	243.92	127.56	0.29
1	4377	10-YR	ALT1(FU)	624.00	16.00	20.35		20.48	0.002545	2.91	254.95	131.54	0.29
1	4377	25-YR	ALT1	796.00	16.00	20.75		20.90	0.002666	3.23	310.74	148.50	0.30
1	4377	25-YR	ALT1(FU)	814.00	16.00	20.82		20.97	0.002584	3.22	321.57	151.22	0.30
1	4377	50-YR	ALT1	957.00	16.00	21.10		21.27	0.002692	3.46	365.31	161.76	0.31
1	4377	50-YR	ALT1(FU)	995.00	16.00	21.20		21.37	0.002652	3.49	381.00	165.32	0.31
1	4377	100-YR	ALT1	1132.00	16.00	21.45		21.64	0.002697	3.66	424.11	172.73	0.31
1	4377	100-YR	ALT1(FU)	1194.00	16.00	21.57		21.77	0.002685	3.73	445.54	176.30	0.31
1	4051	2-YR	ALT1	330.00	15.00	18.66		18.73	0.001818	2.15	193.63	129.95	0.24
1	4051	2-YR	ALT1(FU)	374.00	15.00	18.80		18.88	0.001898	2.27	212.47	134.05	0.24
1	4051	10-YR	ALT1	640.00	15.00	19.47		19.59	0.002346	2.93	307.92	149.25	0.28
1	4051	10-YR	ALT1(FU)	678.00	15.00	19.55		19.67	0.002409	3.01	319.47	150.63	0.29
1	4051	25-YR	ALT1	855.00	15.00	19.88		20.03	0.002661	3.36	370.80	156.59	0.30
1	4051	25-YR	ALT1(FU)	895.00	15.00	19.95		20.11	0.002711	3.44	381.86	157.84	0.31
1	4051	50-YR	ALT1	1036.00	15.00	20.19		20.36	0.002880	3.69	419.33	162.02	0.32
1	4051	50-YR	ALT1(FU)	1091.00	15.00	20.27		20.46	0.002942	3.78	433.33	163.55	0.33
1	4051	100-YR	ALT1	1238.00	15.00	20.49		20.69	0.003110	4.01	468.86	167.38	0.34
1	4051	100-YR	ALT1(FU)	1314.00	15.00	20.59		20.81	0.003187	4.13	486.85	169.29	0.34
1	3559	2-YR	ALT1	330.00	14.00	17.14		17.28	0.005434	3.34	151.96	196.59	0.40
1	3559	2-YR	ALT1(FU)	374.00	14.00	17.26		17.40	0.005319	3.43	175.66	199.94	0.40
1	3559	10-YR	ALT1	640.00	14.00	17.85		17.99	0.004687	3.74	319.37	294.20	0.39
1	3559	10-YR	ALT1(FU)	678.00	14.00	17.92	17.23	18.07	0.004595	3.77	341.14	299.65	0.39
1	3559	25-YR	ALT1	855.00	14.00	18.20	17.42	18.35	0.004491	3.96	427.74	318.23	0.39
1	3559	25-YR	ALT1(FU)	895.00	14.00	18.26	17.48	18.41	0.004488	4.00	445.63	321.40	0.39
1	3559	50-YR	ALT1	1036.00	14.00	18.44	17.63	18.59	0.004511	4.16	505.15	331.75	0.39
1	3559	50-YR	ALT1(FU)	1091.00	14.00	18.51	17.67	18.66	0.004525	4.22	527.26	335.12	0.39
1	3559	100-YR	ALT1	1238.00	14.00	18.69	17.79	18.85	0.004478	4.34	588.34	341.59	0.40
1	3559	100-YR	ALT1(FU)	1314.00	14.00	18.77	17.84	18.93	0.004527	4.42	614.98	344.38	0.40
1	2807	2-YR	ALT1	330.00	11.50	13.26		13.29	0.005290	2.09	310.84	450.14	0.33
1	2807	2-YR	ALT1(FU)	374.00	11.50	13.33		13.36	0.005575	2.20	344.84	488.29	0.34
1	2807	10-YR	ALT1	640.00	11.50	13.64		13.69	0.007577	2.84	523.52	722.31	0.41
1	2807	10-YR	ALT1(FU)	678.00	11.50	13.66		13.71	0.007990	2.95	538.91	746.81	0.42
1	2807	25-YR	ALT1	855.00	11.50	13.78		13.84	0.009007	3.29	638.61	869.30	0.45
1	2807	25-YR	ALT1(FU)	895.00	11.50	13.80		13.87	0.009177	3.35	659.33	878.04	0.45
1	2807	50-YR	ALT1	1036.00	11.50	13.88		13.95	0.009704	3.55	730.19	908.01	0.47



HEC-RAS River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	2807	50-YR	ALT1(FU)	1091.00	11.50	13.91		13.99	0.009865	3.62	757.43	917.88	0.48
1	2807	100-YR	ALT1	1238.00	11.50	13.97		14.05	0.010678	3.85	813.84	936.49	0.50
1	2807	100-YR	ALT1(FU)	1314.00	11.50	14.01		14.10	0.010732	3.92	852.60	948.66	0.50
1	1913	2-YR	ALT1	397.00	7.50	8.92		8.93	0.004717	1.81	651.34	1015.54	0.30
1	1913	2-YR	ALT1(FU)	462.00	7.50	9.02		9.03	0.004483	1.87	759.02	1096.91	0.30
1	1913	10-YR	ALT1	782.00	7.50	9.37		9.38	0.003648	2.00	1145.00	1125.48	0.28
1	1913	10-YR	ALT1(FU)	851.00	7.50	9.44		9.45	0.003517	2.02	1223.40	1130.82	0.28
1	1913	25-YR	ALT1	1060.00	7.50	9.64	8.73	9.65	0.003211	2.09	1450.92	1149.65	0.27
1	1913	25-YR	ALT1(FU)	1133.00	7.50	9.70		9.71	0.003164	2.12	1521.95	1156.86	0.27
1	1913	50-YR	ALT1	1294.00	7.50	9.84		9.85	0.003015	2.17	1684.72	1175.35	0.27
1	1913	50-YR	ALT1(FU)	1378.00	7.50	9.91		9.93	0.002947	2.19	1767.93	1185.32	0.27
1	1913	100-YR	ALT1	1568.00	7.50	10.07		10.09	0.002774	2.24	1960.70	1207.98	0.26
1	1913	100-YR	ALT1(FU)	1671.00	7.50	10.14		10.16	0.002743	2.27	2050.43	1217.02	0.26
1	142	2-YR	ALT1	397.00	1.85	5.55	3.64	5.58	0.001001	1.33	526.77	604.13	0.16
1	142	2-YR	ALT1(FU)	462.00	1.85	5.71	3.77	5.73	0.001001	1.39	626.80	691.90	0.16
1	142	10-YR	ALT1	782.00	1.85	6.28	4.38	6.31	0.001001	1.60	1084.86	870.39	0.16
1	142	10-YR	ALT1(FU)	851.00	1.85	6.38	4.50	6.41	0.001002	1.64	1174.21	892.30	0.17
1	142	25-YR	ALT1	1060.00	1.85	6.66	4.76	6.69	0.001001	1.74	1435.01	952.43	0.17
1	142	25-YR	ALT1(FU)	1133.00	1.85	6.76	4.83	6.79	0.001001	1.77	1522.29	970.56	0.17
1	142	50-YR	ALT1	1294.00	1.85	6.94	4.97	6.98	0.001001	1.84	1708.74	1005.51	0.17
1	142	50-YR	ALT1(FU)	1378.00	1.85	7.04	5.03	7.07	0.001001	1.87	1803.98	1026.18	0.17
1	142	100-YR	ALT1	1568.00	1.85	7.26	5.11	7.29	0.001001	1.94	2033.24	1069.18	0.17
1	142	100-YR	ALT1(FU)	1671.00	1.85	7.35	5.21	7.39	0.001000	1.97	2139.39	1082.07	0.17

# Schoolhouse Branch - Alternative 2

HEC-RAS Plan: SHB-ALT2 River: Schoolhouse Br Reach: 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	12202	2-YR	3.00	73.97	74.42		74.42	0.000646	0.28	10.68	40.87	0.10
1	12202	10-YR	7.00	73.97	74.59		74.59	0.000774	0.38	18.46	51.47	0.11
1	12202	25-YR	10.00	73.97	74.68		74.68	0.000815	0.43	23.13	55.87	0.12
1	12202	50-YR	13.00	73.97	74.75		74.75	0.000837	0.48	27.42	59.37	0.12
1	12202	100-YR	16.00	73.97	74.82		74.82	0.000849	0.51	31.39	62.21	0.12
1	12134	2-YR	3.00	73.89	74.34		74.34	0.002977	0.54	5.53	24.79	0.20
1	12134	10-YR	7.00	73.89	74.49		74.50	0.003056	0.70	10.00	31.83	0.22
1	12134	25-YR	10.00	73.89	74.57		74.58	0.003091	0.79	12.71	34.53	0.23
1	12134	50-YR	13.00	73.89	74.64		74.66	0.003098	0.87	15.25	36.89	0.23
1	12134	100-YR	16.00	73.89	74.71		74.72	0.003121	0.93	17.63	38.96	0.24
1	11931	2-YR	3.00	72.16	72.45	72.45	72.53	0.119069	2.18	1.37	9.41	1.01
1	11931	10-YR	7.00	72.16	72.57	72.57	72.67	0.103583	2.56	2.73	13.27	1.00
1	11931	25-YR	10.00	72.16	72.63	72.63	72.75	0.098818	2.75	3.63	15.30	1.00
1	11931	50-YR	13.00	72.16	72.68	72.68	72.82	0.099181	2.94	4.42	16.88	1.01
1	11931	100-YR	16.00	72.16	72.73	72.73	72.88	0.096270	3.06	5.22	18.34	1.01
1	11554	2-YR	3.00	67.37	68.00	67.69	68.00	0.003021	0.58	5.18	16.46	0.18
1	11554	10-YR	7.00	67.37	68.23	67.81	68.24	0.003142	0.73	9.63	22.46	0.20
1	11554	25-YR	10.00	67.37	68.35	67.89	68.36	0.003209	0.80	12.48	25.57	0.20
1	11554	50-YR	13.00	67.37	68.44	67.94	68.46	0.003251	0.86	15.12	28.14	0.21
1	11554	100-YR	16.00	67.37	68.53	67.99	68.54	0.003299	0.91	17.57	30.34	0.21
1	11153	2-YR	3.00	64.04	64.34	64.34	64.41	0.115398	2.19	1.37	9.17	1.00
1	11153	10-YR	7.00	64.04	64.46	64.46	64.56	0.107147	2.63	2.66	12.77	1.01
1	11153	25-YR	10.00	64.04	64.52	64.52	64.64	0.102257	2.82	3.54	14.73	1.01
1	11153	50-YR	13.00	64.04	64.57	64.57	64.71	0.098774	2.98	4.37	16.36	1.01
1	11153	100-YR	16.00	64.04	64.62	64.62	64.77	0.096021	3.10	5.16	17.78	1.01
1	10850	2-YR	3.00	61.00	61.63	61.28	61.63	0.001524	0.41	7.28	23.18	0.13
1	10850	10-YR	7.00	61.00	61.97		61.97	0.000825	0.40	17.31	35.74	0.10
1	10850	25-YR	10.00	61.00	62.17		62.18	0.000568	0.40	25.20	40.46	0.09
1	10850	50-YR	13.00	61.00	62.32		62.32	0.000516	0.42	31.24	43.48	0.09
1	10850	100-YR	16.00	61.00	62.43		62.43	0.000521	0.44	36.00	45.71	0.09
1	10469	2-YR	19.00	58.00	58.23		58.27	0.014612	1.46	13.02	58.83	0.55
1	10469	10-YR	46.00	58.00	58.35	58.28	58.43	0.022548	2.32	19.82	61.90	0.72

HEC-RAS Plan: SHB-ALT2 River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	10469	25-YR	66.00	58.00	58.38	58.36	58.52	0.034137	3.02	21.86	62.79	0.90
1	10469	50-YR	85.00	58.00	58.42	58.42	58.61	0.040770	3.50	24.29	63.83	1.00
1	10469	100-YR	106.00	58.00	58.48	58.48	58.70	0.039551	3.75	28.27	65.51	1.01
1	9946	2-YR	19.00	47.00	48.34		48.46	0.024888	2.70	7.03	10.47	0.58
1	9946	10-YR	46.00	47.00	49.08		49.20	0.014174	2.73	16.85	16.21	0.47
1	9946	25-YR	66.00	47.00	49.54		49.64	0.010097	2.63	25.09	19.78	0.41
1	9946	50-YR	85.00	47.00	49.88		49.99	0.008496	2.63	32.36	22.46	0.39
1	9946	100-YR	106.00	47.00	50.17		50.29	0.007912	2.70	39.22	24.73	0.38
1	9397	2-YR	29.00	42.00	42.84	42.40	42.88	0.006607	1.51	19.25	26.11	0.31
1	9397	10-YR	64.00	42.00	43.21		43.28	0.009002	2.18	29.42	28.92	0.38
1	9397	25-YR	91.00	42.00	43.35		43.47	0.012223	2.70	33.66	30.02	0.45
1	9397	50-YR	115.00	42.00	43.45		43.60	0.015220	3.14	36.64	30.76	0.51
1	9397	100-YR	143.00	42.00	43.59		43.78	0.017015	3.49	40.94	31.81	0.54
1	8847	2-YR	29.00	34.00	34.41	34.41	34.60	0.061893	3.53	8.21	21.40	1.01
1	8847	10-YR	64.00	34.00	34.80		35.02	0.029764	3.72	17.20	23.84	0.77
1	8847	25-YR	91.00	34.00	35.14		35.34	0.018196	3.57	25.48	25.88	0.63
1	8847	50-YR	115.00	34.00	35.40		35.60	0.013923	3.53	32.59	27.51	0.57
1	8847	100-YR	143.00	34.00	35.64		35.85	0.012370	3.64	39.31	28.98	0.55
1	8193	2-YR	29.00	31.50	33.30		33.30	0.000352	0.51	56.97	43.79	0.08
1	8193	10-YR	64.00	31.50	34.01		34.02	0.000454	0.70	100.43	146.17	0.09
1	8193	25-YR	91.00	31.50	34.30		34.31	0.000505	0.81	155.48	228.36	0.10
1	8193	50-YR	115.00	31.50	34.42		34.44	0.000621	0.93	185.62	255.82	0.11
1	8193	100-YR	143.00	31.50	34.59		34.60	0.000694	1.04	231.71	318.91	0.12
1	7804	2-YR	92.00	31.00	32.67	31.81	32.72	0.003341	1.77	52.17	45.44	0.28
1	7804	10-YR	192.00	31.00	33.29	32.25	33.36	0.003417	2.30	90.29	105.39	0.30
1	7804	25-YR	265.00	31.00	33.47		33.57	0.004145	2.71	116.04	172.47	0.34
1	7804	50-YR	330.00	31.00	33.98		34.02	0.001472	1.88	223.40	309.45	0.21
1	7804	100-YR	404.00	31.00	34.15		34.19	0.001386	1.91	284.33	411.76	0.21
1	7568	2-YR	92.00	29.50	30.32	30.32	30.69	0.050218	4.86	18.92	26.07	1.01
1	7568	10-YR	192.00	29.50	30.80	30.80	31.35	0.044058	5.95	32.26	29.65	1.01
1	7568	25-YR	265.00	29.50	32.10		32.28	0.007701	3.39	78.28	45.23	0.45
1	7568	50-YR	330.00	29.50	33.72		33.76	0.000909	1.72	344.00	347.92	0.17

HEC-RAS Plan: SHB-ALT2 River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	7568	100-YR	404.00	29.50	33.87		33.92	0.001066	1.92	396.92	357.16	0.19
1	7243	2-YR	105.00	25.00	29.43		29.44	0.000041	0.66	160.14	52.30	0.07
1	7243	10-YR	213.00	25.00	30.86		30.87	0.000064	0.84	252.67	84.62	0.08
1	7243	25-YR	280.00	25.00	32.18		32.19	0.000033	0.77	404.50	152.69	0.06
1	7243	50-YR	346.00	25.00	33.73		33.73	0.000016	0.65	800.78	359.26	0.05
1	7243	100-YR	419.00	25.00	33.88		33.89	0.000021	0.76	857.48	401.34	0.05
1	7173	2-YR	105.00	26.00	29.42	26.77	29.44	0.000072	0.93	112.71	61.34	0.09
1	7173	10-YR	213.00	26.00	30.83	27.17	30.86	0.000091	1.33	160.61	73.47	0.11
1	7173	25-YR	280.00	26.00	32.15	27.39	32.18	0.000069	1.36	205.62	145.10	0.10
1	7173	50-YR	346.00	26.00	33.73	27.58	33.73	0.000016	0.65	860.81	447.27	0.05
1	7173	100-YR	419.00	26.00	33.88	27.78	33.88	0.000021	0.75	928.24	459.59	0.05
1	7138		Culvert									
1	7074	2-YR	105.00	26.50	27.98	27.64	28.21	0.015290	3.85	27.27	34.76	0.61
1	7074	10-YR	213.00	26.50	28.88	28.17	29.20	0.010254	4.53	47.00	45.28	0.55
1	7074	25-YR	280.00	26.50	30.55	28.46	30.73	0.002578	3.34	83.81	88.32	0.30
1	7074	50-YR	346.00	26.50	31.73	28.71	31.89	0.001600	3.15	109.79	193.50	0.25
1	7074	100-YR	419.00	26.50	31.93	28.99	32.14	0.002068	3.67	114.04	203.70	0.28
1	6897	2-YR	105.00	25.00	26.89		26.96	0.003722	2.15	48.81	32.01	0.31
1	6897	10-YR	213.00	25.00	28.42		28.48	0.001639	2.02	107.35	47.73	0.22
1	6897	25-YR	280.00	25.00	30.51		30.53	0.000306	1.26	271.38	119.27	0.11
1	6897	50-YR	346.00	25.00	31.74		31.76	0.000146	1.03	478.67	234.52	0.08
1	6897	100-YR	419.00	25.00	31.94		31.96	0.000198	1.22	532.34	289.18	0.09
1	6790	2-YR	105.00	24.00	26.61		26.66	0.002077	1.90	55.31	32.63	0.26
1	6790	10-YR	213.00	24.00	28.30		28.35	0.000883	1.74	124.38	51.19	0.18
1	6790	25-YR	280.00	24.00	30.49		30.50	0.000188	1.18	327.76	223.95	0.09
1	6790	50-YR	346.00	24.00	31.73		31.74	0.000089	0.94	734.98	463.27	0.07
1	6790	100-YR	419.00	24.00	31.93		31.94	0.000108	1.06	831.20	525.22	0.07
1	6755	2-YR	105.00	23.80	26.42	25.35	26.54	0.004329	2.78	37.83	22.08	0.37
1	6755	10-YR	213.00	23.80	28.17	26.07	28.29	0.001783	2.75	77.60	38.03	0.26
1	6755	25-YR	280.00	23.80	30.41	26.40	30.48	0.000566	2.17	129.02	203.38	0.16
1	6755	50-YR	346.00	23.80	31.73	26.68	31.74	0.000109	1.03	696.61	452.39	0.07

HEC-RAS Plan: SHB-ALT2 River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	6755	100-YR	419.00	23.80	31.93	26.96	31.94	0.000132	1.16	792.35	538.48	0.08
1	6694		Culvert									
1	6471	2-YR	105.00	21.50	25.14	22.36	25.16	0.000140	1.17	89.66	59.91	0.11
1	6471	10-YR	213.00	21.50	26.89	22.86	26.91	0.000079	1.01	260.38	103.55	0.08
1	6471	25-YR	280.00	21.50	28.08	23.12	28.10	0.000054	0.98	474.27	221.47	0.07
1	6471	50-YR	346.00	21.50	29.30	23.36	29.31	0.000035	0.89	808.33	339.57	0.06
1	6471	100-YR	419.00	21.50	30.67	23.61	30.67	0.000021	0.78	1368.56	468.29	0.05
1	6468	2-YR	118.00	20.60	25.14	21.50	25.15	0.000075	0.98	120.12	57.38	0.08
1	6468	10-YR	240.00	20.60	26.87	22.03	26.90	0.000103	1.44	166.93	133.03	0.10
1	6468	25-YR	321.00	20.60	28.05	22.32	28.09	0.000103	1.62	198.67	228.65	0.10
1	6468	50-YR	396.00	20.60	29.25	22.57	29.30	0.000095	1.71	231.15	348.62	0.10
1	6468	100-YR	481.00	20.60	30.61	22.83	30.66	0.000086	1.80	267.90	473.01	0.10
1	6386		Culvert									
1	6244	2-YR	118.00	20.50	24.87	21.50	24.88	0.000225	1.03	114.97	62.06	0.09
1	6244	10-YR	240.00	20.50	26.34	22.06	26.38	0.000334	1.54	156.27	144.96	0.11
1	6244	25-YR	321.00	20.50	27.26	22.36	27.30	0.000361	1.77	181.85	173.77	0.12
1	6244	50-YR	396.00	20.50	27.99	22.60	28.05	0.000384	1.96	202.51	209.89	0.13
1	6244	100-YR	481.00	20.50	28.74	22.85	28.81	0.000408	2.15	223.42	330.87	0.13
1	6171	2-YR	118.00	21.00	24.85		24.86	0.000298	0.93	135.74	57.35	0.10
1	6171	10-YR	240.00	21.00	26.33		26.35	0.000344	1.15	242.80	89.20	0.11
1	6171	25-YR	321.00	21.00	27.25		27.27	0.000270	1.18	334.24	109.35	0.10
1	6171	50-YR	396.00	21.00	27.99		28.01	0.000232	1.22	422.18	127.01	0.09
1	6171	100-YR	481.00	21.00	28.75		28.77	0.000199	1.24	557.50	203.76	0.09
1	5879	2-YR	317.00	21.00	24.31		24.44	0.004371	2.88	110.17	53.07	0.35
1	5879	10-YR	598.00	21.00	25.86		25.99	0.002695	2.92	204.48	66.69	0.29
1	5879	25-YR	796.00	21.00	26.86		26.99	0.002038	2.89	275.04	73.72	0.26
1	5879	50-YR	956.00	21.00	27.66		27.78	0.001666	2.84	336.73	82.77	0.24
1	5879	100-YR	1132.00	21.00	28.51		28.60	0.001107	2.59	568.33	409.99	0.20
1	5803	2-YR	317.00	21.00	24.13	22.26	24.22	0.001831	2.37	133.76	59.99	0.24
1	5803	10-YR	598.00	21.00	25.70	22.91	25.84	0.001581	2.92	204.59	72.03	0.24

HEC-RAS Plan: SHB-ALT2 River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	5803	25-YR	796.00	21.00	26.70	23.29	26.86	0.001450	3.19	249.25	81.58	0.24
1	5803	50-YR	956.00	21.00	27.48	23.57	27.66	0.001346	3.36	284.53	92.03	0.24
1	5803	100-YR	1132.00	21.00	28.30	23.85	28.49	0.001260	3.52	321.19	453.04	0.23
1	5739		Culvert									
1	5695	2-YR	317.00	20.00	22.60	21.36	22.76	0.004383	3.22	98.37	45.46	0.36
1	5695	10-YR	598.00	20.00	23.76	22.04	24.03	0.004273	4.12	145.06	53.86	0.38
1	5695	25-YR	796.00	20.00	24.37	22.45	24.71	0.004533	4.70	169.20	61.61	0.40
1	5695	50-YR	956.00	20.00	24.77	22.74	25.18	0.004825	5.16	185.35	66.16	0.42
1	5695	100-YR	1132.00	20.00	25.16	23.06	25.66	0.005157	5.63	201.06	71.77	0.44
1	5571	2-YR	317.00	18.21	22.59		22.60	0.000237	0.78	463.52	226.66	0.09
1	5571	10-YR	598.00	18.21	23.81		23.82	0.000235	0.92	791.09	298.06	0.09
1	5571	25-YR	796.00	18.21	24.46		24.47	0.000222	1.01	988.62	313.95	0.09
1	5571	50-YR	956.00	18.21	24.89		24.91	0.000220	1.07	1128.02	323.58	0.09
1	5571	100-YR	1132.00	18.21	25.33		25.34	0.000221	1.15	1269.28	332.91	0.09
1	5378	2-YR	317.00	18.50	22.38		22.49	0.002546	2.64	124.78	56.05	0.28
1	5378	10-YR	598.00	18.50	23.54		23.70	0.002545	3.33	238.30	149.11	0.30
1	5378	25-YR	796.00	18.50	24.18		24.36	0.002362	3.55	342.16	180.95	0.29
1	5378	50-YR	956.00	18.50	24.62		24.80	0.002271	3.70	426.36	206.32	0.29
1	5378	100-YR	1132.00	18.50	25.05		25.23	0.002184	3.83	527.72	253.83	0.29
1	4983	2-YR	317.00	18.06	21.41		21.51	0.002382	2.65	139.77	62.31	0.28
1	4983	10-YR	598.00	18.06	22.49		22.67	0.002707	3.51	213.22	72.84	0.31
1	4983	25-YR	796.00	18.06	23.08		23.31	0.002975	4.03	265.08	102.87	0.33
1	4983	50-YR	956.00	18.06	23.48		23.75	0.003114	4.37	308.25	112.34	0.35
1	4983	100-YR	1132.00	18.06	23.88		24.18	0.003235	4.69	355.45	123.56	0.36
1	4684	2-YR	317.00	17.00	20.32		20.48	0.005341	3.29	97.07	50.13	0.39
1	4684	10-YR	598.00	17.00	21.27		21.55	0.005434	4.22	159.29	85.21	0.42
1	4684	25-YR	796.00	17.00	21.77		22.10	0.005605	4.73	206.32	101.43	0.44
1	4684	50-YR	956.00	17.00	22.12		22.49	0.005704	5.07	243.00	109.50	0.45
1	4684	100-YR	1132.00	17.00	22.46		22.88	0.005841	5.42	282.78	125.75	0.46
1	4377	2-YR	317.00	16.00	19.33		19.41	0.002401	2.26	146.42	82.68	0.27
1	4377	10-YR	598.00	16.00	20.27		20.39	0.002583	2.88	243.92	127.56	0.29

HEC-RAS Plan: SHB-ALT2 River: Schoolhouse Br Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	4377	25-YR	796.00	16.00	20.75		20.90	0.002666	3.23	310.74	148.50	0.30
1	4377	50-YR	956.00	16.00	21.10		21.27	0.002692	3.45	365.01	161.69	0.31
1	4377	100-YR	1132.00	16.00	21.45		21.64	0.002701	3.67	423.88	172.69	0.31
1	4051	2-YR	330.00	15.00	18.66		18.73	0.001818	2.15	193.63	129.95	0.24
1	4051	10-YR	640.00	15.00	19.47		19.59	0.002346	2.93	307.92	149.25	0.28
1	4051	25-YR	855.00	15.00	19.88		20.03	0.002661	3.36	370.80	156.59	0.30
1	4051	50-YR	1035.00	15.00	20.18		20.36	0.002879	3.68	419.07	161.99	0.32
1	4051	100-YR	1237.00	15.00	20.49		20.69	0.003109	4.01	468.62	167.36	0.34
1	3559	2-YR	330.00	14.00	17.14		17.28	0.005434	3.34	151.96	196.59	0.40
1	3559	10-YR	640.00	14.00	17.85		17.99	0.004687	3.74	319.37	294.20	0.39
1	3559	25-YR	855.00	14.00	18.20	17.42	18.35	0.004492	3.96	427.67	318.22	0.39
1	3559	50-YR	1035.00	14.00	18.44	17.63	18.59	0.004510	4.16	504.76	331.68	0.39
1	3559	100-YR	1237.00	14.00	18.69	17.79	18.84	0.004477	4.33	587.98	341.56	0.40
1	2807	2-YR	330.00	11.50	13.26		13.29	0.005290	2.09	310.84	450.14	0.33
1	2807	10-YR	640.00	11.50	13.64		13.69	0.007577	2.84	523.52	722.31	0.41
1	2807	25-YR	855.00	11.50	13.78		13.84	0.009002	3.29	638.79	869.38	0.45
1	2807	50-YR	1035.00	11.50	13.88		13.95	0.009702	3.55	729.63	907.78	0.47
1	2807	100-YR	1237.00	11.50	13.97		14.05	0.010677	3.85	813.33	936.33	0.50
1	1913	2-YR	397.00	7.50	8.92		8.93	0.004717	1.81	651.34	1015.54	0.30
1	1913	10-YR	782.00	7.50	9.37		9.38	0.003648	2.00	1145.00	1125.48	0.28
1	1913	25-YR	1059.00	7.50	9.64	8.73	9.65	0.003212	2.09	1449.87	1149.54	0.27
1	1913	50-YR	1293.00	7.50	9.84		9.85	0.003016	2.17	1683.73	1175.23	0.27
1	1913	100-YR	1567.00	7.50	10.07		10.09	0.002775	2.24	1959.78	1207.89	0.26
1	142	2-YR	397.00	1.85	5.55	3.64	5.58	0.001001	1.33	526.77	604.13	0.16
1	142	10-YR	782.00	1.85	6.28	4.38	6.31	0.001001	1.60	1084.86	870.39	0.16
1	142	25-YR	1059.00	1.85	6.66	4.75	6.69	0.001001	1.74	1433.80	952.16	0.17
1	142	50-YR	1293.00	1.85	6.94	4.97	6.97	0.001001	1.84	1707.60	1005.30	0.17
1	142	100-YR	1567.00	1.85	7.25	5.11	7.29	0.001001	1.94	2032.20	1069.10	0.17

**SECONDARY SYSTEM**

**EXISTING**

**CONDITIONS:**

**SWMM INPUT**



Project: HMR/SHB Watershed Master Plan  
 Location: Davis Street and Vance Street System (Existing)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_CHESTNUT_ST	19.25	838530	2310	363	72	2
SubCatch_COLONIAL_AV	0.39	16988	47	361.455	63	2
SubCatch_COLONIAL_AV_1	0.35	15246	35	435.6	74	2
SubCatch_CONTENTNEA_ST	0.03	1307	4	326.7	83	2
SubCatch_CONTENTNEA_ST_1	1.89	82328	227	362.68	74	2
SubCatch_CONTENTNEA_ST_2	1.99	86528	289	299.403	62	2
SubCatch_CONTENTNEA_ST_3	0.78	33977	94	361.455	73	2
SubCatch_CONTENTNEA_ST_4	1.54	67082	185	362.608	69	2
SubCatch_CONTENTNEA_ST_5	1.51	65776	181	363.401	68	2
SubCatch_CONTENTNEA_ST_6	0.27	11761	32	367.538	69	2
SubCatch_DAVIS_ST	0.63	27443	63	435.6	63	2
SubCatch_DAVIS_ST_1	0.85	37026	85	435.6	61	2
SubCatch_DAVIS_ST_2	2.15	93654	214	437.636	58	2
SubCatch_DAVIS_ST_3	1.24	54014	124	435.6	61	2
SubCatch_DAVIS_ST_4	1.64	71438	164	435.6	55	2
SubCatch_FAIRFAX_AV	1.08	47045	130	361.883	63	2
SubCatch_LATHAM_ST	2.61	113692	313	363.232	75	2
SubCatch_SPRUCE_ST	49.16	2141497	1680	1274.7	71	2
SubCatch_VANCE_2	2.88	125453	346	362.58	63	2
SubCatch_VANCE_ST_1	0.03	1307	4	326.7	83	2
SubCatch_VANCE_ST_2	0.32	13939	38	366.821	67	2
SubCatch_VANCE_ST_3	1.15	50094	138	363	65	2
SubCatch_VANCE_ST_4	1.19	51836	143	362.492	59	2
SubCatch_VANCE_ST_5	1.19	51836	143	362.492	54	2
SubCatch_VANCE_ST_6	0.23	10019	28	357.814	61	2
SubCatch_VANCE_ST_7	0.28	12197	34	358.729	54	2
SubCatch_W_3RD_ST	0.01	436	1	435.6	83	2
SubCatch_W_3RD_ST_1	0.02	871	2	435.6	83	2
SubCatch_W_3RD_ST_2	0.29	12632	29	435.6	64	2
SubCatch_W_3RD_ST_3	1.04	45302	104	435.6	62	2
SubCatch_W_3RD_ST_5	0.75	32670	90	363	63	2
SubCatch_W_3RD_ST_6	0.42	18295	50	365.904	61	2
SubCatch_W_3RD_ST_7	0.17	7405	20	370.26	70	2
SubCatch_W_3RD_ST_8	0.48	20909	58	360.497	63	2
SubCatch_W_3RD_ST_9	1.40	61036	340	179.518	63	2
SubCatch_W_4TH_ST	0.80	34848	96	363	64	2
SubCatch_W_4TH_ST_2	0.68	29621	82	361.229	62	2
SubCatch_W_5th_ST	8.56	372874	1027	363.071	69	2

Project: HMR/SHB Watershed Master Plan  
 Location: Jarvis Street System (Existing)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_AVERY_ST	0.44	19166	37	518.011	61	2
SubCatch_E_1ST_ST	5.28	229997	440	522.72	57	2
SubCatch_E_1ST_ST_2	2.53	110207	211	522.307	61	2
SubCatch_E_2ND_ST	4.61	200812	384	522.947	90	2
SubCatch_E_2ND_ST_1	0.03	1307	3	435.6	83	2
SubCatch_E_2ND_ST_2	0.01	436	1	435.6	54	2
SubCatch_E_2ND_ST_3	0.09	3920	8	490.05	64	2
SubCatch_E_2ND_ST_4	0.73	31799	61	521.292	85	2
SubCatch_E_3RD_ST_1	6.69	291416	558	522.252	86	2
SubCatch_N_JARVIS_ST	3.10	135036	258	523.395	72	2
SubCatch_N_SUMMIT_ST	0.25	10890	21	518.571	67	2
SubCatch_N_SUMMIT_ST_1	4.73	206039	394	522.941	67	2
SubCatch_S_ROTARY_AV	4.53	197327	378	522.029	74	2
SubCatch_S_ROTARY_AV_2	1.84	80150	153	523.859	76	2
SubCatch_S_ROTARY_AV_3	0.78	33977	65	522.72	73	2
SubCatch_S_ROTARY_AV_5	0.64	27878	53	526.008	60	2
SubCatch_STUDENT_ST	5.72	249163	477	522.355	77	2

Project: HMR/SHB Watershed Master Plan  
 Location: Harding Street System (Existing)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_N_HARDING_ST	2.29	99752	427	233.612	55	2
SubCatch_N_HARDING_ST_1	1.53	66647	285	233.848	64	2
SubCatch_N_HARDING_ST_2	2.98	129809	555	233.89	62	2
SubCatch_N_LIBRARY_ST	2.7	117612	503	233.821	62	2
SubCatch_PARK_DR	1.43	62291	266	234.176	54	2
SubCatch_RIVER_DR	4.38	190793	816	233.815	73	2
SubCatch_S_HARDING_ST	4.55	198198	848	233.724	61	2
SubCatch_S_LIBRARY_ST	4.77	207781	889	233.725	62	2
SubCatch_S_ROTARY_AV_1	4.43	192971	825	233.904	61	2
SubCatch_WILLOW_ST	2.14	93218	399	233.63	64	2
SubCatch_WILLOW_ST_1	0.42	18295	78	234.554	60	2

Project: HMR/SHB Watershed Master Plan  
 Location: Elm Street System (Existing)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_ASH_ST	1.28	55757	221	252.293	70	2
SubCatch_E_1ST_ST_1	0.55	23958	95	252.189	69	2
SubCatch_E_3RD_ST	1.3	56628	225	251.68	62	2
SubCatch_E_3RD_ST_2	1.92	83635	332	251.913	63	2
SubCatch_E_3RD_ST_3	1.77	77101	306	251.965	67	2
SubCatch_E_4TH_ST	0.94	40946	162	252.756	64	2
SubCatch_E_4TH_ST_1	3.06	133294	529	251.973	71	2
SubCatch_E_4TH_ST_2	0.85	37026	147	251.878	69	2
SubCatch_JOHNSON_HEIGHTS	2.75	119790	475	252.189	90	2
SubCatch_N_ELM_ST	2.91	126760	503	252.007	81	2
SubCatch_N_ELM_ST_1	2.36	102802	408	251.965	71	2
SubCatch_N_ELM_ST_2	7.64	332798	1321	251.929	77	2
SubCatch_N_OAK_ST	6.05	263538	1046	251.948	79	2
SubCatch_N_OAK_ST_1	0.69	30056	119	252.575	91	2
SubCatch_N_OAK_ST_2	3.01	131116	520	252.145	87	2
SubCatch_S_ELM_ST	6.41	279220	1108	252.003	69	2
SubCatch_S_ELM_ST_1	2.6	113256	449	252.241	63	2
SubCatch_S_OAK_ST	1.83	79715	316	252.262	64	2
SubCatch_S_OAK_ST_1	1.21	52708	209	252.189	80	2
SubCatch_WILSONACRES_APT	6.11	266152	1056	252.038	67	2

**SECONDARY SYSTEM  
EXISTING  
CONDITIONS:  
SWMM OUTPUT**

# Existing Conditions (10-Year)

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

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

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Flow Units ..... CFS  
 Process Models:  
   Rainfall/Runoff ..... YES  
   RDII ..... NO  
   Snowmelt ..... NO  
   Groundwater ..... NO  
   Flow Routing ..... YES  
   Ponding Allowed ..... NO  
   Water Quality ..... NO  
 Infiltration Method ..... CURVE\_NUMBER  
 Flow Routing Method ..... DYNWAVE  
 Starting Date ..... APR-17-2015 00:00:00  
 Ending Date ..... APR-17-2015 23:45:00  
 Antecedent Dry Days ..... 0.0  
 Report Time Step ..... 00:05:00  
 Wet Time Step ..... 00:01:00  
 Dry Time Step ..... 01:00:00  
 Routing Time Step ..... 5.00 sec  
 Variable Time Step ..... YES  
 Maximum Trials ..... 8  
 Head Tolerance ..... 0.005000 ft

\*\*\*\*\*

## Element Count

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Number of rain gages ..... 1  
 Number of subcatchments ... 115  
 Number of nodes ..... 390  
 Number of links ..... 541  
 Number of pollutants ..... 0  
 Number of land uses ..... 0

\*\*\*\*\*

## Raingage Summary

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Name	Data Source	Data Type	Recording Interval
SCS_Rain	SCSStorms	VOLUME	15 min.

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## Subcatchment Summary

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Name	Area	Width	%Imperv	%Slope	Rain Gage
Outlet					

## Existing Conditions (10-Year)

PC 1321	42.52	373.98	13.09	0.5000	SCS_Rain
PCTB02235-S					
PC 1323	17.43	153.33	10.21	0.5000	SCS_Rain
PCTB02257_1-S					
PC 1324	20.76	182.55	0.00	0.5000	SCS_Rain
CountrySideE_Ditch_Culvert_In-S					
PC 1325	30.92	271.95	0.00	0.5000	SCS_Rain
CountrySideE_Ditch_Culvert_In-S					
PC 1326	66.02	1100.00	0.00	0.5000	SCS_Rain
JMTB01006-S					
PC 1327	13.69	120.40	2.96	0.5000	SCS_Rain
JMTB01006-S					
PC 1350	58.26	512.33	8.60	0.5000	SCS_Rain
PCTB02004-S					
PC 1360	38.27	336.59	8.31	0.5000	SCS_Rain
PCTB02005					
PC 571	162.61	2150.00	1.31	0.5000	SCS_Rain
PCTB02009					
SubCatch_ASH_ST	1.28	221.00	50.19	2.0000	SCS_Rain
TRMB02051-S					
SubCatch_AVERY_ST	0.44	37.00	17.67	2.0000	SCS_Rain
TRMB03068-S					
SubCatch_BELVOIR_HW	36.41	320.22	45.57	0.5000	SCS_Rain
PCTB02189-S					
SubCatch_BELVOIR_HW_1	26.16	230.08	1.40	0.5000	SCS_Rain
PCTB02012-S					
SubCatch_CHESTNUT_ST	19.25	2310.00	48.83	2.0000	SCS_Rain
TRMB04089-S					
SubCatch_COLONIAL_AV	0.39	47.00	44.12	2.0000	SCS_Rain
TRMB05009_DS-S					
SubCatch_COLONIAL_AV_1	0.35	35.00	50.58	2.0000	SCS_Rain
TRMB05044-S					
SubCatch_CONTENTNEA_ST	0.03	4.00	92.18	2.0000	SCS_Rain
TRMB05028-S					
SubCatch_CONTENTNEA_ST_1	1.89	227.00	41.36	2.0000	SCS_Rain
TRMB05033-S					
SubCatch_CONTENTNEA_ST_2	1.99	289.00	0.00	2.0000	SCS_Rain
TRMB05034-S					
SubCatch_CONTENTNEA_ST_3	0.78	94.00	40.22	2.0000	SCS_Rain
TRMB05012-S					
SubCatch_CONTENTNEA_ST_4	1.54	185.00	45.59	2.0000	SCS_Rain
TRMB05042-S					
SubCatch_CONTENTNEA_ST_5	1.51	181.00	30.71	2.0000	SCS_Rain
TRMB05010-S					
SubCatch_CONTENTNEA_ST_6	0.27	32.00	28.46	2.0000	SCS_Rain
TRMB05030-S					
SubCatch_DAVIS_ST	0.63	63.00	54.99	2.0000	SCS_Rain
TRMB05038-S					
SubCatch_DAVIS_ST_1	0.85	85.00	41.38	2.0000	SCS_Rain
TRMB05039-S					
SubCatch_DAVIS_ST_2	2.15	214.00	39.18	2.0000	SCS_Rain
TRMB05047					
SubCatch_DAVIS_ST_3	1.24	124.00	40.49	2.0000	SCS_Rain
TRMB05041-S					
SubCatch_DAVIS_ST_4	1.64	164.00	41.51	2.0000	SCS_Rain
TRMB05040-S					
SubCatch_E_1ST_ST	5.28	440.00	28.98	2.0000	SCS_Rain
TRMB03087-S					
SubCatch_E_1ST_ST_1	0.55	95.00	42.81	2.0000	SCS_Rain
TRMB02022-S					

## Existing Conditions (10-Year)

SubCatch_E_1ST_ST_2 TRMB03073-S	2.53	211.00	37.57	2.0000	SCS_Rain
SubCatch_E_2ND_ST TRMB03097-S	4.61	384.00	63.85	2.0000	SCS_Rain
SubCatch_E_2ND_ST_1 TRMB03094-S	0.03	3.00	77.16	2.0000	SCS_Rain
SubCatch_E_2ND_ST_2 TRMB03095-S	0.01	1.00	1.19	2.0000	SCS_Rain
SubCatch_E_2ND_ST_3 TRMB03101-S	0.09	8.00	3.17	2.0000	SCS_Rain
SubCatch_E_2ND_ST_4 TRMB03102-S	0.73	61.00	20.01	2.0000	SCS_Rain
SubCatch_E_3RD_ST TRMB02035-S	1.30	225.00	43.65	2.0000	SCS_Rain
SubCatch_E_3RD_ST_1 TRMB03111-S	6.69	558.00	55.01	2.0000	SCS_Rain
SubCatch_E_3RD_ST_2 TRMB02049-S	1.92	332.00	35.41	2.0000	SCS_Rain
SubCatch_E_3RD_ST_3 TRMB02047-S	1.77	306.00	39.28	2.0000	SCS_Rain
SubCatch_E_4TH_ST TRMB02070-S	0.94	162.00	34.68	2.0000	SCS_Rain
SubCatch_E_4TH_ST_1 TRMB02060-S	3.06	529.00	53.26	2.0000	SCS_Rain
SubCatch_E_4TH_ST_2 TRMB02060-S	0.85	147.00	23.57	2.0000	SCS_Rain
SubCatch_E_CATAWBA_RD PCTB02331-S	18.21	160.15	24.62	0.5000	SCS_Rain
SubCatch_FAIRFAX_AV TRMB05008-S	1.08	130.00	37.23	2.0000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD JMTB01102-S	27.23	239.44	14.41	0.5000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD_1 JMTB01105-S	29.20	256.79	0.58	0.5000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD_2 JMTB01104-S	3.67	32.25	10.32	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV PCTB02303-S	29.47	259.19	9.71	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV_1 PCTB02282-S	8.28	72.79	39.47	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV_2 PCTB02292-S	8.58	75.44	0.00	0.5000	SCS_Rain
SubCatch_HAW_1 PCTB02001-S	2.89	25.38	4.16	0.5000	SCS_Rain
SubCatch_HAW_2 PCTB01068_US-S	17.57	550.00	3.44	0.5000	SCS_Rain
SubCatch_HOP_TYSON_RD PCTB02022-S	17.40	153.01	21.97	0.5000	SCS_Rain
SubCatch_JOHNSON_HEIGHTS TRMB02016-S	2.75	475.00	51.81	2.0000	SCS_Rain
SubCatch_LATHAM_ST TRMB05031-S	2.61	313.00	35.50	2.0000	SCS_Rain
SubCatch_N_ELM_ST TRMB02023-S	2.91	503.00	36.98	2.0000	SCS_Rain
SubCatch_N_ELM_ST_1 TRMB02002-S	2.36	408.00	17.68	2.0000	SCS_Rain
SubCatch_N_ELM_ST_2 TRMB02009-S	7.64	1321.00	46.59	2.0000	SCS_Rain
SubCatch_N_HARDING_ST TRMB03031-S	2.29	427.00	26.13	2.0000	SCS_Rain
SubCatch_N_HARDING_ST_1 TRMB03025-S	1.53	285.00	41.63	2.0000	SCS_Rain



## Existing Conditions (10-Year)

SubCatch_N_HARDING_ST_2 TRMB03044-S	2.98	555.00	36.35	2.0000	SCS_Rain
SubCatch_N_JARVIS_ST TRMB03132-S	3.10	258.00	43.62	2.0000	SCS_Rain
SubCatch_N_LIBRARY_ST TRMB03055-S	2.70	503.00	40.77	2.0000	SCS_Rain
SubCatch_N_MEMORIAL_DR PCTB02294-S	17.70	155.66	9.73	0.5000	SCS_Rain
SubCatch_N_OAK_ST TRMB02044_DS-S	8.35	1046.00	49.49	2.0000	SCS_Rain
SubCatch_N_OAK_ST_1 TRMB02022-S	0.69	119.00	51.65	2.0000	SCS_Rain
SubCatch_N_OAK_ST_2 TRMB02018-S	3.01	520.00	43.48	2.0000	SCS_Rain
SubCatch_N_SUMMIT_ST TRMB03067-S	0.25	21.00	19.14	2.0000	SCS_Rain
SubCatch_N_SUMMIT_ST_1 TRMB03068-S	4.73	394.00	41.66	2.0000	SCS_Rain
SubCatch_PARK_DR TRMB03032-S	1.43	266.00	15.62	2.0000	SCS_Rain
SubCatch_RIVER_DR TRMB03016	4.38	816.00	29.82	2.0000	SCS_Rain
SubCatch_S_ELM_ST TRMB02035-S	6.41	1108.00	41.57	2.0000	SCS_Rain
SubCatch_S_ELM_ST_1 TRMB02068-S	2.60	449.00	42.97	2.0000	SCS_Rain
SubCatch_S_HARDING_ST TRMB03042-S	4.55	848.00	36.94	2.0000	SCS_Rain
SubCatch_S_LIBRARY_ST TRMB03063-S	4.77	889.00	36.14	2.0000	SCS_Rain
SubCatch_S_OAK_ST TRMB02067-S	1.83	316.00	37.25	2.0000	SCS_Rain
SubCatch_S_OAK_ST_1 TRMB02060-S	1.21	209.00	39.18	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV TRMB03103-S	4.53	378.00	53.50	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_1 TRMB03037-S	4.43	825.00	43.91	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_2 TRMB03092-S	1.84	153.00	36.90	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_3 TRMB03091-S	0.78	65.00	38.29	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_5 TRMB03091-S	0.64	53.00	16.23	2.0000	SCS_Rain
SubCatch_S_WOODLAWN_AV TRMB03092-S	0.93	78.00	39.14	2.0000	SCS_Rain
SubCatch_SPRUCE_ST TRMB04089-S	49.16	1680.00	0.00	2.0000	SCS_Rain
SubCatch_STATON_HOUSE_RD JMTB01003-S	31.58	277.73	20.02	0.5000	SCS_Rain
SubCatch_STUDENT_ST TRMB03111-S	5.72	477.00	52.36	2.0000	SCS_Rain
SubCatch_TRENT_CI PCTB02001-S	10.13	89.12	11.29	0.5000	SCS_Rain
SubCatch_TRENT_CI_1 PCTB02304-S	28.21	248.13	18.68	0.5000	SCS_Rain
SubCatch_VANCE_2 TRMB04089-S	2.88	346.00	37.50	2.0000	SCS_Rain
SubCatch_VANCE_ST_1 TRMB05020-S	0.03	4.00	77.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_2 TRMB05025-S	0.32	38.00	32.06	2.0000	SCS_Rain

## Existing Conditions (10-Year)

SubCatch_VANCE_ST_3 TRMB05017_US-S	1.15	138.00	49.80	2.0000	SCS_Rain
SubCatch_VANCE_ST_4 TRMB05014-S	1.19	143.00	38.75	2.0000	SCS_Rain
SubCatch_VANCE_ST_5 TRMB05005-S	1.19	143.00	34.77	2.0000	SCS_Rain
SubCatch_VANCE_ST_6 TRMB05027-S	0.23	28.00	51.78	2.0000	SCS_Rain
SubCatch_VANCE_ST_7 TRMB05004-S	0.28	34.00	29.92	2.0000	SCS_Rain
SubCatch_W_3RD_ST TRMB05015-S	0.01	1.00	86.79	2.0000	SCS_Rain
SubCatch_W_3RD_ST_1 TRMB05035-S	0.02	2.00	84.81	2.0000	SCS_Rain
SubCatch_W_3RD_ST_2 TRMB05036-S	0.29	29.00	54.15	2.0000	SCS_Rain
SubCatch_W_3RD_ST_3 TRMB05037-S	1.04	104.00	42.19	2.0000	SCS_Rain
SubCatch_W_3RD_ST_5 TRMB05029-S	0.75	90.00	32.88	2.0000	SCS_Rain
SubCatch_W_3RD_ST_6 TRMB05013-S	0.42	50.00	58.84	2.0000	SCS_Rain
SubCatch_W_3RD_ST_7 TRMB05023-S	0.17	20.00	54.76	2.0000	SCS_Rain
SubCatch_W_3RD_ST_8 TRMB05022-S	0.48	58.00	39.10	2.0000	SCS_Rain
SubCatch_W_3RD_ST_9 TRMB05045-S	1.40	340.00	0.00	2.0000	SCS_Rain
SubCatch_W_4TH_ST TRMB04265-S	0.80	96.00	35.46	2.0000	SCS_Rain
SubCatch_W_4TH_ST_2 TRMB05032-S	0.68	82.00	50.66	2.0000	SCS_Rain
SubCatch_W_5th_ST TRMB04089-S	8.56	1027.00	55.61	2.0000	SCS_Rain
SubCatch_WILLOW_ST TRMB03016	2.14	399.00	12.38	2.0000	SCS_Rain
SubCatch_WILLOW_ST_1 TRMB03027	0.42	78.00	44.87	2.0000	SCS_Rain
SubCatch_WILSONACRES_APT TRMB02044_DS-S	6.11	1056.00	50.07	2.0000	SCS_Rain
SubCatch_WOODSIDE_RD PCTB02292-S	21.82	191.89	17.45	0.5000	SCS_Rain
SubCatch_WOODSIDE_RD_1 PCTB02297-S	11.34	99.76	12.60	0.5000	SCS_Rain
SubInsert PCTB02189-S	16.40	144.20	51.53	0.5000	SCS_Rain

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Node Summary  
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Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
CountrySideE_Ditch_Culvert_In	JUNCTION		21.65	5.85	0.0
CountrySideE_Ditch_Culvert_In-S	JUNCTION		27.50	0.75	0.0
JMTB01003	JUNCTION	25.02	2.50	0.0	
JMTB01003-S	JUNCTION	27.02	0.75	0.0	
JMTB01004	JUNCTION	25.07	2.52	0.0	
JMTB01004-S	JUNCTION	27.59	0.75	0.0	
JMTB01005	JUNCTION	25.28	2.01	0.0	
JMTB01005-S	JUNCTION	27.29	0.75	0.0	

## Existing Conditions (10-Year)

JMTB01006	JUNCTION	24.59	2.00	0.0
JMTB01006-S	JUNCTION	26.54	0.75	0.0
JMTB01102	JUNCTION	26.59	2.47	0.0
JMTB01102-S	JUNCTION	29.06	0.75	0.0
JMTB01103	JUNCTION	26.42	3.15	0.0
JMTB01103-S	JUNCTION	29.57	0.75	0.0
JMTB01104	JUNCTION	26.63	3.11	0.0
JMTB01104-S	JUNCTION	29.74	0.75	0.0
JMTB01105	JUNCTION	26.03	2.50	0.0
JMTB01105-S	JUNCTION	27.81	0.75	0.0
PCTB01068	JUNCTION	19.35	6.01	0.0
PCTB01068_US	JUNCTION	20.00	5.30	0.0
PCTB01068_US-S	JUNCTION	25.30	0.75	0.0
PCTB01068-S	JUNCTION	25.36	0.75	0.0
PCTB02001	JUNCTION	21.78	2.10	0.0
PCTB02001-S	JUNCTION	23.38	0.75	0.0
PCTB02002	JUNCTION	21.99	2.26	0.0
PCTB02002-S	JUNCTION	24.25	0.75	0.0
PCTB02003	JUNCTION	23.98	2.25	0.0
PCTB02003-S	JUNCTION	26.23	0.75	0.0
PCTB02004	JUNCTION	24.16	4.00	0.0
PCTB02004-S	JUNCTION	26.41	0.75	0.0
PCTB02005	JUNCTION	24.40	4.00	0.0
PCTB02008	JUNCTION	21.64	4.00	0.0
PCTB02011	JUNCTION	21.86	4.90	0.0
PCTB02011-S	JUNCTION	26.76	0.75	0.0
PCTB02012	JUNCTION	21.62	4.44	0.0
PCTB02012-S	JUNCTION	26.06	0.75	0.0
PCTB02014	JUNCTION	20.70	3.50	0.0
PCTB02014-S	JUNCTION	23.23	0.75	0.0
PCTB02015	JUNCTION	20.97	3.00	0.0
PCTB02015-S	JUNCTION	23.64	0.75	0.0
PCTB02016	JUNCTION	24.23	1.65	0.0
PCTB02016-S	JUNCTION	25.88	0.75	0.0
PCTB02017	JUNCTION	23.99	1.90	0.0
PCTB02017-S	JUNCTION	25.89	0.75	0.0
PCTB02022	JUNCTION	22.32	2.44	0.0
PCTB02022-S	JUNCTION	24.76	0.75	0.0
PCTB02023	JUNCTION	22.35	2.37	0.0
PCTB02023-S	JUNCTION	24.72	0.75	0.0
PCTB02075	JUNCTION	17.22	7.05	0.0
PCTB02076	JUNCTION	17.71	7.00	0.0
PCTB02080	JUNCTION	16.83	7.65	0.0
PCTB02159	JUNCTION	18.00	7.00	0.0
PCTB02160	JUNCTION	17.99	9.00	0.0
PCTB02189	JUNCTION	19.57	4.19	0.0
PCTB02189-S	JUNCTION	23.76	0.75	0.0
PCTB02191	JUNCTION	18.41	4.59	0.0
PCTB02191_DS	JUNCTION	17.20	10.00	0.0
PCTB02191_DS-S	JUNCTION	22.20	0.75	0.0
PCTB02191-S	JUNCTION	23.00	0.75	0.0
PCTB02207	JUNCTION	20.62	4.00	0.0
PCTB02207-S	JUNCTION	24.62	0.75	0.0
PCTB02209	JUNCTION	21.08	4.00	0.0
PCTB02209-S	JUNCTION	25.08	0.75	0.0
PCTB02220	JUNCTION	18.55	9.00	0.0
PCTB02229	JUNCTION	18.88	9.00	0.0
PCTB02229-S	JUNCTION	24.52	0.75	0.0
PCTB02231	JUNCTION	19.10	5.70	0.0
PCTB02231-S	JUNCTION	24.80	0.75	0.0
PCTB02233	JUNCTION	25.41	27.21	0.0
PCTB02235	JUNCTION	19.85	5.55	0.0

## Existing Conditions (10-Year)

PCTB02235-S	JUNCTION	25.40	0.75	0.0
PCTB02237	JUNCTION	20.03	5.55	0.0
PCTB02237-S	JUNCTION	25.58	0.75	0.0
PCTB02257	JUNCTION	21.36	5.60	0.0
PCTB02257_1	JUNCTION	21.36	5.40	0.0
PCTB02257_1-S	JUNCTION	26.76	0.75	0.0
PCTB02257-S	JUNCTION	26.96	0.75	0.0
PCTB02260	JUNCTION	21.38	4.55	0.0
PCTB02260-S	JUNCTION	25.93	0.75	0.0
PCTB02262	JUNCTION	21.28	4.50	0.0
PCTB02262-S	JUNCTION	25.78	0.75	0.0
PCTB02275	JUNCTION	21.45	4.10	0.0
PCTB02275-S	JUNCTION	25.55	0.75	0.0
PCTB02276	JUNCTION	21.52	4.60	0.0
PCTB02276-S	JUNCTION	26.12	0.75	0.0
PCTB02278	JUNCTION	22.24	4.00	0.0
PCTB02278-S	JUNCTION	24.64	0.75	0.0
PCTB02280	JUNCTION	18.89	3.69	0.0
PCTB02280-S	JUNCTION	22.58	0.75	0.0
PCTB02281	JUNCTION	19.16	3.61	0.0
PCTB02281-S	JUNCTION	22.77	0.75	0.0
PCTB02282	JUNCTION	19.76	5.39	0.0
PCTB02282-S	JUNCTION	25.15	0.75	0.0
PCTB02283	JUNCTION	19.92	2.95	0.0
PCTB02283-S	JUNCTION	22.87	0.75	0.0
PCTB02284	JUNCTION	20.26	2.92	0.0
PCTB02284-S	JUNCTION	23.18	0.75	0.0
PCTB02292	JUNCTION	18.00	7.50	0.0
PCTB02292-S	JUNCTION	23.00	0.75	0.0
PCTB02294	JUNCTION	17.67	7.50	0.0
PCTB02294-S	JUNCTION	22.67	0.75	0.0
PCTB02295	JUNCTION	17.24	10.00	0.0
PCTB02295-S	JUNCTION	22.24	0.75	0.0
PCTB02297	JUNCTION	20.41	2.90	0.0
PCTB02297-S	JUNCTION	23.31	0.75	0.0
PCTB02302	JUNCTION	18.34	6.00	0.0
PCTB02302-S	JUNCTION	23.34	0.75	0.0
PCTB02303	JUNCTION	18.13	7.12	0.0
PCTB02303-S	JUNCTION	25.25	0.75	0.0
PCTB02304	JUNCTION	18.37	5.23	0.0
PCTB02304-S	JUNCTION	23.60	0.75	0.0
PCTB02312	JUNCTION	18.25	6.00	0.0
PCTB02312-S	JUNCTION	23.25	0.75	0.0
PCTB02329	JUNCTION	22.16	2.07	0.0
PCTB02329-S	JUNCTION	24.23	0.75	0.0
PCTB02330	JUNCTION	22.30	3.12	0.0
PCTB02330-S	JUNCTION	25.42	0.75	0.0
PCTB02331	JUNCTION	22.22	2.82	0.0
PCTB02331-S	JUNCTION	25.04	0.75	0.0
PCTB02332	JUNCTION	22.20	3.47	0.0
PCTB02332-S	JUNCTION	25.67	0.75	0.0
TRMB02002	JUNCTION	5.55	10.66	0.0
TRMB02002-S	JUNCTION	16.21	0.75	0.0
TRMB02003	JUNCTION	2.88	9.70	0.0
TRMB02003-S	JUNCTION	12.58	0.75	0.0
TRMB02006	JUNCTION	8.60	9.30	0.0
TRMB02006-S	JUNCTION	17.90	0.75	0.0
TRMB02009	JUNCTION	17.27	9.55	0.0
TRMB02009-S	JUNCTION	26.82	0.75	0.0
TRMB02012	JUNCTION	19.50	7.30	0.0
TRMB02012-S	JUNCTION	26.80	0.75	0.0
TRMB02015	JUNCTION	21.05	4.09	0.0

## Existing Conditions (10-Year)

TRMB02015-S	JUNCTION	25.14	0.75	0.0
TRMB02016	JUNCTION	21.14	4.08	0.0
TRMB02016-S	JUNCTION	25.22	0.75	0.0
TRMB02018	JUNCTION	22.91	5.75	0.0
TRMB02018-S	JUNCTION	28.66	0.75	0.0
TRMB02022	JUNCTION	23.78	4.78	0.0
TRMB02022-S	JUNCTION	28.56	0.75	0.0
TRMB02023	JUNCTION	26.02	3.17	0.0
TRMB02023-S	JUNCTION	29.19	0.75	0.0
TRMB02030	JUNCTION	26.92	2.30	0.0
TRMB02030-S	JUNCTION	29.22	0.75	0.0
TRMB02032	JUNCTION	29.04	4.64	0.0
TRMB02032-S	JUNCTION	33.68	0.75	0.0
TRMB02033	JUNCTION	29.82	3.92	0.0
TRMB02033-S	JUNCTION	33.74	0.75	0.0
TRMB02034	JUNCTION	30.95	3.38	0.0
TRMB02034-S	JUNCTION	34.33	0.75	0.0
TRMB02035	JUNCTION	34.22	2.12	0.0
TRMB02035-S	JUNCTION	36.34	0.75	0.0
TRMB02044	JUNCTION	30.90	6.20	0.0
TRMB02044_DS	JUNCTION	24.15	8.87	0.0
TRMB02044_DS-S	JUNCTION	33.02	0.75	0.0
TRMB02044-S	JUNCTION	37.10	0.75	0.0
TRMB02045	JUNCTION	30.78	5.96	0.0
TRMB02045-S	JUNCTION	36.74	0.75	0.0
TRMB02046	JUNCTION	33.03	3.60	0.0
TRMB02046-S	JUNCTION	36.63	0.75	0.0
TRMB02047	JUNCTION	34.19	2.57	0.0
TRMB02047-S	JUNCTION	36.76	0.75	0.0
TRMB02048	JUNCTION	35.97	3.28	0.0
TRMB02048-S	JUNCTION	39.25	0.75	0.0
TRMB02049	JUNCTION	36.55	2.79	0.0
TRMB02049-S	JUNCTION	39.34	0.75	0.0
TRMB02050	JUNCTION	30.87	5.15	0.0
TRMB02050-S	JUNCTION	36.02	0.75	0.0
TRMB02051	JUNCTION	31.09	3.81	0.0
TRMB02051-S	JUNCTION	34.90	0.75	0.0
TRMB02052	JUNCTION	31.25	3.55	0.0
TRMB02052-S	JUNCTION	34.80	0.75	0.0
TRMB02056	JUNCTION	31.41	3.79	0.0
TRMB02056-S	JUNCTION	35.20	0.75	0.0
TRMB02057	JUNCTION	31.54	3.80	0.0
TRMB02057-S	JUNCTION	35.34	0.75	0.0
TRMB02060	JUNCTION	34.30	6.94	0.0
TRMB02060-S	JUNCTION	41.24	0.75	0.0
TRMB02063	JUNCTION	40.17	3.50	0.0
TRMB02063-S	JUNCTION	43.67	0.75	0.0
TRMB02064	JUNCTION	41.04	3.52	0.0
TRMB02064-S	JUNCTION	44.56	0.75	0.0
TRMB02067	JUNCTION	41.26	4.94	0.0
TRMB02067-S	JUNCTION	46.20	0.75	0.0
TRMB02068	JUNCTION	42.12	6.54	0.0
TRMB02068-S	JUNCTION	48.66	0.75	0.0
TRMB02069	JUNCTION	42.57	6.83	0.0
TRMB02069-S	JUNCTION	49.40	0.75	0.0
TRMB02070	JUNCTION	42.72	6.88	0.0
TRMB02070-S	JUNCTION	49.60	0.75	0.0
TRMB03016	JUNCTION	7.94	6.94	0.0
TRMB03016-S	JUNCTION	14.88	0.00	0.0
TRMB03022	JUNCTION	9.90	2.89	0.0
TRMB03022-S	JUNCTION	12.57	0.75	0.0
TRMB03025	JUNCTION	12.79	6.80	0.0

## Existing Conditions (10-Year)

TRMB03025-S	JUNCTION	19.59	0.75	0.0
TRMB03026	JUNCTION	15.11	1.00	0.0
TRMB03027	JUNCTION	15.45	2.96	0.0
TRMB03028	JUNCTION	12.78	7.31	0.0
TRMB03028-S	JUNCTION	20.09	0.75	0.0
TRMB03029	JUNCTION	13.78	5.35	0.0
TRMB03029-S	JUNCTION	19.13	0.75	0.0
TRMB03030	JUNCTION	14.88	6.00	0.0
TRMB03030-S	JUNCTION	19.95	0.75	0.0
TRMB03031	JUNCTION	17.87	8.21	0.0
TRMB03031-S	JUNCTION	26.08	0.75	0.0
TRMB03032	JUNCTION	21.26	7.36	0.0
TRMB03032-S	JUNCTION	28.62	0.75	0.0
TRMB03033	JUNCTION	27.53	2.68	0.0
TRMB03033-S	JUNCTION	30.21	0.75	0.0
TRMB03034	JUNCTION	27.34	3.02	0.0
TRMB03034-S	JUNCTION	30.36	0.75	0.0
TRMB03035	JUNCTION	25.87	3.41	0.0
TRMB03035-S	JUNCTION	29.28	0.75	0.0
TRMB03036	JUNCTION	21.73	7.55	0.0
TRMB03036-S	JUNCTION	29.28	0.75	0.0
TRMB03037	JUNCTION	27.75	2.92	0.0
TRMB03037-S	JUNCTION	30.67	0.75	0.0
TRMB03038	JUNCTION	26.54	3.86	0.0
TRMB03038-S	JUNCTION	30.40	0.75	0.0
TRMB03039	JUNCTION	23.34	6.56	0.0
TRMB03039-S	JUNCTION	29.90	0.75	0.0
TRMB03042	JUNCTION	35.90	4.77	0.0
TRMB03042-S	JUNCTION	40.67	0.75	0.0
TRMB03043	JUNCTION	24.32	4.27	0.0
TRMB03043-S	JUNCTION	28.59	0.75	0.0
TRMB03044	JUNCTION	25.42	3.12	0.0
TRMB03044-S	JUNCTION	28.54	0.75	0.0
TRMB03049	JUNCTION	24.75	4.47	0.0
TRMB03049-S	JUNCTION	29.22	0.75	0.0
TRMB03051	JUNCTION	25.33	2.81	0.0
TRMB03051-S	JUNCTION	28.14	0.75	0.0
TRMB03052	JUNCTION	27.03	1.33	0.0
TRMB03052-S	JUNCTION	28.36	0.75	0.0
TRMB03054	JUNCTION	25.44	2.93	0.0
TRMB03054-S	JUNCTION	28.37	0.75	0.0
TRMB03055	JUNCTION	25.50	2.72	0.0
TRMB03055-S	JUNCTION	28.22	0.75	0.0
TRMB03063	JUNCTION	28.00	3.07	0.0
TRMB03063-S	JUNCTION	31.07	0.75	0.0
TRMB03065	JUNCTION	2.53	11.47	0.0
TRMB03065-S	JUNCTION	14.00	0.75	0.0
TRMB03067	JUNCTION	18.14	2.51	0.0
TRMB03067-S	JUNCTION	20.65	0.75	0.0
TRMB03068	JUNCTION	4.83	10.55	0.0
TRMB03068-S	JUNCTION	15.38	0.75	0.0
TRMB03069	JUNCTION	3.40	10.83	0.0
TRMB03069-S	JUNCTION	14.23	0.75	0.0
TRMB03070	JUNCTION	4.58	9.56	0.0
TRMB03070-S	JUNCTION	14.14	0.75	0.0
TRMB03072	JUNCTION	8.98	9.12	0.0
TRMB03072-S	JUNCTION	18.10	0.75	0.0
TRMB03073	JUNCTION	16.56	2.83	0.0
TRMB03073-S	JUNCTION	19.39	0.75	0.0
TRMB03083	JUNCTION	9.78	8.84	0.0
TRMB03083-S	JUNCTION	18.62	0.75	0.0
TRMB03084	JUNCTION	9.00	8.95	0.0

## Existing Conditions (10-Year)

TRMB03084-S	JUNCTION	17.95	0.75	0.0
TRMB03087	JUNCTION	9.90	6.37	0.0
TRMB03087-S	JUNCTION	16.27	0.75	0.0
TRMB03088	JUNCTION	21.54	8.31	0.0
TRMB03088-S	JUNCTION	29.85	0.75	0.0
TRMB03089	JUNCTION	22.54	7.28	0.0
TRMB03089-S	JUNCTION	29.82	0.75	0.0
TRMB03090	JUNCTION	22.36	6.58	0.0
TRMB03090-S	JUNCTION	28.94	0.75	0.0
TRMB03091	JUNCTION	26.44	7.38	0.0
TRMB03091-S	JUNCTION	33.82	0.75	0.0
TRMB03092	JUNCTION	29.88	1.79	0.0
TRMB03092-S	JUNCTION	31.67	0.75	0.0
TRMB03094	JUNCTION	28.09	6.83	0.0
TRMB03094-S	JUNCTION	34.92	0.75	0.0
TRMB03095	JUNCTION	32.05	2.87	0.0
TRMB03095-S	JUNCTION	34.92	0.75	0.0
TRMB03096	JUNCTION	28.15	8.21	0.0
TRMB03096-S	JUNCTION	36.36	0.75	0.0
TRMB03097	JUNCTION	34.36	5.92	0.0
TRMB03097-S	JUNCTION	40.28	0.75	0.0
TRMB03101	JUNCTION	32.50	4.70	0.0
TRMB03101-S	JUNCTION	37.20	0.75	0.0
TRMB03102	JUNCTION	29.27	8.41	0.0
TRMB03102-S	JUNCTION	37.68	0.75	0.0
TRMB03103	JUNCTION	33.01	8.03	0.0
TRMB03103-S	JUNCTION	41.04	0.75	0.0
TRMB03111	JUNCTION	35.20	7.03	0.0
TRMB03111-S	JUNCTION	42.23	0.75	0.0
TRMB03132	JUNCTION	13.00	10.67	0.0
TRMB03132-S	JUNCTION	23.67	0.75	0.0
TRMB04089	JUNCTION	47.97	12.80	0.0
TRMB04089-S	JUNCTION	60.77	0.75	0.0
TRMB04265-S	JUNCTION	59.86	0.00	0.0
TRMB05002	JUNCTION	38.19	5.75	0.0
TRMB05002-S	JUNCTION	43.94	0.75	0.0
TRMB05003	JUNCTION	39.42	7.80	0.0
TRMB05003-S	JUNCTION	47.22	0.75	0.0
TRMB05004	JUNCTION	39.50	6.99	0.0
TRMB05004-S	JUNCTION	46.49	0.75	0.0
TRMB05005	JUNCTION	40.00	8.14	0.0
TRMB05005-S	JUNCTION	48.14	0.75	0.0
TRMB05006	JUNCTION	40.76	8.60	0.0
TRMB05006-S	JUNCTION	49.36	0.75	0.0
TRMB05008	JUNCTION	43.68	3.90	0.0
TRMB05008-S	JUNCTION	47.58	0.75	0.0
TRMB05009	JUNCTION	45.01	6.50	0.0
TRMB05009_DS	JUNCTION	43.83	7.09	0.0
TRMB05009_DS-S	JUNCTION	50.92	0.75	0.0
TRMB05009-S	JUNCTION	51.51	0.75	0.0
TRMB05010	JUNCTION	46.18	3.05	0.0
TRMB05010-S	JUNCTION	49.23	0.75	0.0
TRMB05011	JUNCTION	46.91	2.90	0.0
TRMB05011-S	JUNCTION	49.81	0.75	0.0
TRMB05012	JUNCTION	46.81	2.90	0.0
TRMB05012-S	JUNCTION	49.71	0.75	0.0
TRMB05013	JUNCTION	48.96	2.10	0.0
TRMB05013-S	JUNCTION	51.06	0.75	0.0
TRMB05014	JUNCTION	48.61	2.60	0.0
TRMB05014-S	JUNCTION	51.21	0.75	0.0
TRMB05015	JUNCTION	46.05	8.60	0.0
TRMB05015-S	JUNCTION	54.65	0.75	0.0

## Existing Conditions (10-Year)

TRMB05016	JUNCTION	50.41	4.00	0.0
TRMB05016-S	JUNCTION	54.41	0.75	0.0
TRMB05017	JUNCTION	46.23	9.45	0.0
TRMB05017_US	JUNCTION	47.08	11.09	0.0
TRMB05017_US-S	JUNCTION	58.17	0.75	0.0
TRMB05017-S	JUNCTION	55.68	0.75	0.0
TRMB05018	JUNCTION	50.34	4.15	0.0
TRMB05018-S	JUNCTION	54.49	0.75	0.0
TRMB05019	JUNCTION	50.62	3.50	0.0
TRMB05019-S	JUNCTION	54.12	0.75	0.0
TRMB05020	JUNCTION	50.78	3.50	0.0
TRMB05020-S	JUNCTION	54.28	0.75	0.0
TRMB05021	JUNCTION	51.47	3.20	0.0
TRMB05021-S	JUNCTION	54.67	0.75	0.0
TRMB05022	JUNCTION	50.10	4.30	0.0
TRMB05022-S	JUNCTION	54.40	0.75	0.0
TRMB05023	JUNCTION	51.41	1.25	0.0
TRMB05023-S	JUNCTION	51.41	0.75	0.0
TRMB05025	JUNCTION	53.20	2.00	0.0
TRMB05025-S	JUNCTION	55.20	0.75	0.0
TRMB05026	JUNCTION	50.05	2.65	0.0
TRMB05026-S	JUNCTION	52.70	0.75	0.0
TRMB05027	JUNCTION	52.70	2.04	0.0
TRMB05027-S	JUNCTION	54.74	0.75	0.0
TRMB05028	JUNCTION	51.94	3.50	0.0
TRMB05028-S	JUNCTION	55.44	0.75	0.0
TRMB05029	JUNCTION	51.62	3.20	0.0
TRMB05029-S	JUNCTION	54.82	0.75	0.0
TRMB05030	JUNCTION	52.44	2.75	0.0
TRMB05030-S	JUNCTION	55.19	0.75	0.0
TRMB05031	JUNCTION	53.30	2.02	0.0
TRMB05031-S	JUNCTION	55.32	0.75	0.0
TRMB05032	JUNCTION	52.96	2.40	0.0
TRMB05032-S	JUNCTION	55.36	0.75	0.0
TRMB05033	JUNCTION	52.44	2.75	0.0
TRMB05033-S	JUNCTION	55.19	0.75	0.0
TRMB05034	JUNCTION	53.11	2.40	0.0
TRMB05034-S	JUNCTION	55.51	0.75	0.0
TRMB05035	JUNCTION	52.75	3.10	0.0
TRMB05035-S	JUNCTION	55.85	0.75	0.0
TRMB05036	JUNCTION	53.15	2.35	0.0
TRMB05036-S	JUNCTION	55.50	0.75	0.0
TRMB05037	JUNCTION	54.00	1.70	0.0
TRMB05037-S	JUNCTION	55.70	0.75	0.0
TRMB05038	JUNCTION	53.35	2.35	0.0
TRMB05038-S	JUNCTION	55.70	0.75	0.0
TRMB05039	JUNCTION	53.50	2.02	0.0
TRMB05039-S	JUNCTION	55.52	0.75	0.0
TRMB05040	JUNCTION	48.84	7.05	0.0
TRMB05040-S	JUNCTION	55.89	0.75	0.0
TRMB05041	JUNCTION	46.90	5.35	0.0
TRMB05041-S	JUNCTION	52.25	0.75	0.0
TRMB05042	JUNCTION	49.69	2.65	0.0
TRMB05042-S	JUNCTION	52.34	0.75	0.0
TRMB05043	JUNCTION	46.37	6.49	0.0
TRMB05043-S	JUNCTION	52.86	0.75	0.0
TRMB05044	JUNCTION	47.57	3.55	0.0
TRMB05044-S	JUNCTION	51.12	0.75	0.0
TRMB05045	JUNCTION	46.68	5.80	0.0
TRMB05045-S	JUNCTION	52.48	0.75	0.0
TRMB05046	JUNCTION	43.27	4.40	0.0
TRMB05046-S	JUNCTION	47.67	0.75	0.0



# Existing Conditions (10-Year)

TRMB05047	JUNCTION	41.52	1.50	0.0
TRMB05048	JUNCTION	42.82	5.46	0.0
TRMB05048-S	JUNCTION	48.28	0.75	0.0
PCTB01066	OUTFALL	17.98	3.00	0.0
PCTB02009	OUTFALL	21.77	3.00	0.0
PCTB02081	OUTFALL	16.83	6.70	0.0
TRMB02001	OUTFALL	-0.35	3.00	0.0
TRMB03012	OUTFALL	7.18	2.50	0.0
TRMB03066	OUTFALL	0.00	3.00	0.0
TRMB05001	OUTFALL	23.60	3.50	0.0

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Link Summary  
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Name	From Node	To Node	Type	Length	%Slope
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C1	PCTB02159	PCTB02076	CONDUIT	86.8	0.3340
0.0150					
C14	PCTB02329	PCTB02002	CONDUIT	27.5	0.6177
0.0200					
C2_1	PCTB02191	PCTB02191_DS	CONDUIT	20.7	5.8640
0.0150					
C2_1-S	PCTB02191-S	PCTB02191_DS-S	CONDUIT	20.7	3.8732
0.0140					
C2_2	PCTB02191_DS	PCTB02080	CONDUIT	619.3	0.0355
0.0200					
C3	PCTB02280-S	PCTB02282-S	CONDUIT	309.1	-0.8314
0.0140					
C9	TRMB05043	TRMB05009_DS	CONDUIT	14.1	18.3407
0.0150					
C9-S	TRMB05043-S	TRMB05009_DS-S	CONDUIT	14.1	13.9111
0.0140					
CountrySideE_Ditch	JMTB01006	CountrySideE_Ditch_Culvert_In	CONDUIT		
3616.4	0.0812	0.0200			
CountrySideE_Ditch_Culvert	CountrySideE_Ditch_Culvert_In	PCTB02257	CONDUIT		
106.3	0.1411	0.0150			
CountrySideE_Ditch_Culvert-S	CountrySideE_Ditch_Culvert_In-S	PCTB02257-S	CONDUIT		
106.3	0.5079	0.0140			
JMTB01003	JMTB01003	JMTB01004	CONDUIT	9.3	-0.5460
0.0150					
JMTB01003-S	JMTB01003-S	JMTB01004-S	CONDUIT	9.3	-6.1142
0.0140					
JMTB01004	JMTB01004	JMTB01005	CONDUIT	38.6	-0.5419
0.0130					
JMTB01004-S	JMTB01004-S	JMTB01005-S	CONDUIT	38.6	0.7778
0.0140					
JMTB01005	JMTB01005	JMTB01006	CONDUIT	338.1	0.2050
0.0130					
JMTB01005-S	JMTB01005-S	JMTB01006-S	CONDUIT	338.1	0.2227
0.0140					
JMTB01102	JMTB01102	JMTB01103	CONDUIT	20.3	0.8358
0.0130					
JMTB01102-S	JMTB01102-S	JMTB01103-S	CONDUIT	20.3	-2.5082
0.0140					
JMTB01103	JMTB01103	JMTB01105	CONDUIT	164.6	0.2369
0.0130					
JMTB01103_1	JMTB01105	JMTB01003	CONDUIT	299.1	0.3376
0.0200					

## Existing Conditions (10-Year)

JMTB01103-S 0.0140	JMTB01103-S	JMTB01105-S	CONDUIT	164.6	1.0693
JMTB01104 0.0130	JMTB01104	JMTB01103	CONDUIT	21.3	0.9864
JMTB01104-S 0.0140	JMTB01104-S	JMTB01103-S	CONDUIT	21.3	0.7985
PCTB01068 0.0150	PCTB01068	PCTB01066	CONDUIT	512.6	0.2675
PCTB01068_US 0.0150	PCTB01068_US	PCTB01068	CONDUIT	220.6	0.2947
PCTB01068_US-S 0.0140	PCTB01068_US-S	PCTB01068-S	CONDUIT	220.6	-0.0272
PCTB02001 0.0200	PCTB02001	PCTB02015	CONDUIT	924.6	0.0876
PCTB02002 0.0130	PCTB02002	PCTB02001	CONDUIT	48.2	0.4357
PCTB02002-S 0.0140	PCTB02002-S	PCTB02001-S	CONDUIT	48.2	1.8053
PCTB02003 0.0150	PCTB02003	PCTB02004	CONDUIT	63.9	-0.2816
PCTB02003-S 0.0140	PCTB02003-S	PCTB02004-S	CONDUIT	63.9	-0.2816
PCTB02008 0.0150	PCTB02008	PCTB02009	CONDUIT	87.0	-0.1471
PCTB02011 0.0130	PCTB02012	PCTB02011	CONDUIT	28.6	-0.8404
PCTB02011_1 0.0200	PCTB02011	PCTB02008	CONDUIT	306.7	0.0717
PCTB02011-S 0.0140	PCTB02012-S	PCTB02011-S	CONDUIT	28.6	-2.4517
PCTB02014 0.0130	PCTB02015	PCTB02014	CONDUIT	28.1	0.9612
PCTB02014_1 0.0200	PCTB02014	PCTB02012	CONDUIT	793.0	-0.1160
PCTB02014-S 0.0140	PCTB02015-S	PCTB02014-S	CONDUIT	28.1	1.4597
PCTB02016 0.0150	PCTB02016	PCTB02017	CONDUIT	31.9	0.7513
PCTB02016-S 0.0140	PCTB02016-S	PCTB02017-S	CONDUIT	31.9	-0.0313
PCTB02020 0.0100	PCTB02005	PCTB02016	CONDUIT	261.2	0.0383
PCTB02021 0.0100	PCTB02017	PCTB02003	CONDUIT	302.9	0.0033
PCTB02022 0.0150	PCTB02022	PCTB02023	CONDUIT	32.9	-0.0912
PCTB02022-S 0.0140	PCTB02022-S	PCTB02023-S	CONDUIT	32.9	0.1216
PCTB02023 0.0150	PCTB02023	PCTB02332	CONDUIT	127.2	0.1179
PCTB02023-S 0.0140	PCTB02023-S	PCTB02332-S	CONDUIT	127.2	-0.7468
PCTB02076 0.0150	PCTB02076	PCTB02075	CONDUIT	113.4	0.4320
PCTB02080 0.0150	PCTB02080	PCTB02081	CONDUIT	172.5	0.0006
PCTB02160 0.0150	PCTB02160	PCTB02159	CONDUIT	71.5	-0.0140
PCTB02172 0.0100	PCTB02075	PCTB02080	CONDUIT	82.9	0.4702
PCTB02189 0.0130	PCTB02189	PCTB02191	CONDUIT	231.5	0.5010

## Existing Conditions (10-Year)

PCTB02189-S 0.0140	PCTB02189-S	PCTB02191-S	CONDUIT	231.5	0.3283
PCTB02208 0.0150	PCTB02209	PCTB02207	CONDUIT	96.0	0.4789
PCTB02208-S 0.0140	PCTB02209-S	PCTB02207-S	CONDUIT	96.0	0.4789
PCTB02231 0.0150	PCTB02231	PCTB02229	CONDUIT	282.3	0.0779
PCTB02231-S 0.0140	PCTB02231-S	PCTB02229-S	CONDUIT	282.3	0.0992
PCTB02237 0.0150	PCTB02237	PCTB02235	CONDUIT	88.8	0.2027
PCTB02237-S 0.0140	PCTB02237-S	PCTB02235-S	CONDUIT	88.8	0.2049
PCTB02239 0.0200	PCTB02233	PCTB02237	CONDUIT	348.6	1.5435
PCTB02240 0.0200	PCTB02207	PCTB02237	CONDUIT	464.7	0.1270
PCTB02259_1 0.0100	PCTB02257	PCTB02257_1	CONDUIT	35.4	0.0028
PCTB02259_2 0.0100	PCTB02257_1	PCTB02260	CONDUIT	146.5	-0.0137
PCTB02260 0.0150	PCTB02260	PCTB02262	CONDUIT	69.1	0.1447
PCTB02260-S 0.0140	PCTB02260-S	PCTB02262-S	CONDUIT	69.1	0.2171
PCTB02264 0.0100	PCTB02262	PCTB02209	CONDUIT	476.6	0.0420
PCTB02274 0.0130	PCTB02008	PCTB02005	CONDUIT	1148.4	-0.2403
PCTB02275 0.0150	PCTB02275	PCTB02257_1	CONDUIT	24.9	0.3614
PCTB02275-S 0.0140	PCTB02275-S	PCTB02257_1-S	CONDUIT	24.9	-4.8652
PCTB02276 0.0150	PCTB02276	PCTB02275	CONDUIT	593.0	0.0118
PCTB02276-S 0.0140	PCTB02276-S	PCTB02275-S	CONDUIT	593.0	0.0961
PCTB02278 0.0150	PCTB02278	PCTB02276	CONDUIT	157.0	0.4585
PCTB02278-S 0.0140	PCTB02278-S	PCTB02276-S	CONDUIT	157.0	-0.9425
PCTB02279 0.0100	PCTB02004	PCTB02278	CONDUIT	1283.9	0.1495
PCTB02280 0.0130	PCTB02280	PCTB02292	CONDUIT	147.4	0.6038
PCTB02280-S 0.0140	PCTB02280-S	PCTB02292-S	CONDUIT	147.4	-0.2849
PCTB02281 0.0130	PCTB02281	PCTB02280	CONDUIT	24.6	1.0981
PCTB02281-S 0.0140	PCTB02281-S	PCTB02280-S	CONDUIT	24.6	0.7727
PCTB02282 0.0130	PCTB02282	PCTB02312	CONDUIT	153.8	0.9820
PCTB02282-S 0.0140	PCTB02282-S	PCTB02312-S	CONDUIT	153.8	1.2357
PCTB02283 0.0130	PCTB02283	PCTB02282	CONDUIT	36.7	0.4357
PCTB02283-S 0.0140	PCTB02283-S	PCTB02282-S	CONDUIT	36.7	-6.2212
PCTB02284 0.0150	PCTB02284	PCTB02283	CONDUIT	58.2	0.5846

## Existing Conditions (10-Year)

PCTB02284-S 0.0140	PCTB02284-S	PCTB02283-S	CONDUIT	58.2	0.5330
PCTB02292 0.0200	PCTB02292	PCTB02294	CONDUIT	1086.7	0.0304
PCTB02294 0.0150	PCTB02294	PCTB02295	CONDUIT	39.6	1.0848
PCTB02294-S 0.0140	PCTB02294-S	PCTB02295-S	CONDUIT	39.6	1.0848
PCTB02295 0.0200	PCTB02295	PCTB02191_DS	CONDUIT	168.6	0.0237
PCTB02297 0.0130	PCTB02297	PCTB02281	CONDUIT	495.7	0.2522
PCTB02297-S 0.0140	PCTB02297-S	PCTB02281-S	CONDUIT	495.7	0.1089
PCTB02299 0.0100	PCTB02220	PCTB02160	CONDUIT	412.9	0.1361
PCTB02300 0.0100	PCTB02229	PCTB02220	CONDUIT	240.9	0.1362
PCTB02301 0.0100	PCTB02235	PCTB02231	CONDUIT	830.0	0.0904
PCTB02302 0.0200	PCTB02302	PCTB02312	CONDUIT	219.7	0.0410
PCTB02303 0.0150	PCTB02303	PCTB02302	CONDUIT	44.3	-0.4742
PCTB02303-S 0.0140	PCTB02303-S	PCTB02302-S	CONDUIT	44.3	4.3165
PCTB02304 0.0150	PCTB02304	PCTB02303	CONDUIT	18.8	1.2753
PCTB02304-S 0.0140	PCTB02304-S	PCTB02303-S	CONDUIT	18.8	-8.8012
PCTB02312 0.0200	PCTB02312	PCTB02292	CONDUIT	351.4	0.0711
PCTB02329 0.0150	PCTB02330	PCTB02329	CONDUIT	167.7	0.0835
PCTB02329-S 0.0140	PCTB02330-S	PCTB02329-S	CONDUIT	167.7	0.7096
PCTB02330 0.0150	PCTB02331	PCTB02330	CONDUIT	65.3	-0.1225
PCTB02330-S 0.0140	PCTB02331-S	PCTB02330-S	CONDUIT	65.3	-0.5821
PCTB02331 0.0150	PCTB02332	PCTB02331	CONDUIT	189.0	-0.0106
PCTB02331-S 0.0140	PCTB02332-S	PCTB02331-S	CONDUIT	189.0	0.3334
TRMB02002 0.0150	TRMB02002	TRMB02001	CONDUIT	187.6	3.1488
TRMB02003 0.0150	TRMB02003	TRMB02002	CONDUIT	35.5	-7.5532
TRMB02003-S 0.0140	TRMB02003-S	TRMB02002-S	CONDUIT	35.5	-10.2939
TRMB02006 0.0150	TRMB02006	TRMB02003	CONDUIT	394.8	1.4488
TRMB02006-S 0.0140	TRMB02006-S	TRMB02003-S	CONDUIT	394.8	1.3475
TRMB02009 0.0150	TRMB02009	TRMB02006	CONDUIT	238.7	3.6346
TRMB02009-S 0.0140	TRMB02009-S	TRMB02006-S	CONDUIT	238.7	3.7395
TRMB02012 0.0150	TRMB02012	TRMB02009	CONDUIT	204.7	1.0895
TRMB02012-S 0.0140	TRMB02012-S	TRMB02009-S	CONDUIT	204.7	-0.0098

## Existing Conditions (10-Year)

TRMB02015 0.0150	TRMB02015	TRMB02012	CONDUIT	183.9	0.8427
TRMB02015-S 0.0140	TRMB02015-S	TRMB02012-S	CONDUIT	183.9	-0.9026
TRMB02016 0.0150	TRMB02016	TRMB02015	CONDUIT	25.8	0.3495
TRMB02016-S 0.0140	TRMB02016-S	TRMB02015-S	CONDUIT	25.8	0.3107
TRMB02018 0.0150	TRMB02018	TRMB02016	CONDUIT	348.9	0.5073
TRMB02018-S 0.0140	TRMB02018-S	TRMB02016-S	CONDUIT	348.9	0.9860
TRMB02022 0.0150	TRMB02022	TRMB02018	CONDUIT	221.7	0.3924
TRMB02022-S 0.0140	TRMB02022-S	TRMB02018-S	CONDUIT	221.7	-0.0451
TRMB02023 0.0130	TRMB02023	TRMB02022	CONDUIT	245.0	0.9144
TRMB02023-S 0.0140	TRMB02023-S	TRMB02022-S	CONDUIT	245.0	0.2572
TRMB02030 0.0150	TRMB02030	TRMB02023	CONDUIT	74.7	1.2057
TRMB02030-S 0.0140	TRMB02030-S	TRMB02023-S	CONDUIT	74.7	0.0402
TRMB02032 0.0130	TRMB02032	TRMB02030	CONDUIT	276.7	0.7662
TRMB02032-S 0.0140	TRMB02032-S	TRMB02030-S	CONDUIT	276.7	1.6120
TRMB02033 0.0130	TRMB02033	TRMB02032	CONDUIT	31.2	2.4984
TRMB02033-S 0.0140	TRMB02033-S	TRMB02032-S	CONDUIT	31.2	0.1921
TRMB02034 0.0130	TRMB02034	TRMB02033	CONDUIT	61.5	1.8362
TRMB02034-S 0.0140	TRMB02034-S	TRMB02033-S	CONDUIT	61.5	0.9586
TRMB02035 0.0130	TRMB02035	TRMB02034	CONDUIT	146.7	2.2293
TRMB02035-S 0.0140	TRMB02035-S	TRMB02034-S	CONDUIT	146.7	1.3701
TRMB02044_1 0.0150	TRMB02044	TRMB02044_DS	CONDUIT	531.7	1.2696
TRMB02044_1-S 0.0140	TRMB02044-S	TRMB02044_DS-S	CONDUIT	531.7	0.7674
TRMB02044_2 0.0150	TRMB02044_DS	TRMB02022	CONDUIT	437.6	0.0845
TRMB02044_2-S 0.0140	TRMB02044_DS-S	TRMB02022-S	CONDUIT	437.6	1.0192
TRMB02045 0.0150	TRMB02045	TRMB02044	CONDUIT	24.4	-0.4910
TRMB02045-S 0.0140	TRMB02045-S	TRMB02044-S	CONDUIT	24.4	-1.4732
TRMB02046 0.0130	TRMB02046	TRMB02045	CONDUIT	16.0	14.2309
TRMB02046-S 0.0140	TRMB02046-S	TRMB02045-S	CONDUIT	16.0	-0.6888
TRMB02047 0.0130	TRMB02047	TRMB02046	CONDUIT	36.1	3.2158
TRMB02047-S 0.0140	TRMB02047-S	TRMB02046-S	CONDUIT	36.1	0.3602
TRMB02048 0.0130	TRMB02048	TRMB02047	CONDUIT	111.5	1.5968

## Existing Conditions (10-Year)

TRMB02048-S 0.0140	TRMB02048-S	TRMB02047-S	CONDUIT	111.5	2.2339
TRMB02049 0.0130	TRMB02049	TRMB02048	CONDUIT	38.1	1.5237
TRMB02049-S 0.0140	TRMB02049-S	TRMB02048-S	CONDUIT	38.1	0.2364
TRMB02050 0.0150	TRMB02050	TRMB02045	CONDUIT	62.2	0.1446
TRMB02050-S 0.0140	TRMB02050-S	TRMB02045-S	CONDUIT	62.2	-1.1573
TRMB02051 0.0150	TRMB02051	TRMB02050	CONDUIT	153.6	0.1432
TRMB02051-S 0.0140	TRMB02051-S	TRMB02050-S	CONDUIT	153.6	-0.7292
TRMB02052 0.0130	TRMB02052	TRMB02051	CONDUIT	20.4	0.7840
TRMB02052-S 0.0140	TRMB02052-S	TRMB02051-S	CONDUIT	20.4	-0.4900
TRMB02056 0.0130	TRMB02056	TRMB02052	CONDUIT	20.4	0.7824
TRMB02056-S 0.0140	TRMB02056-S	TRMB02052-S	CONDUIT	20.4	1.9564
TRMB02057 0.0130	TRMB02057	TRMB02056	CONDUIT	17.6	0.7391
TRMB02057-S 0.0140	TRMB02057-S	TRMB02056-S	CONDUIT	17.6	0.7959
TRMB02060 0.0150	TRMB02060	TRMB02057	CONDUIT	295.1	0.9352
TRMB02060-S 0.0140	TRMB02060-S	TRMB02057-S	CONDUIT	295.1	1.9994
TRMB02063 0.0130	TRMB02063	TRMB02060	CONDUIT	222.3	2.6419
TRMB02063-S 0.0140	TRMB02063-S	TRMB02060-S	CONDUIT	222.3	1.0933
TRMB02064 0.0130	TRMB02064	TRMB02063	CONDUIT	125.5	0.6935
TRMB02064-S 0.0140	TRMB02064-S	TRMB02063-S	CONDUIT	125.5	0.7094
TRMB02067 0.0130	TRMB02067	TRMB02064	CONDUIT	117.7	0.1869
TRMB02067-S 0.0140	TRMB02067-S	TRMB02064-S	CONDUIT	117.7	1.3935
TRMB02068 0.0130	TRMB02068	TRMB02067	CONDUIT	181.4	0.4741
TRMB02068-S 0.0140	TRMB02068-S	TRMB02067-S	CONDUIT	181.4	1.3563
TRMB02069 0.0130	TRMB02069	TRMB02068	CONDUIT	44.4	1.0140
TRMB02069-S 0.0140	TRMB02069-S	TRMB02068-S	CONDUIT	44.4	1.6676
TRMB02070 0.0130	TRMB02070	TRMB02069	CONDUIT	35.3	0.4249
TRMB02070-S 0.0140	TRMB02070-S	TRMB02069-S	CONDUIT	35.3	0.5666
TRMB03016 0.0150	TRMB03016	TRMB03012	CONDUIT	44.3	1.7151
TRMB03022 0.0160	TRMB03022	TRMB03016	CONDUIT	145.8	1.3442
TRMB03025 0.0150	TRMB03025	TRMB03022	CONDUIT	55.0	5.2628
TRMB03025-S 0.0140	TRMB03025-S	TRMB03022-S	CONDUIT	55.0	12.8713

## Existing Conditions (10-Year)

TRMB03026 0.0150	TRMB03026	TRMB03022	CONDUIT	14.1	24.1547
TRMB03027 0.0130	TRMB03027	TRMB03026	CONDUIT	31.1	1.0930
TRMB03028 0.0150	TRMB03028	TRMB03025	CONDUIT	19.2	-0.0520
TRMB03028-S 0.0140	TRMB03028-S	TRMB03025-S	CONDUIT	19.2	2.6010
TRMB03029 0.0130	TRMB03029	TRMB03028	CONDUIT	87.0	1.1494
TRMB03029-S 0.0140	TRMB03029-S	TRMB03028-S	CONDUIT	87.0	-1.1034
TRMB03030 0.0150	TRMB03030	TRMB03029	CONDUIT	90.4	1.2173
TRMB03030-S 0.0140	TRMB03030-S	TRMB03029-S	CONDUIT	90.4	0.9074
TRMB03031 0.0150	TRMB03031	TRMB03030	CONDUIT	235.9	1.2676
TRMB03032 0.0150	TRMB03032	TRMB03031	CONDUIT	327.8	1.0342
TRMB03032-S 0.0140	TRMB03032-S	TRMB03031-S	CONDUIT	327.8	0.7748
TRMB03033 0.0130	TRMB03033	TRMB03034	CONDUIT	7.3	2.6072
TRMB03033-S 0.0140	TRMB03033-S	TRMB03034-S	CONDUIT	7.3	-2.0580
TRMB03034 0.0150	TRMB03034	TRMB03036	CONDUIT	135.6	4.1413
TRMB03034-S 0.0140	TRMB03034-S	TRMB03036-S	CONDUIT	135.6	0.7966
TRMB03035 0.0130	TRMB03035	TRMB03036	CONDUIT	5.8	100.5103
TRMB03035-S 0.0140	TRMB03035-S	TRMB03036-S	CONDUIT	5.8	0.0171
TRMB03036 0.0130	TRMB03036	TRMB03032	CONDUIT	133.5	0.3522
TRMB03036-S 0.0140	TRMB03036-S	TRMB03032-S	CONDUIT	133.5	0.4945
TRMB03037 0.0130	TRMB03037	TRMB03034	CONDUIT	32.3	1.2714
TRMB03037-S 0.0140	TRMB03037-S	TRMB03034-S	CONDUIT	32.3	0.9613
TRMB03038 0.0130	TRMB03038	TRMB03036	CONDUIT	33.1	14.6876
TRMB03038-S 0.0140	TRMB03038-S	TRMB03036-S	CONDUIT	33.1	3.3856
TRMB03039 0.0130	TRMB03039	TRMB03036	CONDUIT	148.0	1.0878
TRMB03039-S 0.0140	TRMB03039-S	TRMB03036-S	CONDUIT	148.0	0.4189
TRMB03042 0.0130	TRMB03042	TRMB03039	CONDUIT	395.7	3.1758
TRMB03042-S 0.0140	TRMB03042-S	TRMB03039-S	CONDUIT	395.7	2.7228
TRMB03043 0.0130	TRMB03043	TRMB03039	CONDUIT	263.2	0.3724
TRMB03043-S 0.0140	TRMB03043-S	TRMB03039-S	CONDUIT	263.2	-0.4978
TRMB03044 0.0150	TRMB03044	TRMB03039	CONDUIT	112.7	1.8462
TRMB03044-S 0.0140	TRMB03044-S	TRMB03039-S	CONDUIT	112.7	-1.2070

## Existing Conditions (10-Year)

TRMB03049 0.0150	TRMB03049	TRMB03043	CONDUIT	15.6	2.7557
TRMB03049-S 0.0140	TRMB03049-S	TRMB03043-S	CONDUIT	15.6	4.0392
TRMB03051 0.0130	TRMB03051	TRMB03043	CONDUIT	18.3	5.5245
TRMB03051-S 0.0140	TRMB03051-S	TRMB03043-S	CONDUIT	18.3	-2.4584
TRMB03052 0.0130	TRMB03052	TRMB03051	CONDUIT	28.9	5.8864
TRMB03052-S 0.0140	TRMB03052-S	TRMB03051-S	CONDUIT	28.9	0.7605
TRMB03054 0.0130	TRMB03054	TRMB03051	CONDUIT	185.4	0.0593
TRMB03054-S 0.0140	TRMB03054-S	TRMB03051-S	CONDUIT	185.4	0.1241
TRMB03055 0.0130	TRMB03055	TRMB03051	CONDUIT	225.6	0.0754
TRMB03055-S 0.0140	TRMB03055-S	TRMB03051-S	CONDUIT	225.6	0.0355
TRMB03063 0.0130	TRMB03063	TRMB03054	CONDUIT	249.0	1.0282
TRMB03063-S 0.0140	TRMB03063-S	TRMB03054-S	CONDUIT	249.0	1.0844
TRMB03065 0.0150	TRMB03065	TRMB03066	CONDUIT	145.2	1.7432
TRMB03067 0.0130	TRMB03067	TRMB03065	CONDUIT	65.2	24.6749
TRMB03067-S 0.0140	TRMB03067-S	TRMB03065-S	CONDUIT	65.2	10.2592
TRMB03068 0.0150	TRMB03068	TRMB03069	CONDUIT	18.3	7.8555
TRMB03068-S 0.0140	TRMB03068-S	TRMB03069-S	CONDUIT	18.3	6.3104
TRMB03069 0.0150	TRMB03069	TRMB03065	CONDUIT	41.7	2.0878
TRMB03069-S 0.0140	TRMB03069-S	TRMB03065-S	CONDUIT	41.7	0.5518
TRMB03070 0.0150	TRMB03070	TRMB03069	CONDUIT	59.6	1.9786
TRMB03070-S 0.0140	TRMB03070-S	TRMB03069-S	CONDUIT	59.6	-0.1509
TRMB03072 0.0150	TRMB03072	TRMB03070	CONDUIT	122.0	3.6080
TRMB03072-S 0.0140	TRMB03072-S	TRMB03070-S	CONDUIT	122.0	3.2468
TRMB03073 0.0150	TRMB03073	TRMB03070	CONDUIT	116.3	10.3578
TRMB03073-S 0.0140	TRMB03073-S	TRMB03070-S	CONDUIT	116.3	4.5196
TRMB03083 0.0130	TRMB03083	TRMB03072	CONDUIT	29.0	2.7559
TRMB03083-S 0.0140	TRMB03083-S	TRMB03072-S	CONDUIT	29.0	1.7909
TRMB03084 0.0150	TRMB03084	TRMB03072	CONDUIT	6.8	0.2941
TRMB03084-S 0.0140	TRMB03084-S	TRMB03072-S	CONDUIT	6.8	-2.2064
TRMB03087 0.0130	TRMB03087	TRMB03083	CONDUIT	106.8	0.1123
TRMB03087-S 0.0140	TRMB03087-S	TRMB03083-S	CONDUIT	106.8	-2.1999



## Existing Conditions (10-Year)

TRMB03088 0.0150	TRMB03088	TRMB03087	CONDUIT	586.4	1.9854
TRMB03088-S 0.0140	TRMB03088-S	TRMB03087-S	CONDUIT	586.4	2.3164
TRMB03089 0.0130	TRMB03089	TRMB03088	CONDUIT	39.9	2.5071
TRMB03089-S 0.0140	TRMB03089-S	TRMB03088-S	CONDUIT	39.9	-0.0752
TRMB03090 0.0130	TRMB03090	TRMB03089	CONDUIT	14.6	-1.2304
TRMB03090-S 0.0140	TRMB03090-S	TRMB03089-S	CONDUIT	14.6	-6.0259
TRMB03091 0.0150	TRMB03091	TRMB03090	CONDUIT	209.3	1.9501
TRMB03091-S 0.0140	TRMB03091-S	TRMB03090-S	CONDUIT	209.3	2.3327
TRMB03092 0.0130	TRMB03092	TRMB03090	CONDUIT	117.8	6.3962
TRMB03092-S 0.0140	TRMB03092-S	TRMB03090-S	CONDUIT	117.8	2.3179
TRMB03094 0.0150	TRMB03094	TRMB03091	CONDUIT	103.8	1.5906
TRMB03094-S 0.0140	TRMB03094-S	TRMB03091-S	CONDUIT	103.8	1.0603
TRMB03095 0.0150	TRMB03095	TRMB03094	CONDUIT	9.0	49.2696
TRMB03095-S 0.0140	TRMB03095-S	TRMB03094-S	CONDUIT	9.0	0.0112
TRMB03096 0.0150	TRMB03096	TRMB03094	CONDUIT	25.1	0.2388
TRMB03096-S 0.0140	TRMB03096-S	TRMB03094-S	CONDUIT	25.1	5.7396
TRMB03097 0.0130	TRMB03097	TRMB03094	CONDUIT	110.6	5.6782
TRMB03097-S 0.0140	TRMB03097-S	TRMB03094-S	CONDUIT	110.6	4.8520
TRMB03101 0.0130	TRMB03101	TRMB03096	CONDUIT	10.9	43.7634
TRMB03101-S 0.0140	TRMB03101-S	TRMB03096-S	CONDUIT	10.9	7.7652
TRMB03102 0.0150	TRMB03102	TRMB03096	CONDUIT	47.8	2.3432
TRMB03102-S 0.0140	TRMB03102-S	TRMB03096-S	CONDUIT	47.8	2.7620
TRMB03103 0.0150	TRMB03103	TRMB03102	CONDUIT	95.9	3.9020
TRMB03103-S 0.0140	TRMB03103-S	TRMB03102-S	CONDUIT	95.9	3.5051
TRMB03111 0.0130	TRMB03111	TRMB03103	CONDUIT	73.5	2.9825
TRMB03111-S 0.0140	TRMB03111-S	TRMB03103-S	CONDUIT	73.5	1.6201
TRMB03132 0.0150	TRMB03132	TRMB03084	CONDUIT	148.8	2.6890
TRMB03132-S 0.0140	TRMB03132-S	TRMB03084-S	CONDUIT	148.8	3.8467
TRMB04089_1 0.0150	TRMB04089	TRMB05017_US	CONDUIT	303.9	0.2929
TRMB04089_1-S 0.0140	TRMB04089-S	TRMB05017_US-S	CONDUIT	303.9	0.8556
TRMB04089_2 0.0150	TRMB05017_US	TRMB05017	CONDUIT	292.1	0.2910

## Existing Conditions (10-Year)

TRMB04089_2-S 0.0140	TRMB05017_US-S	TRMB05017-S	CONDUIT	292.1	0.8525
TRMB05002 0.0150	TRMB05002	TRMB05001	CONDUIT	48.8	31.3024
TRMB05003 0.0150	TRMB05003	TRMB05002	CONDUIT	84.0	1.4636
TRMB05003-S 0.0140	TRMB05003-S	TRMB05002-S	CONDUIT	84.0	3.9054
TRMB05004 0.0130	TRMB05004	TRMB05003	CONDUIT	5.4	1.4735
TRMB05004-S 0.0140	TRMB05004-S	TRMB05003-S	CONDUIT	5.4	-13.5670
TRMB05005 0.0130	TRMB05005	TRMB05003	CONDUIT	23.4	2.4773
TRMB05005-S 0.0140	TRMB05005-S	TRMB05003-S	CONDUIT	23.4	3.9313
TRMB05006 0.0150	TRMB05006	TRMB05003	CONDUIT	254.7	0.5262
TRMB05006-S 0.0140	TRMB05006-S	TRMB05003-S	CONDUIT	254.7	0.8403
TRMB05008 0.0130	TRMB05008	TRMB05006	CONDUIT	143.5	2.0350
TRMB05008-S 0.0140	TRMB05008-S	TRMB05006-S	CONDUIT	143.5	-1.2403
TRMB05009_1 0.0150	TRMB05009	TRMB05009_DS	CONDUIT	111.0	1.0629
TRMB05009_1-S 0.0140	TRMB05009-S	TRMB05009_DS-S	CONDUIT	111.0	0.5314
TRMB05009_2 0.0150	TRMB05009_DS	TRMB05006	CONDUIT	288.9	1.0628
TRMB05009_2-S 0.0140	TRMB05009_DS-S	TRMB05006-S	CONDUIT	288.9	0.5400
TRMB05010 0.0130	TRMB05010	TRMB05006	CONDUIT	27.1	20.4438
TRMB05010-S 0.0140	TRMB05010-S	TRMB05006-S	CONDUIT	27.1	-0.4804
TRMB05011 0.0130	TRMB05011	TRMB05010	CONDUIT	23.6	3.0986
TRMB05011-S 0.0140	TRMB05011-S	TRMB05010-S	CONDUIT	23.6	2.4615
TRMB05012 0.0130	TRMB05012	TRMB05011	CONDUIT	28.8	-0.3467
TRMB05012-S 0.0140	TRMB05012-S	TRMB05011-S	CONDUIT	28.8	-0.3467
TRMB05013 0.0130	TRMB05013	TRMB05009	CONDUIT	5.1	121.2552
TRMB05013-S 0.0140	TRMB05013-S	TRMB05009-S	CONDUIT	5.1	-8.8232
TRMB05014 0.0130	TRMB05014	TRMB05009	CONDUIT	16.2	22.7773
TRMB05014-S 0.0140	TRMB05014-S	TRMB05009-S	CONDUIT	16.2	-1.8510
TRMB05015 0.0150	TRMB05015	TRMB05009	CONDUIT	253.6	0.4101
TRMB05015-S 0.0140	TRMB05015-S	TRMB05009-S	CONDUIT	253.6	1.2384
TRMB05016 0.0130	TRMB05016	TRMB05015	CONDUIT	21.9	20.2672
TRMB05016-S 0.0140	TRMB05016-S	TRMB05015-S	CONDUIT	21.9	-1.0935
TRMB05017 0.0150	TRMB05017	TRMB05015	CONDUIT	51.2	0.3517

## Existing Conditions (10-Year)

TRMB05017-S 0.0140	TRMB05017-S	TRMB05015-S	CONDUIT	51.2	2.0129
TRMB05018 0.0150	TRMB05018	TRMB05015	CONDUIT	19.6	22.4197
TRMB05018-S 0.0140	TRMB05018-S	TRMB05015-S	CONDUIT	19.6	-0.8159
TRMB05019 0.0130	TRMB05019	TRMB05016	CONDUIT	9.6	2.1835
TRMB05019-S 0.0140	TRMB05019-S	TRMB05016-S	CONDUIT	9.6	-3.0159
TRMB05020 0.0150	TRMB05020	TRMB05016	CONDUIT	17.5	2.1172
TRMB05020-S 0.0140	TRMB05020-S	TRMB05016-S	CONDUIT	17.5	-0.7437
TRMB05021 0.0130	TRMB05021	TRMB05019	CONDUIT	115.6	0.7354
TRMB05021-S 0.0140	TRMB05021-S	TRMB05019-S	CONDUIT	115.6	0.4759
TRMB05022 0.0150	TRMB05022	TRMB05018	CONDUIT	11.0	-2.1843
TRMB05022-S 0.0140	TRMB05022-S	TRMB05018-S	CONDUIT	11.0	-0.8190
TRMB05023 0.0150	TRMB05023	TRMB05022	CONDUIT	232.1	0.5645
TRMB05023-S 0.0140	TRMB05023-S	TRMB05022-S	CONDUIT	232.1	-1.2886
TRMB05025 0.0130	TRMB05025	TRMB05017	CONDUIT	10.8	84.3531
TRMB05025-S 0.0140	TRMB05025-S	TRMB05017-S	CONDUIT	10.8	-4.4447
TRMB05026 0.0130	TRMB05026	TRMB05043	CONDUIT	20.4	18.3123
TRMB05026-S 0.0140	TRMB05026-S	TRMB05043-S	CONDUIT	20.4	-0.7832
TRMB05027 0.0130	TRMB05027	TRMB05017	CONDUIT	13.0	57.3219
TRMB05027-S 0.0140	TRMB05027-S	TRMB05017-S	CONDUIT	13.0	-7.2441
TRMB05028 0.0130	TRMB05028	TRMB05021	CONDUIT	100.2	0.4692
TRMB05028-S 0.0140	TRMB05028-S	TRMB05021-S	CONDUIT	100.2	0.7687
TRMB05029 0.0130	TRMB05029	TRMB05021	CONDUIT	21.5	0.6964
TRMB05029-S 0.0140	TRMB05029-S	TRMB05021-S	CONDUIT	21.5	0.6964
TRMB05030 0.0130	TRMB05030	TRMB05028	CONDUIT	17.0	2.9355
TRMB05030-S 0.0140	TRMB05030-S	TRMB05028-S	CONDUIT	17.0	-1.4673
TRMB05031 0.0130	TRMB05031	TRMB05028	CONDUIT	37.1	3.6643
TRMB05031-S 0.0140	TRMB05031-S	TRMB05028-S	CONDUIT	37.1	-0.3231
TRMB05032 0.0130	TRMB05032	TRMB05028	CONDUIT	38.7	2.6359
TRMB05032-S 0.0140	TRMB05032-S	TRMB05028-S	CONDUIT	38.7	-0.2067
TRMB05033 0.0130	TRMB05033	TRMB05030	CONDUIT	21.9	0.0046
TRMB05033-S 0.0140	TRMB05033-S	TRMB05030-S	CONDUIT	21.9	0.0046

## Existing Conditions (10-Year)

TRMB05034 0.0130	TRMB05034	TRMB05032	CONDUIT	21.7	0.6903
TRMB05034-S 0.0140	TRMB05034-S	TRMB05032-S	CONDUIT	21.7	0.6903
TRMB05035 0.0150	TRMB05035	TRMB05040	CONDUIT	16.2	24.8548
TRMB05035-S 0.0140	TRMB05035-S	TRMB05040-S	CONDUIT	16.2	-0.2468
TRMB05036 0.0130	TRMB05036	TRMB05035	CONDUIT	42.8	0.9344
TRMB05036-S 0.0140	TRMB05036-S	TRMB05035-S	CONDUIT	42.8	-0.8176
TRMB05037 0.0130	TRMB05037	TRMB05036	CONDUIT	21.3	3.9994
TRMB05037-S 0.0140	TRMB05037-S	TRMB05036-S	CONDUIT	21.3	0.9403
TRMB05038 0.0130	TRMB05038	TRMB05035	CONDUIT	41.3	1.4522
TRMB05038-S 0.0140	TRMB05038-S	TRMB05035-S	CONDUIT	41.3	-0.3630
TRMB05039 0.0130	TRMB05039	TRMB05038	CONDUIT	25.0	0.5993
TRMB05039-S 0.0140	TRMB05039-S	TRMB05038-S	CONDUIT	25.0	-0.7192
TRMB05040 0.0150	TRMB05040	TRMB05041	CONDUIT	280.1	0.6927
TRMB05040-S 0.0140	TRMB05040-S	TRMB05041-S	CONDUIT	280.1	1.2997
TRMB05041 0.0150	TRMB05041	TRMB05045	CONDUIT	31.1	0.7074
TRMB05041-S 0.0140	TRMB05041-S	TRMB05045-S	CONDUIT	31.1	-0.7396
TRMB05042 0.0130	TRMB05042	TRMB05026	CONDUIT	27.0	-1.3335
TRMB05042-S 0.0140	TRMB05042-S	TRMB05026-S	CONDUIT	27.0	-1.3335
TRMB05044 0.0130	TRMB05044	TRMB05045	CONDUIT	116.6	0.7635
TRMB05044-S 0.0140	TRMB05044-S	TRMB05045-S	CONDUIT	116.6	-1.1668
TRMB05045 0.0150	TRMB05045	TRMB05046	CONDUIT	298.8	1.1414
TRMB05045-S 0.0140	TRMB05045-S	TRMB05046-S	CONDUIT	298.8	1.6101
TRMB05046 0.0150	TRMB05046	TRMB05048	CONDUIT	11.9	3.7779
TRMB05046-S 0.0140	TRMB05046-S	TRMB05048-S	CONDUIT	11.9	-5.1242
TRMB05048 0.0150	TRMB05048	TRMB05047	CONDUIT	34.7	3.7512
CountrySideE_Ditch_Culvert_In-IC CountrySideE_Ditch_Culvert_In-S					
CountrySideE_Ditch_Culvert_In OUTLET					
JMTB01003-IC	JMTB01003-S	JMTB01003	OUTLET		
JMTB01004-IC	JMTB01004-S	JMTB01004	OUTLET		
JMTB01005-IC	JMTB01005-S	JMTB01005	OUTLET		
JMTB01006-IC	JMTB01006-S	JMTB01006	OUTLET		
JMTB01102-IC	JMTB01102-S	JMTB01102	OUTLET		
JMTB01103-IC	JMTB01103-S	JMTB01103	OUTLET		
JMTB01104-IC	JMTB01104-S	JMTB01104	OUTLET		
JMTB01105-IC	JMTB01105-S	JMTB01105	OUTLET		
PCTB01068_US-IC	PCTB01068_US-S	PCTB01068_US	OUTLET		
PCTB01068-IC	PCTB01068-S	PCTB01068	OUTLET		

## Existing Conditions (10-Year)

PCTB02001-IC	PCTB02001-S	PCTB02001	OUTLET
PCTB02002-IC	PCTB02002-S	PCTB02002	OUTLET
PCTB02003-IC	PCTB02003-S	PCTB02003	OUTLET
PCTB02004-IC	PCTB02004-S	PCTB02004	OUTLET
PCTB02011-IC	PCTB02011-S	PCTB02011	OUTLET
PCTB02012-IC	PCTB02012-S	PCTB02012	OUTLET
PCTB02014-IC	PCTB02014-S	PCTB02014	OUTLET
PCTB02015-IC	PCTB02015-S	PCTB02015	OUTLET
PCTB02016-IC	PCTB02016-S	PCTB02016	OUTLET
PCTB02017-IC	PCTB02017-S	PCTB02017	OUTLET
PCTB02022-IC	PCTB02022-S	PCTB02022	OUTLET
PCTB02023-IC	PCTB02023-S	PCTB02023	OUTLET
PCTB02189-IC	PCTB02189-S	PCTB02189	OUTLET
PCTB02191_DS-IC	PCTB02191_DS-S	PCTB02191_DS	OUTLET
PCTB02191-IC	PCTB02191-S	PCTB02191	OUTLET
PCTB02207-IC	PCTB02207-S	PCTB02207	OUTLET
PCTB02209-IC	PCTB02209-S	PCTB02209	OUTLET
PCTB02229-IC	PCTB02229-S	PCTB02229	OUTLET
PCTB02231-IC	PCTB02231-S	PCTB02231	OUTLET
PCTB02235-IC	PCTB02235-S	PCTB02235	OUTLET
PCTB02237-IC	PCTB02237-S	PCTB02237	OUTLET
PCTB02257_1-IC	PCTB02257_1-S	PCTB02257_1	OUTLET
PCTB02257-IC	PCTB02257-S	PCTB02257	OUTLET
PCTB02260-IC	PCTB02260-S	PCTB02260	OUTLET
PCTB02262-IC	PCTB02262-S	PCTB02262	OUTLET
PCTB02275-IC	PCTB02275-S	PCTB02275	OUTLET
PCTB02276-IC	PCTB02276-S	PCTB02276	OUTLET
PCTB02278-IC	PCTB02278-S	PCTB02278	OUTLET
PCTB02280-IC	PCTB02280-S	PCTB02280	OUTLET
PCTB02281-IC	PCTB02281-S	PCTB02281	OUTLET
PCTB02282-IC	PCTB02282-S	PCTB02282	OUTLET
PCTB02283-IC	PCTB02283-S	PCTB02283	OUTLET
PCTB02284-IC	PCTB02284-S	PCTB02284	OUTLET
PCTB02292-IC	PCTB02292-S	PCTB02292	OUTLET
PCTB02294-IC	PCTB02294-S	PCTB02294	OUTLET
PCTB02295-IC	PCTB02295-S	PCTB02295	OUTLET
PCTB02297-IC	PCTB02297-S	PCTB02297	OUTLET
PCTB02302-IC	PCTB02302-S	PCTB02302	OUTLET
PCTB02303-IC	PCTB02303-S	PCTB02303	OUTLET
PCTB02304-IC	PCTB02304-S	PCTB02304	OUTLET
PCTB02312-IC	PCTB02312-S	PCTB02312	OUTLET
PCTB02329-IC	PCTB02329-S	PCTB02329	OUTLET
PCTB02330-IC	PCTB02330-S	PCTB02330	OUTLET
PCTB02331-IC	PCTB02331-S	PCTB02331	OUTLET
PCTB02332-IC	PCTB02332-S	PCTB02332	OUTLET
TRMB02002-IC	TRMB02002-S	TRMB02002	OUTLET
TRMB02003-IC	TRMB02003-S	TRMB02003	OUTLET
TRMB02006-IC	TRMB02006-S	TRMB02006	OUTLET
TRMB02009-IC	TRMB02009-S	TRMB02009	OUTLET
TRMB02012-IC	TRMB02012-S	TRMB02012	OUTLET
TRMB02015-IC	TRMB02015-S	TRMB02015	OUTLET
TRMB02016-IC	TRMB02016-S	TRMB02016	OUTLET
TRMB02018-IC	TRMB02018-S	TRMB02018	OUTLET
TRMB02022-IC	TRMB02022-S	TRMB02022	OUTLET
TRMB02023-IC	TRMB02023-S	TRMB02023	OUTLET
TRMB02030-IC	TRMB02030-S	TRMB02030	OUTLET
TRMB02032-IC	TRMB02032-S	TRMB02032	OUTLET
TRMB02033-IC	TRMB02033-S	TRMB02033	OUTLET
TRMB02034-IC	TRMB02034-S	TRMB02034	OUTLET
TRMB02035-IC	TRMB02035-S	TRMB02035	OUTLET
TRMB02044_DS-IC	TRMB02044_DS-S	TRMB02044_DS	OUTLET
TRMB02044-IC	TRMB02044-S	TRMB02044	OUTLET

## Existing Conditions (10-Year)

TRMB02045-IC	TRMB02045-S	TRMB02045	OUTLET
TRMB02046-IC	TRMB02046-S	TRMB02046	OUTLET
TRMB02047-IC	TRMB02047-S	TRMB02047	OUTLET
TRMB02048-IC	TRMB02048-S	TRMB02048	OUTLET
TRMB02049-IC	TRMB02049-S	TRMB02049	OUTLET
TRMB02050-IC	TRMB02050-S	TRMB02050	OUTLET
TRMB02051-IC	TRMB02051-S	TRMB02051	OUTLET
TRMB02052-IC	TRMB02052-S	TRMB02052	OUTLET
TRMB02056-IC	TRMB02056-S	TRMB02056	OUTLET
TRMB02057-IC	TRMB02057-S	TRMB02057	OUTLET
TRMB02060-IC	TRMB02060-S	TRMB02060	OUTLET
TRMB02063-IC	TRMB02063-S	TRMB02063	OUTLET
TRMB02064-IC	TRMB02064-S	TRMB02064	OUTLET
TRMB02067-IC	TRMB02067-S	TRMB02067	OUTLET
TRMB02068-IC	TRMB02068-S	TRMB02068	OUTLET
TRMB02069-IC	TRMB02069-S	TRMB02069	OUTLET
TRMB02070-IC	TRMB02070-S	TRMB02070	OUTLET
TRMB03016-IC	TRMB03016-S	TRMB03016	OUTLET
TRMB03022-IC	TRMB03022-S	TRMB03022	OUTLET
TRMB03025-IC	TRMB03025-S	TRMB03025	OUTLET
TRMB03028-IC	TRMB03028-S	TRMB03028	OUTLET
TRMB03029-IC	TRMB03029-S	TRMB03029	OUTLET
TRMB03030-IC	TRMB03030-S	TRMB03030	OUTLET
TRMB03031-IC	TRMB03031-S	TRMB03031	OUTLET
TRMB03032-IC	TRMB03032-S	TRMB03032	OUTLET
TRMB03033-IC	TRMB03033-S	TRMB03033	OUTLET
TRMB03034-IC	TRMB03034-S	TRMB03034	OUTLET
TRMB03035-IC	TRMB03035-S	TRMB03035	OUTLET
TRMB03036-IC	TRMB03036-S	TRMB03036	OUTLET
TRMB03037-IC	TRMB03037-S	TRMB03037	OUTLET
TRMB03038-IC	TRMB03038-S	TRMB03038	OUTLET
TRMB03039-IC	TRMB03039-S	TRMB03039	OUTLET
TRMB03042-IC	TRMB03042-S	TRMB03042	OUTLET
TRMB03043-IC	TRMB03043-S	TRMB03043	OUTLET
TRMB03044-IC	TRMB03044-S	TRMB03044	OUTLET
TRMB03049-IC	TRMB03049-S	TRMB03049	OUTLET
TRMB03051-IC	TRMB03051-S	TRMB03051	OUTLET
TRMB03052-IC	TRMB03052-S	TRMB03052	OUTLET
TRMB03054-IC	TRMB03054-S	TRMB03054	OUTLET
TRMB03055-IC	TRMB03055-S	TRMB03055	OUTLET
TRMB03063-IC	TRMB03063-S	TRMB03063	OUTLET
TRMB03065-IC	TRMB03065-S	TRMB03065	OUTLET
TRMB03067-IC	TRMB03067-S	TRMB03067	OUTLET
TRMB03068-IC	TRMB03068-S	TRMB03068	OUTLET
TRMB03069-IC	TRMB03069-S	TRMB03069	OUTLET
TRMB03070-IC	TRMB03070-S	TRMB03070	OUTLET
TRMB03072-IC	TRMB03072-S	TRMB03072	OUTLET
TRMB03073-IC	TRMB03073-S	TRMB03073	OUTLET
TRMB03083-IC	TRMB03083-S	TRMB03083	OUTLET
TRMB03084-IC	TRMB03084-S	TRMB03084	OUTLET
TRMB03087-IC	TRMB03087-S	TRMB03087	OUTLET
TRMB03088-IC	TRMB03088-S	TRMB03088	OUTLET
TRMB03089-IC	TRMB03089-S	TRMB03089	OUTLET
TRMB03090-IC	TRMB03090-S	TRMB03090	OUTLET
TRMB03091-IC	TRMB03091-S	TRMB03091	OUTLET
TRMB03092-IC	TRMB03092-S	TRMB03092	OUTLET
TRMB03094-IC	TRMB03094-S	TRMB03094	OUTLET
TRMB03095-IC	TRMB03095-S	TRMB03095	OUTLET
TRMB03096-IC	TRMB03096-S	TRMB03096	OUTLET
TRMB03097-IC	TRMB03097-S	TRMB03097	OUTLET
TRMB03101-IC	TRMB03101-S	TRMB03101	OUTLET
TRMB03102-IC	TRMB03102-S	TRMB03102	OUTLET

# Existing Conditions (10-Year)

TRMB03103-IC	TRMB03103-S	TRMB03103	OUTLET
TRMB03111-IC	TRMB03111-S	TRMB03111	OUTLET
TRMB03132-IC	TRMB03132-S	TRMB03132	OUTLET
TRMB04089-IC	TRMB04089-S	TRMB04089	OUTLET
TRMB05002-IC	TRMB05002-S	TRMB05002	OUTLET
TRMB05003-IC	TRMB05003-S	TRMB05003	OUTLET
TRMB05004-IC	TRMB05004-S	TRMB05004	OUTLET
TRMB05005-IC	TRMB05005-S	TRMB05005	OUTLET
TRMB05006-IC	TRMB05006-S	TRMB05006	OUTLET
TRMB05008-IC	TRMB05008-S	TRMB05008	OUTLET
TRMB05009_DS-IC	TRMB05009_DS-S	TRMB05009_DS	OUTLET
TRMB05009-IC	TRMB05009-S	TRMB05009	OUTLET
TRMB05010-IC	TRMB05010-S	TRMB05010	OUTLET
TRMB05011-IC	TRMB05011-S	TRMB05011	OUTLET
TRMB05012-IC	TRMB05012-S	TRMB05012	OUTLET
TRMB05013-IC	TRMB05013-S	TRMB05013	OUTLET
TRMB05014-IC	TRMB05014-S	TRMB05014	OUTLET
TRMB05015-IC	TRMB05015-S	TRMB05015	OUTLET
TRMB05016-IC	TRMB05016-S	TRMB05016	OUTLET
TRMB05017_US-IC	TRMB05017_US-S	TRMB05017_US	OUTLET
TRMB05017-IC	TRMB05017-S	TRMB05017	OUTLET
TRMB05018-IC	TRMB05018-S	TRMB05018	OUTLET
TRMB05019-IC	TRMB05019-S	TRMB05019	OUTLET
TRMB05020-IC	TRMB05020-S	TRMB05020	OUTLET
TRMB05021-IC	TRMB05021-S	TRMB05021	OUTLET
TRMB05022-IC	TRMB05022-S	TRMB05022	OUTLET
TRMB05023-IC	TRMB05023-S	TRMB05023	OUTLET
TRMB05025-IC	TRMB05025-S	TRMB05025	OUTLET
TRMB05026-IC	TRMB05026-S	TRMB05026	OUTLET
TRMB05027-IC	TRMB05027-S	TRMB05027	OUTLET
TRMB05028-IC	TRMB05028-S	TRMB05028	OUTLET
TRMB05029-IC	TRMB05029-S	TRMB05029	OUTLET
TRMB05030-IC	TRMB05030-S	TRMB05030	OUTLET
TRMB05031-IC	TRMB05031-S	TRMB05031	OUTLET
TRMB05032-IC	TRMB05032-S	TRMB05032	OUTLET
TRMB05033-IC	TRMB05033-S	TRMB05033	OUTLET
TRMB05034-IC	TRMB05034-S	TRMB05034	OUTLET
TRMB05035-IC	TRMB05035-S	TRMB05035	OUTLET
TRMB05036-IC	TRMB05036-S	TRMB05036	OUTLET
TRMB05037-IC	TRMB05037-S	TRMB05037	OUTLET
TRMB05038-IC	TRMB05038-S	TRMB05038	OUTLET
TRMB05039-IC	TRMB05039-S	TRMB05039	OUTLET
TRMB05040-IC	TRMB05040-S	TRMB05040	OUTLET
TRMB05041-IC	TRMB05041-S	TRMB05041	OUTLET
TRMB05042-IC	TRMB05042-S	TRMB05042	OUTLET
TRMB05043-IC	TRMB05043-S	TRMB05043	OUTLET
TRMB05044-IC	TRMB05044-S	TRMB05044	OUTLET
TRMB05045-IC	TRMB05045-S	TRMB05045	OUTLET
TRMB05046-IC	TRMB05046-S	TRMB05046	OUTLET
TRMB05048-IC	TRMB05048-S	TRMB05048	OUTLET

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## Cross Section Summary

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Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
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## Existing Conditions (10-Year)

2231.53	C1	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
4.99	C14	PARABOLIC	1.50	1.50	0.43	1.50	1
86.08	C2_1	CIRCULAR	2.50	4.91	0.63	2.50	1
272.36	C2_1-S	Transect1	0.75	21.13	0.48	55.00	1
875.98	C2_2	TRAPEZOIDAL	7.50	225.00	4.64	45.00	1
126.19	C3	Transect1	0.75	21.13	0.48	55.00	1
23.98	C9	CIRCULAR	1.25	1.23	0.31	1.25	1
516.16	C9-S	Transect1	0.75	21.13	0.48	55.00	1
17.44	CountrySideE_Ditch	TRAPEZOIDAL	2.00	8.00	1.04	6.00	1
2	CountrySideE_Ditch_Culvert	CIRCULAR		4.00	12.57	1.00	4.00
1	CountrySideE_Ditch_Culvert-S	Transect1		0.75	21.13	0.48	55.00
14.49	JMTB01003	CIRCULAR	2.00	3.14	0.50	2.00	1
342.19	JMTB01003-S	Transect1	0.75	21.13	0.48	55.00	1
7.73	JMTB01004	CIRCULAR	1.50	1.77	0.38	1.50	1
122.05	JMTB01004-S	Transect1	0.75	21.13	0.48	55.00	1
7.17	JMTB01005	CIRCULAR	1.75	2.41	0.44	1.75	1
65.31	JMTB01005-S	Transect1	0.75	21.13	0.48	55.00	1
20.68	JMTB01102	CIRCULAR	2.00	3.14	0.50	2.00	1
219.17	JMTB01102-S	Transect1	0.75	21.13	0.48	55.00	1
11.01	JMTB01103	CIRCULAR	2.00	3.14	0.50	2.00	1
28.68	JMTB01103_1	PARABOLIC	2.50	6.67	0.99	4.00	1
143.11	JMTB01103-S	Transect1	0.75	21.13	0.48	55.00	1
6.42	JMTB01104	CIRCULAR	1.25	1.23	0.31	1.25	1
123.66	JMTB01104-S	Transect1	0.75	21.13	0.48	55.00	1
29.89	PCTB01068	CIRCULAR	3.00	7.07	0.75	3.00	2
31.38	PCTB01068_US	CIRCULAR	3.00	7.07	0.75	3.00	1
22.83	PCTB01068_US-S	Transect1	0.75	21.13	0.48	55.00	1
188.37	PCTB02001	TRAPEZOIDAL	2.10	64.05	1.55	41.00	1
14.93	PCTB02002	CIRCULAR	2.00	3.14	0.50	2.00	1
185.94	PCTB02002-S	Transect1	0.75	21.13	0.48	55.00	1
10.40	PCTB02003	CIRCULAR	2.00	3.14	0.50	2.00	1



## Existing Conditions (10-Year)

73.44	PCTB02003-S	Transect1	0.75	21.13	0.48	55.00	1
22.17	PCTB02008	CIRCULAR	3.00	7.07	0.75	3.00	2
131.68	PCTB02011	CIRCULAR	4.00	12.57	1.00	4.00	1
128.84	PCTB02011_1	TRAPEZOIDAL	3.50	38.47	2.18	14.98	1
216.69	PCTB02011-S	Transect1	0.75	21.13	0.48	55.00	1
65.39	PCTB02014	CIRCULAR	3.00	7.07	0.75	3.00	1
142.27	PCTB02014_1	TRAPEZOIDAL	3.50	35.02	2.03	15.01	1
167.20	PCTB02014-S	Transect1	0.75	21.13	0.48	55.00	1
7.89	PCTB02016	CIRCULAR	1.50	1.77	0.38	1.50	1
24.49	PCTB02016-S	Transect1	0.75	21.13	0.48	55.00	1
31.64	PCTB02020	TRAPEZOIDAL	1.00	12.50	0.81	15.00	1
5.15	PCTB02021	TRAPEZOIDAL	1.00	7.50	0.72	10.00	1
1.69	PCTB02022	CIRCULAR	1.25	1.23	0.31	1.25	1
48.25	PCTB02022-S	Transect1	0.75	21.13	0.48	55.00	1
3.13	PCTB02023	CIRCULAR	1.50	1.77	0.38	1.50	1
119.59	PCTB02023-S	Transect1	0.75	21.13	0.48	55.00	1
2537.96	PCTB02076	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
21.94	PCTB02080	HORIZ_ELLIPSE	6.70	56.97	2.05	8.00	1
456.69	PCTB02160	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
3971.77	PCTB02172	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
29.03	PCTB02189	CIRCULAR	2.50	4.91	0.63	2.50	1
79.29	PCTB02189-S	Transect1	0.75	21.13	0.48	55.00	1
86.15	PCTB02208	CIRCULAR	4.00	12.57	1.00	4.00	1
95.77	PCTB02208-S	Transect1	0.75	21.13	0.48	55.00	1
34.75	PCTB02231	CIRCULAR	4.00	12.57	1.00	4.00	2
43.58	PCTB02231-S	Transect1	0.75	21.13	0.48	55.00	1
56.05	PCTB02237	CIRCULAR	4.00	12.57	1.00	4.00	2
62.65	PCTB02237-S	Transect1	0.75	21.13	0.48	55.00	1
571.89	PCTB02239	TRIANGULAR	3.50	43.75	1.69	25.00	1
644.39	PCTB02240	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
192.32	PCTB02259_1	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1

## Existing Conditions (10-Year)

PCTB02259_2 422.62	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
PCTB02260 47.36	CIRCULAR	4.00	12.57	1.00	4.00	2
PCTB02260-S 64.48	Transect1	0.75	21.13	0.48	55.00	1
PCTB02264 834.98	TRAPEZOIDAL	4.00	140.00	2.74	50.00	1
PCTB02274 539.91	PARABOLIC	4.00	53.33	2.43	20.00	1
PCTB02275 52.42	CIRCULAR	3.50	9.62	0.88	3.50	1
PCTB02275-S 305.25	Transect1	0.75	21.13	0.48	55.00	1
PCTB02276 9.47	CIRCULAR	3.50	9.62	0.88	3.50	1
PCTB02276-S 42.91	Transect1	0.75	21.13	0.48	55.00	1
PCTB02278 13.28	CIRCULAR	2.00	3.14	0.50	2.00	1
PCTB02278-S 134.35	Transect1	0.75	21.13	0.48	55.00	1
PCTB02279 721.01	TRAPEZOIDAL	4.00	72.00	2.30	30.00	1
PCTB02280 5.02	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02280-S 73.87	Transect1	0.75	21.13	0.48	55.00	1
PCTB02281 6.77	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02281-S 121.65	Transect1	0.75	21.13	0.48	55.00	1
PCTB02282 6.40	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02282-S 153.84	Transect1	0.75	21.13	0.48	55.00	1
PCTB02283 4.26	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02283-S 345.17	Transect1	0.75	21.13	0.48	55.00	1
PCTB02284 4.28	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02284-S 101.04	Transect1	0.75	21.13	0.48	55.00	1
PCTB02292 618.28	TRAPEZOIDAL	7.50	176.06	4.47	34.95	1
PCTB02294 235.10	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02294-S 144.14	Transect1	0.75	21.13	0.48	55.00	1
PCTB02295 700.47	TRAPEZOIDAL	10.00	200.00	5.35	25.00	1
PCTB02297 3.24	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02297-S 45.68	Transect1	0.75	21.13	0.48	55.00	1
PCTB02299 2528.04	TRAPEZOIDAL	9.00	162.18	4.79	25.04	1
PCTB02300 3361.85	TRAPEZOIDAL	9.00	202.47	5.27	29.99	1
PCTB02301 267.24	TRAPEZOIDAL	5.00	35.00	2.23	10.00	1

## Existing Conditions (10-Year)

PCTB02302 476.90	TRAPEZOIDAL	6.00	135.60	3.58	35.20	1
PCTB02303 155.43	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02303-S 287.52	Transect1	0.75	21.13	0.48	55.00	1
PCTB02304 254.90	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02304-S 410.56	Transect1	0.75	21.13	0.48	55.00	1
PCTB02312 691.12	TRAPEZOIDAL	6.00	150.00	3.55	40.00	1
PCTB02329 2.63	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02329-S 116.57	Transect1	0.75	21.13	0.48	55.00	1
PCTB02330 3.19	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02330-S 105.59	Transect1	0.75	21.13	0.48	55.00	1
PCTB02331 0.94	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02331-S 79.91	Transect1	0.75	21.13	0.48	55.00	1
TRMB02002 102.58	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02003 158.87	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02003-S 444.01	Transect1	0.75	21.13	0.48	55.00	1
TRMB02006 42.79	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02006-S 160.65	Transect1	0.75	21.13	0.48	55.00	1
TRMB02009 67.77	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02009-S 267.62	Transect1	0.75	21.13	0.48	55.00	1
TRMB02012 37.10	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02012-S 13.68	Transect1	0.75	21.13	0.48	55.00	1
TRMB02015 32.63	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02015-S 131.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB02016 21.02	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02016-S 77.14	Transect1	0.75	21.13	0.48	55.00	1
TRMB02018 13.96	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02018-S 137.42	Transect1	0.75	21.13	0.48	55.00	1
TRMB02022 12.28	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02022-S 29.39	Transect1	0.75	21.13	0.48	55.00	1
TRMB02023 21.63	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02023-S 70.18	Transect1	0.75	21.13	0.48	55.00	1

## Existing Conditions (10-Year)

10.00	TRMB02030	CIRCULAR	1.50	1.77	0.38	1.50	1
27.74	TRMB02030-S	Transect1	0.75	21.13	0.48	55.00	1
9.19	TRMB02032	CIRCULAR	1.50	1.77	0.38	1.50	1
175.71	TRMB02032-S	Transect1	0.75	21.13	0.48	55.00	1
16.60	TRMB02033	CIRCULAR	1.50	1.77	0.38	1.50	1
60.66	TRMB02033-S	Transect1	0.75	21.13	0.48	55.00	1
4.83	TRMB02034	CIRCULAR	1.00	0.79	0.25	1.00	1
135.50	TRMB02034-S	Transect1	0.75	21.13	0.48	55.00	1
5.32	TRMB02035	CIRCULAR	1.00	0.79	0.25	1.00	1
161.99	TRMB02035-S	Transect1	0.75	21.13	0.48	55.00	1
22.09	TRMB02044_1	CIRCULAR	2.00	3.14	0.50	2.00	1
121.23	TRMB02044_1-S	Transect1	0.75	21.13	0.48	55.00	1
5.70	TRMB02044_2	CIRCULAR	2.00	3.14	0.50	2.00	1
139.71	TRMB02044_2-S	Transect1	0.75	21.13	0.48	55.00	1
13.74	TRMB02045	CIRCULAR	2.00	3.14	0.50	2.00	1
167.97	TRMB02045-S	Transect1	0.75	21.13	0.48	55.00	1
39.63	TRMB02046	CIRCULAR	1.50	1.77	0.38	1.50	1
114.86	TRMB02046-S	Transect1	0.75	21.13	0.48	55.00	1
18.84	TRMB02047	CIRCULAR	1.50	1.77	0.38	1.50	1
83.06	TRMB02047-S	Transect1	0.75	21.13	0.48	55.00	1
4.50	TRMB02048	CIRCULAR	1.00	0.79	0.25	1.00	1
206.84	TRMB02048-S	Transect1	0.75	21.13	0.48	55.00	1
4.40	TRMB02049	CIRCULAR	1.00	0.79	0.25	1.00	1
67.29	TRMB02049-S	Transect1	0.75	21.13	0.48	55.00	1
7.46	TRMB02050	CIRCULAR	2.00	3.14	0.50	2.00	1
148.87	TRMB02050-S	Transect1	0.75	21.13	0.48	55.00	1
7.42	TRMB02051	CIRCULAR	2.00	3.14	0.50	2.00	1
118.18	TRMB02051-S	Transect1	0.75	21.13	0.48	55.00	1
20.03	TRMB02052	CIRCULAR	2.00	3.14	0.50	2.00	1
96.87	TRMB02052-S	Transect1	0.75	21.13	0.48	55.00	1
20.01	TRMB02056	CIRCULAR	2.00	3.14	0.50	2.00	1

## Existing Conditions (10-Year)

TRMB02056-S	Transect1	0.75	21.13	0.48	55.00	1
193.57						
TRMB02057	CIRCULAR	2.00	3.14	0.50	2.00	1
19.45						
TRMB02057-S	Transect1	0.75	21.13	0.48	55.00	1
123.46						
TRMB02060	CIRCULAR	2.00	3.14	0.50	2.00	1
18.96						
TRMB02060-S	Transect1	0.75	21.13	0.48	55.00	1
195.68						
TRMB02063	CIRCULAR	1.50	1.77	0.38	1.50	1
17.07						
TRMB02063-S	Transect1	0.75	21.13	0.48	55.00	1
144.70						
TRMB02064	CIRCULAR	1.50	1.77	0.38	1.50	1
8.75						
TRMB02064-S	Transect1	0.75	21.13	0.48	55.00	1
116.56						
TRMB02067	CIRCULAR	1.25	1.23	0.31	1.25	1
2.79						
TRMB02067-S	Transect1	0.75	21.13	0.48	55.00	1
163.36						
TRMB02068	CIRCULAR	1.25	1.23	0.31	1.25	1
4.45						
TRMB02068-S	Transect1	0.75	21.13	0.48	55.00	1
161.17						
TRMB02069	CIRCULAR	1.25	1.23	0.31	1.25	1
6.50						
TRMB02069-S	Transect1	0.75	21.13	0.48	55.00	1
178.71						
TRMB02070	CIRCULAR	1.25	1.23	0.31	1.25	1
4.21						
TRMB02070-S	Transect1	0.75	21.13	0.48	55.00	1
104.17						
TRMB03016	CIRCULAR	2.50	4.91	0.63	2.50	1
46.55						
TRMB03022	TRAPEZOIDAL	1.30	2.67	0.61	3.10	1
20.73						
TRMB03025	CIRCULAR	2.00	3.14	0.50	2.00	1
44.98						
TRMB03025-S	Transect1	0.75	21.13	0.48	55.00	1
496.49						
TRMB03026	CIRCULAR	1.00	0.79	0.25	1.00	1
15.18						
TRMB03027	CIRCULAR	1.00	0.79	0.25	1.00	1
3.72						
TRMB03028	CIRCULAR	2.00	3.14	0.50	2.00	1
4.47						
TRMB03028-S	Transect1	0.75	21.13	0.48	55.00	1
223.19						
TRMB03029	CIRCULAR	2.00	3.14	0.50	2.00	1
24.25						
TRMB03029-S	Transect1	0.75	21.13	0.48	55.00	1
145.37						
TRMB03030	CIRCULAR	2.00	3.14	0.50	2.00	1
21.63						
TRMB03030-S	Transect1	0.75	21.13	0.48	55.00	1
131.83						
TRMB03031	TRAPEZOIDAL	6.00	104.99	3.21	30.00	1
2547.14						
TRMB03032	CIRCULAR	2.00	3.14	0.50	2.00	1
19.94						

## Existing Conditions (10-Year)

TRMB03032-S 121.82	Transect1	0.75	21.13	0.48	55.00	1
TRMB03033 10.43	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB03033-S 198.53	Transect1	0.75	21.13	0.48	55.00	1
TRMB03034 6.28	CIRCULAR	1.00	0.79	0.25	1.00	1
TRMB03034-S 123.52	Transect1	0.75	21.13	0.48	55.00	1
TRMB03035 64.76	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB03035-S 18.11	Transect1	0.75	21.13	0.48	55.00	1
TRMB03036 13.42	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB03036-S 97.32	Transect1	0.75	21.13	0.48	55.00	1
TRMB03037 4.02	CIRCULAR	1.00	0.79	0.25	1.00	1
TRMB03037-S 135.68	Transect1	0.75	21.13	0.48	55.00	1
TRMB03038 13.65	CIRCULAR	1.00	0.79	0.25	1.00	1
TRMB03038-S 254.64	Transect1	0.75	21.13	0.48	55.00	1
TRMB03039 23.59	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB03039-S 89.57	Transect1	0.75	21.13	0.48	55.00	1
TRMB03042 11.51	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB03042-S 228.36	Transect1	0.75	21.13	0.48	55.00	1
TRMB03043 13.81	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB03043-S 97.64	Transect1	0.75	21.13	0.48	55.00	1
TRMB03044 12.37	CIRCULAR	1.50	1.77	0.38	1.50	1
TRMB03044-S 152.04	Transect1	0.75	21.13	0.48	55.00	1
TRMB03049 9.29	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB03049-S 278.13	Transect1	0.75	21.13	0.48	55.00	1
TRMB03051 53.17	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB03051-S 216.99	Transect1	0.75	21.13	0.48	55.00	1
TRMB03052 8.64	CIRCULAR	1.00	0.79	0.25	1.00	1
TRMB03052-S 120.68	Transect1	0.75	21.13	0.48	55.00	1
TRMB03054 5.51	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB03054-S 48.75	Transect1	0.75	21.13	0.48	55.00	1
TRMB03055 1.77	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB03055-S 26.06	Transect1	0.75	21.13	0.48	55.00	1

## Existing Conditions (10-Year)

TRMB03063	CIRCULAR	1.50	1.77	0.38	1.50	1
10.65						
TRMB03063-S	Transect1	0.75	21.13	0.48	55.00	1
144.11						
TRMB03065	CIRCULAR	3.00	7.07	0.75	3.00	1
76.32						
TRMB03067	CIRCULAR	1.00	0.79	0.25	1.00	1
17.70						
TRMB03067-S	Transect1	0.75	21.13	0.48	55.00	1
443.26						
TRMB03068	CIRCULAR	1.50	1.77	0.38	1.50	1
25.52						
TRMB03068-S	Transect1	0.75	21.13	0.48	55.00	1
347.64						
TRMB03069	CIRCULAR	3.00	7.07	0.75	3.00	1
83.52						
TRMB03069-S	Transect1	0.75	21.13	0.48	55.00	1
102.80						
TRMB03070	CIRCULAR	3.00	7.07	0.75	3.00	1
81.31						
TRMB03070-S	Transect1	0.75	21.13	0.48	55.00	1
53.76						
TRMB03072	CIRCULAR	3.00	7.07	0.75	3.00	1
109.80						
TRMB03072-S	Transect1	0.75	21.13	0.48	55.00	1
249.36						
TRMB03073	CIRCULAR	1.25	1.23	0.31	1.25	1
18.02						
TRMB03073-S	Transect1	0.75	21.13	0.48	55.00	1
294.21						
TRMB03083	CIRCULAR	2.50	4.91	0.63	2.50	1
68.09						
TRMB03083-S	Transect1	0.75	21.13	0.48	55.00	1
185.20						
TRMB03084	CIRCULAR	1.50	1.77	0.38	1.50	1
4.94						
TRMB03084-S	Transect1	0.75	21.13	0.48	55.00	1
205.56						
TRMB03087	CIRCULAR	2.50	4.91	0.63	2.50	1
13.75						
TRMB03087-S	Transect1	0.75	21.13	0.48	55.00	1
205.26						
TRMB03088	CIRCULAR	3.00	7.07	0.75	3.00	1
81.45						
TRMB03088-S	Transect1	0.75	21.13	0.48	55.00	1
210.63						
TRMB03089	CIRCULAR	3.00	7.07	0.75	3.00	1
105.61						
TRMB03089-S	Transect1	0.75	21.13	0.48	55.00	1
37.95						
TRMB03090	CIRCULAR	3.00	7.07	0.75	3.00	1
73.99						
TRMB03090-S	Transect1	0.75	21.13	0.48	55.00	1
339.72						
TRMB03091	CIRCULAR	3.00	7.07	0.75	3.00	1
80.72						
TRMB03091-S	Transect1	0.75	21.13	0.48	55.00	1
211.36						
TRMB03092	CIRCULAR	1.25	1.23	0.31	1.25	1
16.34						
TRMB03092-S	Transect1	0.75	21.13	0.48	55.00	1
210.69						

## Existing Conditions (10-Year)

TRMB03094	CIRCULAR	3.00	7.07	0.75	3.00	1
72.90						
TRMB03094-S	Transect1	0.75	21.13	0.48	55.00	1
142.50						
TRMB03095	CIRCULAR	1.25	1.23	0.31	1.25	1
39.30						
TRMB03095-S	Transect1	0.75	21.13	0.48	55.00	1
14.62						
TRMB03096	CIRCULAR	3.00	7.07	0.75	3.00	1
28.25						
TRMB03096-S	Transect1	0.75	21.13	0.48	55.00	1
331.55						
TRMB03097	CIRCULAR	1.25	1.23	0.31	1.25	1
15.39						
TRMB03097-S	Transect1	0.75	21.13	0.48	55.00	1
304.83						
TRMB03101	CIRCULAR	1.50	1.77	0.38	1.50	1
69.49						
TRMB03101-S	Transect1	0.75	21.13	0.48	55.00	1
385.64						
TRMB03102	CIRCULAR	3.00	7.07	0.75	3.00	1
88.49						
TRMB03102-S	Transect1	0.75	21.13	0.48	55.00	1
229.99						
TRMB03103	CIRCULAR	3.00	7.07	0.75	3.00	1
114.19						
TRMB03103-S	Transect1	0.75	21.13	0.48	55.00	1
259.09						
TRMB03111	CIRCULAR	2.00	3.14	0.50	2.00	1
39.07						
TRMB03111-S	Transect1	0.75	21.13	0.48	55.00	1
176.15						
TRMB03132	CIRCULAR	1.50	1.77	0.38	1.50	1
14.93						
TRMB03132-S	Transect1	0.75	21.13	0.48	55.00	1
271.42						
TRMB04089_1	CIRCULAR	3.50	9.62	0.88	3.50	1
47.19						
TRMB04089_1-S	Transect1	0.75	21.13	0.48	55.00	1
128.01						
TRMB04089_2	CIRCULAR	3.50	9.62	0.88	3.50	1
47.04						
TRMB04089_2-S	Transect1	0.75	21.13	0.48	55.00	1
127.78						
TRMB05002	CIRCULAR	3.50	9.62	0.88	3.50	1
487.84						
TRMB05003	CIRCULAR	3.50	9.62	0.88	3.50	1
105.49						
TRMB05003-S	Transect1	0.75	21.13	0.48	55.00	1
273.49						
TRMB05004	CIRCULAR	1.25	1.23	0.31	1.25	1
7.84						
TRMB05004-S	Transect1	0.75	21.13	0.48	55.00	1
509.74						
TRMB05005	CIRCULAR	1.25	1.23	0.31	1.25	1
10.17						
TRMB05005-S	Transect1	0.75	21.13	0.48	55.00	1
274.39						
TRMB05006	CIRCULAR	3.50	9.62	0.88	3.50	1
63.25						
TRMB05006-S	Transect1	0.75	21.13	0.48	55.00	1
126.86						



## Existing Conditions (10-Year)

TRMB05008	CIRCULAR	1.25	1.23	0.31	1.25	1
9.22						
TRMB05008-S	Transect1	0.75	21.13	0.48	55.00	1
154.13						
TRMB05009_1	CIRCULAR	3.50	9.62	0.88	3.50	1
89.90						
TRMB05009_1-S	Transect1	0.75	21.13	0.48	55.00	1
100.89						
TRMB05009_2	CIRCULAR	3.50	9.62	0.88	3.50	1
89.89						
TRMB05009_2-S	Transect1	0.75	21.13	0.48	55.00	1
101.70						
TRMB05010	CIRCULAR	2.00	3.14	0.50	2.00	1
102.29						
TRMB05010-S	Transect1	0.75	21.13	0.48	55.00	1
95.92						
TRMB05011	CIRCULAR	2.00	3.14	0.50	2.00	1
39.82						
TRMB05011-S	Transect1	0.75	21.13	0.48	55.00	1
217.12						
TRMB05012	CIRCULAR	1.25	1.23	0.31	1.25	1
3.80						
TRMB05012-S	Transect1	0.75	21.13	0.48	55.00	1
81.49						
TRMB05013	CIRCULAR	1.25	1.23	0.31	1.25	1
71.13						
TRMB05013-S	Transect1	0.75	21.13	0.48	55.00	1
411.07						
TRMB05014	CIRCULAR	1.25	1.23	0.31	1.25	1
30.83						
TRMB05014-S	Transect1	0.75	21.13	0.48	55.00	1
188.28						
TRMB05015	CIRCULAR	3.50	9.62	0.88	3.50	1
55.84						
TRMB05015-S	Transect1	0.75	21.13	0.48	55.00	1
154.01						
TRMB05016	CIRCULAR	1.50	1.77	0.38	1.50	1
47.29						
TRMB05016-S	Transect1	0.75	21.13	0.48	55.00	1
144.71						
TRMB05017	CIRCULAR	3.50	9.62	0.88	3.50	1
51.71						
TRMB05017-S	Transect1	0.75	21.13	0.48	55.00	1
196.34						
TRMB05018	CIRCULAR	1.25	1.23	0.31	1.25	1
26.51						
TRMB05018-S	Transect1	0.75	21.13	0.48	55.00	1
125.01						
TRMB05019	CIRCULAR	1.50	1.77	0.38	1.50	1
15.52						
TRMB05019-S	Transect1	0.75	21.13	0.48	55.00	1
240.33						
TRMB05020	CIRCULAR	1.25	1.23	0.31	1.25	1
8.15						
TRMB05020-S	Transect1	0.75	21.13	0.48	55.00	1
119.35						
TRMB05021	CIRCULAR	1.50	1.77	0.38	1.50	1
9.01						
TRMB05021-S	Transect1	0.75	21.13	0.48	55.00	1
95.47						
TRMB05022	CIRCULAR	1.25	1.23	0.31	1.25	1
8.27						

## Existing Conditions (10-Year)

TRMB05022-S 125.24	Transect1	0.75	21.13	0.48	55.00	1
TRMB05023 4.21	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05023-S 157.10	Transect1	0.75	21.13	0.48	55.00	1
TRMB05025 59.33	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05025-S 291.76	Transect1	0.75	21.13	0.48	55.00	1
TRMB05026 27.64	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05026-S 122.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05027 48.91	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05027-S 372.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05028 7.20	CIRCULAR	1.50	1.77	0.38	1.50	1
TRMB05028-S 121.33	Transect1	0.75	21.13	0.48	55.00	1
TRMB05029 5.39	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05029-S 115.49	Transect1	0.75	21.13	0.48	55.00	1
TRMB05030 11.07	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05030-S 167.63	Transect1	0.75	21.13	0.48	55.00	1
TRMB05031 12.37	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05031-S 78.66	Transect1	0.75	21.13	0.48	55.00	1
TRMB05032 10.49	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05032-S 62.91	Transect1	0.75	21.13	0.48	55.00	1
TRMB05033 0.44	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05033-S 9.35	Transect1	0.75	21.13	0.48	55.00	1
TRMB05034 5.37	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05034-S 114.98	Transect1	0.75	21.13	0.48	55.00	1
TRMB05035 45.39	CIRCULAR	1.50	1.77	0.38	1.50	1
TRMB05035-S 68.75	Transect1	0.75	21.13	0.48	55.00	1
TRMB05036 6.24	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05036-S 125.13	Transect1	0.75	21.13	0.48	55.00	1
TRMB05037 12.92	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05037-S 134.20	Transect1	0.75	21.13	0.48	55.00	1
TRMB05038 7.78	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05038-S 83.38	Transect1	0.75	21.13	0.48	55.00	1

## Existing Conditions (10-Year)

TRMB05039	CIRCULAR	1.25	1.23	0.31	1.25	1
5.00						
TRMB05039-S	Transect1	0.75	21.13	0.48	55.00	1
117.36						
TRMB05040	CIRCULAR	1.50	1.77	0.38	1.50	1
7.58						
TRMB05040-S	Transect1	0.75	21.13	0.48	55.00	1
157.77						
TRMB05041	CIRCULAR	1.50	1.77	0.38	1.50	1
7.66						
TRMB05041-S	Transect1	0.75	21.13	0.48	55.00	1
119.01						
TRMB05042	CIRCULAR	1.25	1.23	0.31	1.25	1
7.46						
TRMB05042-S	Transect1	0.75	21.13	0.48	55.00	1
159.81						
TRMB05044	CIRCULAR	1.25	1.23	0.31	1.25	1
5.64						
TRMB05044-S	Transect1	0.75	21.13	0.48	55.00	1
149.48						
TRMB05045	CIRCULAR	1.50	1.77	0.38	1.50	1
9.73						
TRMB05045-S	Transect1	0.75	21.13	0.48	55.00	1
175.60						
TRMB05046	CIRCULAR	1.50	1.77	0.38	1.50	1
17.69						
TRMB05046-S	Transect1	0.75	21.13	0.48	55.00	1
313.27						
TRMB05048	CIRCULAR	1.50	1.77	0.38	1.50	1
17.63						

\*\*\*\*\*  
 Transect Summary  
 \*\*\*\*\*

Transect Transect1

Area:

0.0005	0.0021	0.0048	0.0085	0.0133
0.0192	0.0261	0.0341	0.0431	0.0533
0.0644	0.0767	0.0900	0.1044	0.1198
0.1363	0.1539	0.1725	0.1922	0.2130
0.2343	0.2556	0.2769	0.2982	0.3195
0.3408	0.3621	0.3834	0.4047	0.4260
0.4473	0.4686	0.4899	0.5115	0.5340
0.5576	0.5823	0.6080	0.6349	0.6627
0.6917	0.7217	0.7527	0.7849	0.8180
0.8523	0.8876	0.9240	0.9615	1.0000

Hrad:

0.0151	0.0302	0.0453	0.0604	0.0755
0.0906	0.1057	0.1208	0.1359	0.1510
0.1661	0.1812	0.1963	0.2114	0.2265
0.2416	0.2567	0.2718	0.2869	0.3020
0.3319	0.3617	0.3915	0.4212	0.4508
0.4804	0.5099	0.5394	0.5688	0.5982
0.6275	0.6567	0.6859	0.7150	0.7424
0.7680	0.7919	0.8142	0.8351	0.8547
0.8731	0.8904	0.9067	0.9221	0.9367
0.9506	0.9638	0.9764	0.9884	1.0000

Width:

0.0273	0.0545	0.0818	0.1091	0.1364
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# Existing Conditions (10-Year)

0.1636	0.1909	0.2182	0.2455	0.2727
0.3000	0.3273	0.3545	0.3818	0.4091
0.4364	0.4636	0.4909	0.5182	0.5455
0.5455	0.5455	0.5455	0.5455	0.5455
0.5455	0.5455	0.5455	0.5455	0.5455
0.5455	0.5455	0.5455	0.5636	0.5909
0.6182	0.6455	0.6727	0.7000	0.7273
0.7545	0.7818	0.8091	0.8364	0.8636
0.8909	0.9182	0.9455	0.9727	1.0000

```

*****
Runoff Quantity Continuity          Volume      Depth
                                   acre-feet   inches
*****
Total Precipitation .....          508.966     5.794
Evaporation Loss .....              0.000        0.000
Infiltration Loss .....            189.738     2.160
Surface Runoff .....                271.912     3.096
Final Surface Storage ....           47.379     0.539
Continuity Error (%) .....          -0.012

```

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*****
Flow Routing Continuity          Volume      Volume
                                   acre-feet   10^6 gal
*****
Dry Weather Inflow .....           0.000         0.000
Wet Weather Inflow .....          271.751       88.554
Groundwater Inflow .....           0.000         0.000
RDII Inflow .....                  0.000         0.000
External Inflow .....               0.000         0.000
External Outflow .....              -94.889       -30.921
Internal Outflow .....              364.150       118.664
Evaporation Loss .....              0.000         0.000
Exfiltration Loss .....             0.000         0.000
Initial Stored Volume ....           0.418         0.136
Final Stored Volume .....           16.933         5.518
Continuity Error (%) .....          -5.154

```

```

*****
Highest Continuity Errors
*****
Node TRMB05006-S (-4460.47%)
Node TRMB05021-S (-1353.98%)
Node TRMB05035-S (-770.61%)
Node TRMB05020-S (-537.64%)
Node TRMB05003-S (-446.57%)

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*****
Time-Step Critical Elements
*****
Link PCTB02237 (42.89%)
Link TRMB03028 (8.54%)
Link C14 (8.17%)
Link PCTB02022 (6.39%)
Link PCTB02002 (3.15%)

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*****
Highest Flow Instability Indexes
*****

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# Existing Conditions (10-Year)

Link TRMB05020-IC (143)  
 Link TRMB05029-IC (138)  
 Link TRMB03067-IC (138)  
 Link TRMB05012-IC (138)  
 Link TRMB05030-IC (138)

\*\*\*\*\*  
 Routing Time Step Summary  
 \*\*\*\*\*

Minimum Time Step : 0.50 sec  
 Average Time Step : 3.13 sec  
 Maximum Time Step : 5.00 sec  
 Percent in Steady State : 0.00  
 Average Iterations per Step : 6.96  
 Percent Not Converging : 46.42

\*\*\*\*\*  
 Subcatchment Runoff Summary  
 \*\*\*\*\*

-----			Total	Total	Total	Total	Total	
Total	Peak	Runoff	Total	Total	Total	Total	Total	
Runoff	Runoff	Coeff	Precip	Runon	Evap	Infil	Runoff	
Subcatchment	Subcatchment		in	in	in	in	in	10^6
gal	CFS							
-----								
PC_1321			5.79	0.00	0.00	2.21	2.90	
3.35	27.60	0.500						
PC_1323			5.79	0.00	0.00	2.82	2.30	
1.09	8.25	0.397						
PC_1324			5.79	0.00	0.00	2.06	2.85	
1.61	9.35	0.492						
PC_1325			5.79	0.00	0.00	2.78	2.19	
1.84	9.68	0.379						
PC_1326			5.79	0.00	0.00	2.07	3.15	
5.65	47.93	0.544						
PC_1327			5.79	0.00	0.00	2.00	2.95	
1.10	7.06	0.510						
PC_1350			5.79	0.00	0.00	2.43	2.64	
4.18	30.44	0.456						
PC_1360			5.79	0.00	0.00	2.70	2.39	
2.48	17.71	0.412						
PC_571			5.79	0.00	0.00	2.64	2.53	
11.19	77.26	0.437						
SubCatch_ASH_ST			5.79	0.00	0.00	1.62	4.08	
0.14	3.34	0.704						
SubCatch_AVERY_ST			5.79	0.00	0.00	3.06	2.58	
0.03	0.54	0.446						
SubCatch_BELVOIR_HW			5.79	0.00	0.00	1.51	3.90	
3.86	48.01	0.674						
SubCatch_BELVOIR_HW_1			5.79	0.00	0.00	2.09	2.84	
2.02	12.19	0.491						
SubCatch_CHESTNUT_ST			5.79	0.00	0.00	1.67	4.02	
2.10	47.95	0.694						
SubCatch_COLONIAL_AV			5.79	0.00	0.00	2.08	3.61	
0.04	0.85	0.623						

## Existing Conditions (10-Year)

SubCatch_COLONIAL_AV_1	5.79	0.00	0.00	1.84	3.85
0.04 0.82 0.665					
SubCatch_CONTENTNEA_ST	5.79	0.00	0.00	0.29	5.43
0.00 0.11 0.938					
SubCatch_CONTENTNEA_ST_1	5.79	0.00	0.00	2.18	3.51
0.18 3.96 0.605					
SubCatch_CONTENTNEA_ST_2	5.79	0.00	0.00	2.98	2.65
0.14 2.84 0.458					
SubCatch_CONTENTNEA_ST_3	5.79	0.00	0.00	2.23	3.46
0.07 1.61 0.597					
SubCatch_CONTENTNEA_ST_4	5.79	0.00	0.00	2.03	3.67
0.15 3.43 0.633					
SubCatch_CONTENTNEA_ST_5	5.79	0.00	0.00	2.58	3.10
0.13 2.64 0.534					
SubCatch_CONTENTNEA_ST_6	5.79	0.00	0.00	2.66	3.01
0.02 0.45 0.520					
SubCatch_DAVIS_ST	5.79	0.00	0.00	1.68	4.02
0.07 1.57 0.694					
SubCatch_DAVIS_ST_1	5.79	0.00	0.00	2.18	3.50
0.08 1.75 0.604					
SubCatch_DAVIS_ST_2	5.79	0.00	0.00	2.26	3.42
0.20 4.26 0.590					
SubCatch_DAVIS_ST_3	5.79	0.00	0.00	2.22	3.47
0.12 2.51 0.598					
SubCatch_DAVIS_ST_4	5.79	0.00	0.00	2.18	3.51
0.16 3.38 0.605					
SubCatch_E_1ST_ST	5.79	0.00	0.00	2.62	3.05
0.44 8.49 0.526					
SubCatch_E_1ST_ST_1	5.79	0.00	0.00	1.61	4.08
0.06 1.43 0.704					
SubCatch_E_1ST_ST_2	5.79	0.00	0.00	2.24	3.44
0.24 4.90 0.593					
SubCatch_E_2ND_ST	5.79	0.00	0.00	0.53	5.17
0.65 15.35 0.892					
SubCatch_E_2ND_ST_1	5.79	0.00	0.00	0.67	5.05
0.00 0.10 0.871					
SubCatch_E_2ND_ST_2	5.79	0.00	0.00	3.68	1.95
0.00 0.01 0.337					
SubCatch_E_2ND_ST_3	5.79	0.00	0.00	3.27	2.35
0.01 0.11 0.406					
SubCatch_E_2ND_ST_4	5.79	0.00	0.00	1.15	4.49
0.09 1.78 0.775					
SubCatch_E_3RD_ST	5.79	0.00	0.00	2.10	3.60
0.13 2.91 0.621					
SubCatch_E_3RD_ST_1	5.79	0.00	0.00	0.76	4.92
0.89 20.75 0.850					
SubCatch_E_3RD_ST_2	5.79	0.00	0.00	2.27	3.42
0.18 4.00 0.590					
SubCatch_E_3RD_ST_3	5.79	0.00	0.00	1.87	3.82
0.18 4.22 0.659					
SubCatch_E_4TH_ST	5.79	0.00	0.00	2.43	3.26
0.08 1.85 0.562					
SubCatch_E_4TH_ST_1	5.79	0.00	0.00	1.59	4.11
0.34 8.07 0.710					
SubCatch_E_4TH_ST_2	5.79	0.00	0.00	2.15	3.53
0.08 1.79 0.608					
SubCatch_E_CATAWBA_RD	5.79	0.00	0.00	2.17	3.09
1.53 15.63 0.533					
SubCatch_FAIRFAX_AV	5.79	0.00	0.00	2.34	3.35
0.10 2.12 0.578					
SubCatch_FLEMING_SCHOOL_RD	5.79	0.00	0.00	2.49	2.66
1.97 16.67 0.459					

## Existing Conditions (10-Year)

SubCatch_FLEMING_SCHOOL_RD_1	5.79	0.00	0.00	2.37	2.57
2.04 11.39 0.444					
SubCatch_FLEMING_SCHOOL_RD_2	5.79	0.00	0.00	1.47	3.56
0.35 2.86 0.615					
SubCatch_GREENFIELD_BV	5.79	0.00	0.00	1.77	3.27
2.62 20.43 0.564					
SubCatch_GREENFIELD_BV_1	5.79	0.00	0.00	0.87	4.47
1.00 11.96 0.771					
SubCatch_GREENFIELD_BV_2	5.79	0.00	0.00	2.20	2.72
0.63 3.63 0.470					
SubCatch_HAW_1	5.79	0.00	0.00	1.37	3.56
0.28 1.99 0.615					
SubCatch_HAW_2	5.79	0.00	0.00	2.61	2.83
1.35 15.39 0.488					
SubCatch_HOP_TYSON_RD	5.79	0.00	0.00	1.88	3.32
1.57 15.34 0.573					
SubCatch_JOHNSON_HEIGHTS	5.79	0.00	0.00	1.00	4.70
0.35 8.51 0.810					
SubCatch_LATHAM_ST	5.79	0.00	0.00	2.40	3.28
0.23 4.97 0.566					
SubCatch_N_ELM_ST	5.79	0.00	0.00	1.30	4.38
0.35 8.21 0.756					
SubCatch_N_ELM_ST_1	5.79	0.00	0.00	2.73	2.94
0.19 3.90 0.507					
SubCatch_N_ELM_ST_2	5.79	0.00	0.00	1.70	4.00
0.83 19.41 0.690					
SubCatch_N_HARDING_ST	5.79	0.00	0.00	2.75	2.93
0.18 3.93 0.506					
SubCatch_N_HARDING_ST_1	5.79	0.00	0.00	2.17	3.52
0.15 3.36 0.608					
SubCatch_N_HARDING_ST_2	5.79	0.00	0.00	2.37	3.32
0.27 6.06 0.573					
SubCatch_N_JARVIS_ST	5.79	0.00	0.00	1.85	3.83
0.32 6.93 0.660					
SubCatch_N_LIBRARY_ST	5.79	0.00	0.00	2.20	3.49
0.26 5.86 0.602					
SubCatch_N_MEMORIAL_DR	5.79	0.00	0.00	1.70	3.33
1.60 12.57 0.575					
SubCatch_N_OAK_ST	5.79	0.00	0.00	1.06	4.63
1.05 24.76 0.799					
SubCatch_N_OAK_ST_1	5.79	0.00	0.00	1.10	4.60
0.09 2.08 0.793					
SubCatch_N_OAK_ST_2	5.79	0.00	0.00	2.04	3.65
0.30 6.86 0.630					
SubCatch_N_SUMMIT_ST	5.79	0.00	0.00	2.85	2.80
0.02 0.34 0.483					
SubCatch_N_SUMMIT_ST_1	5.79	0.00	0.00	1.95	3.73
0.48 10.19 0.644					
SubCatch_PARK_DR	5.79	0.00	0.00	3.14	2.53
0.10 1.98 0.436					
SubCatch_RIVER_DR	5.79	0.00	0.00	2.49	3.19
0.38 8.39 0.551					
SubCatch_S_ELM_ST	5.79	0.00	0.00	1.85	3.84
0.67 15.44 0.662					
SubCatch_S_ELM_ST_1	5.79	0.00	0.00	2.12	3.57
0.25 5.77 0.617					
SubCatch_S_HARDING_ST	5.79	0.00	0.00	2.35	3.34
0.41 9.34 0.577					
SubCatch_S_LIBRARY_ST	5.79	0.00	0.00	2.38	3.32
0.43 9.68 0.572					
SubCatch_S_OAK_ST	5.79	0.00	0.00	2.30	3.39
0.17 3.79 0.585					

## Existing Conditions (10-Year)

SubCatch_S_OAK_ST_1	5.79	0.00	0.00	1.48	4.21
0.14 3.25 0.726					
SubCatch_S_ROTARY_AV	5.79	0.00	0.00	1.42	4.27
0.53 11.83 0.738					
SubCatch_S_ROTARY_AV_1	5.79	0.00	0.00	2.09	3.61
0.43 10.03 0.623					
SubCatch_S_ROTARY_AV_2	5.79	0.00	0.00	1.62	4.05
0.20 4.27 0.699					
SubCatch_S_ROTARY_AV_3	5.79	0.00	0.00	1.57	4.10
0.09 1.85 0.708					
SubCatch_S_ROTARY_AV_5	5.79	0.00	0.00	2.79	2.85
0.05 0.89 0.492					
SubCatch_S_WOODLAWN_AV	5.79	0.00	0.00	2.27	3.41
0.09 1.80 0.589					
SubCatch_SPRUCE_ST	5.79	0.00	0.00	2.40	3.14
4.19 66.05 0.541					
SubCatch_STATON_HOUSE_RD	5.79	0.00	0.00	1.54	3.62
3.11 29.64 0.625					
SubCatch_STUDENT_ST	5.79	0.00	0.00	1.25	4.44
0.69 15.57 0.766					
SubCatch_TRENT_CI	5.79	0.00	0.00	2.53	2.59
0.71 5.57 0.447					
SubCatch_TRENT_CI_1	5.79	0.00	0.00	1.49	3.65
2.80 26.20 0.631					
SubCatch_VANCE_2	5.79	0.00	0.00	2.33	3.36
0.26 5.68 0.579					
SubCatch_VANCE_ST_1	5.79	0.00	0.00	0.86	4.86
0.00 0.10 0.839					
SubCatch_VANCE_ST_2	5.79	0.00	0.00	2.53	3.15
0.03 0.57 0.543					
SubCatch_VANCE_ST_3	5.79	0.00	0.00	1.87	3.83
0.12 2.72 0.661					
SubCatch_VANCE_ST_4	5.79	0.00	0.00	2.28	3.41
0.11 2.39 0.588					
SubCatch_VANCE_ST_5	5.79	0.00	0.00	2.43	3.25
0.11 2.24 0.561					
SubCatch_VANCE_ST_6	5.79	0.00	0.00	1.79	3.90
0.02 0.56 0.674					
SubCatch_VANCE_ST_7	5.79	0.00	0.00	2.61	3.07
0.02 0.48 0.529					
SubCatch_W_3RD_ST	5.79	0.00	0.00	0.49	5.23
0.00 0.03 0.902					
SubCatch_W_3RD_ST_1	5.79	0.00	0.00	0.57	5.15
0.00 0.07 0.889					
SubCatch_W_3RD_ST_2	5.79	0.00	0.00	1.71	3.99
0.03 0.71 0.689					
SubCatch_W_3RD_ST_3	5.79	0.00	0.00	2.15	3.53
0.10 2.16 0.610					
SubCatch_W_3RD_ST_5	5.79	0.00	0.00	2.50	3.18
0.06 1.36 0.549					
SubCatch_W_3RD_ST_6	5.79	0.00	0.00	1.53	4.17
0.05 1.11 0.720					
SubCatch_W_3RD_ST_7	5.79	0.00	0.00	1.68	4.02
0.02 0.43 0.693					
SubCatch_W_3RD_ST_8	5.79	0.00	0.00	2.27	3.42
0.04 0.97 0.590					
SubCatch_W_3RD_ST_9	5.79	0.00	0.00	2.92	2.73
0.10 2.17 0.472					
SubCatch_W_4TH_ST	5.79	0.00	0.00	2.40	3.28
0.07 1.52 0.566					
SubCatch_W_4TH_ST_2	5.79	0.00	0.00	1.84	3.86
0.07 1.63 0.666					



# Existing Conditions (10-Year)

SubCatch_W_5th_ST	5.79	0.00	0.00	1.65	4.05
0.94 21.76 0.699					
SubCatch_WILLOW_ST	5.79	0.00	0.00	2.90	2.76
0.16 3.26 0.477					
SubCatch_WILLOW_ST_1	5.79	0.00	0.00	2.05	3.65
0.04 0.96 0.629					
SubCatch_WILSONACRES_APT	5.79	0.00	0.00	1.43	4.27
0.71 16.82 0.736					
SubCatch_WOODSIDE_RD	5.79	0.00	0.00	2.21	2.96
1.75 15.85 0.510					
SubCatch_WOODSIDE_RD_1	5.79	0.00	0.00	1.26	3.79
1.17 9.96 0.654					
SubInsert	5.79	0.00	0.00	1.70	3.76
1.68 21.76 0.650					

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Node Depth Summary  
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Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
CountrySideE_Ditch_Culvert_In	JUNCTION		2.28	2.65	24.30 0 13:37
CountrySideE_Ditch_Culvert_In-S	JUNCTION		0.16	0.33	27.83 0 13:00
JMTB01003	JUNCTION	1.97	2.50	27.52	0 11:37
JMTB01003-S	JUNCTION	0.38	0.75	27.77	0 11:51
JMTB01004	JUNCTION	1.90	2.48	27.55	0 11:47
JMTB01004-S	JUNCTION	0.03	0.16	27.75	0 11:52
JMTB01005	JUNCTION	1.51	2.01	27.29	0 11:48
JMTB01005-S	JUNCTION	0.00	0.01	27.30	0 13:44
JMTB01006	JUNCTION	1.50	2.00	26.59	0 12:21
JMTB01006-S	JUNCTION	0.47	0.75	27.29	0 11:51
JMTB01102	JUNCTION	1.00	2.47	29.06	0 12:13
JMTB01102-S	JUNCTION	0.19	0.75	29.81	0 12:30
JMTB01103	JUNCTION	1.15	2.64	29.06	0 12:30
JMTB01103-S	JUNCTION	0.01	0.19	29.76	0 12:30
JMTB01104	JUNCTION	0.96	2.48	29.11	0 12:32
JMTB01104-S	JUNCTION	0.01	0.07	29.81	0 12:30
JMTB01105	JUNCTION	1.32	2.27	28.30	0 12:30
JMTB01105-S	JUNCTION	0.25	0.75	28.56	0 12:14
PCTB01068	JUNCTION	0.41	1.04	20.39	0 12:35
PCTB01068_US	JUNCTION	0.53	1.06	21.06	0 12:33
PCTB01068_US-S	JUNCTION	0.10	0.55	25.85	0 12:33
PCTB01068-S	JUNCTION	0.03	0.45	25.81	0 12:33
PCTB02001	JUNCTION	1.25	2.04	23.82	0 13:28
PCTB02001-S	JUNCTION	0.11	0.55	23.93	0 12:30
PCTB02002	JUNCTION	1.12	1.88	23.87	0 13:17
PCTB02002-S	JUNCTION	0.00	0.00	24.25	0 00:00
PCTB02003	JUNCTION	0.84	1.36	25.34	0 12:32
PCTB02003-S	JUNCTION	0.23	0.75	26.98	0 11:54
PCTB02004	JUNCTION	0.43	1.04	25.20	0 14:38
PCTB02004-S	JUNCTION	0.23	0.58	26.99	0 11:54
PCTB02005	JUNCTION	0.40	0.86	25.26	0 12:30
PCTB02008	JUNCTION	1.30	2.03	23.67	0 13:21
PCTB02011	JUNCTION	1.11	1.85	23.71	0 13:24
PCTB02011-S	JUNCTION	0.00	0.04	26.80	0 12:24
PCTB02012	JUNCTION	1.40	2.18	23.80	0 13:19
PCTB02012-S	JUNCTION	0.24	0.75	26.81	0 12:24
PCTB02014	JUNCTION	2.30	3.11	23.81	0 13:22

## Existing Conditions (10-Year)

PCTB02014-S	JUNCTION	0.14	0.60	23.83	0	13:34
PCTB02015	JUNCTION	2.03	2.85	23.82	0	13:32
PCTB02015-S	JUNCTION	0.02	0.18	23.82	0	13:32
PCTB02016	JUNCTION	0.55	1.03	25.26	0	12:31
PCTB02016-S	JUNCTION	0.00	0.00	25.88	0	00:00
PCTB02017	JUNCTION	0.82	1.35	25.34	0	12:31
PCTB02017-S	JUNCTION	0.00	0.00	25.89	0	00:00
PCTB02022	JUNCTION	1.78	2.44	24.76	0	11:18
PCTB02022-S	JUNCTION	0.09	0.54	25.30	0	12:30
PCTB02023	JUNCTION	1.71	2.37	24.72	0	11:19
PCTB02023-S	JUNCTION	0.04	0.58	25.30	0	12:30
PCTB02075	JUNCTION	6.55	6.58	23.80	0	00:25
PCTB02076	JUNCTION	6.06	6.09	23.80	0	00:24
PCTB02080	JUNCTION	6.94	6.97	23.80	0	12:34
PCTB02159	JUNCTION	5.77	5.80	23.80	0	12:35
PCTB02160	JUNCTION	5.77	5.81	23.80	0	12:34
PCTB02189	JUNCTION	3.45	4.19	23.76	0	00:03
PCTB02189-S	JUNCTION	0.23	0.75	24.51	0	12:22
PCTB02191	JUNCTION	4.58	4.59	23.00	0	00:02
PCTB02191_DS	JUNCTION	6.55	6.58	23.78	0	12:34
PCTB02191_DS-S	JUNCTION	0.75	0.75	22.95	0	00:07
PCTB02191-S	JUNCTION	0.08	0.38	23.38	0	12:28
PCTB02207	JUNCTION	3.25	3.51	24.13	0	13:34
PCTB02207-S	JUNCTION	0.00	0.00	24.62	0	00:00
PCTB02209	JUNCTION	2.81	3.16	24.24	0	13:35
PCTB02209-S	JUNCTION	0.00	0.00	25.08	0	00:00
PCTB02220	JUNCTION	5.21	5.32	23.87	0	00:08
PCTB02229	JUNCTION	4.89	5.14	24.02	0	00:08
PCTB02229-S	JUNCTION	0.00	0.00	24.52	0	00:00
PCTB02231	JUNCTION	4.73	4.89	23.99	0	13:34
PCTB02231-S	JUNCTION	0.00	0.00	24.80	0	00:00
PCTB02233	JUNCTION	0.00	0.00	25.41	0	00:00
PCTB02235	JUNCTION	3.99	4.18	24.03	0	13:34
PCTB02235-S	JUNCTION	0.27	0.75	26.15	0	11:55
PCTB02237	JUNCTION	3.83	4.09	24.12	0	13:34
PCTB02237-S	JUNCTION	0.10	0.57	26.15	0	11:56
PCTB02257	JUNCTION	2.55	2.91	24.27	0	13:36
PCTB02257_1	JUNCTION	2.55	2.91	24.27	0	13:36
PCTB02257_1-S	JUNCTION	0.05	0.16	26.92	0	11:59
PCTB02257-S	JUNCTION	0.21	0.75	27.71	0	12:23
PCTB02260	JUNCTION	2.53	2.89	24.27	0	13:36
PCTB02260-S	JUNCTION	0.00	0.00	25.93	0	00:00
PCTB02262	JUNCTION	2.62	2.96	24.24	0	13:36
PCTB02262-S	JUNCTION	0.00	0.00	25.78	0	00:00
PCTB02275	JUNCTION	2.48	2.86	24.31	0	13:36
PCTB02275-S	JUNCTION	0.01	0.17	25.72	0	12:31
PCTB02276	JUNCTION	2.46	2.90	24.42	0	13:47
PCTB02276-S	JUNCTION	0.00	0.00	26.12	0	00:00
PCTB02278	JUNCTION	2.04	2.95	25.19	0	14:44
PCTB02278-S	JUNCTION	0.11	0.55	25.19	0	14:47
PCTB02280	JUNCTION	3.66	3.69	22.58	0	00:11
PCTB02280-S	JUNCTION	0.52	0.75	23.33	0	11:59
PCTB02281	JUNCTION	3.53	3.61	22.77	0	00:11
PCTB02281-S	JUNCTION	0.28	0.57	23.34	0	12:00
PCTB02282	JUNCTION	3.31	3.58	23.34	0	12:29
PCTB02282-S	JUNCTION	0.03	0.14	25.29	0	12:30
PCTB02283	JUNCTION	2.92	2.95	22.87	0	00:13
PCTB02283-S	JUNCTION	0.01	0.20	23.07	0	12:30
PCTB02284	JUNCTION	2.58	2.92	23.18	0	00:13
PCTB02284-S	JUNCTION	0.00	0.00	23.18	0	00:00
PCTB02292	JUNCTION	5.61	5.78	23.78	0	00:23
PCTB02292-S	JUNCTION	0.36	0.49	23.49	0	12:30

## Existing Conditions (10-Year)

PCTB02294	JUNCTION	5.97	6.07	23.74	0	00:24
PCTB02294-S	JUNCTION	0.30	0.40	23.07	0	00:17
PCTB02295	JUNCTION	6.50	6.53	23.77	0	00:23
PCTB02295-S	JUNCTION	0.75	0.75	22.99	0	00:08
PCTB02297	JUNCTION	2.59	2.90	23.31	0	00:14
PCTB02297-S	JUNCTION	0.06	0.30	23.61	0	12:30
PCTB02302	JUNCTION	5.27	5.51	23.85	0	00:22
PCTB02302-S	JUNCTION	0.32	0.51	23.85	0	00:22
PCTB02303	JUNCTION	5.44	7.12	25.25	0	00:14
PCTB02303-S	JUNCTION	0.07	0.18	25.43	0	12:30
PCTB02304	JUNCTION	5.18	5.23	23.60	0	00:14
PCTB02304-S	JUNCTION	0.34	0.75	24.35	0	11:49
PCTB02312	JUNCTION	5.36	5.56	23.81	0	00:22
PCTB02312-S	JUNCTION	0.41	0.53	23.78	0	00:22
PCTB02329	JUNCTION	1.34	2.07	24.23	0	12:05
PCTB02329-S	JUNCTION	0.00	0.05	24.28	0	12:31
PCTB02330	JUNCTION	1.57	2.75	25.05	0	12:26
PCTB02330-S	JUNCTION	0.01	0.20	25.62	0	12:30
PCTB02331	JUNCTION	1.80	2.82	25.04	0	11:53
PCTB02331-S	JUNCTION	0.12	0.64	25.68	0	12:30
PCTB02332	JUNCTION	1.85	2.81	25.01	0	12:17
PCTB02332-S	JUNCTION	0.00	0.01	25.68	0	12:30
TRMB02002	JUNCTION	0.61	1.61	7.16	0	12:01
TRMB02002-S	JUNCTION	0.00	0.08	16.29	0	12:00
TRMB02003	JUNCTION	3.50	6.88	9.76	0	11:51
TRMB02003-S	JUNCTION	0.02	0.47	13.05	0	12:04
TRMB02006	JUNCTION	1.07	8.20	16.80	0	11:51
TRMB02006-S	JUNCTION	0.01	0.24	18.14	0	12:00
TRMB02009	JUNCTION	0.60	1.56	18.83	0	12:00
TRMB02009-S	JUNCTION	0.03	0.24	27.06	0	12:00
TRMB02012	JUNCTION	0.86	2.38	21.88	0	12:34
TRMB02012-S	JUNCTION	0.00	0.00	26.80	0	12:00
TRMB02015	JUNCTION	0.94	3.11	24.16	0	11:59
TRMB02015-S	JUNCTION	0.05	0.75	25.89	0	11:59
TRMB02016	JUNCTION	1.26	3.53	24.67	0	12:02
TRMB02016-S	JUNCTION	0.05	0.70	25.92	0	11:59
TRMB02018	JUNCTION	1.27	4.79	27.70	0	12:02
TRMB02018-S	JUNCTION	0.03	0.35	29.01	0	12:00
TRMB02022	JUNCTION	1.37	4.78	28.56	0	11:36
TRMB02022-S	JUNCTION	0.06	0.75	29.31	0	11:56
TRMB02023	JUNCTION	0.59	3.06	29.08	0	11:36
TRMB02023-S	JUNCTION	0.01	0.22	29.41	0	12:00
TRMB02030	JUNCTION	0.48	2.30	29.22	0	11:36
TRMB02030-S	JUNCTION	0.00	0.00	29.22	0	12:00
TRMB02032	JUNCTION	0.45	3.67	32.71	0	12:00
TRMB02032-S	JUNCTION	0.00	0.07	33.75	0	12:00
TRMB02033	JUNCTION	0.36	3.45	33.27	0	12:00
TRMB02033-S	JUNCTION	0.01	0.25	33.99	0	12:00
TRMB02034	JUNCTION	0.57	3.38	34.33	0	11:46
TRMB02034-S	JUNCTION	0.01	0.25	34.58	0	12:00
TRMB02035	JUNCTION	0.38	2.12	36.34	0	11:46
TRMB02035-S	JUNCTION	0.03	0.29	36.63	0	12:00
TRMB02044	JUNCTION	0.66	6.20	37.10	0	11:48
TRMB02044_DS	JUNCTION	1.90	8.87	33.02	0	11:49
TRMB02044_DS-S	JUNCTION	0.06	0.42	33.44	0	12:00
TRMB02044-S	JUNCTION	0.00	0.00	37.10	0	00:00
TRMB02045	JUNCTION	1.03	5.71	36.49	0	11:49
TRMB02045-S	JUNCTION	0.00	0.00	36.74	0	00:00
TRMB02046	JUNCTION	0.23	3.60	36.63	0	11:49
TRMB02046-S	JUNCTION	0.00	0.00	36.63	0	12:00
TRMB02047	JUNCTION	0.24	0.89	35.08	0	11:49
TRMB02047-S	JUNCTION	0.01	0.14	36.90	0	12:00

## Existing Conditions (10-Year)

TRMB02048	JUNCTION	0.19	0.78	36.75	0	12:00
TRMB02048-S	JUNCTION	0.00	0.00	39.25	0	12:00
TRMB02049	JUNCTION	0.19	0.69	37.24	0	12:00
TRMB02049-S	JUNCTION	0.01	0.13	39.47	0	12:00
TRMB02050	JUNCTION	0.99	5.12	35.99	0	11:49
TRMB02050-S	JUNCTION	0.00	0.00	36.02	0	00:00
TRMB02051	JUNCTION	0.91	3.81	34.90	0	11:48
TRMB02051-S	JUNCTION	0.00	0.10	35.00	0	12:00
TRMB02052	JUNCTION	0.77	3.55	34.80	0	11:48
TRMB02052-S	JUNCTION	0.00	0.00	34.80	0	12:00
TRMB02056	JUNCTION	0.63	3.79	35.20	0	11:48
TRMB02056-S	JUNCTION	0.00	0.09	35.29	0	12:00
TRMB02057	JUNCTION	0.62	3.80	35.34	0	11:48
TRMB02057-S	JUNCTION	0.01	0.23	35.57	0	12:00
TRMB02060	JUNCTION	0.49	5.56	39.86	0	11:51
TRMB02060-S	JUNCTION	0.02	0.22	41.46	0	12:00
TRMB02063	JUNCTION	0.26	0.93	41.10	0	12:00
TRMB02063-S	JUNCTION	0.00	0.00	43.67	0	12:04
TRMB02064	JUNCTION	0.41	2.41	43.45	0	11:59
TRMB02064-S	JUNCTION	0.00	0.03	44.59	0	12:00
TRMB02067	JUNCTION	0.65	4.89	46.15	0	11:59
TRMB02067-S	JUNCTION	0.01	0.16	46.36	0	12:00
TRMB02068	JUNCTION	0.49	6.38	48.50	0	11:48
TRMB02068-S	JUNCTION	0.01	0.14	48.80	0	12:00
TRMB02069	JUNCTION	0.31	6.83	49.40	0	11:48
TRMB02069-S	JUNCTION	0.00	0.00	49.40	0	11:30
TRMB02070	JUNCTION	0.36	6.52	49.24	0	11:48
TRMB02070-S	JUNCTION	0.00	0.03	49.63	0	11:59
TRMB03016	JUNCTION	0.59	2.03	9.97	0	12:00
TRMB03016-S	JUNCTION	0.00	0.00	14.88	0	00:00
TRMB03022	JUNCTION	0.64	2.89	12.79	0	11:59
TRMB03022-S	JUNCTION	0.01	0.22	12.79	0	12:13
TRMB03025	JUNCTION	0.40	1.12	13.91	0	12:30
TRMB03025-S	JUNCTION	0.00	0.07	19.66	0	11:56
TRMB03026	JUNCTION	0.04	0.17	15.28	0	12:00
TRMB03027	JUNCTION	0.10	0.47	15.92	0	12:00
TRMB03028	JUNCTION	1.00	3.14	15.92	0	12:33
TRMB03028-S	JUNCTION	0.00	0.00	20.09	0	00:00
TRMB03029	JUNCTION	0.63	3.32	17.10	0	12:33
TRMB03029-S	JUNCTION	0.00	0.00	19.13	0	00:00
TRMB03030	JUNCTION	0.77	4.50	19.38	0	12:33
TRMB03030-S	JUNCTION	0.00	0.00	19.95	0	00:00
TRMB03031	JUNCTION	0.20	1.57	19.44	0	12:33
TRMB03031-S	JUNCTION	0.01	0.14	26.22	0	12:00
TRMB03032	JUNCTION	0.84	5.33	26.59	0	11:53
TRMB03032-S	JUNCTION	0.00	0.04	28.66	0	12:00
TRMB03033	JUNCTION	0.19	2.68	30.21	0	11:48
TRMB03033-S	JUNCTION	0.00	0.00	30.21	0	12:00
TRMB03034	JUNCTION	0.35	3.02	30.36	0	11:49
TRMB03034-S	JUNCTION	0.00	0.13	30.49	0	12:00
TRMB03035	JUNCTION	0.07	3.41	29.28	0	11:52
TRMB03035-S	JUNCTION	0.00	0.00	29.28	0	12:02
TRMB03036	JUNCTION	0.86	5.89	27.62	0	11:53
TRMB03036-S	JUNCTION	0.00	0.01	29.29	0	12:00
TRMB03037	JUNCTION	0.45	2.92	30.67	0	11:48
TRMB03037-S	JUNCTION	0.02	0.24	30.91	0	11:59
TRMB03038	JUNCTION	0.03	2.98	29.52	0	11:53
TRMB03038-S	JUNCTION	0.00	0.00	30.40	0	00:00
TRMB03039	JUNCTION	0.64	6.37	29.71	0	11:49
TRMB03039-S	JUNCTION	0.00	0.11	30.01	0	12:00
TRMB03042	JUNCTION	0.19	0.53	36.43	0	12:00
TRMB03042-S	JUNCTION	0.01	0.19	40.86	0	12:00

## Existing Conditions (10-Year)

TRMB03043	JUNCTION	0.56	4.27	28.59	0	11:50
TRMB03043-S	JUNCTION	0.00	0.00	28.59	0	12:00
TRMB03044	JUNCTION	0.34	3.12	28.54	0	11:50
TRMB03044-S	JUNCTION	0.02	0.42	28.96	0	12:00
TRMB03049	JUNCTION	0.23	4.47	29.22	0	11:50
TRMB03049-S	JUNCTION	0.00	0.00	29.22	0	00:00
TRMB03051	JUNCTION	0.34	2.81	28.14	0	11:51
TRMB03051-S	JUNCTION	0.00	0.01	28.15	0	12:00
TRMB03052	JUNCTION	0.06	1.33	28.36	0	11:51
TRMB03052-S	JUNCTION	0.00	0.00	28.36	0	00:00
TRMB03054	JUNCTION	0.57	2.93	28.37	0	11:51
TRMB03054-S	JUNCTION	0.01	0.19	28.56	0	12:01
TRMB03055	JUNCTION	0.60	2.72	28.22	0	11:47
TRMB03055-S	JUNCTION	0.01	0.26	28.48	0	12:00
TRMB03063	JUNCTION	0.25	0.85	28.85	0	12:00
TRMB03063-S	JUNCTION	0.02	0.21	31.28	0	12:00
TRMB03065	JUNCTION	0.74	5.46	7.99	0	12:31
TRMB03065-S	JUNCTION	0.00	0.02	14.02	0	12:00
TRMB03067	JUNCTION	0.06	0.12	18.26	0	11:48
TRMB03067-S	JUNCTION	0.00	0.00	20.65	0	12:44
TRMB03068	JUNCTION	0.26	6.51	11.34	0	11:56
TRMB03068-S	JUNCTION	0.02	0.16	15.54	0	12:00
TRMB03069	JUNCTION	0.70	5.50	8.90	0	11:56
TRMB03069-S	JUNCTION	0.01	0.18	14.41	0	12:00
TRMB03070	JUNCTION	0.67	5.63	10.21	0	11:57
TRMB03070-S	JUNCTION	0.00	0.07	14.21	0	12:00
TRMB03072	JUNCTION	0.50	1.75	10.73	0	12:00
TRMB03072-S	JUNCTION	0.00	0.00	18.10	0	00:00
TRMB03073	JUNCTION	0.13	0.36	16.92	0	12:00
TRMB03073-S	JUNCTION	0.01	0.11	19.50	0	11:59
TRMB03083	JUNCTION	0.70	3.65	13.43	0	12:01
TRMB03083-S	JUNCTION	0.00	0.00	18.62	0	00:00
TRMB03084	JUNCTION	0.49	1.80	10.80	0	12:00
TRMB03084-S	JUNCTION	0.00	0.09	18.04	0	12:00
TRMB03087	JUNCTION	1.21	6.37	16.27	0	12:00
TRMB03087-S	JUNCTION	0.04	0.48	16.75	0	12:30
TRMB03088	JUNCTION	0.52	2.04	23.58	0	12:01
TRMB03088-S	JUNCTION	0.00	0.00	29.85	0	00:00
TRMB03089	JUNCTION	0.46	1.59	24.13	0	12:00
TRMB03089-S	JUNCTION	0.00	0.00	29.82	0	00:00
TRMB03090	JUNCTION	1.14	3.80	26.16	0	12:00
TRMB03090-S	JUNCTION	0.05	0.75	29.69	0	11:57
TRMB03091	JUNCTION	0.48	1.62	28.06	0	12:00
TRMB03091-S	JUNCTION	0.02	0.31	34.13	0	12:00
TRMB03092	JUNCTION	0.15	0.40	30.28	0	12:00
TRMB03092-S	JUNCTION	0.01	0.13	31.80	0	12:00
TRMB03094	JUNCTION	0.50	1.68	29.77	0	12:00
TRMB03094-S	JUNCTION	0.02	0.38	35.30	0	12:00
TRMB03095	JUNCTION	0.04	0.34	32.39	0	12:00
TRMB03095-S	JUNCTION	0.02	0.39	35.31	0	12:00
TRMB03096	JUNCTION	0.64	1.86	30.01	0	12:00
TRMB03096-S	JUNCTION	0.02	0.28	36.64	0	12:00
TRMB03097	JUNCTION	0.19	0.47	34.83	0	12:00
TRMB03097-S	JUNCTION	0.02	0.21	40.49	0	12:00
TRMB03101	JUNCTION	0.04	0.07	32.57	0	13:00
TRMB03101-S	JUNCTION	0.00	0.00	37.20	0	11:20
TRMB03102	JUNCTION	0.36	0.92	30.19	0	12:00
TRMB03102-S	JUNCTION	0.02	0.37	38.05	0	12:00
TRMB03103	JUNCTION	0.30	0.65	33.66	0	12:00
TRMB03103-S	JUNCTION	0.03	0.34	41.38	0	12:00
TRMB03111	JUNCTION	0.27	0.53	35.73	0	12:00
TRMB03111-S	JUNCTION	0.05	0.37	42.60	0	12:00

## Existing Conditions (10-Year)

TRMB03132	JUNCTION	0.19	0.52	13.52	0	12:00
TRMB03132-S	JUNCTION	0.01	0.15	23.82	0	12:00
TRMB04089	JUNCTION	0.71	1.50	49.47	0	12:29
TRMB04089-S	JUNCTION	0.21	0.71	61.48	0	12:30
TRMB04265-S	JUNCTION	0.00	0.00	59.86	0	00:00
TRMB05002	JUNCTION	0.46	1.44	39.63	0	12:01
TRMB05002-S	JUNCTION	0.00	0.00	43.94	0	00:00
TRMB05003	JUNCTION	1.27	3.66	43.08	0	12:00
TRMB05003-S	JUNCTION	0.00	0.00	47.22	0	11:01
TRMB05004	JUNCTION	1.19	3.85	43.35	0	13:53
TRMB05004-S	JUNCTION	0.00	0.00	46.49	0	11:08
TRMB05005	JUNCTION	0.73	3.13	43.13	0	12:00
TRMB05005-S	JUNCTION	0.00	0.05	48.19	0	12:00
TRMB05006	JUNCTION	1.21	4.51	45.27	0	12:00
TRMB05006-S	JUNCTION	0.00	0.00	49.36	0	11:34
TRMB05008	JUNCTION	0.21	1.79	45.47	0	12:00
TRMB05008-S	JUNCTION	0.00	0.04	47.62	0	12:00
TRMB05009	JUNCTION	0.89	2.37	47.38	0	12:34
TRMB05009_DS	JUNCTION	0.92	3.14	46.97	0	12:01
TRMB05009_DS-S	JUNCTION	0.00	0.01	50.93	0	12:00
TRMB05009-S	JUNCTION	0.01	0.09	51.60	0	12:35
TRMB05010	JUNCTION	0.10	0.28	46.46	0	12:00
TRMB05010-S	JUNCTION	0.00	0.07	49.30	0	12:00
TRMB05011	JUNCTION	0.10	0.28	47.19	0	12:00
TRMB05011-S	JUNCTION	0.00	0.00	49.81	0	11:46
TRMB05012	JUNCTION	0.34	0.84	47.65	0	12:00
TRMB05012-S	JUNCTION	0.00	0.03	49.74	0	11:59
TRMB05013	JUNCTION	0.05	0.13	49.09	0	12:00
TRMB05013-S	JUNCTION	0.00	0.02	51.08	0	12:00
TRMB05014	JUNCTION	0.09	0.26	48.87	0	12:00
TRMB05014-S	JUNCTION	0.00	0.08	51.29	0	12:00
TRMB05015	JUNCTION	1.16	3.16	49.21	0	12:01
TRMB05015-S	JUNCTION	0.02	0.21	54.86	0	11:55
TRMB05016	JUNCTION	0.20	0.57	50.98	0	11:58
TRMB05016-S	JUNCTION	0.00	0.07	54.48	0	11:56
TRMB05017	JUNCTION	1.11	3.10	49.33	0	12:30
TRMB05017_US	JUNCTION	0.94	2.34	49.42	0	12:30
TRMB05017_US-S	JUNCTION	0.15	0.75	58.92	0	11:54
TRMB05017-S	JUNCTION	0.05	0.29	55.97	0	12:34
TRMB05018	JUNCTION	0.07	0.31	50.65	0	12:00
TRMB05018-S	JUNCTION	0.00	0.05	54.54	0	11:56
TRMB05019	JUNCTION	0.60	2.24	52.86	0	11:55
TRMB05019-S	JUNCTION	0.00	0.00	54.12	0	11:55
TRMB05020	JUNCTION	0.08	0.23	51.01	0	12:11
TRMB05020-S	JUNCTION	0.00	0.00	54.28	0	11:58
TRMB05021	JUNCTION	0.53	2.76	54.23	0	11:59
TRMB05021-S	JUNCTION	0.00	0.00	54.67	0	11:34
TRMB05022	JUNCTION	0.36	0.80	50.90	0	12:00
TRMB05022-S	JUNCTION	0.00	0.01	54.41	0	12:00
TRMB05023	JUNCTION	0.07	0.24	51.65	0	12:26
TRMB05023-S	JUNCTION	0.08	0.23	51.64	0	12:08
TRMB05025	JUNCTION	0.09	0.32	53.52	0	11:49
TRMB05025-S	JUNCTION	0.10	0.75	55.95	0	11:49
TRMB05026	JUNCTION	0.10	0.30	50.35	0	12:00
TRMB05026-S	JUNCTION	0.00	0.00	52.70	0	00:00
TRMB05027	JUNCTION	0.10	0.36	53.06	0	11:48
TRMB05027-S	JUNCTION	0.11	0.75	55.49	0	11:48
TRMB05028	JUNCTION	0.58	3.23	55.17	0	11:58
TRMB05028-S	JUNCTION	0.00	0.00	55.44	0	12:00
TRMB05029	JUNCTION	0.38	2.63	54.25	0	11:59
TRMB05029-S	JUNCTION	0.00	0.02	54.84	0	11:59
TRMB05030	JUNCTION	0.31	2.75	55.19	0	11:51

# Existing Conditions (10-Year)

TRMB05030-S	JUNCTION	0.00	0.01	55.20	0	11:59
TRMB05031	JUNCTION	0.24	2.02	55.32	0	11:51
TRMB05031-S	JUNCTION	0.01	0.21	55.53	0	12:00
TRMB05032	JUNCTION	0.29	2.40	55.36	0	11:51
TRMB05032-S	JUNCTION	0.00	0.03	55.39	0	12:00
TRMB05033	JUNCTION	0.46	2.75	55.19	0	11:51
TRMB05033-S	JUNCTION	0.01	0.13	55.32	0	12:00
TRMB05034	JUNCTION	0.29	2.40	55.51	0	11:50
TRMB05034-S	JUNCTION	0.00	0.07	55.58	0	12:30
TRMB05035	JUNCTION	0.16	1.60	54.35	0	12:00
TRMB05035-S	JUNCTION	0.00	0.00	55.85	0	11:56
TRMB05036	JUNCTION	0.29	1.35	54.50	0	12:00
TRMB05036-S	JUNCTION	0.00	0.01	55.51	0	11:59
TRMB05037	JUNCTION	0.12	0.35	54.35	0	12:00
TRMB05037-S	JUNCTION	0.00	0.04	55.74	0	11:59
TRMB05038	JUNCTION	0.24	1.05	54.40	0	12:00
TRMB05038-S	JUNCTION	0.00	0.02	55.72	0	11:59
TRMB05039	JUNCTION	0.19	0.95	54.45	0	12:00
TRMB05039-S	JUNCTION	0.00	0.03	55.55	0	11:59
TRMB05040	JUNCTION	0.53	5.73	54.57	0	11:53
TRMB05040-S	JUNCTION	0.00	0.08	55.97	0	12:00
TRMB05041	JUNCTION	0.58	4.84	51.74	0	12:00
TRMB05041-S	JUNCTION	0.00	0.09	52.34	0	12:00
TRMB05042	JUNCTION	0.59	1.55	51.24	0	11:59
TRMB05042-S	JUNCTION	0.00	0.12	52.46	0	12:00
TRMB05043	JUNCTION	0.10	0.32	46.69	0	12:00
TRMB05043-S	JUNCTION	0.00	0.00	52.86	0	00:00
TRMB05044	JUNCTION	0.24	3.55	51.12	0	11:53
TRMB05044-S	JUNCTION	0.00	0.01	51.13	0	11:59
TRMB05045	JUNCTION	0.57	4.51	51.19	0	12:00
TRMB05045-S	JUNCTION	0.00	0.04	52.52	0	12:00
TRMB05046	JUNCTION	0.42	1.96	45.23	0	11:53
TRMB05046-S	JUNCTION	0.00	0.00	47.67	0	20:09
TRMB05047	JUNCTION	1.48	1.50	43.02	0	00:17
TRMB05048	JUNCTION	0.34	0.97	43.79	0	12:00
TRMB05048-S	JUNCTION	0.00	0.00	48.28	0	00:00
PCTB01066	OUTFALL	0.31	0.83	18.81	0	12:35
PCTB02009	OUTFALL	0.89	1.36	23.13	0	13:21
PCTB02081	OUTFALL	6.98	6.99	23.81	0	23:45
TRMB02001	OUTFALL	0.60	1.55	1.20	0	12:01
TRMB03012	OUTFALL	0.54	1.65	8.83	0	12:00
TRMB03066	OUTFALL	0.71	3.00	3.00	0	11:53
TRMB05001	OUTFALL	0.40	0.96	24.56	0	12:00

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Node Inflow Summary  
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Total Inflow Volume gal	Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	10^6
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## Existing Conditions (10-Year)

CountrySideE_Ditch_Culvert_In	JUNCTION	0.00	20.97	0	12:30	0
7.51 1.664						
CountrySideE_Ditch_Culvert_In-S	JUNCTION	19.04	19.04	0	12:59	3.44
3.44 -0.290						
JMTB01003	JUNCTION	0.00	32.05	0	12:30	0
6.56 0.026						
JMTB01003-S	JUNCTION	29.63	29.63	0	12:29	3.1
3.11 -0.745						
JMTB01004	JUNCTION	0.00	8.58	0	11:37	0
3.02 0.071						
JMTB01004-S	JUNCTION	0.00	5.55	0	11:51	0
0.461 0.001						
JMTB01005	JUNCTION	0.00	8.56	0	11:37	0
3.09 0.116						
JMTB01005-S	JUNCTION	0.00	1.03	0	11:52	0
0.0695 0.002						
JMTB01006	JUNCTION	0.00	16.67	0	11:51	0
5.94 1.890						
JMTB01006-S	JUNCTION	54.98	54.98	0	12:30	6.75
6.75 -0.629						
JMTB01102	JUNCTION	0.00	8.64	0	12:30	0
1.76 -0.265						
JMTB01102-S	JUNCTION	16.67	16.67	0	12:29	1.96
1.96 -0.568						
JMTB01103	JUNCTION	0.00	14.74	0	12:29	0
2.31 0.073						
JMTB01103-S	JUNCTION	0.00	8.21	0	12:30	0
0.22 -0.566						
JMTB01104	JUNCTION	0.00	2.62	0	12:30	0
0.382 -0.274						
JMTB01104-S	JUNCTION	2.86	2.86	0	12:29	0.354
0.354 -8.220						
JMTB01105	JUNCTION	0.00	23.39	0	12:29	0
4.28 0.129						
JMTB01105-S	JUNCTION	11.38	15.16	0	12:30	2.04
2.09 -1.712						
PCTB01068	JUNCTION	0.00	14.12	0	12:33	0
1.4 0.124						
PCTB01068_US	JUNCTION	0.00	7.40	0	12:33	0
1.16 0.004						
PCTB01068_US-S	JUNCTION	15.39	15.39	0	12:29	1.35
1.35 -3.888						
PCTB01068-S	JUNCTION	0.00	7.45	0	12:30	0
0.241 -0.088						
PCTB02001	JUNCTION	0.00	14.08	0	12:30	0
2.89 3.892						
PCTB02001-S	JUNCTION	7.57	7.57	0	12:29	0.99
0.99 -3.931						
PCTB02002	JUNCTION	0.00	7.66	0	12:16	0
1.84 0.034						
PCTB02002-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02003	JUNCTION	0.00	8.66	0	11:54	0
1.77 0.351						
PCTB02003-S	JUNCTION	0.00	22.89	0	12:30	0
2.06 -0.300						
PCTB02004	JUNCTION	0.00	13.15	0	12:33	0
3.27 0.335						
PCTB02004-S	JUNCTION	30.43	30.43	0	12:29	4.18
4.18 -0.612						
PCTB02005	JUNCTION	17.70	20.68	0	12:29	2.48
3.12 0.336						



## Existing Conditions (10-Year)

PCTB02008	JUNCTION	0.00	36.24	0	13:20	0
7.93 0.558						
PCTB02011	JUNCTION	0.00	20.64	0	13:44	0
4.91 0.206						
PCTB02011-S	JUNCTION	0.00	2.09	0	12:24	0
0.118 -0.007						
PCTB02012	JUNCTION	0.00	18.67	0	13:18	0
4.82 0.610						
PCTB02012-S	JUNCTION	12.19	12.19	0	12:30	2.02
2.02 -1.709						
PCTB02014	JUNCTION	0.00	15.78	0	15:00	0
2.93 1.841						
PCTB02014-S	JUNCTION	0.00	10.01	0	13:54	0
0.14 0.936						
PCTB02015	JUNCTION	0.00	12.63	0	12:42	0
2.95 7.105						
PCTB02015-S	JUNCTION	0.00	4.20	0	13:32	0
0.142 -0.227						
PCTB02016	JUNCTION	0.00	4.11	0	14:52	0
0.745 0.623						
PCTB02016-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02017	JUNCTION	0.00	4.12	0	14:51	0
0.741 0.821						
PCTB02017-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02022	JUNCTION	0.00	7.35	0	12:30	0
1.25 0.280						
PCTB02022-S	JUNCTION	15.34	15.34	0	12:29	1.57
1.57 -1.457						
PCTB02023	JUNCTION	0.00	12.10	0	12:30	0
1.25 0.278						
PCTB02023-S	JUNCTION	0.00	7.94	0	12:30	0
0.34 -3.352						
PCTB02075	JUNCTION	0.00	396.73	0	00:05	0
18.6 0.945						
PCTB02076	JUNCTION	0.00	369.73	0	00:05	0
18.5 0.694						
PCTB02080	JUNCTION	0.00	677.43	0	00:04	0
91.1 0.568						
PCTB02159	JUNCTION	0.00	335.37	0	00:05	0
18.3 0.487						
PCTB02160	JUNCTION	0.00	301.15	0	00:06	0
18.2 0.941						
PCTB02189	JUNCTION	0.00	17.44	0	00:03	0
2.4 0.207						
PCTB02189-S	JUNCTION	69.76	69.76	0	12:29	5.53
5.53 -0.006						
PCTB02191	JUNCTION	0.00	48.69	0	12:31	0
24.6 0.028						
PCTB02191_DS	JUNCTION	0.00	380.44	0	00:02	0
88.4 0.464						
PCTB02191_DS-S	JUNCTION	0.00	64.61	0	12:31	0
10.1 0.054						
PCTB02191-S	JUNCTION	0.00	58.18	0	12:24	0
3.14 -0.017						
PCTB02207	JUNCTION	0.00	66.60	0	00:12	0
14.1 1.203						
PCTB02207-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02209	JUNCTION	0.00	46.22	0	14:00	0
14 1.122						

## Existing Conditions (10-Year)

PCTB02209-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02220	JUNCTION	0.00	240.79	0	00:06	0
18.1 1.217						
PCTB02229	JUNCTION	0.00	244.80	0	00:06	0
17.9 0.657						
PCTB02229-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02231	JUNCTION	0.00	147.02	0	00:06	0
17.7 0.696						
PCTB02231-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02233	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02235	JUNCTION	0.00	106.00	0	00:08	0
17.6 0.529						
PCTB02235-S	JUNCTION	27.59	27.59	0	12:29	3.35
3.35 -0.851						
PCTB02237	JUNCTION	0.00	91.76	0	00:10	0
15.3 1.672						
PCTB02237-S	JUNCTION	0.00	9.16	0	11:55	0
0.894 -0.023						
PCTB02257	JUNCTION	0.00	29.58	0	12:46	0
9.1 0.226						
PCTB02257_1	JUNCTION	0.00	46.20	0	12:32	0
13.6 0.385						
PCTB02257_1-S	JUNCTION	8.25	8.25	0	12:29	1.09
1.09 -3.908						
PCTB02257-S	JUNCTION	0.00	13.25	0	13:00	0
1.81 -0.069						
PCTB02260	JUNCTION	0.00	46.13	0	14:00	0
13.7 0.306						
PCTB02260-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02262	JUNCTION	0.00	46.15	0	14:00	0
13.8 1.068						
PCTB02262-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02275	JUNCTION	0.00	13.61	0	12:31	0
3.54 0.509						
PCTB02275-S	JUNCTION	0.00	4.40	0	12:30	0
0.187 -5.400						
PCTB02276	JUNCTION	0.00	12.23	0	14:57	0
3.33 0.572						
PCTB02276-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02278	JUNCTION	0.00	19.14	0	13:19	0
3.33 2.855						
PCTB02278-S	JUNCTION	0.00	7.28	0	13:53	0
0.00518 47.903						
PCTB02280	JUNCTION	0.00	18.93	0	12:32	0
10.1 0.013						
PCTB02280-S	JUNCTION	0.00	29.28	0	12:30	0
7.6 0.188						
PCTB02281	JUNCTION	0.00	9.66	0	12:00	0
3.45 0.039						
PCTB02281-S	JUNCTION	0.00	12.16	0	11:59	0
2.76 0.137						
PCTB02282	JUNCTION	0.00	6.65	0	12:30	0
2.96 0.035						
PCTB02282-S	JUNCTION	11.96	11.96	0	12:29	1
1 -0.028						

## Existing Conditions (10-Year)

PCTB02283	JUNCTION	0.00	11.10	0	12:30	0
3.09 0.022						
PCTB02283-S	JUNCTION	0.00	4.50	0	12:30	0
0.128 -5.217						
PCTB02284	JUNCTION	0.00	3.14	0	00:13	0
0.00117 44.028						
PCTB02284-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02292	JUNCTION	0.00	255.36	0	00:13	0
44.1 1.563						
PCTB02292-S	JUNCTION	19.42	27.68	0	12:29	2.38
7.53 0.030						
PCTB02294	JUNCTION	0.00	279.20	0	00:11	0
50.9 1.001						
PCTB02294-S	JUNCTION	12.57	22.71	0	12:29	1.6
7.97 0.063						
PCTB02295	JUNCTION	0.00	283.07	0	00:11	0
58.8 0.149						
PCTB02295-S	JUNCTION	0.00	35.07	0	12:30	0
15.8 0.023						
PCTB02297	JUNCTION	0.00	5.45	0	12:30	0
0.985 0.310						
PCTB02297-S	JUNCTION	9.96	9.96	0	12:29	1.17
1.17 -0.109						
PCTB02302	JUNCTION	0.00	112.12	0	00:13	0
33.4 0.287						
PCTB02302-S	JUNCTION	0.00	7.09	0	00:22	0
0.671 1.382						
PCTB02303	JUNCTION	0.00	64.18	0	12:31	0
34.3 0.062						
PCTB02303-S	JUNCTION	20.42	20.42	0	12:29	2.61
2.61 -0.026						
PCTB02304	JUNCTION	0.00	72.85	0	12:31	0
36.7 0.027						
PCTB02304-S	JUNCTION	26.19	35.71	0	12:29	2.8
3.65 -0.514						
PCTB02312	JUNCTION	0.00	176.27	0	00:12	0
35.2 0.766						
PCTB02312-S	JUNCTION	0.00	8.21	0	12:43	0
0.109 6.039						
PCTB02329	JUNCTION	0.00	8.02	0	12:31	0
1.85 0.064						
PCTB02329-S	JUNCTION	0.00	2.32	0	12:30	0
0.0349 -0.338						
PCTB02330	JUNCTION	0.00	6.07	0	11:57	0
1.81 0.093						
PCTB02330-S	JUNCTION	0.00	6.81	0	12:30	0
0.168 0.005						
PCTB02331	JUNCTION	0.00	8.01	0	12:30	0
1.94 0.073						
PCTB02331-S	JUNCTION	15.63	15.63	0	12:29	1.53
1.53 -1.970						
PCTB02332	JUNCTION	0.00	3.04	0	12:31	0
0.729 0.325						
PCTB02332-S	JUNCTION	0.00	0.74	0	12:30	0
0.00338 -0.009						
TRMB02002	JUNCTION	0.00	54.49	0	12:01	0
5.85 0.001						
TRMB02002-S	JUNCTION	3.90	3.90	0	11:59	0.188
0.188 -30.491						
TRMB02003	JUNCTION	0.00	51.82	0	12:01	0
5.61 0.217						

## Existing Conditions (10-Year)

TRMB02003-S	JUNCTION	0.00	9.95	0	12:00	0
0.129 -4.354						
TRMB02006	JUNCTION	0.00	45.24	0	12:00	0
5.47 0.033						
TRMB02006-S	JUNCTION	0.00	14.03	0	12:00	0
0.236 -4.906						
TRMB02009	JUNCTION	0.00	40.59	0	12:00	0
5.34 -0.039						
TRMB02009-S	JUNCTION	19.40	19.40	0	11:59	0.829
0.829 -3.606						
TRMB02012	JUNCTION	0.00	35.53	0	11:59	0
4.72 0.026						
TRMB02012-S	JUNCTION	0.00	0.38	0	12:00	0
0.00652 -21.540						
TRMB02015	JUNCTION	0.00	35.16	0	11:59	0
4.71 0.019						
TRMB02015-S	JUNCTION	0.00	29.32	0	12:00	0
0.322 -1.437						
TRMB02016	JUNCTION	0.00	26.48	0	11:59	0
4.5 0.003						
TRMB02016-S	JUNCTION	8.51	29.34	0	11:59	0.351
0.73 -5.840						
TRMB02018	JUNCTION	0.00	19.51	0	11:52	0
4.05 0.016						
TRMB02018-S	JUNCTION	6.86	26.83	0	11:59	0.298
0.707 -7.307						
TRMB02022	JUNCTION	0.00	35.90	0	12:00	0
4.31 0.083						
TRMB02022-S	JUNCTION	3.51	41.01	0	12:00	0.147
0.889 -2.138						
TRMB02023	JUNCTION	0.00	8.67	0	12:00	0
0.97 -0.051						
TRMB02023-S	JUNCTION	8.21	8.21	0	11:59	0.346
0.346 -14.439						
TRMB02030	JUNCTION	0.00	12.19	0	12:00	0
0.736 0.022						
TRMB02030-S	JUNCTION	0.00	0.57	0	12:00	0
0.005 -7.974						
TRMB02032	JUNCTION	0.00	11.62	0	12:00	0
0.73 0.029						
TRMB02032-S	JUNCTION	0.00	2.84	0	12:00	0
0.0152 -0.048						
TRMB02033	JUNCTION	0.00	9.62	0	11:48	0
0.716 0.010						
TRMB02033-S	JUNCTION	0.00	7.86	0	12:00	0
0.0915 -0.118						
TRMB02034	JUNCTION	0.00	9.11	0	12:00	0
0.708 -0.006						
TRMB02034-S	JUNCTION	0.00	12.91	0	12:00	0
0.21 -2.728						
TRMB02035	JUNCTION	0.00	5.38	0	12:00	0
0.601 -0.184						
TRMB02035-S	JUNCTION	18.35	18.35	0	11:59	0.795
0.795 -2.068						
TRMB02044	JUNCTION	0.00	19.72	0	11:48	0
1.81 0.049						
TRMB02044_DS	JUNCTION	0.00	18.57	0	12:00	0
2.88 0.103						
TRMB02044_DS-S	JUNCTION	41.57	41.57	0	11:59	1.76
1.76 -1.414						
TRMB02044-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						

## Existing Conditions (10-Year)

TRMB02045	JUNCTION	0.00	19.76	0	11:48	0	
1.81 0.052							
TRMB02045-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB02046	JUNCTION	0.00	8.64	0	11:49	0	
0.521 0.007							
TRMB02046-S	JUNCTION	0.00	0.50	0	12:00	0	
0.0045 -58.884							
TRMB02047	JUNCTION	0.00	7.66	0	12:00	0	
0.509 -0.162							
TRMB02047-S	JUNCTION	4.22	4.22	0	11:59	0.183	
0.183 -34.774							
TRMB02048	JUNCTION	0.00	3.98	0	12:00	0	
0.233 -0.043							
TRMB02048-S	JUNCTION	0.00	0.39	0	12:00	0	
0.00349 -56.691							
TRMB02049	JUNCTION	0.00	3.59	0	12:00	0	
0.224 -0.405							
TRMB02049-S	JUNCTION	3.99	3.99	0	11:59	0.178	
0.178 -21.626							
TRMB02050	JUNCTION	0.00	14.11	0	11:48	0	
1.29 0.062							
TRMB02050-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB02051	JUNCTION	0.00	14.11	0	11:48	0	
1.29 0.015							
TRMB02051-S	JUNCTION	3.34	3.34	0	11:59	0.142	
0.142 -42.018							
TRMB02052	JUNCTION	0.00	24.33	0	12:00	0	
1.36 0.027							
TRMB02052-S	JUNCTION	0.00	0.55	0	12:00	0	
0.00258 -63.171							
TRMB02056	JUNCTION	0.00	23.78	0	12:00	0	
1.36 0.015							
TRMB02056-S	JUNCTION	0.00	3.44	0	12:00	0	
0.029 -0.698							
TRMB02057	JUNCTION	0.00	20.72	0	12:00	0	
1.33 0.043							
TRMB02057-S	JUNCTION	0.00	8.29	0	12:00	0	
0.125 -12.682							
TRMB02060	JUNCTION	0.00	15.92	0	12:00	0	
1.21 -0.133							
TRMB02060-S	JUNCTION	13.11	13.11	0	11:59	0.561	
0.561 -9.926							
TRMB02063	JUNCTION	0.00	11.32	0	11:59	0	
0.717 0.039							
TRMB02063-S	JUNCTION	0.00	0.01	0	12:00	0	1.77e-
005 -11.894							
TRMB02064	JUNCTION	0.00	11.28	0	12:00	0	
0.717 0.043							
TRMB02064-S	JUNCTION	0.00	1.67	0	12:00	0	
0.014 -10.923							
TRMB02067	JUNCTION	0.00	9.64	0	12:00	0	
0.701 0.013							
TRMB02067-S	JUNCTION	3.79	5.79	0	11:59	0.168	
0.193 -27.414							
TRMB02068	JUNCTION	0.00	5.60	0	12:00	0	
0.449 -0.119							
TRMB02068-S	JUNCTION	5.77	5.77	0	11:59	0.252	
0.252 -25.261							
TRMB02069	JUNCTION	0.00	1.88	0	12:00	0	
0.136 -0.062							

## Existing Conditions (10-Year)

TRMB02069-S	JUNCTION	0.00	0.01	0	11:31	0	
0.00013 -78.933							
TRMB02070	JUNCTION	0.00	1.83	0	11:59	0	
0.136 0.111							
TRMB02070-S	JUNCTION	1.85	1.85	0	11:59	0.0831	
0.0831 -38.801							
TRMB03016	JUNCTION	11.65	35.95	0	11:59	0.54	
3.11 0.016							
TRMB03016-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03022	JUNCTION	0.00	32.59	0	12:29	0	
2.61 0.014							
TRMB03022-S	JUNCTION	0.00	5.48	0	11:59	0	
0.0148 -47.015							
TRMB03025	JUNCTION	0.00	27.27	0	12:30	0	
2.54 -0.017							
TRMB03025-S	JUNCTION	3.36	3.36	0	11:59	0.146	
0.146 -41.627							
TRMB03026	JUNCTION	0.00	0.96	0	12:00	0	
0.0416 0.069							
TRMB03027	JUNCTION	0.96	0.96	0	11:59	0.0416	
0.0416 0.022							
TRMB03028	JUNCTION	0.00	25.25	0	12:32	0	
2.29 0.025							
TRMB03028-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03029	JUNCTION	0.00	25.25	0	12:32	0	
2.29 0.012							
TRMB03029-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03030	JUNCTION	0.00	77.84	0	12:33	0	
2.32 0.148							
TRMB03030-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03031	JUNCTION	0.00	45.90	0	12:34	0	
2.32 0.018							
TRMB03031-S	JUNCTION	3.93	3.97	0	11:59	0.182	
0.183 -28.395							
TRMB03032	JUNCTION	0.00	24.84	0	12:31	0	
2.04 0.070							
TRMB03032-S	JUNCTION	1.98	1.98	0	11:59	0.0981	
0.0981 -44.248							
TRMB03033	JUNCTION	0.00	3.05	0	12:00	0	
0.0318 -0.021							
TRMB03033-S	JUNCTION	0.00	0.66	0	12:00	0	
0.00404 -7.192							
TRMB03034	JUNCTION	0.00	6.98	0	11:48	0	
0.428 -0.115							
TRMB03034-S	JUNCTION	0.00	5.09	0	12:00	0	
0.0651 -9.046							
TRMB03035	JUNCTION	0.00	3.08	0	11:52	0	
0.00228 -3.129							
TRMB03035-S	JUNCTION	0.00	0.00	0	12:00	0	1.34e-
007 -1.220 gal							
TRMB03036	JUNCTION	0.00	23.28	0	12:31	0	
1.87 0.066							
TRMB03036-S	JUNCTION	0.00	1.00	0	12:00	0	
0.00612 -0.526							
TRMB03037	JUNCTION	0.00	4.93	0	12:00	0	
0.392 -0.414							
TRMB03037-S	JUNCTION	10.03	10.03	0	11:59	0.434	
0.434 -5.037							

## Existing Conditions (10-Year)

TRMB03038	JUNCTION	0.00	1.34	0	11:52	0
0.00257		-1.499				
TRMB03038-S	JUNCTION	0.00	0.00	0	00:00	0
0		0.000 gal				
TRMB03039	JUNCTION	0.00	19.25	0	11:49	0
1.46		0.051				
TRMB03039-S	JUNCTION	0.00	4.92	0	12:00	0
0.0693		-8.056				
TRMB03042	JUNCTION	0.00	4.35	0	12:00	0
0.393		-0.639				
TRMB03042-S	JUNCTION	9.33	9.33	0	11:59	0.413
0.413		-10.675				
TRMB03043	JUNCTION	0.00	11.03	0	11:50	0
0.677		0.049				
TRMB03043-S	JUNCTION	0.00	0.29	0	12:00	0
0.00228		-2.436				
TRMB03044	JUNCTION	0.00	6.50	0	12:00	0
0.33		-1.130				
TRMB03044-S	JUNCTION	6.06	6.94	0	11:59	0.269
0.276		-16.503				
TRMB03049	JUNCTION	0.00	1.47	0	11:49	0
0.000556		1.397				
TRMB03049-S	JUNCTION	0.00	0.00	0	00:00	0
0		0.000 gal				
TRMB03051	JUNCTION	0.00	12.26	0	11:50	0
0.772		0.029				
TRMB03051-S	JUNCTION	0.00	0.85	0	12:00	0
0.00592		-19.992				
TRMB03052	JUNCTION	0.00	2.56	0	11:51	0
0.000578		-5.633				
TRMB03052-S	JUNCTION	0.00	0.00	0	00:00	0
0		0.000 gal				
TRMB03054	JUNCTION	0.00	8.91	0	12:00	0
0.494		0.066				
TRMB03054-S	JUNCTION	0.00	5.07	0	12:00	0
0.0683		-12.818				
TRMB03055	JUNCTION	0.00	5.12	0	12:00	0
0.335		-0.098				
TRMB03055-S	JUNCTION	5.85	5.85	0	11:59	0.256
0.256		-24.560				
TRMB03063	JUNCTION	0.00	4.60	0	12:00	0
0.416		-0.207				
TRMB03063-S	JUNCTION	9.68	9.68	0	11:59	0.429
0.429		-11.386				
TRMB03065	JUNCTION	0.00	86.49	0	12:00	0
5.47		0.012				
TRMB03065-S	JUNCTION	0.00	1.23	0	12:00	0
0.0122		-27.444				
TRMB03067	JUNCTION	0.00	0.98	0	11:48	0
0.0884		0.831				
TRMB03067-S	JUNCTION	0.34	0.34	0	11:59	0.019
0.019		-78.552				
TRMB03068	JUNCTION	0.00	4.73	0	11:56	0
0.439		-0.388				
TRMB03068-S	JUNCTION	10.72	10.72	0	11:59	0.51
0.51		-6.670				
TRMB03069	JUNCTION	0.00	86.41	0	11:56	0
5.37		0.010				
TRMB03069-S	JUNCTION	0.00	6.66	0	12:00	0
0.107		-8.889				
TRMB03070	JUNCTION	0.00	76.72	0	12:00	0
4.83		0.015				

## Existing Conditions (10-Year)

TRMB03070-S	JUNCTION	0.00	2.69	0	12:00	0
0.0283 -31.217						
TRMB03072	JUNCTION	0.00	70.86	0	12:00	0
4.51 0.011						
TRMB03072-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03073	JUNCTION	0.00	3.33	0	12:00	0
0.278 -0.576						
TRMB03073-S	JUNCTION	4.89	4.89	0	11:59	0.236
0.236 -20.401						
TRMB03083	JUNCTION	0.00	64.10	0	12:01	0
4.1 0.009						
TRMB03083-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03084	JUNCTION	0.00	6.84	0	12:00	0
0.41 0.091						
TRMB03084-S	JUNCTION	0.00	3.08	0	12:00	0
0.0403 -25.919						
TRMB03087	JUNCTION	0.00	64.21	0	12:01	0
4.1 0.034						
TRMB03087-S	JUNCTION	8.49	8.49	0	11:59	0.437
0.437 -13.476						
TRMB03088	JUNCTION	0.00	58.07	0	12:00	0
3.6 0.041						
TRMB03088-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03089	JUNCTION	0.00	58.09	0	12:00	0
3.6 0.011						
TRMB03089-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03090	JUNCTION	0.00	58.06	0	12:00	0
3.6 0.059						
TRMB03090-S	JUNCTION	0.00	23.93	0	12:00	0
0.257 -4.086						
TRMB03091	JUNCTION	0.00	45.78	0	12:00	0
3.08 0.028						
TRMB03091-S	JUNCTION	2.70	27.28	0	12:00	0.136
0.414 -19.127						
TRMB03092	JUNCTION	0.00	3.67	0	12:00	0
0.312 -1.165						
TRMB03092-S	JUNCTION	6.07	6.07	0	11:59	0.288
0.288 -16.340						
TRMB03094	JUNCTION	0.00	40.29	0	12:00	0
2.79 0.006						
TRMB03094-S	JUNCTION	0.10	37.18	0	12:00	0.00411
0.519 -4.180						
TRMB03095	JUNCTION	0.00	6.21	0	12:00	0
0.114 0.125						
TRMB03095-S	JUNCTION	0.01	7.31	0	11:52	0.00053
0.102 -10.320						
TRMB03096	JUNCTION	0.00	23.38	0	12:00	0
2.01 0.040						
TRMB03096-S	JUNCTION	0.00	31.77	0	12:00	0
0.468 -1.215						
TRMB03097	JUNCTION	0.00	4.54	0	12:00	0
0.506 -0.534						
TRMB03097-S	JUNCTION	15.35	15.35	0	11:59	0.647
0.647 -3.867						
TRMB03101	JUNCTION	0.00	0.49	0	12:58	0
0.0439 1.036						
TRMB03101-S	JUNCTION	0.11	0.11	0	12:29	0.00575
0.00575 -86.899						



## Existing Conditions (10-Year)

TRMB03102	JUNCTION	0.00	18.01	0	12:00	0	
1.84 0.054							
TRMB03102-S	JUNCTION	1.78	37.90	0	12:00	0.0889	
0.706 -7.833							
TRMB03103	JUNCTION	0.00	11.92	0	12:00	0	
1.54 -0.066							
TRMB03103-S	JUNCTION	11.83	41.99	0	11:59	0.526	
1.14 -2.811							
TRMB03111	JUNCTION	0.00	6.11	0	12:00	0	
0.98 -0.118							
TRMB03111-S	JUNCTION	36.32	36.32	0	11:59	1.58	
1.58 -0.825							
TRMB03132	JUNCTION	0.00	3.85	0	12:00	0	
0.354 -0.494							
TRMB03132-S	JUNCTION	6.93	6.93	0	11:59	0.322	
0.322 -18.346							
TRMB04089	JUNCTION	0.00	8.42	0	12:30	0	
2.28 0.054							
TRMB04089-S	JUNCTION	121.09	121.09	0	12:29	7.49	
7.49 -0.069							
TRMB04265-S	JUNCTION	1.52	1.52	0	11:59	0.0712	
0.0712 0.000							
TRMB05002	JUNCTION	0.00	80.99	0	12:00	0	
8.96 0.008							
TRMB05002-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB05003	JUNCTION	0.00	81.01	0	12:00	0	
8.96 -0.008							
TRMB05003-S	JUNCTION	0.00	0.08	0	12:00	0	
0.000762 -81.704							
TRMB05004	JUNCTION	0.00	0.60	0	11:46	0	
0.0672 5.322							
TRMB05004-S	JUNCTION	0.48	0.48	0	11:59	0.0233	
0.0233 -65.291							
TRMB05005	JUNCTION	0.00	2.16	0	12:00	0	
0.179 0.093							
TRMB05005-S	JUNCTION	2.24	2.24	0	11:59	0.105	
0.105 -41.342							
TRMB05006	JUNCTION	0.00	78.47	0	12:01	0	
8.71 0.052							
TRMB05006-S	JUNCTION	0.00	0.01	0	11:47	0	6.86e-
005 -97.807							
TRMB05008	JUNCTION	0.00	2.11	0	12:00	0	
0.187 0.160							
TRMB05008-S	JUNCTION	2.12	2.12	0	11:59	0.0981	
0.0981 -47.396							
TRMB05009	JUNCTION	0.00	68.72	0	12:00	0	
7.81 0.033							
TRMB05009_DS	JUNCTION	0.00	73.07	0	12:00	0	
8.19 0.038							
TRMB05009_DS-S	JUNCTION	0.85	0.99	0	11:59	0.0382	
0.0418 -73.091							
TRMB05009-S	JUNCTION	0.00	3.88	0	12:34	0	
0.11 -0.513							
TRMB05010	JUNCTION	0.00	4.23	0	12:00	0	
0.337 -0.297							
TRMB05010-S	JUNCTION	2.64	2.64	0	11:59	0.127	
0.127 -40.369							
TRMB05011	JUNCTION	0.00	1.60	0	12:00	0	
0.125 0.018							
TRMB05011-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							

## Existing Conditions (10-Year)

TRMB05012	JUNCTION	0.00	1.61	0	11:59	0	
0.125 0.048							
TRMB05012-S	JUNCTION	1.61	1.61	0	11:59	0.0733	
0.0733 -41.222							
TRMB05013	JUNCTION	0.00	1.54	0	12:00	0	
0.132 0.399							
TRMB05013-S	JUNCTION	1.11	1.54	0	11:59	0.0476	
0.0566 -57.131							
TRMB05014	JUNCTION	0.00	2.85	0	12:00	0	
0.206 0.365							
TRMB05014-S	JUNCTION	2.39	2.86	0	11:59	0.11	
0.119 -42.202							
TRMB05015	JUNCTION	0.00	61.84	0	12:00	0	
7.39 0.043							
TRMB05015-S	JUNCTION	0.03	13.57	0	11:55	0.00142	
0.541 -3.082							
TRMB05016	JUNCTION	0.00	14.35	0	11:58	0	
1.18 0.012							
TRMB05016-S	JUNCTION	0.00	2.80	0	11:56	0	
0.078 -2.456							
TRMB05017	JUNCTION	0.00	40.31	0	12:34	0	
5.77 0.060							
TRMB05017_US	JUNCTION	0.00	17.10	0	12:29	0	
3.75 0.089							
TRMB05017_US-S	JUNCTION	2.72	114.38	0	12:30	0.119	
5.33 -0.158							
TRMB05017-S	JUNCTION	0.00	77.63	0	12:34	0	
3.59 -0.024							
TRMB05018	JUNCTION	0.00	3.59	0	12:00	0	
0.144 0.026							
TRMB05018-S	JUNCTION	0.00	2.39	0	11:55	0	
0.0673 -2.275							
TRMB05019	JUNCTION	0.00	11.47	0	11:59	0	
1.06 0.031							
TRMB05019-S	JUNCTION	0.00	0.14	0	11:56	0	
0.00279 -10.415							
TRMB05020	JUNCTION	0.00	0.38	0	11:55	0	
0.0366 0.806							
TRMB05020-S	JUNCTION	0.10	0.19	0	11:55	0.00396	
0.00573 -84.317							
TRMB05021	JUNCTION	0.00	11.33	0	11:59	0	
1.06 0.025							
TRMB05021-S	JUNCTION	0.00	0.01	0	11:36	0	4.62e-
005 -93.122							
TRMB05022	JUNCTION	0.00	1.32	0	12:00	0	
0.0768 0.679							
TRMB05022-S	JUNCTION	0.97	1.04	0	11:59	0.0445	
0.0458 -18.920							
TRMB05023	JUNCTION	0.00	4.77	0	12:08	0	
0.025 -5.721							
TRMB05023-S	JUNCTION	0.43	4.99	0	12:26	0.0185	
0.0248 -1.123							
TRMB05025	JUNCTION	0.00	8.66	0	11:49	0	
0.632 0.086							
TRMB05025-S	JUNCTION	0.57	26.36	0	11:59	0.0273	
1.05 -4.480							
TRMB05026	JUNCTION	0.00	3.42	0	12:00	0	
0.227 -0.016							
TRMB05026-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB05027	JUNCTION	0.00	8.66	0	11:48	0	
0.745 0.066							

## Existing Conditions (10-Year)

TRMB05027-S	JUNCTION	0.56	33.48	0	11:59	0.0244
1.4 -3.350						
TRMB05028	JUNCTION	0.00	10.09	0	12:28	0
0.945 0.049						
TRMB05028-S	JUNCTION	0.11	0.43	0	12:00	0.00443
0.00637 -87.290						
TRMB05029	JUNCTION	0.00	1.36	0	11:59	0
0.116 -0.203						
TRMB05029-S	JUNCTION	1.36	1.36	0	11:59	0.0647
0.0647 -44.269						
TRMB05030	JUNCTION	0.00	3.66	0	11:50	0
0.295 0.161						
TRMB05030-S	JUNCTION	0.45	0.81	0	11:59	0.0221
0.0249 -71.912						
TRMB05031	JUNCTION	0.00	4.62	0	12:00	0
0.283 -0.338						
TRMB05031-S	JUNCTION	4.97	4.97	0	11:59	0.232
0.232 -18.333						
TRMB05032	JUNCTION	0.00	4.11	0	12:00	0
0.319 0.095						
TRMB05032-S	JUNCTION	1.62	1.72	0	11:59	0.0713
0.0733 -50.463						
TRMB05033	JUNCTION	0.00	3.60	0	12:00	0
0.232 1.133						
TRMB05033-S	JUNCTION	3.96	3.96	0	11:59	0.18
0.18 -23.525						
TRMB05034	JUNCTION	0.00	2.69	0	12:30	0
0.17 -0.627						
TRMB05034-S	JUNCTION	2.84	2.84	0	12:29	0.143
0.143 -16.644						
TRMB05035	JUNCTION	0.00	6.55	0	11:55	0
0.58 0.051						
TRMB05035-S	JUNCTION	0.07	0.18	0	12:00	0.0028
0.00393 -88.514						
TRMB05036	JUNCTION	0.00	2.87	0	12:00	0
0.267 0.241						
TRMB05036-S	JUNCTION	0.71	0.76	0	11:59	0.0314
0.0318 -70.049						
TRMB05037	JUNCTION	0.00	2.12	0	12:00	0
0.161 -0.169						
TRMB05037-S	JUNCTION	2.16	2.16	0	11:59	0.0997
0.0997 -38.080						
TRMB05038	JUNCTION	0.00	3.29	0	11:58	0
0.28 0.147						
TRMB05038-S	JUNCTION	1.57	1.57	0	11:59	0.0688
0.0688 -52.859						
TRMB05039	JUNCTION	0.00	1.76	0	12:00	0
0.134 -0.161						
TRMB05039-S	JUNCTION	1.75	1.76	0	11:59	0.0808
0.081 -39.641						
TRMB05040	JUNCTION	0.00	8.62	0	12:01	0
0.807 0.022						
TRMB05040-S	JUNCTION	3.38	3.38	0	11:59	0.156
0.156 -32.694						
TRMB05041	JUNCTION	0.00	11.49	0	12:00	0
1.01 0.051						
TRMB05041-S	JUNCTION	2.51	2.99	0	11:59	0.117
0.122 -39.232						
TRMB05042	JUNCTION	0.00	3.42	0	12:00	0
0.226 -0.406						
TRMB05042-S	JUNCTION	3.43	3.43	0	11:59	0.153
0.153 -32.321						

## Existing Conditions (10-Year)

TRMB05043	JUNCTION	0.00	3.42	0	12:00	0
0.227	0.028					
TRMB05043-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
TRMB05044	JUNCTION	0.00	1.22	0	12:00	0
0.0905	0.528					
TRMB05044-S	JUNCTION	0.82	0.86	0	11:59	0.0366
0.0372	-58.761					
TRMB05045	JUNCTION	0.00	13.50	0	12:00	0
1.23	0.071					
TRMB05045-S	JUNCTION	2.17	2.17	0	12:00	0.104
0.104	-25.454					
TRMB05046	JUNCTION	0.00	13.20	0	12:00	0
1.23	0.043					
TRMB05046-S	JUNCTION	0.00	0.04	0	12:00	0
0.000584	-72.047					
TRMB05047	JUNCTION	4.26	17.39	0	11:59	0.199
1.43	0.000					
TRMB05048	JUNCTION	0.00	13.15	0	12:00	0
1.23	0.018					
TRMB05048-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB01066	OUTFALL	0.00	14.10	0	12:35	0
1.4	0.000					
PCTB02009	OUTFALL	77.24	107.47	0	12:30	11.2
18.9	0.000					
PCTB02081	OUTFALL	0.00	677.43	0	00:04	0
74.6	0.000					
TRMB02001	OUTFALL	0.00	54.46	0	12:01	0
5.85	0.000					
TRMB03012	OUTFALL	0.00	35.89	0	12:00	0
3.11	0.000					
TRMB03066	OUTFALL	0.00	86.49	0	12:00	0
5.47	0.000					
TRMB05001	OUTFALL	0.00	80.93	0	12:00	0
8.96	0.000					

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
JMTB01003	JUNCTION	11.70	0.000	0.000
JMTB01003-S	JUNCTION	2.19	0.000	0.000
JMTB01004	JUNCTION	12.35	0.478	0.041
JMTB01005	JUNCTION	12.19	0.260	0.000
JMTB01006	JUNCTION	5.81	0.000	0.000
JMTB01006-S	JUNCTION	9.47	0.000	0.000
JMTB01102	JUNCTION	1.41	0.470	0.000
JMTB01103	JUNCTION	1.98	0.641	0.509
JMTB01104	JUNCTION	5.27	1.233	0.627
JMTB01105-S	JUNCTION	2.89	0.000	0.000
PCTB02003-S	JUNCTION	3.00	0.000	0.000
PCTB02012-S	JUNCTION	1.29	0.000	0.000
PCTB02022	JUNCTION	13.56	1.190	0.000
PCTB02023	JUNCTION	12.04	0.870	0.000

## Existing Conditions (10-Year)

PCTB02189	JUNCTION	23.69	1.690	0.000
PCTB02189-S	JUNCTION	0.15	0.000	0.000
PCTB02191	JUNCTION	23.70	2.090	0.000
PCTB02191_DS-S	JUNCTION	23.63	0.000	0.000
PCTB02235-S	JUNCTION	1.63	0.000	0.000
PCTB02237	JUNCTION	4.29	0.094	1.456
PCTB02257-S	JUNCTION	3.14	0.000	0.000
PCTB02280	JUNCTION	23.57	2.440	0.000
PCTB02280-S	JUNCTION	4.14	0.000	0.000
PCTB02281	JUNCTION	23.56	2.360	0.000
PCTB02282	JUNCTION	23.54	2.328	1.812
PCTB02283	JUNCTION	23.53	1.700	0.000
PCTB02284	JUNCTION	23.53	1.670	0.000
PCTB02295-S	JUNCTION	23.61	0.000	0.000
PCTB02297	JUNCTION	23.50	1.650	0.000
PCTB02303	JUNCTION	23.47	2.120	0.000
PCTB02304	JUNCTION	23.46	0.230	0.000
PCTB02304-S	JUNCTION	5.13	0.000	0.000
PCTB02329	JUNCTION	8.84	0.570	0.000
PCTB02330	JUNCTION	10.21	1.254	0.366
PCTB02331	JUNCTION	12.26	1.320	0.000
PCTB02332	JUNCTION	13.14	1.308	0.662
TRMB02003	JUNCTION	23.12	3.879	2.821
TRMB02006	JUNCTION	0.95	5.704	1.096
TRMB02015	JUNCTION	0.83	0.609	0.981
TRMB02015-S	JUNCTION	0.57	0.000	0.000
TRMB02016	JUNCTION	0.96	1.031	0.549
TRMB02018	JUNCTION	2.22	2.790	0.960
TRMB02022	JUNCTION	2.29	2.780	0.000
TRMB02022-S	JUNCTION	0.21	0.000	0.000
TRMB02023	JUNCTION	1.65	1.062	0.108
TRMB02030	JUNCTION	1.59	0.800	0.000
TRMB02032	JUNCTION	0.79	2.173	0.967
TRMB02033	JUNCTION	0.72	1.951	0.469
TRMB02034	JUNCTION	1.47	2.380	0.000
TRMB02035	JUNCTION	0.90	1.120	0.000
TRMB02044	JUNCTION	0.88	4.200	0.000
TRMB02044_DS	JUNCTION	2.50	6.870	0.000
TRMB02045	JUNCTION	0.92	3.706	0.254
TRMB02046	JUNCTION	0.69	2.100	0.000
TRMB02050	JUNCTION	0.93	3.125	0.025
TRMB02051	JUNCTION	0.94	1.810	0.000
TRMB02052	JUNCTION	0.92	1.550	0.000
TRMB02056	JUNCTION	0.90	1.790	0.000
TRMB02057	JUNCTION	0.88	1.800	0.000
TRMB02060	JUNCTION	0.66	3.562	1.378
TRMB02064	JUNCTION	0.26	0.908	1.112
TRMB02067	JUNCTION	0.85	3.643	0.047
TRMB02068	JUNCTION	0.77	5.130	0.160
TRMB02069	JUNCTION	0.73	5.580	0.000
TRMB02070	JUNCTION	0.72	5.271	0.359
TRMB03016-S	JUNCTION	23.75	0.000	0.000
TRMB03022	JUNCTION	0.60	0.000	0.000
TRMB03028	JUNCTION	1.06	1.139	4.171
TRMB03029	JUNCTION	0.97	1.318	2.032
TRMB03032	JUNCTION	0.87	3.328	2.032
TRMB03033	JUNCTION	0.76	1.430	0.000
TRMB03034	JUNCTION	0.76	1.770	0.000
TRMB03035	JUNCTION	0.31	2.160	0.000
TRMB03036	JUNCTION	0.89	3.891	1.659
TRMB03037	JUNCTION	0.83	1.920	0.000
TRMB03038	JUNCTION	0.01	1.982	0.878

## Existing Conditions (10-Year)

TRMB03039	JUNCTION	0.83	4.367	0.193
TRMB03043	JUNCTION	0.80	2.270	0.000
TRMB03044	JUNCTION	0.73	1.620	0.000
TRMB03049	JUNCTION	0.81	3.218	0.002
TRMB03051	JUNCTION	0.72	0.810	0.000
TRMB03052	JUNCTION	0.68	0.330	0.000
TRMB03054	JUNCTION	0.71	0.930	0.000
TRMB03055	JUNCTION	0.83	1.470	0.000
TRMB03065	JUNCTION	0.62	2.455	6.015
TRMB03068	JUNCTION	0.61	5.010	4.040
TRMB03069	JUNCTION	0.61	2.502	5.328
TRMB03070	JUNCTION	0.57	2.630	3.930
TRMB03083	JUNCTION	0.82	1.155	5.185
TRMB03084	JUNCTION	0.71	0.295	7.155
TRMB03087	JUNCTION	0.87	3.370	0.000
TRMB03090	JUNCTION	0.75	0.795	2.785
TRMB03090-S	JUNCTION	0.57	0.000	0.000
TRMB04265-S	JUNCTION	23.75	0.000	0.000
TRMB05003	JUNCTION	0.25	0.161	4.139
TRMB05004	JUNCTION	5.61	2.599	3.141
TRMB05005	JUNCTION	2.83	1.878	5.012
TRMB05006	JUNCTION	0.66	1.008	4.092
TRMB05008	JUNCTION	0.59	0.542	2.108
TRMB05017_US-S	JUNCTION	0.66	0.000	0.000
TRMB05019	JUNCTION	0.77	0.741	1.259
TRMB05021	JUNCTION	0.75	1.255	0.445
TRMB05025-S	JUNCTION	1.36	0.000	0.000
TRMB05027-S	JUNCTION	1.79	0.000	0.000
TRMB05028	JUNCTION	0.76	1.727	0.273
TRMB05029	JUNCTION	0.76	1.382	0.568
TRMB05030	JUNCTION	0.74	1.500	0.000
TRMB05031	JUNCTION	0.68	0.770	0.000
TRMB05032	JUNCTION	0.70	1.150	0.000
TRMB05033	JUNCTION	0.75	1.500	0.000
TRMB05034	JUNCTION	0.70	1.150	0.000
TRMB05035	JUNCTION	0.03	0.104	1.496
TRMB05036	JUNCTION	0.02	0.105	0.995
TRMB05040	JUNCTION	0.64	4.231	1.319
TRMB05041	JUNCTION	0.70	3.342	0.508
TRMB05042	JUNCTION	0.21	0.301	1.099
TRMB05044	JUNCTION	0.63	2.300	0.000
TRMB05045	JUNCTION	0.69	3.007	1.293
TRMB05046	JUNCTION	0.23	0.463	2.437
TRMB05047	JUNCTION	23.46	0.000	0.000

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

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
JMTB01003	11.69	28.53	0 12:30	3.923	0.000
JMTB01003-S	2.18	16.01	0 12:30	0.381	0.000
JMTB01005	9.75	1.35	0 13:45	0.109	0.000
JMTB01006	5.74	0.69	0 13:37	0.072	0.000
JMTB01006-S	9.45	46.32	0 12:30	3.826	0.000

## Existing Conditions (10-Year)

JMTB01102	0.33	0.84	0	12:30	0.004	0.000
JMTB01105-S	2.87	6.50	0	12:30	0.161	0.000
PCTB02003-S	3.00	14.23	0	12:30	0.395	0.000
PCTB02012-S	1.29	1.48	0	12:30	0.024	0.000
PCTB02022	8.59	5.89	0	12:30	0.523	0.000
PCTB02023	6.92	12.10	0	12:30	0.682	0.000
PCTB02189	0.01	15.48	0	00:03	0.001	0.000
PCTB02189-S	0.14	2.91	0	12:29	0.006	0.000
PCTB02191	23.63	48.69	0	12:31	24.628	0.000
PCTB02191_DS-S	23.63	64.61	0	12:31	10.074	0.000
PCTB02235-S	1.62	11.44	0	12:30	0.200	0.000
PCTB02257-S	3.13	4.59	0	13:00	0.229	0.000
PCTB02280	23.50	18.93	0	12:32	10.084	0.000
PCTB02280-S	4.12	17.37	0	12:30	0.619	0.000
PCTB02281	12.51	4.42	0	12:00	0.909	0.000
PCTB02283	23.49	11.10	0	12:30	3.089	0.000
PCTB02284	0.01	2.66	0	00:13	0.000	0.000
PCTB02295-S	23.61	35.07	0	12:30	15.726	0.000
PCTB02297	6.93	3.33	0	12:30	0.289	0.000
PCTB02303	0.01	21.73	0	00:14	0.000	0.000
PCTB02304	23.44	72.84	0	12:31	36.707	0.000
PCTB02304-S	5.12	27.05	0	12:30	1.253	0.000
PCTB02329	0.61	1.38	0	12:31	0.009	0.000
PCTB02331	1.37	4.46	0	12:30	0.095	0.000
TRMB02015-S	0.57	20.64	0	12:00	0.117	0.000
TRMB02022	1.57	23.65	0	11:59	0.644	0.000
TRMB02022-S	0.20	12.38	0	12:00	0.037	0.000
TRMB02030	0.95	8.20	0	12:00	0.127	0.000
TRMB02034	0.82	5.08	0	12:00	0.069	0.000
TRMB02035	0.82	1.26	0	12:00	0.019	0.000
TRMB02044	0.01	8.91	0	11:48	0.000	0.000
TRMB02044_DS	0.01	0.58	0	11:49	0.000	0.000
TRMB02046	0.01	3.11	0	11:49	0.000	0.000
TRMB02051	0.01	2.90	0	11:49	0.000	0.000
TRMB02052	0.83	23.43	0	12:00	0.319	0.000
TRMB02056	0.01	2.06	0	11:48	0.000	0.000
TRMB02057	0.01	3.35	0	11:48	0.000	0.000
TRMB02069	0.01	0.80	0	11:48	0.000	0.000
TRMB03022	0.60	5.65	0	12:29	0.032	0.000
TRMB03033	0.72	3.05	0	12:00	0.031	0.000
TRMB03034	0.01	0.18	0	11:49	0.000	0.000
TRMB03035	0.01	2.74	0	11:52	0.000	0.000
TRMB03037	0.73	1.96	0	12:00	0.030	0.000
TRMB03043	0.01	8.24	0	11:50	0.000	0.000
TRMB03044	0.25	1.69	0	12:00	0.007	0.000
TRMB03051	0.69	8.55	0	12:00	0.096	0.000
TRMB03052	0.01	2.42	0	11:51	0.000	0.000
TRMB03054	0.24	7.59	0	11:51	0.005	0.000
TRMB03055	0.71	3.99	0	12:00	0.059	0.000
TRMB03087	0.03	0.16	0	12:01	0.000	0.000
TRMB03090-S	0.56	15.27	0	12:00	0.060	0.000
TRMB04265-S	23.72	1.52	0	11:59	0.071	0.000
TRMB05017_US-S	0.66	28.10	0	12:30	0.284	0.000
TRMB05025-S	1.36	17.70	0	11:59	0.466	0.000
TRMB05027-S	1.78	24.82	0	11:59	0.708	0.000
TRMB05030	0.01	0.09	0	11:51	0.000	0.000
TRMB05031	0.11	1.04	0	11:51	0.001	0.000
TRMB05032	0.25	0.58	0	12:00	0.001	0.000
TRMB05033	0.67	2.67	0	12:00	0.023	0.000
TRMB05034	0.01	0.49	0	11:50	0.000	0.000
TRMB05044	0.16	1.22	0	12:00	0.003	0.000
TRMB05047	23.46	17.39	0	11:59	1.430	0.000

# Existing Conditions (10-Year)

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 Outfall Loading Summary  
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Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
PCTB01066	99.80	2.82	14.10	1.400
PCTB02009	99.92	37.27	107.47	18.858
PCTB02081	100.00	111.71	677.43	74.551
TRMB02001	99.97	10.90	54.46	5.849
TRMB03012	99.83	6.02	35.89	3.106
TRMB03066	99.90	11.16	86.49	5.469
TRMB05001	99.89	17.49	80.93	8.956
System	99.90	197.36	677.49	118.189

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 Link Flow Summary  
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Link	Type	Maximum  Flow  CFS	Time of Max Occurrence days hr:min	Maximum  Veloc  ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	335.37	0 00:05	7.97	0.15	0.85
C14	CONDUIT	7.66	0 12:16	5.32	1.53	1.00
C2_1	CONDUIT	33.89	0 12:34	6.90	0.39	1.00
C2_1-S	CHANNEL	52.04	0 12:28	4.13	0.19	0.75
C2_2	CONDUIT	380.44	0 00:02	4.32	0.43	0.89
C3	CHANNEL	1.65	0 12:30	0.19	0.01	0.59
C9	CONDUIT	3.42	0 12:00	4.22	0.14	0.63
C9-S	CHANNEL	0.00	0 00:00	0.00	0.00	0.01
CountrySideE_Ditch	CONDUIT	15.92	0 21:21	2.00	0.91	1.00
CountrySideE_Ditch_Culvert	CONDUIT	20.92	0 12:46	3.15	0.22	0.68
CountrySideE_Ditch_Culvert-S	CHANNEL	13.25	0 13:00	2.68	0.13	0.72
JMTB01003	CONDUIT	8.58	0 11:37	2.73	0.59	1.00
JMTB01003-S	CHANNEL	5.55	0 11:51	0.61	0.02	0.61
JMTB01004	CONDUIT	8.56	0 11:37	4.84	1.11	1.00
JMTB01004-S	CHANNEL	1.03	0 11:52	2.81	0.01	0.11
JMTB01005	CONDUIT	8.54	0 11:37	3.56	1.19	1.00
JMTB01005-S	CHANNEL	0.00	0 12:20	0.00	0.00	0.51
JMTB01102	CONDUIT	8.46	0 12:00	3.09	0.41	1.00
JMTB01102-S	CHANNEL	7.97	0 12:30	0.84	0.04	0.62
JMTB01103	CONDUIT	14.73	0 12:29	4.69	1.34	1.00
JMTB01103_1	CONDUIT	23.39	0 12:30	3.77	0.82	0.95
JMTB01103-S	CHANNEL	3.82	0 12:30	0.73	0.03	0.62
JMTB01104	CONDUIT	2.63	0 12:30	2.14	0.41	1.00
JMTB01104-S	CHANNEL	0.24	0 12:30	0.91	0.00	0.17
PCTB01068	CONDUIT	14.10	0 12:35	3.72	0.24	0.31
PCTB01068_US	CONDUIT	7.41	0 12:34	3.61	0.24	0.35
PCTB01068_US-S	CHANNEL	7.45	0 12:30	0.95	0.33	0.67
PCTB02001	CONDUIT	10.23	0 13:01	0.18	0.05	0.99
PCTB02002	CONDUIT	7.63	0 12:16	3.39	0.51	0.97
PCTB02002-S	CHANNEL	0.00	0 00:00	0.00	0.00	0.36



## Existing Conditions (10-Year)

PCTB02003	CONDUIT	5.60	0	12:33	3.52	0.54	0.60
PCTB02003-S	CHANNEL	22.89	0	12:30	2.38	0.31	0.89
PCTB02008	CONDUIT	36.10	0	13:21	4.39	0.81	0.56
PCTB02011	CONDUIT	18.62	0	13:44	4.21	0.14	0.50
PCTB02011_1	CONDUIT	20.66	0	13:44	1.16	0.16	0.55
PCTB02011-S	CHANNEL	2.09	0	12:24	0.28	0.01	0.53
PCTB02014	CONDUIT	9.18	0	15:19	2.84	0.14	0.97
PCTB02014_1	CONDUIT	10.01	0	13:18	1.37	0.07	0.76
PCTB02014-S	CHANNEL	3.87	0	13:32	0.56	0.02	0.52
PCTB02016	CONDUIT	4.11	0	14:52	2.92	0.52	0.79
PCTB02016-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02020	CONDUIT	4.12	0	14:53	0.45	0.13	0.91
PCTB02021	CONDUIT	4.12	0	14:51	0.55	0.80	1.00
PCTB02022	CONDUIT	2.31	0	19:37	1.88	1.37	1.00
PCTB02022-S	CHANNEL	7.94	0	12:30	2.23	0.16	0.74
PCTB02023	CONDUIT	3.04	0	12:30	1.72	0.97	1.00
PCTB02023-S	CHANNEL	0.00	0	12:30	0.00	0.00	0.39
PCTB02076	CONDUIT	369.73	0	00:05	6.92	0.15	0.91
PCTB02080	CONDUIT	677.43	0	00:04	12.70	30.88	1.00
PCTB02160	CONDUIT	301.15	0	00:06	9.60	0.66	0.83
PCTB02172	CONDUIT	396.73	0	00:05	5.88	0.10	0.97
PCTB02189	CONDUIT	17.44	0	00:03	3.89	0.60	1.00
PCTB02189-S	CHANNEL	58.18	0	12:24	4.61	0.73	0.75
PCTB02208	CONDUIT	46.31	0	14:11	5.39	0.54	0.83
PCTB02208-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02231	CONDUIT	147.02	0	00:06	6.32	2.12	1.00
PCTB02231-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02237	CONDUIT	91.76	0	00:10	6.16	0.82	1.00
PCTB02237-S	CHANNEL	9.16	0	11:55	1.02	0.15	0.88
PCTB02239	CONDUIT	0.00	0	00:00	0.00	0.00	0.50
PCTB02240	CONDUIT	66.60	0	00:12	2.12	0.10	0.94
PCTB02259_1	CONDUIT	29.59	0	14:13	0.52	0.15	0.73
PCTB02259_2	CONDUIT	46.13	0	14:00	1.20	0.11	0.73
PCTB02260	CONDUIT	46.15	0	14:00	3.63	0.49	0.73
PCTB02260-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02264	CONDUIT	46.22	0	14:00	1.52	0.06	0.76
PCTB02274	CONDUIT	20.22	0	12:30	2.19	0.04	0.35
PCTB02275	CONDUIT	13.56	0	12:31	2.48	0.26	0.82
PCTB02275-S	CHANNEL	4.40	0	12:30	4.83	0.01	0.21
PCTB02276	CONDUIT	12.24	0	14:57	1.94	1.29	0.82
PCTB02276-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.11
PCTB02278	CONDUIT	12.23	0	14:57	3.89	0.92	1.00
PCTB02278-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.37
PCTB02279	CONDUIT	12.93	0	12:37	0.92	0.02	0.50
PCTB02280	CONDUIT	5.25	0	00:23	4.28	1.05	1.00
PCTB02280-S	CHANNEL	27.63	0	12:30	2.78	0.37	0.83
PCTB02281	CONDUIT	5.24	0	16:35	4.27	0.77	1.00
PCTB02281-S	CHANNEL	10.27	0	11:59	1.02	0.08	0.88
PCTB02282	CONDUIT	4.08	0	00:22	3.33	0.64	1.00
PCTB02282-S	CHANNEL	2.01	0	12:30	0.50	0.01	0.38
PCTB02283	CONDUIT	6.66	0	12:30	5.42	1.56	1.00
PCTB02283-S	CHANNEL	4.50	0	12:30	5.57	0.01	0.23
PCTB02284	CONDUIT	3.14	0	00:13	2.71	0.73	1.00
PCTB02284-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.13
PCTB02292	CONDUIT	255.26	0	00:13	3.92	0.41	0.79
PCTB02294	CONDUIT	273.67	0	00:11	14.25	1.16	1.00
PCTB02294-S	CHANNEL	22.70	0	12:30	1.87	0.16	0.77
PCTB02295	CONDUIT	283.07	0	00:11	3.83	0.40	0.66
PCTB02297	CONDUIT	2.51	0	00:14	2.09	0.77	1.00
PCTB02297-S	CHANNEL	4.27	0	12:30	0.51	0.09	0.57
PCTB02299	CONDUIT	240.79	0	00:06	5.25	0.10	0.62
PCTB02300	CONDUIT	244.80	0	00:06	4.39	0.07	0.57

## Existing Conditions (10-Year)

PCTB02301	CONDUIT	105.87	0	00:08	5.23	0.40	0.91
PCTB02302	CONDUIT	101.70	0	00:13	2.92	0.21	0.92
PCTB02303	CONDUIT	63.00	0	00:25	5.28	0.41	1.00
PCTB02303-S	CHANNEL	6.67	0	12:30	1.82	0.02	0.40
PCTB02304	CONDUIT	64.18	0	12:31	3.76	0.25	1.00
PCTB02304-S	CHANNEL	9.53	0	12:30	1.52	0.02	0.62
PCTB02312	CONDUIT	162.80	0	00:12	3.48	0.24	0.94
PCTB02329	CONDUIT	6.06	0	11:57	3.43	2.30	1.00
PCTB02329-S	CHANNEL	2.32	0	12:30	2.98	0.02	0.17
PCTB02330	CONDUIT	5.19	0	11:52	2.94	1.63	1.00
PCTB02330-S	CHANNEL	6.81	0	12:30	0.84	0.06	0.56
PCTB02331	CONDUIT	2.64	0	13:13	1.49	2.82	1.00
PCTB02331-S	CHANNEL	0.74	0	12:30	0.14	0.01	0.43
TRMB02002	CONDUIT	54.46	0	12:01	14.40	0.53	0.53
TRMB02003	CONDUIT	51.82	0	12:01	8.89	0.33	0.77
TRMB02003-S	CHANNEL	1.11	0	12:00	4.52	0.00	0.36
TRMB02006	CONDUIT	45.24	0	12:00	9.22	1.06	1.00
TRMB02006-S	CHANNEL	8.86	0	12:00	4.04	0.06	0.46
TRMB02009	CONDUIT	40.31	0	12:01	10.40	0.59	0.81
TRMB02009-S	CHANNEL	14.03	0	12:00	5.83	0.05	0.32
TRMB02012	CONDUIT	35.70	0	12:00	8.96	0.96	0.77
TRMB02012-S	CHANNEL	0.38	0	12:00	0.53	0.03	0.16
TRMB02015	CONDUIT	35.15	0	11:59	7.29	1.08	0.98
TRMB02015-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.50
TRMB02016	CONDUIT	26.50	0	11:59	5.40	1.26	1.00
TRMB02016-S	CHANNEL	29.32	0	12:00	2.48	0.38	0.96
TRMB02018	CONDUIT	19.50	0	11:52	6.21	1.40	1.00
TRMB02018-S	CHANNEL	20.84	0	12:00	2.61	0.15	0.70
TRMB02022	CONDUIT	17.90	0	13:10	5.70	1.46	1.00
TRMB02022-S	CHANNEL	19.97	0	12:00	1.66	0.68	0.73
TRMB02023	CONDUIT	8.67	0	12:00	2.76	0.40	1.00
TRMB02023-S	CHANNEL	2.95	0	12:00	0.30	0.04	0.65
TRMB02030	CONDUIT	5.09	0	12:42	4.24	0.51	1.00
TRMB02030-S	CHANNEL	0.41	0	12:00	0.65	0.01	0.15
TRMB02032	CONDUIT	11.61	0	12:00	6.57	1.26	1.00
TRMB02032-S	CHANNEL	0.17	0	12:00	2.59	0.00	0.05
TRMB02033	CONDUIT	9.36	0	12:03	6.64	0.56	1.00
TRMB02033-S	CHANNEL	2.84	0	12:00	2.30	0.05	0.21
TRMB02034	CONDUIT	7.18	0	11:48	9.15	1.49	1.00
TRMB02034-S	CHANNEL	7.86	0	12:00	3.20	0.06	0.33
TRMB02035	CONDUIT	4.17	0	12:35	5.37	0.78	1.00
TRMB02035-S	CHANNEL	12.91	0	12:00	3.96	0.08	0.36
TRMB02044_1	CONDUIT	12.35	0	11:50	3.93	0.56	1.00
TRMB02044_1-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.28
TRMB02044_2	CONDUIT	18.57	0	12:00	5.91	3.26	1.00
TRMB02044_2-S	CHANNEL	34.60	0	12:00	3.18	0.25	0.78
TRMB02045	CONDUIT	19.72	0	11:48	6.28	1.44	1.00
TRMB02045-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02046	CONDUIT	8.16	0	12:00	4.86	0.21	1.00
TRMB02046-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02047	CONDUIT	8.59	0	11:49	8.67	0.46	0.79
TRMB02047-S	CHANNEL	0.50	0	12:00	2.06	0.01	0.09
TRMB02048	CONDUIT	3.97	0	12:00	6.51	0.88	0.74
TRMB02048-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.09
TRMB02049	CONDUIT	3.59	0	12:00	5.87	0.82	0.74
TRMB02049-S	CHANNEL	0.39	0	12:00	1.82	0.01	0.09
TRMB02050	CONDUIT	14.10	0	11:48	4.49	1.89	1.00
TRMB02050-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02051	CONDUIT	14.11	0	11:48	4.49	1.90	1.00
TRMB02051-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.06
TRMB02052	CONDUIT	11.73	0	11:48	3.73	0.59	1.00
TRMB02052-S	CHANNEL	0.22	0	12:00	1.80	0.00	0.07

## Existing Conditions (10-Year)

TRMB02056	CONDUIT	23.78	0	12:00	7.57	1.19	1.00
TRMB02056-S	CHANNEL	0.34	0	12:00	2.85	0.00	0.06
TRMB02057	CONDUIT	20.72	0	12:00	6.60	1.07	1.00
TRMB02057-S	CHANNEL	3.44	0	12:00	2.74	0.03	0.22
TRMB02060	CONDUIT	15.93	0	12:00	5.07	0.84	1.00
TRMB02060-S	CHANNEL	8.29	0	12:00	4.58	0.04	0.30
TRMB02063	CONDUIT	11.24	0	12:00	7.34	0.66	0.81
TRMB02063-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.15
TRMB02064	CONDUIT	11.28	0	12:00	7.37	1.29	0.81
TRMB02064-S	CHANNEL	0.01	0	12:00	1.00	0.00	0.02
TRMB02067	CONDUIT	9.64	0	12:00	7.85	3.45	1.00
TRMB02067-S	CHANNEL	1.67	0	12:00	3.67	0.01	0.13
TRMB02068	CONDUIT	5.62	0	11:48	4.58	1.26	1.00
TRMB02068-S	CHANNEL	2.01	0	12:00	1.87	0.01	0.20
TRMB02069	CONDUIT	2.12	0	11:48	2.04	0.33	1.00
TRMB02069-S	CHANNEL	0.00	0	11:31	0.00	0.00	0.09
TRMB02070	CONDUIT	1.84	0	11:59	2.87	0.44	1.00
TRMB02070-S	CHANNEL	0.01	0	11:31	1.04	0.00	0.02
TRMB03016	CONDUIT	35.89	0	12:00	9.28	0.77	0.73
TRMB03022	CONDUIT	25.32	0	12:39	9.50	1.22	1.00
TRMB03025	CONDUIT	27.25	0	12:30	10.57	0.61	0.78
TRMB03025-S	CHANNEL	0.82	0	11:56	6.92	0.00	0.20
TRMB03026	CONDUIT	0.96	0	12:00	10.15	0.06	0.59
TRMB03027	CONDUIT	0.96	0	12:00	4.38	0.26	0.32
TRMB03028	CONDUIT	25.26	0	12:32	9.65	5.65	0.78
TRMB03028-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.05
TRMB03029	CONDUIT	25.25	0	12:32	8.04	1.04	1.00
TRMB03029-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03030	CONDUIT	25.25	0	12:32	8.04	1.17	1.00
TRMB03030-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03031	CONDUIT	77.84	0	12:33	2.74	0.03	0.45
TRMB03032	CONDUIT	24.85	0	12:31	9.86	1.25	0.89
TRMB03032-S	CHANNEL	0.04	0	12:00	0.13	0.00	0.12
TRMB03033	CONDUIT	2.38	0	12:00	1.94	0.23	1.00
TRMB03033-S	CHANNEL	0.66	0	12:00	2.73	0.00	0.09
TRMB03034	CONDUIT	5.86	0	11:48	7.50	0.93	1.00
TRMB03034-S	CHANNEL	0.71	0	12:00	2.72	0.01	0.10
TRMB03035	CONDUIT	3.08	0	11:52	2.73	0.05	1.00
TRMB03035-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.01
TRMB03036	CONDUIT	23.28	0	12:31	7.41	1.73	1.00
TRMB03036-S	CHANNEL	0.00	0	12:00	0.04	0.00	0.03
TRMB03037	CONDUIT	4.63	0	11:48	5.97	1.15	1.00
TRMB03037-S	CHANNEL	5.09	0	12:00	3.05	0.04	0.25
TRMB03038	CONDUIT	1.34	0	11:52	2.33	0.10	1.00
TRMB03038-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.01
TRMB03039	CONDUIT	17.05	0	11:52	5.43	0.72	1.00
TRMB03039-S	CHANNEL	0.29	0	12:00	1.77	0.00	0.08
TRMB03042	CONDUIT	4.35	0	12:00	4.79	0.38	0.71
TRMB03042-S	CHANNEL	4.92	0	12:00	5.21	0.02	0.20
TRMB03043	CONDUIT	11.35	0	12:38	4.03	0.82	1.00
TRMB03043-S	CHANNEL	0.29	0	12:00	2.03	0.00	0.07
TRMB03044	CONDUIT	5.14	0	11:52	3.84	0.42	1.00
TRMB03044-S	CHANNEL	0.91	0	12:00	0.28	0.01	0.35
TRMB03049	CONDUIT	1.47	0	11:49	1.20	0.16	1.00
TRMB03049-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03051	CONDUIT	10.69	0	11:50	7.50	0.20	1.00
TRMB03051-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.01
TRMB03052	CONDUIT	2.56	0	11:51	3.34	0.30	1.00
TRMB03052-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03054	CONDUIT	7.80	0	12:05	4.34	1.42	1.00
TRMB03054-S	CHANNEL	0.29	0	12:01	0.62	0.01	0.13
TRMB03055	CONDUIT	4.32	0	11:50	4.24	2.44	1.00

## Existing Conditions (10-Year)

TRMB03055-S	CHANNEL	0.56	0	12:00	0.62	0.02	0.18
TRMB03063	CONDUIT	4.60	0	12:00	3.80	0.43	0.78
TRMB03063-S	CHANNEL	5.07	0	12:00	3.64	0.04	0.26
TRMB03065	CONDUIT	86.49	0	12:00	12.24	1.13	1.00
TRMB03067	CONDUIT	0.51	0	11:48	2.35	0.03	0.56
TRMB03067-S	CHANNEL	0.02	0	11:48	0.00	0.00	0.01
TRMB03068	CONDUIT	5.51	0	12:34	4.43	0.22	1.00
TRMB03068-S	CHANNEL	6.66	0	12:00	5.08	0.02	0.23
TRMB03069	CONDUIT	84.95	0	12:00	12.48	1.02	1.00
TRMB03069-S	CHANNEL	1.23	0	12:00	2.59	0.01	0.13
TRMB03070	CONDUIT	79.89	0	11:56	12.33	0.98	1.00
TRMB03070-S	CHANNEL	1.14	0	12:00	1.57	0.02	0.16
TRMB03072	CONDUIT	70.85	0	12:00	13.69	0.65	0.79
TRMB03072-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.05
TRMB03073	CONDUIT	3.33	0	12:00	3.98	0.19	0.65
TRMB03073-S	CHANNEL	1.56	0	12:00	5.03	0.01	0.12
TRMB03083	CONDUIT	64.09	0	12:01	14.41	0.94	0.85
TRMB03083-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03084	CONDUIT	6.84	0	12:00	3.87	1.39	1.00
TRMB03084-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.06
TRMB03087	CONDUIT	64.10	0	12:01	13.06	4.66	1.00
TRMB03087-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.32
TRMB03088	CONDUIT	57.95	0	12:01	9.15	0.71	0.84
TRMB03088-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.32
TRMB03089	CONDUIT	58.07	0	12:00	13.55	0.55	0.60
TRMB03089-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03090	CONDUIT	58.09	0	12:00	10.02	0.79	0.76
TRMB03090-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.50
TRMB03091	CONDUIT	45.76	0	12:00	7.84	0.57	0.77
TRMB03091-S	CHANNEL	21.66	0	12:00	4.61	0.10	0.70
TRMB03092	CONDUIT	3.67	0	12:00	4.26	0.22	0.66
TRMB03092-S	CHANNEL	2.38	0	12:00	3.76	0.01	0.59
TRMB03094	CONDUIT	40.24	0	12:00	10.11	0.55	0.55
TRMB03094-S	CHANNEL	24.70	0	12:00	4.23	0.17	0.46
TRMB03095	CONDUIT	6.20	0	12:00	7.56	0.16	0.63
TRMB03095-S	CHANNEL	7.31	0	11:52	1.73	0.50	0.51
TRMB03096	CONDUIT	23.37	0	12:00	5.63	0.83	0.59
TRMB03096-S	CHANNEL	26.41	0	12:00	4.86	0.08	0.44
TRMB03097	CONDUIT	4.54	0	12:00	5.06	0.30	0.69
TRMB03097-S	CHANNEL	10.78	0	12:00	5.82	0.04	0.39
TRMB03101	CONDUIT	0.25	0	13:00	0.66	0.00	0.51
TRMB03101-S	CHANNEL	0.00	0	11:37	0.00	0.00	0.19
TRMB03102	CONDUIT	18.01	0	12:00	5.76	0.20	0.46
TRMB03102-S	CHANNEL	31.77	0	12:00	6.03	0.14	0.43
TRMB03103	CONDUIT	11.92	0	12:00	8.07	0.10	0.26
TRMB03103-S	CHANNEL	36.13	0	12:00	5.88	0.14	0.47
TRMB03111	CONDUIT	6.11	0	12:00	7.80	0.16	0.30
TRMB03111-S	CHANNEL	30.18	0	12:00	4.90	0.17	0.47
TRMB03132	CONDUIT	3.85	0	12:00	3.59	0.26	0.67
TRMB03132-S	CHANNEL	3.08	0	12:00	5.31	0.01	0.16
TRMB04089_1	CONDUIT	8.44	0	12:29	2.71	0.18	0.55
TRMB04089_1-S	CHANNEL	112.42	0	12:30	5.61	0.88	0.97
TRMB04089_2	CONDUIT	17.59	0	12:34	3.57	0.37	0.78
TRMB04089_2-S	CHANNEL	77.63	0	12:34	6.97	0.61	0.69
TRMB05002	CONDUIT	80.93	0	12:00	28.65	0.17	0.34
TRMB05003	CONDUIT	80.99	0	12:00	11.18	0.77	0.71
TRMB05003-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05004	CONDUIT	0.49	0	11:59	1.14	0.06	1.00
TRMB05004-S	CHANNEL	0.00	0	11:08	0.00	0.00	0.00
TRMB05005	CONDUIT	2.16	0	11:59	2.31	0.21	1.00
TRMB05005-S	CHANNEL	0.08	0	12:00	2.92	0.00	0.03
TRMB05006	CONDUIT	78.47	0	12:01	8.16	1.24	1.00

## Existing Conditions (10-Year)

TRMB05006-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05008	CONDUIT	2.12	0	11:59	2.18	0.23	1.00
TRMB05008-S	CHANNEL	0.00	0	11:46	0.00	0.00	0.03
TRMB05009_1	CONDUIT	68.69	0	12:00	9.71	0.76	0.78
TRMB05009_1-S	CHANNEL	0.18	0	12:35	1.80	0.00	0.06
TRMB05009_2	CONDUIT	72.90	0	12:02	8.25	0.81	0.95
TRMB05009_2-S	CHANNEL	0.01	0	11:47	0.00	0.00	0.01
TRMB05010	CONDUIT	4.23	0	12:00	3.62	0.04	0.57
TRMB05010-S	CHANNEL	0.00	0	11:33	0.00	0.00	0.05
TRMB05011	CONDUIT	1.60	0	12:00	6.00	0.04	0.14
TRMB05011-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.05
TRMB05012	CONDUIT	1.60	0	12:00	2.99	0.42	0.45
TRMB05012-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.02
TRMB05013	CONDUIT	1.53	0	12:00	4.28	0.02	0.55
TRMB05013-S	CHANNEL	0.43	0	11:59	3.66	0.00	0.07
TRMB05014	CONDUIT	2.85	0	12:00	4.23	0.09	0.60
TRMB05014-S	CHANNEL	0.47	0	11:57	2.39	0.00	0.11
TRMB05015	CONDUIT	61.78	0	12:01	7.70	1.11	0.78
TRMB05015-S	CHANNEL	3.88	0	12:34	3.83	0.03	0.20
TRMB05016	CONDUIT	14.35	0	11:58	11.05	0.30	0.69
TRMB05016-S	CHANNEL	2.80	0	11:56	2.98	0.02	0.18
TRMB05017	CONDUIT	40.62	0	12:33	5.13	0.79	0.89
TRMB05017-S	CHANNEL	13.54	0	11:55	4.29	0.07	0.33
TRMB05018	CONDUIT	3.59	0	12:00	4.46	0.14	0.62
TRMB05018-S	CHANNEL	2.39	0	11:55	2.75	0.02	0.18
TRMB05019	CONDUIT	11.47	0	11:59	8.85	0.74	0.69
TRMB05019-S	CHANNEL	0.14	0	11:56	2.60	0.00	0.04
TRMB05020	CONDUIT	0.34	0	11:58	1.38	0.04	0.32
TRMB05020-S	CHANNEL	0.10	0	11:55	1.77	0.00	0.05
TRMB05021	CONDUIT	11.32	0	11:59	6.41	1.26	1.00
TRMB05021-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05022	CONDUIT	1.29	0	12:00	2.45	0.16	0.44
TRMB05022-S	CHANNEL	0.07	0	11:56	1.44	0.00	0.04
TRMB05023	CONDUIT	0.34	0	12:08	2.44	0.08	0.41
TRMB05023-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.16
TRMB05025	CONDUIT	8.66	0	11:49	10.66	0.15	0.63
TRMB05025-S	CHANNEL	25.81	0	12:34	3.97	0.09	0.69
TRMB05026	CONDUIT	3.42	0	12:00	14.56	0.12	0.25
TRMB05026-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05027	CONDUIT	8.66	0	11:48	10.40	0.18	0.64
TRMB05027-S	CHANNEL	32.96	0	12:34	4.83	0.09	0.69
TRMB05028	CONDUIT	10.09	0	12:30	5.71	1.40	1.00
TRMB05028-S	CHANNEL	0.00	0	11:31	0.00	0.00	0.00
TRMB05029	CONDUIT	1.36	0	11:59	1.31	0.25	1.00
TRMB05029-S	CHANNEL	0.01	0	11:36	0.00	0.00	0.01
TRMB05030	CONDUIT	3.76	0	11:50	3.12	0.34	1.00
TRMB05030-S	CHANNEL	0.00	0	11:30	0.00	0.00	0.01
TRMB05031	CONDUIT	4.34	0	12:01	4.25	0.35	1.00
TRMB05031-S	CHANNEL	0.33	0	12:00	0.56	0.00	0.14
TRMB05032	CONDUIT	3.93	0	12:30	3.67	0.37	1.00
TRMB05032-S	CHANNEL	0.00	0	11:24	0.00	0.00	0.02
TRMB05033	CONDUIT	3.15	0	11:50	3.32	7.23	1.00
TRMB05033-S	CHANNEL	0.36	0	11:59	1.53	0.04	0.09
TRMB05034	CONDUIT	2.69	0	12:30	3.66	0.50	1.00
TRMB05034-S	CHANNEL	0.15	0	12:29	1.48	0.00	0.06
TRMB05035	CONDUIT	5.96	0	12:02	5.75	0.13	1.00
TRMB05035-S	CHANNEL	0.11	0	12:00	1.40	0.00	0.05
TRMB05036	CONDUIT	2.90	0	11:55	4.46	0.46	1.00
TRMB05036-S	CHANNEL	0.00	0	11:47	0.00	0.00	0.01
TRMB05037	CONDUIT	2.12	0	12:00	4.50	0.16	0.64
TRMB05037-S	CHANNEL	0.04	0	11:59	1.36	0.00	0.03
TRMB05038	CONDUIT	3.48	0	11:55	5.91	0.45	0.92

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TRMB05038-S	CHANNEL	0.00	0	11:48	0.00	0.00	0.02
TRMB05039	CONDUIT	1.76	0	11:58	2.93	0.35	0.80
TRMB05039-S	CHANNEL	0.01	0	12:00	0.36	0.00	0.04
TRMB05040	CONDUIT	8.62	0	12:01	4.88	1.14	1.00
TRMB05040-S	CHANNEL	0.43	0	12:00	1.34	0.00	0.11
TRMB05041	CONDUIT	11.50	0	12:00	6.50	1.50	1.00
TRMB05041-S	CHANNEL	0.06	0	12:00	0.60	0.00	0.08
TRMB05042	CONDUIT	3.42	0	12:00	4.29	0.46	0.62
TRMB05042-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.08
TRMB05044	CONDUIT	0.97	0	12:33	1.27	0.17	1.00
TRMB05044-S	CHANNEL	0.04	0	12:00	1.48	0.00	0.03
TRMB05045	CONDUIT	13.11	0	12:00	7.42	1.35	1.00
TRMB05045-S	CHANNEL	0.04	0	12:00	1.97	0.00	0.03
TRMB05046	CONDUIT	13.15	0	12:00	8.49	0.74	0.82
TRMB05046-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05048	CONDUIT	13.14	0	12:00	8.46	0.75	0.82
CountrySideE_Ditch_Culvert_In-IC	DUMMY			5.78	0	13:00	
JMTB01003-IC	DUMMY	8.66	0	11:51			
JMTB01004-IC	DUMMY	4.05	0	11:52			
JMTB01005-IC	DUMMY	0.97	0	12:20			
JMTB01006-IC	DUMMY	8.66	0	11:51			
JMTB01102-IC	DUMMY	8.64	0	12:30			
JMTB01103-IC	DUMMY	4.31	0	12:30			
JMTB01104-IC	DUMMY	2.62	0	12:30			
JMTB01105-IC	DUMMY	8.66	0	12:14			
PCTB01068_US-IC	DUMMY	7.40	0	12:33			
PCTB01068-IC	DUMMY	6.72	0	12:33			
PCTB02001-IC	DUMMY	7.40	0	12:30			
PCTB02002-IC	DUMMY	0.00	0	00:00			
PCTB02003-IC	DUMMY	8.66	0	11:54			
PCTB02004-IC	DUMMY	7.64	0	11:54			
PCTB02011-IC	DUMMY	2.06	0	12:25			
PCTB02012-IC	DUMMY	8.66	0	12:24			
PCTB02014-IC	DUMMY	7.71	0	13:34			
PCTB02015-IC	DUMMY	4.20	0	13:32			
PCTB02016-IC	DUMMY	0.00	0	00:00			
PCTB02017-IC	DUMMY	0.00	0	00:00			
PCTB02022-IC	DUMMY	7.35	0	12:30			
PCTB02023-IC	DUMMY	7.60	0	12:30			
PCTB02189-IC	DUMMY	8.66	0	12:22			
PCTB02191_DS-IC	DUMMY	12.57	0	12:34			
PCTB02191-IC	DUMMY	6.14	0	12:28			
PCTB02207-IC	DUMMY	0.00	0	00:00			
PCTB02209-IC	DUMMY	0.00	0	00:00			
PCTB02229-IC	DUMMY	0.00	0	00:00			
PCTB02231-IC	DUMMY	0.00	0	00:00			
PCTB02235-IC	DUMMY	8.66	0	11:55			
PCTB02237-IC	DUMMY	7.57	0	11:56			
PCTB02257_1-IC	DUMMY	3.96	0	11:59			
PCTB02257-IC	DUMMY	8.66	0	12:23			
PCTB02260-IC	DUMMY	0.00	0	00:00			
PCTB02262-IC	DUMMY	0.00	0	00:00			
PCTB02275-IC	DUMMY	4.06	0	12:31			
PCTB02276-IC	DUMMY	0.00	0	00:00			
PCTB02278-IC	DUMMY	7.34	0	15:11			
PCTB02280-IC	DUMMY	8.66	0	11:59			
PCTB02281-IC	DUMMY	7.54	0	12:00			
PCTB02282-IC	DUMMY	3.77	0	12:30			
PCTB02283-IC	DUMMY	4.45	0	12:30			
PCTB02284-IC	DUMMY	0.00	0	00:00			
PCTB02292-IC	DUMMY	8.85	0	00:23			
PCTB02294-IC	DUMMY	10.36	0	00:24			

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PCTB02295-IC	DUMMY	12.37	0	00:23
PCTB02297-IC	DUMMY	5.45	0	12:30
PCTB02302-IC	DUMMY	7.09	0	00:22
PCTB02303-IC	DUMMY	4.20	0	12:30
PCTB02304-IC	DUMMY	8.66	0	11:49
PCTB02312-IC	DUMMY	7.46	0	00:22
PCTB02329-IC	DUMMY	2.31	0	12:31
PCTB02330-IC	DUMMY	4.48	0	12:30
PCTB02331-IC	DUMMY	8.01	0	12:30
PCTB02332-IC	DUMMY	0.73	0	12:30
TRMB02002-IC	DUMMY	2.76	0	12:00
TRMB02003-IC	DUMMY	6.85	0	12:04
TRMB02006-IC	DUMMY	4.94	0	12:00
TRMB02009-IC	DUMMY	4.89	0	12:00
TRMB02012-IC	DUMMY	0.38	0	12:00
TRMB02015-IC	DUMMY	8.66	0	11:59
TRMB02016-IC	DUMMY	8.34	0	11:59
TRMB02018-IC	DUMMY	5.90	0	12:00
TRMB02022-IC	DUMMY	8.66	0	11:56
TRMB02023-IC	DUMMY	4.69	0	12:00
TRMB02030-IC	DUMMY	0.57	0	12:00
TRMB02032-IC	DUMMY	2.62	0	12:00
TRMB02033-IC	DUMMY	4.99	0	12:00
TRMB02034-IC	DUMMY	4.98	0	12:00
TRMB02035-IC	DUMMY	5.38	0	12:00
TRMB02044_DS-IC	DUMMY	6.45	0	12:00
TRMB02044-IC	DUMMY	0.00	0	00:00
TRMB02045-IC	DUMMY	0.00	0	00:00
TRMB02046-IC	DUMMY	0.50	0	12:00
TRMB02047-IC	DUMMY	3.69	0	12:00
TRMB02048-IC	DUMMY	0.39	0	12:00
TRMB02049-IC	DUMMY	3.59	0	12:00
TRMB02050-IC	DUMMY	0.00	0	00:00
TRMB02051-IC	DUMMY	3.10	0	12:00
TRMB02052-IC	DUMMY	0.55	0	12:00
TRMB02056-IC	DUMMY	3.07	0	12:00
TRMB02057-IC	DUMMY	4.79	0	12:00
TRMB02060-IC	DUMMY	4.70	0	12:00
TRMB02063-IC	DUMMY	0.06	0	12:00
TRMB02064-IC	DUMMY	1.65	0	12:00
TRMB02067-IC	DUMMY	4.05	0	12:00
TRMB02068-IC	DUMMY	3.73	0	12:00
TRMB02069-IC	DUMMY	0.11	0	11:31
TRMB02070-IC	DUMMY	1.83	0	11:59
TRMB03016-IC	DUMMY	0.00	0	00:00
TRMB03022-IC	DUMMY	4.72	0	12:00
TRMB03025-IC	DUMMY	2.68	0	11:56
TRMB03028-IC	DUMMY	0.00	0	00:00
TRMB03029-IC	DUMMY	0.00	0	00:00
TRMB03030-IC	DUMMY	0.00	0	00:00
TRMB03031-IC	DUMMY	3.80	0	12:00
TRMB03032-IC	DUMMY	1.90	0	12:00
TRMB03033-IC	DUMMY	0.66	0	12:00
TRMB03034-IC	DUMMY	3.66	0	12:00
TRMB03035-IC	DUMMY	0.03	0	12:02
TRMB03036-IC	DUMMY	0.99	0	12:00
TRMB03037-IC	DUMMY	4.93	0	12:00
TRMB03038-IC	DUMMY	0.00	0	00:00
TRMB03039-IC	DUMMY	3.26	0	12:00
TRMB03042-IC	DUMMY	4.35	0	12:00
TRMB03043-IC	DUMMY	0.29	0	12:00
TRMB03044-IC	DUMMY	6.50	0	12:00

## Existing Conditions (10-Year)

TRMB03049-IC	DUMMY	0.00	0	00:00
TRMB03051-IC	DUMMY	0.84	0	12:00
TRMB03052-IC	DUMMY	0.00	0	00:00
TRMB03054-IC	DUMMY	4.33	0	12:01
TRMB03055-IC	DUMMY	5.12	0	12:00
TRMB03063-IC	DUMMY	4.60	0	12:00
TRMB03065-IC	DUMMY	1.23	0	12:00
TRMB03067-IC	DUMMY	0.98	0	11:48
TRMB03068-IC	DUMMY	4.05	0	12:00
TRMB03069-IC	DUMMY	4.24	0	12:00
TRMB03070-IC	DUMMY	2.61	0	12:00
TRMB03072-IC	DUMMY	0.00	0	00:00
TRMB03073-IC	DUMMY	3.33	0	12:00
TRMB03083-IC	DUMMY	0.00	0	00:00
TRMB03084-IC	DUMMY	3.01	0	12:00
TRMB03087-IC	DUMMY	6.94	0	12:30
TRMB03088-IC	DUMMY	0.00	0	00:00
TRMB03089-IC	DUMMY	0.00	0	00:00
TRMB03090-IC	DUMMY	8.66	0	11:57
TRMB03091-IC	DUMMY	5.53	0	12:00
TRMB03092-IC	DUMMY	3.67	0	12:00
TRMB03094-IC	DUMMY	6.19	0	12:00
TRMB03095-IC	DUMMY	6.21	0	12:00
TRMB03096-IC	DUMMY	5.29	0	12:00
TRMB03097-IC	DUMMY	4.54	0	12:00
TRMB03101-IC	DUMMY	0.49	0	12:58
TRMB03102-IC	DUMMY	6.10	0	12:00
TRMB03103-IC	DUMMY	5.81	0	12:00
TRMB03111-IC	DUMMY	6.11	0	12:00
TRMB03132-IC	DUMMY	3.85	0	12:00
TRMB04089-IC	DUMMY	8.42	0	12:30
TRMB05002-IC	DUMMY	0.00	0	00:00
TRMB05003-IC	DUMMY	0.23	0	14:23
TRMB05004-IC	DUMMY	0.60	0	11:46
TRMB05005-IC	DUMMY	2.16	0	12:00
TRMB05006-IC	DUMMY	0.10	0	11:35
TRMB05008-IC	DUMMY	2.11	0	12:00
TRMB05009_DS-IC	DUMMY	1.17	0	11:45
TRMB05009-IC	DUMMY	2.95	0	12:35
TRMB05010-IC	DUMMY	2.63	0	12:00
TRMB05011-IC	DUMMY	0.00	0	00:00
TRMB05012-IC	DUMMY	1.61	0	11:59
TRMB05013-IC	DUMMY	1.54	0	12:00
TRMB05014-IC	DUMMY	2.85	0	12:00
TRMB05015-IC	DUMMY	4.60	0	11:55
TRMB05016-IC	DUMMY	2.56	0	11:56
TRMB05017_US-IC	DUMMY	8.66	0	11:54
TRMB05017-IC	DUMMY	5.39	0	12:34
TRMB05018-IC	DUMMY	2.32	0	11:56
TRMB05019-IC	DUMMY	0.22	0	12:37
TRMB05020-IC	DUMMY	0.38	0	11:55
TRMB05021-IC	DUMMY	0.21	0	11:35
TRMB05022-IC	DUMMY	1.03	0	12:00
TRMB05023-IC	DUMMY	4.77	0	12:08
TRMB05025-IC	DUMMY	8.66	0	11:49
TRMB05026-IC	DUMMY	0.00	0	00:00
TRMB05027-IC	DUMMY	8.66	0	11:48
TRMB05028-IC	DUMMY	0.43	0	12:00
TRMB05029-IC	DUMMY	1.36	0	11:59
TRMB05030-IC	DUMMY	0.81	0	12:00
TRMB05031-IC	DUMMY	4.62	0	12:00
TRMB05032-IC	DUMMY	1.72	0	12:00



# Existing Conditions (10-Year)

TRMB05033-IC	DUMMY	3.60	0	12:00
TRMB05034-IC	DUMMY	2.69	0	12:30
TRMB05035-IC	DUMMY	0.29	0	11:56
TRMB05036-IC	DUMMY	0.85	0	11:45
TRMB05037-IC	DUMMY	2.12	0	12:00
TRMB05038-IC	DUMMY	1.55	0	12:00
TRMB05039-IC	DUMMY	1.76	0	12:00
TRMB05040-IC	DUMMY	2.81	0	12:00
TRMB05041-IC	DUMMY	2.93	0	12:00
TRMB05042-IC	DUMMY	3.42	0	12:00
TRMB05043-IC	DUMMY	0.00	0	00:00
TRMB05044-IC	DUMMY	0.86	0	12:00
TRMB05045-IC	DUMMY	2.01	0	12:00
TRMB05046-IC	DUMMY	0.13	0	10:26
TRMB05048-IC	DUMMY	0.00	0	00:00

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 Flow Classification Summary  
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Conduit	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.45	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C14	1.64	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
C2_1	6.41	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C2_1-s	3.97	0.00	0.18	0.00	0.77	0.06	0.00	0.00	0.97	0.00
C2_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C3	1.00	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.99	0.00
C9	9.19	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.99	0.00
C9-s	9.93	0.44	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CountrySideE_Ditch	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.48	0.00
CountrySideE_Ditch_Culvert	1.00	1.00	0.01	0.00	0.00	0.98	0.00	0.00	0.01	0.00
0.00										
CountrySideE_Ditch_Culvert-S		1.00	0.27	0.02	0.00	0.37	0.34	0.00	0.00	
0.24	0.00									
JMTB01003	6.76	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
JMTB01003-S	10.55	0.15	0.60	0.00	0.25	0.00	0.00	0.00	0.00	0.00
JMTB01004	1.47	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00
JMTB01004-S	1.20	0.75	0.00	0.00	0.03	0.22	0.00	0.00	0.00	0.00
JMTB01005	1.00	0.00	0.01	0.00	0.97	0.01	0.00	0.00	0.32	0.00
JMTB01005-S	1.00	0.15	0.67	0.00	0.18	0.00	0.00	0.00	0.50	0.00
JMTB01102	3.59	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.46	0.00
JMTB01102-S	3.41	0.18	0.65	0.00	0.17	0.00	0.00	0.00	0.73	0.00
JMTB01103	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.47	0.00
JMTB01103_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.46	0.00
JMTB01103-S	1.00	0.21	0.62	0.00	0.17	0.00	0.00	0.00	0.94	0.00
JMTB01104	2.72	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.30	0.00
JMTB01104-S	2.20	0.34	0.04	0.00	0.28	0.34	0.00	0.00	0.06	0.00
PCTB01068	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB01068_US	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB01068_US-S	1.00	0.20	0.46	0.00	0.34	0.00	0.00	0.00	0.00	0.00
PCTB02001	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.04	0.00
PCTB02002	1.33	0.00	0.01	0.00	0.95	0.04	0.00	0.00	0.01	0.00
PCTB02002-S	1.28	0.27	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02003	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.02	0.00
PCTB02003-S	1.00	0.12	0.07	0.00	0.43	0.38	0.00	0.00	0.05	0.00

## Existing Conditions (10-Year)

PCTB02008	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02011	3.82	0.00	0.00	0.00	0.93	0.07	0.00	0.00	0.04	0.00
PCTB02011_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02011-S	2.41	0.28	0.58	0.00	0.14	0.00	0.00	0.00	0.00	0.00
PCTB02014	3.40	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
PCTB02014_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.05	0.00
PCTB02014-S	2.03	0.56	0.30	0.00	0.14	0.00	0.00	0.00	0.40	0.00
PCTB02016	1.79	0.00	0.00	0.00	0.96	0.04	0.00	0.00	0.23	0.00
PCTB02016-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02020	1.00	0.00	0.00	0.00	0.95	0.00	0.00	0.05	0.26	0.00
PCTB02021	1.00	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.03	0.00
PCTB02022	1.17	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02022-S	1.00	0.09	0.07	0.00	0.24	0.61	0.00	0.00	0.00	0.00
PCTB02023	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
PCTB02023-S	1.00	0.42	0.56	0.00	0.02	0.00	0.00	0.00	0.48	0.00
PCTB02076	1.20	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02080	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02160	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02172	2.17	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02189	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02189-S	1.00	0.02	0.00	0.00	0.04	0.94	0.00	0.00	0.00	0.00
PCTB02208	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02208-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02231	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02231-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02237	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02237-S	1.00	0.18	0.24	0.00	0.57	0.00	0.00	0.00	0.00	0.00
PCTB02239	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02240	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02259_1	1.62	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02259_2	1.00	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02260	1.09	0.01	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02260-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02264	1.00	0.01	0.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02274	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
PCTB02275	3.23	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02275-S	3.61	0.15	0.11	0.00	0.04	0.71	0.00	0.00	0.01	0.00
PCTB02276	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02276-S	1.00	0.45	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02278	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02278-S	1.00	0.68	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02279	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.72	0.00
PCTB02280	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02280-S	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.98	0.00
PCTB02281	2.41	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02281-S	1.89	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02282	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02282-S	1.00	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.99	0.00
PCTB02283	1.34	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02283-S	2.70	0.05	0.00	0.00	0.19	0.76	0.00	0.00	0.02	0.00
PCTB02284	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02284-S	1.00	0.60	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02292	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02294	3.11	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02294-S	1.30	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.61	0.00
PCTB02295	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02297	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02297-S	1.00	0.01	0.05	0.00	0.94	0.00	0.00	0.00	0.98	0.00
PCTB02299	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02300	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02301	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02302	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00

## Existing Conditions (10-Year)

PCTB02303	2.33	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02303-S	1.93	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.99	0.00
PCTB02304	6.82	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
PCTB02304-S	6.10	0.04	0.01	0.00	0.88	0.07	0.00	0.00	0.99	0.00
PCTB02312	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02329	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02329-S	1.00	0.87	0.00	0.00	0.01	0.12	0.00	0.00	0.00	0.00
PCTB02330	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02330-S	1.00	0.10	0.76	0.00	0.13	0.00	0.00	0.00	0.00	0.00
PCTB02331	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02331-S	1.00	0.10	0.88	0.00	0.02	0.00	0.00	0.00	0.00	0.00
TRMB02002	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.02	0.00
TRMB02003	4.56	0.00	0.00	0.00	0.95	0.05	0.00	0.00	0.02	0.00
TRMB02003-S	3.46	0.31	0.21	0.00	0.29	0.18	0.00	0.00	0.03	0.00
TRMB02006	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.95	0.00
TRMB02006-S	1.00	0.66	0.09	0.00	0.20	0.05	0.00	0.00	0.05	0.00
TRMB02009	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.97	0.00
TRMB02009-S	1.00	0.08	0.04	0.00	0.21	0.67	0.00	0.00	0.01	0.00
TRMB02012	1.00	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.01	0.00
TRMB02012-S	1.00	0.11	0.02	0.00	0.86	0.01	0.00	0.00	0.00	0.00
TRMB02015	1.00	0.00	0.00	0.00	0.13	0.87	0.00	0.00	0.00	0.00
TRMB02015-S	1.00	0.85	0.03	0.00	0.12	0.00	0.00	0.00	0.50	0.00
TRMB02016	2.57	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02016-S	1.39	0.11	0.05	0.00	0.60	0.24	0.00	0.00	0.00	0.00
TRMB02018	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.89	0.00
TRMB02018-S	1.00	0.13	0.00	0.00	0.81	0.06	0.00	0.00	0.62	0.00
TRMB02022	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
TRMB02022-S	1.00	0.00	0.12	0.00	0.85	0.02	0.00	0.00	0.09	0.00
TRMB02023	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.91	0.00
TRMB02023-S	1.00	0.12	0.02	0.00	0.71	0.14	0.00	0.00	0.49	0.00
TRMB02030	1.00	0.00	0.00	0.00	0.27	0.73	0.00	0.00	0.36	0.00
TRMB02030-S	1.00	0.14	0.76	0.00	0.10	0.00	0.00	0.00	0.02	0.00
TRMB02032	1.00	0.00	0.00	0.00	0.11	0.89	0.00	0.00	0.08	0.00
TRMB02032-S	1.00	0.93	0.02	0.00	0.04	0.02	0.00	0.00	0.00	0.00
TRMB02033	2.62	0.00	0.00	0.00	0.06	0.94	0.00	0.00	0.96	0.00
TRMB02033-S	1.02	0.93	0.00	0.00	0.01	0.06	0.00	0.00	0.00	0.00
TRMB02034	1.00	0.00	0.00	0.00	0.06	0.94	0.00	0.00	0.00	0.00
TRMB02034-S	1.00	0.77	0.00	0.00	0.14	0.09	0.00	0.00	0.00	0.00
TRMB02035	1.00	0.00	0.00	0.00	0.09	0.91	0.00	0.00	0.93	0.00
TRMB02035-S	1.00	0.07	0.05	0.00	0.24	0.64	0.00	0.00	0.00	0.00
TRMB02044_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.95	0.00
TRMB02044_1-S	1.00	0.06	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02044_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02044_2-S	1.00	0.00	0.06	0.00	0.10	0.84	0.00	0.00	0.06	0.00
TRMB02045	2.54	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02045-S	2.35	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02046	9.20	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
TRMB02046-S	2.80	0.88	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02047	2.44	0.00	0.00	0.00	0.07	0.93	0.00	0.00	0.04	0.00
TRMB02047-S	1.03	0.36	0.13	0.00	0.28	0.23	0.00	0.00	0.00	0.00
TRMB02048	1.00	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.96	0.00
TRMB02048-S	1.00	0.44	0.43	0.00	0.14	0.00	0.00	0.00	0.90	0.00
TRMB02049	1.48	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.34	0.00
TRMB02049-S	1.00	0.56	0.10	0.00	0.15	0.18	0.00	0.00	0.00	0.00
TRMB02050	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02050-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02051	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
TRMB02051-S	1.00	0.52	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02052	3.53	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
TRMB02052-S	1.98	0.45	0.07	0.00	0.28	0.19	0.00	0.00	0.00	0.00
TRMB02056	3.52	0.00	0.00	0.00	0.96	0.04	0.00	0.00	0.68	0.00
TRMB02056-S	3.10	0.90	0.03	0.00	0.01	0.06	0.00	0.00	0.00	0.00

## Existing Conditions (10-Year)

TRMB02057	4.04	0.00	0.00	0.00	0.20	0.80	0.00	0.00	0.17	0.00
TRMB02057-S	2.66	0.79	0.00	0.00	0.14	0.07	0.00	0.00	0.00	0.00
TRMB02060	1.00	0.00	0.00	0.00	0.11	0.89	0.00	0.00	0.77	0.00
TRMB02060-S	1.00	0.07	0.06	0.00	0.47	0.40	0.00	0.00	0.01	0.00
TRMB02063	1.00	0.00	0.00	0.00	0.03	0.97	0.00	0.00	0.99	0.00
TRMB02063-S	1.00	0.13	0.87	0.00	0.00	0.00	0.00	0.00	0.50	0.00
TRMB02064	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB02064-S	1.00	0.91	0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.00
TRMB02067	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02067-S	1.00	0.22	0.05	0.00	0.58	0.15	0.00	0.00	0.00	0.00
TRMB02068	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
TRMB02068-S	1.00	0.28	0.00	0.00	0.41	0.31	0.00	0.00	0.32	0.00
TRMB02069	1.31	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
TRMB02069-S	1.35	0.28	0.69	0.00	0.03	0.00	0.00	0.00	0.82	0.00
TRMB02070	1.38	0.00	0.00	0.00	0.92	0.08	0.00	0.00	0.00	0.00
TRMB02070-S	1.20	0.66	0.07	0.00	0.17	0.09	0.00	0.00	0.00	0.00
TRMB03016	2.08	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
TRMB03022	1.00	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.56	0.00
TRMB03025	2.03	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB03025-S	2.46	0.31	0.14	0.00	0.44	0.11	0.00	0.00	0.03	0.00
TRMB03026	8.84	0.00	0.00	0.00	0.07	0.00	0.00	0.92	0.04	0.00
TRMB03027	1.67	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB03028	2.46	0.00	0.00	0.00	0.92	0.08	0.00	0.00	0.00	0.00
TRMB03028-S	3.66	0.45	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03029	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.95	0.00
TRMB03029-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03030	1.00	0.00	0.00	0.00	0.08	0.91	0.00	0.00	0.00	0.00
TRMB03030-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03031	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00
TRMB03032	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB03032-S	1.00	0.25	0.12	0.00	0.54	0.09	0.00	0.00	0.69	0.00
TRMB03033	10.18	0.00	0.56	0.00	0.44	0.00	0.00	0.00	0.33	0.00
TRMB03033-S	8.86	0.84	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.00
TRMB03034	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.96	0.00
TRMB03034-S	1.00	0.84	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.00
TRMB03035	50.61	0.00	0.91	0.00	0.09	0.00	0.00	0.00	0.47	0.00
TRMB03035-S	3.74	0.94	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
TRMB03036	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.37	0.00
TRMB03036-S	1.00	0.28	0.66	0.00	0.06	0.00	0.00	0.00	0.61	0.00
TRMB03037	1.67	0.00	0.00	0.00	0.07	0.93	0.00	0.00	0.00	0.00
TRMB03037-S	1.54	0.32	0.18	0.00	0.23	0.27	0.00	0.00	0.01	0.00
TRMB03038	3.48	0.00	0.91	0.00	0.09	0.00	0.00	0.00	0.47	0.00
TRMB03038-S	2.35	0.94	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03039	1.00	0.00	0.00	0.00	0.65	0.35	0.00	0.00	0.96	0.00
TRMB03039-S	1.00	0.86	0.00	0.00	0.07	0.06	0.00	0.00	0.00	0.00
TRMB03042	1.00	0.00	0.00	0.00	0.45	0.55	0.00	0.00	1.00	0.00
TRMB03042-S	1.00	0.12	0.06	0.00	0.50	0.31	0.00	0.00	0.00	0.00
TRMB03043	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.85	0.00
TRMB03043-S	1.00	0.86	0.00	0.00	0.07	0.06	0.00	0.00	0.00	0.00
TRMB03044	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.96	0.00
TRMB03044-S	1.00	0.48	0.37	0.00	0.15	0.00	0.00	0.00	0.97	0.00
TRMB03049	4.46	0.00	0.79	0.00	0.20	0.00	0.00	0.00	0.41	0.00
TRMB03049-S	5.34	0.96	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03051	6.81	0.00	0.00	0.00	0.07	0.93	0.00	0.00	0.96	0.00
TRMB03051-S	3.77	0.91	0.05	0.00	0.04	0.00	0.00	0.00	0.50	0.00
TRMB03052	2.88	0.00	0.91	0.00	0.09	0.00	0.00	0.00	0.47	0.00
TRMB03052-S	1.60	0.91	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03054	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03054-S	1.00	0.81	0.03	0.00	0.16	0.00	0.00	0.00	0.00	0.00
TRMB03055	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03055-S	1.00	0.25	0.03	0.00	0.62	0.09	0.00	0.00	0.00	0.00
TRMB03063	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00

## Existing Conditions (10-Year)

TRMB03063-S	1.00	0.08	0.08	0.00	0.50	0.33	0.00	0.00	0.00	0.00
TRMB03065	1.00	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.01	0.00
TRMB03067	2.16	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03067-S	1.88	0.40	0.10	0.00	0.45	0.04	0.00	0.00	0.03	0.00
TRMB03068	5.86	0.00	0.00	0.00	0.98	0.02	0.00	0.00	0.97	0.00
TRMB03068-S	5.47	0.19	0.12	0.00	0.33	0.36	0.00	0.00	0.01	0.00
TRMB03069	2.60	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.96	0.00
TRMB03069-S	1.01	0.73	0.08	0.00	0.12	0.07	0.00	0.00	0.01	0.00
TRMB03070	1.79	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.66	0.00
TRMB03070-S	1.00	0.70	0.11	0.00	0.12	0.07	0.00	0.00	0.44	0.00
TRMB03072	1.04	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB03072-S	1.00	0.81	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03073	1.00	0.00	0.00	0.00	0.98	0.02	0.00	0.00	1.00	0.00
TRMB03073-S	1.00	0.25	0.25	0.00	0.21	0.29	0.00	0.00	0.00	0.00
TRMB03083	3.93	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.16	0.00
TRMB03083-S	2.11	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03084	7.16	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.00	0.00
TRMB03084-S	9.74	0.82	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03087	1.00	0.00	0.00	0.00	0.42	0.58	0.00	0.00	0.00	0.00
TRMB03087-S	1.00	0.14	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03088	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00
TRMB03088-S	1.00	0.14	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03089	3.10	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB03089-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03090	6.94	0.00	0.00	0.00	0.94	0.06	0.00	0.00	0.00	0.00
TRMB03090-S	6.70	0.77	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03091	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03091-S	1.00	0.16	0.14	0.00	0.53	0.17	0.00	0.00	0.04	0.00
TRMB03092	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03092-S	1.00	0.28	0.16	0.00	0.37	0.19	0.00	0.00	0.04	0.00
TRMB03094	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.25	0.00
TRMB03094-S	1.00	0.13	0.43	0.00	0.36	0.08	0.00	0.00	0.87	0.00
TRMB03095	21.41	0.00	0.01	0.00	0.93	0.05	0.00	0.00	0.99	0.00
TRMB03095-S	2.35	0.35	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00
TRMB03096	2.75	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03096-S	3.82	0.46	0.33	0.00	0.13	0.08	0.00	0.00	0.27	0.00
TRMB03097	1.00	0.00	0.00	0.00	0.15	0.85	0.00	0.00	1.00	0.00
TRMB03097-S	1.00	0.18	0.06	0.00	0.31	0.45	0.00	0.00	0.05	0.00
TRMB03101	21.32	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03101-S	10.03	0.45	0.10	0.00	0.46	0.00	0.00	0.00	0.05	0.00
TRMB03102	2.34	0.00	0.00	0.00	0.09	0.91	0.00	0.00	1.00	0.00
TRMB03102-S	1.51	0.28	0.12	0.00	0.39	0.21	0.00	0.00	0.00	0.00
TRMB03103	1.35	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB03103-S	1.00	0.10	0.08	0.00	0.44	0.38	0.00	0.00	0.34	0.00
TRMB03111	1.39	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.91	0.00
TRMB03111-S	1.00	0.08	0.01	0.00	0.13	0.78	0.00	0.00	0.12	0.00
TRMB03132	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB03132-S	1.00	0.19	0.16	0.00	0.30	0.35	0.00	0.00	0.00	0.00
TRMB04089_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.93	0.00
TRMB04089_1-S	1.00	0.02	0.00	0.00	0.01	0.96	0.00	0.00	0.11	0.00
TRMB04089_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.74	0.00
TRMB04089_2-S	1.00	0.10	0.00	0.00	0.15	0.75	0.00	0.00	0.00	0.00
TRMB05002	6.28	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
TRMB05003	1.28	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB05003-S	1.00	0.92	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
TRMB05004	11.73	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
TRMB05004-S	25.46	0.47	0.43	0.00	0.10	0.00	0.00	0.00	0.54	0.00
TRMB05005	3.12	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.30	0.00
TRMB05005-S	3.52	0.49	0.10	0.00	0.22	0.20	0.00	0.00	0.00	0.00
TRMB05006	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.88	0.00
TRMB05006-S	1.00	0.86	0.07	0.00	0.06	0.00	0.00	0.00	0.00	0.00
TRMB05008	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00

## Existing Conditions (10-Year)

TRMB05008-S	1.00	0.57	0.43	0.00	0.00	0.00	0.00	0.00	0.95	0.00
TRMB05009_1	1.00	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.45	0.00
TRMB05009_1-S	1.00	0.43	0.44	0.00	0.03	0.10	0.00	0.00	0.45	0.00
TRMB05009_2	1.00	0.00	0.00	0.00	0.09	0.91	0.00	0.00	0.97	0.00
TRMB05009_2-S	1.00	0.38	0.06	0.00	0.41	0.16	0.00	0.00	0.00	0.00
TRMB05010	7.50	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05010-S	1.49	0.58	0.37	0.00	0.05	0.00	0.00	0.00	0.70	0.00
TRMB05011	4.39	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.38	0.00
TRMB05011-S	2.93	0.63	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05012	1.64	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB05012-S	1.28	0.81	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05013	62.80	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05013-S	22.44	0.63	0.24	0.00	0.04	0.10	0.00	0.00	0.48	0.00
TRMB05014	9.71	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05014-S	3.83	0.61	0.26	0.00	0.04	0.09	0.00	0.00	0.48	0.00
TRMB05015	1.00	0.00	0.00	0.00	0.27	0.73	0.00	0.00	0.00	0.00
TRMB05015-S	1.00	0.45	0.00	0.00	0.31	0.24	0.00	0.00	0.00	0.00
TRMB05016	7.68	0.00	0.00	0.00	0.74	0.26	0.00	0.00	1.00	0.00
TRMB05016-S	2.36	0.45	0.00	0.00	0.31	0.24	0.00	0.00	0.00	0.00
TRMB05017	1.56	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.06	0.00
TRMB05017-S	1.25	0.24	0.18	0.00	0.20	0.38	0.00	0.00	0.26	0.00
TRMB05018	7.13	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.98	0.00
TRMB05018-S	2.41	0.45	0.00	0.00	0.31	0.24	0.00	0.00	0.00	0.00
TRMB05019	8.18	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB05019-S	7.74	0.85	0.00	0.00	0.06	0.09	0.00	0.00	0.00	0.00
TRMB05020	3.71	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00
TRMB05020-S	2.62	0.43	0.42	0.00	0.06	0.09	0.00	0.00	0.04	0.00
TRMB05021	1.00	0.00	0.00	0.00	0.95	0.05	0.00	0.00	0.96	0.00
TRMB05021-S	1.00	0.92	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00
TRMB05022	5.95	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
TRMB05022-S	4.30	0.38	0.47	0.00	0.06	0.09	0.00	0.00	0.44	0.00
TRMB05023	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB05023-S	1.00	0.00	0.49	0.00	0.51	0.00	0.00	0.00	1.00	0.00
TRMB05025	25.30	0.00	0.00	0.00	0.85	0.15	0.00	0.00	1.00	0.00
TRMB05025-S	8.01	0.26	0.16	0.00	0.32	0.25	0.00	0.00	0.31	0.00
TRMB05026	7.07	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB05026-S	2.28	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05027	17.75	0.00	0.00	0.00	0.83	0.17	0.00	0.00	1.00	0.00
TRMB05027-S	8.13	0.26	0.16	0.00	0.34	0.24	0.00	0.00	0.34	0.00
TRMB05028	1.00	0.00	0.00	0.00	0.47	0.53	0.00	0.00	0.00	0.00
TRMB05028-S	1.00	0.49	0.01	0.00	0.51	0.00	0.00	0.00	0.42	0.00
TRMB05029	2.49	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.04	0.00
TRMB05029-S	2.09	0.74	0.05	0.00	0.13	0.08	0.00	0.00	0.00	0.00
TRMB05030	4.51	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
TRMB05030-S	3.36	0.37	0.18	0.00	0.44	0.00	0.00	0.00	0.56	0.00
TRMB05031	2.21	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00
TRMB05031-S	1.00	0.64	0.22	0.00	0.14	0.00	0.00	0.00	0.86	0.00
TRMB05032	1.92	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00
TRMB05032-S	1.00	0.41	0.22	0.00	0.37	0.00	0.00	0.00	0.91	0.00
TRMB05033	1.53	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB05033-S	1.00	0.35	0.00	0.00	0.50	0.16	0.00	0.00	0.06	0.00
TRMB05034	2.47	0.00	0.24	0.00	0.53	0.23	0.00	0.00	0.05	0.00
TRMB05034-S	2.06	0.54	0.17	0.00	0.08	0.22	0.00	0.00	0.09	0.00
TRMB05035	10.07	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.99	0.00
TRMB05035-S	2.09	0.18	0.13	0.00	0.54	0.16	0.00	0.00	0.00	0.00
TRMB05036	1.34	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.00	0.00
TRMB05036-S	1.10	0.34	0.23	0.00	0.42	0.00	0.00	0.00	0.56	0.00
TRMB05037	3.97	0.00	0.00	0.00	0.65	0.35	0.00	0.00	1.00	0.00
TRMB05037-S	2.32	0.61	0.09	0.00	0.19	0.11	0.00	0.00	0.04	0.00
TRMB05038	1.54	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.00	0.00
TRMB05038-S	1.00	0.62	0.24	0.00	0.14	0.00	0.00	0.00	0.96	0.00
TRMB05039	2.08	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.21	0.00

# Existing Conditions (10-Year)

TRMB05039-S	1.81	0.65	0.03	0.00	0.25	0.07	0.00	0.00	0.66	0.00
TRMB05040	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00
TRMB05040-S	1.00	0.17	0.13	0.00	0.44	0.25	0.00	0.00	0.13	0.00
TRMB05041	1.81	0.00	0.00	0.00	0.45	0.55	0.00	0.00	0.10	0.00
TRMB05041-S	1.47	0.25	0.12	0.00	0.48	0.15	0.00	0.00	0.20	0.00
TRMB05042	2.30	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB05042-S	2.05	0.64	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05044	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
TRMB05044-S	1.00	0.25	0.12	0.00	0.50	0.13	0.00	0.00	0.35	0.00
TRMB05045	1.00	0.00	0.00	0.00	0.06	0.94	0.00	0.00	0.02	0.00
TRMB05045-S	1.00	0.34	0.03	0.00	0.50	0.13	0.00	0.00	0.00	0.00
TRMB05046	7.12	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
TRMB05046-S	7.70	0.94	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05048	2.44	0.00	0.00	0.00	0.93	0.06	0.00	0.00	0.98	0.00

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 Conduit Surcharge Summary  
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Conduit	Hours Full			Hours Above Full	
	Both Ends	Upstream	Dnstream	Normal Flow	Capacity Limited
C14	5.45	5.45	5.45	1.64	0.01
C2_1	23.70	23.70	23.70	0.01	0.01
CountrySideE_Ditch	5.74	5.74	5.74	0.01	0.01
JMTB01003	12.35	12.35	12.35	0.01	0.01
JMTB01004	12.41	12.41	12.41	0.57	0.01
JMTB01005	12.02	12.02	12.02	6.10	12.02
JMTB01102	1.41	1.41	1.41	0.01	0.01
JMTB01103	1.95	1.95	1.95	1.64	1.66
JMTB01104	5.26	5.26	5.27	0.01	0.01
PCTB02008	0.01	0.01	0.01	5.52	0.01
PCTB02021	6.62	6.62	6.62	0.01	0.01
PCTB02022	13.43	13.43	13.43	4.96	0.01
PCTB02023	12.01	12.01	12.04	0.01	0.01
PCTB02080	23.46	23.46	23.46	23.75	0.01
PCTB02189	23.69	23.69	23.69	0.01	0.01
PCTB02231	23.63	23.63	23.63	10.20	0.01
PCTB02237	4.29	4.29	4.29	0.16	0.01
PCTB02276	0.01	0.01	0.01	5.35	0.01
PCTB02278	9.27	9.27	9.28	0.01	2.77
PCTB02280	23.57	23.57	23.57	1.55	0.01
PCTB02281	23.56	23.56	23.56	0.01	0.01
PCTB02282	23.54	23.54	23.54	0.01	0.01
PCTB02283	23.53	23.53	23.53	14.90	0.01
PCTB02284	23.53	23.53	23.53	0.01	0.01
PCTB02294	23.49	23.49	23.49	0.12	0.01
PCTB02297	23.50	23.50	23.50	0.01	0.01
PCTB02303	23.45	23.45	23.45	0.01	0.01
PCTB02304	23.45	23.45	23.46	0.01	0.01
PCTB02329	8.84	8.84	8.84	13.22	8.84
PCTB02330	10.20	10.20	10.21	10.41	0.01
PCTB02331	12.26	12.26	12.26	11.91	2.87
TRMB02006	0.95	0.95	0.95	0.61	0.64
TRMB02015	0.01	0.01	0.01	0.76	0.01
TRMB02016	0.83	0.83	0.83	1.23	0.83
TRMB02018	1.87	1.87	1.87	2.44	1.87
TRMB02022	2.22	2.22	2.22	2.55	2.22
TRMB02023	1.65	1.65	1.65	0.01	0.01

## Existing Conditions (10-Year)

TRMB02030	1.59	1.59	1.59	0.01	0.01
TRMB02032	0.79	0.79	0.79	0.70	0.70
TRMB02033	0.72	0.72	0.72	0.01	0.01
TRMB02034	0.77	0.77	0.77	0.79	0.75
TRMB02035	0.90	0.90	0.90	0.01	0.01
TRMB02044_1	0.88	0.88	0.88	0.01	0.01
TRMB02044_2	2.29	2.29	2.29	5.66	2.29
TRMB02045	0.88	0.88	0.88	0.01	0.01
TRMB02046	0.69	0.69	0.69	0.01	0.01
TRMB02050	0.92	0.92	0.92	0.29	0.27
TRMB02051	0.93	0.93	0.93	0.29	0.23
TRMB02052	0.92	0.92	0.92	0.01	0.01
TRMB02056	0.90	0.90	0.90	0.19	0.60
TRMB02057	0.88	0.88	0.89	0.12	0.46
TRMB02060	0.66	0.66	0.66	0.01	0.01
TRMB02064	0.01	0.01	0.01	0.23	0.01
TRMB02067	0.71	0.71	0.71	1.04	0.71
TRMB02068	0.77	0.77	0.77	0.70	0.69
TRMB02069	0.73	0.73	0.73	0.01	0.01
TRMB02070	0.72	0.72	0.72	0.01	0.01
TRMB03022	1.03	1.03	1.03	0.96	0.98
TRMB03028	0.01	0.01	0.01	3.11	0.01
TRMB03029	0.97	0.97	0.97	0.14	0.47
TRMB03030	0.97	0.97	0.97	0.78	0.97
TRMB03032	0.01	0.01	0.01	0.76	0.01
TRMB03033	0.76	0.76	0.76	0.01	0.01
TRMB03034	0.78	0.78	0.78	0.01	0.01
TRMB03035	0.31	0.31	0.31	0.01	0.01
TRMB03036	0.87	0.87	0.87	0.93	0.87
TRMB03037	0.78	0.78	0.78	0.03	0.69
TRMB03038	0.01	0.01	0.01	0.01	0.01
TRMB03039	0.83	0.83	0.83	0.01	0.01
TRMB03043	0.80	0.80	0.80	0.01	0.01
TRMB03044	0.73	0.73	0.73	0.01	0.01
TRMB03049	0.81	0.81	0.81	0.01	0.01
TRMB03051	0.72	0.72	0.72	0.01	0.01
TRMB03052	0.68	0.68	0.68	0.01	0.01
TRMB03054	0.71	0.71	0.71	0.72	0.68
TRMB03055	0.76	0.76	0.76	0.20	0.08
TRMB03065	0.58	0.58	0.58	0.63	0.58
TRMB03068	0.61	0.61	0.61	0.01	0.01
TRMB03069	0.61	0.61	0.61	0.06	0.59
TRMB03070	0.57	0.57	0.57	0.01	0.07
TRMB03084	0.71	0.71	0.71	0.68	0.66
TRMB03087	0.82	0.82	0.82	1.68	0.82
TRMB05004	5.58	5.58	5.64	0.01	0.24
TRMB05005	2.79	2.79	2.85	0.01	0.01
TRMB05006	0.25	0.25	0.25	0.82	0.25
TRMB05008	0.59	0.59	0.59	0.01	0.01
TRMB05015	0.01	0.01	0.01	0.77	0.01
TRMB05021	0.75	0.75	0.75	0.73	0.74
TRMB05028	0.75	0.75	0.75	0.80	0.74
TRMB05029	0.76	0.76	0.76	0.01	0.01
TRMB05030	0.74	0.74	0.74	0.01	0.01
TRMB05031	0.68	0.68	0.68	0.01	0.01
TRMB05032	0.70	0.70	0.71	0.01	0.01
TRMB05033	0.74	0.74	0.74	3.17	0.72
TRMB05034	0.70	0.70	0.70	0.01	0.01
TRMB05035	0.03	0.03	0.03	0.01	0.01
TRMB05036	0.02	0.02	0.02	0.01	0.01
TRMB05040	0.64	0.64	0.64	0.24	0.24
TRMB05041	0.69	0.69	0.69	0.73	0.69



## Existing Conditions (10-Year)

TRMB05044	0.63	0.63	0.63	0.01	0.01
TRMB05045	0.23	0.23	0.23	0.73	0.23

Analysis begun on: Fri Nov 20 09:44:55 2015  
Analysis ended on: Fri Nov 20 09:45:12 2015  
Total elapsed time: 00:00:17

**SECONDARY SYSTEM**

**FUTURE**

**CONDITIONS:**

**SWMM INPUT**

Project: HMR/SHB Watershed Master Plan  
 Location: Davis Street and Vance Street System (Future)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_COLONIAL_AV	0.39	16988	47	361.455	63	2
SubCatch_COLONIAL_AV_1	0.35	15246	35	435.6	74	2
SubCatch_CONTENTNEA_ST	0.03	1307	4	326.7	83	2
SubCatch_CONTENTNEA_ST_1	1.89	82328	227	362.68	74	2
SubCatch_CONTENTNEA_ST_2	1.99	86528	289	299.403	62	2
SubCatch_CONTENTNEA_ST_3	0.78	33977	94	361.455	73	2
SubCatch_CONTENTNEA_ST_4	1.54	67082	185	362.608	69	2
SubCatch_CONTENTNEA_ST_5	1.51	65776	181	363.401	68	2
SubCatch_CONTENTNEA_ST_6	0.27	11761	32	367.538	69	2
SubCatch_DAVIS_ST	0.63	27443	63	435.6	63	2
SubCatch_DAVIS_ST_1	0.85	37026	85	435.6	61	2
SubCatch_DAVIS_ST_2	2.15	93654	214	437.636	58	2
SubCatch_DAVIS_ST_3	1.24	54014	124	435.6	61	2
SubCatch_DAVIS_ST_4	1.64	71438	164	435.6	55	2
SubCatch_FAIRFAX_AV	1.08	47045	130	361.883	63	2
SubCatch_LATHAM_ST	2.61	113692	313	363.232	75	2
SubCatch_SPRUCE_ST	49.16	2141497	1680	1274.7	71	2
SubCatch_VANCE_2	2.88	125453	346	362.58	63	2
SubCatch_VANCE_ST_1	0.03	1307	4	326.7	83	2
SubCatch_VANCE_ST_2	0.32	13939	38	366.821	67	2
SubCatch_VANCE_ST_3	1.15	50094	138	363	65	2
SubCatch_VANCE_ST_4	1.19	51836	143	362.492	59	2
SubCatch_VANCE_ST_5	1.19	51836	143	362.492	54	2
SubCatch_VANCE_ST_6	0.23	10019	28	357.814	61	2
SubCatch_VANCE_ST_7	0.28	12197	34	358.729	54	2
SubCatch_W_3RD_ST	0.01	436	1	435.6	83	2
SubCatch_W_3RD_ST_1	0.02	871	2	435.6	83	2
SubCatch_W_3RD_ST_2	0.29	12632	29	435.6	64	2
SubCatch_W_3RD_ST_3	1.04	45302	104	435.6	62	2
SubCatch_W_3RD_ST_5	0.75	32670	90	363	63	2
SubCatch_W_3RD_ST_6	0.42	18295	50	365.904	61	2
SubCatch_W_3RD_ST_7	0.17	7405	20	370.26	70	2
SubCatch_W_3RD_ST_8	0.48	20909	58	360.497	63	2
SubCatch_W_3RD_ST_9	1.40	61036	340	179.518	63	2
SubCatch_W_4TH_ST	0.80	34848	96	363	64	2
SubCatch_W_4TH_ST_2	0.68	29621	82	361.229	62	2
SubCatch_W_5th_ST	8.56	372874	1027	363.071	69	2
SubCatch_CHESTNUT_ST	19.25	838530	2310	363	72	2

Project: HMR/SHB Watershed Master Plan  
 Location: Jarvis Street System (Future)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_AVERY_ST	0.44	19166	37	518.011	61	2
SubCatch_E_1ST_ST	5.28	229997	440	522.72	57	2
SubCatch_E_1ST_ST_2	2.53	110207	211	522.307	61	2
SubCatch_E_2ND_ST	4.61	200812	384	522.947	90	2
SubCatch_E_2ND_ST_1	0.03	1307	3	435.6	83	2
SubCatch_E_2ND_ST_2	0.01	436	1	435.6	54	2
SubCatch_E_2ND_ST_3	0.09	3920	8	490.05	64	2
SubCatch_E_2ND_ST_4	0.73	31799	61	521.292	85	2
SubCatch_E_3RD_ST_1	6.69	291416	558	522.252	86	2
SubCatch_N_JARVIS_ST	3.10	135036	258	523.395	72	2
SubCatch_N_SUMMIT_ST	0.25	10890	21	518.571	67	2
SubCatch_N_SUMMIT_ST_1	4.73	206039	394	522.941	67	2
SubCatch_S_ROTARY_AV	4.53	197327	378	522.029	74	2
SubCatch_S_ROTARY_AV_2	1.84	80150	153	523.859	76	2
SubCatch_S_ROTARY_AV_3	0.78	33977	65	522.72	73	2
SubCatch_S_ROTARY_AV_5	0.64	27878	53	526.008	60	2
SubCatch_STUDENT_ST	5.72	249163	477	522.355	77	2

Project: HMR/SHB Watershed Master Plan  
 Location: Harding Street System (Future)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_N_HARDING_ST	2.3	99752	427	233.612	55	2
SubCatch_N_HARDING_ST_1	1.5	66647	285	233.848	64	2
SubCatch_N_HARDING_ST_2	3.0	129809	555	233.89	62	2
SubCatch_N_LIBRARY_ST	2.7	117612	503	233.821	62	2
SubCatch_PARK_DR	1.4	62291	266	234.176	54	2
SubCatch_RIVER_DR	4.4	190793	816	233.815	73	2
SubCatch_S_HARDING_ST	4.6	198198	848	233.724	61	2
SubCatch_S_LIBRARY_ST	4.8	207781	889	233.725	62	2
SubCatch_S_ROTARY_AV_1	4.4	192971	825	233.904	61	2
SubCatch_WILLOW_ST	2.1	93218	399	233.63	64	2
SubCatch_WILLOW_ST_1	0.42	18295	78	234.554	60	2

Project: HMR/SHB Watershed Master Plan  
 Location: Elm Street System (Future)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_ASH_ST	1.28	55757	221	252.293	70	2
SubCatch_E_1ST_ST_1	0.55	23958	95	252.189	69	2
SubCatch_E_3RD_ST	1.30	56628	225	251.68	62	2
SubCatch_E_3RD_ST_2	1.92	83635	332	251.913	63	2
SubCatch_E_3RD_ST_3	1.77	77101	306	251.965	67	2
SubCatch_E_4TH_ST	0.94	40946	162	252.756	64	2
SubCatch_E_4TH_ST_1	3.06	133294	529	251.973	71	2
SubCatch_E_4TH_ST_2	0.85	37026	147	251.878	69	2
SubCatch_JOHNSON_HEIGHTS	2.75	119790	475	252.189	90	2
SubCatch_N_ELM_ST	2.91	126760	503	252.007	81	2
SubCatch_N_ELM_ST_1	2.36	102802	408	251.965	71	2
SubCatch_N_ELM_ST_2	7.64	332798	1321	251.929	77	2
SubCatch_N_OAK_ST	6.05	263538	1046	251.948	79	2
SubCatch_N_OAK_ST_1	0.69	30056	119	252.575	91	2
SubCatch_N_OAK_ST_2	3.01	131116	520	252.145	87	2
SubCatch_S_ELM_ST	6.41	279220	1108	252.003	69	2
SubCatch_S_ELM_ST_1	2.60	113256	449	252.241	63	2
SubCatch_S_OAK_ST	1.83	79715	316	252.262	64	2
SubCatch_S_OAK_ST_1	1.21	52708	209	252.189	80	2
SubCatch_WILSONACRES_APT	6.11	266152	1056	252.038	67	2

**SECONDARY SYSTEM**

**FUTURE**

**CONDITIONS:**

**SWMM OUTPUT**

# Future Conditions (10-Year)

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

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

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Flow Units ..... CFS  
 Process Models:  
   Rainfall/Runoff ..... YES  
   RDII ..... NO  
   Snowmelt ..... NO  
   Groundwater ..... NO  
   Flow Routing ..... YES  
   Ponding Allowed ..... NO  
   Water Quality ..... NO  
 Infiltration Method ..... CURVE\_NUMBER  
 Flow Routing Method ..... DYNWAVE  
 Starting Date ..... APR-17-2015 00:00:00  
 Ending Date ..... APR-17-2015 23:45:00  
 Antecedent Dry Days ..... 0.0  
 Report Time Step ..... 00:05:00  
 Wet Time Step ..... 00:01:00  
 Dry Time Step ..... 01:00:00  
 Routing Time Step ..... 5.00 sec  
 Variable Time Step ..... YES  
 Maximum Trials ..... 8  
 Head Tolerance ..... 0.005000 ft

\*\*\*\*\*

## Element Count

\*\*\*\*\*

Number of rain gages ..... 1  
 Number of subcatchments ... 115  
 Number of nodes ..... 390  
 Number of links ..... 541  
 Number of pollutants ..... 0  
 Number of land uses ..... 0

\*\*\*\*\*

## Raingage Summary

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Name	Data Source	Data Type	Recording Interval
SCS_Rain	SCSStorms	VOLUME	15 min.

\*\*\*\*\*

## Subcatchment Summary

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Name	Area	Width	%Imperv	%Slope	Rain Gage
Outlet					



## Future Conditions (10-Year)

PC 1321	42.52	373.98	0.00	0.5000	SCS_Rain
PCTB02235-S					
PC 1323	17.43	153.33	0.00	0.5000	SCS_Rain
PCTB02257_1-S					
PC 1324	20.76	182.55	0.00	0.5000	SCS_Rain
CountrySideE_Ditch_Culvert_In-S					
PC 1325	30.92	271.95	0.00	0.5000	SCS_Rain
CountrySideE_Ditch_Culvert_In-S					
PC 1326	66.02	1100.00	0.00	0.5000	SCS_Rain
JMTB01006-S					
PC 1327	13.69	120.40	0.00	0.5000	SCS_Rain
JMTB01006-S					
PC 1350	58.26	512.33	0.00	0.5000	SCS_Rain
PCTB02004-S					
PC 1360	38.27	336.59	0.00	0.5000	SCS_Rain
PCTB02005					
PC 571	162.61	2150.00	0.00	0.5000	SCS_Rain
PCTB02009					
SubCatch_ASH_ST	1.28	221.00	0.00	2.0000	SCS_Rain
TRMB02051-S					
SubCatch_AVERY_ST	0.44	37.00	0.00	2.0000	SCS_Rain
TRMB03068-S					
SubCatch_BELVOIR_HW	36.41	320.22	0.00	0.5000	SCS_Rain
PCTB02189-S					
SubCatch_BELVOIR_HW_1	26.16	230.08	0.00	0.5000	SCS_Rain
PCTB02012-S					
SubCatch_CHESTNUT_ST	19.25	2310.00	0.00	2.0000	SCS_Rain
TRMB04089-S					
SubCatch_COLONIAL_AV	0.39	47.00	0.00	2.0000	SCS_Rain
TRMB05009_DS-S					
SubCatch_COLONIAL_AV_1	0.35	35.00	0.00	2.0000	SCS_Rain
TRMB05044-S					
SubCatch_CONTENTNEA_ST	0.03	4.00	0.00	2.0000	SCS_Rain
TRMB05028-S					
SubCatch_CONTENTNEA_ST_1	1.89	227.00	0.00	2.0000	SCS_Rain
TRMB05033-S					
SubCatch_CONTENTNEA_ST_2	1.99	289.00	0.00	2.0000	SCS_Rain
TRMB05034-S					
SubCatch_CONTENTNEA_ST_3	0.78	94.00	0.00	2.0000	SCS_Rain
TRMB05012-S					
SubCatch_CONTENTNEA_ST_4	1.54	185.00	0.00	2.0000	SCS_Rain
TRMB05042-S					
SubCatch_CONTENTNEA_ST_5	1.51	181.00	0.00	2.0000	SCS_Rain
TRMB05010-S					
SubCatch_CONTENTNEA_ST_6	0.27	32.00	0.00	2.0000	SCS_Rain
TRMB05030-S					
SubCatch_DAVIS_ST	0.63	63.00	0.00	2.0000	SCS_Rain
TRMB05038-S					
SubCatch_DAVIS_ST_1	0.85	85.00	0.00	2.0000	SCS_Rain
TRMB05039-S					
SubCatch_DAVIS_ST_2	2.15	214.00	0.00	2.0000	SCS_Rain
TRMB05047					
SubCatch_DAVIS_ST_3	1.24	124.00	0.00	2.0000	SCS_Rain
TRMB05041-S					
SubCatch_DAVIS_ST_4	1.64	164.00	0.00	2.0000	SCS_Rain
TRMB05040-S					
SubCatch_E_1ST_ST	5.28	440.00	0.00	2.0000	SCS_Rain
TRMB03087-S					
SubCatch_E_1ST_ST_1	0.55	95.00	0.00	2.0000	SCS_Rain
TRMB02022-S					

## Future Conditions (10-Year)

SubCatch_E_1ST_ST_2 TRMB03073-S	2.53	211.00	0.00	2.0000	SCS_Rain
SubCatch_E_2ND_ST TRMB03097-S	4.61	384.00	0.00	2.0000	SCS_Rain
SubCatch_E_2ND_ST_1 TRMB03094-S	0.03	3.00	0.00	2.0000	SCS_Rain
SubCatch_E_2ND_ST_2 TRMB03095-S	0.01	1.00	0.00	2.0000	SCS_Rain
SubCatch_E_2ND_ST_3 TRMB03101-S	0.09	8.00	0.00	2.0000	SCS_Rain
SubCatch_E_2ND_ST_4 TRMB03102-S	0.73	61.00	0.00	2.0000	SCS_Rain
SubCatch_E_3RD_ST TRMB02035-S	1.30	225.00	0.00	2.0000	SCS_Rain
SubCatch_E_3RD_ST_1 TRMB03111-S	6.69	558.00	0.00	2.0000	SCS_Rain
SubCatch_E_3RD_ST_2 TRMB02049-S	1.92	332.00	0.00	2.0000	SCS_Rain
SubCatch_E_3RD_ST_3 TRMB02047-S	1.77	306.00	0.00	2.0000	SCS_Rain
SubCatch_E_4TH_ST TRMB02070-S	0.94	162.00	0.00	2.0000	SCS_Rain
SubCatch_E_4TH_ST_1 TRMB02060-S	3.06	529.00	0.00	2.0000	SCS_Rain
SubCatch_E_4TH_ST_2 TRMB02060-S	0.85	147.00	0.00	2.0000	SCS_Rain
SubCatch_E_CATAWBA_RD PCTB02331-S	18.21	160.15	0.00	0.5000	SCS_Rain
SubCatch_FAIRFAX_AV TRMB05008-S	1.08	130.00	0.00	2.0000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD JMTB01102-S	27.23	239.44	0.00	0.5000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD_1 JMTB01105-S	29.20	256.79	0.00	0.5000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD_2 JMTB01104-S	3.67	32.25	0.00	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV PCTB02303-S	29.47	259.19	0.00	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV_1 PCTB02282-S	8.28	72.79	0.00	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV_2 PCTB02292-S	8.58	75.44	0.00	0.5000	SCS_Rain
SubCatch_HAW_1 PCTB02001-S	2.89	25.38	0.00	0.5000	SCS_Rain
SubCatch_HAW_2 PCTB01068_US-S	17.57	550.00	0.00	0.5000	SCS_Rain
SubCatch_HOP_TYSON_RD PCTB02022-S	17.40	153.01	0.00	0.5000	SCS_Rain
SubCatch_JOHNSON_HEIGHTS TRMB02016-S	2.75	475.00	0.00	2.0000	SCS_Rain
SubCatch_LATHAM_ST TRMB05031-S	2.61	313.00	0.00	2.0000	SCS_Rain
SubCatch_N_ELM_ST TRMB02023-S	2.91	503.00	0.00	2.0000	SCS_Rain
SubCatch_N_ELM_ST_1 TRMB02002-S	2.36	408.00	0.00	2.0000	SCS_Rain
SubCatch_N_ELM_ST_2 TRMB02009-S	7.64	1321.00	0.00	2.0000	SCS_Rain
SubCatch_N_HARDING_ST TRMB03031-S	2.29	427.00	0.00	2.0000	SCS_Rain
SubCatch_N_HARDING_ST_1 TRMB03025-S	1.53	285.00	0.00	2.0000	SCS_Rain

## Future Conditions (10-Year)

SubCatch_N_HARDING_ST_2 TRMB03044-S	2.98	555.00	0.00	2.0000	SCS_Rain
SubCatch_N_JARVIS_ST TRMB03132-S	3.10	258.00	0.00	2.0000	SCS_Rain
SubCatch_N_LIBRARY_ST TRMB03055-S	2.70	503.00	0.00	2.0000	SCS_Rain
SubCatch_N_MEMORIAL_DR PCTB02294-S	17.70	155.66	0.00	0.5000	SCS_Rain
SubCatch_N_OAK_ST TRMB02044_DS-S	6.05	1046.00	0.00	2.0000	SCS_Rain
SubCatch_N_OAK_ST_1 TRMB02022-S	0.69	119.00	0.00	2.0000	SCS_Rain
SubCatch_N_OAK_ST_2 TRMB02018-S	3.01	520.00	0.00	2.0000	SCS_Rain
SubCatch_N_SUMMIT_ST TRMB03067-S	0.25	21.00	0.00	2.0000	SCS_Rain
SubCatch_N_SUMMIT_ST_1 TRMB03068-S	4.73	394.00	0.00	2.0000	SCS_Rain
SubCatch_PARK_DR TRMB03032-S	1.43	266.00	0.00	2.0000	SCS_Rain
SubCatch_RIVER_DR TRMB03016	4.38	816.00	0.00	2.0000	SCS_Rain
SubCatch_S_ELM_ST TRMB02035-S	6.41	1108.00	0.00	2.0000	SCS_Rain
SubCatch_S_ELM_ST_1 TRMB02068-S	2.60	449.00	0.00	2.0000	SCS_Rain
SubCatch_S_HARDING_ST TRMB03042-S	4.55	848.00	0.00	2.0000	SCS_Rain
SubCatch_S_LIBRARY_ST TRMB03063-S	4.77	889.00	0.00	2.0000	SCS_Rain
SubCatch_S_OAK_ST TRMB02067-S	1.83	316.00	0.00	2.0000	SCS_Rain
SubCatch_S_OAK_ST_1 TRMB02060-S	1.21	209.00	0.00	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV TRMB03103-S	4.53	378.00	0.00	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_1 TRMB03037-S	4.43	825.00	0.00	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_2 TRMB03092-S	1.84	153.00	0.00	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_3 TRMB03091-S	0.78	65.00	0.00	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_5 TRMB03091-S	0.64	53.00	0.00	2.0000	SCS_Rain
SubCatch_S_WOODLAWN_AV TRMB03092-S	0.93	78.00	0.00	2.0000	SCS_Rain
SubCatch_SPRUCE_ST TRMB04089-S	49.16	1680.00	0.00	2.0000	SCS_Rain
SubCatch_STATON_HOUSE_RD JMTB01003-S	31.58	277.73	0.00	0.5000	SCS_Rain
SubCatch_STUDENT_ST TRMB03111-S	5.72	477.00	0.00	2.0000	SCS_Rain
SubCatch_TRENT_CI PCTB02001-S	10.13	89.12	0.00	0.5000	SCS_Rain
SubCatch_TRENT_CI_1 PCTB02304-S	28.21	248.13	0.00	0.5000	SCS_Rain
SubCatch_VANCE_2 TRMB04089-S	2.88	346.00	0.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_1 TRMB05020-S	0.03	4.00	0.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_2 TRMB05025-S	0.32	38.00	0.00	2.0000	SCS_Rain

## Future Conditions (10-Year)

SubCatch_VANCE_ST_3 TRMB05017_US-S	1.15	138.00	0.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_4 TRMB05014-S	1.19	143.00	0.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_5 TRMB05005-S	1.19	143.00	0.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_6 TRMB05027-S	0.23	28.00	0.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_7 TRMB05004-S	0.28	34.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST TRMB05015-S	0.01	1.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_1 TRMB05035-S	0.02	2.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_2 TRMB05036-S	0.29	29.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_3 TRMB05037-S	1.04	104.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_5 TRMB05029-S	0.75	90.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_6 TRMB05013-S	0.42	50.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_7 TRMB05023-S	0.17	20.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_8 TRMB05022-S	0.48	58.00	0.00	2.0000	SCS_Rain
SubCatch_W_3RD_ST_9 TRMB05045-S	1.40	340.00	0.00	2.0000	SCS_Rain
SubCatch_W_4TH_ST TRMB04265-S	0.80	96.00	0.00	2.0000	SCS_Rain
SubCatch_W_4TH_ST_2 TRMB05032-S	0.68	82.00	0.00	2.0000	SCS_Rain
SubCatch_W_5th_ST TRMB04089-S	8.56	1027.00	0.00	2.0000	SCS_Rain
SubCatch_WILLOW_ST TRMB03016	2.14	399.00	0.00	2.0000	SCS_Rain
SubCatch_WILLOW_ST_1 TRMB03027	0.42	78.00	0.00	2.0000	SCS_Rain
SubCatch_WILSONACRES_APT TRMB02044_DS-S	6.11	1056.00	0.00	2.0000	SCS_Rain
SubCatch_WOODSIDE_RD PCTB02292-S	21.82	191.89	0.00	0.5000	SCS_Rain
SubCatch_WOODSIDE_RD_1 PCTB02297-S	11.34	99.76	0.00	0.5000	SCS_Rain
SubInsert PCTB02189-S	16.40	144.20	0.00	0.5000	SCS_Rain

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Node Summary  
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Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
CountrySideE_Ditch_Culvert_In	JUNCTION		21.65	5.85	0.0
CountrySideE_Ditch_Culvert_In-S	JUNCTION		27.50	0.75	0.0
JMTB01003	JUNCTION	25.02	2.50	0.0	
JMTB01003-S	JUNCTION	27.02	0.75	0.0	
JMTB01004	JUNCTION	25.07	2.52	0.0	
JMTB01004-S	JUNCTION	27.59	0.75	0.0	
JMTB01005	JUNCTION	25.28	2.01	0.0	
JMTB01005-S	JUNCTION	27.29	0.75	0.0	

## Future Conditions (10-Year)

JMTB01006	JUNCTION	24.59	2.00	0.0
JMTB01006-S	JUNCTION	26.54	0.75	0.0
JMTB01102	JUNCTION	26.59	2.47	0.0
JMTB01102-S	JUNCTION	29.06	0.75	0.0
JMTB01103	JUNCTION	26.42	3.15	0.0
JMTB01103-S	JUNCTION	29.57	0.75	0.0
JMTB01104	JUNCTION	26.63	3.11	0.0
JMTB01104-S	JUNCTION	29.74	0.75	0.0
JMTB01105	JUNCTION	26.03	2.50	0.0
JMTB01105-S	JUNCTION	27.81	0.75	0.0
PCTB01068	JUNCTION	19.35	6.01	0.0
PCTB01068_US	JUNCTION	20.00	5.30	0.0
PCTB01068_US-S	JUNCTION	25.30	0.75	0.0
PCTB01068-S	JUNCTION	25.36	0.75	0.0
PCTB02001	JUNCTION	21.78	2.10	0.0
PCTB02001-S	JUNCTION	23.38	0.75	0.0
PCTB02002	JUNCTION	21.99	2.26	0.0
PCTB02002-S	JUNCTION	24.25	0.75	0.0
PCTB02003	JUNCTION	23.98	2.25	0.0
PCTB02003-S	JUNCTION	26.23	0.75	0.0
PCTB02004	JUNCTION	24.16	4.00	0.0
PCTB02004-S	JUNCTION	26.41	0.75	0.0
PCTB02005	JUNCTION	24.40	4.00	0.0
PCTB02008	JUNCTION	21.64	4.00	0.0
PCTB02011	JUNCTION	21.86	4.90	0.0
PCTB02011-S	JUNCTION	26.76	0.75	0.0
PCTB02012	JUNCTION	21.62	4.44	0.0
PCTB02012-S	JUNCTION	26.06	0.75	0.0
PCTB02014	JUNCTION	20.70	3.50	0.0
PCTB02014-S	JUNCTION	23.23	0.75	0.0
PCTB02015	JUNCTION	20.97	3.00	0.0
PCTB02015-S	JUNCTION	23.64	0.75	0.0
PCTB02016	JUNCTION	24.23	1.65	0.0
PCTB02016-S	JUNCTION	25.88	0.75	0.0
PCTB02017	JUNCTION	23.99	1.90	0.0
PCTB02017-S	JUNCTION	25.89	0.75	0.0
PCTB02022	JUNCTION	22.32	2.44	0.0
PCTB02022-S	JUNCTION	24.76	0.75	0.0
PCTB02023	JUNCTION	22.35	2.37	0.0
PCTB02023-S	JUNCTION	24.72	0.75	0.0
PCTB02075	JUNCTION	17.22	7.05	0.0
PCTB02076	JUNCTION	17.71	7.00	0.0
PCTB02080	JUNCTION	16.83	7.65	0.0
PCTB02159	JUNCTION	18.00	7.00	0.0
PCTB02160	JUNCTION	17.99	9.00	0.0
PCTB02189	JUNCTION	19.57	4.19	0.0
PCTB02189-S	JUNCTION	23.76	0.75	0.0
PCTB02191	JUNCTION	18.41	4.59	0.0
PCTB02191_DS	JUNCTION	17.20	10.00	0.0
PCTB02191_DS-S	JUNCTION	22.20	0.75	0.0
PCTB02191-S	JUNCTION	23.00	0.75	0.0
PCTB02207	JUNCTION	20.62	4.00	0.0
PCTB02207-S	JUNCTION	24.62	0.75	0.0
PCTB02209	JUNCTION	21.08	4.00	0.0
PCTB02209-S	JUNCTION	25.08	0.75	0.0
PCTB02220	JUNCTION	18.55	9.00	0.0
PCTB02229	JUNCTION	18.88	9.00	0.0
PCTB02229-S	JUNCTION	24.52	0.75	0.0
PCTB02231	JUNCTION	19.10	5.70	0.0
PCTB02231-S	JUNCTION	24.80	0.75	0.0
PCTB02233	JUNCTION	25.41	27.21	0.0
PCTB02235	JUNCTION	19.85	5.55	0.0

## Future Conditions (10-Year)

PCTB02235-S	JUNCTION	25.40	0.75	0.0
PCTB02237	JUNCTION	20.03	5.55	0.0
PCTB02237-S	JUNCTION	25.58	0.75	0.0
PCTB02257	JUNCTION	21.36	5.60	0.0
PCTB02257_1	JUNCTION	21.36	5.40	0.0
PCTB02257_1-S	JUNCTION	26.76	0.75	0.0
PCTB02257-S	JUNCTION	26.96	0.75	0.0
PCTB02260	JUNCTION	21.38	4.55	0.0
PCTB02260-S	JUNCTION	25.93	0.75	0.0
PCTB02262	JUNCTION	21.28	4.50	0.0
PCTB02262-S	JUNCTION	25.78	0.75	0.0
PCTB02275	JUNCTION	21.45	4.10	0.0
PCTB02275-S	JUNCTION	25.55	0.75	0.0
PCTB02276	JUNCTION	21.52	4.60	0.0
PCTB02276-S	JUNCTION	26.12	0.75	0.0
PCTB02278	JUNCTION	22.24	4.00	0.0
PCTB02278-S	JUNCTION	24.64	0.75	0.0
PCTB02280	JUNCTION	18.89	3.69	0.0
PCTB02280-S	JUNCTION	22.58	0.75	0.0
PCTB02281	JUNCTION	19.16	3.61	0.0
PCTB02281-S	JUNCTION	22.77	0.75	0.0
PCTB02282	JUNCTION	19.76	5.39	0.0
PCTB02282-S	JUNCTION	25.15	0.75	0.0
PCTB02283	JUNCTION	19.92	2.95	0.0
PCTB02283-S	JUNCTION	22.87	0.75	0.0
PCTB02284	JUNCTION	20.26	2.92	0.0
PCTB02284-S	JUNCTION	23.18	0.75	0.0
PCTB02292	JUNCTION	18.00	7.50	0.0
PCTB02292-S	JUNCTION	23.00	0.75	0.0
PCTB02294	JUNCTION	17.67	7.50	0.0
PCTB02294-S	JUNCTION	22.67	0.75	0.0
PCTB02295	JUNCTION	17.24	10.00	0.0
PCTB02295-S	JUNCTION	22.24	0.75	0.0
PCTB02297	JUNCTION	20.41	2.90	0.0
PCTB02297-S	JUNCTION	23.31	0.75	0.0
PCTB02302	JUNCTION	18.34	6.00	0.0
PCTB02302-S	JUNCTION	23.34	0.75	0.0
PCTB02303	JUNCTION	18.13	7.12	0.0
PCTB02303-S	JUNCTION	25.25	0.75	0.0
PCTB02304	JUNCTION	18.37	5.23	0.0
PCTB02304-S	JUNCTION	23.60	0.75	0.0
PCTB02312	JUNCTION	18.25	6.00	0.0
PCTB02312-S	JUNCTION	23.25	0.75	0.0
PCTB02329	JUNCTION	22.16	2.07	0.0
PCTB02329-S	JUNCTION	24.23	0.75	0.0
PCTB02330	JUNCTION	22.30	3.12	0.0
PCTB02330-S	JUNCTION	25.42	0.75	0.0
PCTB02331	JUNCTION	22.22	2.82	0.0
PCTB02331-S	JUNCTION	25.04	0.75	0.0
PCTB02332	JUNCTION	22.20	3.47	0.0
PCTB02332-S	JUNCTION	25.67	0.75	0.0
TRMB02002	JUNCTION	5.55	10.66	0.0
TRMB02002-S	JUNCTION	16.21	0.75	0.0
TRMB02003	JUNCTION	2.88	9.70	0.0
TRMB02003-S	JUNCTION	12.58	0.75	0.0
TRMB02006	JUNCTION	8.60	9.30	0.0
TRMB02006-S	JUNCTION	17.90	0.75	0.0
TRMB02009	JUNCTION	17.27	9.55	0.0
TRMB02009-S	JUNCTION	26.82	0.75	0.0
TRMB02012	JUNCTION	19.50	7.30	0.0
TRMB02012-S	JUNCTION	26.80	0.75	0.0
TRMB02015	JUNCTION	21.05	4.09	0.0

## Future Conditions (10-Year)

TRMB02015-S	JUNCTION	25.14	0.75	0.0
TRMB02016	JUNCTION	21.14	4.08	0.0
TRMB02016-S	JUNCTION	25.22	0.75	0.0
TRMB02018	JUNCTION	22.91	5.75	0.0
TRMB02018-S	JUNCTION	28.66	0.75	0.0
TRMB02022	JUNCTION	23.78	4.78	0.0
TRMB02022-S	JUNCTION	28.56	0.75	0.0
TRMB02023	JUNCTION	26.02	3.17	0.0
TRMB02023-S	JUNCTION	29.19	0.75	0.0
TRMB02030	JUNCTION	26.92	2.30	0.0
TRMB02030-S	JUNCTION	29.22	0.75	0.0
TRMB02032	JUNCTION	29.04	4.64	0.0
TRMB02032-S	JUNCTION	33.68	0.75	0.0
TRMB02033	JUNCTION	29.82	3.92	0.0
TRMB02033-S	JUNCTION	33.74	0.75	0.0
TRMB02034	JUNCTION	30.95	3.38	0.0
TRMB02034-S	JUNCTION	34.33	0.75	0.0
TRMB02035	JUNCTION	34.22	2.12	0.0
TRMB02035-S	JUNCTION	36.34	0.75	0.0
TRMB02044	JUNCTION	30.90	6.20	0.0
TRMB02044_DS	JUNCTION	24.15	8.87	0.0
TRMB02044_DS-S	JUNCTION	33.02	0.75	0.0
TRMB02044-S	JUNCTION	37.10	0.75	0.0
TRMB02045	JUNCTION	30.78	5.96	0.0
TRMB02045-S	JUNCTION	36.74	0.75	0.0
TRMB02046	JUNCTION	33.03	3.60	0.0
TRMB02046-S	JUNCTION	36.63	0.75	0.0
TRMB02047	JUNCTION	34.19	2.57	0.0
TRMB02047-S	JUNCTION	36.76	0.75	0.0
TRMB02048	JUNCTION	35.97	3.28	0.0
TRMB02048-S	JUNCTION	39.25	0.75	0.0
TRMB02049	JUNCTION	36.55	2.79	0.0
TRMB02049-S	JUNCTION	39.34	0.75	0.0
TRMB02050	JUNCTION	30.87	5.15	0.0
TRMB02050-S	JUNCTION	36.02	0.75	0.0
TRMB02051	JUNCTION	31.09	3.81	0.0
TRMB02051-S	JUNCTION	34.90	0.75	0.0
TRMB02052	JUNCTION	31.25	3.55	0.0
TRMB02052-S	JUNCTION	34.80	0.75	0.0
TRMB02056	JUNCTION	31.41	3.79	0.0
TRMB02056-S	JUNCTION	35.20	0.75	0.0
TRMB02057	JUNCTION	31.54	3.80	0.0
TRMB02057-S	JUNCTION	35.34	0.75	0.0
TRMB02060	JUNCTION	34.30	6.94	0.0
TRMB02060-S	JUNCTION	41.24	0.75	0.0
TRMB02063	JUNCTION	40.17	3.50	0.0
TRMB02063-S	JUNCTION	43.67	0.75	0.0
TRMB02064	JUNCTION	41.04	3.52	0.0
TRMB02064-S	JUNCTION	44.56	0.75	0.0
TRMB02067	JUNCTION	41.26	4.94	0.0
TRMB02067-S	JUNCTION	46.20	0.75	0.0
TRMB02068	JUNCTION	42.12	6.54	0.0
TRMB02068-S	JUNCTION	48.66	0.75	0.0
TRMB02069	JUNCTION	42.57	6.83	0.0
TRMB02069-S	JUNCTION	49.40	0.75	0.0
TRMB02070	JUNCTION	42.72	6.88	0.0
TRMB02070-S	JUNCTION	49.60	0.75	0.0
TRMB03016	JUNCTION	7.94	6.94	0.0
TRMB03016-S	JUNCTION	14.88	0.00	0.0
TRMB03022	JUNCTION	9.90	2.89	0.0
TRMB03022-S	JUNCTION	12.57	0.75	0.0
TRMB03025	JUNCTION	12.79	6.80	0.0

## Future Conditions (10-Year)

TRMB03025-S	JUNCTION	19.59	0.75	0.0
TRMB03026	JUNCTION	15.11	1.00	0.0
TRMB03027	JUNCTION	15.45	2.96	0.0
TRMB03028	JUNCTION	12.78	7.31	0.0
TRMB03028-S	JUNCTION	20.09	0.75	0.0
TRMB03029	JUNCTION	13.78	5.35	0.0
TRMB03029-S	JUNCTION	19.13	0.75	0.0
TRMB03030	JUNCTION	14.88	6.00	0.0
TRMB03030-S	JUNCTION	19.95	0.75	0.0
TRMB03031	JUNCTION	17.87	8.21	0.0
TRMB03031-S	JUNCTION	26.08	0.75	0.0
TRMB03032	JUNCTION	21.26	7.36	0.0
TRMB03032-S	JUNCTION	28.62	0.75	0.0
TRMB03033	JUNCTION	27.53	2.68	0.0
TRMB03033-S	JUNCTION	30.21	0.75	0.0
TRMB03034	JUNCTION	27.34	3.02	0.0
TRMB03034-S	JUNCTION	30.36	0.75	0.0
TRMB03035	JUNCTION	25.87	3.41	0.0
TRMB03035-S	JUNCTION	29.28	0.75	0.0
TRMB03036	JUNCTION	21.73	7.55	0.0
TRMB03036-S	JUNCTION	29.28	0.75	0.0
TRMB03037	JUNCTION	27.75	2.92	0.0
TRMB03037-S	JUNCTION	30.67	0.75	0.0
TRMB03038	JUNCTION	26.54	3.86	0.0
TRMB03038-S	JUNCTION	30.40	0.75	0.0
TRMB03039	JUNCTION	23.34	6.56	0.0
TRMB03039-S	JUNCTION	29.90	0.75	0.0
TRMB03042	JUNCTION	35.90	4.77	0.0
TRMB03042-S	JUNCTION	40.67	0.75	0.0
TRMB03043	JUNCTION	24.32	4.27	0.0
TRMB03043-S	JUNCTION	28.59	0.75	0.0
TRMB03044	JUNCTION	25.42	3.12	0.0
TRMB03044-S	JUNCTION	28.54	0.75	0.0
TRMB03049	JUNCTION	24.75	4.47	0.0
TRMB03049-S	JUNCTION	29.22	0.75	0.0
TRMB03051	JUNCTION	25.33	2.81	0.0
TRMB03051-S	JUNCTION	28.14	0.75	0.0
TRMB03052	JUNCTION	27.03	1.33	0.0
TRMB03052-S	JUNCTION	28.36	0.75	0.0
TRMB03054	JUNCTION	25.44	2.93	0.0
TRMB03054-S	JUNCTION	28.37	0.75	0.0
TRMB03055	JUNCTION	25.50	2.72	0.0
TRMB03055-S	JUNCTION	28.22	0.75	0.0
TRMB03063	JUNCTION	28.00	3.07	0.0
TRMB03063-S	JUNCTION	31.07	0.75	0.0
TRMB03065	JUNCTION	2.53	11.47	0.0
TRMB03065-S	JUNCTION	14.00	0.75	0.0
TRMB03067	JUNCTION	18.14	2.51	0.0
TRMB03067-S	JUNCTION	20.65	0.75	0.0
TRMB03068	JUNCTION	4.83	10.55	0.0
TRMB03068-S	JUNCTION	15.38	0.75	0.0
TRMB03069	JUNCTION	3.40	10.83	0.0
TRMB03069-S	JUNCTION	14.23	0.75	0.0
TRMB03070	JUNCTION	4.58	9.56	0.0
TRMB03070-S	JUNCTION	14.14	0.75	0.0
TRMB03072	JUNCTION	8.98	9.12	0.0
TRMB03072-S	JUNCTION	18.10	0.75	0.0
TRMB03073	JUNCTION	16.56	2.83	0.0
TRMB03073-S	JUNCTION	19.39	0.75	0.0
TRMB03083	JUNCTION	9.78	8.84	0.0
TRMB03083-S	JUNCTION	18.62	0.75	0.0
TRMB03084	JUNCTION	9.00	8.95	0.0



## Future Conditions (10-Year)

TRMB03084-S	JUNCTION	17.95	0.75	0.0
TRMB03087	JUNCTION	9.90	6.37	0.0
TRMB03087-S	JUNCTION	16.27	0.75	0.0
TRMB03088	JUNCTION	21.54	8.31	0.0
TRMB03088-S	JUNCTION	29.85	0.75	0.0
TRMB03089	JUNCTION	22.54	7.28	0.0
TRMB03089-S	JUNCTION	29.82	0.75	0.0
TRMB03090	JUNCTION	22.36	6.58	0.0
TRMB03090-S	JUNCTION	28.94	0.75	0.0
TRMB03091	JUNCTION	26.44	7.38	0.0
TRMB03091-S	JUNCTION	33.82	0.75	0.0
TRMB03092	JUNCTION	29.88	1.79	0.0
TRMB03092-S	JUNCTION	31.67	0.75	0.0
TRMB03094	JUNCTION	28.09	6.83	0.0
TRMB03094-S	JUNCTION	34.92	0.75	0.0
TRMB03095	JUNCTION	32.05	2.87	0.0
TRMB03095-S	JUNCTION	34.92	0.75	0.0
TRMB03096	JUNCTION	28.15	8.21	0.0
TRMB03096-S	JUNCTION	36.36	0.75	0.0
TRMB03097	JUNCTION	34.36	5.92	0.0
TRMB03097-S	JUNCTION	40.28	0.75	0.0
TRMB03101	JUNCTION	32.50	4.70	0.0
TRMB03101-S	JUNCTION	37.20	0.75	0.0
TRMB03102	JUNCTION	29.27	8.41	0.0
TRMB03102-S	JUNCTION	37.68	0.75	0.0
TRMB03103	JUNCTION	33.01	8.03	0.0
TRMB03103-S	JUNCTION	41.04	0.75	0.0
TRMB03111	JUNCTION	35.20	7.03	0.0
TRMB03111-S	JUNCTION	42.23	0.75	0.0
TRMB03132	JUNCTION	13.00	10.67	0.0
TRMB03132-S	JUNCTION	23.67	0.75	0.0
TRMB04089	JUNCTION	47.97	12.80	0.0
TRMB04089-S	JUNCTION	60.77	0.75	0.0
TRMB04265-S	JUNCTION	59.86	0.00	0.0
TRMB05002	JUNCTION	38.19	5.75	0.0
TRMB05002-S	JUNCTION	43.94	0.75	0.0
TRMB05003	JUNCTION	39.42	7.80	0.0
TRMB05003-S	JUNCTION	47.22	0.75	0.0
TRMB05004	JUNCTION	39.50	6.99	0.0
TRMB05004-S	JUNCTION	46.49	0.75	0.0
TRMB05005	JUNCTION	40.00	8.14	0.0
TRMB05005-S	JUNCTION	48.14	0.75	0.0
TRMB05006	JUNCTION	40.76	8.60	0.0
TRMB05006-S	JUNCTION	49.36	0.75	0.0
TRMB05008	JUNCTION	43.68	3.90	0.0
TRMB05008-S	JUNCTION	47.58	0.75	0.0
TRMB05009	JUNCTION	45.01	6.50	0.0
TRMB05009_DS	JUNCTION	43.83	7.09	0.0
TRMB05009_DS-S	JUNCTION	50.92	0.75	0.0
TRMB05009-S	JUNCTION	51.51	0.75	0.0
TRMB05010	JUNCTION	46.18	3.05	0.0
TRMB05010-S	JUNCTION	49.23	0.75	0.0
TRMB05011	JUNCTION	46.91	2.90	0.0
TRMB05011-S	JUNCTION	49.81	0.75	0.0
TRMB05012	JUNCTION	46.81	2.90	0.0
TRMB05012-S	JUNCTION	49.71	0.75	0.0
TRMB05013	JUNCTION	48.96	2.10	0.0
TRMB05013-S	JUNCTION	51.06	0.75	0.0
TRMB05014	JUNCTION	48.61	2.60	0.0
TRMB05014-S	JUNCTION	51.21	0.75	0.0
TRMB05015	JUNCTION	46.05	8.60	0.0
TRMB05015-S	JUNCTION	54.65	0.75	0.0

## Future Conditions (10-Year)

TRMB05016	JUNCTION	50.41	4.00	0.0
TRMB05016-S	JUNCTION	54.41	0.75	0.0
TRMB05017	JUNCTION	46.23	9.45	0.0
TRMB05017_US	JUNCTION	47.08	11.09	0.0
TRMB05017_US-S	JUNCTION	58.17	0.75	0.0
TRMB05017-S	JUNCTION	55.68	0.75	0.0
TRMB05018	JUNCTION	50.34	4.15	0.0
TRMB05018-S	JUNCTION	54.49	0.75	0.0
TRMB05019	JUNCTION	50.62	3.50	0.0
TRMB05019-S	JUNCTION	54.12	0.75	0.0
TRMB05020	JUNCTION	50.78	3.50	0.0
TRMB05020-S	JUNCTION	54.28	0.75	0.0
TRMB05021	JUNCTION	51.47	3.20	0.0
TRMB05021-S	JUNCTION	54.67	0.75	0.0
TRMB05022	JUNCTION	50.10	4.30	0.0
TRMB05022-S	JUNCTION	54.40	0.75	0.0
TRMB05023	JUNCTION	51.41	1.25	0.0
TRMB05023-S	JUNCTION	51.41	0.75	0.0
TRMB05025	JUNCTION	53.20	2.00	0.0
TRMB05025-S	JUNCTION	55.20	0.75	0.0
TRMB05026	JUNCTION	50.05	2.65	0.0
TRMB05026-S	JUNCTION	52.70	0.75	0.0
TRMB05027	JUNCTION	52.70	2.04	0.0
TRMB05027-S	JUNCTION	54.74	0.75	0.0
TRMB05028	JUNCTION	51.94	3.50	0.0
TRMB05028-S	JUNCTION	55.44	0.75	0.0
TRMB05029	JUNCTION	51.62	3.20	0.0
TRMB05029-S	JUNCTION	54.82	0.75	0.0
TRMB05030	JUNCTION	52.44	2.75	0.0
TRMB05030-S	JUNCTION	55.19	0.75	0.0
TRMB05031	JUNCTION	53.30	2.02	0.0
TRMB05031-S	JUNCTION	55.32	0.75	0.0
TRMB05032	JUNCTION	52.96	2.40	0.0
TRMB05032-S	JUNCTION	55.36	0.75	0.0
TRMB05033	JUNCTION	52.44	2.75	0.0
TRMB05033-S	JUNCTION	55.19	0.75	0.0
TRMB05034	JUNCTION	53.11	2.40	0.0
TRMB05034-S	JUNCTION	55.51	0.75	0.0
TRMB05035	JUNCTION	52.75	3.10	0.0
TRMB05035-S	JUNCTION	55.85	0.75	0.0
TRMB05036	JUNCTION	53.15	2.35	0.0
TRMB05036-S	JUNCTION	55.50	0.75	0.0
TRMB05037	JUNCTION	54.00	1.70	0.0
TRMB05037-S	JUNCTION	55.70	0.75	0.0
TRMB05038	JUNCTION	53.35	2.35	0.0
TRMB05038-S	JUNCTION	55.70	0.75	0.0
TRMB05039	JUNCTION	53.50	2.02	0.0
TRMB05039-S	JUNCTION	55.52	0.75	0.0
TRMB05040	JUNCTION	48.84	7.05	0.0
TRMB05040-S	JUNCTION	55.89	0.75	0.0
TRMB05041	JUNCTION	46.90	5.35	0.0
TRMB05041-S	JUNCTION	52.25	0.75	0.0
TRMB05042	JUNCTION	49.69	2.65	0.0
TRMB05042-S	JUNCTION	52.34	0.75	0.0
TRMB05043	JUNCTION	46.37	6.49	0.0
TRMB05043-S	JUNCTION	52.86	0.75	0.0
TRMB05044	JUNCTION	47.57	3.55	0.0
TRMB05044-S	JUNCTION	51.12	0.75	0.0
TRMB05045	JUNCTION	46.68	5.80	0.0
TRMB05045-S	JUNCTION	52.48	0.75	0.0
TRMB05046	JUNCTION	43.27	4.40	0.0
TRMB05046-S	JUNCTION	47.67	0.75	0.0

# Future Conditions (10-Year)

TRMB05047	JUNCTION	41.52	1.50	0.0
TRMB05048	JUNCTION	42.82	5.46	0.0
TRMB05048-S	JUNCTION	48.28	0.75	0.0
PCTB01066	OUTFALL	17.98	3.00	0.0
PCTB02009	OUTFALL	21.77	3.00	0.0
PCTB02081	OUTFALL	16.83	6.70	0.0
TRMB02001	OUTFALL	-0.35	3.00	0.0
TRMB03012	OUTFALL	7.18	2.50	0.0
TRMB03066	OUTFALL	0.00	3.00	0.0
TRMB05001	OUTFALL	23.60	3.50	0.0

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Link Summary  
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Name	From Node	To Node	Type	Length	%Slope
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C1	PCTB02159	PCTB02076	CONDUIT	86.8	0.3340
0.0150					
C14	PCTB02329	PCTB02002	CONDUIT	27.5	0.6177
0.0200					
C2_1	PCTB02191	PCTB02191_DS	CONDUIT	20.7	5.8640
0.0150					
C2_1-S	PCTB02191-S	PCTB02191_DS-S	CONDUIT	20.7	3.8732
0.0140					
C2_2	PCTB02191_DS	PCTB02080	CONDUIT	619.3	0.0355
0.0200					
C3	PCTB02280-S	PCTB02282-S	CONDUIT	309.1	-0.8314
0.0140					
C9	TRMB05043	TRMB05009_DS	CONDUIT	14.1	18.3407
0.0150					
C9-S	TRMB05043-S	TRMB05009_DS-S	CONDUIT	14.1	13.9111
0.0140					
CountrySideE_Ditch	JMTB01006	CountrySideE_Ditch_Culvert_In	CONDUIT		
3616.4	0.0812	0.0200			
CountrySideE_Ditch_Culvert	CountrySideE_Ditch_Culvert_In	PCTB02257	CONDUIT		
106.3	0.1411	0.0150			
CountrySideE_Ditch_Culvert-S	CountrySideE_Ditch_Culvert_In-S	PCTB02257-S	CONDUIT		
106.3	0.5079	0.0140			
JMTB01003	JMTB01003	JMTB01004	CONDUIT	9.3	-0.5460
0.0150					
JMTB01003-S	JMTB01003-S	JMTB01004-S	CONDUIT	9.3	-6.1142
0.0140					
JMTB01004	JMTB01004	JMTB01005	CONDUIT	38.6	-0.5419
0.0130					
JMTB01004-S	JMTB01004-S	JMTB01005-S	CONDUIT	38.6	0.7778
0.0140					
JMTB01005	JMTB01005	JMTB01006	CONDUIT	338.1	0.2050
0.0130					
JMTB01005-S	JMTB01005-S	JMTB01006-S	CONDUIT	338.1	0.2227
0.0140					
JMTB01102	JMTB01102	JMTB01103	CONDUIT	20.3	0.8358
0.0130					
JMTB01102-S	JMTB01102-S	JMTB01103-S	CONDUIT	20.3	-2.5082
0.0140					
JMTB01103	JMTB01103	JMTB01105	CONDUIT	164.6	0.2369
0.0130					
JMTB01103_1	JMTB01105	JMTB01003	CONDUIT	299.1	0.3376
0.0200					

## Future Conditions (10-Year)

JMTB01103-S 0.0140	JMTB01103-S	JMTB01105-S	CONDUIT	164.6	1.0693
JMTB01104 0.0130	JMTB01104	JMTB01103	CONDUIT	21.3	0.9864
JMTB01104-S 0.0140	JMTB01104-S	JMTB01103-S	CONDUIT	21.3	0.7985
PCTB01068 0.0150	PCTB01068	PCTB01066	CONDUIT	512.6	0.2675
PCTB01068_US 0.0150	PCTB01068_US	PCTB01068	CONDUIT	220.6	0.2947
PCTB01068_US-S 0.0140	PCTB01068_US-S	PCTB01068-S	CONDUIT	220.6	-0.0272
PCTB02001 0.0200	PCTB02001	PCTB02015	CONDUIT	924.6	0.0876
PCTB02002 0.0130	PCTB02002	PCTB02001	CONDUIT	48.2	0.4357
PCTB02002-S 0.0140	PCTB02002-S	PCTB02001-S	CONDUIT	48.2	1.8053
PCTB02003 0.0150	PCTB02003	PCTB02004	CONDUIT	63.9	-0.2816
PCTB02003-S 0.0140	PCTB02003-S	PCTB02004-S	CONDUIT	63.9	-0.2816
PCTB02008 0.0150	PCTB02008	PCTB02009	CONDUIT	87.0	-0.1471
PCTB02011 0.0130	PCTB02012	PCTB02011	CONDUIT	28.6	-0.8404
PCTB02011_1 0.0200	PCTB02011	PCTB02008	CONDUIT	306.7	0.0717
PCTB02011-S 0.0140	PCTB02012-S	PCTB02011-S	CONDUIT	28.6	-2.4517
PCTB02014 0.0130	PCTB02015	PCTB02014	CONDUIT	28.1	0.9612
PCTB02014_1 0.0200	PCTB02014	PCTB02012	CONDUIT	793.0	-0.1160
PCTB02014-S 0.0140	PCTB02015-S	PCTB02014-S	CONDUIT	28.1	1.4597
PCTB02016 0.0150	PCTB02016	PCTB02017	CONDUIT	31.9	0.7513
PCTB02016-S 0.0140	PCTB02016-S	PCTB02017-S	CONDUIT	31.9	-0.0313
PCTB02020 0.0100	PCTB02005	PCTB02016	CONDUIT	261.2	0.0383
PCTB02021 0.0100	PCTB02017	PCTB02003	CONDUIT	302.9	0.0033
PCTB02022 0.0150	PCTB02022	PCTB02023	CONDUIT	32.9	-0.0912
PCTB02022-S 0.0140	PCTB02022-S	PCTB02023-S	CONDUIT	32.9	0.1216
PCTB02023 0.0150	PCTB02023	PCTB02332	CONDUIT	127.2	0.1179
PCTB02023-S 0.0140	PCTB02023-S	PCTB02332-S	CONDUIT	127.2	-0.7468
PCTB02076 0.0150	PCTB02076	PCTB02075	CONDUIT	113.4	0.4320
PCTB02080 0.0150	PCTB02080	PCTB02081	CONDUIT	172.5	0.0006
PCTB02160 0.0150	PCTB02160	PCTB02159	CONDUIT	71.5	-0.0140
PCTB02172 0.0100	PCTB02075	PCTB02080	CONDUIT	82.9	0.4702
PCTB02189 0.0130	PCTB02189	PCTB02191	CONDUIT	231.5	0.5010

## Future Conditions (10-Year)

PCTB02189-S 0.0140	PCTB02189-S	PCTB02191-S	CONDUIT	231.5	0.3283
PCTB02208 0.0150	PCTB02209	PCTB02207	CONDUIT	96.0	0.4789
PCTB02208-S 0.0140	PCTB02209-S	PCTB02207-S	CONDUIT	96.0	0.4789
PCTB02231 0.0150	PCTB02231	PCTB02229	CONDUIT	282.3	0.0779
PCTB02231-S 0.0140	PCTB02231-S	PCTB02229-S	CONDUIT	282.3	0.0992
PCTB02237 0.0150	PCTB02237	PCTB02235	CONDUIT	88.8	0.2027
PCTB02237-S 0.0140	PCTB02237-S	PCTB02235-S	CONDUIT	88.8	0.2049
PCTB02239 0.0200	PCTB02233	PCTB02237	CONDUIT	348.6	1.5435
PCTB02240 0.0200	PCTB02207	PCTB02237	CONDUIT	464.7	0.1270
PCTB02259_1 0.0100	PCTB02257	PCTB02257_1	CONDUIT	35.4	0.0028
PCTB02259_2 0.0100	PCTB02257_1	PCTB02260	CONDUIT	146.5	-0.0137
PCTB02260 0.0150	PCTB02260	PCTB02262	CONDUIT	69.1	0.1447
PCTB02260-S 0.0140	PCTB02260-S	PCTB02262-S	CONDUIT	69.1	0.2171
PCTB02264 0.0100	PCTB02262	PCTB02209	CONDUIT	476.6	0.0420
PCTB02274 0.0130	PCTB02008	PCTB02005	CONDUIT	1148.4	-0.2403
PCTB02275 0.0150	PCTB02275	PCTB02257_1	CONDUIT	24.9	0.3614
PCTB02275-S 0.0140	PCTB02275-S	PCTB02257_1-S	CONDUIT	24.9	-4.8652
PCTB02276 0.0150	PCTB02276	PCTB02275	CONDUIT	593.0	0.0118
PCTB02276-S 0.0140	PCTB02276-S	PCTB02275-S	CONDUIT	593.0	0.0961
PCTB02278 0.0150	PCTB02278	PCTB02276	CONDUIT	157.0	0.4585
PCTB02278-S 0.0140	PCTB02278-S	PCTB02276-S	CONDUIT	157.0	-0.9425
PCTB02279 0.0100	PCTB02004	PCTB02278	CONDUIT	1283.9	0.1495
PCTB02280 0.0130	PCTB02280	PCTB02292	CONDUIT	147.4	0.6038
PCTB02280-S 0.0140	PCTB02280-S	PCTB02292-S	CONDUIT	147.4	-0.2849
PCTB02281 0.0130	PCTB02281	PCTB02280	CONDUIT	24.6	1.0981
PCTB02281-S 0.0140	PCTB02281-S	PCTB02280-S	CONDUIT	24.6	0.7727
PCTB02282 0.0130	PCTB02282	PCTB02312	CONDUIT	153.8	0.9820
PCTB02282-S 0.0140	PCTB02282-S	PCTB02312-S	CONDUIT	153.8	1.2357
PCTB02283 0.0130	PCTB02283	PCTB02282	CONDUIT	36.7	0.4357
PCTB02283-S 0.0140	PCTB02283-S	PCTB02282-S	CONDUIT	36.7	-6.2212
PCTB02284 0.0150	PCTB02284	PCTB02283	CONDUIT	58.2	0.5846

## Future Conditions (10-Year)

PCTB02284-S 0.0140	PCTB02284-S	PCTB02283-S	CONDUIT	58.2	0.5330
PCTB02292 0.0200	PCTB02292	PCTB02294	CONDUIT	1086.7	0.0304
PCTB02294 0.0150	PCTB02294	PCTB02295	CONDUIT	39.6	1.0848
PCTB02294-S 0.0140	PCTB02294-S	PCTB02295-S	CONDUIT	39.6	1.0848
PCTB02295 0.0200	PCTB02295	PCTB02191_DS	CONDUIT	168.6	0.0237
PCTB02297 0.0130	PCTB02297	PCTB02281	CONDUIT	495.7	0.2522
PCTB02297-S 0.0140	PCTB02297-S	PCTB02281-S	CONDUIT	495.7	0.1089
PCTB02299 0.0100	PCTB02220	PCTB02160	CONDUIT	412.9	0.1361
PCTB02300 0.0100	PCTB02229	PCTB02220	CONDUIT	240.9	0.1362
PCTB02301 0.0100	PCTB02235	PCTB02231	CONDUIT	830.0	0.0904
PCTB02302 0.0200	PCTB02302	PCTB02312	CONDUIT	219.7	0.0410
PCTB02303 0.0150	PCTB02303	PCTB02302	CONDUIT	44.3	-0.4742
PCTB02303-S 0.0140	PCTB02303-S	PCTB02302-S	CONDUIT	44.3	4.3165
PCTB02304 0.0150	PCTB02304	PCTB02303	CONDUIT	18.8	1.2753
PCTB02304-S 0.0140	PCTB02304-S	PCTB02303-S	CONDUIT	18.8	-8.8012
PCTB02312 0.0200	PCTB02312	PCTB02292	CONDUIT	351.4	0.0711
PCTB02329 0.0150	PCTB02330	PCTB02329	CONDUIT	167.7	0.0835
PCTB02329-S 0.0140	PCTB02330-S	PCTB02329-S	CONDUIT	167.7	0.7096
PCTB02330 0.0150	PCTB02331	PCTB02330	CONDUIT	65.3	-0.1225
PCTB02330-S 0.0140	PCTB02331-S	PCTB02330-S	CONDUIT	65.3	-0.5821
PCTB02331 0.0150	PCTB02332	PCTB02331	CONDUIT	189.0	-0.0106
PCTB02331-S 0.0140	PCTB02332-S	PCTB02331-S	CONDUIT	189.0	0.3334
TRMB02002 0.0150	TRMB02002	TRMB02001	CONDUIT	187.6	3.1488
TRMB02003 0.0150	TRMB02003	TRMB02002	CONDUIT	35.5	-7.5532
TRMB02003-S 0.0140	TRMB02003-S	TRMB02002-S	CONDUIT	35.5	-10.2939
TRMB02006 0.0150	TRMB02006	TRMB02003	CONDUIT	394.8	1.4488
TRMB02006-S 0.0140	TRMB02006-S	TRMB02003-S	CONDUIT	394.8	1.3475
TRMB02009 0.0150	TRMB02009	TRMB02006	CONDUIT	238.7	3.6346
TRMB02009-S 0.0140	TRMB02009-S	TRMB02006-S	CONDUIT	238.7	3.7395
TRMB02012 0.0150	TRMB02012	TRMB02009	CONDUIT	204.7	1.0895
TRMB02012-S 0.0140	TRMB02012-S	TRMB02009-S	CONDUIT	204.7	-0.0098

## Future Conditions (10-Year)

TRMB02015 0.0150	TRMB02015	TRMB02012	CONDUIT	183.9	0.8427
TRMB02015-S 0.0140	TRMB02015-S	TRMB02012-S	CONDUIT	183.9	-0.9026
TRMB02016 0.0150	TRMB02016	TRMB02015	CONDUIT	25.8	0.3495
TRMB02016-S 0.0140	TRMB02016-S	TRMB02015-S	CONDUIT	25.8	0.3107
TRMB02018 0.0150	TRMB02018	TRMB02016	CONDUIT	348.9	0.5073
TRMB02018-S 0.0140	TRMB02018-S	TRMB02016-S	CONDUIT	348.9	0.9860
TRMB02022 0.0150	TRMB02022	TRMB02018	CONDUIT	221.7	0.3924
TRMB02022-S 0.0140	TRMB02022-S	TRMB02018-S	CONDUIT	221.7	-0.0451
TRMB02023 0.0130	TRMB02023	TRMB02022	CONDUIT	245.0	0.9144
TRMB02023-S 0.0140	TRMB02023-S	TRMB02022-S	CONDUIT	245.0	0.2572
TRMB02030 0.0150	TRMB02030	TRMB02023	CONDUIT	74.7	1.2057
TRMB02030-S 0.0140	TRMB02030-S	TRMB02023-S	CONDUIT	74.7	0.0402
TRMB02032 0.0130	TRMB02032	TRMB02030	CONDUIT	276.7	0.7662
TRMB02032-S 0.0140	TRMB02032-S	TRMB02030-S	CONDUIT	276.7	1.6120
TRMB02033 0.0130	TRMB02033	TRMB02032	CONDUIT	31.2	2.4984
TRMB02033-S 0.0140	TRMB02033-S	TRMB02032-S	CONDUIT	31.2	0.1921
TRMB02034 0.0130	TRMB02034	TRMB02033	CONDUIT	61.5	1.8362
TRMB02034-S 0.0140	TRMB02034-S	TRMB02033-S	CONDUIT	61.5	0.9586
TRMB02035 0.0130	TRMB02035	TRMB02034	CONDUIT	146.7	2.2293
TRMB02035-S 0.0140	TRMB02035-S	TRMB02034-S	CONDUIT	146.7	1.3701
TRMB02044_1 0.0150	TRMB02044	TRMB02044_DS	CONDUIT	531.7	1.2696
TRMB02044_1-S 0.0140	TRMB02044-S	TRMB02044_DS-S	CONDUIT	531.7	0.7674
TRMB02044_2 0.0150	TRMB02044_DS	TRMB02022	CONDUIT	437.6	0.0845
TRMB02044_2-S 0.0140	TRMB02044_DS-S	TRMB02022-S	CONDUIT	437.6	1.0192
TRMB02045 0.0150	TRMB02045	TRMB02044	CONDUIT	24.4	-0.4910
TRMB02045-S 0.0140	TRMB02045-S	TRMB02044-S	CONDUIT	24.4	-1.4732
TRMB02046 0.0130	TRMB02046	TRMB02045	CONDUIT	16.0	14.2309
TRMB02046-S 0.0140	TRMB02046-S	TRMB02045-S	CONDUIT	16.0	-0.6888
TRMB02047 0.0130	TRMB02047	TRMB02046	CONDUIT	36.1	3.2158
TRMB02047-S 0.0140	TRMB02047-S	TRMB02046-S	CONDUIT	36.1	0.3602
TRMB02048 0.0130	TRMB02048	TRMB02047	CONDUIT	111.5	1.5968

## Future Conditions (10-Year)

TRMB02048-S 0.0140	TRMB02048-S	TRMB02047-S	CONDUIT	111.5	2.2339
TRMB02049 0.0130	TRMB02049	TRMB02048	CONDUIT	38.1	1.5237
TRMB02049-S 0.0140	TRMB02049-S	TRMB02048-S	CONDUIT	38.1	0.2364
TRMB02050 0.0150	TRMB02050	TRMB02045	CONDUIT	62.2	0.1446
TRMB02050-S 0.0140	TRMB02050-S	TRMB02045-S	CONDUIT	62.2	-1.1573
TRMB02051 0.0150	TRMB02051	TRMB02050	CONDUIT	153.6	0.1432
TRMB02051-S 0.0140	TRMB02051-S	TRMB02050-S	CONDUIT	153.6	-0.7292
TRMB02052 0.0130	TRMB02052	TRMB02051	CONDUIT	20.4	0.7840
TRMB02052-S 0.0140	TRMB02052-S	TRMB02051-S	CONDUIT	20.4	-0.4900
TRMB02056 0.0130	TRMB02056	TRMB02052	CONDUIT	20.4	0.7824
TRMB02056-S 0.0140	TRMB02056-S	TRMB02052-S	CONDUIT	20.4	1.9564
TRMB02057 0.0130	TRMB02057	TRMB02056	CONDUIT	17.6	0.7391
TRMB02057-S 0.0140	TRMB02057-S	TRMB02056-S	CONDUIT	17.6	0.7959
TRMB02060 0.0150	TRMB02060	TRMB02057	CONDUIT	295.1	0.9352
TRMB02060-S 0.0140	TRMB02060-S	TRMB02057-S	CONDUIT	295.1	1.9994
TRMB02063 0.0130	TRMB02063	TRMB02060	CONDUIT	222.3	2.6419
TRMB02063-S 0.0140	TRMB02063-S	TRMB02060-S	CONDUIT	222.3	1.0933
TRMB02064 0.0130	TRMB02064	TRMB02063	CONDUIT	125.5	0.6935
TRMB02064-S 0.0140	TRMB02064-S	TRMB02063-S	CONDUIT	125.5	0.7094
TRMB02067 0.0130	TRMB02067	TRMB02064	CONDUIT	117.7	0.1869
TRMB02067-S 0.0140	TRMB02067-S	TRMB02064-S	CONDUIT	117.7	1.3935
TRMB02068 0.0130	TRMB02068	TRMB02067	CONDUIT	181.4	0.4741
TRMB02068-S 0.0140	TRMB02068-S	TRMB02067-S	CONDUIT	181.4	1.3563
TRMB02069 0.0130	TRMB02069	TRMB02068	CONDUIT	44.4	1.0140
TRMB02069-S 0.0140	TRMB02069-S	TRMB02068-S	CONDUIT	44.4	1.6676
TRMB02070 0.0130	TRMB02070	TRMB02069	CONDUIT	35.3	0.4249
TRMB02070-S 0.0140	TRMB02070-S	TRMB02069-S	CONDUIT	35.3	0.5666
TRMB03016 0.0150	TRMB03016	TRMB03012	CONDUIT	44.3	1.7151
TRMB03022 0.0160	TRMB03022	TRMB03016	CONDUIT	145.8	1.3442
TRMB03025 0.0150	TRMB03025	TRMB03022	CONDUIT	55.0	5.2628
TRMB03025-S 0.0140	TRMB03025-S	TRMB03022-S	CONDUIT	55.0	12.8713



## Future Conditions (10-Year)

TRMB03026 0.0150	TRMB03026	TRMB03022	CONDUIT	14.1	24.1547
TRMB03027 0.0130	TRMB03027	TRMB03026	CONDUIT	31.1	1.0930
TRMB03028 0.0150	TRMB03028	TRMB03025	CONDUIT	19.2	-0.0520
TRMB03028-S 0.0140	TRMB03028-S	TRMB03025-S	CONDUIT	19.2	2.6010
TRMB03029 0.0130	TRMB03029	TRMB03028	CONDUIT	87.0	1.1494
TRMB03029-S 0.0140	TRMB03029-S	TRMB03028-S	CONDUIT	87.0	-1.1034
TRMB03030 0.0150	TRMB03030	TRMB03029	CONDUIT	90.4	1.2173
TRMB03030-S 0.0140	TRMB03030-S	TRMB03029-S	CONDUIT	90.4	0.9074
TRMB03031 0.0150	TRMB03031	TRMB03030	CONDUIT	235.9	1.2676
TRMB03032 0.0150	TRMB03032	TRMB03031	CONDUIT	327.8	1.0342
TRMB03032-S 0.0140	TRMB03032-S	TRMB03031-S	CONDUIT	327.8	0.7748
TRMB03033 0.0130	TRMB03033	TRMB03034	CONDUIT	7.3	2.6072
TRMB03033-S 0.0140	TRMB03033-S	TRMB03034-S	CONDUIT	7.3	-2.0580
TRMB03034 0.0150	TRMB03034	TRMB03036	CONDUIT	135.6	4.1413
TRMB03034-S 0.0140	TRMB03034-S	TRMB03036-S	CONDUIT	135.6	0.7966
TRMB03035 0.0130	TRMB03035	TRMB03036	CONDUIT	5.8	100.5103
TRMB03035-S 0.0140	TRMB03035-S	TRMB03036-S	CONDUIT	5.8	0.0171
TRMB03036 0.0130	TRMB03036	TRMB03032	CONDUIT	133.5	0.3522
TRMB03036-S 0.0140	TRMB03036-S	TRMB03032-S	CONDUIT	133.5	0.4945
TRMB03037 0.0130	TRMB03037	TRMB03034	CONDUIT	32.3	1.2714
TRMB03037-S 0.0140	TRMB03037-S	TRMB03034-S	CONDUIT	32.3	0.9613
TRMB03038 0.0130	TRMB03038	TRMB03036	CONDUIT	33.1	14.6876
TRMB03038-S 0.0140	TRMB03038-S	TRMB03036-S	CONDUIT	33.1	3.3856
TRMB03039 0.0130	TRMB03039	TRMB03036	CONDUIT	148.0	1.0878
TRMB03039-S 0.0140	TRMB03039-S	TRMB03036-S	CONDUIT	148.0	0.4189
TRMB03042 0.0130	TRMB03042	TRMB03039	CONDUIT	395.7	3.1758
TRMB03042-S 0.0140	TRMB03042-S	TRMB03039-S	CONDUIT	395.7	2.7228
TRMB03043 0.0130	TRMB03043	TRMB03039	CONDUIT	263.2	0.3724
TRMB03043-S 0.0140	TRMB03043-S	TRMB03039-S	CONDUIT	263.2	-0.4978
TRMB03044 0.0150	TRMB03044	TRMB03039	CONDUIT	112.7	1.8462
TRMB03044-S 0.0140	TRMB03044-S	TRMB03039-S	CONDUIT	112.7	-1.2070

## Future Conditions (10-Year)

TRMB03049 0.0150	TRMB03049	TRMB03043	CONDUIT	15.6	2.7557
TRMB03049-S 0.0140	TRMB03049-S	TRMB03043-S	CONDUIT	15.6	4.0392
TRMB03051 0.0130	TRMB03051	TRMB03043	CONDUIT	18.3	5.5245
TRMB03051-S 0.0140	TRMB03051-S	TRMB03043-S	CONDUIT	18.3	-2.4584
TRMB03052 0.0130	TRMB03052	TRMB03051	CONDUIT	28.9	5.8864
TRMB03052-S 0.0140	TRMB03052-S	TRMB03051-S	CONDUIT	28.9	0.7605
TRMB03054 0.0130	TRMB03054	TRMB03051	CONDUIT	185.4	0.0593
TRMB03054-S 0.0140	TRMB03054-S	TRMB03051-S	CONDUIT	185.4	0.1241
TRMB03055 0.0130	TRMB03055	TRMB03051	CONDUIT	225.6	0.0754
TRMB03055-S 0.0140	TRMB03055-S	TRMB03051-S	CONDUIT	225.6	0.0355
TRMB03063 0.0130	TRMB03063	TRMB03054	CONDUIT	249.0	1.0282
TRMB03063-S 0.0140	TRMB03063-S	TRMB03054-S	CONDUIT	249.0	1.0844
TRMB03065 0.0150	TRMB03065	TRMB03066	CONDUIT	145.2	1.7432
TRMB03067 0.0130	TRMB03067	TRMB03065	CONDUIT	65.2	24.6749
TRMB03067-S 0.0140	TRMB03067-S	TRMB03065-S	CONDUIT	65.2	10.2592
TRMB03068 0.0150	TRMB03068	TRMB03069	CONDUIT	18.3	7.8555
TRMB03068-S 0.0140	TRMB03068-S	TRMB03069-S	CONDUIT	18.3	6.3104
TRMB03069 0.0150	TRMB03069	TRMB03065	CONDUIT	41.7	2.0878
TRMB03069-S 0.0140	TRMB03069-S	TRMB03065-S	CONDUIT	41.7	0.5518
TRMB03070 0.0150	TRMB03070	TRMB03069	CONDUIT	59.6	1.9786
TRMB03070-S 0.0140	TRMB03070-S	TRMB03069-S	CONDUIT	59.6	-0.1509
TRMB03072 0.0150	TRMB03072	TRMB03070	CONDUIT	122.0	3.6080
TRMB03072-S 0.0140	TRMB03072-S	TRMB03070-S	CONDUIT	122.0	3.2468
TRMB03073 0.0150	TRMB03073	TRMB03070	CONDUIT	116.3	10.3578
TRMB03073-S 0.0140	TRMB03073-S	TRMB03070-S	CONDUIT	116.3	4.5196
TRMB03083 0.0130	TRMB03083	TRMB03072	CONDUIT	29.0	2.7559
TRMB03083-S 0.0140	TRMB03083-S	TRMB03072-S	CONDUIT	29.0	1.7909
TRMB03084 0.0150	TRMB03084	TRMB03072	CONDUIT	6.8	0.2941
TRMB03084-S 0.0140	TRMB03084-S	TRMB03072-S	CONDUIT	6.8	-2.2064
TRMB03087 0.0130	TRMB03087	TRMB03083	CONDUIT	106.8	0.1123
TRMB03087-S 0.0140	TRMB03087-S	TRMB03083-S	CONDUIT	106.8	-2.1999

## Future Conditions (10-Year)

TRMB03088 0.0150	TRMB03088	TRMB03087	CONDUIT	586.4	1.9854
TRMB03088-S 0.0140	TRMB03088-S	TRMB03087-S	CONDUIT	586.4	2.3164
TRMB03089 0.0130	TRMB03089	TRMB03088	CONDUIT	39.9	2.5071
TRMB03089-S 0.0140	TRMB03089-S	TRMB03088-S	CONDUIT	39.9	-0.0752
TRMB03090 0.0130	TRMB03090	TRMB03089	CONDUIT	14.6	-1.2304
TRMB03090-S 0.0140	TRMB03090-S	TRMB03089-S	CONDUIT	14.6	-6.0259
TRMB03091 0.0150	TRMB03091	TRMB03090	CONDUIT	209.3	1.9501
TRMB03091-S 0.0140	TRMB03091-S	TRMB03090-S	CONDUIT	209.3	2.3327
TRMB03092 0.0130	TRMB03092	TRMB03090	CONDUIT	117.8	6.3962
TRMB03092-S 0.0140	TRMB03092-S	TRMB03090-S	CONDUIT	117.8	2.3179
TRMB03094 0.0150	TRMB03094	TRMB03091	CONDUIT	103.8	1.5906
TRMB03094-S 0.0140	TRMB03094-S	TRMB03091-S	CONDUIT	103.8	1.0603
TRMB03095 0.0150	TRMB03095	TRMB03094	CONDUIT	9.0	49.2696
TRMB03095-S 0.0140	TRMB03095-S	TRMB03094-S	CONDUIT	9.0	0.0112
TRMB03096 0.0150	TRMB03096	TRMB03094	CONDUIT	25.1	0.2388
TRMB03096-S 0.0140	TRMB03096-S	TRMB03094-S	CONDUIT	25.1	5.7396
TRMB03097 0.0130	TRMB03097	TRMB03094	CONDUIT	110.6	5.6782
TRMB03097-S 0.0140	TRMB03097-S	TRMB03094-S	CONDUIT	110.6	4.8520
TRMB03101 0.0130	TRMB03101	TRMB03096	CONDUIT	10.9	43.7634
TRMB03101-S 0.0140	TRMB03101-S	TRMB03096-S	CONDUIT	10.9	7.7652
TRMB03102 0.0150	TRMB03102	TRMB03096	CONDUIT	47.8	2.3432
TRMB03102-S 0.0140	TRMB03102-S	TRMB03096-S	CONDUIT	47.8	2.7620
TRMB03103 0.0150	TRMB03103	TRMB03102	CONDUIT	95.9	3.9020
TRMB03103-S 0.0140	TRMB03103-S	TRMB03102-S	CONDUIT	95.9	3.5051
TRMB03111 0.0130	TRMB03111	TRMB03103	CONDUIT	73.5	2.9825
TRMB03111-S 0.0140	TRMB03111-S	TRMB03103-S	CONDUIT	73.5	1.6201
TRMB03132 0.0150	TRMB03132	TRMB03084	CONDUIT	148.8	2.6890
TRMB03132-S 0.0140	TRMB03132-S	TRMB03084-S	CONDUIT	148.8	3.8467
TRMB04089_1 0.0150	TRMB04089	TRMB05017_US	CONDUIT	303.9	0.2929
TRMB04089_1-S 0.0140	TRMB04089-S	TRMB05017_US-S	CONDUIT	303.9	0.8556
TRMB04089_2 0.0150	TRMB05017_US	TRMB05017	CONDUIT	292.1	0.2910

## Future Conditions (10-Year)

TRMB04089_2-S 0.0140	TRMB05017_US-S	TRMB05017-S	CONDUIT	292.1	0.8525
TRMB05002 0.0150	TRMB05002	TRMB05001	CONDUIT	48.8	31.3024
TRMB05003 0.0150	TRMB05003	TRMB05002	CONDUIT	84.0	1.4636
TRMB05003-S 0.0140	TRMB05003-S	TRMB05002-S	CONDUIT	84.0	3.9054
TRMB05004 0.0130	TRMB05004	TRMB05003	CONDUIT	5.4	1.4735
TRMB05004-S 0.0140	TRMB05004-S	TRMB05003-S	CONDUIT	5.4	-13.5670
TRMB05005 0.0130	TRMB05005	TRMB05003	CONDUIT	23.4	2.4773
TRMB05005-S 0.0140	TRMB05005-S	TRMB05003-S	CONDUIT	23.4	3.9313
TRMB05006 0.0150	TRMB05006	TRMB05003	CONDUIT	254.7	0.5262
TRMB05006-S 0.0140	TRMB05006-S	TRMB05003-S	CONDUIT	254.7	0.8403
TRMB05008 0.0130	TRMB05008	TRMB05006	CONDUIT	143.5	2.0350
TRMB05008-S 0.0140	TRMB05008-S	TRMB05006-S	CONDUIT	143.5	-1.2403
TRMB05009_1 0.0150	TRMB05009	TRMB05009_DS	CONDUIT	111.0	1.0629
TRMB05009_1-S 0.0140	TRMB05009-S	TRMB05009_DS-S	CONDUIT	111.0	0.5314
TRMB05009_2 0.0150	TRMB05009_DS	TRMB05006	CONDUIT	288.9	1.0628
TRMB05009_2-S 0.0140	TRMB05009_DS-S	TRMB05006-S	CONDUIT	288.9	0.5400
TRMB05010 0.0130	TRMB05010	TRMB05006	CONDUIT	27.1	20.4438
TRMB05010-S 0.0140	TRMB05010-S	TRMB05006-S	CONDUIT	27.1	-0.4804
TRMB05011 0.0130	TRMB05011	TRMB05010	CONDUIT	23.6	3.0986
TRMB05011-S 0.0140	TRMB05011-S	TRMB05010-S	CONDUIT	23.6	2.4615
TRMB05012 0.0130	TRMB05012	TRMB05011	CONDUIT	28.8	-0.3467
TRMB05012-S 0.0140	TRMB05012-S	TRMB05011-S	CONDUIT	28.8	-0.3467
TRMB05013 0.0130	TRMB05013	TRMB05009	CONDUIT	5.1	121.2552
TRMB05013-S 0.0140	TRMB05013-S	TRMB05009-S	CONDUIT	5.1	-8.8232
TRMB05014 0.0130	TRMB05014	TRMB05009	CONDUIT	16.2	22.7773
TRMB05014-S 0.0140	TRMB05014-S	TRMB05009-S	CONDUIT	16.2	-1.8510
TRMB05015 0.0150	TRMB05015	TRMB05009	CONDUIT	253.6	0.4101
TRMB05015-S 0.0140	TRMB05015-S	TRMB05009-S	CONDUIT	253.6	1.2384
TRMB05016 0.0130	TRMB05016	TRMB05015	CONDUIT	21.9	20.2672
TRMB05016-S 0.0140	TRMB05016-S	TRMB05015-S	CONDUIT	21.9	-1.0935
TRMB05017 0.0150	TRMB05017	TRMB05015	CONDUIT	51.2	0.3517

## Future Conditions (10-Year)

TRMB05017-S 0.0140	TRMB05017-S	TRMB05015-S	CONDUIT	51.2	2.0129
TRMB05018 0.0150	TRMB05018	TRMB05015	CONDUIT	19.6	22.4197
TRMB05018-S 0.0140	TRMB05018-S	TRMB05015-S	CONDUIT	19.6	-0.8159
TRMB05019 0.0130	TRMB05019	TRMB05016	CONDUIT	9.6	2.1835
TRMB05019-S 0.0140	TRMB05019-S	TRMB05016-S	CONDUIT	9.6	-3.0159
TRMB05020 0.0150	TRMB05020	TRMB05016	CONDUIT	17.5	2.1172
TRMB05020-S 0.0140	TRMB05020-S	TRMB05016-S	CONDUIT	17.5	-0.7437
TRMB05021 0.0130	TRMB05021	TRMB05019	CONDUIT	115.6	0.7354
TRMB05021-S 0.0140	TRMB05021-S	TRMB05019-S	CONDUIT	115.6	0.4759
TRMB05022 0.0150	TRMB05022	TRMB05018	CONDUIT	11.0	-2.1843
TRMB05022-S 0.0140	TRMB05022-S	TRMB05018-S	CONDUIT	11.0	-0.8190
TRMB05023 0.0150	TRMB05023	TRMB05022	CONDUIT	232.1	0.5645
TRMB05023-S 0.0140	TRMB05023-S	TRMB05022-S	CONDUIT	232.1	-1.2886
TRMB05025 0.0130	TRMB05025	TRMB05017	CONDUIT	10.8	84.3531
TRMB05025-S 0.0140	TRMB05025-S	TRMB05017-S	CONDUIT	10.8	-4.4447
TRMB05026 0.0130	TRMB05026	TRMB05043	CONDUIT	20.4	18.3123
TRMB05026-S 0.0140	TRMB05026-S	TRMB05043-S	CONDUIT	20.4	-0.7832
TRMB05027 0.0130	TRMB05027	TRMB05017	CONDUIT	13.0	57.3219
TRMB05027-S 0.0140	TRMB05027-S	TRMB05017-S	CONDUIT	13.0	-7.2441
TRMB05028 0.0130	TRMB05028	TRMB05021	CONDUIT	100.2	0.4692
TRMB05028-S 0.0140	TRMB05028-S	TRMB05021-S	CONDUIT	100.2	0.7687
TRMB05029 0.0130	TRMB05029	TRMB05021	CONDUIT	21.5	0.6964
TRMB05029-S 0.0140	TRMB05029-S	TRMB05021-S	CONDUIT	21.5	0.6964
TRMB05030 0.0130	TRMB05030	TRMB05028	CONDUIT	17.0	2.9355
TRMB05030-S 0.0140	TRMB05030-S	TRMB05028-S	CONDUIT	17.0	-1.4673
TRMB05031 0.0130	TRMB05031	TRMB05028	CONDUIT	37.1	3.6643
TRMB05031-S 0.0140	TRMB05031-S	TRMB05028-S	CONDUIT	37.1	-0.3231
TRMB05032 0.0130	TRMB05032	TRMB05028	CONDUIT	38.7	2.6359
TRMB05032-S 0.0140	TRMB05032-S	TRMB05028-S	CONDUIT	38.7	-0.2067
TRMB05033 0.0130	TRMB05033	TRMB05030	CONDUIT	21.9	0.0046
TRMB05033-S 0.0140	TRMB05033-S	TRMB05030-S	CONDUIT	21.9	0.0046

## Future Conditions (10-Year)

TRMB05034 0.0130	TRMB05034	TRMB05032	CONDUIT	21.7	0.6903
TRMB05034-S 0.0140	TRMB05034-S	TRMB05032-S	CONDUIT	21.7	0.6903
TRMB05035 0.0150	TRMB05035	TRMB05040	CONDUIT	16.2	24.8548
TRMB05035-S 0.0140	TRMB05035-S	TRMB05040-S	CONDUIT	16.2	-0.2468
TRMB05036 0.0130	TRMB05036	TRMB05035	CONDUIT	42.8	0.9344
TRMB05036-S 0.0140	TRMB05036-S	TRMB05035-S	CONDUIT	42.8	-0.8176
TRMB05037 0.0130	TRMB05037	TRMB05036	CONDUIT	21.3	3.9994
TRMB05037-S 0.0140	TRMB05037-S	TRMB05036-S	CONDUIT	21.3	0.9403
TRMB05038 0.0130	TRMB05038	TRMB05035	CONDUIT	41.3	1.4522
TRMB05038-S 0.0140	TRMB05038-S	TRMB05035-S	CONDUIT	41.3	-0.3630
TRMB05039 0.0130	TRMB05039	TRMB05038	CONDUIT	25.0	0.5993
TRMB05039-S 0.0140	TRMB05039-S	TRMB05038-S	CONDUIT	25.0	-0.7192
TRMB05040 0.0150	TRMB05040	TRMB05041	CONDUIT	280.1	0.6927
TRMB05040-S 0.0140	TRMB05040-S	TRMB05041-S	CONDUIT	280.1	1.2997
TRMB05041 0.0150	TRMB05041	TRMB05045	CONDUIT	31.1	0.7074
TRMB05041-S 0.0140	TRMB05041-S	TRMB05045-S	CONDUIT	31.1	-0.7396
TRMB05042 0.0130	TRMB05042	TRMB05026	CONDUIT	27.0	-1.3335
TRMB05042-S 0.0140	TRMB05042-S	TRMB05026-S	CONDUIT	27.0	-1.3335
TRMB05044 0.0130	TRMB05044	TRMB05045	CONDUIT	116.6	0.7635
TRMB05044-S 0.0140	TRMB05044-S	TRMB05045-S	CONDUIT	116.6	-1.1668
TRMB05045 0.0150	TRMB05045	TRMB05046	CONDUIT	298.8	1.1414
TRMB05045-S 0.0140	TRMB05045-S	TRMB05046-S	CONDUIT	298.8	1.6101
TRMB05046 0.0150	TRMB05046	TRMB05048	CONDUIT	11.9	3.7779
TRMB05046-S 0.0140	TRMB05046-S	TRMB05048-S	CONDUIT	11.9	-5.1242
TRMB05048 0.0150	TRMB05048	TRMB05047	CONDUIT	34.7	3.7512
CountrySideE_Ditch_Culvert_In-IC CountrySideE_Ditch_Culvert_In-S					
CountrySideE_Ditch_Culvert_In OUTLET					
JMTB01003-IC	JMTB01003-S	JMTB01003	OUTLET		
JMTB01004-IC	JMTB01004-S	JMTB01004	OUTLET		
JMTB01005-IC	JMTB01005-S	JMTB01005	OUTLET		
JMTB01006-IC	JMTB01006-S	JMTB01006	OUTLET		
JMTB01102-IC	JMTB01102-S	JMTB01102	OUTLET		
JMTB01103-IC	JMTB01103-S	JMTB01103	OUTLET		
JMTB01104-IC	JMTB01104-S	JMTB01104	OUTLET		
JMTB01105-IC	JMTB01105-S	JMTB01105	OUTLET		
PCTB01068_US-IC	PCTB01068_US-S	PCTB01068_US	OUTLET		
PCTB01068-IC	PCTB01068-S	PCTB01068	OUTLET		

## Future Conditions (10-Year)

PCTB02001-IC	PCTB02001-S	PCTB02001	OUTLET
PCTB02002-IC	PCTB02002-S	PCTB02002	OUTLET
PCTB02003-IC	PCTB02003-S	PCTB02003	OUTLET
PCTB02004-IC	PCTB02004-S	PCTB02004	OUTLET
PCTB02011-IC	PCTB02011-S	PCTB02011	OUTLET
PCTB02012-IC	PCTB02012-S	PCTB02012	OUTLET
PCTB02014-IC	PCTB02014-S	PCTB02014	OUTLET
PCTB02015-IC	PCTB02015-S	PCTB02015	OUTLET
PCTB02016-IC	PCTB02016-S	PCTB02016	OUTLET
PCTB02017-IC	PCTB02017-S	PCTB02017	OUTLET
PCTB02022-IC	PCTB02022-S	PCTB02022	OUTLET
PCTB02023-IC	PCTB02023-S	PCTB02023	OUTLET
PCTB02189-IC	PCTB02189-S	PCTB02189	OUTLET
PCTB02191_DS-IC	PCTB02191_DS-S	PCTB02191_DS	OUTLET
PCTB02191-IC	PCTB02191-S	PCTB02191	OUTLET
PCTB02207-IC	PCTB02207-S	PCTB02207	OUTLET
PCTB02209-IC	PCTB02209-S	PCTB02209	OUTLET
PCTB02229-IC	PCTB02229-S	PCTB02229	OUTLET
PCTB02231-IC	PCTB02231-S	PCTB02231	OUTLET
PCTB02235-IC	PCTB02235-S	PCTB02235	OUTLET
PCTB02237-IC	PCTB02237-S	PCTB02237	OUTLET
PCTB02257_1-IC	PCTB02257_1-S	PCTB02257_1	OUTLET
PCTB02257-IC	PCTB02257-S	PCTB02257	OUTLET
PCTB02260-IC	PCTB02260-S	PCTB02260	OUTLET
PCTB02262-IC	PCTB02262-S	PCTB02262	OUTLET
PCTB02275-IC	PCTB02275-S	PCTB02275	OUTLET
PCTB02276-IC	PCTB02276-S	PCTB02276	OUTLET
PCTB02278-IC	PCTB02278-S	PCTB02278	OUTLET
PCTB02280-IC	PCTB02280-S	PCTB02280	OUTLET
PCTB02281-IC	PCTB02281-S	PCTB02281	OUTLET
PCTB02282-IC	PCTB02282-S	PCTB02282	OUTLET
PCTB02283-IC	PCTB02283-S	PCTB02283	OUTLET
PCTB02284-IC	PCTB02284-S	PCTB02284	OUTLET
PCTB02292-IC	PCTB02292-S	PCTB02292	OUTLET
PCTB02294-IC	PCTB02294-S	PCTB02294	OUTLET
PCTB02295-IC	PCTB02295-S	PCTB02295	OUTLET
PCTB02297-IC	PCTB02297-S	PCTB02297	OUTLET
PCTB02302-IC	PCTB02302-S	PCTB02302	OUTLET
PCTB02303-IC	PCTB02303-S	PCTB02303	OUTLET
PCTB02304-IC	PCTB02304-S	PCTB02304	OUTLET
PCTB02312-IC	PCTB02312-S	PCTB02312	OUTLET
PCTB02329-IC	PCTB02329-S	PCTB02329	OUTLET
PCTB02330-IC	PCTB02330-S	PCTB02330	OUTLET
PCTB02331-IC	PCTB02331-S	PCTB02331	OUTLET
PCTB02332-IC	PCTB02332-S	PCTB02332	OUTLET
TRMB02002-IC	TRMB02002-S	TRMB02002	OUTLET
TRMB02003-IC	TRMB02003-S	TRMB02003	OUTLET
TRMB02006-IC	TRMB02006-S	TRMB02006	OUTLET
TRMB02009-IC	TRMB02009-S	TRMB02009	OUTLET
TRMB02012-IC	TRMB02012-S	TRMB02012	OUTLET
TRMB02015-IC	TRMB02015-S	TRMB02015	OUTLET
TRMB02016-IC	TRMB02016-S	TRMB02016	OUTLET
TRMB02018-IC	TRMB02018-S	TRMB02018	OUTLET
TRMB02022-IC	TRMB02022-S	TRMB02022	OUTLET
TRMB02023-IC	TRMB02023-S	TRMB02023	OUTLET
TRMB02030-IC	TRMB02030-S	TRMB02030	OUTLET
TRMB02032-IC	TRMB02032-S	TRMB02032	OUTLET
TRMB02033-IC	TRMB02033-S	TRMB02033	OUTLET
TRMB02034-IC	TRMB02034-S	TRMB02034	OUTLET
TRMB02035-IC	TRMB02035-S	TRMB02035	OUTLET
TRMB02044_DS-IC	TRMB02044_DS-S	TRMB02044_DS	OUTLET
TRMB02044-IC	TRMB02044-S	TRMB02044	OUTLET

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TRMB02045-IC	TRMB02045-S	TRMB02045	OUTLET
TRMB02046-IC	TRMB02046-S	TRMB02046	OUTLET
TRMB02047-IC	TRMB02047-S	TRMB02047	OUTLET
TRMB02048-IC	TRMB02048-S	TRMB02048	OUTLET
TRMB02049-IC	TRMB02049-S	TRMB02049	OUTLET
TRMB02050-IC	TRMB02050-S	TRMB02050	OUTLET
TRMB02051-IC	TRMB02051-S	TRMB02051	OUTLET
TRMB02052-IC	TRMB02052-S	TRMB02052	OUTLET
TRMB02056-IC	TRMB02056-S	TRMB02056	OUTLET
TRMB02057-IC	TRMB02057-S	TRMB02057	OUTLET
TRMB02060-IC	TRMB02060-S	TRMB02060	OUTLET
TRMB02063-IC	TRMB02063-S	TRMB02063	OUTLET
TRMB02064-IC	TRMB02064-S	TRMB02064	OUTLET
TRMB02067-IC	TRMB02067-S	TRMB02067	OUTLET
TRMB02068-IC	TRMB02068-S	TRMB02068	OUTLET
TRMB02069-IC	TRMB02069-S	TRMB02069	OUTLET
TRMB02070-IC	TRMB02070-S	TRMB02070	OUTLET
TRMB03016-IC	TRMB03016-S	TRMB03016	OUTLET
TRMB03022-IC	TRMB03022-S	TRMB03022	OUTLET
TRMB03025-IC	TRMB03025-S	TRMB03025	OUTLET
TRMB03028-IC	TRMB03028-S	TRMB03028	OUTLET
TRMB03029-IC	TRMB03029-S	TRMB03029	OUTLET
TRMB03030-IC	TRMB03030-S	TRMB03030	OUTLET
TRMB03031-IC	TRMB03031-S	TRMB03031	OUTLET
TRMB03032-IC	TRMB03032-S	TRMB03032	OUTLET
TRMB03033-IC	TRMB03033-S	TRMB03033	OUTLET
TRMB03034-IC	TRMB03034-S	TRMB03034	OUTLET
TRMB03035-IC	TRMB03035-S	TRMB03035	OUTLET
TRMB03036-IC	TRMB03036-S	TRMB03036	OUTLET
TRMB03037-IC	TRMB03037-S	TRMB03037	OUTLET
TRMB03038-IC	TRMB03038-S	TRMB03038	OUTLET
TRMB03039-IC	TRMB03039-S	TRMB03039	OUTLET
TRMB03042-IC	TRMB03042-S	TRMB03042	OUTLET
TRMB03043-IC	TRMB03043-S	TRMB03043	OUTLET
TRMB03044-IC	TRMB03044-S	TRMB03044	OUTLET
TRMB03049-IC	TRMB03049-S	TRMB03049	OUTLET
TRMB03051-IC	TRMB03051-S	TRMB03051	OUTLET
TRMB03052-IC	TRMB03052-S	TRMB03052	OUTLET
TRMB03054-IC	TRMB03054-S	TRMB03054	OUTLET
TRMB03055-IC	TRMB03055-S	TRMB03055	OUTLET
TRMB03063-IC	TRMB03063-S	TRMB03063	OUTLET
TRMB03065-IC	TRMB03065-S	TRMB03065	OUTLET
TRMB03067-IC	TRMB03067-S	TRMB03067	OUTLET
TRMB03068-IC	TRMB03068-S	TRMB03068	OUTLET
TRMB03069-IC	TRMB03069-S	TRMB03069	OUTLET
TRMB03070-IC	TRMB03070-S	TRMB03070	OUTLET
TRMB03072-IC	TRMB03072-S	TRMB03072	OUTLET
TRMB03073-IC	TRMB03073-S	TRMB03073	OUTLET
TRMB03083-IC	TRMB03083-S	TRMB03083	OUTLET
TRMB03084-IC	TRMB03084-S	TRMB03084	OUTLET
TRMB03087-IC	TRMB03087-S	TRMB03087	OUTLET
TRMB03088-IC	TRMB03088-S	TRMB03088	OUTLET
TRMB03089-IC	TRMB03089-S	TRMB03089	OUTLET
TRMB03090-IC	TRMB03090-S	TRMB03090	OUTLET
TRMB03091-IC	TRMB03091-S	TRMB03091	OUTLET
TRMB03092-IC	TRMB03092-S	TRMB03092	OUTLET
TRMB03094-IC	TRMB03094-S	TRMB03094	OUTLET
TRMB03095-IC	TRMB03095-S	TRMB03095	OUTLET
TRMB03096-IC	TRMB03096-S	TRMB03096	OUTLET
TRMB03097-IC	TRMB03097-S	TRMB03097	OUTLET
TRMB03101-IC	TRMB03101-S	TRMB03101	OUTLET
TRMB03102-IC	TRMB03102-S	TRMB03102	OUTLET



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TRMB03103-IC	TRMB03103-S	TRMB03103	OUTLET
TRMB03111-IC	TRMB03111-S	TRMB03111	OUTLET
TRMB03132-IC	TRMB03132-S	TRMB03132	OUTLET
TRMB04089-IC	TRMB04089-S	TRMB04089	OUTLET
TRMB05002-IC	TRMB05002-S	TRMB05002	OUTLET
TRMB05003-IC	TRMB05003-S	TRMB05003	OUTLET
TRMB05004-IC	TRMB05004-S	TRMB05004	OUTLET
TRMB05005-IC	TRMB05005-S	TRMB05005	OUTLET
TRMB05006-IC	TRMB05006-S	TRMB05006	OUTLET
TRMB05008-IC	TRMB05008-S	TRMB05008	OUTLET
TRMB05009_DS-IC	TRMB05009_DS-S	TRMB05009_DS	OUTLET
TRMB05009-IC	TRMB05009-S	TRMB05009	OUTLET
TRMB05010-IC	TRMB05010-S	TRMB05010	OUTLET
TRMB05011-IC	TRMB05011-S	TRMB05011	OUTLET
TRMB05012-IC	TRMB05012-S	TRMB05012	OUTLET
TRMB05013-IC	TRMB05013-S	TRMB05013	OUTLET
TRMB05014-IC	TRMB05014-S	TRMB05014	OUTLET
TRMB05015-IC	TRMB05015-S	TRMB05015	OUTLET
TRMB05016-IC	TRMB05016-S	TRMB05016	OUTLET
TRMB05017_US-IC	TRMB05017_US-S	TRMB05017_US	OUTLET
TRMB05017-IC	TRMB05017-S	TRMB05017	OUTLET
TRMB05018-IC	TRMB05018-S	TRMB05018	OUTLET
TRMB05019-IC	TRMB05019-S	TRMB05019	OUTLET
TRMB05020-IC	TRMB05020-S	TRMB05020	OUTLET
TRMB05021-IC	TRMB05021-S	TRMB05021	OUTLET
TRMB05022-IC	TRMB05022-S	TRMB05022	OUTLET
TRMB05023-IC	TRMB05023-S	TRMB05023	OUTLET
TRMB05025-IC	TRMB05025-S	TRMB05025	OUTLET
TRMB05026-IC	TRMB05026-S	TRMB05026	OUTLET
TRMB05027-IC	TRMB05027-S	TRMB05027	OUTLET
TRMB05028-IC	TRMB05028-S	TRMB05028	OUTLET
TRMB05029-IC	TRMB05029-S	TRMB05029	OUTLET
TRMB05030-IC	TRMB05030-S	TRMB05030	OUTLET
TRMB05031-IC	TRMB05031-S	TRMB05031	OUTLET
TRMB05032-IC	TRMB05032-S	TRMB05032	OUTLET
TRMB05033-IC	TRMB05033-S	TRMB05033	OUTLET
TRMB05034-IC	TRMB05034-S	TRMB05034	OUTLET
TRMB05035-IC	TRMB05035-S	TRMB05035	OUTLET
TRMB05036-IC	TRMB05036-S	TRMB05036	OUTLET
TRMB05037-IC	TRMB05037-S	TRMB05037	OUTLET
TRMB05038-IC	TRMB05038-S	TRMB05038	OUTLET
TRMB05039-IC	TRMB05039-S	TRMB05039	OUTLET
TRMB05040-IC	TRMB05040-S	TRMB05040	OUTLET
TRMB05041-IC	TRMB05041-S	TRMB05041	OUTLET
TRMB05042-IC	TRMB05042-S	TRMB05042	OUTLET
TRMB05043-IC	TRMB05043-S	TRMB05043	OUTLET
TRMB05044-IC	TRMB05044-S	TRMB05044	OUTLET
TRMB05045-IC	TRMB05045-S	TRMB05045	OUTLET
TRMB05046-IC	TRMB05046-S	TRMB05046	OUTLET
TRMB05048-IC	TRMB05048-S	TRMB05048	OUTLET

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 Cross Section Summary  
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Full		Full	Full	Hyd.	Max.	No. of
Conduit	Shape	Depth	Area	Rad.	Width	Barrels
Flow						

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## Future Conditions (10-Year)

C1	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
2231.53						
C14	PARABOLIC	1.50	1.50	0.43	1.50	1
4.99						
C2_1	CIRCULAR	2.50	4.91	0.63	2.50	1
86.08						
C2_1-S	Transect1	0.75	21.13	0.48	55.00	1
272.36						
C2_2	TRAPEZOIDAL	7.50	225.00	4.64	45.00	1
875.98						
C3	Transect1	0.75	21.13	0.48	55.00	1
126.19						
C9	CIRCULAR	1.25	1.23	0.31	1.25	1
23.98						
C9-S	Transect1	0.75	21.13	0.48	55.00	1
516.16						
CountrySideE_Ditch	TRAPEZOIDAL	2.00	8.00	1.04	6.00	1
17.44						
CountrySideE_Ditch_Culvert	CIRCULAR		4.00	12.57	1.00	4.00
2						
46.76						
CountrySideE_Ditch_Culvert-S	Transect1		0.75	21.13	0.48	55.00
1						
98.63						
JMTB01003	CIRCULAR	2.00	3.14	0.50	2.00	1
14.49						
JMTB01003-S	Transect1	0.75	21.13	0.48	55.00	1
342.19						
JMTB01004	CIRCULAR	1.50	1.77	0.38	1.50	1
7.73						
JMTB01004-S	Transect1	0.75	21.13	0.48	55.00	1
122.05						
JMTB01005	CIRCULAR	1.75	2.41	0.44	1.75	1
7.17						
JMTB01005-S	Transect1	0.75	21.13	0.48	55.00	1
65.31						
JMTB01102	CIRCULAR	2.00	3.14	0.50	2.00	1
20.68						
JMTB01102-S	Transect1	0.75	21.13	0.48	55.00	1
219.17						
JMTB01103	CIRCULAR	2.00	3.14	0.50	2.00	1
11.01						
JMTB01103_1	PARABOLIC	2.50	6.67	0.99	4.00	1
28.68						
JMTB01103-S	Transect1	0.75	21.13	0.48	55.00	1
143.11						
JMTB01104	CIRCULAR	1.25	1.23	0.31	1.25	1
6.42						
JMTB01104-S	Transect1	0.75	21.13	0.48	55.00	1
123.66						
PCTB01068	CIRCULAR	3.00	7.07	0.75	3.00	2
29.89						
PCTB01068_US	CIRCULAR	3.00	7.07	0.75	3.00	1
31.38						
PCTB01068_US-S	Transect1	0.75	21.13	0.48	55.00	1
22.83						
PCTB02001	TRAPEZOIDAL	2.10	64.05	1.55	41.00	1
188.37						
PCTB02002	CIRCULAR	2.00	3.14	0.50	2.00	1
14.93						
PCTB02002-S	Transect1	0.75	21.13	0.48	55.00	1
185.94						
PCTB02003	CIRCULAR	2.00	3.14	0.50	2.00	1
10.40						

## Future Conditions (10-Year)

73.44	PCTB02003-S	Transect1	0.75	21.13	0.48	55.00	1
22.17	PCTB02008	CIRCULAR	3.00	7.07	0.75	3.00	2
131.68	PCTB02011	CIRCULAR	4.00	12.57	1.00	4.00	1
128.84	PCTB02011_1	TRAPEZOIDAL	3.50	38.47	2.18	14.98	1
216.69	PCTB02011-S	Transect1	0.75	21.13	0.48	55.00	1
65.39	PCTB02014	CIRCULAR	3.00	7.07	0.75	3.00	1
142.27	PCTB02014_1	TRAPEZOIDAL	3.50	35.02	2.03	15.01	1
167.20	PCTB02014-S	Transect1	0.75	21.13	0.48	55.00	1
7.89	PCTB02016	CIRCULAR	1.50	1.77	0.38	1.50	1
24.49	PCTB02016-S	Transect1	0.75	21.13	0.48	55.00	1
31.64	PCTB02020	TRAPEZOIDAL	1.00	12.50	0.81	15.00	1
5.15	PCTB02021	TRAPEZOIDAL	1.00	7.50	0.72	10.00	1
1.69	PCTB02022	CIRCULAR	1.25	1.23	0.31	1.25	1
48.25	PCTB02022-S	Transect1	0.75	21.13	0.48	55.00	1
3.13	PCTB02023	CIRCULAR	1.50	1.77	0.38	1.50	1
119.59	PCTB02023-S	Transect1	0.75	21.13	0.48	55.00	1
2537.96	PCTB02076	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
21.94	PCTB02080	HORIZ_ELLIPSE	6.70	56.97	2.05	8.00	1
456.69	PCTB02160	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
3971.77	PCTB02172	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
29.03	PCTB02189	CIRCULAR	2.50	4.91	0.63	2.50	1
79.29	PCTB02189-S	Transect1	0.75	21.13	0.48	55.00	1
86.15	PCTB02208	CIRCULAR	4.00	12.57	1.00	4.00	1
95.77	PCTB02208-S	Transect1	0.75	21.13	0.48	55.00	1
34.75	PCTB02231	CIRCULAR	4.00	12.57	1.00	4.00	2
43.58	PCTB02231-S	Transect1	0.75	21.13	0.48	55.00	1
56.05	PCTB02237	CIRCULAR	4.00	12.57	1.00	4.00	2
62.65	PCTB02237-S	Transect1	0.75	21.13	0.48	55.00	1
571.89	PCTB02239	TRIANGULAR	3.50	43.75	1.69	25.00	1
644.39	PCTB02240	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
192.32	PCTB02259_1	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1

## Future Conditions (10-Year)

PCTB02259_2 422.62	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
PCTB02260 47.36	CIRCULAR	4.00	12.57	1.00	4.00	2
PCTB02260-S 64.48	Transect1	0.75	21.13	0.48	55.00	1
PCTB02264 834.98	TRAPEZOIDAL	4.00	140.00	2.74	50.00	1
PCTB02274 539.91	PARABOLIC	4.00	53.33	2.43	20.00	1
PCTB02275 52.42	CIRCULAR	3.50	9.62	0.88	3.50	1
PCTB02275-S 305.25	Transect1	0.75	21.13	0.48	55.00	1
PCTB02276 9.47	CIRCULAR	3.50	9.62	0.88	3.50	1
PCTB02276-S 42.91	Transect1	0.75	21.13	0.48	55.00	1
PCTB02278 13.28	CIRCULAR	2.00	3.14	0.50	2.00	1
PCTB02278-S 134.35	Transect1	0.75	21.13	0.48	55.00	1
PCTB02279 721.01	TRAPEZOIDAL	4.00	72.00	2.30	30.00	1
PCTB02280 5.02	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02280-S 73.87	Transect1	0.75	21.13	0.48	55.00	1
PCTB02281 6.77	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02281-S 121.65	Transect1	0.75	21.13	0.48	55.00	1
PCTB02282 6.40	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02282-S 153.84	Transect1	0.75	21.13	0.48	55.00	1
PCTB02283 4.26	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02283-S 345.17	Transect1	0.75	21.13	0.48	55.00	1
PCTB02284 4.28	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02284-S 101.04	Transect1	0.75	21.13	0.48	55.00	1
PCTB02292 618.28	TRAPEZOIDAL	7.50	176.06	4.47	34.95	1
PCTB02294 235.10	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02294-S 144.14	Transect1	0.75	21.13	0.48	55.00	1
PCTB02295 700.47	TRAPEZOIDAL	10.00	200.00	5.35	25.00	1
PCTB02297 3.24	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02297-S 45.68	Transect1	0.75	21.13	0.48	55.00	1
PCTB02299 2528.04	TRAPEZOIDAL	9.00	162.18	4.79	25.04	1
PCTB02300 3361.85	TRAPEZOIDAL	9.00	202.47	5.27	29.99	1
PCTB02301 267.24	TRAPEZOIDAL	5.00	35.00	2.23	10.00	1

## Future Conditions (10-Year)

PCTB02302 476.90	TRAPEZOIDAL	6.00	135.60	3.58	35.20	1
PCTB02303 155.43	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02303-S 287.52	Transect1	0.75	21.13	0.48	55.00	1
PCTB02304 254.90	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02304-S 410.56	Transect1	0.75	21.13	0.48	55.00	1
PCTB02312 691.12	TRAPEZOIDAL	6.00	150.00	3.55	40.00	1
PCTB02329 2.63	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02329-S 116.57	Transect1	0.75	21.13	0.48	55.00	1
PCTB02330 3.19	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02330-S 105.59	Transect1	0.75	21.13	0.48	55.00	1
PCTB02331 0.94	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02331-S 79.91	Transect1	0.75	21.13	0.48	55.00	1
TRMB02002 102.58	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02003 158.87	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02003-S 444.01	Transect1	0.75	21.13	0.48	55.00	1
TRMB02006 42.79	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02006-S 160.65	Transect1	0.75	21.13	0.48	55.00	1
TRMB02009 67.77	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02009-S 267.62	Transect1	0.75	21.13	0.48	55.00	1
TRMB02012 37.10	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02012-S 13.68	Transect1	0.75	21.13	0.48	55.00	1
TRMB02015 32.63	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02015-S 131.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB02016 21.02	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB02016-S 77.14	Transect1	0.75	21.13	0.48	55.00	1
TRMB02018 13.96	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02018-S 137.42	Transect1	0.75	21.13	0.48	55.00	1
TRMB02022 12.28	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02022-S 29.39	Transect1	0.75	21.13	0.48	55.00	1
TRMB02023 21.63	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02023-S 70.18	Transect1	0.75	21.13	0.48	55.00	1

## Future Conditions (10-Year)

10.00	TRMB02030	CIRCULAR	1.50	1.77	0.38	1.50	1
27.74	TRMB02030-S	Transect1	0.75	21.13	0.48	55.00	1
9.19	TRMB02032	CIRCULAR	1.50	1.77	0.38	1.50	1
175.71	TRMB02032-S	Transect1	0.75	21.13	0.48	55.00	1
16.60	TRMB02033	CIRCULAR	1.50	1.77	0.38	1.50	1
60.66	TRMB02033-S	Transect1	0.75	21.13	0.48	55.00	1
4.83	TRMB02034	CIRCULAR	1.00	0.79	0.25	1.00	1
135.50	TRMB02034-S	Transect1	0.75	21.13	0.48	55.00	1
5.32	TRMB02035	CIRCULAR	1.00	0.79	0.25	1.00	1
161.99	TRMB02035-S	Transect1	0.75	21.13	0.48	55.00	1
22.09	TRMB02044_1	CIRCULAR	2.00	3.14	0.50	2.00	1
121.23	TRMB02044_1-S	Transect1	0.75	21.13	0.48	55.00	1
5.70	TRMB02044_2	CIRCULAR	2.00	3.14	0.50	2.00	1
139.71	TRMB02044_2-S	Transect1	0.75	21.13	0.48	55.00	1
13.74	TRMB02045	CIRCULAR	2.00	3.14	0.50	2.00	1
167.97	TRMB02045-S	Transect1	0.75	21.13	0.48	55.00	1
39.63	TRMB02046	CIRCULAR	1.50	1.77	0.38	1.50	1
114.86	TRMB02046-S	Transect1	0.75	21.13	0.48	55.00	1
18.84	TRMB02047	CIRCULAR	1.50	1.77	0.38	1.50	1
83.06	TRMB02047-S	Transect1	0.75	21.13	0.48	55.00	1
4.50	TRMB02048	CIRCULAR	1.00	0.79	0.25	1.00	1
206.84	TRMB02048-S	Transect1	0.75	21.13	0.48	55.00	1
4.40	TRMB02049	CIRCULAR	1.00	0.79	0.25	1.00	1
67.29	TRMB02049-S	Transect1	0.75	21.13	0.48	55.00	1
7.46	TRMB02050	CIRCULAR	2.00	3.14	0.50	2.00	1
148.87	TRMB02050-S	Transect1	0.75	21.13	0.48	55.00	1
7.42	TRMB02051	CIRCULAR	2.00	3.14	0.50	2.00	1
118.18	TRMB02051-S	Transect1	0.75	21.13	0.48	55.00	1
20.03	TRMB02052	CIRCULAR	2.00	3.14	0.50	2.00	1
96.87	TRMB02052-S	Transect1	0.75	21.13	0.48	55.00	1
20.01	TRMB02056	CIRCULAR	2.00	3.14	0.50	2.00	1

## Future Conditions (10-Year)

TRMB02056-S	Transect1	0.75	21.13	0.48	55.00	1
193.57						
TRMB02057	CIRCULAR	2.00	3.14	0.50	2.00	1
19.45						
TRMB02057-S	Transect1	0.75	21.13	0.48	55.00	1
123.46						
TRMB02060	CIRCULAR	2.00	3.14	0.50	2.00	1
18.96						
TRMB02060-S	Transect1	0.75	21.13	0.48	55.00	1
195.68						
TRMB02063	CIRCULAR	1.50	1.77	0.38	1.50	1
17.07						
TRMB02063-S	Transect1	0.75	21.13	0.48	55.00	1
144.70						
TRMB02064	CIRCULAR	1.50	1.77	0.38	1.50	1
8.75						
TRMB02064-S	Transect1	0.75	21.13	0.48	55.00	1
116.56						
TRMB02067	CIRCULAR	1.25	1.23	0.31	1.25	1
2.79						
TRMB02067-S	Transect1	0.75	21.13	0.48	55.00	1
163.36						
TRMB02068	CIRCULAR	1.25	1.23	0.31	1.25	1
4.45						
TRMB02068-S	Transect1	0.75	21.13	0.48	55.00	1
161.17						
TRMB02069	CIRCULAR	1.25	1.23	0.31	1.25	1
6.50						
TRMB02069-S	Transect1	0.75	21.13	0.48	55.00	1
178.71						
TRMB02070	CIRCULAR	1.25	1.23	0.31	1.25	1
4.21						
TRMB02070-S	Transect1	0.75	21.13	0.48	55.00	1
104.17						
TRMB03016	CIRCULAR	2.50	4.91	0.63	2.50	1
46.55						
TRMB03022	TRAPEZOIDAL	1.30	2.67	0.61	3.10	1
20.73						
TRMB03025	CIRCULAR	2.00	3.14	0.50	2.00	1
44.98						
TRMB03025-S	Transect1	0.75	21.13	0.48	55.00	1
496.49						
TRMB03026	CIRCULAR	1.00	0.79	0.25	1.00	1
15.18						
TRMB03027	CIRCULAR	1.00	0.79	0.25	1.00	1
3.72						
TRMB03028	CIRCULAR	2.00	3.14	0.50	2.00	1
4.47						
TRMB03028-S	Transect1	0.75	21.13	0.48	55.00	1
223.19						
TRMB03029	CIRCULAR	2.00	3.14	0.50	2.00	1
24.25						
TRMB03029-S	Transect1	0.75	21.13	0.48	55.00	1
145.37						
TRMB03030	CIRCULAR	2.00	3.14	0.50	2.00	1
21.63						
TRMB03030-S	Transect1	0.75	21.13	0.48	55.00	1
131.83						
TRMB03031	TRAPEZOIDAL	6.00	104.99	3.21	30.00	1
2547.14						
TRMB03032	CIRCULAR	2.00	3.14	0.50	2.00	1
19.94						

## Future Conditions (10-Year)

TRMB03032-S	Transect1	0.75	21.13	0.48	55.00	1
121.82						
TRMB03033	CIRCULAR	1.25	1.23	0.31	1.25	1
10.43						
TRMB03033-S	Transect1	0.75	21.13	0.48	55.00	1
198.53						
TRMB03034	CIRCULAR	1.00	0.79	0.25	1.00	1
6.28						
TRMB03034-S	Transect1	0.75	21.13	0.48	55.00	1
123.52						
TRMB03035	CIRCULAR	1.25	1.23	0.31	1.25	1
64.76						
TRMB03035-S	Transect1	0.75	21.13	0.48	55.00	1
18.11						
TRMB03036	CIRCULAR	2.00	3.14	0.50	2.00	1
13.42						
TRMB03036-S	Transect1	0.75	21.13	0.48	55.00	1
97.32						
TRMB03037	CIRCULAR	1.00	0.79	0.25	1.00	1
4.02						
TRMB03037-S	Transect1	0.75	21.13	0.48	55.00	1
135.68						
TRMB03038	CIRCULAR	1.00	0.79	0.25	1.00	1
13.65						
TRMB03038-S	Transect1	0.75	21.13	0.48	55.00	1
254.64						
TRMB03039	CIRCULAR	2.00	3.14	0.50	2.00	1
23.59						
TRMB03039-S	Transect1	0.75	21.13	0.48	55.00	1
89.57						
TRMB03042	CIRCULAR	1.25	1.23	0.31	1.25	1
11.51						
TRMB03042-S	Transect1	0.75	21.13	0.48	55.00	1
228.36						
TRMB03043	CIRCULAR	2.00	3.14	0.50	2.00	1
13.81						
TRMB03043-S	Transect1	0.75	21.13	0.48	55.00	1
97.64						
TRMB03044	CIRCULAR	1.50	1.77	0.38	1.50	1
12.37						
TRMB03044-S	Transect1	0.75	21.13	0.48	55.00	1
152.04						
TRMB03049	CIRCULAR	1.25	1.23	0.31	1.25	1
9.29						
TRMB03049-S	Transect1	0.75	21.13	0.48	55.00	1
278.13						
TRMB03051	CIRCULAR	2.00	3.14	0.50	2.00	1
53.17						
TRMB03051-S	Transect1	0.75	21.13	0.48	55.00	1
216.99						
TRMB03052	CIRCULAR	1.00	0.79	0.25	1.00	1
8.64						
TRMB03052-S	Transect1	0.75	21.13	0.48	55.00	1
120.68						
TRMB03054	CIRCULAR	2.00	3.14	0.50	2.00	1
5.51						
TRMB03054-S	Transect1	0.75	21.13	0.48	55.00	1
48.75						
TRMB03055	CIRCULAR	1.25	1.23	0.31	1.25	1
1.77						
TRMB03055-S	Transect1	0.75	21.13	0.48	55.00	1
26.06						



## Future Conditions (10-Year)

TRMB03063	CIRCULAR	1.50	1.77	0.38	1.50	1
10.65						
TRMB03063-S	Transect1	0.75	21.13	0.48	55.00	1
144.11						
TRMB03065	CIRCULAR	3.00	7.07	0.75	3.00	1
76.32						
TRMB03067	CIRCULAR	1.00	0.79	0.25	1.00	1
17.70						
TRMB03067-S	Transect1	0.75	21.13	0.48	55.00	1
443.26						
TRMB03068	CIRCULAR	1.50	1.77	0.38	1.50	1
25.52						
TRMB03068-S	Transect1	0.75	21.13	0.48	55.00	1
347.64						
TRMB03069	CIRCULAR	3.00	7.07	0.75	3.00	1
83.52						
TRMB03069-S	Transect1	0.75	21.13	0.48	55.00	1
102.80						
TRMB03070	CIRCULAR	3.00	7.07	0.75	3.00	1
81.31						
TRMB03070-S	Transect1	0.75	21.13	0.48	55.00	1
53.76						
TRMB03072	CIRCULAR	3.00	7.07	0.75	3.00	1
109.80						
TRMB03072-S	Transect1	0.75	21.13	0.48	55.00	1
249.36						
TRMB03073	CIRCULAR	1.25	1.23	0.31	1.25	1
18.02						
TRMB03073-S	Transect1	0.75	21.13	0.48	55.00	1
294.21						
TRMB03083	CIRCULAR	2.50	4.91	0.63	2.50	1
68.09						
TRMB03083-S	Transect1	0.75	21.13	0.48	55.00	1
185.20						
TRMB03084	CIRCULAR	1.50	1.77	0.38	1.50	1
4.94						
TRMB03084-S	Transect1	0.75	21.13	0.48	55.00	1
205.56						
TRMB03087	CIRCULAR	2.50	4.91	0.63	2.50	1
13.75						
TRMB03087-S	Transect1	0.75	21.13	0.48	55.00	1
205.26						
TRMB03088	CIRCULAR	3.00	7.07	0.75	3.00	1
81.45						
TRMB03088-S	Transect1	0.75	21.13	0.48	55.00	1
210.63						
TRMB03089	CIRCULAR	3.00	7.07	0.75	3.00	1
105.61						
TRMB03089-S	Transect1	0.75	21.13	0.48	55.00	1
37.95						
TRMB03090	CIRCULAR	3.00	7.07	0.75	3.00	1
73.99						
TRMB03090-S	Transect1	0.75	21.13	0.48	55.00	1
339.72						
TRMB03091	CIRCULAR	3.00	7.07	0.75	3.00	1
80.72						
TRMB03091-S	Transect1	0.75	21.13	0.48	55.00	1
211.36						
TRMB03092	CIRCULAR	1.25	1.23	0.31	1.25	1
16.34						
TRMB03092-S	Transect1	0.75	21.13	0.48	55.00	1
210.69						

## Future Conditions (10-Year)

TRMB03094	CIRCULAR	3.00	7.07	0.75	3.00	1
72.90						
TRMB03094-S	Transect1	0.75	21.13	0.48	55.00	1
142.50						
TRMB03095	CIRCULAR	1.25	1.23	0.31	1.25	1
39.30						
TRMB03095-S	Transect1	0.75	21.13	0.48	55.00	1
14.62						
TRMB03096	CIRCULAR	3.00	7.07	0.75	3.00	1
28.25						
TRMB03096-S	Transect1	0.75	21.13	0.48	55.00	1
331.55						
TRMB03097	CIRCULAR	1.25	1.23	0.31	1.25	1
15.39						
TRMB03097-S	Transect1	0.75	21.13	0.48	55.00	1
304.83						
TRMB03101	CIRCULAR	1.50	1.77	0.38	1.50	1
69.49						
TRMB03101-S	Transect1	0.75	21.13	0.48	55.00	1
385.64						
TRMB03102	CIRCULAR	3.00	7.07	0.75	3.00	1
88.49						
TRMB03102-S	Transect1	0.75	21.13	0.48	55.00	1
229.99						
TRMB03103	CIRCULAR	3.00	7.07	0.75	3.00	1
114.19						
TRMB03103-S	Transect1	0.75	21.13	0.48	55.00	1
259.09						
TRMB03111	CIRCULAR	2.00	3.14	0.50	2.00	1
39.07						
TRMB03111-S	Transect1	0.75	21.13	0.48	55.00	1
176.15						
TRMB03132	CIRCULAR	1.50	1.77	0.38	1.50	1
14.93						
TRMB03132-S	Transect1	0.75	21.13	0.48	55.00	1
271.42						
TRMB04089_1	CIRCULAR	3.50	9.62	0.88	3.50	1
47.19						
TRMB04089_1-S	Transect1	0.75	21.13	0.48	55.00	1
128.01						
TRMB04089_2	CIRCULAR	3.50	9.62	0.88	3.50	1
47.04						
TRMB04089_2-S	Transect1	0.75	21.13	0.48	55.00	1
127.78						
TRMB05002	CIRCULAR	3.50	9.62	0.88	3.50	1
487.84						
TRMB05003	CIRCULAR	3.50	9.62	0.88	3.50	1
105.49						
TRMB05003-S	Transect1	0.75	21.13	0.48	55.00	1
273.49						
TRMB05004	CIRCULAR	1.25	1.23	0.31	1.25	1
7.84						
TRMB05004-S	Transect1	0.75	21.13	0.48	55.00	1
509.74						
TRMB05005	CIRCULAR	1.25	1.23	0.31	1.25	1
10.17						
TRMB05005-S	Transect1	0.75	21.13	0.48	55.00	1
274.39						
TRMB05006	CIRCULAR	3.50	9.62	0.88	3.50	1
63.25						
TRMB05006-S	Transect1	0.75	21.13	0.48	55.00	1
126.86						

## Future Conditions (10-Year)

TRMB05008	CIRCULAR	1.25	1.23	0.31	1.25	1
9.22						
TRMB05008-S	Transect1	0.75	21.13	0.48	55.00	1
154.13						
TRMB05009_1	CIRCULAR	3.50	9.62	0.88	3.50	1
89.90						
TRMB05009_1-S	Transect1	0.75	21.13	0.48	55.00	1
100.89						
TRMB05009_2	CIRCULAR	3.50	9.62	0.88	3.50	1
89.89						
TRMB05009_2-S	Transect1	0.75	21.13	0.48	55.00	1
101.70						
TRMB05010	CIRCULAR	2.00	3.14	0.50	2.00	1
102.29						
TRMB05010-S	Transect1	0.75	21.13	0.48	55.00	1
95.92						
TRMB05011	CIRCULAR	2.00	3.14	0.50	2.00	1
39.82						
TRMB05011-S	Transect1	0.75	21.13	0.48	55.00	1
217.12						
TRMB05012	CIRCULAR	1.25	1.23	0.31	1.25	1
3.80						
TRMB05012-S	Transect1	0.75	21.13	0.48	55.00	1
81.49						
TRMB05013	CIRCULAR	1.25	1.23	0.31	1.25	1
71.13						
TRMB05013-S	Transect1	0.75	21.13	0.48	55.00	1
411.07						
TRMB05014	CIRCULAR	1.25	1.23	0.31	1.25	1
30.83						
TRMB05014-S	Transect1	0.75	21.13	0.48	55.00	1
188.28						
TRMB05015	CIRCULAR	3.50	9.62	0.88	3.50	1
55.84						
TRMB05015-S	Transect1	0.75	21.13	0.48	55.00	1
154.01						
TRMB05016	CIRCULAR	1.50	1.77	0.38	1.50	1
47.29						
TRMB05016-S	Transect1	0.75	21.13	0.48	55.00	1
144.71						
TRMB05017	CIRCULAR	3.50	9.62	0.88	3.50	1
51.71						
TRMB05017-S	Transect1	0.75	21.13	0.48	55.00	1
196.34						
TRMB05018	CIRCULAR	1.25	1.23	0.31	1.25	1
26.51						
TRMB05018-S	Transect1	0.75	21.13	0.48	55.00	1
125.01						
TRMB05019	CIRCULAR	1.50	1.77	0.38	1.50	1
15.52						
TRMB05019-S	Transect1	0.75	21.13	0.48	55.00	1
240.33						
TRMB05020	CIRCULAR	1.25	1.23	0.31	1.25	1
8.15						
TRMB05020-S	Transect1	0.75	21.13	0.48	55.00	1
119.35						
TRMB05021	CIRCULAR	1.50	1.77	0.38	1.50	1
9.01						
TRMB05021-S	Transect1	0.75	21.13	0.48	55.00	1
95.47						
TRMB05022	CIRCULAR	1.25	1.23	0.31	1.25	1
8.27						

## Future Conditions (10-Year)

TRMB05022-S 125.24	Transect1	0.75	21.13	0.48	55.00	1
TRMB05023 4.21	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05023-S 157.10	Transect1	0.75	21.13	0.48	55.00	1
TRMB05025 59.33	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05025-S 291.76	Transect1	0.75	21.13	0.48	55.00	1
TRMB05026 27.64	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05026-S 122.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05027 48.91	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05027-S 372.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05028 7.20	CIRCULAR	1.50	1.77	0.38	1.50	1
TRMB05028-S 121.33	Transect1	0.75	21.13	0.48	55.00	1
TRMB05029 5.39	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05029-S 115.49	Transect1	0.75	21.13	0.48	55.00	1
TRMB05030 11.07	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05030-S 167.63	Transect1	0.75	21.13	0.48	55.00	1
TRMB05031 12.37	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05031-S 78.66	Transect1	0.75	21.13	0.48	55.00	1
TRMB05032 10.49	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05032-S 62.91	Transect1	0.75	21.13	0.48	55.00	1
TRMB05033 0.44	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05033-S 9.35	Transect1	0.75	21.13	0.48	55.00	1
TRMB05034 5.37	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05034-S 114.98	Transect1	0.75	21.13	0.48	55.00	1
TRMB05035 45.39	CIRCULAR	1.50	1.77	0.38	1.50	1
TRMB05035-S 68.75	Transect1	0.75	21.13	0.48	55.00	1
TRMB05036 6.24	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05036-S 125.13	Transect1	0.75	21.13	0.48	55.00	1
TRMB05037 12.92	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05037-S 134.20	Transect1	0.75	21.13	0.48	55.00	1
TRMB05038 7.78	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05038-S 83.38	Transect1	0.75	21.13	0.48	55.00	1

## Future Conditions (10-Year)

TRMB05039	CIRCULAR	1.25	1.23	0.31	1.25	1
5.00						
TRMB05039-S	Transect1	0.75	21.13	0.48	55.00	1
117.36						
TRMB05040	CIRCULAR	1.50	1.77	0.38	1.50	1
7.58						
TRMB05040-S	Transect1	0.75	21.13	0.48	55.00	1
157.77						
TRMB05041	CIRCULAR	1.50	1.77	0.38	1.50	1
7.66						
TRMB05041-S	Transect1	0.75	21.13	0.48	55.00	1
119.01						
TRMB05042	CIRCULAR	1.25	1.23	0.31	1.25	1
7.46						
TRMB05042-S	Transect1	0.75	21.13	0.48	55.00	1
159.81						
TRMB05044	CIRCULAR	1.25	1.23	0.31	1.25	1
5.64						
TRMB05044-S	Transect1	0.75	21.13	0.48	55.00	1
149.48						
TRMB05045	CIRCULAR	1.50	1.77	0.38	1.50	1
9.73						
TRMB05045-S	Transect1	0.75	21.13	0.48	55.00	1
175.60						
TRMB05046	CIRCULAR	1.50	1.77	0.38	1.50	1
17.69						
TRMB05046-S	Transect1	0.75	21.13	0.48	55.00	1
313.27						
TRMB05048	CIRCULAR	1.50	1.77	0.38	1.50	1
17.63						

\*\*\*\*\*  
 Transect Summary  
 \*\*\*\*\*

Transect Transect1

Area:

0.0005	0.0021	0.0048	0.0085	0.0133
0.0192	0.0261	0.0341	0.0431	0.0533
0.0644	0.0767	0.0900	0.1044	0.1198
0.1363	0.1539	0.1725	0.1922	0.2130
0.2343	0.2556	0.2769	0.2982	0.3195
0.3408	0.3621	0.3834	0.4047	0.4260
0.4473	0.4686	0.4899	0.5115	0.5340
0.5576	0.5823	0.6080	0.6349	0.6627
0.6917	0.7217	0.7527	0.7849	0.8180
0.8523	0.8876	0.9240	0.9615	1.0000

Hrad:

0.0151	0.0302	0.0453	0.0604	0.0755
0.0906	0.1057	0.1208	0.1359	0.1510
0.1661	0.1812	0.1963	0.2114	0.2265
0.2416	0.2567	0.2718	0.2869	0.3020
0.3319	0.3617	0.3915	0.4212	0.4508
0.4804	0.5099	0.5394	0.5688	0.5982
0.6275	0.6567	0.6859	0.7150	0.7424
0.7680	0.7919	0.8142	0.8351	0.8547
0.8731	0.8904	0.9067	0.9221	0.9367
0.9506	0.9638	0.9764	0.9884	1.0000

Width:

0.0273	0.0545	0.0818	0.1091	0.1364
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# Future Conditions (10-Year)

0.1636	0.1909	0.2182	0.2455	0.2727
0.3000	0.3273	0.3545	0.3818	0.4091
0.4364	0.4636	0.4909	0.5182	0.5455
0.5455	0.5455	0.5455	0.5455	0.5455
0.5455	0.5455	0.5455	0.5455	0.5455
0.5455	0.5455	0.5455	0.5636	0.5909
0.6182	0.6455	0.6727	0.7000	0.7273
0.7545	0.7818	0.8091	0.8364	0.8636
0.8909	0.9182	0.9455	0.9727	1.0000

```

*****
Runoff Quantity Continuity          Volume      Depth
                                   acre-feet   inches
*****
Total Precipitation .....          507.856     5.794
Evaporation Loss .....              0.000     0.000
Infiltration Loss .....            164.387     1.876
Surface Runoff .....               284.210     3.243
Final Surface Storage ....          59.325     0.677
Continuity Error (%) .....         -0.013
    
```

```

*****
Flow Routing Continuity          Volume      Volume
                                   acre-feet   10^6 gal
*****
Dry Weather Inflow .....          0.000     0.000
Wet Weather Inflow .....         284.022    92.553
Groundwater Inflow .....          0.000     0.000
RDII Inflow .....                 0.000     0.000
External Inflow .....              0.000     0.000
External Outflow .....            -96.249    -31.364
Internal Outflow .....            370.369    120.690
Evaporation Loss .....              0.000     0.000
Exfiltration Loss .....            0.000     0.000
Initial Stored Volume ....         0.418     0.136
Final Stored Volume .....         17.162     5.593
Continuity Error (%) .....        -2.405
    
```

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*****
Highest Continuity Errors
*****
Node TRMB05006-S (-4257.50%)
Node TRMB05021-S (-2119.59%)
Node TRMB05003-S (-1081.83%)
Node TRMB05035-S (-889.61%)
Node TRMB05046-S (-796.55%)
    
```

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*****
Time-Step Critical Elements
*****
Link PCTB02237 (42.51%)
Link C14 (9.64%)
Link TRMB03028 (6.45%)
Link PCTB02002 (6.20%)
Link JMTB01104 (2.98%)
    
```

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*****
Highest Flow Instability Indexes
*****
    
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# Future Conditions (10-Year)

Link TRMB05020-IC (117)  
 Link TRMB05028-IC (106)  
 Link TRMB03067-IC (105)  
 Link TRMB03101-IC (104)  
 Link TRMB05030-IC (103)

\*\*\*\*\*  
 Routing Time Step Summary  
 \*\*\*\*\*

Minimum Time Step : 0.50 sec  
 Average Time Step : 3.20 sec  
 Maximum Time Step : 5.00 sec  
 Percent in Steady State : 0.00  
 Average Iterations per Step : 6.19  
 Percent Not Converging : 35.63

\*\*\*\*\*  
 Subcatchment Runoff Summary  
 \*\*\*\*\*

Total Runoff gal	Peak Runoff CFS	Runoff Coeff	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	10 <sup>6</sup>
4.42	29.88	0.661	5.79	0.00	0.00	1.03	3.83	
1.67	10.87	0.610	5.79	0.00	0.00	1.33	3.54	
2.23	15.34	0.684	5.79	0.00	0.00	0.89	3.96	
3.10	20.59	0.637	5.79	0.00	0.00	1.17	3.69	
7.38	70.46	0.710	5.79	0.00	0.00	1.08	4.11	
1.13	6.77	0.525	5.79	0.00	0.00	1.86	3.04	
4.83	29.03	0.527	5.79	0.00	0.00	1.84	3.06	
2.29	12.05	0.380	5.79	0.00	0.00	2.77	2.20	
13.69	101.95	0.535	5.79	0.00	0.00	2.03	3.10	
0.11	2.18	0.547	5.79	0.00	0.00	2.46	3.17	
0.03	0.58	0.444	5.79	0.00	0.00	3.04	2.57	
3.90	26.70	0.681	5.79	0.00	0.00	0.91	3.94	
2.01	11.66	0.488	5.79	0.00	0.00	2.09	2.83	
1.72	33.26	0.568	5.79	0.00	0.00	2.33	3.29	
0.03	0.56	0.467	5.79	0.00	0.00	2.92	2.71	

## Future Conditions (10-Year)

SubCatch_COLONIAL_AV_1	5.79	0.00	0.00	2.19	3.42
0.03 0.62 0.591					
SubCatch_CONTENTNEA_ST	5.79	0.00	0.00	1.51	4.11
0.00 0.07 0.709					
SubCatch_CONTENTNEA_ST_1	5.79	0.00	0.00	2.19	3.43
0.18 3.39 0.592					
SubCatch_CONTENTNEA_ST_2	5.79	0.00	0.00	2.98	2.65
0.14 2.84 0.458					
SubCatch_CONTENTNEA_ST_3	5.79	0.00	0.00	2.26	3.36
0.07 1.37 0.580					
SubCatch_CONTENTNEA_ST_4	5.79	0.00	0.00	2.53	3.09
0.13 2.51 0.534					
SubCatch_CONTENTNEA_ST_5	5.79	0.00	0.00	2.60	3.03
0.12 2.41 0.522					
SubCatch_CONTENTNEA_ST_6	5.79	0.00	0.00	2.53	3.09
0.02 0.44 0.533					
SubCatch_DAVIS_ST	5.79	0.00	0.00	2.92	2.70
0.05 0.89 0.466					
SubCatch_DAVIS_ST_1	5.79	0.00	0.00	3.04	2.58
0.06 1.15 0.445					
SubCatch_DAVIS_ST_2	5.79	0.00	0.00	3.22	2.40
0.14 2.69 0.414					
SubCatch_DAVIS_ST_3	5.79	0.00	0.00	3.04	2.58
0.09 1.67 0.445					
SubCatch_DAVIS_ST_4	5.79	0.00	0.00	3.39	2.23
0.10 1.90 0.385					
SubCatch_E_1ST_ST	5.79	0.00	0.00	3.28	2.34
0.33 6.26 0.403					
SubCatch_E_1ST_ST_1	5.79	0.00	0.00	2.53	3.11
0.05 0.91 0.536					
SubCatch_E_1ST_ST_2	5.79	0.00	0.00	3.04	2.57
0.18 3.32 0.443					
SubCatch_E_2ND_ST	5.79	0.00	0.00	0.93	4.66
0.58 10.32 0.804					
SubCatch_E_2ND_ST_1	5.79	0.00	0.00	1.51	4.09
0.00 0.06 0.706					
SubCatch_E_2ND_ST_2	5.79	0.00	0.00	3.45	2.17
0.00 0.01 0.375					
SubCatch_E_2ND_ST_3	5.79	0.00	0.00	2.85	2.76
0.01 0.13 0.476					
SubCatch_E_2ND_ST_4	5.79	0.00	0.00	1.35	4.24
0.08 1.53 0.732					
SubCatch_E_3RD_ST	5.79	0.00	0.00	2.98	2.66
0.09 1.88 0.459					
SubCatch_E_3RD_ST_1	5.79	0.00	0.00	1.27	4.32
0.79 14.24 0.746					
SubCatch_E_3RD_ST_2	5.79	0.00	0.00	2.92	2.72
0.14 2.83 0.470					
SubCatch_E_3RD_ST_3	5.79	0.00	0.00	2.66	2.97
0.14 2.83 0.513					
SubCatch_E_4TH_ST	5.79	0.00	0.00	2.85	2.78
0.07 1.41 0.481					
SubCatch_E_4TH_ST_1	5.79	0.00	0.00	2.40	3.24
0.27 5.37 0.559					
SubCatch_E_4TH_ST_2	5.79	0.00	0.00	2.53	3.11
0.07 1.41 0.536					
SubCatch_E_CATAWBA_RD	5.79	0.00	0.00	1.62	3.26
1.61 10.05 0.563					
SubCatch_FAIRFAX_AV	5.79	0.00	0.00	2.92	2.71
0.08 1.55 0.467					
SubCatch_FLEMING_SCHOOL_RD	5.79	0.00	0.00	2.77	2.20
1.63 8.57 0.380					



## Future Conditions (10-Year)

SubCatch_FLEMING_SCHOOL_RD_1	5.79	0.00	0.00	2.13	2.79
2.21 12.75 0.481					
SubCatch_FLEMING_SCHOOL_RD_2	5.79	0.00	0.00	1.51	3.36
0.34 2.12 0.581					
SubCatch_GREENFIELD_BV	5.79	0.00	0.00	1.87	3.03
2.42 14.48 0.522					
SubCatch_GREENFIELD_BV_1	5.79	0.00	0.00	1.27	3.59
0.81 5.29 0.620					
SubCatch_GREENFIELD_BV_2	5.79	0.00	0.00	1.51	3.37
0.78 4.97 0.581					
SubCatch_HAW_1	5.79	0.00	0.00	1.27	3.59
0.28 1.84 0.620					
SubCatch_HAW_2	5.79	0.00	0.00	1.62	3.78
1.80 22.36 0.652					
SubCatch_HOP_TYSON_RD	5.79	0.00	0.00	1.62	3.26
1.54 9.60 0.563					
SubCatch_JOHNSON_HEIGHTS	5.79	0.00	0.00	0.93	4.70
0.35 7.74 0.811					
SubCatch_LATHAM_ST	5.79	0.00	0.00	2.12	3.50
0.25 4.76 0.605					
SubCatch_N_ELM_ST	5.79	0.00	0.00	1.67	3.96
0.31 6.69 0.684					
SubCatch_N_ELM_ST_1	5.79	0.00	0.00	2.40	3.24
0.21 4.15 0.559					
SubCatch_N_ELM_ST_2	5.79	0.00	0.00	1.97	3.66
0.76 15.84 0.632					
SubCatch_N_HARDING_ST	5.79	0.00	0.00	3.39	2.25
0.14 2.83 0.389					
SubCatch_N_HARDING_ST_1	5.79	0.00	0.00	2.85	2.79
0.12 2.31 0.481					
SubCatch_N_HARDING_ST_2	5.79	0.00	0.00	2.98	2.66
0.22 4.31 0.460					
SubCatch_N_JARVIS_ST	5.79	0.00	0.00	2.33	3.27
0.28 5.19 0.565					
SubCatch_N_LIBRARY_ST	5.79	0.00	0.00	2.98	2.66
0.20 3.91 0.460					
SubCatch_N_MEMORIAL_DR	5.79	0.00	0.00	1.51	3.37
1.62 10.25 0.581					
SubCatch_N_OAK_ST	5.79	0.00	0.00	1.82	3.81
0.63 13.22 0.658					
SubCatch_N_OAK_ST_1	5.79	0.00	0.00	0.84	4.78
0.09 1.98 0.826					
SubCatch_N_OAK_ST_2	5.79	0.00	0.00	1.19	4.44
0.36 7.96 0.767					
SubCatch_N_SUMMIT_ST	5.79	0.00	0.00	2.66	2.94
0.02 0.38 0.508					
SubCatch_N_SUMMIT_ST_1	5.79	0.00	0.00	2.66	2.94
0.38 7.13 0.508					
SubCatch_PARK_DR	5.79	0.00	0.00	3.45	2.20
0.09 1.73 0.379					
SubCatch_RIVER_DR	5.79	0.00	0.00	2.26	3.38
0.40 8.33 0.583					
SubCatch_S_ELM_ST	5.79	0.00	0.00	2.53	3.11
0.54 10.64 0.536					
SubCatch_S_ELM_ST_1	5.79	0.00	0.00	2.92	2.72
0.19 3.83 0.470					
SubCatch_S_HARDING_ST	5.79	0.00	0.00	3.04	2.60
0.32 6.45 0.449					
SubCatch_S_LIBRARY_ST	5.79	0.00	0.00	2.98	2.66
0.34 6.90 0.460					
SubCatch_S_OAK_ST	5.79	0.00	0.00	2.85	2.78
0.14 2.75 0.481					

## Future Conditions (10-Year)

SubCatch_S_OAK_ST_1	5.79	0.00	0.00	1.75	3.89
0.13 2.71 0.671					
SubCatch_S_ROTARY_AV	5.79	0.00	0.00	2.19	3.41
0.42 7.89 0.589					
SubCatch_S_ROTARY_AV_1	5.79	0.00	0.00	3.04	2.60
0.31 6.28 0.449					
SubCatch_S_ROTARY_AV_2	5.79	0.00	0.00	2.04	3.56
0.18 3.33 0.614					
SubCatch_S_ROTARY_AV_3	5.79	0.00	0.00	2.26	3.34
0.07 1.33 0.577					
SubCatch_S_ROTARY_AV_5	5.79	0.00	0.00	3.10	2.51
0.04 0.82 0.433					
SubCatch_S_WOODLAWN_AV	5.79	0.00	0.00	2.98	2.63
0.07 1.25 0.454					
SubCatch_SPRUCE_ST	5.79	0.00	0.00	2.40	3.14
4.19 66.05 0.541					
SubCatch_STATON_HOUSE_RD	5.79	0.00	0.00	1.86	3.04
2.61 15.61 0.525					
SubCatch_STUDENT_ST	5.79	0.00	0.00	1.97	3.63
0.56 10.54 0.626					
SubCatch_TRENT_CI	5.79	0.00	0.00	2.09	2.83
0.78 4.52 0.488					
SubCatch_TRENT_CI_1	5.79	0.00	0.00	1.78	3.11
2.38 14.44 0.536					
SubCatch_VANCE_2	5.79	0.00	0.00	2.92	2.71
0.21 4.14 0.467					
SubCatch_VANCE_ST_1	5.79	0.00	0.00	1.51	4.11
0.00 0.07 0.709					
SubCatch_VANCE_ST_2	5.79	0.00	0.00	2.66	2.96
0.03 0.50 0.511					
SubCatch_VANCE_ST_3	5.79	0.00	0.00	2.79	2.83
0.09 1.73 0.489					
SubCatch_VANCE_ST_4	5.79	0.00	0.00	3.16	2.47
0.08 1.56 0.426					
SubCatch_VANCE_ST_5	5.79	0.00	0.00	3.45	2.18
0.07 1.38 0.377					
SubCatch_VANCE_ST_6	5.79	0.00	0.00	3.04	2.59
0.02 0.32 0.447					
SubCatch_VANCE_ST_7	5.79	0.00	0.00	3.45	2.18
0.02 0.33 0.377					
SubCatch_W_3RD_ST	5.79	0.00	0.00	1.51	4.09
0.00 0.02 0.706					
SubCatch_W_3RD_ST_1	5.79	0.00	0.00	1.51	4.09
0.00 0.04 0.706					
SubCatch_W_3RD_ST_2	5.79	0.00	0.00	2.85	2.76
0.02 0.42 0.477					
SubCatch_W_3RD_ST_3	5.79	0.00	0.00	2.98	2.64
0.07 1.44 0.455					
SubCatch_W_3RD_ST_5	5.79	0.00	0.00	2.92	2.71
0.06 1.08 0.467					
SubCatch_W_3RD_ST_6	5.79	0.00	0.00	3.04	2.59
0.03 0.58 0.446					
SubCatch_W_3RD_ST_7	5.79	0.00	0.00	2.46	3.16
0.01 0.28 0.545					
SubCatch_W_3RD_ST_8	5.79	0.00	0.00	2.92	2.71
0.04 0.69 0.468					
SubCatch_W_3RD_ST_9	5.79	0.00	0.00	2.92	2.73
0.10 2.17 0.472					
SubCatch_W_4TH_ST	5.79	0.00	0.00	2.85	2.77
0.06 1.18 0.478					
SubCatch_W_4TH_ST_2	5.79	0.00	0.00	2.98	2.65
0.05 0.96 0.457					

## Future Conditions (10-Year)

SubCatch_W_5th_ST	5.79	0.00	0.00	2.53	3.09
0.72 13.96 0.534					
SubCatch_WILLOW_ST	5.79	0.00	0.00	2.85	2.79
0.16 3.23 0.481					
SubCatch_WILLOW_ST_1	5.79	0.00	0.00	3.10	2.54
0.03 0.58 0.439					
SubCatch_WILSONACRES_APT	5.79	0.00	0.00	2.66	2.97
0.49 9.76 0.513					
SubCatch_WOODSIDE_RD	5.79	0.00	0.00	1.51	3.37
2.00 12.64 0.581					
SubCatch_WOODSIDE_RD_1	5.79	0.00	0.00	1.39	3.48
1.07 6.90 0.600					
SubInsert	5.79	0.00	0.00	1.51	3.37
1.50 9.50 0.581					

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 Node Depth Summary  
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Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
CountrySideE_Ditch_Culvert_In	JUNCTION		2.32	2.74	24.39 0 13:37
CountrySideE_Ditch_Culvert_In-S	JUNCTION		0.20	0.45	27.95 0 12:30
JMTB01003	JUNCTION	1.74	2.50	27.52	0 11:56
JMTB01003-S	JUNCTION	0.37	0.75	27.77	0 12:25
JMTB01004	JUNCTION	1.69	2.48	27.55	0 13:03
JMTB01004-S	JUNCTION	0.02	0.16	27.75	0 12:25
JMTB01005	JUNCTION	1.38	2.01	27.29	0 12:08
JMTB01005-S	JUNCTION	0.00	0.01	27.30	0 13:30
JMTB01006	JUNCTION	1.41	2.00	26.59	0 12:23
JMTB01006-S	JUNCTION	0.51	0.75	27.29	0 11:27
JMTB01102	JUNCTION	0.87	1.91	28.50	0 13:00
JMTB01102-S	JUNCTION	0.16	0.54	29.60	0 13:00
JMTB01103	JUNCTION	1.00	2.06	28.48	0 13:00
JMTB01103-S	JUNCTION	0.00	0.02	29.59	0 13:01
JMTB01104	JUNCTION	0.85	1.91	28.54	0 13:00
JMTB01104-S	JUNCTION	0.01	0.04	29.78	0 12:30
JMTB01105	JUNCTION	1.20	2.07	28.10	0 13:01
JMTB01105-S	JUNCTION	0.25	0.75	28.56	0 12:21
PCTB01068	JUNCTION	0.42	1.15	20.50	0 12:29
PCTB01068_US	JUNCTION	0.53	1.16	21.16	0 12:23
PCTB01068_US-S	JUNCTION	0.13	0.75	26.05	0 12:22
PCTB01068-S	JUNCTION	0.06	0.69	26.05	0 12:23
PCTB02001	JUNCTION	1.22	2.05	23.83	0 14:07
PCTB02001-S	JUNCTION	0.10	0.47	23.85	0 14:03
PCTB02002	JUNCTION	1.08	1.90	23.89	0 14:07
PCTB02002-S	JUNCTION	0.00	0.00	24.25	0 00:00
PCTB02003	JUNCTION	0.76	1.38	25.36	0 14:42
PCTB02003-S	JUNCTION	0.27	0.75	26.98	0 12:09
PCTB02004	JUNCTION	0.44	1.10	25.26	0 14:40
PCTB02004-S	JUNCTION	0.24	0.58	26.99	0 12:09
PCTB02005	JUNCTION	0.38	0.76	25.16	0 13:30
PCTB02008	JUNCTION	1.29	2.03	23.67	0 13:59
PCTB02011	JUNCTION	1.10	1.86	23.72	0 14:01
PCTB02011-S	JUNCTION	0.00	0.04	26.80	0 12:27
PCTB02012	JUNCTION	1.38	2.19	23.81	0 14:05
PCTB02012-S	JUNCTION	0.22	0.75	26.81	0 12:27
PCTB02014	JUNCTION	2.28	3.13	23.83	0 14:04

## Future Conditions (10-Year)

PCTB02014-S	JUNCTION	0.13	0.61	23.84	0	13:53
PCTB02015	JUNCTION	2.00	2.86	23.83	0	14:05
PCTB02015-S	JUNCTION	0.02	0.18	23.82	0	13:54
PCTB02016	JUNCTION	0.50	0.94	25.17	0	13:32
PCTB02016-S	JUNCTION	0.00	0.00	25.88	0	00:00
PCTB02017	JUNCTION	0.75	1.37	25.36	0	14:42
PCTB02017-S	JUNCTION	0.00	0.00	25.89	0	00:00
PCTB02022	JUNCTION	1.67	2.44	24.76	0	11:49
PCTB02022-S	JUNCTION	0.09	0.28	25.04	0	12:33
PCTB02023	JUNCTION	1.61	2.37	24.72	0	11:49
PCTB02023-S	JUNCTION	0.02	0.18	24.90	0	12:35
PCTB02075	JUNCTION	6.55	6.58	23.80	0	00:24
PCTB02076	JUNCTION	6.06	6.09	23.80	0	00:24
PCTB02080	JUNCTION	6.94	6.97	23.80	0	13:38
PCTB02159	JUNCTION	5.77	5.80	23.80	0	13:24
PCTB02160	JUNCTION	5.78	5.81	23.80	0	13:24
PCTB02189	JUNCTION	3.46	4.19	23.76	0	00:03
PCTB02189-S	JUNCTION	0.23	0.53	24.29	0	12:30
PCTB02191	JUNCTION	4.58	4.59	23.00	0	00:02
PCTB02191_DS	JUNCTION	6.55	6.58	23.78	0	13:37
PCTB02191_DS-S	JUNCTION	0.75	0.75	22.95	0	00:07
PCTB02191-S	JUNCTION	0.09	0.29	23.29	0	12:31
PCTB02207	JUNCTION	3.28	3.57	24.19	0	13:37
PCTB02207-S	JUNCTION	0.00	0.00	24.62	0	00:00
PCTB02209	JUNCTION	2.85	3.24	24.32	0	13:38
PCTB02209-S	JUNCTION	0.00	0.00	25.08	0	00:00
PCTB02220	JUNCTION	5.22	5.32	23.88	0	00:08
PCTB02229	JUNCTION	4.89	5.15	24.03	0	00:08
PCTB02229-S	JUNCTION	0.00	0.00	24.52	0	00:00
PCTB02231	JUNCTION	4.75	4.92	24.02	0	13:40
PCTB02231-S	JUNCTION	0.00	0.00	24.80	0	00:00
PCTB02233	JUNCTION	0.00	0.00	25.41	0	00:00
PCTB02235	JUNCTION	4.01	4.22	24.07	0	13:36
PCTB02235-S	JUNCTION	0.33	0.75	26.15	0	12:05
PCTB02237	JUNCTION	3.86	4.15	24.18	0	13:37
PCTB02237-S	JUNCTION	0.15	0.57	26.15	0	12:06
PCTB02257	JUNCTION	2.59	3.01	24.37	0	13:38
PCTB02257_1	JUNCTION	2.59	3.01	24.37	0	13:38
PCTB02257_1-S	JUNCTION	0.07	0.17	26.93	0	12:30
PCTB02257-S	JUNCTION	0.29	0.75	27.71	0	11:58
PCTB02260	JUNCTION	2.57	2.98	24.36	0	13:38
PCTB02260-S	JUNCTION	0.00	0.00	25.93	0	00:00
PCTB02262	JUNCTION	2.66	3.04	24.32	0	13:38
PCTB02262-S	JUNCTION	0.00	0.00	25.78	0	00:00
PCTB02275	JUNCTION	2.52	2.97	24.42	0	13:38
PCTB02275-S	JUNCTION	0.05	0.40	25.95	0	13:03
PCTB02276	JUNCTION	2.50	3.00	24.52	0	13:49
PCTB02276-S	JUNCTION	0.00	0.00	26.12	0	00:00
PCTB02278	JUNCTION	2.11	3.02	25.26	0	14:57
PCTB02278-S	JUNCTION	0.14	0.61	25.25	0	14:33
PCTB02280	JUNCTION	3.66	3.69	22.58	0	00:15
PCTB02280-S	JUNCTION	0.54	0.75	23.33	0	12:13
PCTB02281	JUNCTION	3.52	3.61	22.77	0	00:11
PCTB02281-S	JUNCTION	0.30	0.56	23.33	0	12:14
PCTB02282	JUNCTION	3.31	3.52	23.28	0	12:34
PCTB02282-S	JUNCTION	0.03	0.10	25.25	0	12:32
PCTB02283	JUNCTION	2.92	2.95	22.87	0	00:13
PCTB02283-S	JUNCTION	0.00	0.01	22.88	0	12:32
PCTB02284	JUNCTION	2.58	2.92	23.18	0	00:13
PCTB02284-S	JUNCTION	0.00	0.00	23.18	0	00:00
PCTB02292	JUNCTION	5.61	5.78	23.78	0	00:23
PCTB02292-S	JUNCTION	0.36	0.48	23.48	0	12:31

## Future Conditions (10-Year)

PCTB02294	JUNCTION	5.97	6.07	23.74	0	00:24
PCTB02294-S	JUNCTION	0.30	0.41	23.08	0	00:17
PCTB02295	JUNCTION	6.50	6.53	23.77	0	13:19
PCTB02295-S	JUNCTION	0.75	0.75	22.99	0	00:08
PCTB02297	JUNCTION	2.59	2.90	23.31	0	00:15
PCTB02297-S	JUNCTION	0.06	0.23	23.54	0	12:39
PCTB02302	JUNCTION	5.27	5.51	23.85	0	00:22
PCTB02302-S	JUNCTION	0.32	0.51	23.85	0	00:22
PCTB02303	JUNCTION	5.44	7.12	25.25	0	00:14
PCTB02303-S	JUNCTION	0.06	0.15	25.40	0	12:30
PCTB02304	JUNCTION	5.17	5.23	23.60	0	00:14
PCTB02304-S	JUNCTION	0.33	0.75	24.35	0	12:05
PCTB02312	JUNCTION	5.36	5.56	23.81	0	00:22
PCTB02312-S	JUNCTION	0.41	0.54	23.79	0	00:22
PCTB02329	JUNCTION	1.22	2.07	24.23	0	12:55
PCTB02329-S	JUNCTION	0.00	0.00	24.23	0	13:10
PCTB02330	JUNCTION	1.48	2.67	24.97	0	12:55
PCTB02330-S	JUNCTION	0.01	0.07	25.49	0	12:37
PCTB02331	JUNCTION	1.72	2.82	25.04	0	12:23
PCTB02331-S	JUNCTION	0.14	0.52	25.56	0	12:37
PCTB02332	JUNCTION	1.74	2.69	24.89	0	13:09
PCTB02332-S	JUNCTION	0.00	0.00	25.67	0	00:00
TRMB02002	JUNCTION	0.50	1.59	7.14	0	12:30
TRMB02002-S	JUNCTION	0.01	0.08	16.29	0	12:00
TRMB02003	JUNCTION	2.91	6.45	9.33	0	11:55
TRMB02003-S	JUNCTION	0.02	0.39	12.97	0	12:31
TRMB02006	JUNCTION	0.92	7.34	15.94	0	11:55
TRMB02006-S	JUNCTION	0.01	0.21	18.11	0	12:01
TRMB02009	JUNCTION	0.49	1.45	18.72	0	12:30
TRMB02009-S	JUNCTION	0.03	0.22	27.04	0	12:00
TRMB02012	JUNCTION	0.70	2.35	21.85	0	12:36
TRMB02012-S	JUNCTION	0.00	0.00	26.80	0	12:00
TRMB02015	JUNCTION	0.77	3.08	24.13	0	12:16
TRMB02015-S	JUNCTION	0.04	0.75	25.89	0	12:16
TRMB02016	JUNCTION	1.03	3.50	24.64	0	12:20
TRMB02016-S	JUNCTION	0.04	0.67	25.89	0	12:16
TRMB02018	JUNCTION	1.06	4.75	27.66	0	12:15
TRMB02018-S	JUNCTION	0.02	0.30	28.96	0	12:11
TRMB02022	JUNCTION	1.13	4.78	28.56	0	11:49
TRMB02022-S	JUNCTION	0.05	0.62	29.18	0	12:30
TRMB02023	JUNCTION	0.52	3.08	29.10	0	11:49
TRMB02023-S	JUNCTION	0.01	0.19	29.38	0	12:01
TRMB02030	JUNCTION	0.42	2.30	29.22	0	11:49
TRMB02030-S	JUNCTION	0.00	0.00	29.22	0	12:01
TRMB02032	JUNCTION	0.35	2.49	31.53	0	12:14
TRMB02032-S	JUNCTION	0.00	0.00	33.68	0	12:00
TRMB02033	JUNCTION	0.27	2.20	32.02	0	11:58
TRMB02033-S	JUNCTION	0.00	0.09	33.83	0	12:30
TRMB02034	JUNCTION	0.52	3.38	34.33	0	11:50
TRMB02034-S	JUNCTION	0.01	0.21	34.54	0	12:30
TRMB02035	JUNCTION	0.34	2.12	36.34	0	11:50
TRMB02035-S	JUNCTION	0.03	0.24	36.58	0	12:30
TRMB02044	JUNCTION	0.57	5.55	36.45	0	11:54
TRMB02044_DS	JUNCTION	1.57	8.87	33.02	0	11:54
TRMB02044_DS-S	JUNCTION	0.04	0.32	33.34	0	12:01
TRMB02044-S	JUNCTION	0.00	0.00	37.10	0	00:00
TRMB02045	JUNCTION	0.86	5.08	35.86	0	11:54
TRMB02045-S	JUNCTION	0.00	0.00	36.74	0	00:00
TRMB02046	JUNCTION	0.20	3.08	36.11	0	11:55
TRMB02046-S	JUNCTION	0.00	0.00	36.63	0	12:25
TRMB02047	JUNCTION	0.19	0.70	34.89	0	11:54
TRMB02047-S	JUNCTION	0.00	0.07	36.83	0	12:30

## Future Conditions (10-Year)

TRMB02048	JUNCTION	0.16	0.59	36.56	0	12:30
TRMB02048-S	JUNCTION	0.00	0.00	39.25	0	11:23
TRMB02049	JUNCTION	0.16	0.58	37.13	0	12:30
TRMB02049-S	JUNCTION	0.00	0.07	39.41	0	12:30
TRMB02050	JUNCTION	0.82	4.59	35.46	0	11:54
TRMB02050-S	JUNCTION	0.00	0.00	36.02	0	00:00
TRMB02051	JUNCTION	0.76	3.81	34.90	0	11:54
TRMB02051-S	JUNCTION	0.00	0.05	34.95	0	12:00
TRMB02052	JUNCTION	0.66	3.55	34.80	0	11:54
TRMB02052-S	JUNCTION	0.00	0.00	34.80	0	11:22
TRMB02056	JUNCTION	0.55	3.71	35.12	0	11:54
TRMB02056-S	JUNCTION	0.00	0.01	35.21	0	12:03
TRMB02057	JUNCTION	0.54	3.67	35.21	0	11:54
TRMB02057-S	JUNCTION	0.01	0.16	35.50	0	12:03
TRMB02060	JUNCTION	0.37	1.79	36.09	0	12:30
TRMB02060-S	JUNCTION	0.02	0.19	41.43	0	12:00
TRMB02063	JUNCTION	0.20	0.72	40.89	0	12:30
TRMB02063-S	JUNCTION	0.00	0.00	43.67	0	00:00
TRMB02064	JUNCTION	0.32	1.32	42.36	0	12:30
TRMB02064-S	JUNCTION	0.00	0.00	44.56	0	12:30
TRMB02067	JUNCTION	0.49	2.82	44.08	0	12:29
TRMB02067-S	JUNCTION	0.01	0.10	46.30	0	12:30
TRMB02068	JUNCTION	0.35	2.86	44.98	0	12:29
TRMB02068-S	JUNCTION	0.01	0.10	48.76	0	12:30
TRMB02069	JUNCTION	0.22	2.45	45.02	0	12:29
TRMB02069-S	JUNCTION	0.00	0.00	49.40	0	13:30
TRMB02070	JUNCTION	0.25	2.34	45.06	0	12:29
TRMB02070-S	JUNCTION	0.00	0.02	49.62	0	12:29
TRMB03016	JUNCTION	0.48	2.01	9.95	0	12:30
TRMB03016-S	JUNCTION	0.00	0.00	14.88	0	00:00
TRMB03022	JUNCTION	0.51	2.89	12.79	0	12:16
TRMB03022-S	JUNCTION	0.01	0.22	12.79	0	12:37
TRMB03025	JUNCTION	0.31	1.07	13.86	0	12:30
TRMB03025-S	JUNCTION	0.00	0.04	19.63	0	12:00
TRMB03026	JUNCTION	0.03	0.13	15.24	0	12:30
TRMB03027	JUNCTION	0.08	0.35	15.80	0	12:30
TRMB03028	JUNCTION	0.79	2.93	15.71	0	12:36
TRMB03028-S	JUNCTION	0.00	0.00	20.09	0	00:00
TRMB03029	JUNCTION	0.50	2.92	16.70	0	12:36
TRMB03029-S	JUNCTION	0.00	0.00	19.13	0	00:00
TRMB03030	JUNCTION	0.61	3.73	18.61	0	12:34
TRMB03030-S	JUNCTION	0.00	0.00	19.95	0	00:00
TRMB03031	JUNCTION	0.15	0.73	18.60	0	12:35
TRMB03031-S	JUNCTION	0.00	0.08	26.16	0	12:30
TRMB03032	JUNCTION	0.71	5.09	26.35	0	12:03
TRMB03032-S	JUNCTION	0.00	0.03	28.65	0	12:30
TRMB03033	JUNCTION	0.17	2.68	30.21	0	11:58
TRMB03033-S	JUNCTION	0.00	0.00	30.21	0	11:59
TRMB03034	JUNCTION	0.29	3.02	30.36	0	11:58
TRMB03034-S	JUNCTION	0.00	0.03	30.39	0	12:30
TRMB03035	JUNCTION	0.06	3.41	29.28	0	12:02
TRMB03035-S	JUNCTION	0.00	0.00	29.28	0	00:00
TRMB03036	JUNCTION	0.73	5.70	27.43	0	12:03
TRMB03036-S	JUNCTION	0.00	0.00	29.28	0	12:28
TRMB03037	JUNCTION	0.38	2.92	30.67	0	11:58
TRMB03037-S	JUNCTION	0.01	0.19	30.86	0	12:30
TRMB03038	JUNCTION	0.03	0.98	27.52	0	12:03
TRMB03038-S	JUNCTION	0.00	0.00	30.40	0	00:00
TRMB03039	JUNCTION	0.54	4.98	28.32	0	12:02
TRMB03039-S	JUNCTION	0.00	0.05	29.95	0	12:30
TRMB03042	JUNCTION	0.15	0.50	36.40	0	12:30
TRMB03042-S	JUNCTION	0.01	0.16	40.83	0	12:30

## Future Conditions (10-Year)

TRMB03043	JUNCTION	0.47	4.27	28.59	0	11:58
TRMB03043-S	JUNCTION	0.00	0.00	28.59	0	12:17
TRMB03044	JUNCTION	0.29	3.12	28.54	0	12:02
TRMB03044-S	JUNCTION	0.01	0.19	28.73	0	12:30
TRMB03049	JUNCTION	0.22	4.20	28.95	0	11:58
TRMB03049-S	JUNCTION	0.00	0.00	29.22	0	00:00
TRMB03051	JUNCTION	0.29	2.81	28.14	0	12:01
TRMB03051-S	JUNCTION	0.00	0.00	28.14	0	11:29
TRMB03052	JUNCTION	0.06	1.33	28.36	0	12:01
TRMB03052-S	JUNCTION	0.00	0.00	28.36	0	00:00
TRMB03054	JUNCTION	0.46	2.93	28.37	0	12:00
TRMB03054-S	JUNCTION	0.00	0.06	28.43	0	12:30
TRMB03055	JUNCTION	0.48	2.72	28.22	0	12:00
TRMB03055-S	JUNCTION	0.01	0.14	28.36	0	12:30
TRMB03063	JUNCTION	0.20	0.76	28.76	0	12:30
TRMB03063-S	JUNCTION	0.02	0.19	31.26	0	12:30
TRMB03065	JUNCTION	0.58	2.54	5.07	0	12:30
TRMB03065-S	JUNCTION	0.00	0.00	14.00	0	12:24
TRMB03067	JUNCTION	0.05	0.12	18.26	0	12:06
TRMB03067-S	JUNCTION	0.00	0.01	20.66	0	12:47
TRMB03068	JUNCTION	0.14	0.63	5.46	0	12:31
TRMB03068-S	JUNCTION	0.02	0.15	15.53	0	12:28
TRMB03069	JUNCTION	0.53	2.12	5.52	0	12:30
TRMB03069-S	JUNCTION	0.00	0.11	14.34	0	12:30
TRMB03070	JUNCTION	0.53	2.35	6.93	0	12:30
TRMB03070-S	JUNCTION	0.00	0.00	14.14	0	12:30
TRMB03072	JUNCTION	0.42	1.59	10.57	0	12:30
TRMB03072-S	JUNCTION	0.00	0.00	18.10	0	00:00
TRMB03073	JUNCTION	0.10	0.34	16.90	0	12:30
TRMB03073-S	JUNCTION	0.01	0.08	19.47	0	12:30
TRMB03083	JUNCTION	0.59	3.32	13.10	0	12:31
TRMB03083-S	JUNCTION	0.00	0.00	18.62	0	00:00
TRMB03084	JUNCTION	0.41	1.60	10.60	0	12:30
TRMB03084-S	JUNCTION	0.00	0.02	17.97	0	12:30
TRMB03087	JUNCTION	0.99	5.35	15.25	0	12:31
TRMB03087-S	JUNCTION	0.02	0.32	16.59	0	12:32
TRMB03088	JUNCTION	0.44	1.69	23.23	0	12:31
TRMB03088-S	JUNCTION	0.00	0.00	29.85	0	00:00
TRMB03089	JUNCTION	0.39	1.45	23.99	0	12:30
TRMB03089-S	JUNCTION	0.00	0.00	29.82	0	00:00
TRMB03090	JUNCTION	0.96	3.42	25.78	0	12:30
TRMB03090-S	JUNCTION	0.03	0.72	29.66	0	12:32
TRMB03091	JUNCTION	0.41	1.45	27.89	0	12:30
TRMB03091-S	JUNCTION	0.01	0.22	34.04	0	12:30
TRMB03092	JUNCTION	0.12	0.38	30.26	0	12:30
TRMB03092-S	JUNCTION	0.01	0.11	31.78	0	12:30
TRMB03094	JUNCTION	0.43	1.49	29.58	0	12:30
TRMB03094-S	JUNCTION	0.02	0.30	35.22	0	12:30
TRMB03095	JUNCTION	0.03	0.21	32.26	0	12:30
TRMB03095-S	JUNCTION	0.00	0.06	34.98	0	12:30
TRMB03096	JUNCTION	0.54	1.73	29.88	0	12:30
TRMB03096-S	JUNCTION	0.01	0.21	36.57	0	12:30
TRMB03097	JUNCTION	0.17	0.44	34.80	0	12:30
TRMB03097-S	JUNCTION	0.02	0.17	40.45	0	12:29
TRMB03101	JUNCTION	0.03	0.06	32.56	0	13:14
TRMB03101-S	JUNCTION	0.00	0.00	37.20	0	17:33
TRMB03102	JUNCTION	0.31	0.88	30.15	0	12:30
TRMB03102-S	JUNCTION	0.02	0.31	37.99	0	12:30
TRMB03103	JUNCTION	0.25	0.63	33.64	0	12:30
TRMB03103-S	JUNCTION	0.03	0.28	41.32	0	12:30
TRMB03111	JUNCTION	0.23	0.51	35.71	0	12:30
TRMB03111-S	JUNCTION	0.05	0.32	42.55	0	12:29

## Future Conditions (10-Year)

TRMB03132	JUNCTION	0.16	0.50	13.50	0	12:30
TRMB03132-S	JUNCTION	0.01	0.13	23.80	0	12:30
TRMB04089	JUNCTION	0.60	1.49	49.46	0	12:31
TRMB04089-S	JUNCTION	0.19	0.70	61.47	0	12:30
TRMB04265-S	JUNCTION	0.00	0.00	59.86	0	00:00
TRMB05002	JUNCTION	0.39	1.38	39.57	0	12:30
TRMB05002-S	JUNCTION	0.00	0.00	43.94	0	00:00
TRMB05003	JUNCTION	1.09	3.44	42.86	0	12:30
TRMB05003-S	JUNCTION	0.00	0.00	47.22	0	14:20
TRMB05004	JUNCTION	1.02	3.39	42.89	0	12:31
TRMB05004-S	JUNCTION	0.00	0.00	46.49	0	13:05
TRMB05005	JUNCTION	0.65	2.90	42.90	0	12:30
TRMB05005-S	JUNCTION	0.00	0.02	48.16	0	12:30
TRMB05006	JUNCTION	1.03	4.04	44.80	0	12:30
TRMB05006-S	JUNCTION	0.00	0.00	49.36	0	14:20
TRMB05008	JUNCTION	0.16	1.22	44.90	0	12:30
TRMB05008-S	JUNCTION	0.00	0.02	47.60	0	12:30
TRMB05009	JUNCTION	0.78	2.40	47.41	0	12:34
TRMB05009_DS	JUNCTION	0.78	2.48	46.31	0	12:30
TRMB05009_DS-S	JUNCTION	0.00	0.01	50.93	0	13:55
TRMB05009-S	JUNCTION	0.01	0.09	51.60	0	12:38
TRMB05010	JUNCTION	0.09	0.26	46.44	0	12:30
TRMB05010-S	JUNCTION	0.00	0.06	49.29	0	12:30
TRMB05011	JUNCTION	0.09	0.25	47.16	0	12:30
TRMB05011-S	JUNCTION	0.00	0.00	49.81	0	13:09
TRMB05012	JUNCTION	0.28	0.79	47.60	0	12:30
TRMB05012-S	JUNCTION	0.00	0.02	49.73	0	12:29
TRMB05013	JUNCTION	0.04	0.10	49.06	0	12:30
TRMB05013-S	JUNCTION	0.00	0.01	51.07	0	12:30
TRMB05014	JUNCTION	0.07	0.21	48.82	0	12:30
TRMB05014-S	JUNCTION	0.00	0.04	51.25	0	12:30
TRMB05015	JUNCTION	1.01	3.15	49.20	0	12:31
TRMB05015-S	JUNCTION	0.02	0.21	54.86	0	12:08
TRMB05016	JUNCTION	0.17	0.56	50.97	0	12:29
TRMB05016-S	JUNCTION	0.00	0.06	54.47	0	12:30
TRMB05017	JUNCTION	0.97	3.09	49.32	0	12:31
TRMB05017_US	JUNCTION	0.82	2.33	49.41	0	12:30
TRMB05017_US-S	JUNCTION	0.14	0.75	58.92	0	12:07
TRMB05017-S	JUNCTION	0.05	0.29	55.97	0	12:37
TRMB05018	JUNCTION	0.06	0.30	50.64	0	12:30
TRMB05018-S	JUNCTION	0.00	0.05	54.54	0	12:30
TRMB05019	JUNCTION	0.52	2.27	52.89	0	12:01
TRMB05019-S	JUNCTION	0.00	0.00	54.12	0	12:38
TRMB05020	JUNCTION	0.06	0.23	51.01	0	12:25
TRMB05020-S	JUNCTION	0.00	0.00	54.28	0	12:10
TRMB05021	JUNCTION	0.46	2.71	54.18	0	12:28
TRMB05021-S	JUNCTION	0.00	0.00	54.67	0	11:46
TRMB05022	JUNCTION	0.28	0.72	50.82	0	12:30
TRMB05022-S	JUNCTION	0.00	0.01	54.41	0	12:30
TRMB05023	JUNCTION	0.06	0.22	51.63	0	12:31
TRMB05023-S	JUNCTION	0.06	0.21	51.62	0	12:32
TRMB05025	JUNCTION	0.07	0.32	53.52	0	11:54
TRMB05025-S	JUNCTION	0.09	0.75	55.95	0	11:54
TRMB05026	JUNCTION	0.08	0.25	50.30	0	12:30
TRMB05026-S	JUNCTION	0.00	0.00	52.70	0	00:00
TRMB05027	JUNCTION	0.08	0.36	53.06	0	11:52
TRMB05027-S	JUNCTION	0.11	0.75	55.49	0	11:52
TRMB05028	JUNCTION	0.51	3.22	55.16	0	12:28
TRMB05028-S	JUNCTION	0.00	0.00	55.44	0	12:30
TRMB05029	JUNCTION	0.35	2.58	54.20	0	12:26
TRMB05029-S	JUNCTION	0.00	0.01	54.83	0	12:29
TRMB05030	JUNCTION	0.29	2.75	55.19	0	12:15



# Future Conditions (10-Year)

TRMB05030-S	JUNCTION	0.00	0.00	55.19	0	12:46
TRMB05031	JUNCTION	0.22	2.02	55.32	0	11:57
TRMB05031-S	JUNCTION	0.01	0.20	55.52	0	12:30
TRMB05032	JUNCTION	0.26	2.40	55.36	0	11:58
TRMB05032-S	JUNCTION	0.00	0.01	55.37	0	12:30
TRMB05033	JUNCTION	0.40	2.75	55.19	0	11:58
TRMB05033-S	JUNCTION	0.01	0.10	55.29	0	12:29
TRMB05034	JUNCTION	0.28	2.38	55.49	0	12:29
TRMB05034-S	JUNCTION	0.00	0.07	55.58	0	12:30
TRMB05035	JUNCTION	0.11	0.30	53.05	0	12:30
TRMB05035-S	JUNCTION	0.00	0.00	55.85	0	17:37
TRMB05036	JUNCTION	0.22	0.68	53.83	0	12:30
TRMB05036-S	JUNCTION	0.00	0.00	55.50	0	12:45
TRMB05037	JUNCTION	0.09	0.28	54.28	0	12:30
TRMB05037-S	JUNCTION	0.00	0.02	55.72	0	12:29
TRMB05038	JUNCTION	0.18	0.57	53.92	0	12:30
TRMB05038-S	JUNCTION	0.00	0.01	55.71	0	12:29
TRMB05039	JUNCTION	0.14	0.51	54.01	0	12:30
TRMB05039-S	JUNCTION	0.00	0.01	55.53	0	12:29
TRMB05040	JUNCTION	0.32	0.98	49.82	0	12:30
TRMB05040-S	JUNCTION	0.00	0.03	55.92	0	12:30
TRMB05041	JUNCTION	0.36	1.31	48.21	0	12:30
TRMB05041-S	JUNCTION	0.00	0.03	52.28	0	12:30
TRMB05042	JUNCTION	0.47	1.21	50.90	0	12:30
TRMB05042-S	JUNCTION	0.00	0.06	52.40	0	12:30
TRMB05043	JUNCTION	0.08	0.27	46.64	0	12:30
TRMB05043-S	JUNCTION	0.00	0.00	52.86	0	00:00
TRMB05044	JUNCTION	0.11	0.42	47.99	0	12:30
TRMB05044-S	JUNCTION	0.00	0.00	51.12	0	12:29
TRMB05045	JUNCTION	0.38	1.30	47.98	0	12:30
TRMB05045-S	JUNCTION	0.00	0.04	52.52	0	12:00
TRMB05046	JUNCTION	0.34	1.30	44.57	0	12:30
TRMB05046-S	JUNCTION	0.00	0.00	47.67	0	20:14
TRMB05047	JUNCTION	1.16	1.50	43.02	0	08:14
TRMB05048	JUNCTION	0.27	0.81	43.63	0	12:31
TRMB05048-S	JUNCTION	0.00	0.00	48.28	0	00:00
PCTB01066	OUTFALL	0.32	0.92	18.89	0	12:29
PCTB02009	OUTFALL	0.89	1.36	23.13	0	13:59
PCTB02081	OUTFALL	6.98	6.98	23.81	0	23:45
TRMB02001	OUTFALL	0.50	1.53	1.18	0	12:30
TRMB03012	OUTFALL	0.44	1.63	8.81	0	12:30
TRMB03066	OUTFALL	0.56	2.31	2.31	0	12:30
TRMB05001	OUTFALL	0.34	0.94	24.54	0	12:30

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Node Inflow Summary  
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Total Inflow Volume gal	Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	10^6
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## Future Conditions (10-Year)

CountrySideE_Ditch_Culvert_In	JUNCTION	0.00	21.84	0	12:30	0
7.43 1.700						
CountrySideE_Ditch_Culvert_In-S	JUNCTION	35.92	35.92	0	12:30	5.33
5.33 -0.230						
JMTB01003	JUNCTION	0.00	27.95	0	13:01	0
6.08 0.099						
JMTB01003-S	JUNCTION	15.61	15.61	0	12:30	2.6
2.6 -0.091						
JMTB01004	JUNCTION	0.00	7.89	0	11:57	0
2.52 0.054						
JMTB01004-S	JUNCTION	0.00	5.10	0	12:25	0
0.444 -0.000						
JMTB01005	JUNCTION	0.00	8.51	0	13:01	0
2.58 0.139						
JMTB01005-S	JUNCTION	0.00	0.99	0	12:25	0
0.06 0.001						
JMTB01006	JUNCTION	0.00	16.54	0	11:56	0
5.63 2.103						
JMTB01006-S	JUNCTION	77.22	77.22	0	12:30	8.5
8.5 0.021						
JMTB01102	JUNCTION	0.00	7.34	0	13:00	0
1.58 0.029						
JMTB01102-S	JUNCTION	8.57	8.57	0	13:00	1.63
1.63 -0.465						
JMTB01103	JUNCTION	0.00	10.64	0	13:00	0
1.98 0.107						
JMTB01103-S	JUNCTION	0.00	1.27	0	13:00	0
0.0559 -0.537						
JMTB01104	JUNCTION	0.00	2.08	0	12:30	0
0.346 -0.177						
JMTB01104-S	JUNCTION	2.12	2.12	0	12:30	0.335
0.335 -3.863						
JMTB01105	JUNCTION	0.00	19.29	0	13:00	0
3.98 0.136						
JMTB01105-S	JUNCTION	12.75	12.75	0	12:59	2.21
2.21 -0.544						
PCTB01068	JUNCTION	0.00	16.97	0	12:23	0
1.77 0.107						
PCTB01068_US	JUNCTION	0.00	8.66	0	12:22	0
1.33 0.031						
PCTB01068_US-S	JUNCTION	22.35	22.35	0	12:30	1.8
1.8 -0.629						
PCTB01068-S	JUNCTION	0.00	9.85	0	12:22	0
0.434 -0.110						
PCTB02001	JUNCTION	0.00	12.58	0	12:39	0
2.79 4.674						
PCTB02001-S	JUNCTION	6.32	6.32	0	12:30	1.06
1.06 -1.371						
PCTB02002	JUNCTION	0.00	6.30	0	12:38	0
1.66 0.044						
PCTB02002-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02003	JUNCTION	0.00	8.66	0	12:09	0
1.95 0.338						
PCTB02003-S	JUNCTION	0.00	21.56	0	12:30	0
2.76 -0.083						
PCTB02004	JUNCTION	0.00	12.75	0	12:47	0
3.19 0.451						
PCTB02004-S	JUNCTION	29.03	29.03	0	12:30	4.83
4.83 -0.204						
PCTB02005	JUNCTION	12.05	15.67	0	13:27	2.29
3.12 0.399						

## Future Conditions (10-Year)

PCTB02008	JUNCTION	0.00	36.37	0	13:57	0
7.9 0.622						
PCTB02011	JUNCTION	0.00	20.88	0	13:57	0
4.79 0.236						
PCTB02011-S	JUNCTION	0.00	2.10	0	12:27	0
0.119 -0.007						
PCTB02012	JUNCTION	0.00	19.44	0	14:38	0
4.7 0.690						
PCTB02012-S	JUNCTION	11.66	11.66	0	12:59	2.01
2.01 -0.600						
PCTB02014	JUNCTION	0.00	16.36	0	15:45	0
2.84 2.016						
PCTB02014-S	JUNCTION	0.00	9.34	0	13:53	0
0.182 0.608						
PCTB02015	JUNCTION	0.00	12.97	0	13:22	0
2.87 7.865						
PCTB02015-S	JUNCTION	0.00	4.36	0	14:05	0
0.183 -0.182						
PCTB02016	JUNCTION	0.00	4.36	0	15:17	0
0.847 0.599						
PCTB02016-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02017	JUNCTION	0.00	4.37	0	15:15	0
0.847 0.766						
PCTB02017-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02022	JUNCTION	0.00	5.30	0	12:33	0
1.2 0.011						
PCTB02022-S	JUNCTION	9.60	9.60	0	12:30	1.54
1.54 -0.454						
PCTB02023	JUNCTION	0.00	8.37	0	12:35	0
1.18 0.338						
PCTB02023-S	JUNCTION	0.00	4.30	0	12:30	0
0.343 -1.466						
PCTB02075	JUNCTION	0.00	396.55	0	00:05	0
20.1 0.875						
PCTB02076	JUNCTION	0.00	369.80	0	00:05	0
19.9 0.642						
PCTB02080	JUNCTION	0.00	677.34	0	00:04	0
91.3 0.566						
PCTB02159	JUNCTION	0.00	335.71	0	00:05	0
19.8 0.453						
PCTB02160	JUNCTION	0.00	303.68	0	00:05	0
19.7 0.866						
PCTB02189	JUNCTION	0.00	17.73	0	00:03	0
2.06 0.301						
PCTB02189-S	JUNCTION	36.20	36.20	0	12:30	5.4
5.4 0.001						
PCTB02191	JUNCTION	0.00	46.54	0	12:31	0
24.5 0.030						
PCTB02191_DS	JUNCTION	0.00	383.86	0	00:02	0
88.6 0.464						
PCTB02191_DS-S	JUNCTION	0.00	36.05	0	12:31	0
10.1 0.051						
PCTB02191-S	JUNCTION	0.00	28.87	0	12:31	0
3.34 0.003						
PCTB02207	JUNCTION	0.00	66.78	0	00:12	0
15 1.142						
PCTB02207-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02209	JUNCTION	0.00	50.99	0	13:31	0
14.8 1.070						

## Future Conditions (10-Year)

PCTB02209-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02220	JUNCTION	0.00	240.48	0	00:06	0
19.6 1.123						
PCTB02229	JUNCTION	0.00	244.84	0	00:06	0
19.3 0.607						
PCTB02229-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02231	JUNCTION	0.00	147.50	0	00:06	0
19.2 0.643						
PCTB02231-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02233	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02235	JUNCTION	0.00	106.41	0	00:08	0
19.1 0.500						
PCTB02235-S	JUNCTION	29.88	29.88	0	12:30	4.42
4.42 -0.298						
PCTB02237	JUNCTION	0.00	92.19	0	00:10	0
16.6 1.551						
PCTB02237-S	JUNCTION	0.00	8.36	0	12:05	0
1.32 -0.001						
PCTB02257	JUNCTION	0.00	29.94	0	13:13	0
9.47 0.221						
PCTB02257_1	JUNCTION	0.00	51.04	0	13:30	0
14.5 0.374						
PCTB02257_1-S	JUNCTION	10.87	10.87	0	12:30	1.67
1.67 -0.885						
PCTB02257-S	JUNCTION	0.00	29.22	0	12:30	0
3.41 -0.073						
PCTB02260	JUNCTION	0.00	51.03	0	13:31	0
14.5 0.292						
PCTB02260-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02262	JUNCTION	0.00	51.02	0	13:31	0
14.7 1.019						
PCTB02262-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02275	JUNCTION	0.00	17.10	0	13:30	0
3.89 0.468						
PCTB02275-S	JUNCTION	0.00	6.71	0	12:30	0
0.6 -0.938						
PCTB02276	JUNCTION	0.00	12.17	0	16:34	0
3.27 0.592						
PCTB02276-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02278	JUNCTION	0.00	20.40	0	14:42	0
3.27 3.085						
PCTB02278-S	JUNCTION	0.00	7.82	0	14:33	0
0.00882 31.275						
PCTB02280	JUNCTION	0.00	18.92	0	12:57	0
10 0.013						
PCTB02280-S	JUNCTION	0.00	26.45	0	12:31	0
7.97 0.193						
PCTB02281	JUNCTION	0.00	9.62	0	12:14	0
3.45 0.054						
PCTB02281-S	JUNCTION	0.00	9.92	0	12:13	0
2.8 0.177						
PCTB02282	JUNCTION	0.00	6.22	0	12:32	0
2.91 0.035						
PCTB02282-S	JUNCTION	5.29	5.29	0	12:30	0.807
0.807 0.009						

## Future Conditions (10-Year)

PCTB02283	JUNCTION	0.00	6.96	0	12:32	0
2.97 0.022						
PCTB02283-S	JUNCTION	0.00	0.74	0	12:32	0
0.0549 -11.223						
PCTB02284	JUNCTION	0.00	3.22	0	00:13	0
0.000839 75.208						
PCTB02284-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02292	JUNCTION	0.00	255.34	0	00:13	0
44.2 1.558						
PCTB02292-S	JUNCTION	17.61	25.84	0	12:30	2.78
7.92 0.033						
PCTB02294	JUNCTION	0.00	279.24	0	00:11	0
51.1 0.997						
PCTB02294-S	JUNCTION	10.25	20.37	0	12:30	1.62
7.99 0.074						
PCTB02295	JUNCTION	0.00	283.01	0	00:11	0
58.9 0.148						
PCTB02295-S	JUNCTION	0.00	32.74	0	12:30	0
15.8 0.023						
PCTB02297	JUNCTION	0.00	4.76	0	12:39	0
0.934 0.307						
PCTB02297-S	JUNCTION	6.90	6.90	0	12:30	1.07
1.07 -0.071						
PCTB02302	JUNCTION	0.00	111.92	0	00:13	0
33.4 0.301						
PCTB02302-S	JUNCTION	0.00	7.11	0	00:22	0
0.592 0.973						
PCTB02303	JUNCTION	0.00	62.94	0	00:25	0
34.3 0.042						
PCTB02303-S	JUNCTION	14.48	14.48	0	12:30	2.42
2.42 -0.015						
PCTB02304	JUNCTION	0.00	71.06	0	12:58	0
36.5 0.028						
PCTB02304-S	JUNCTION	14.44	20.67	0	12:30	2.38
3.18 -0.327						
PCTB02312	JUNCTION	0.00	178.25	0	00:12	0
35.3 0.750						
PCTB02312-S	JUNCTION	0.00	7.46	0	00:22	0
0.0746 14.461						
PCTB02329	JUNCTION	0.00	6.29	0	12:38	0
1.66 0.093						
PCTB02329-S	JUNCTION	0.00	0.13	0	12:37	0
0.0031 -11.907						
PCTB02330	JUNCTION	0.00	6.17	0	12:39	0
1.65 0.109						
PCTB02330-S	JUNCTION	0.00	2.81	0	12:36	0
0.145 0.002						
PCTB02331	JUNCTION	0.00	7.19	0	12:37	0
1.82 0.062						
PCTB02331-S	JUNCTION	10.05	10.05	0	12:30	1.61
1.61 -1.006						
PCTB02332	JUNCTION	0.00	2.64	0	13:28	0
0.601 0.367						
PCTB02332-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB02002	JUNCTION	0.00	53.27	0	12:29	0
4.58 -0.005						
TRMB02002-S	JUNCTION	4.14	4.14	0	12:00	0.208
0.208 -17.546						
TRMB02003	JUNCTION	0.00	50.45	0	12:30	0
4.37 0.306						

## Future Conditions (10-Year)

TRMB02003-S	JUNCTION	0.00	7.38	0	12:00	0
0.123 -3.324						
TRMB02006	JUNCTION	0.00	44.25	0	12:30	0
4.24 0.044						
TRMB02006-S	JUNCTION	0.00	10.74	0	12:00	0
0.232 -2.912						
TRMB02009	JUNCTION	0.00	39.79	0	12:16	0
4.1 0.003						
TRMB02009-S	JUNCTION	15.83	15.83	0	12:00	0.76
0.759 -1.213						
TRMB02012	JUNCTION	0.00	35.20	0	12:23	0
3.58 0.033						
TRMB02012-S	JUNCTION	0.00	0.29	0	12:00	0
0.00644 -21.600						
TRMB02015	JUNCTION	0.00	34.96	0	12:18	0
3.57 0.024						
TRMB02015-S	JUNCTION	0.00	12.55	0	12:16	0
0.205 -1.809						
TRMB02016	JUNCTION	0.00	26.28	0	12:22	0
3.38 0.032						
TRMB02016-S	JUNCTION	7.73	19.72	0	12:10	0.351
0.595 -3.105						
TRMB02018	JUNCTION	0.00	19.46	0	12:51	0
2.97 0.045						
TRMB02018-S	JUNCTION	7.96	18.68	0	12:10	0.363
0.588 -3.174						
TRMB02022	JUNCTION	0.00	34.20	0	12:29	0
3.21 0.108						
TRMB02022-S	JUNCTION	2.89	21.28	0	12:01	0.136
0.572 -3.923						
TRMB02023	JUNCTION	0.00	8.49	0	12:01	0
0.777 0.002						
TRMB02023-S	JUNCTION	6.69	6.69	0	11:59	0.313
0.313 -4.063						
TRMB02030	JUNCTION	0.00	9.26	0	12:30	0
0.587 0.018						
TRMB02030-S	JUNCTION	0.00	0.24	0	12:01	0
0.00372 -9.978						
TRMB02032	JUNCTION	0.00	9.08	0	12:30	0
0.583 0.054						
TRMB02032-S	JUNCTION	0.00	0.13	0	12:30	0
0.00128 -2.062						
TRMB02033	JUNCTION	0.00	8.97	0	11:58	0
0.582 0.004						
TRMB02033-S	JUNCTION	0.00	3.10	0	12:30	0
0.0479 -0.522						
TRMB02034	JUNCTION	0.00	8.66	0	12:30	0
0.581 0.021						
TRMB02034-S	JUNCTION	0.00	7.64	0	12:30	0
0.162 -2.064						
TRMB02035	JUNCTION	0.00	4.87	0	12:30	0
0.477 -0.030						
TRMB02035-S	JUNCTION	12.51	12.51	0	12:29	0.634
0.634 -0.702						
TRMB02044	JUNCTION	0.00	17.05	0	11:54	0
1.34 0.081						
TRMB02044_DS	JUNCTION	0.00	17.93	0	12:29	0
2.06 0.220						
TRMB02044_DS-S	JUNCTION	22.75	22.75	0	12:00	1.12
1.12 -1.177						
TRMB02044-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						

## Future Conditions (10-Year)

TRMB02045	JUNCTION	0.00	17.03	0	11:54	0
1.34 0.076						
TRMB02045-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB02046	JUNCTION	0.00	6.03	0	11:55	0
0.383 0.021						
TRMB02046-S	JUNCTION	0.00	0.11	0	12:27	0
0.00158 -71.981						
TRMB02047	JUNCTION	0.00	5.55	0	12:30	0
0.376 -0.180						
TRMB02047-S	JUNCTION	2.83	2.83	0	12:29	0.143
0.143 -27.018						
TRMB02048	JUNCTION	0.00	2.84	0	12:30	0
0.182 0.037						
TRMB02048-S	JUNCTION	0.00	0.09	0	12:30	0
0.00144 -73.945						
TRMB02049	JUNCTION	0.00	2.74	0	12:30	0
0.176 -0.597						
TRMB02049-S	JUNCTION	2.83	2.83	0	12:29	0.142
0.142 -19.850						
TRMB02050	JUNCTION	0.00	13.04	0	11:54	0
0.954 0.088						
TRMB02050-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB02051	JUNCTION	0.00	12.97	0	11:54	0
0.955 0.054						
TRMB02051-S	JUNCTION	2.18	2.18	0	12:00	0.11
0.11 -34.413						
TRMB02052	JUNCTION	0.00	17.11	0	12:30	0
1 0.036						
TRMB02052-S	JUNCTION	0.00	0.03	0	12:00	0
0.000505 -82.373						
TRMB02056	JUNCTION	0.00	17.00	0	12:30	0
1 0.020						
TRMB02056-S	JUNCTION	0.00	0.94	0	12:03	0
0.0128 -1.104						
TRMB02057	JUNCTION	0.00	16.16	0	12:30	0
0.987 0.055						
TRMB02057-S	JUNCTION	0.00	5.14	0	12:01	0
0.0977 -6.254						
TRMB02060	JUNCTION	0.00	12.28	0	12:30	0
0.896 -0.031						
TRMB02060-S	JUNCTION	9.49	9.49	0	12:00	0.468
0.468 -3.537						
TRMB02063	JUNCTION	0.00	7.97	0	12:30	0
0.508 0.054						
TRMB02063-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB02064	JUNCTION	0.00	7.98	0	12:30	0
0.509 0.060						
TRMB02064-S	JUNCTION	0.00	0.37	0	12:30	0
0.00475 -25.913						
TRMB02067	JUNCTION	0.00	7.61	0	12:30	0
0.503 0.109						
TRMB02067-S	JUNCTION	2.75	3.48	0	12:29	0.138
0.15 -19.949						
TRMB02068	JUNCTION	0.00	4.51	0	12:30	0
0.32 0.052						
TRMB02068-S	JUNCTION	3.83	3.83	0	12:29	0.192
0.192 -16.648						
TRMB02069	JUNCTION	0.00	1.43	0	12:29	0
0.101 -0.028						

## Future Conditions (10-Year)

TRMB02069-S 005 -88.294	JUNCTION	0.00	0.01	0	13:30	0	7.44e-
TRMB02070 0.101 0.196	JUNCTION	0.00	1.41	0	12:29	0	
TRMB02070-S 0.071 -29.722	JUNCTION	1.41	1.41	0	12:29	0.071	
TRMB03016 2.45 0.020	JUNCTION	11.46	35.43	0	12:29	0.564	
TRMB03016-S 0 0.000 gal	JUNCTION	0.00	0.00	0	00:00	0	
TRMB03022 1.91 0.010	JUNCTION	0.00	29.80	0	12:30	0	
TRMB03022-S 0.0127 -32.038	JUNCTION	0.00	4.95	0	12:30	0	
TRMB03025 1.86 -0.011	JUNCTION	0.00	25.11	0	12:30	0	
TRMB03025-S 0.116 -32.321	JUNCTION	2.31	2.31	0	12:29	0.116	
TRMB03026 0.029 0.063	JUNCTION	0.00	0.58	0	12:30	0	
TRMB03027 0.029 0.030	JUNCTION	0.58	0.58	0	12:29	0.029	
TRMB03028 1.69 0.036	JUNCTION	0.00	23.20	0	12:34	0	
TRMB03028-S 0 0.000 gal	JUNCTION	0.00	0.00	0	00:00	0	
TRMB03029 1.69 0.017	JUNCTION	0.00	23.20	0	12:34	0	
TRMB03029-S 0 0.000 gal	JUNCTION	0.00	0.00	0	00:00	0	
TRMB03030 1.7 0.167	JUNCTION	0.00	30.88	0	12:35	0	
TRMB03030-S 0 0.000 gal	JUNCTION	0.00	0.00	0	00:00	0	
TRMB03031 1.7 0.028	JUNCTION	0.00	23.84	0	12:31	0	
TRMB03031-S 0.14 -17.179	JUNCTION	2.83	2.85	0	12:29	0.14	
TRMB03032 1.53 0.072	JUNCTION	0.00	21.24	0	12:35	0	
TRMB03032-S 0.0853 -28.297	JUNCTION	1.73	1.73	0	12:29	0.0853	
TRMB03033 0.00738 -0.039	JUNCTION	0.00	1.20	0	11:58	0	
TRMB03033-S 0.000201 -73.254	JUNCTION	0.00	0.02	0	12:30	0	
TRMB03034 0.321 -0.023	JUNCTION	0.00	5.51	0	11:58	0	
TRMB03034-S 0.0313 -14.685	JUNCTION	0.00	1.89	0	12:30	0	
TRMB03035 0.00187 -1.571	JUNCTION	0.00	3.02	0	12:01	0	
TRMB03035-S 0 0.000 gal	JUNCTION	0.00	0.00	0	00:00	0	
TRMB03036 1.41 0.078	JUNCTION	0.00	21.62	0	12:01	0	
TRMB03036-S 0.000533 -10.230	JUNCTION	0.00	0.06	0	12:30	0	
TRMB03037 0.301 -0.320	JUNCTION	0.00	4.38	0	12:30	0	
TRMB03037-S 0.313 -5.746	JUNCTION	6.28	6.28	0	12:29	0.313	



## Future Conditions (10-Year)

TRMB03038	JUNCTION	0.00	1.28	0	12:02	0
0.000802	-0.670					
TRMB03038-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
TRMB03039	JUNCTION	0.00	16.90	0	12:02	0
1.1	0.072					
TRMB03039-S	JUNCTION	0.00	2.48	0	12:30	0
0.0436	-8.969					
TRMB03042	JUNCTION	0.00	3.95	0	12:30	0
0.289	-0.164					
TRMB03042-S	JUNCTION	6.45	6.45	0	12:29	0.321
0.321	-3.295					
TRMB03043	JUNCTION	0.00	9.47	0	11:58	0
0.507	0.070					
TRMB03043-S	JUNCTION	0.00	0.04	0	12:30	0
0.00042	-20.665					
TRMB03044	JUNCTION	0.00	4.41	0	12:30	0
0.254	-0.252					
TRMB03044-S	JUNCTION	4.31	4.44	0	12:29	0.215
0.217	-14.656					
TRMB03049	JUNCTION	0.00	1.06	0	11:58	0
0.000596	-5.647					
TRMB03049-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
TRMB03051	JUNCTION	0.00	9.68	0	11:59	0
0.553	0.044					
TRMB03051-S	JUNCTION	0.00	0.10	0	12:30	0
0.00133	-33.465					
TRMB03052	JUNCTION	0.00	2.61	0	12:01	0
0.000623	-2.747					
TRMB03052-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
TRMB03054	JUNCTION	0.00	6.85	0	12:30	0
0.354	0.097					
TRMB03054-S	JUNCTION	0.00	2.56	0	12:30	0
0.0442	-3.293					
TRMB03055	JUNCTION	0.00	3.79	0	12:30	0
0.236	0.014					
TRMB03055-S	JUNCTION	3.91	3.91	0	12:29	0.195
0.195	-17.591					
TRMB03063	JUNCTION	0.00	4.33	0	12:30	0
0.309	-0.037					
TRMB03063-S	JUNCTION	6.90	6.90	0	12:29	0.345
0.345	-2.234					
TRMB03065	JUNCTION	0.00	71.66	0	12:30	0
4.41	0.020					
TRMB03065-S	JUNCTION	0.00	0.32	0	12:30	0
0.00262	-53.829					
TRMB03067	JUNCTION	0.00	0.99	0	12:05	0
0.0702	0.807					
TRMB03067-S	JUNCTION	0.38	0.38	0	12:29	0.02
0.02	-71.581					
TRMB03068	JUNCTION	0.00	3.85	0	12:28	0
0.361	-0.148					
TRMB03068-S	JUNCTION	7.71	7.71	0	12:29	0.408
0.408	-4.897					
TRMB03069	JUNCTION	0.00	70.98	0	12:30	0
4.34	0.015					
TRMB03069-S	JUNCTION	0.00	3.86	0	12:30	0
0.0683	-7.295					
TRMB03070	JUNCTION	0.00	63.88	0	12:30	0
3.9	0.019					

## Future Conditions (10-Year)

TRMB03070-S	JUNCTION	0.00	0.67	0	12:30	0
0.00757 -42.368						
TRMB03072	JUNCTION	0.00	60.37	0	12:30	0
3.69 0.013						
TRMB03072-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03073	JUNCTION	0.00	2.87	0	12:30	0
0.206 -0.478						
TRMB03073-S	JUNCTION	3.32	3.32	0	12:29	0.176
0.176 -16.791						
TRMB03083	JUNCTION	0.00	55.28	0	12:31	0
3.36 0.011						
TRMB03083-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03084	JUNCTION	0.00	5.18	0	12:30	0
0.325 0.111						
TRMB03084-S	JUNCTION	0.00	1.58	0	12:30	0
0.0262 -29.356						
TRMB03087	JUNCTION	0.00	55.26	0	12:31	0
3.36 0.079						
TRMB03087-S	JUNCTION	6.26	6.26	0	12:29	0.335
0.335 -3.774						
TRMB03088	JUNCTION	0.00	49.67	0	12:30	0
3.02 0.043						
TRMB03088-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03089	JUNCTION	0.00	49.67	0	12:30	0
3.02 0.012						
TRMB03089-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03090	JUNCTION	0.00	49.67	0	12:30	0
3.02 0.065						
TRMB03090-S	JUNCTION	0.00	10.00	0	12:30	0
0.154 -2.448						
TRMB03091	JUNCTION	0.00	38.03	0	12:30	0
2.6 0.018						
TRMB03091-S	JUNCTION	2.15	13.41	0	12:30	0.114
0.304 -13.455						
TRMB03092	JUNCTION	0.00	3.27	0	12:30	0
0.26 -0.558						
TRMB03092-S	JUNCTION	4.58	4.58	0	12:29	0.244
0.244 -13.109						
TRMB03094	JUNCTION	0.00	33.36	0	12:30	0
2.38 0.019						
TRMB03094-S	JUNCTION	0.06	19.24	0	12:30	0.00333
0.372 -3.422						
TRMB03095	JUNCTION	0.00	2.51	0	12:30	0
0.0488 0.345						
TRMB03095-S	JUNCTION	0.01	2.51	0	12:30	0.00059
0.0368 -24.649						
TRMB03096	JUNCTION	0.00	21.30	0	12:30	0
1.72 0.040						
TRMB03096-S	JUNCTION	0.00	17.62	0	12:30	0
0.348 -1.043						
TRMB03097	JUNCTION	0.00	4.10	0	12:29	0
0.455 -0.100						
TRMB03097-S	JUNCTION	10.32	10.32	0	12:29	0.583
0.583 -2.939						
TRMB03101	JUNCTION	0.00	0.44	0	13:13	0
0.0418 1.128						
TRMB03101-S	JUNCTION	0.13	0.13	0	12:29	0.00673
0.00673 -83.892						

## Future Conditions (10-Year)

TRMB03102	JUNCTION	0.00	16.55	0	12:30	0	
1.55 0.044							
TRMB03102-S	JUNCTION	1.53	23.18	0	12:30	0.0841	
0.589 -5.329							
TRMB03103	JUNCTION	0.00	11.00	0	12:30	0	
1.28 0.006							
TRMB03103-S	JUNCTION	7.89	27.00	0	12:29	0.42	
0.952 -0.907							
TRMB03111	JUNCTION	0.00	5.66	0	12:30	0	
0.82 -0.053							
TRMB03111-S	JUNCTION	24.77	24.77	0	12:29	1.35	
1.35 -0.326							
TRMB03132	JUNCTION	0.00	3.61	0	12:30	0	
0.286 -0.405							
TRMB03132-S	JUNCTION	5.19	5.19	0	12:29	0.276	
0.276 -11.856							
TRMB04089	JUNCTION	0.00	8.36	0	12:30	0	
1.9 0.067							
TRMB04089-S	JUNCTION	117.40	117.40	0	12:29	6.83	
6.83 -0.038							
TRMB04265-S	JUNCTION	1.18	1.18	0	12:29	0.0602	
0.0602 0.000							
TRMB05002	JUNCTION	0.00	77.59	0	12:30	0	
7.73 0.009							
TRMB05002-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB05003	JUNCTION	0.00	77.65	0	12:30	0	
7.73 -0.005							
TRMB05003-S	JUNCTION	0.00	0.01	0	11:44	0	
0.000108 -91.539							
TRMB05004	JUNCTION	0.00	0.43	0	13:08	0	
0.0421 6.858							
TRMB05004-S	JUNCTION	0.33	0.33	0	12:29	0.0166	
0.0166 -60.436							
TRMB05005	JUNCTION	0.00	1.37	0	12:30	0	
0.113 0.209							
TRMB05005-S	JUNCTION	1.38	1.38	0	12:29	0.0705	
0.0705 -37.731							
TRMB05006	JUNCTION	0.00	75.90	0	12:30	0	
7.58 0.060							
TRMB05006-S	JUNCTION	0.00	0.00	0	11:49	0	2.57e-
005 -97.705							
TRMB05008	JUNCTION	0.00	1.55	0	12:30	0	
0.14 0.611							
TRMB05008-S	JUNCTION	1.55	1.55	0	12:29	0.0794	
0.0794 -43.279							
TRMB05009	JUNCTION	0.00	67.36	0	12:29	0	
6.9 0.038							
TRMB05009_DS	JUNCTION	0.00	70.75	0	12:30	0	
7.17 0.041							
TRMB05009_DS-S	JUNCTION	0.56	0.73	0	12:29	0.0287	
0.0323 -66.902							
TRMB05009-S	JUNCTION	0.00	3.89	0	12:37	0	
0.108 -0.409							
TRMB05010	JUNCTION	0.00	3.78	0	12:30	0	
0.272 -0.437							
TRMB05010-S	JUNCTION	2.41	2.41	0	12:29	0.124	
0.124 -27.043							
TRMB05011	JUNCTION	0.00	1.37	0	12:30	0	
0.102 0.017							
TRMB05011-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							

## Future Conditions (10-Year)

TRMB05012	JUNCTION	0.00	1.37	0	12:29	0	
0.102 0.078							
TRMB05012-S	JUNCTION	1.37	1.37	0	12:29	0.0712	
0.0712 -30.459							
TRMB05013	JUNCTION	0.00	0.98	0	12:30	0	
0.091 0.811							
TRMB05013-S	JUNCTION	0.58	0.98	0	12:29	0.0295	
0.0378 -58.485							
TRMB05014	JUNCTION	0.00	1.96	0	12:30	0	
0.137 0.538							
TRMB05014-S	JUNCTION	1.56	1.96	0	12:29	0.0797	
0.0872 -36.261							
TRMB05015	JUNCTION	0.00	61.58	0	12:29	0	
6.59 0.047							
TRMB05015-S	JUNCTION	0.02	13.50	0	12:30	0.00111	
0.525 -1.759							
TRMB05016	JUNCTION	0.00	14.18	0	12:29	0	
1.01 0.014							
TRMB05016-S	JUNCTION	0.00	2.72	0	12:30	0	
0.0752 -2.324							
TRMB05017	JUNCTION	0.00	39.83	0	12:34	0	
5.18 0.067							
TRMB05017_US	JUNCTION	0.00	17.02	0	12:30	0	
3.27 0.100							
TRMB05017_US-S	JUNCTION	1.73	110.49	0	12:30	0.0884	
5.02 -0.020							
TRMB05017-S	JUNCTION	0.00	77.63	0	12:37	0	
3.48 -0.025							
TRMB05018	JUNCTION	0.00	3.27	0	12:30	0	
0.122 0.032							
TRMB05018-S	JUNCTION	0.00	2.33	0	12:30	0	
0.065 -2.156							
TRMB05019	JUNCTION	0.00	11.39	0	12:29	0	
0.91 0.035							
TRMB05019-S	JUNCTION	0.00	0.14	0	12:30	0	
0.0024 -12.917							
TRMB05020	JUNCTION	0.00	0.34	0	11:49	0	
0.027 1.086							
TRMB05020-S	JUNCTION	0.07	0.15	0	12:29	0.00334	
0.00486 -82.018							
TRMB05021	JUNCTION	0.00	11.26	0	12:27	0	
0.907 0.032							
TRMB05021-S	JUNCTION	0.00	0.01	0	13:17	0	4.02e-
005 -95.495							
TRMB05022	JUNCTION	0.00	1.02	0	12:29	0	
0.057 0.827							
TRMB05022-S	JUNCTION	0.69	0.75	0	12:29	0.0353	
0.0363 -11.337							
TRMB05023	JUNCTION	0.00	4.59	0	12:32	0	
0.0235 2.636							
TRMB05023-S	JUNCTION	0.28	4.80	0	12:36	0.0146	
0.0214 -8.804							
TRMB05025	JUNCTION	0.00	8.66	0	11:54	0	
0.597 0.077							
TRMB05025-S	JUNCTION	0.50	26.31	0	12:29	0.0257	
1.02 -2.380							
TRMB05026	JUNCTION	0.00	2.51	0	12:30	0	
0.173 -0.023							
TRMB05026-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB05027	JUNCTION	0.00	8.66	0	11:52	0	
0.69 0.063							

## Future Conditions (10-Year)

TRMB05027-S	JUNCTION	0.32	33.27	0	12:29	0.0162
1.36 -1.474						
TRMB05028	JUNCTION	0.00	10.21	0	12:00	0
0.82 0.064						
TRMB05028-S	JUNCTION	0.07	0.33	0	12:30	0.00334
0.00677 -80.323						
TRMB05029	JUNCTION	0.00	1.18	0	13:17	0
0.0868 0.176						
TRMB05029-S	JUNCTION	1.08	1.08	0	12:29	0.0551
0.0551 -36.479						
TRMB05030	JUNCTION	0.00	3.20	0	11:57	0
0.246 0.141						
TRMB05030-S	JUNCTION	0.44	0.63	0	12:29	0.0227
0.0252 -63.121						
TRMB05031	JUNCTION	0.00	4.49	0	12:30	0
0.273 -0.351						
TRMB05031-S	JUNCTION	4.76	4.76	0	12:29	0.248
0.248 -10.232						
TRMB05032	JUNCTION	0.00	3.80	0	12:30	0
0.267 0.208						
TRMB05032-S	JUNCTION	0.96	1.10	0	12:29	0.0489
0.0507 -49.062						
TRMB05033	JUNCTION	0.00	3.20	0	12:30	0
0.205 1.192						
TRMB05033-S	JUNCTION	3.39	3.39	0	12:29	0.176
0.176 -15.104						
TRMB05034	JUNCTION	0.00	2.69	0	12:30	0
0.166 -0.772						
TRMB05034-S	JUNCTION	2.84	2.84	0	12:29	0.143
0.143 -14.899						
TRMB05035	JUNCTION	0.00	4.04	0	12:30	0
0.384 0.070						
TRMB05035-S	JUNCTION	0.04	0.05	0	12:29	0.00222
0.00234 -89.895						
TRMB05036	JUNCTION	0.00	1.85	0	12:30	0
0.18 0.356						
TRMB05036-S	JUNCTION	0.42	0.42	0	12:29	0.0217
0.0219 -69.854						
TRMB05037	JUNCTION	0.00	1.43	0	12:30	0
0.107 0.068						
TRMB05037-S	JUNCTION	1.43	1.43	0	12:29	0.0745
0.0745 -30.692						
TRMB05038	JUNCTION	0.00	2.03	0	12:30	0
0.182 0.266						
TRMB05038-S	JUNCTION	0.89	0.89	0	12:29	0.0462
0.0462 -50.563						
TRMB05039	JUNCTION	0.00	1.15	0	12:29	0
0.0885 0.239						
TRMB05039-S	JUNCTION	1.15	1.15	0	12:29	0.0595
0.0596 -32.732						
TRMB05040	JUNCTION	0.00	5.81	0	12:30	0
0.521 0.100						
TRMB05040-S	JUNCTION	1.90	1.90	0	12:29	0.0993
0.0993 -27.995						
TRMB05041	JUNCTION	0.00	7.54	0	12:30	0
0.656 0.130						
TRMB05041-S	JUNCTION	1.67	1.76	0	12:29	0.0868
0.088 -35.293						
TRMB05042	JUNCTION	0.00	2.51	0	12:30	0
0.173 0.019						
TRMB05042-S	JUNCTION	2.51	2.51	0	12:29	0.129
0.129 -25.138						

## Future Conditions (10-Year)

TRMB05043	JUNCTION	0.00	2.51	0	12:30	0
0.173	0.039					
TRMB05043-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
TRMB05044	JUNCTION	0.00	0.71	0	11:08	0
0.0716	0.717					
TRMB05044-S	JUNCTION	0.62	0.65	0	12:29	0.0325
0.0332	-53.638					
TRMB05045	JUNCTION	0.00	10.10	0	12:30	0
0.884	0.143					
TRMB05045-S	JUNCTION	2.17	2.17	0	12:00	0.104
0.104	-34.998					
TRMB05046	JUNCTION	0.00	10.15	0	12:30	0
0.89	0.062					
TRMB05046-S	JUNCTION	0.00	0.04	0	12:00	0
0.000753	-88.846					
TRMB05047	JUNCTION	2.69	12.75	0	12:30	0.14
1.03	0.000					
TRMB05048	JUNCTION	0.00	10.10	0	12:30	0
0.889	0.026					
TRMB05048-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB01066	OUTFALL	0.00	16.91	0	12:29	0
1.77	0.000					
PCTB02009	OUTFALL	101.94	126.40	0	12:59	13.7
21.6	0.000					
PCTB02081	OUTFALL	0.00	677.34	0	00:04	0
73.3	0.000					
TRMB02001	OUTFALL	0.00	53.26	0	12:30	0
4.58	0.000					
TRMB03012	OUTFALL	0.00	35.42	0	12:30	0
2.45	0.000					
TRMB03066	OUTFALL	0.00	71.62	0	12:30	0
4.41	0.000					
TRMB05001	OUTFALL	0.00	77.58	0	12:30	0
7.73	0.000					

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
JMTB01003	JUNCTION	11.76	0.000	0.000
JMTB01003-S	JUNCTION	1.58	0.000	0.000
JMTB01004	JUNCTION	11.89	0.478	0.041
JMTB01005	JUNCTION	11.86	0.260	0.000
JMTB01006	JUNCTION	7.80	0.000	0.000
JMTB01006-S	JUNCTION	10.51	0.000	0.000
JMTB01103	JUNCTION	1.20	0.059	1.091
JMTB01104	JUNCTION	5.45	0.655	1.205
JMTB01105-S	JUNCTION	3.44	0.000	0.000
PCTB01068_US-S	JUNCTION	0.57	0.000	0.000
PCTB02003-S	JUNCTION	4.37	0.000	0.000
PCTB02012-S	JUNCTION	1.32	0.000	0.000
PCTB02022	JUNCTION	12.19	1.190	0.000
PCTB02023	JUNCTION	12.01	0.870	0.000

## Future Conditions (10-Year)

PCTB02189	JUNCTION	23.69	1.690	0.000
PCTB02191	JUNCTION	23.70	2.090	0.000
PCTB02191_DS-S	JUNCTION	23.63	0.000	0.000
PCTB02235-S	JUNCTION	3.76	0.000	0.000
PCTB02237	JUNCTION	6.13	0.152	1.398
PCTB02257-S	JUNCTION	5.39	0.000	0.000
PCTB02280	JUNCTION	23.57	2.440	0.000
PCTB02280-S	JUNCTION	5.12	0.000	0.000
PCTB02281	JUNCTION	23.56	2.360	0.000
PCTB02282	JUNCTION	23.53	2.272	1.868
PCTB02283	JUNCTION	23.53	1.700	0.000
PCTB02284	JUNCTION	23.53	1.670	0.000
PCTB02295-S	JUNCTION	23.61	0.000	0.000
PCTB02297	JUNCTION	23.50	1.650	0.000
PCTB02303	JUNCTION	23.46	2.120	0.000
PCTB02304	JUNCTION	23.46	0.230	0.000
PCTB02304-S	JUNCTION	5.44	0.000	0.000
PCTB02329	JUNCTION	10.32	0.570	0.000
PCTB02330	JUNCTION	11.97	1.174	0.446
PCTB02331	JUNCTION	12.02	1.320	0.000
PCTB02332	JUNCTION	12.06	1.188	0.782
TRMB02003	JUNCTION	15.86	3.452	3.248
TRMB02006	JUNCTION	0.92	4.841	1.959
TRMB02015	JUNCTION	0.73	0.582	1.008
TRMB02015-S	JUNCTION	0.29	0.000	0.000
TRMB02016	JUNCTION	0.92	1.004	0.576
TRMB02018	JUNCTION	1.81	2.746	1.004
TRMB02022	JUNCTION	1.85	2.780	0.000
TRMB02023	JUNCTION	1.51	1.079	0.091
TRMB02030	JUNCTION	1.47	0.800	0.000
TRMB02032	JUNCTION	0.73	0.995	2.145
TRMB02033	JUNCTION	0.59	0.704	1.716
TRMB02034	JUNCTION	1.39	2.380	0.000
TRMB02035	JUNCTION	1.01	1.120	0.000
TRMB02044	JUNCTION	0.92	3.549	0.651
TRMB02044_DS	JUNCTION	2.02	6.870	0.000
TRMB02045	JUNCTION	0.97	3.079	0.881
TRMB02046	JUNCTION	0.60	1.580	0.520
TRMB02050	JUNCTION	0.99	2.588	0.562
TRMB02051	JUNCTION	1.01	1.810	0.000
TRMB02052	JUNCTION	0.99	1.550	0.000
TRMB02056	JUNCTION	0.95	1.705	0.085
TRMB02057	JUNCTION	0.93	1.666	0.134
TRMB02067	JUNCTION	0.87	1.569	2.121
TRMB02068	JUNCTION	0.70	1.613	3.677
TRMB02069	JUNCTION	0.62	1.200	4.380
TRMB02070	JUNCTION	0.60	1.085	4.545
TRMB03016-S	JUNCTION	23.75	0.000	0.000
TRMB03022	JUNCTION	0.27	0.000	0.000
TRMB03028	JUNCTION	1.06	0.933	4.377
TRMB03029	JUNCTION	0.92	0.925	2.425
TRMB03032	JUNCTION	0.93	3.093	2.267
TRMB03033	JUNCTION	0.66	1.430	0.000
TRMB03034	JUNCTION	0.68	1.770	0.000
TRMB03035	JUNCTION	0.23	2.160	0.000
TRMB03036	JUNCTION	0.94	3.702	1.848
TRMB03037	JUNCTION	0.84	1.920	0.000
TRMB03039	JUNCTION	0.83	2.981	1.579
TRMB03043	JUNCTION	0.77	2.270	0.000
TRMB03044	JUNCTION	0.67	1.620	0.000
TRMB03049	JUNCTION	0.80	2.953	0.267
TRMB03051	JUNCTION	0.64	0.810	0.000

## Future Conditions (10-Year)

TRMB03052	JUNCTION	0.57	0.330	0.000
TRMB03054	JUNCTION	0.63	0.930	0.000
TRMB03055	JUNCTION	0.81	1.470	0.000
TRMB03083	JUNCTION	0.76	0.822	5.518
TRMB03084	JUNCTION	0.47	0.102	7.348
TRMB03087	JUNCTION	0.86	2.347	1.023
TRMB03090	JUNCTION	0.66	0.420	3.160
TRMB04265-S	JUNCTION	23.75	0.000	0.000
TRMB05004	JUNCTION	5.44	2.142	3.598
TRMB05005	JUNCTION	2.78	1.651	5.239
TRMB05006	JUNCTION	0.59	0.544	4.556
TRMB05017_US-S	JUNCTION	0.50	0.000	0.000
TRMB05019	JUNCTION	0.78	0.769	1.231
TRMB05021	JUNCTION	0.74	1.213	0.487
TRMB05025-S	JUNCTION	1.37	0.000	0.000
TRMB05027-S	JUNCTION	1.79	0.000	0.000
TRMB05028	JUNCTION	0.76	1.719	0.281
TRMB05029	JUNCTION	0.76	1.332	0.618
TRMB05030	JUNCTION	0.73	1.500	0.000
TRMB05031	JUNCTION	0.63	0.770	0.000
TRMB05032	JUNCTION	0.67	1.150	0.000
TRMB05033	JUNCTION	0.74	1.500	0.000
TRMB05034	JUNCTION	0.66	1.128	0.022
TRMB05047	JUNCTION	15.42	0.000	0.000

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### Node Flooding Summary

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

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
JMTB01003	11.76	24.46	0 13:01	3.942	0.000
JMTB01003-S	1.57	1.99	0 12:30	0.056	0.000
JMTB01005	10.28	1.34	0 12:48	0.107	0.000
JMTB01006	7.73	0.99	0 13:38	0.131	0.000
JMTB01006-S	10.49	68.55	0 12:30	5.341	0.000
JMTB01105-S	3.42	4.09	0 12:59	0.216	0.000
PCTB01068_US-S	0.57	5.83	0 12:30	0.044	0.000
PCTB02003-S	4.37	12.90	0 12:30	0.814	0.000
PCTB02012-S	1.31	0.95	0 12:59	0.023	0.000
PCTB02022	10.08	3.84	0 12:33	0.631	0.000
PCTB02023	8.70	8.37	0 12:35	0.835	0.000
PCTB02189	0.01	15.71	0 00:03	0.001	0.000
PCTB02191	23.63	46.54	0 12:31	24.490	0.000
PCTB02191_DS-S	23.63	36.05	0 12:31	10.088	0.000
PCTB02235-S	3.75	13.73	0 12:30	0.682	0.000
PCTB02257-S	5.38	20.56	0 12:30	1.391	0.000
PCTB02280	23.50	18.92	0 12:57	10.006	0.000
PCTB02280-S	5.10	12.32	0 12:34	0.836	0.000
PCTB02281	12.05	4.38	0 12:14	1.049	0.000
PCTB02283	23.49	6.96	0 12:32	2.965	0.000
PCTB02284	0.01	2.68	0 00:13	0.000	0.000
PCTB02295-S	23.61	32.74	0 12:30	15.744	0.000
PCTB02297	7.46	2.64	0 12:39	0.279	0.000
PCTB02303	0.01	21.29	0 00:14	0.000	0.000
PCTB02304	23.44	71.01	0 12:56	36.527	0.000



# Future Conditions (10-Year)

PCTB02304-S	5.44	12.01	0	12:30	0.905	0.000
PCTB02329	0.46	0.06	0	13:17	0.000	0.000
PCTB02331	2.07	1.42	0	13:08	0.052	0.000
TRMB02015-S	0.29	3.89	0	12:16	0.017	0.000
TRMB02022	1.44	21.59	0	12:29	0.594	0.000
TRMB02030	1.06	5.09	0	12:01	0.101	0.000
TRMB02034	0.87	2.67	0	12:30	0.046	0.000
TRMB02035	0.90	0.74	0	12:30	0.013	0.000
TRMB02044_DS	0.01	0.23	0	11:54	0.000	0.000
TRMB02051	0.01	0.64	0	11:55	0.000	0.000
TRMB02052	0.85	12.55	0	12:30	0.215	0.000
TRMB03022	0.27	3.34	0	12:30	0.010	0.000
TRMB03033	0.55	0.76	0	11:58	0.007	0.000
TRMB03034	0.01	0.21	0	11:58	0.000	0.000
TRMB03035	0.01	2.63	0	12:02	0.000	0.000
TRMB03037	0.62	1.22	0	12:29	0.017	0.000
TRMB03043	0.01	2.24	0	11:58	0.000	0.000
TRMB03044	0.01	0.14	0	12:02	0.000	0.000
TRMB03051	0.56	3.93	0	12:30	0.046	0.000
TRMB03052	0.01	2.49	0	12:01	0.000	0.000
TRMB03054	0.01	4.12	0	12:00	0.000	0.000
TRMB03055	0.61	2.66	0	12:30	0.038	0.000
TRMB04265-S	14.99	1.18	0	12:29	0.060	0.000
TRMB05017_US-S	0.50	24.20	0	12:30	0.171	0.000
TRMB05025-S	1.37	17.65	0	12:29	0.452	0.000
TRMB05027-S	1.79	24.61	0	12:29	0.687	0.000
TRMB05030	0.02	0.01	0	12:17	0.000	0.000
TRMB05031	0.21	0.78	0	11:57	0.000	0.000
TRMB05032	0.18	0.18	0	12:29	0.000	0.000
TRMB05033	0.60	2.02	0	12:30	0.024	0.000
TRMB05047	15.42	12.75	0	12:30	1.028	0.000

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 Outfall Loading Summary  
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Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
PCTB01066	79.44	4.42	16.91	1.767
PCTB02009	99.95	41.60	126.40	21.559
PCTB02081	100.00	109.18	677.34	73.314
TRMB02001	80.21	11.62	53.26	4.584
TRMB03012	76.93	6.88	35.42	2.452
TRMB03066	82.13	11.54	71.62	4.409
TRMB05001	79.11	19.84	77.58	7.728
System	85.39	205.09	681.95	115.814

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 Link Flow Summary  
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Link	Type	Maximum  Flow  CFS	Time of Max Occurrence days hr:min	Maximum  Veloc  ft/sec	Max/ Full Flow	Max/ Full Depth
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## Future Conditions (10-Year)

C1	CONDUIT	335.71	0	00:05	7.97	0.15	0.85
C14	CONDUIT	6.30	0	12:38	4.54	1.26	1.00
C2_1	CONDUIT	33.91	0	13:37	6.91	0.39	1.00
C2_1-S	CHANNEL	23.48	0	12:31	2.12	0.09	0.69
C2_2	CONDUIT	380.43	0	00:02	4.32	0.43	0.89
C3	CHANNEL	0.63	0	12:32	0.08	0.00	0.57
C9	CONDUIT	2.51	0	12:30	3.20	0.10	0.61
C9-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.01
CountrySideE_Ditch	CONDUIT	15.90	0	22:01	2.00	0.91	1.00
CountrySideE_Ditch_Culvert	CONDUIT	21.28	0	13:13	3.16	0.23	0.70
CountrySideE_Ditch_Culvert-S	CHANNEL	29.22	0	12:30	2.66	0.30	0.80
JMTB01003	CONDUIT	7.89	0	11:57	2.51	0.54	1.00
JMTB01003-S	CHANNEL	5.10	0	12:25	0.56	0.01	0.61
JMTB01004	CONDUIT	7.89	0	11:56	4.46	1.02	1.00
JMTB01004-S	CHANNEL	0.99	0	12:25	2.76	0.01	0.11
JMTB01005	CONDUIT	7.88	0	11:56	3.28	1.10	1.00
JMTB01005-S	CHANNEL	0.00	0	12:53	0.00	0.00	0.51
JMTB01102	CONDUIT	7.34	0	13:00	2.51	0.36	0.98
JMTB01102-S	CHANNEL	1.23	0	13:00	0.32	0.01	0.37
JMTB01103	CONDUIT	10.63	0	13:00	3.38	0.97	1.00
JMTB01103_1	CONDUIT	19.29	0	13:01	3.32	0.67	0.91
JMTB01103-S	CHANNEL	0.01	0	13:01	0.00	0.00	0.51
JMTB01104	CONDUIT	2.09	0	12:30	1.86	0.33	1.00
JMTB01104-S	CHANNEL	0.04	0	13:00	1.31	0.00	0.04
PCTB01068	CONDUIT	16.91	0	12:29	3.93	0.28	0.34
PCTB01068_US	CONDUIT	8.67	0	12:23	3.65	0.28	0.38
PCTB01068_US-S	CHANNEL	9.85	0	12:22	1.06	0.43	0.96
PCTB02001	CONDUIT	10.83	0	13:56	0.17	0.06	0.99
PCTB02002	CONDUIT	6.27	0	12:39	3.45	0.42	0.97
PCTB02002-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.31
PCTB02003	CONDUIT	5.19	0	12:47	3.41	0.50	0.62
PCTB02003-S	CHANNEL	21.56	0	12:30	2.34	0.29	0.88
PCTB02008	CONDUIT	36.28	0	13:59	4.40	0.82	0.57
PCTB02011	CONDUIT	19.44	0	14:39	4.21	0.15	0.51
PCTB02011_1	CONDUIT	20.88	0	13:57	1.17	0.16	0.56
PCTB02011-S	CHANNEL	2.10	0	12:27	0.28	0.01	0.53
PCTB02014	CONDUIT	9.71	0	16:04	2.81	0.15	0.98
PCTB02014_1	CONDUIT	11.02	0	14:38	1.36	0.08	0.76
PCTB02014-S	CHANNEL	4.36	0	13:54	0.61	0.03	0.53
PCTB02016	CONDUIT	4.36	0	15:17	3.10	0.55	0.76
PCTB02016-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02020	CONDUIT	4.37	0	15:17	0.49	0.14	0.82
PCTB02021	CONDUIT	4.37	0	15:15	0.58	0.85	1.00
PCTB02022	CONDUIT	2.24	0	21:46	1.83	1.33	1.00
PCTB02022-S	CHANNEL	4.30	0	12:30	2.19	0.09	0.31
PCTB02023	CONDUIT	2.64	0	13:24	1.49	0.85	1.00
PCTB02023-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.12
PCTB02076	CONDUIT	369.80	0	00:05	6.91	0.15	0.91
PCTB02080	CONDUIT	677.34	0	00:04	12.70	30.87	1.00
PCTB02160	CONDUIT	303.68	0	00:05	9.59	0.66	0.83
PCTB02172	CONDUIT	396.55	0	00:05	5.88	0.10	0.97
PCTB02189	CONDUIT	17.73	0	00:03	3.98	0.61	1.00
PCTB02189-S	CHANNEL	28.87	0	12:31	3.70	0.36	0.55
PCTB02208	CONDUIT	50.98	0	13:41	5.39	0.59	0.85
PCTB02208-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02231	CONDUIT	147.50	0	00:06	6.32	2.12	1.00
PCTB02231-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02237	CONDUIT	92.19	0	00:10	6.17	0.82	1.00
PCTB02237-S	CHANNEL	8.36	0	12:05	0.95	0.13	0.88
PCTB02239	CONDUIT	0.00	0	00:00	0.00	0.00	0.50
PCTB02240	CONDUIT	66.78	0	00:12	2.13	0.10	0.95

## Future Conditions (10-Year)

PCTB02259_1	CONDUIT	29.93	0	13:25	0.90	0.16	0.75
PCTB02259_2	CONDUIT	51.03	0	13:31	1.31	0.12	0.75
PCTB02260	CONDUIT	51.02	0	13:31	3.66	0.54	0.75
PCTB02260-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02264	CONDUIT	50.99	0	13:31	1.52	0.06	0.79
PCTB02274	CONDUIT	15.66	0	13:30	1.78	0.03	0.35
PCTB02275	CONDUIT	17.09	0	13:30	2.53	0.33	0.85
PCTB02275-S	CHANNEL	6.71	0	12:30	4.81	0.02	0.38
PCTB02276	CONDUIT	12.19	0	16:35	1.94	1.29	0.85
PCTB02276-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.27
PCTB02278	CONDUIT	12.17	0	16:34	3.87	0.92	1.00
PCTB02278-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.41
PCTB02279	CONDUIT	12.73	0	16:12	0.85	0.02	0.51
PCTB02280	CONDUIT	5.25	0	00:23	4.28	1.05	1.00
PCTB02280-S	CHANNEL	25.83	0	12:31	2.78	0.35	0.82
PCTB02281	CONDUIT	5.24	0	18:25	4.27	0.77	1.00
PCTB02281-S	CHANNEL	9.25	0	12:13	1.02	0.08	0.87
PCTB02282	CONDUIT	4.08	0	00:22	3.33	0.64	1.00
PCTB02282-S	CHANNEL	0.76	0	12:32	0.23	0.00	0.36
PCTB02283	CONDUIT	6.22	0	12:32	5.07	1.46	1.00
PCTB02283-S	CHANNEL	0.74	0	12:32	5.33	0.00	0.07
PCTB02284	CONDUIT	3.22	0	00:13	2.88	0.75	1.00
PCTB02284-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02292	CONDUIT	255.34	0	00:13	3.92	0.41	0.79
PCTB02294	CONDUIT	273.71	0	00:11	14.26	1.16	1.00
PCTB02294-S	CHANNEL	20.37	0	12:30	1.71	0.14	0.77
PCTB02295	CONDUIT	283.01	0	00:11	3.83	0.40	0.66
PCTB02297	CONDUIT	2.64	0	00:15	2.24	0.81	1.00
PCTB02297-S	CHANNEL	2.07	0	12:39	0.29	0.05	0.52
PCTB02299	CONDUIT	240.48	0	00:06	5.25	0.10	0.62
PCTB02300	CONDUIT	244.84	0	00:06	4.39	0.07	0.57
PCTB02301	CONDUIT	106.41	0	00:08	5.25	0.40	0.91
PCTB02302	CONDUIT	101.48	0	00:13	2.94	0.21	0.92
PCTB02303	CONDUIT	62.94	0	00:25	5.35	0.40	1.00
PCTB02303-S	CHANNEL	4.37	0	12:30	1.51	0.02	0.34
PCTB02304	CONDUIT	63.14	0	00:25	4.05	0.25	1.00
PCTB02304-S	CHANNEL	6.23	0	12:30	1.40	0.02	0.60
PCTB02312	CONDUIT	163.80	0	00:12	3.48	0.24	0.94
PCTB02329	CONDUIT	6.17	0	12:38	3.49	2.34	1.00
PCTB02329-S	CHANNEL	0.13	0	12:37	1.86	0.00	0.05
PCTB02330	CONDUIT	5.16	0	12:13	2.92	1.62	1.00
PCTB02330-S	CHANNEL	2.81	0	12:36	0.65	0.03	0.39
PCTB02331	CONDUIT	2.64	0	13:28	1.49	2.82	1.00
PCTB02331-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.34
TRMB02002	CONDUIT	53.26	0	12:30	14.33	0.52	0.52
TRMB02003	CONDUIT	50.46	0	12:30	8.70	0.32	0.76
TRMB02003-S	CHANNEL	1.29	0	12:00	4.92	0.00	0.31
TRMB02006	CONDUIT	44.25	0	12:30	9.01	1.03	1.00
TRMB02006-S	CHANNEL	6.11	0	12:01	3.69	0.04	0.39
TRMB02009	CONDUIT	39.78	0	12:30	10.37	0.59	0.79
TRMB02009-S	CHANNEL	10.74	0	12:00	5.52	0.04	0.29
TRMB02012	CONDUIT	35.22	0	12:16	8.95	0.95	0.75
TRMB02012-S	CHANNEL	0.29	0	12:00	0.48	0.02	0.15
TRMB02015	CONDUIT	34.95	0	12:23	7.21	1.07	0.97
TRMB02015-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.50
TRMB02016	CONDUIT	26.30	0	12:18	5.36	1.25	1.00
TRMB02016-S	CHANNEL	12.55	0	12:16	2.44	0.16	0.95
TRMB02018	CONDUIT	19.46	0	12:51	6.19	1.39	1.00
TRMB02018-S	CHANNEL	13.18	0	12:11	2.10	0.10	0.65
TRMB02022	CONDUIT	17.62	0	13:15	5.61	1.43	1.00
TRMB02022-S	CHANNEL	11.95	0	12:30	1.29	0.41	0.61
TRMB02023	CONDUIT	8.49	0	12:01	2.70	0.39	1.00

## Future Conditions (10-Year)

TRMB02023-S	CHANNEL	1.93	0	12:01	0.49	0.03	0.53
TRMB02030	CONDUIT	5.12	0	12:52	4.26	0.51	1.00
TRMB02030-S	CHANNEL	0.24	0	12:01	0.55	0.01	0.13
TRMB02032	CONDUIT	9.08	0	12:30	5.19	0.99	1.00
TRMB02032-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02033	CONDUIT	8.95	0	12:30	6.86	0.54	1.00
TRMB02033-S	CHANNEL	0.13	0	12:30	1.37	0.00	0.06
TRMB02034	CONDUIT	7.15	0	11:58	9.14	1.48	1.00
TRMB02034-S	CHANNEL	3.10	0	12:30	3.14	0.02	0.20
TRMB02035	CONDUIT	4.26	0	12:40	5.42	0.80	1.00
TRMB02035-S	CHANNEL	7.64	0	12:30	3.74	0.05	0.29
TRMB02044_1	CONDUIT	12.45	0	11:56	3.96	0.56	1.00
TRMB02044_1-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.21
TRMB02044_2	CONDUIT	17.93	0	12:29	5.71	3.15	1.00
TRMB02044_2-S	CHANNEL	16.57	0	12:01	3.16	0.12	0.62
TRMB02045	CONDUIT	17.05	0	11:54	5.50	1.24	1.00
TRMB02045-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02046	CONDUIT	5.69	0	12:29	3.54	0.14	1.00
TRMB02046-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02047	CONDUIT	5.90	0	11:55	8.18	0.31	0.69
TRMB02047-S	CHANNEL	0.11	0	12:27	1.42	0.00	0.05
TRMB02048	CONDUIT	2.83	0	12:30	6.07	0.63	0.58
TRMB02048-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.05
TRMB02049	CONDUIT	2.74	0	12:30	5.73	0.62	0.59
TRMB02049-S	CHANNEL	0.09	0	12:30	1.25	0.00	0.05
TRMB02050	CONDUIT	13.09	0	11:54	4.17	1.75	1.00
TRMB02050-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02051	CONDUIT	13.04	0	11:54	4.15	1.76	1.00
TRMB02051-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.03
TRMB02052	CONDUIT	11.33	0	11:54	3.61	0.57	1.00
TRMB02052-S	CHANNEL	0.03	0	12:00	1.19	0.00	0.03
TRMB02056	CONDUIT	16.99	0	12:30	5.41	0.85	1.00
TRMB02056-S	CHANNEL	0.00	0	12:03	0.00	0.00	0.01
TRMB02057	CONDUIT	16.17	0	12:30	5.15	0.83	1.00
TRMB02057-S	CHANNEL	0.94	0	12:03	2.58	0.01	0.11
TRMB02060	CONDUIT	12.25	0	12:30	4.67	0.65	0.95
TRMB02060-S	CHANNEL	5.14	0	12:01	4.40	0.03	0.23
TRMB02063	CONDUIT	7.97	0	12:30	5.68	0.47	0.74
TRMB02063-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.13
TRMB02064	CONDUIT	7.97	0	12:30	6.24	0.91	0.68
TRMB02064-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02067	CONDUIT	7.61	0	12:30	6.20	2.73	1.00
TRMB02067-S	CHANNEL	0.37	0	12:30	3.01	0.00	0.07
TRMB02068	CONDUIT	4.51	0	12:30	3.67	1.01	1.00
TRMB02068-S	CHANNEL	0.73	0	12:30	1.59	0.00	0.13
TRMB02069	CONDUIT	1.42	0	12:29	2.08	0.22	1.00
TRMB02069-S	CHANNEL	0.00	0	13:30	0.00	0.00	0.06
TRMB02070	CONDUIT	1.42	0	12:29	2.74	0.34	1.00
TRMB02070-S	CHANNEL	0.01	0	13:30	0.00	0.00	0.01
TRMB03016	CONDUIT	35.42	0	12:30	9.25	0.76	0.73
TRMB03022	CONDUIT	24.99	0	12:39	9.38	1.21	1.00
TRMB03025	CONDUIT	25.10	0	12:30	10.58	0.56	0.77
TRMB03025-S	CHANNEL	0.26	0	12:30	5.48	0.00	0.18
TRMB03026	CONDUIT	0.58	0	12:30	8.94	0.04	0.57
TRMB03027	CONDUIT	0.58	0	12:30	3.93	0.16	0.24
TRMB03028	CONDUIT	23.20	0	12:34	8.99	5.19	0.77
TRMB03028-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.03
TRMB03029	CONDUIT	23.20	0	12:34	7.38	0.96	1.00
TRMB03029-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03030	CONDUIT	23.20	0	12:34	7.38	1.07	1.00
TRMB03030-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03031	CONDUIT	30.88	0	12:35	2.35	0.01	0.36

## Future Conditions (10-Year)

TRMB03032	CONDUIT	21.25	0	12:35	9.78	1.07	0.68
TRMB03032-S	CHANNEL	0.02	0	12:30	0.15	0.00	0.07
TRMB03033	CONDUIT	1.14	0	11:58	0.94	0.11	1.00
TRMB03033-S	CHANNEL	0.02	0	12:30	1.62	0.00	0.02
TRMB03034	CONDUIT	5.16	0	11:59	6.58	0.82	1.00
TRMB03034-S	CHANNEL	0.02	0	12:30	1.24	0.00	0.02
TRMB03035	CONDUIT	3.02	0	12:01	2.69	0.05	1.00
TRMB03035-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03036	CONDUIT	19.97	0	12:35	6.36	1.49	1.00
TRMB03036-S	CHANNEL	0.00	0	12:26	0.00	0.00	0.02
TRMB03037	CONDUIT	4.17	0	11:58	5.51	1.04	1.00
TRMB03037-S	CHANNEL	1.89	0	12:30	2.97	0.01	0.15
TRMB03038	CONDUIT	1.28	0	12:02	2.12	0.09	0.99
TRMB03038-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03039	CONDUIT	16.91	0	12:02	5.38	0.72	1.00
TRMB03039-S	CHANNEL	0.04	0	12:30	1.18	0.00	0.03
TRMB03042	CONDUIT	3.95	0	12:30	4.42	0.34	0.70
TRMB03042-S	CHANNEL	2.48	0	12:30	4.93	0.01	0.14
TRMB03043	CONDUIT	8.71	0	12:46	4.03	0.63	1.00
TRMB03043-S	CHANNEL	0.04	0	12:30	1.28	0.00	0.03
TRMB03044	CONDUIT	4.41	0	12:30	3.21	0.36	1.00
TRMB03044-S	CHANNEL	0.13	0	12:30	0.18	0.00	0.16
TRMB03049	CONDUIT	1.06	0	11:58	0.88	0.11	1.00
TRMB03049-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03051	CONDUIT	8.78	0	11:58	6.91	0.17	1.00
TRMB03051-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03052	CONDUIT	2.61	0	12:01	3.41	0.30	1.00
TRMB03052-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03054	CONDUIT	6.85	0	12:30	4.13	1.24	1.00
TRMB03054-S	CHANNEL	0.01	0	12:30	0.31	0.00	0.04
TRMB03055	CONDUIT	3.56	0	12:00	3.47	2.01	1.00
TRMB03055-S	CHANNEL	0.09	0	12:30	0.35	0.00	0.10
TRMB03063	CONDUIT	4.33	0	12:30	3.63	0.41	0.75
TRMB03063-S	CHANNEL	2.56	0	12:30	3.51	0.02	0.17
TRMB03065	CONDUIT	71.62	0	12:30	11.71	0.94	0.81
TRMB03067	CONDUIT	0.51	0	12:06	1.12	0.03	0.56
TRMB03067-S	CHANNEL	0.02	0	11:52	0.00	0.00	0.01
TRMB03068	CONDUIT	3.96	0	12:34	3.35	0.16	0.71
TRMB03068-S	CHANNEL	3.86	0	12:30	4.99	0.01	0.17
TRMB03069	CONDUIT	70.97	0	12:30	12.05	0.85	0.78
TRMB03069-S	CHANNEL	0.32	0	12:30	2.07	0.00	0.07
TRMB03070	CONDUIT	63.86	0	12:30	11.29	0.79	0.75
TRMB03070-S	CHANNEL	0.22	0	12:30	1.37	0.00	0.08
TRMB03072	CONDUIT	60.37	0	12:30	12.27	0.55	0.66
TRMB03072-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03073	CONDUIT	2.87	0	12:30	3.49	0.16	0.63
TRMB03073-S	CHANNEL	0.45	0	12:30	4.71	0.00	0.06
TRMB03083	CONDUIT	55.27	0	12:31	12.87	0.81	0.82
TRMB03083-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03084	CONDUIT	5.18	0	12:30	2.93	1.05	1.00
TRMB03084-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.02
TRMB03087	CONDUIT	55.28	0	12:31	11.26	4.02	1.00
TRMB03087-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.21
TRMB03088	CONDUIT	49.65	0	12:31	8.37	0.61	0.78
TRMB03088-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.21
TRMB03089	CONDUIT	49.67	0	12:30	13.27	0.47	0.52
TRMB03089-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03090	CONDUIT	49.67	0	12:30	8.84	0.67	0.74
TRMB03090-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.48
TRMB03091	CONDUIT	38.03	0	12:30	6.77	0.47	0.74
TRMB03091-S	CHANNEL	8.71	0	12:30	4.44	0.04	0.62
TRMB03092	CONDUIT	3.27	0	12:30	3.86	0.20	0.65

## Future Conditions (10-Year)

TRMB03092-S	CHANNEL	1.30	0	12:30	3.08	0.01	0.54
TRMB03094	CONDUIT	33.36	0	12:30	9.71	0.46	0.49
TRMB03094-S	CHANNEL	11.26	0	12:30	3.36	0.08	0.34
TRMB03095	CONDUIT	2.51	0	12:30	3.36	0.06	0.59
TRMB03095-S	CHANNEL	2.50	0	12:30	1.53	0.17	0.24
TRMB03096	CONDUIT	21.30	0	12:30	5.55	0.75	0.54
TRMB03096-S	CHANNEL	12.98	0	12:30	3.94	0.04	0.34
TRMB03097	CONDUIT	4.10	0	12:30	4.91	0.27	0.68
TRMB03097-S	CHANNEL	6.22	0	12:29	5.66	0.02	0.31
TRMB03101	CONDUIT	0.23	0	13:14	0.54	0.00	0.52
TRMB03101-S	CHANNEL	0.00	0	14:30	0.00	0.00	0.14
TRMB03102	CONDUIT	16.55	0	12:30	5.65	0.19	0.44
TRMB03102-S	CHANNEL	17.62	0	12:30	5.17	0.08	0.35
TRMB03103	CONDUIT	11.00	0	12:30	7.90	0.10	0.25
TRMB03103-S	CHANNEL	21.65	0	12:30	4.93	0.08	0.40
TRMB03111	CONDUIT	5.66	0	12:30	7.64	0.14	0.29
TRMB03111-S	CHANNEL	19.11	0	12:30	4.17	0.11	0.40
TRMB03132	CONDUIT	3.61	0	12:30	2.99	0.24	0.67
TRMB03132-S	CHANNEL	1.58	0	12:30	5.25	0.01	0.10
TRMB04089_1	CONDUIT	8.36	0	12:30	2.72	0.18	0.55
TRMB04089_1-S	CHANNEL	108.77	0	12:30	5.50	0.85	0.97
TRMB04089_2	CONDUIT	17.11	0	12:34	3.55	0.36	0.77
TRMB04089_2-S	CHANNEL	77.63	0	12:37	6.97	0.61	0.69
TRMB05002	CONDUIT	77.58	0	12:30	28.37	0.16	0.33
TRMB05003	CONDUIT	77.59	0	12:30	10.99	0.74	0.69
TRMB05003-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05004	CONDUIT	0.51	0	12:49	0.42	0.07	1.00
TRMB05004-S	CHANNEL	0.00	0	11:43	0.00	0.00	0.01
TRMB05005	CONDUIT	1.38	0	12:29	1.12	0.14	1.00
TRMB05005-S	CHANNEL	0.01	0	11:44	0.00	0.00	0.01
TRMB05006	CONDUIT	75.90	0	12:30	7.90	1.20	0.99
TRMB05006-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05008	CONDUIT	1.60	0	12:33	1.60	0.17	0.99
TRMB05008-S	CHANNEL	0.00	0	11:48	0.00	0.00	0.02
TRMB05009_1	CONDUIT	67.52	0	12:30	9.72	0.75	0.68
TRMB05009_1-S	CHANNEL	0.18	0	12:38	1.80	0.00	0.06
TRMB05009_2	CONDUIT	70.70	0	12:31	8.19	0.79	0.85
TRMB05009_2-S	CHANNEL	0.00	0	11:49	0.00	0.00	0.01
TRMB05010	CONDUIT	3.78	0	12:30	2.06	0.04	0.57
TRMB05010-S	CHANNEL	0.00	0	11:48	0.00	0.00	0.04
TRMB05011	CONDUIT	1.37	0	12:30	5.76	0.03	0.13
TRMB05011-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.04
TRMB05012	CONDUIT	1.37	0	12:30	2.83	0.36	0.42
TRMB05012-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.01
TRMB05013	CONDUIT	0.98	0	12:30	1.44	0.01	0.54
TRMB05013-S	CHANNEL	0.40	0	12:13	3.65	0.00	0.06
TRMB05014	CONDUIT	1.96	0	12:30	2.62	0.06	0.59
TRMB05014-S	CHANNEL	0.40	0	12:30	2.35	0.00	0.08
TRMB05015	CONDUIT	61.65	0	12:33	7.71	1.10	0.79
TRMB05015-S	CHANNEL	3.89	0	12:37	3.75	0.03	0.20
TRMB05016	CONDUIT	14.16	0	12:27	10.93	0.30	0.69
TRMB05016-S	CHANNEL	2.72	0	12:30	2.96	0.02	0.18
TRMB05017	CONDUIT	39.99	0	12:33	5.09	0.77	0.89
TRMB05017-S	CHANNEL	13.48	0	12:30	4.29	0.07	0.33
TRMB05018	CONDUIT	3.27	0	12:30	4.10	0.12	0.62
TRMB05018-S	CHANNEL	2.33	0	12:30	2.75	0.02	0.17
TRMB05019	CONDUIT	11.38	0	12:21	8.81	0.73	0.69
TRMB05019-S	CHANNEL	0.14	0	12:30	2.58	0.00	0.04
TRMB05020	CONDUIT	0.29	0	12:25	2.04	0.04	0.32
TRMB05020-S	CHANNEL	0.09	0	12:30	1.67	0.00	0.04
TRMB05021	CONDUIT	11.24	0	12:28	6.36	1.25	1.00
TRMB05021-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00

## Future Conditions (10-Year)

TRMB05022	CONDUIT	1.00	0	12:30	2.12	0.12	0.41
TRMB05022-S	CHANNEL	0.06	0	12:30	1.43	0.00	0.04
TRMB05023	CONDUIT	0.29	0	12:32	3.55	0.07	0.38
TRMB05023-S	CHANNEL	0.00	0	12:30	0.00	0.00	0.15
TRMB05025	CONDUIT	8.66	0	11:54	10.65	0.15	0.63
TRMB05025-S	CHANNEL	25.82	0	12:37	4.18	0.09	0.69
TRMB05026	CONDUIT	2.51	0	12:30	13.30	0.09	0.21
TRMB05026-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05027	CONDUIT	8.66	0	11:52	10.40	0.18	0.64
TRMB05027-S	CHANNEL	32.96	0	12:37	4.85	0.09	0.69
TRMB05028	CONDUIT	10.20	0	12:01	5.77	1.42	1.00
TRMB05028-S	CHANNEL	0.00	0	11:25	0.00	0.00	0.00
TRMB05029	CONDUIT	1.08	0	12:29	1.10	0.20	1.00
TRMB05029-S	CHANNEL	0.01	0	13:17	0.00	0.00	0.01
TRMB05030	CONDUIT	3.24	0	11:57	2.77	0.29	1.00
TRMB05030-S	CHANNEL	0.00	0	11:25	0.00	0.00	0.01
TRMB05031	CONDUIT	4.41	0	12:21	4.20	0.36	1.00
TRMB05031-S	CHANNEL	0.27	0	12:30	0.52	0.00	0.14
TRMB05032	CONDUIT	3.65	0	12:30	2.97	0.35	1.00
TRMB05032-S	CHANNEL	0.00	0	11:25	0.00	0.00	0.01
TRMB05033	CONDUIT	2.82	0	11:57	3.04	6.46	1.00
TRMB05033-S	CHANNEL	0.19	0	12:29	1.28	0.02	0.07
TRMB05034	CONDUIT	2.70	0	12:29	3.56	0.50	1.00
TRMB05034-S	CHANNEL	0.14	0	12:30	1.55	0.00	0.06
TRMB05035	CONDUIT	3.97	0	12:30	5.51	0.09	0.43
TRMB05035-S	CHANNEL	0.01	0	12:30	0.79	0.00	0.02
TRMB05036	CONDUIT	1.85	0	12:30	4.17	0.30	0.39
TRMB05036-S	CHANNEL	0.00	0	11:53	0.00	0.00	0.01
TRMB05037	CONDUIT	1.43	0	12:30	3.30	0.11	0.38
TRMB05037-S	CHANNEL	0.02	0	11:45	0.87	0.00	0.01
TRMB05038	CONDUIT	2.03	0	12:30	5.37	0.26	0.35
TRMB05038-S	CHANNEL	0.00	0	11:58	0.00	0.00	0.01
TRMB05039	CONDUIT	1.14	0	12:30	2.26	0.23	0.43
TRMB05039-S	CHANNEL	0.03	0	11:53	0.13	0.00	0.01
TRMB05040	CONDUIT	5.79	0	12:30	4.01	0.76	0.76
TRMB05040-S	CHANNEL	0.04	0	12:30	0.83	0.00	0.04
TRMB05041	CONDUIT	7.51	0	12:30	4.62	0.98	0.87
TRMB05041-S	CHANNEL	0.04	0	12:30	0.96	0.00	0.05
TRMB05042	CONDUIT	2.51	0	12:30	3.36	0.34	0.59
TRMB05042-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.04
TRMB05044	CONDUIT	0.65	0	12:32	1.65	0.11	0.67
TRMB05044-S	CHANNEL	0.04	0	12:00	1.56	0.00	0.03
TRMB05045	CONDUIT	10.07	0	12:30	6.19	1.03	0.87
TRMB05045-S	CHANNEL	0.04	0	12:00	1.99	0.00	0.03
TRMB05046	CONDUIT	10.10	0	12:30	7.59	0.57	0.70
TRMB05046-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05048	CONDUIT	10.10	0	12:31	6.91	0.57	0.77
CountrySideE_Ditch_Culvert_In-IC	DUMMY			6.68	0	12:30	
JMTB01003-IC	DUMMY	8.66	0	12:25			
JMTB01004-IC	DUMMY	4.00	0	12:25			
JMTB01005-IC	DUMMY	0.97	0	12:53			
JMTB01006-IC	DUMMY	8.66	0	11:27			
JMTB01102-IC	DUMMY	7.34	0	13:00			
JMTB01103-IC	DUMMY	1.26	0	13:01			
JMTB01104-IC	DUMMY	2.08	0	12:30			
JMTB01105-IC	DUMMY	8.66	0	12:21			
PCTB01068_US-IC	DUMMY	8.66	0	12:22			
PCTB01068-IC	DUMMY	8.30	0	12:23			
PCTB02001-IC	DUMMY	6.82	0	14:03			
PCTB02002-IC	DUMMY	0.00	0	00:00			
PCTB02003-IC	DUMMY	8.66	0	12:09			
PCTB02004-IC	DUMMY	7.59	0	12:09			

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PCTB02011-IC	DUMMY	2.06	0	12:27
PCTB02012-IC	DUMMY	8.66	0	12:27
PCTB02014-IC	DUMMY	7.78	0	13:53
PCTB02015-IC	DUMMY	4.36	0	14:05
PCTB02016-IC	DUMMY	0.00	0	00:00
PCTB02017-IC	DUMMY	0.00	0	00:00
PCTB02022-IC	DUMMY	5.30	0	12:33
PCTB02023-IC	DUMMY	4.27	0	12:35
PCTB02189-IC	DUMMY	7.29	0	12:30
PCTB02191_DS-IC	DUMMY	12.57	0	13:37
PCTB02191-IC	DUMMY	5.37	0	12:31
PCTB02207-IC	DUMMY	0.00	0	00:00
PCTB02209-IC	DUMMY	0.00	0	00:00
PCTB02229-IC	DUMMY	0.00	0	00:00
PCTB02231-IC	DUMMY	0.00	0	00:00
PCTB02235-IC	DUMMY	8.66	0	12:05
PCTB02237-IC	DUMMY	7.53	0	12:06
PCTB02257_1-IC	DUMMY	4.15	0	12:30
PCTB02257-IC	DUMMY	8.66	0	11:58
PCTB02260-IC	DUMMY	0.00	0	00:00
PCTB02262-IC	DUMMY	0.00	0	00:00
PCTB02275-IC	DUMMY	6.33	0	13:03
PCTB02276-IC	DUMMY	0.00	0	00:00
PCTB02278-IC	DUMMY	7.82	0	14:33
PCTB02280-IC	DUMMY	8.66	0	12:13
PCTB02281-IC	DUMMY	7.49	0	12:14
PCTB02282-IC	DUMMY	3.14	0	12:32
PCTB02283-IC	DUMMY	0.74	0	12:33
PCTB02284-IC	DUMMY	0.00	0	00:00
PCTB02292-IC	DUMMY	8.86	0	00:23
PCTB02294-IC	DUMMY	10.36	0	00:24
PCTB02295-IC	DUMMY	12.37	0	13:19
PCTB02297-IC	DUMMY	4.76	0	12:39
PCTB02302-IC	DUMMY	7.11	0	00:22
PCTB02303-IC	DUMMY	3.88	0	12:30
PCTB02304-IC	DUMMY	8.66	0	12:05
PCTB02312-IC	DUMMY	7.46	0	00:22
PCTB02329-IC	DUMMY	0.19	0	13:17
PCTB02330-IC	DUMMY	2.69	0	12:37
PCTB02331-IC	DUMMY	7.19	0	12:37
PCTB02332-IC	DUMMY	0.00	0	00:00
TRMB02002-IC	DUMMY	2.84	0	12:00
TRMB02003-IC	DUMMY	6.21	0	12:31
TRMB02006-IC	DUMMY	4.60	0	12:01
TRMB02009-IC	DUMMY	4.66	0	12:00
TRMB02012-IC	DUMMY	0.29	0	12:00
TRMB02015-IC	DUMMY	8.66	0	12:16
TRMB02016-IC	DUMMY	8.21	0	12:16
TRMB02018-IC	DUMMY	5.48	0	12:11
TRMB02022-IC	DUMMY	7.87	0	12:30
TRMB02023-IC	DUMMY	4.33	0	12:01
TRMB02030-IC	DUMMY	0.24	0	12:01
TRMB02032-IC	DUMMY	0.14	0	12:02
TRMB02033-IC	DUMMY	2.96	0	12:30
TRMB02034-IC	DUMMY	4.53	0	12:30
TRMB02035-IC	DUMMY	4.87	0	12:30
TRMB02044_DS-IC	DUMMY	5.66	0	12:01
TRMB02044-IC	DUMMY	0.00	0	00:00
TRMB02045-IC	DUMMY	0.00	0	00:00
TRMB02046-IC	DUMMY	0.24	0	11:57
TRMB02047-IC	DUMMY	2.72	0	12:30
TRMB02048-IC	DUMMY	0.22	0	11:21



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TRMB02049-IC	DUMMY	2.74	0	12:30
TRMB02050-IC	DUMMY	0.00	0	00:00
TRMB02051-IC	DUMMY	2.14	0	12:00
TRMB02052-IC	DUMMY	0.16	0	11:27
TRMB02056-IC	DUMMY	0.94	0	12:03
TRMB02057-IC	DUMMY	4.02	0	12:03
TRMB02060-IC	DUMMY	4.40	0	12:00
TRMB02063-IC	DUMMY	0.00	0	00:00
TRMB02064-IC	DUMMY	0.37	0	12:30
TRMB02067-IC	DUMMY	3.10	0	12:30
TRMB02068-IC	DUMMY	3.09	0	12:30
TRMB02069-IC	DUMMY	0.10	0	13:30
TRMB02070-IC	DUMMY	1.41	0	12:29
TRMB03016-IC	DUMMY	0.00	0	00:00
TRMB03022-IC	DUMMY	4.69	0	12:21
TRMB03025-IC	DUMMY	2.10	0	12:00
TRMB03028-IC	DUMMY	0.00	0	00:00
TRMB03029-IC	DUMMY	0.00	0	00:00
TRMB03030-IC	DUMMY	0.00	0	00:00
TRMB03031-IC	DUMMY	2.84	0	12:30
TRMB03032-IC	DUMMY	1.70	0	12:30
TRMB03033-IC	DUMMY	0.14	0	12:30
TRMB03034-IC	DUMMY	1.85	0	12:30
TRMB03035-IC	DUMMY	0.00	0	00:00
TRMB03036-IC	DUMMY	0.11	0	12:31
TRMB03037-IC	DUMMY	4.38	0	12:30
TRMB03038-IC	DUMMY	0.00	0	00:00
TRMB03039-IC	DUMMY	2.25	0	12:30
TRMB03042-IC	DUMMY	3.95	0	12:30
TRMB03043-IC	DUMMY	0.09	0	12:29
TRMB03044-IC	DUMMY	4.41	0	12:30
TRMB03049-IC	DUMMY	0.00	0	00:00
TRMB03051-IC	DUMMY	0.14	0	12:29
TRMB03052-IC	DUMMY	0.00	0	00:00
TRMB03054-IC	DUMMY	2.52	0	12:30
TRMB03055-IC	DUMMY	3.79	0	12:30
TRMB03063-IC	DUMMY	4.33	0	12:30
TRMB03065-IC	DUMMY	0.33	0	12:24
TRMB03067-IC	DUMMY	0.99	0	12:05
TRMB03068-IC	DUMMY	3.85	0	12:28
TRMB03069-IC	DUMMY	3.30	0	12:30
TRMB03070-IC	DUMMY	0.67	0	12:30
TRMB03072-IC	DUMMY	0.00	0	00:00
TRMB03073-IC	DUMMY	2.87	0	12:30
TRMB03083-IC	DUMMY	0.00	0	00:00
TRMB03084-IC	DUMMY	1.57	0	12:30
TRMB03087-IC	DUMMY	5.64	0	12:32
TRMB03088-IC	DUMMY	0.00	0	00:00
TRMB03089-IC	DUMMY	0.00	0	00:00
TRMB03090-IC	DUMMY	8.47	0	12:32
TRMB03091-IC	DUMMY	4.67	0	12:30
TRMB03092-IC	DUMMY	3.27	0	12:30
TRMB03094-IC	DUMMY	5.47	0	12:30
TRMB03095-IC	DUMMY	2.51	0	12:30
TRMB03096-IC	DUMMY	4.63	0	12:30
TRMB03097-IC	DUMMY	4.10	0	12:29
TRMB03101-IC	DUMMY	0.44	0	13:13
TRMB03102-IC	DUMMY	5.55	0	12:30
TRMB03103-IC	DUMMY	5.34	0	12:30
TRMB03111-IC	DUMMY	5.66	0	12:30
TRMB03132-IC	DUMMY	3.61	0	12:30
TRMB04089-IC	DUMMY	8.36	0	12:30

# Future Conditions (10-Year)

TRMB05002-IC	DUMMY	0.00	0	00:00
TRMB05003-IC	DUMMY	0.22	0	11:44
TRMB05004-IC	DUMMY	0.43	0	13:08
TRMB05005-IC	DUMMY	1.37	0	12:30
TRMB05006-IC	DUMMY	0.08	0	11:46
TRMB05008-IC	DUMMY	1.55	0	12:30
TRMB05009_DS-IC	DUMMY	1.02	0	11:49
TRMB05009-IC	DUMMY	2.95	0	12:38
TRMB05010-IC	DUMMY	2.41	0	12:30
TRMB05011-IC	DUMMY	0.00	0	00:00
TRMB05012-IC	DUMMY	1.37	0	12:29
TRMB05013-IC	DUMMY	0.98	0	12:30
TRMB05014-IC	DUMMY	1.96	0	12:30
TRMB05015-IC	DUMMY	4.58	0	12:08
TRMB05016-IC	DUMMY	2.51	0	12:30
TRMB05017_US-IC	DUMMY	8.66	0	12:07
TRMB05017-IC	DUMMY	5.39	0	12:37
TRMB05018-IC	DUMMY	2.27	0	12:30
TRMB05019-IC	DUMMY	0.22	0	12:38
TRMB05020-IC	DUMMY	0.34	0	11:49
TRMB05021-IC	DUMMY	0.20	0	13:17
TRMB05022-IC	DUMMY	0.75	0	12:30
TRMB05023-IC	DUMMY	4.59	0	12:36
TRMB05025-IC	DUMMY	8.66	0	11:54
TRMB05026-IC	DUMMY	0.00	0	00:00
TRMB05027-IC	DUMMY	8.66	0	11:52
TRMB05028-IC	DUMMY	0.33	0	12:30
TRMB05029-IC	DUMMY	1.18	0	13:17
TRMB05030-IC	DUMMY	0.72	0	11:54
TRMB05031-IC	DUMMY	4.49	0	12:30
TRMB05032-IC	DUMMY	1.10	0	12:30
TRMB05033-IC	DUMMY	3.20	0	12:30
TRMB05034-IC	DUMMY	2.69	0	12:30
TRMB05035-IC	DUMMY	0.24	0	11:53
TRMB05036-IC	DUMMY	1.00	0	11:52
TRMB05037-IC	DUMMY	1.43	0	12:30
TRMB05038-IC	DUMMY	1.13	0	11:53
TRMB05039-IC	DUMMY	1.15	0	12:29
TRMB05040-IC	DUMMY	1.84	0	12:30
TRMB05041-IC	DUMMY	1.76	0	12:30
TRMB05042-IC	DUMMY	2.51	0	12:30
TRMB05043-IC	DUMMY	0.00	0	00:00
TRMB05044-IC	DUMMY	0.71	0	11:08
TRMB05045-IC	DUMMY	2.03	0	12:00
TRMB05046-IC	DUMMY	0.22	0	11:26
TRMB05048-IC	DUMMY	0.00	0	00:00

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 Flow Classification Summary  
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Conduit	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.45	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C14	1.64	0.07	0.01	0.00	0.92	0.00	0.00	0.00	0.00	0.00
C2_1	6.41	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00

## Future Conditions (10-Year)

C2_1-S	3.97	0.00	0.30	0.00	0.70	0.00	0.00	0.00	0.72	0.00
C2_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C3	1.00	0.02	0.22	0.00	0.77	0.00	0.00	0.00	0.72	0.00
C9	9.19	0.20	0.04	0.00	0.76	0.00	0.00	0.00	0.64	0.00
C9-S	9.93	0.56	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CountrySideE_Ditch	1.00	0.02	0.15	0.00	0.82	0.00	0.00	0.00	0.25	0.00
CountrySideE_Ditch_Culvert	1.00	0.02	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00
0.00										
CountrySideE_Ditch_Culvert-S	1.00	0.21	0.02	0.00	0.48	0.28	0.00	0.00	0.00	0.00
0.33 0.00										
JMTB01003	6.76	0.20	0.01	0.00	0.79	0.00	0.00	0.00	0.00	0.00
JMTB01003-S	10.55	0.29	0.47	0.00	0.24	0.00	0.00	0.00	0.00	0.00
JMTB01004	1.47	0.21	0.01	0.00	0.78	0.00	0.00	0.00	0.00	0.00
JMTB01004-S	1.20	0.77	0.00	0.00	0.01	0.22	0.00	0.00	0.00	0.00
JMTB01005	1.00	0.18	0.04	0.00	0.78	0.00	0.00	0.00	0.14	0.00
JMTB01005-S	1.00	0.21	0.63	0.00	0.16	0.00	0.00	0.00	0.49	0.00
JMTB01102	3.59	0.20	0.05	0.00	0.75	0.00	0.00	0.00	0.11	0.00
JMTB01102-S	3.41	0.30	0.56	0.00	0.14	0.00	0.00	0.00	0.46	0.00
JMTB01103	1.00	0.20	0.00	0.00	0.80	0.00	0.00	0.00	0.19	0.00
JMTB01103_1	1.00	0.20	0.00	0.00	0.80	0.00	0.00	0.00	0.19	0.00
JMTB01103-S	1.00	0.28	0.59	0.00	0.13	0.00	0.00	0.00	0.65	0.00
JMTB01104	2.72	0.20	0.00	0.00	0.79	0.01	0.00	0.00	0.16	0.00
JMTB01104-S	2.20	0.35	0.03	0.00	0.13	0.49	0.00	0.00	0.00	0.00
PCTB01068	1.00	0.00	0.20	0.00	0.80	0.00	0.00	0.00	0.00	0.00
PCTB01068_US	1.00	0.20	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00
PCTB01068_US-S	1.00	0.24	0.41	0.00	0.34	0.00	0.00	0.00	0.00	0.00
PCTB02001	1.00	0.02	0.03	0.00	0.95	0.00	0.00	0.00	0.00	0.00
PCTB02002	1.33	0.05	0.01	0.00	0.93	0.00	0.00	0.00	0.00	0.00
PCTB02002-S	1.28	0.30	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02003	1.00	0.21	0.00	0.00	0.79	0.00	0.00	0.00	0.04	0.00
PCTB02003-S	1.00	0.25	0.02	0.00	0.49	0.24	0.00	0.00	0.05	0.00
PCTB02008	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02011	3.82	0.00	0.00	0.00	0.92	0.08	0.00	0.00	0.05	0.00
PCTB02011_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02011-S	2.41	0.31	0.55	0.00	0.14	0.00	0.00	0.00	0.00	0.00
PCTB02014	3.40	0.01	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02014_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.06	0.00
PCTB02014-S	2.03	0.53	0.33	0.00	0.14	0.00	0.00	0.00	0.40	0.00
PCTB02016	1.79	0.24	0.01	0.00	0.75	0.00	0.00	0.00	0.11	0.00
PCTB02016-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02020	1.00	0.25	0.00	0.00	0.71	0.00	0.00	0.04	0.04	0.00
PCTB02021	1.00	0.21	0.03	0.00	0.76	0.00	0.00	0.00	0.00	0.00
PCTB02022	1.17	0.11	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00
PCTB02022-S	1.00	0.26	0.03	0.00	0.11	0.60	0.00	0.00	0.00	0.00
PCTB02023	1.00	0.09	0.01	0.00	0.89	0.00	0.00	0.00	0.00	0.00
PCTB02023-S	1.00	0.44	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02076	1.20	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02080	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02160	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02172	2.17	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02189	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02189-S	1.00	0.19	0.00	0.00	0.05	0.76	0.00	0.00	0.00	0.00
PCTB02208	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02208-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02231	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02231-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02237	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02237-S	1.00	0.25	0.08	0.00	0.67	0.00	0.00	0.00	0.00	0.00
PCTB02239	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02240	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02259_1	1.62	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02259_2	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00

## Future Conditions (10-Year)

PCTB02260	1.09	0.01	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02260-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02264	1.00	0.01	0.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02274	1.00	0.00	0.25	0.00	0.75	0.00	0.00	0.00	0.63	0.00
PCTB02275	3.23	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02275-S	3.61	0.25	0.03	0.00	0.08	0.64	0.00	0.00	0.11	0.00
PCTB02276	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02276-S	1.00	0.37	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02278	1.00	0.02	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.00
PCTB02278-S	1.00	0.62	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02279	1.00	0.03	0.19	0.00	0.79	0.00	0.00	0.00	0.37	0.00
PCTB02280	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02280-S	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.98	0.00
PCTB02281	2.41	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02281-S	1.89	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02282	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02282-S	1.00	0.02	0.22	0.00	0.77	0.00	0.00	0.00	0.72	0.00
PCTB02283	1.34	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02283-S	2.70	0.23	0.00	0.00	0.09	0.68	0.00	0.00	0.00	0.00
PCTB02284	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02284-S	1.00	0.59	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02292	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02294	3.11	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02294-S	1.30	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.60	0.00
PCTB02295	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02297	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02297-S	1.00	0.02	0.21	0.00	0.77	0.00	0.00	0.00	0.71	0.00
PCTB02299	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02300	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02301	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02302	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02303	2.33	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02303-S	1.93	0.02	0.24	0.00	0.74	0.00	0.00	0.00	0.69	0.00
PCTB02304	6.82	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02304-S	6.10	0.24	0.01	0.00	0.69	0.06	0.00	0.00	0.68	0.00
PCTB02312	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02329	1.00	0.08	0.01	0.00	0.91	0.00	0.00	0.00	0.01	0.00
PCTB02329-S	1.00	0.84	0.00	0.00	0.02	0.14	0.00	0.00	0.00	0.00
PCTB02330	1.00	0.09	0.00	0.00	0.91	0.00	0.00	0.00	0.01	0.00
PCTB02330-S	1.00	0.27	0.56	0.00	0.16	0.00	0.00	0.00	0.00	0.00
PCTB02331	1.00	0.09	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.00
PCTB02331-S	1.00	0.27	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02002	1.00	0.20	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
TRMB02003	4.56	0.17	0.03	0.00	0.77	0.03	0.00	0.00	0.00	0.00
TRMB02003-S	3.46	0.44	0.11	0.00	0.29	0.16	0.00	0.00	0.03	0.00
TRMB02006	1.00	0.16	0.00	0.00	0.83	0.00	0.00	0.00	0.70	0.00
TRMB02006-S	1.00	0.74	0.05	0.00	0.17	0.05	0.00	0.00	0.11	0.00
TRMB02009	1.00	0.16	0.00	0.00	0.00	0.83	0.00	0.00	0.74	0.00
TRMB02009-S	1.00	0.23	0.01	0.00	0.17	0.59	0.00	0.00	0.00	0.00
TRMB02012	1.00	0.16	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00
TRMB02012-S	1.00	0.24	0.01	0.00	0.75	0.01	0.00	0.00	0.00	0.00
TRMB02015	1.00	0.16	0.00	0.00	0.12	0.72	0.00	0.00	0.00	0.00
TRMB02015-S	1.00	0.84	0.05	0.00	0.12	0.00	0.00	0.00	0.50	0.00
TRMB02016	2.57	0.16	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00
TRMB02016-S	1.39	0.21	0.02	0.00	0.56	0.22	0.00	0.00	0.00	0.00
TRMB02018	1.00	0.16	0.00	0.00	0.84	0.00	0.00	0.00	0.67	0.00
TRMB02018-S	1.00	0.18	0.04	0.00	0.60	0.18	0.00	0.00	0.46	0.00
TRMB02022	1.00	0.16	0.00	0.00	0.84	0.00	0.00	0.00	0.10	0.00
TRMB02022-S	1.00	0.17	0.05	0.00	0.76	0.02	0.00	0.00	0.02	0.00
TRMB02023	1.00	0.16	0.05	0.00	0.79	0.00	0.00	0.00	0.62	0.00
TRMB02023-S	1.00	0.21	0.04	0.00	0.64	0.11	0.00	0.00	0.44	0.00
TRMB02030	1.00	0.21	0.03	0.00	0.14	0.62	0.00	0.00	0.10	0.00

## Future Conditions (10-Year)

TRMB02030-S	1.00	0.24	0.66	0.00	0.10	0.00	0.00	0.00	0.11	0.00
TRMB02032	1.00	0.24	0.00	0.00	0.11	0.65	0.00	0.00	0.05	0.00
TRMB02032-S	1.00	0.93	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00
TRMB02033	2.62	0.24	0.00	0.00	0.06	0.70	0.00	0.00	0.61	0.00
TRMB02033-S	1.02	0.93	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.00
TRMB02034	1.00	0.24	0.00	0.00	0.06	0.70	0.00	0.00	0.00	0.00
TRMB02034-S	1.00	0.81	0.00	0.00	0.10	0.09	0.00	0.00	0.00	0.00
TRMB02035	1.00	0.24	0.00	0.00	0.10	0.67	0.00	0.00	0.60	0.00
TRMB02035-S	1.00	0.26	0.01	0.00	0.18	0.55	0.00	0.00	0.00	0.00
TRMB02044_1	1.00	0.21	0.01	0.00	0.78	0.00	0.00	0.00	0.63	0.00
TRMB02044_1-S	1.00	0.24	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02044_2	1.00	0.16	0.05	0.00	0.79	0.00	0.00	0.00	0.02	0.00
TRMB02044_2-S	1.00	0.21	0.03	0.00	0.09	0.67	0.00	0.00	0.06	0.00
TRMB02045	2.54	0.21	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00
TRMB02045-S	2.35	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02046	9.20	0.21	0.03	0.00	0.76	0.00	0.00	0.00	0.60	0.00
TRMB02046-S	2.80	0.92	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02047	2.44	0.24	0.00	0.00	0.07	0.69	0.00	0.00	0.04	0.00
TRMB02047-S	1.03	0.51	0.06	0.00	0.26	0.17	0.00	0.00	0.00	0.00
TRMB02048	1.00	0.24	0.01	0.00	0.07	0.68	0.00	0.00	0.59	0.00
TRMB02048-S	1.00	0.57	0.36	0.00	0.07	0.00	0.00	0.00	0.58	0.00
TRMB02049	1.48	0.25	0.00	0.00	0.00	0.75	0.00	0.00	0.11	0.00
TRMB02049-S	1.00	0.62	0.07	0.00	0.13	0.18	0.00	0.00	0.00	0.00
TRMB02050	1.00	0.21	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00
TRMB02050-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02051	1.00	0.21	0.00	0.00	0.79	0.00	0.00	0.00	0.06	0.00
TRMB02051-S	1.00	0.62	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02052	3.53	0.21	0.00	0.00	0.79	0.00	0.00	0.00	0.05	0.00
TRMB02052-S	1.98	0.56	0.05	0.00	0.22	0.17	0.00	0.00	0.00	0.00
TRMB02056	3.52	0.21	0.00	0.00	0.75	0.04	0.00	0.00	0.39	0.00
TRMB02056-S	3.10	0.91	0.02	0.00	0.02	0.05	0.00	0.00	0.47	0.00
TRMB02057	4.04	0.21	0.00	0.00	0.16	0.63	0.00	0.00	0.13	0.00
TRMB02057-S	2.66	0.83	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00
TRMB02060	1.00	0.21	0.00	0.00	0.11	0.68	0.00	0.00	0.49	0.00
TRMB02060-S	1.00	0.23	0.02	0.00	0.44	0.31	0.00	0.00	0.00	0.00
TRMB02063	1.00	0.21	0.04	0.00	0.06	0.69	0.00	0.00	0.63	0.00
TRMB02063-S	1.00	0.25	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02064	1.00	0.25	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
TRMB02064-S	1.00	0.92	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
TRMB02067	1.00	0.25	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00
TRMB02067-S	1.00	0.36	0.02	0.00	0.48	0.14	0.00	0.00	0.00	0.00
TRMB02068	1.00	0.25	0.00	0.00	0.75	0.00	0.00	0.00	0.59	0.00
TRMB02068-S	1.00	0.38	0.01	0.00	0.34	0.27	0.00	0.00	0.13	0.00
TRMB02069	1.31	0.25	0.00	0.00	0.75	0.00	0.00	0.00	0.59	0.00
TRMB02069-S	1.35	0.39	0.59	0.00	0.02	0.00	0.00	0.00	0.59	0.00
TRMB02070	1.38	0.25	0.00	0.00	0.68	0.07	0.00	0.00	0.00	0.00
TRMB02070-S	1.20	0.69	0.06	0.00	0.16	0.09	0.00	0.00	0.00	0.00
TRMB03016	2.08	0.23	0.00	0.00	0.01	0.77	0.00	0.00	0.01	0.00
TRMB03022	1.00	0.23	0.02	0.00	0.01	0.74	0.00	0.00	0.59	0.00
TRMB03025	2.03	0.25	0.00	0.00	0.00	0.75	0.00	0.00	0.61	0.00
TRMB03025-S	2.46	0.47	0.05	0.00	0.37	0.11	0.00	0.00	0.02	0.00
TRMB03026	8.84	0.26	0.00	0.00	0.06	0.01	0.00	0.67	0.03	0.00
TRMB03027	1.67	0.26	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
TRMB03028	2.46	0.25	0.00	0.00	0.67	0.08	0.00	0.00	0.00	0.00
TRMB03028-S	3.66	0.52	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03029	1.00	0.25	0.01	0.00	0.74	0.00	0.00	0.00	0.57	0.00
TRMB03029-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03030	1.00	0.26	0.00	0.00	0.09	0.66	0.00	0.00	0.00	0.00
TRMB03030-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03031	1.00	0.25	0.00	0.00	0.74	0.00	0.00	0.00	0.61	0.00
TRMB03032	1.00	0.25	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
TRMB03032-S	1.00	0.37	0.10	0.00	0.46	0.07	0.00	0.00	0.41	0.00

## Future Conditions (10-Year)

TRMB03033	10.18	0.26	0.41	0.00	0.34	0.00	0.00	0.00	0.30	0.00
TRMB03033-S	8.86	0.83	0.00	0.00	0.11	0.06	0.00	0.00	0.00	0.00
TRMB03034	1.00	0.25	0.00	0.00	0.74	0.01	0.00	0.00	0.59	0.00
TRMB03034-S	1.00	0.83	0.00	0.00	0.11	0.06	0.00	0.00	0.00	0.00
TRMB03035	50.61	0.25	0.66	0.00	0.08	0.00	0.00	0.00	0.47	0.00
TRMB03035-S	3.74	0.97	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
TRMB03036	1.00	0.25	0.00	0.00	0.74	0.00	0.00	0.00	0.14	0.00
TRMB03036-S	1.00	0.46	0.51	0.00	0.03	0.00	0.00	0.00	0.54	0.00
TRMB03037	1.67	0.25	0.00	0.00	0.07	0.68	0.00	0.00	0.00	0.00
TRMB03037-S	1.54	0.45	0.09	0.00	0.21	0.25	0.00	0.00	0.01	0.00
TRMB03038	3.48	0.25	0.66	0.00	0.09	0.00	0.00	0.00	0.47	0.00
TRMB03038-S	2.35	0.97	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03039	1.00	0.25	0.00	0.00	0.63	0.12	0.00	0.00	0.58	0.00
TRMB03039-S	1.00	0.87	0.00	0.00	0.06	0.07	0.00	0.00	0.00	0.00
TRMB03042	1.00	0.25	0.00	0.00	0.45	0.30	0.00	0.00	0.62	0.00
TRMB03042-S	1.00	0.27	0.02	0.00	0.45	0.26	0.00	0.00	0.00	0.00
TRMB03043	1.00	0.25	0.00	0.00	0.75	0.00	0.00	0.00	0.58	0.00
TRMB03043-S	1.00	0.87	0.00	0.00	0.06	0.07	0.00	0.00	0.00	0.00
TRMB03044	1.00	0.25	0.00	0.00	0.74	0.00	0.00	0.00	0.59	0.00
TRMB03044-S	1.00	0.47	0.42	0.00	0.11	0.00	0.00	0.00	0.61	0.00
TRMB03049	4.46	0.25	0.57	0.00	0.18	0.00	0.00	0.00	0.40	0.00
TRMB03049-S	5.34	0.97	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03051	6.81	0.25	0.00	0.00	0.07	0.68	0.00	0.00	0.59	0.00
TRMB03051-S	3.77	0.94	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00
TRMB03052	2.88	0.25	0.66	0.00	0.09	0.00	0.00	0.00	0.47	0.00
TRMB03052-S	1.60	0.95	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03054	1.00	0.25	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00
TRMB03054-S	1.00	0.87	0.01	0.00	0.11	0.01	0.00	0.00	0.00	0.00
TRMB03055	1.00	0.25	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00
TRMB03055-S	1.00	0.39	0.02	0.00	0.51	0.08	0.00	0.00	0.00	0.00
TRMB03063	1.00	0.25	0.00	0.00	0.74	0.00	0.00	0.00	0.60	0.00
TRMB03063-S	1.00	0.27	0.01	0.00	0.46	0.26	0.00	0.00	0.00	0.00
TRMB03065	1.00	0.18	0.00	0.00	0.01	0.82	0.00	0.00	0.02	0.00
TRMB03067	2.16	0.18	0.07	0.00	0.76	0.00	0.00	0.00	0.64	0.00
TRMB03067-S	1.88	0.57	0.09	0.00	0.32	0.03	0.00	0.00	0.00	0.00
TRMB03068	5.86	0.18	0.07	0.00	0.76	0.00	0.00	0.00	0.63	0.00
TRMB03068-S	5.47	0.35	0.03	0.00	0.27	0.34	0.00	0.00	0.00	0.00
TRMB03069	2.60	0.18	0.00	0.00	0.00	0.82	0.00	0.00	0.73	0.00
TRMB03069-S	1.01	0.78	0.05	0.00	0.09	0.08	0.00	0.00	0.03	0.00
TRMB03070	1.79	0.17	0.00	0.00	0.00	0.82	0.00	0.00	0.46	0.00
TRMB03070-S	1.00	0.78	0.05	0.00	0.09	0.08	0.00	0.00	0.13	0.00
TRMB03072	1.04	0.17	0.00	0.00	0.00	0.83	0.00	0.00	0.74	0.00
TRMB03072-S	1.00	0.86	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03073	1.00	0.17	0.08	0.00	0.74	0.00	0.00	0.00	0.62	0.00
TRMB03073-S	1.00	0.44	0.13	0.00	0.21	0.22	0.00	0.00	0.00	0.00
TRMB03083	3.93	0.17	0.00	0.00	0.00	0.83	0.00	0.00	0.10	0.00
TRMB03083-S	2.11	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03084	7.16	0.17	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00
TRMB03084-S	9.74	0.81	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03087	1.00	0.17	0.00	0.00	0.40	0.43	0.00	0.00	0.00	0.00
TRMB03087-S	1.00	0.30	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03088	1.00	0.17	0.00	0.00	0.82	0.01	0.00	0.00	0.74	0.00
TRMB03088-S	1.00	0.30	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03089	3.10	0.17	0.00	0.00	0.00	0.83	0.00	0.00	0.74	0.00
TRMB03089-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03090	6.94	0.17	0.01	0.00	0.78	0.04	0.00	0.00	0.00	0.00
TRMB03090-S	6.70	0.85	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03091	1.00	0.17	0.00	0.00	0.83	0.00	0.00	0.00	0.76	0.00
TRMB03091-S	1.00	0.37	0.05	0.00	0.49	0.09	0.00	0.00	0.03	0.00
TRMB03092	1.00	0.17	0.05	0.00	0.78	0.00	0.00	0.00	0.68	0.00
TRMB03092-S	1.00	0.39	0.07	0.00	0.35	0.19	0.00	0.00	0.04	0.00
TRMB03094	1.00	0.17	0.00	0.00	0.00	0.83	0.00	0.00	0.09	0.00

## Future Conditions (10-Year)

TRMB03094-S	1.00	0.28	0.35	0.00	0.27	0.09	0.00	0.00	0.59	0.00
TRMB03095	21.41	0.17	0.09	0.00	0.74	0.00	0.00	0.00	0.69	0.00
TRMB03095-S	2.35	0.46	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00
TRMB03096	2.75	0.17	0.00	0.00	0.83	0.00	0.00	0.00	0.01	0.00
TRMB03096-S	3.82	0.56	0.27	0.00	0.07	0.10	0.00	0.00	0.61	0.00
TRMB03097	1.00	0.17	0.00	0.00	0.10	0.74	0.00	0.00	0.76	0.00
TRMB03097-S	1.00	0.27	0.04	0.00	0.28	0.41	0.00	0.00	0.06	0.00
TRMB03101	21.32	0.17	0.08	0.00	0.75	0.00	0.00	0.00	0.63	0.00
TRMB03101-S	10.03	0.54	0.09	0.00	0.37	0.00	0.00	0.00	0.06	0.00
TRMB03102	2.34	0.17	0.02	0.00	0.08	0.73	0.00	0.00	0.73	0.00
TRMB03102-S	1.51	0.47	0.07	0.00	0.31	0.15	0.00	0.00	0.00	0.00
TRMB03103	1.35	0.19	0.00	0.00	0.00	0.81	0.00	0.00	0.73	0.00
TRMB03103-S	1.00	0.23	0.05	0.00	0.43	0.29	0.00	0.00	0.39	0.00
TRMB03111	1.39	0.19	0.00	0.00	0.00	0.81	0.00	0.00	0.59	0.00
TRMB03111-S	1.00	0.22	0.02	0.00	0.01	0.75	0.00	0.00	0.01	0.00
TRMB03132	1.00	0.18	0.05	0.00	0.77	0.00	0.00	0.00	0.66	0.00
TRMB03132-S	1.00	0.31	0.10	0.00	0.27	0.32	0.00	0.00	0.00	0.00
TRMB04089_1	1.00	0.23	0.00	0.00	0.77	0.00	0.00	0.00	0.55	0.00
TRMB04089_1-S	1.00	0.24	0.00	0.00	0.00	0.75	0.00	0.00	0.10	0.00
TRMB04089_2	1.00	0.23	0.00	0.00	0.77	0.00	0.00	0.00	0.38	0.00
TRMB04089_2-S	1.00	0.26	0.00	0.00	0.03	0.71	0.00	0.00	0.00	0.00
TRMB05002	6.28	0.20	0.00	0.00	0.00	0.79	0.00	0.00	0.04	0.00
TRMB05003	1.28	0.20	0.00	0.00	0.01	0.79	0.00	0.00	0.00	0.00
TRMB05003-S	1.00	0.96	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
TRMB05004	11.73	0.20	0.02	0.00	0.78	0.00	0.00	0.00	0.00	0.00
TRMB05004-S	25.46	0.63	0.33	0.00	0.04	0.00	0.00	0.00	0.54	0.00
TRMB05005	3.12	0.20	0.06	0.00	0.73	0.00	0.00	0.00	0.00	0.00
TRMB05005-S	3.52	0.56	0.07	0.00	0.20	0.16	0.00	0.00	0.00	0.00
TRMB05006	1.00	0.20	0.00	0.00	0.80	0.00	0.00	0.00	0.52	0.00
TRMB05006-S	1.00	0.94	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00
TRMB05008	1.00	0.20	0.05	0.00	0.75	0.00	0.00	0.00	0.60	0.00
TRMB05008-S	1.00	0.61	0.38	0.00	0.01	0.00	0.00	0.00	0.51	0.00
TRMB05009_1	1.00	0.20	0.00	0.00	0.01	0.79	0.00	0.00	0.12	0.00
TRMB05009_1-S	1.00	0.55	0.32	0.00	0.03	0.10	0.00	0.00	0.42	0.00
TRMB05009_2	1.00	0.20	0.00	0.00	0.11	0.69	0.00	0.00	0.67	0.00
TRMB05009_2-S	1.00	0.53	0.03	0.00	0.32	0.12	0.00	0.00	0.00	0.00
TRMB05010	7.50	0.20	0.03	0.00	0.77	0.00	0.00	0.00	0.66	0.00
TRMB05010-S	1.49	0.71	0.29	0.00	0.00	0.00	0.00	0.00	0.59	0.00
TRMB05011	4.39	0.23	0.00	0.00	0.00	0.77	0.00	0.00	0.28	0.00
TRMB05011-S	2.93	0.71	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05012	1.64	0.23	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
TRMB05012-S	1.28	0.78	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05013	62.80	0.20	0.05	0.00	0.74	0.00	0.00	0.00	0.62	0.00
TRMB05013-S	22.44	0.61	0.27	0.00	0.03	0.10	0.00	0.00	0.46	0.00
TRMB05014	9.71	0.20	0.06	0.00	0.74	0.00	0.00	0.00	0.62	0.00
TRMB05014-S	3.83	0.67	0.21	0.00	0.03	0.10	0.00	0.00	0.46	0.00
TRMB05015	1.00	0.20	0.00	0.00	0.18	0.62	0.00	0.00	0.00	0.00
TRMB05015-S	1.00	0.56	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
TRMB05016	7.68	0.20	0.00	0.00	0.64	0.16	0.00	0.00	0.70	0.00
TRMB05016-S	2.36	0.56	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
TRMB05017	1.56	0.20	0.03	0.00	0.77	0.00	0.00	0.00	0.04	0.00
TRMB05017-S	1.25	0.33	0.12	0.00	0.25	0.30	0.00	0.00	0.26	0.00
TRMB05018	7.13	0.20	0.05	0.00	0.75	0.00	0.00	0.00	0.63	0.00
TRMB05018-S	2.41	0.56	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
TRMB05019	8.18	0.20	0.00	0.00	0.00	0.79	0.00	0.00	0.01	0.00
TRMB05019-S	7.74	0.86	0.00	0.00	0.05	0.10	0.00	0.00	0.00	0.00
TRMB05020	3.71	0.20	0.00	0.00	0.76	0.04	0.00	0.00	0.62	0.00
TRMB05020-S	2.62	0.55	0.31	0.00	0.05	0.10	0.00	0.00	0.46	0.00
TRMB05021	1.00	0.20	0.00	0.00	0.75	0.05	0.00	0.00	0.62	0.00
TRMB05021-S	1.00	0.93	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00
TRMB05022	5.95	0.24	0.02	0.00	0.75	0.00	0.00	0.00	0.00	0.00
TRMB05022-S	4.30	0.52	0.34	0.00	0.04	0.10	0.00	0.00	0.01	0.00

# Future Conditions (10-Year)

TRMB05023	1.00	0.24	0.00	0.00	0.76	0.00	0.00	0.00	0.65	0.00
TRMB05023-S	1.00	0.24	0.31	0.00	0.45	0.00	0.00	0.00	0.63	0.00
TRMB05025	25.30	0.23	0.01	0.00	0.61	0.14	0.00	0.00	0.64	0.00
TRMB05025-S	8.01	0.35	0.10	0.00	0.38	0.17	0.00	0.00	0.29	0.00
TRMB05026	7.07	0.24	0.00	0.00	0.00	0.76	0.00	0.00	0.64	0.00
TRMB05026-S	2.28	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05027	17.75	0.23	0.03	0.00	0.58	0.16	0.00	0.00	0.62	0.00
TRMB05027-S	8.13	0.36	0.09	0.00	0.39	0.16	0.00	0.00	0.31	0.00
TRMB05028	1.00	0.20	0.00	0.00	0.26	0.54	0.00	0.00	0.00	0.00
TRMB05028-S	1.00	0.58	0.01	0.00	0.41	0.00	0.00	0.00	0.50	0.00
TRMB05029	2.49	0.20	0.03	0.00	0.77	0.00	0.00	0.00	0.00	0.00
TRMB05029-S	2.09	0.74	0.05	0.00	0.13	0.08	0.00	0.00	0.00	0.00
TRMB05030	4.51	0.20	0.02	0.00	0.77	0.00	0.00	0.00	0.62	0.00
TRMB05030-S	3.36	0.52	0.10	0.00	0.38	0.00	0.00	0.00	0.51	0.00
TRMB05031	2.21	0.20	0.02	0.00	0.78	0.00	0.00	0.00	0.64	0.00
TRMB05031-S	1.00	0.61	0.24	0.00	0.16	0.00	0.00	0.00	0.53	0.00
TRMB05032	1.92	0.20	0.05	0.00	0.75	0.00	0.00	0.00	0.59	0.00
TRMB05032-S	1.00	0.59	0.21	0.00	0.21	0.00	0.00	0.00	0.50	0.00
TRMB05033	1.53	0.23	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
TRMB05033-S	1.00	0.62	0.00	0.00	0.28	0.10	0.00	0.00	0.02	0.00
TRMB05034	2.47	0.25	0.00	0.00	0.39	0.35	0.00	0.00	0.00	0.00
TRMB05034-S	2.06	0.54	0.15	0.00	0.06	0.25	0.00	0.00	0.02	0.00
TRMB05035	10.07	0.20	0.00	0.00	0.00	0.80	0.00	0.00	0.70	0.00
TRMB05035-S	2.09	0.32	0.13	0.00	0.43	0.13	0.00	0.00	0.00	0.00
TRMB05036	1.34	0.20	0.05	0.00	0.00	0.75	0.00	0.00	0.00	0.00
TRMB05036-S	1.10	0.39	0.27	0.00	0.34	0.00	0.00	0.00	0.51	0.00
TRMB05037	3.97	0.25	0.00	0.00	0.49	0.26	0.00	0.00	0.62	0.00
TRMB05037-S	2.32	0.68	0.04	0.00	0.16	0.11	0.00	0.00	0.01	0.00
TRMB05038	1.54	0.20	0.05	0.00	0.00	0.75	0.00	0.00	0.00	0.00
TRMB05038-S	1.00	0.52	0.23	0.00	0.25	0.00	0.00	0.00	0.51	0.00
TRMB05039	2.08	0.25	0.00	0.00	0.74	0.00	0.00	0.00	0.15	0.00
TRMB05039-S	1.81	0.67	0.04	0.00	0.26	0.04	0.00	0.00	0.31	0.00
TRMB05040	1.00	0.20	0.00	0.00	0.80	0.00	0.00	0.00	0.63	0.00
TRMB05040-S	1.00	0.38	0.06	0.00	0.38	0.18	0.00	0.00	0.15	0.00
TRMB05041	1.81	0.20	0.00	0.00	0.59	0.21	0.00	0.00	0.22	0.00
TRMB05041-S	1.47	0.28	0.13	0.00	0.42	0.17	0.00	0.00	0.18	0.00
TRMB05042	2.30	0.24	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00
TRMB05042-S	2.05	0.68	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05044	1.00	0.20	0.02	0.00	0.77	0.00	0.00	0.00	0.66	0.00
TRMB05044-S	1.00	0.27	0.14	0.00	0.38	0.21	0.00	0.00	0.17	0.00
TRMB05045	1.00	0.20	0.00	0.00	0.04	0.76	0.00	0.00	0.05	0.00
TRMB05045-S	1.00	0.30	0.11	0.00	0.38	0.21	0.00	0.00	0.00	0.00
TRMB05046	7.12	0.21	0.00	0.00	0.02	0.78	0.00	0.00	0.04	0.00
TRMB05046-S	7.70	0.86	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05048	2.44	0.21	0.00	0.00	0.74	0.05	0.00	0.00	0.65	0.00

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 Conduit Surcharge Summary  
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Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Normal Flow	Capacity Limited
C14	5.90	5.90	5.90	2.80	0.01
C2_1	23.70	23.70	23.70	0.01	0.01
CountrySideE_Ditch	7.73	7.73	7.73	0.01	0.01
JMTB01003	11.89	11.89	11.89	0.01	0.01
JMTB01004	11.91	11.91	11.91	0.08	0.01
JMTB01005	11.86	11.86	11.86	3.54	11.86



## Future Conditions (10-Year)

JMTB01103	1.19	1.19	1.20	0.01	0.01
JMTB01104	5.45	5.45	5.47	0.01	0.01
PCTB02008	0.01	0.01	0.01	6.03	0.01
PCTB02021	8.11	8.11	8.11	0.01	0.01
PCTB02022	12.15	12.15	12.15	3.93	0.01
PCTB02023	12.01	12.01	12.01	0.01	0.01
PCTB02080	23.45	23.45	23.46	23.75	0.01
PCTB02189	23.69	23.69	23.69	0.01	0.01
PCTB02231	23.63	23.63	23.63	12.05	0.01
PCTB02237	6.12	6.12	6.12	2.80	0.01
PCTB02260	0.01	0.01	0.01	3.89	0.01
PCTB02276	0.01	0.01	0.01	6.53	0.01
PCTB02278	10.78	10.78	10.78	0.01	3.38
PCTB02280	23.57	23.57	23.57	1.48	0.01
PCTB02281	23.56	23.56	23.56	0.01	0.01
PCTB02282	23.53	23.53	23.53	0.01	0.01
PCTB02283	23.53	23.53	23.53	12.40	0.01
PCTB02284	23.53	23.53	23.53	0.01	0.01
PCTB02294	23.49	23.49	23.49	0.12	0.01
PCTB02297	23.50	23.50	23.50	0.01	0.01
PCTB02303	23.45	23.45	23.45	0.01	0.01
PCTB02304	23.45	23.45	23.45	0.01	0.01
PCTB02329	10.32	10.32	10.32	12.09	10.32
PCTB02330	11.97	11.97	11.97	11.41	0.01
PCTB02331	12.02	12.02	12.02	10.33	4.37
TRMB02006	0.92	0.92	0.92	0.47	0.52
TRMB02015	0.01	0.01	0.01	0.62	0.01
TRMB02016	0.73	0.73	0.73	1.27	0.73
TRMB02018	1.74	1.74	1.74	2.02	1.74
TRMB02022	1.81	1.81	1.81	2.08	1.80
TRMB02023	1.51	1.51	1.51	0.01	0.01
TRMB02030	1.47	1.47	1.47	0.01	0.01
TRMB02032	0.73	0.73	0.73	0.01	0.03
TRMB02033	0.59	0.59	0.59	0.01	0.01
TRMB02034	0.70	0.70	0.70	1.08	0.70
TRMB02035	1.01	1.01	1.01	0.01	0.01
TRMB02044_1	0.92	0.92	0.93	0.01	0.01
TRMB02044_2	1.85	1.85	1.85	3.35	1.85
TRMB02045	0.92	0.92	0.93	0.01	0.01
TRMB02046	0.60	0.60	0.60	0.01	0.01
TRMB02050	0.97	0.97	0.97	0.53	0.60
TRMB02051	0.99	0.99	0.99	0.53	0.47
TRMB02052	0.99	0.99	0.99	0.01	0.01
TRMB02056	0.95	0.95	0.95	0.01	0.27
TRMB02057	0.93	0.93	0.93	0.01	0.29
TRMB02067	0.30	0.30	0.30	1.20	0.30
TRMB02068	0.70	0.70	0.70	0.08	0.18
TRMB02069	0.62	0.62	0.62	0.01	0.01
TRMB02070	0.60	0.60	0.60	0.01	0.01
TRMB03022	1.00	1.00	1.01	0.89	0.93
TRMB03028	0.01	0.01	0.01	2.71	0.01
TRMB03029	0.92	0.92	0.92	0.01	0.11
TRMB03030	0.92	0.92	0.92	0.58	0.92
TRMB03032	0.01	0.01	0.01	0.62	0.01
TRMB03033	0.66	0.66	0.66	0.01	0.01
TRMB03034	0.72	0.72	0.72	0.01	0.01
TRMB03035	0.23	0.23	0.23	0.01	0.01
TRMB03036	0.93	0.93	0.93	0.99	0.93
TRMB03037	0.72	0.72	0.72	0.03	0.71
TRMB03039	0.83	0.83	0.83	0.01	0.01
TRMB03043	0.77	0.77	0.77	0.01	0.01
TRMB03044	0.67	0.67	0.67	0.01	0.01

## Future Conditions (10-Year)

TRMB03049	0.80	0.80	0.80	0.01	0.01
TRMB03051	0.64	0.64	0.64	0.01	0.01
TRMB03052	0.57	0.57	0.57	0.01	0.01
TRMB03054	0.63	0.63	0.63	0.58	0.56
TRMB03055	0.73	0.73	0.73	0.37	0.16
TRMB03084	0.45	0.45	0.45	0.17	0.44
TRMB03087	0.76	0.76	0.76	1.82	0.76
TRMB05004	5.42	5.42	5.48	0.01	0.20
TRMB05005	2.75	2.75	2.80	0.01	0.01
TRMB05006	0.01	0.01	0.01	0.81	0.01
TRMB05015	0.01	0.01	0.01	0.75	0.01
TRMB05021	0.74	0.74	0.74	0.72	0.73
TRMB05028	0.74	0.74	0.74	0.84	0.74
TRMB05029	0.76	0.76	0.76	0.01	0.01
TRMB05030	0.73	0.73	0.73	0.01	0.01
TRMB05031	0.63	0.63	0.63	0.01	0.01
TRMB05032	0.67	0.67	0.67	0.01	0.01
TRMB05033	0.73	0.73	0.73	3.67	0.71
TRMB05034	0.66	0.66	0.66	0.01	0.01
TRMB05045	0.01	0.01	0.01	0.14	0.01

Analysis begun on: Thu Dec 17 15:41:31 2015  
Analysis ended on: Thu Dec 17 15:41:45 2015  
Total elapsed time: 00:00:14

**SECONDARY SYSTEM**

**ALTERNATIVE #1:**

**SWMM INPUT**

Project: HMR/SHB Watershed Master Plan  
 Location: Davis Street and Vance Street System (Alternatives)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_COLONIAL_AV	0.39	16988	47	361.455	63	2
SubCatch_COLONIAL_AV_1	0.35	15246	35	435.6	74	2
SubCatch_CONTENTNEA_ST	0.03	1307	4	326.7	83	2
SubCatch_CONTENTNEA_ST_1	1.89	82328	227	362.68	74	2
SubCatch_CONTENTNEA_ST_2	1.99	86528	289	299.403	62	2
SubCatch_CONTENTNEA_ST_3	0.78	33977	94	361.455	73	2
SubCatch_CONTENTNEA_ST_4	1.54	67082	185	362.608	69	2
SubCatch_CONTENTNEA_ST_5	1.51	65776	181	363.401	68	2
SubCatch_CONTENTNEA_ST_6	0.27	11761	32	367.538	69	2
SubCatch_DAVIS_ST	0.63	27443	63	435.6	63	2
SubCatch_DAVIS_ST_1	0.85	37026	85	435.6	61	2
SubCatch_DAVIS_ST_2	2.15	93654	214	437.636	58	2
SubCatch_DAVIS_ST_3	1.24	54014	124	435.6	61	2
SubCatch_DAVIS_ST_4	1.64	71438	164	435.6	55	2
SubCatch_FAIRFAX_AV	1.08	47045	130	361.883	63	2
SubCatch_LATHAM_ST	2.61	113692	313	363.232	75	2
SubCatch_SPRUCE_ST	49.16	2141497	1680	1274.7	71	2
SubCatch_VANCE_2	2.88	125453	346	362.58	63	2
SubCatch_VANCE_ST_1	0.03	1307	4	326.7	83	2
SubCatch_VANCE_ST_2	0.32	13939	38	366.821	67	2
SubCatch_VANCE_ST_3	1.15	50094	138	363	65	2
SubCatch_VANCE_ST_4	1.19	51836	143	362.492	59	2
SubCatch_VANCE_ST_5	1.19	51836	143	362.492	54	2
SubCatch_VANCE_ST_6	0.23	10019	28	357.814	61	2
SubCatch_VANCE_ST_7	0.28	12197	34	358.729	54	2
SubCatch_W_3RD_ST	0.01	436	1	435.6	83	2
SubCatch_W_3RD_ST_1	0.02	871	2	435.6	83	2
SubCatch_W_3RD_ST_2	0.29	12632	29	435.6	64	2
SubCatch_W_3RD_ST_3	1.04	45302	104	435.6	62	2
SubCatch_W_3RD_ST_5	0.75	32670	90	363	63	2
SubCatch_W_3RD_ST_6	0.42	18295	50	365.904	61	2
SubCatch_W_3RD_ST_7	0.17	7405	20	370.26	70	2
SubCatch_W_3RD_ST_8	0.48	20909	58	360.497	63	2
SubCatch_W_3RD_ST_9	1.40	61036	340	179.518	63	2
SubCatch_W_4TH_ST	0.80	34848	96	363	64	2
SubCatch_W_4TH_ST_2	0.68	29621	82	361.229	62	2
SubCatch_W_5th_ST	8.56	372874	1027	363.071	69	2
SubCatch_CHESTNUT_ST	19.25	838530	2310	363	72	2

Project: HMR/SHB Watershed Master Plan  
 Location: Jarvis Street System (Alternatives)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_AVERY_ST	0.44	19166	37	518.011	61	2
SubCatch_E_1ST_ST	5.28	229997	440	522.72	57	2
SubCatch_E_1ST_ST_2	2.53	110207	211	522.307	61	2
SubCatch_E_2ND_ST	4.61	200812	384	522.947	90	2
SubCatch_E_2ND_ST_1	0.03	1307	3	435.6	83	2
SubCatch_E_2ND_ST_2	0.01	436	1	435.6	54	2
SubCatch_E_2ND_ST_3	0.09	3920	8	490.05	64	2
SubCatch_E_2ND_ST_4	0.73	31799	61	521.292	85	2
SubCatch_E_3RD_ST_1	6.69	291416	558	522.252	86	2
SubCatch_N_JARVIS_ST	3.10	135036	258	523.395	72	2
SubCatch_N_SUMMIT_ST	0.25	10890	21	518.571	67	2
SubCatch_N_SUMMIT_ST_1	4.73	206039	394	522.941	67	2
SubCatch_S_ROTARY_AV	4.53	197327	378	522.029	74	2
SubCatch_S_ROTARY_AV_2	1.84	80150	153	523.859	76	2
SubCatch_S_ROTARY_AV_3	0.78	33977	65	522.72	73	2
SubCatch_S_ROTARY_AV_5	0.64	27878	53	526.008	60	2
SubCatch_STUDENT_ST	5.72	249163	477	522.355	77	2

Project: HMR/SHB Watershed Master Plan  
 Location: Harding Street System (Alternatives)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_N_HARDING_ST	2.3	99752	427	233.612	55	2
SubCatch_N_HARDING_ST_1	1.5	66647	285	233.848	64	2
SubCatch_N_HARDING_ST_2	3.0	129809	555	233.89	62	2
SubCatch_N_LIBRARY_ST	2.7	117612	503	233.821	62	2
SubCatch_PARK_DR	1.4	62291	266	234.176	54	2
SubCatch_RIVER_DR	4.4	190793	816	233.815	73	2
SubCatch_S_HARDING_ST	4.6	198198	848	233.724	61	2
SubCatch_S_LIBRARY_ST	4.8	207781	889	233.725	62	2
SubCatch_S_ROTARY_AV_1	4.4	192971	825	233.904	61	2
SubCatch_WILLOW_ST	2.1	93218	399	233.63	64	2
SubCatch_WILLOW_ST_1	0.42	18295	78	234.554	60	2

Project: HMR/SHB Watershed Master Plan  
 Location: Elm Street System (Alternatives)  
 Prepared by: YB  
 Checked by:  
 Date: December 2015

SWMM Sub-Basin ID	Area (acres)	Area (sq. ft)	Width (ft.)	Flow Length (ft)	Curve Number	Basin Slope (%)
SubCatch_ASH_ST	1.28	55757	221	252.293	70	2
SubCatch_E_1ST_ST_1	0.55	23958	95	252.189	69	2
SubCatch_E_3RD_ST	1.30	56628	225	251.68	62	2
SubCatch_E_3RD_ST_2	1.92	83635	332	251.913	63	2
SubCatch_E_3RD_ST_3	1.77	77101	306	251.965	67	2
SubCatch_E_4TH_ST	0.94	40946	162	252.756	64	2
SubCatch_E_4TH_ST_1	3.06	133294	529	251.973	71	2
SubCatch_E_4TH_ST_2	0.85	37026	147	251.878	69	2
SubCatch_JOHNSON_HEIGHTS	2.75	119790	475	252.189	90	2
SubCatch_N_ELM_ST	2.91	126760	503	252.007	81	2
SubCatch_N_ELM_ST_1	2.36	102802	408	251.965	71	2
SubCatch_N_ELM_ST_2	7.64	332798	1321	251.929	77	2
SubCatch_N_OAK_ST	6.05	263538	1046	251.948	79	2
SubCatch_N_OAK_ST_1	0.69	30056	119	252.575	91	2
SubCatch_N_OAK_ST_2	3.01	131116	520	252.145	87	2
SubCatch_S_ELM_ST	6.41	279220	1108	252.003	69	2
SubCatch_S_ELM_ST_1	2.60	113256	449	252.241	63	2
SubCatch_S_OAK_ST	1.83	79715	316	252.262	64	2
SubCatch_S_OAK_ST_1	1.21	52708	209	252.189	80	2
SubCatch_WILSONACRES_APT	6.11	266152	1056	252.038	67	2

**SECONDARY SYSTEM**  
**ALTERNATIVE #1:**  
**SWMM OUTPUT**



# Alternative #1 (10-Year)

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

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

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Flow Units ..... CFS  
 Process Models:  
   Rainfall/Runoff ..... YES  
   RDII ..... NO  
   Snowmelt ..... NO  
   Groundwater ..... NO  
   Flow Routing ..... YES  
   Ponding Allowed ..... NO  
   Water Quality ..... NO  
 Infiltration Method ..... CURVE\_NUMBER  
 Flow Routing Method ..... DYNWAVE  
 Starting Date ..... APR-17-2015 00:00:00  
 Ending Date ..... APR-17-2015 23:45:00  
 Antecedent Dry Days ..... 0.0  
 Report Time Step ..... 00:05:00  
 Wet Time Step ..... 00:01:00  
 Dry Time Step ..... 01:00:00  
 Routing Time Step ..... 5.00 sec  
 Variable Time Step ..... YES  
 Maximum Trials ..... 8  
 Head Tolerance ..... 0.005000 ft

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Element Count

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Number of rain gages ..... 1  
 Number of subcatchments ... 115  
 Number of nodes ..... 385  
 Number of links ..... 525  
 Number of pollutants ..... 0  
 Number of land uses ..... 0

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Raingage Summary

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Name	Data Source	Data Type	Recording Interval
SCS_Rain	SCSStorms	VOLUME	15 min.

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Subcatchment Summary

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Name	Area	Width	%Imperv	%Slope	Rain Gage
Outlet					

## Alternative #1 (10-Year)

PC 1321	42.52	373.98	13.09	0.5000	SCS_Rain
PCTB02235-S					
PC 1323	17.43	153.33	10.21	0.5000	SCS_Rain
PCTB02257_1-S					
PC 1324	20.76	182.55	0.00	0.5000	SCS_Rain
CountrySideE_Ditch_Culvert_In-S					
PC 1325	30.92	271.95	0.00	0.5000	SCS_Rain
CountrySideE_Ditch_Culvert_In-S					
PC 1326	66.02	1100.00	0.00	0.5000	SCS_Rain
JMTB01006-S					
PC 1327	13.69	120.40	2.96	0.5000	SCS_Rain
JMTB01006-S					
PC 1350	58.26	512.33	8.60	0.5000	SCS_Rain
PCTB02004-S					
PC 1360	38.27	336.59	8.31	0.5000	SCS_Rain
PCTB02005					
PC 571	162.61	2150.00	1.31	0.5000	SCS_Rain
PCTB02009					
SubCatch_ASH_ST	1.28	221.00	50.19	2.0000	SCS_Rain
TRMB02051-S					
SubCatch_AVERY_ST	0.44	37.00	17.67	2.0000	SCS_Rain
TRMB03068-S					
SubCatch_BELVOIR_HW	36.41	320.22	45.57	0.5000	SCS_Rain
PCTB02189-S					
SubCatch_BELVOIR_HW_1	26.16	230.08	1.40	0.5000	SCS_Rain
PCTB02012-S					
SubCatch_CHESTNUT_ST	19.25	2310.00	48.83	2.0000	SCS_Rain
TRMB04089-S					
SubCatch_COLONIAL_AV	0.39	47.00	44.12	2.0000	SCS_Rain
TRMB05009_DS-S					
SubCatch_COLONIAL_AV_1	0.35	35.00	50.58	2.0000	SCS_Rain
TRMB05044-S					
SubCatch_CONTENTNEA_ST	0.03	4.00	92.18	2.0000	SCS_Rain
TRMB05028-S					
SubCatch_CONTENTNEA_ST_1	1.89	227.00	41.36	2.0000	SCS_Rain
TRMB05033-S					
SubCatch_CONTENTNEA_ST_2	1.99	289.00	0.00	2.0000	SCS_Rain
TRMB05034-S					
SubCatch_CONTENTNEA_ST_3	0.78	94.00	40.22	2.0000	SCS_Rain
TRMB05012-S					
SubCatch_CONTENTNEA_ST_4	1.54	185.00	45.59	2.0000	SCS_Rain
TRMB05042-S					
SubCatch_CONTENTNEA_ST_5	1.51	181.00	30.71	2.0000	SCS_Rain
TRMB05010-S					
SubCatch_CONTENTNEA_ST_6	0.27	32.00	28.46	2.0000	SCS_Rain
TRMB05030-S					
SubCatch_DAVIS_ST	0.63	63.00	54.99	2.0000	SCS_Rain
TRMB05038-S					
SubCatch_DAVIS_ST_1	0.85	85.00	41.38	2.0000	SCS_Rain
TRMB05039-S					
SubCatch_DAVIS_ST_2	2.15	214.00	0.00	2.0000	SCS_Rain
TRMB05048-S					
SubCatch_DAVIS_ST_3	1.24	124.00	40.49	2.0000	SCS_Rain
TRMB05041-S					
SubCatch_DAVIS_ST_4	1.64	164.00	41.51	2.0000	SCS_Rain
TRMB05040-S					
SubCatch_E_1ST_ST	5.28	440.00	28.98	2.0000	SCS_Rain
TRMB03087-S					
SubCatch_E_1ST_ST_1	0.55	95.00	42.81	2.0000	SCS_Rain
TRMB02022-S					

## Alternative #1 (10-Year)

SubCatch_E_1ST_ST_2 TRMB03073-S	2.53	211.00	37.57	2.0000	SCS_Rain
SubCatch_E_2ND_ST TRMB03097-S	4.61	384.00	63.85	2.0000	SCS_Rain
SubCatch_E_2ND_ST_1 TRMB03094-S	0.03	3.00	77.16	2.0000	SCS_Rain
SubCatch_E_2ND_ST_2 TRMB03095-S	0.01	1.00	1.19	2.0000	SCS_Rain
SubCatch_E_2ND_ST_3 TRMB03101-S	0.09	8.00	3.17	2.0000	SCS_Rain
SubCatch_E_2ND_ST_4 TRMB03102-S	0.73	61.00	20.01	2.0000	SCS_Rain
SubCatch_E_3RD_ST TRMB02044_DS-S	1.30	225.00	0.00	2.0000	SCS_Rain
SubCatch_E_3RD_ST_1 TRMB03111-S	6.69	558.00	55.01	2.0000	SCS_Rain
SubCatch_E_3RD_ST_2 TRMB02049-S	1.92	332.00	35.41	2.0000	SCS_Rain
SubCatch_E_3RD_ST_3 TRMB02047-S	1.77	306.00	39.28	2.0000	SCS_Rain
SubCatch_E_4TH_ST TRMB02070-S	0.94	162.00	34.68	2.0000	SCS_Rain
SubCatch_E_4TH_ST_1 TRMB02060-S	3.06	529.00	53.26	2.0000	SCS_Rain
SubCatch_E_4TH_ST_2 TRMB02060-S	0.85	147.00	23.57	2.0000	SCS_Rain
SubCatch_E_CATAWBA_RD PCTB02331-S	18.21	160.15	24.62	0.5000	SCS_Rain
SubCatch_FAIRFAX_AV TRMB05008-S	1.08	130.00	37.23	2.0000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD JMTB01102-S	27.23	239.44	14.41	0.5000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD_1 JMTB01105-S	29.20	256.79	0.58	0.5000	SCS_Rain
SubCatch_FLEMING_SCHOOL_RD_2 JMTB01104-S	3.67	32.25	10.32	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV PCTB02303-S	29.47	259.19	9.71	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV_1 PCTB02282-S	8.28	72.79	39.47	0.5000	SCS_Rain
SubCatch_GREENFIELD_BV_2 PCTB02292-S	8.58	75.44	0.00	0.5000	SCS_Rain
SubCatch_HAW_1 PCTB02001-S	2.89	25.38	4.16	0.5000	SCS_Rain
SubCatch_HAW_2 PCTB01068_US-S	17.57	550.00	3.44	0.5000	SCS_Rain
SubCatch_HOP_TYSON_RD PCTB02022-S	17.40	153.01	21.97	0.5000	SCS_Rain
SubCatch_JOHNSON_HEIGHTS TRMB02016-S	2.75	475.00	51.81	2.0000	SCS_Rain
SubCatch_LATHAM_ST TRMB05031-S	2.61	313.00	35.50	2.0000	SCS_Rain
SubCatch_N_ELM_ST TRMB02023-S	2.91	503.00	36.98	2.0000	SCS_Rain
SubCatch_N_ELM_ST_1 TRMB02002-S	2.36	408.00	17.68	2.0000	SCS_Rain
SubCatch_N_ELM_ST_2 TRMB02009-S	7.64	1321.00	46.59	2.0000	SCS_Rain
SubCatch_N_HARDING_ST TRMB03031-S	2.29	427.00	26.13	2.0000	SCS_Rain
SubCatch_N_HARDING_ST_1 TRMB03025-S	1.53	285.00	41.63	2.0000	SCS_Rain

## Alternative #1 (10-Year)

SubCatch_N_HARDING_ST_2 TRMB03044-S	2.98	555.00	36.35	2.0000	SCS_Rain
SubCatch_N_JARVIS_ST TRMB03084-S	3.10	258.00	0.00	2.0000	SCS_Rain
SubCatch_N_LIBRARY_ST TRMB03055-S	2.70	503.00	40.77	2.0000	SCS_Rain
SubCatch_N_MEMORIAL_DR PCTB02294-S	17.70	155.66	9.73	0.5000	SCS_Rain
SubCatch_N_OAK_ST TRMB02044_DS-S	8.35	1046.00	49.49	2.0000	SCS_Rain
SubCatch_N_OAK_ST_1 TRMB02022-S	0.69	119.00	51.65	2.0000	SCS_Rain
SubCatch_N_OAK_ST_2 TRMB02018-S	3.01	520.00	43.48	2.0000	SCS_Rain
SubCatch_N_SUMMIT_ST TRMB03067-S	0.25	21.00	19.14	2.0000	SCS_Rain
SubCatch_N_SUMMIT_ST_1 TRMB03068-S	4.73	394.00	41.66	2.0000	SCS_Rain
SubCatch_PARK_DR TRMB03032-S	1.43	266.00	15.62	2.0000	SCS_Rain
SubCatch_RIVER_DR TRMB03016	4.38	816.00	29.82	2.0000	SCS_Rain
SubCatch_S_ELM_ST TRMB02044_DS-S	6.41	1108.00	0.00	2.0000	SCS_Rain
SubCatch_S_ELM_ST_1 TRMB02068-S	2.60	449.00	42.97	2.0000	SCS_Rain
SubCatch_S_HARDING_ST TRMB03042-S	4.55	848.00	36.94	2.0000	SCS_Rain
SubCatch_S_LIBRARY_ST TRMB03063-S	4.77	889.00	36.14	2.0000	SCS_Rain
SubCatch_S_OAK_ST TRMB02067-S	1.83	316.00	37.25	2.0000	SCS_Rain
SubCatch_S_OAK_ST_1 TRMB02060-S	1.21	209.00	39.18	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV TRMB03103-S	4.53	378.00	53.50	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_1 TRMB03037-S	4.43	825.00	43.91	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_2 TRMB03092-S	1.84	153.00	36.90	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_3 TRMB03091-S	0.78	65.00	38.29	2.0000	SCS_Rain
SubCatch_S_ROTARY_AV_5 TRMB03091-S	0.64	53.00	16.23	2.0000	SCS_Rain
SubCatch_S_WOODLAWN_AV TRMB03092-S	0.93	78.00	39.14	2.0000	SCS_Rain
SubCatch_SPRUCE_ST TRMB04089-S	49.16	1680.00	0.00	2.0000	SCS_Rain
SubCatch_STATON_HOUSE_RD JMTB01003-S	31.58	277.73	20.02	0.5000	SCS_Rain
SubCatch_STUDENT_ST TRMB03111-S	5.72	477.00	52.36	2.0000	SCS_Rain
SubCatch_TRENT_CI PCTB02001-S	10.13	89.12	11.29	0.5000	SCS_Rain
SubCatch_TRENT_CI_1 PCTB02304-S	28.21	248.13	18.68	0.5000	SCS_Rain
SubCatch_VANCE_2 TRMB04089-S	2.88	346.00	37.50	2.0000	SCS_Rain
SubCatch_VANCE_ST_1 TRMB05020-S	0.03	4.00	77.00	2.0000	SCS_Rain
SubCatch_VANCE_ST_2 TRMB05025-S	0.32	38.00	32.06	2.0000	SCS_Rain

# Alternative #1 (10-Year)

SubCatch_VANCE_ST_3 TRMB05017_US-S	1.15	138.00	49.80	2.0000	SCS_Rain
SubCatch_VANCE_ST_4 TRMB05014-S	1.19	143.00	38.75	2.0000	SCS_Rain
SubCatch_VANCE_ST_5 TRMB05005-S	1.19	143.00	34.77	2.0000	SCS_Rain
SubCatch_VANCE_ST_6 TRMB05027-S	0.23	28.00	51.78	2.0000	SCS_Rain
SubCatch_VANCE_ST_7 TRMB05004-S	0.28	34.00	29.92	2.0000	SCS_Rain
SubCatch_W_3RD_ST TRMB05015-S	0.01	1.00	86.79	2.0000	SCS_Rain
SubCatch_W_3RD_ST_1 TRMB05035-S	0.02	2.00	84.81	2.0000	SCS_Rain
SubCatch_W_3RD_ST_2 TRMB05036-S	0.29	29.00	54.15	2.0000	SCS_Rain
SubCatch_W_3RD_ST_3 TRMB05037-S	1.04	104.00	42.19	2.0000	SCS_Rain
SubCatch_W_3RD_ST_5 TRMB05029-S	0.75	90.00	32.88	2.0000	SCS_Rain
SubCatch_W_3RD_ST_6 TRMB05013-S	0.42	50.00	58.84	2.0000	SCS_Rain
SubCatch_W_3RD_ST_7 TRMB05023-S	0.17	20.00	54.76	2.0000	SCS_Rain
SubCatch_W_3RD_ST_8 TRMB05022-S	0.48	58.00	39.10	2.0000	SCS_Rain
SubCatch_W_3RD_ST_9 TRMB05045-S	1.40	340.00	0.00	2.0000	SCS_Rain
SubCatch_W_4TH_ST TRMB04265-S	0.80	96.00	35.46	2.0000	SCS_Rain
SubCatch_W_4TH_ST_2 TRMB05032-S	0.68	82.00	50.66	2.0000	SCS_Rain
SubCatch_W_5th_ST TRMB04089-S	8.56	1027.00	55.61	2.0000	SCS_Rain
SubCatch_WILLOW_ST TRMB03016	2.14	399.00	12.38	2.0000	SCS_Rain
SubCatch_WILLOW_ST_1 TRMB03027	0.42	78.00	44.87	2.0000	SCS_Rain
SubCatch_WILSONACRES_APT TRMB02044_DS-S	6.11	1056.00	50.07	2.0000	SCS_Rain
SubCatch_WOODSIDE_RD PCTB02292-S	21.82	191.89	17.45	0.5000	SCS_Rain
SubCatch_WOODSIDE_RD_1 PCTB02297-S	11.34	99.76	12.60	0.5000	SCS_Rain
SubInsert PCTB02189-S	16.40	144.20	51.53	0.5000	SCS_Rain

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Node Summary  
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Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
CountrySideE_Ditch_Culvert_In	JUNCTION		21.65	5.85	0.0
CountrySideE_Ditch_Culvert_In-S	JUNCTION		27.50	0.75	0.0
J1	JUNCTION	21.64	2.10	0.0	
J2	JUNCTION	41.52	5.46	0.0	
J3	JUNCTION	24.00	7.44	0.0	
J4	JUNCTION	0.00	22.73	0.0	
J5	JUNCTION	14.88	5.35	0.0	
J6	JUNCTION	17.50	7.63	0.0	

## Alternative #1 (10-Year)

J7	JUNCTION	11.85	6.70	0.0
J8	JUNCTION	11.12	7.21	0.0
J9	JUNCTION	14.14	0.87	0.0
JMTB01003	JUNCTION	25.02	2.50	0.0
JMTB01003-S	JUNCTION	27.02	0.75	0.0
JMTB01004	JUNCTION	25.00	2.52	0.0
JMTB01004-S	JUNCTION	27.59	0.75	0.0
JMTB01005	JUNCTION	24.90	2.01	0.0
JMTB01005-S	JUNCTION	27.29	0.75	0.0
JMTB01006	JUNCTION	24.59	2.00	0.0
JMTB01006-S	JUNCTION	26.54	0.75	0.0
JMTB01102	JUNCTION	26.59	2.47	0.0
JMTB01102-S	JUNCTION	29.06	0.75	0.0
JMTB01103	JUNCTION	26.42	3.15	0.0
JMTB01103-S	JUNCTION	29.57	0.75	0.0
JMTB01104	JUNCTION	26.63	3.11	0.0
JMTB01104-S	JUNCTION	29.74	0.75	0.0
JMTB01105	JUNCTION	26.03	2.50	0.0
JMTB01105-S	JUNCTION	27.81	0.75	0.0
PCTB01068	JUNCTION	19.35	6.01	0.0
PCTB01068_US	JUNCTION	20.00	5.30	0.0
PCTB01068_US-S	JUNCTION	25.30	0.75	0.0
PCTB01068-S	JUNCTION	25.36	0.75	0.0
PCTB02001	JUNCTION	21.78	2.10	0.0
PCTB02001-S	JUNCTION	23.38	0.75	0.0
PCTB02002	JUNCTION	21.85	2.26	0.0
PCTB02002-S	JUNCTION	24.25	0.75	0.0
PCTB02003	JUNCTION	23.98	2.25	0.0
PCTB02003-S	JUNCTION	26.23	0.75	0.0
PCTB02004	JUNCTION	24.16	4.00	0.0
PCTB02004-S	JUNCTION	26.41	0.75	0.0
PCTB02005	JUNCTION	24.40	4.00	0.0
PCTB02008	JUNCTION	21.64	4.00	0.0
PCTB02011	JUNCTION	21.86	4.90	0.0
PCTB02011-S	JUNCTION	26.76	0.75	0.0
PCTB02012	JUNCTION	21.62	4.44	0.0
PCTB02012-S	JUNCTION	26.06	0.75	0.0
PCTB02014	JUNCTION	20.70	3.50	0.0
PCTB02014-S	JUNCTION	23.23	0.75	0.0
PCTB02015	JUNCTION	20.97	3.00	0.0
PCTB02015-S	JUNCTION	23.64	0.75	0.0
PCTB02016	JUNCTION	24.23	1.65	0.0
PCTB02016-S	JUNCTION	25.88	0.75	0.0
PCTB02017	JUNCTION	23.99	1.90	0.0
PCTB02017-S	JUNCTION	25.89	0.75	0.0
PCTB02022	JUNCTION	22.32	2.44	0.0
PCTB02022-S	JUNCTION	24.76	0.75	0.0
PCTB02023	JUNCTION	22.30	2.37	0.0
PCTB02023-S	JUNCTION	24.72	0.75	0.0
PCTB02075	JUNCTION	17.22	7.05	0.0
PCTB02076	JUNCTION	17.71	7.00	0.0
PCTB02080	JUNCTION	16.83	7.65	0.0
PCTB02159	JUNCTION	18.00	7.00	0.0
PCTB02160	JUNCTION	17.99	9.00	0.0
PCTB02189	JUNCTION	19.57	4.19	0.0
PCTB02189-S	JUNCTION	23.76	0.75	0.0
PCTB02191	JUNCTION	18.41	4.59	0.0
PCTB02191_DS	JUNCTION	17.20	10.00	0.0
PCTB02191_DS-S	JUNCTION	22.20	0.75	0.0
PCTB02191-S	JUNCTION	23.00	0.75	0.0
PCTB02207	JUNCTION	20.62	4.00	0.0
PCTB02207-S	JUNCTION	24.62	0.75	0.0

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PCTB02209	JUNCTION	21.08	4.00	0.0
PCTB02209-S	JUNCTION	25.08	0.75	0.0
PCTB02220	JUNCTION	18.55	9.00	0.0
PCTB02229	JUNCTION	18.88	9.00	0.0
PCTB02229-S	JUNCTION	24.52	0.75	0.0
PCTB02231	JUNCTION	19.10	5.70	0.0
PCTB02231-S	JUNCTION	24.80	0.75	0.0
PCTB02233	JUNCTION	25.41	27.21	0.0
PCTB02235	JUNCTION	19.85	5.55	0.0
PCTB02235-S	JUNCTION	25.40	0.75	0.0
PCTB02237	JUNCTION	20.03	5.55	0.0
PCTB02237-S	JUNCTION	25.58	0.75	0.0
PCTB02257	JUNCTION	21.36	5.60	0.0
PCTB02257_1	JUNCTION	21.36	5.40	0.0
PCTB02257_1-S	JUNCTION	26.76	0.75	0.0
PCTB02257-S	JUNCTION	26.96	0.75	0.0
PCTB02260	JUNCTION	21.38	4.55	0.0
PCTB02260-S	JUNCTION	25.93	0.75	0.0
PCTB02262	JUNCTION	21.28	4.50	0.0
PCTB02262-S	JUNCTION	25.78	0.75	0.0
PCTB02275	JUNCTION	21.45	4.10	0.0
PCTB02275-S	JUNCTION	25.55	0.75	0.0
PCTB02276	JUNCTION	21.52	4.60	0.0
PCTB02276-S	JUNCTION	26.12	0.75	0.0
PCTB02278	JUNCTION	22.24	4.00	0.0
PCTB02278-S	JUNCTION	24.64	0.75	0.0
PCTB02280	JUNCTION	18.89	3.69	0.0
PCTB02280-S	JUNCTION	22.58	0.75	0.0
PCTB02281	JUNCTION	19.16	3.61	0.0
PCTB02281-S	JUNCTION	22.77	0.75	0.0
PCTB02282	JUNCTION	19.76	5.39	0.0
PCTB02282-S	JUNCTION	25.15	0.75	0.0
PCTB02283	JUNCTION	19.92	2.95	0.0
PCTB02283-S	JUNCTION	22.87	0.75	0.0
PCTB02284	JUNCTION	20.26	2.92	0.0
PCTB02284-S	JUNCTION	23.18	0.75	0.0
PCTB02292	JUNCTION	18.00	7.50	0.0
PCTB02292-S	JUNCTION	23.00	0.75	0.0
PCTB02294	JUNCTION	17.67	7.50	0.0
PCTB02294-S	JUNCTION	22.67	0.75	0.0
PCTB02295	JUNCTION	17.24	10.00	0.0
PCTB02295-S	JUNCTION	22.24	0.75	0.0
PCTB02297	JUNCTION	20.41	2.90	0.0
PCTB02297-S	JUNCTION	23.31	0.75	0.0
PCTB02302	JUNCTION	18.34	6.00	0.0
PCTB02302-S	JUNCTION	23.34	0.75	0.0
PCTB02303	JUNCTION	18.13	7.12	0.0
PCTB02303-S	JUNCTION	25.25	0.75	0.0
PCTB02304	JUNCTION	18.37	5.23	0.0
PCTB02304-S	JUNCTION	23.60	0.75	0.0
PCTB02312	JUNCTION	18.25	6.00	0.0
PCTB02312-S	JUNCTION	23.25	0.75	0.0
PCTB02329	JUNCTION	22.00	2.07	0.0
PCTB02329-S	JUNCTION	24.23	0.75	0.0
PCTB02330	JUNCTION	22.10	3.12	0.0
PCTB02330-S	JUNCTION	25.42	0.75	0.0
PCTB02331	JUNCTION	22.15	2.82	0.0
PCTB02331-S	JUNCTION	25.04	0.75	0.0
PCTB02332	JUNCTION	22.20	3.47	0.0
PCTB02332-S	JUNCTION	25.67	0.75	0.0
TRMB02002	JUNCTION	5.55	10.66	0.0
TRMB02002-S	JUNCTION	16.21	0.75	0.0

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TRMB02003	JUNCTION	2.88	9.70	0.0
TRMB02003-S	JUNCTION	12.58	0.75	0.0
TRMB02006	JUNCTION	8.60	9.30	0.0
TRMB02006-S	JUNCTION	17.90	0.75	0.0
TRMB02009	JUNCTION	17.27	9.55	0.0
TRMB02009-S	JUNCTION	26.82	0.75	0.0
TRMB02012	JUNCTION	19.50	7.30	0.0
TRMB02012-S	JUNCTION	26.80	0.75	0.0
TRMB02015	JUNCTION	21.05	4.09	0.0
TRMB02015-S	JUNCTION	25.14	0.75	0.0
TRMB02016	JUNCTION	21.14	4.08	0.0
TRMB02016-S	JUNCTION	25.22	0.75	0.0
TRMB02018	JUNCTION	22.91	5.75	0.0
TRMB02018-S	JUNCTION	28.66	0.75	0.0
TRMB02022	JUNCTION	23.78	5.24	0.0
TRMB02022-S	JUNCTION	28.56	1.38	0.0
TRMB02023	JUNCTION	24.00	5.00	0.0
TRMB02023-S	JUNCTION	29.19	0.75	0.0
TRMB02044	JUNCTION	30.64	6.20	0.0
TRMB02044_DS	JUNCTION	24.15	8.87	0.0
TRMB02044_DS-S	JUNCTION	33.02	0.75	0.0
TRMB02044-S	JUNCTION	37.10	0.75	0.0
TRMB02045	JUNCTION	30.78	5.96	0.0
TRMB02045-S	JUNCTION	36.74	0.75	0.0
TRMB02046	JUNCTION	33.03	3.60	0.0
TRMB02046-S	JUNCTION	36.63	0.75	0.0
TRMB02047	JUNCTION	34.19	2.57	0.0
TRMB02047-S	JUNCTION	36.76	0.75	0.0
TRMB02048	JUNCTION	33.00	3.28	0.0
TRMB02048-S	JUNCTION	39.25	0.75	0.0
TRMB02049	JUNCTION	29.70	3.50	0.0
TRMB02049-S	JUNCTION	39.34	0.75	0.0
TRMB02050	JUNCTION	30.87	5.15	0.0
TRMB02050-S	JUNCTION	36.02	0.75	0.0
TRMB02051	JUNCTION	31.09	3.81	0.0
TRMB02051-S	JUNCTION	34.90	0.75	0.0
TRMB02052	JUNCTION	31.25	3.55	0.0
TRMB02052-S	JUNCTION	34.80	0.75	0.0
TRMB02056	JUNCTION	31.41	3.79	0.0
TRMB02056-S	JUNCTION	35.20	0.75	0.0
TRMB02057	JUNCTION	31.54	3.80	0.0
TRMB02057-S	JUNCTION	35.34	0.75	0.0
TRMB02060	JUNCTION	34.30	6.94	0.0
TRMB02060-S	JUNCTION	41.24	0.75	0.0
TRMB02063	JUNCTION	40.17	3.50	0.0
TRMB02063-S	JUNCTION	43.67	0.75	0.0
TRMB02064	JUNCTION	41.04	3.52	0.0
TRMB02064-S	JUNCTION	44.56	0.75	0.0
TRMB02067	JUNCTION	41.26	4.94	0.0
TRMB02067-S	JUNCTION	46.20	0.75	0.0
TRMB02068	JUNCTION	42.12	6.54	0.0
TRMB02068-S	JUNCTION	48.66	0.75	0.0
TRMB02069	JUNCTION	42.57	6.83	0.0
TRMB02069-S	JUNCTION	49.40	0.75	0.0
TRMB02070	JUNCTION	42.72	6.88	0.0
TRMB02070-S	JUNCTION	49.60	0.75	0.0
TRMB03016	JUNCTION	7.94	6.94	0.0
TRMB03016-S	JUNCTION	14.88	0.00	0.0
TRMB03022	JUNCTION	9.90	3.50	0.0
TRMB03022-S	JUNCTION	12.57	0.75	0.0
TRMB03025	JUNCTION	12.79	6.80	0.0
TRMB03025-S	JUNCTION	19.59	0.75	0.0



## Alternative #1 (10-Year)

TRMB03026	JUNCTION	15.11	1.00	0.0
TRMB03027	JUNCTION	15.45	2.96	0.0
TRMB03028	JUNCTION	12.78	7.31	0.0
TRMB03028-S	JUNCTION	20.09	0.75	0.0
TRMB03029	JUNCTION	13.78	5.35	0.0
TRMB03029-S	JUNCTION	19.13	0.75	0.0
TRMB03030	JUNCTION	14.88	6.00	0.0
TRMB03030-S	JUNCTION	19.95	0.75	0.0
TRMB03031	JUNCTION	17.87	8.21	0.0
TRMB03031-S	JUNCTION	26.08	0.75	0.0
TRMB03032	JUNCTION	21.26	7.36	0.0
TRMB03032-S	JUNCTION	28.62	0.75	0.0
TRMB03033	JUNCTION	27.53	2.68	0.0
TRMB03033-S	JUNCTION	30.21	0.75	0.0
TRMB03034	JUNCTION	27.34	3.02	0.0
TRMB03034-S	JUNCTION	30.36	0.75	0.0
TRMB03035-S	JUNCTION	29.28	0.75	0.0
TRMB03036	JUNCTION	21.73	7.55	0.0
TRMB03036-S	JUNCTION	29.28	0.75	0.0
TRMB03037	JUNCTION	27.75	2.92	0.0
TRMB03037-S	JUNCTION	30.67	0.75	0.0
TRMB03038	JUNCTION	26.54	3.86	0.0
TRMB03038-S	JUNCTION	30.40	0.75	0.0
TRMB03039	JUNCTION	23.34	6.56	0.0
TRMB03039-S	JUNCTION	29.90	0.75	0.0
TRMB03042	JUNCTION	35.90	4.77	0.0
TRMB03042-S	JUNCTION	40.67	0.75	0.0
TRMB03043	JUNCTION	24.32	4.27	0.0
TRMB03043-S	JUNCTION	28.59	0.75	0.0
TRMB03044	JUNCTION	25.42	3.12	0.0
TRMB03044-S	JUNCTION	28.54	0.75	0.0
TRMB03049	JUNCTION	24.75	4.47	0.0
TRMB03049-S	JUNCTION	29.22	0.75	0.0
TRMB03051	JUNCTION	25.33	2.81	0.0
TRMB03051-S	JUNCTION	28.14	0.75	0.0
TRMB03052	JUNCTION	27.03	1.33	0.0
TRMB03052-S	JUNCTION	28.36	0.75	0.0
TRMB03054	JUNCTION	25.44	2.93	0.0
TRMB03054-S	JUNCTION	28.37	0.75	0.0
TRMB03055	JUNCTION	25.50	2.72	0.0
TRMB03055-S	JUNCTION	28.22	0.75	0.0
TRMB03063	JUNCTION	28.00	3.07	0.0
TRMB03063-S	JUNCTION	31.07	0.75	0.0
TRMB03065	JUNCTION	2.53	11.47	0.0
TRMB03065-S	JUNCTION	14.00	0.75	0.0
TRMB03067	JUNCTION	18.14	2.51	0.0
TRMB03067-S	JUNCTION	20.65	0.75	0.0
TRMB03068	JUNCTION	4.83	10.55	0.0
TRMB03068-S	JUNCTION	15.38	0.75	0.0
TRMB03069	JUNCTION	3.40	10.83	0.0
TRMB03069-S	JUNCTION	14.23	0.75	0.0
TRMB03070	JUNCTION	4.58	9.56	0.0
TRMB03070-S	JUNCTION	14.14	0.75	0.0
TRMB03072	JUNCTION	8.98	9.12	0.0
TRMB03072-S	JUNCTION	18.10	0.75	0.0
TRMB03073	JUNCTION	16.56	2.83	0.0
TRMB03073-S	JUNCTION	19.39	0.75	0.0
TRMB03083	JUNCTION	9.78	8.84	0.0
TRMB03083-S	JUNCTION	18.62	0.75	0.0
TRMB03084	JUNCTION	9.90	8.95	0.0
TRMB03084-S	JUNCTION	17.95	0.75	0.0
TRMB03087	JUNCTION	9.90	6.37	0.0

## Alternative #1 (10-Year)

TRMB03087-S	JUNCTION	16.27	0.75	0.0
TRMB03088	JUNCTION	21.54	8.31	0.0
TRMB03088-S	JUNCTION	29.85	0.75	0.0
TRMB03089	JUNCTION	22.54	7.28	0.0
TRMB03089-S	JUNCTION	29.82	0.75	0.0
TRMB03090	JUNCTION	22.36	6.58	0.0
TRMB03090-S	JUNCTION	28.94	0.75	0.0
TRMB03091	JUNCTION	26.44	7.38	0.0
TRMB03091-S	JUNCTION	33.82	0.75	0.0
TRMB03092	JUNCTION	29.88	1.79	0.0
TRMB03092-S	JUNCTION	31.67	0.75	0.0
TRMB03094	JUNCTION	28.09	6.83	0.0
TRMB03094-S	JUNCTION	34.92	0.75	0.0
TRMB03095	JUNCTION	32.05	2.87	0.0
TRMB03095-S	JUNCTION	34.92	0.75	0.0
TRMB03096	JUNCTION	28.15	8.21	0.0
TRMB03096-S	JUNCTION	36.36	0.75	0.0
TRMB03097	JUNCTION	34.36	5.92	0.0
TRMB03097-S	JUNCTION	40.28	0.75	0.0
TRMB03101	JUNCTION	32.50	4.70	0.0
TRMB03101-S	JUNCTION	37.20	0.75	0.0
TRMB03102	JUNCTION	29.27	8.41	0.0
TRMB03102-S	JUNCTION	37.68	0.75	0.0
TRMB03103	JUNCTION	33.01	8.03	0.0
TRMB03103-S	JUNCTION	41.04	0.75	0.0
TRMB03111	JUNCTION	35.20	7.03	0.0
TRMB03111-S	JUNCTION	42.23	0.75	0.0
TRMB04089	JUNCTION	47.97	12.80	0.0
TRMB04089-S	JUNCTION	60.77	0.75	0.0
TRMB04265-S	JUNCTION	59.86	0.00	0.0
TRMB05002	JUNCTION	38.19	5.75	0.0
TRMB05002-S	JUNCTION	43.94	0.75	0.0
TRMB05003	JUNCTION	39.42	7.80	0.0
TRMB05003-S	JUNCTION	47.22	0.75	0.0
TRMB05004	JUNCTION	39.50	6.99	0.0
TRMB05004-S	JUNCTION	46.49	0.75	0.0
TRMB05005	JUNCTION	40.00	8.14	0.0
TRMB05005-S	JUNCTION	48.14	0.75	0.0
TRMB05006	JUNCTION	40.76	8.60	0.0
TRMB05006-S	JUNCTION	49.36	0.75	0.0
TRMB05008	JUNCTION	43.68	3.90	0.0
TRMB05008-S	JUNCTION	47.58	0.75	0.0
TRMB05009	JUNCTION	45.01	6.50	0.0
TRMB05009_DS	JUNCTION	43.83	7.09	0.0
TRMB05009_DS-S	JUNCTION	50.92	0.75	0.0
TRMB05009-S	JUNCTION	51.51	0.75	0.0
TRMB05010	JUNCTION	46.18	3.05	0.0
TRMB05010-S	JUNCTION	49.23	0.75	0.0
TRMB05011	JUNCTION	46.91	2.90	0.0
TRMB05011-S	JUNCTION	49.81	0.75	0.0
TRMB05012	JUNCTION	46.81	2.90	0.0
TRMB05012-S	JUNCTION	49.71	0.75	0.0
TRMB05013	JUNCTION	48.96	2.10	0.0
TRMB05013-S	JUNCTION	51.06	0.75	0.0
TRMB05014	JUNCTION	48.61	2.60	0.0
TRMB05014-S	JUNCTION	51.21	0.75	0.0
TRMB05015	JUNCTION	46.05	8.60	0.0
TRMB05015-S	JUNCTION	54.65	0.75	0.0
TRMB05016	JUNCTION	50.41	4.00	0.0
TRMB05016-S	JUNCTION	54.41	0.75	0.0
TRMB05017	JUNCTION	46.23	9.45	0.0
TRMB05017_US	JUNCTION	47.08	11.09	0.0

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TRMB05017_US-S	JUNCTION	58.17	0.75	0.0
TRMB05017-S	JUNCTION	55.68	0.75	0.0
TRMB05018	JUNCTION	50.34	4.15	0.0
TRMB05018-S	JUNCTION	54.49	0.75	0.0
TRMB05019	JUNCTION	50.62	3.50	0.0
TRMB05019-S	JUNCTION	54.12	0.75	0.0
TRMB05020	JUNCTION	50.78	3.50	0.0
TRMB05020-S	JUNCTION	54.28	0.75	0.0
TRMB05021	JUNCTION	51.47	3.20	0.0
TRMB05021-S	JUNCTION	54.67	0.75	0.0
TRMB05022	JUNCTION	50.10	4.30	0.0
TRMB05022-S	JUNCTION	54.40	0.75	0.0
TRMB05023	JUNCTION	51.41	1.25	0.0
TRMB05023-S	JUNCTION	51.41	0.75	0.0
TRMB05025	JUNCTION	53.20	2.00	0.0
TRMB05025-S	JUNCTION	55.20	0.75	0.0
TRMB05026	JUNCTION	50.05	2.65	0.0
TRMB05026-S	JUNCTION	52.70	0.75	0.0
TRMB05027	JUNCTION	52.70	2.04	0.0
TRMB05027-S	JUNCTION	54.74	0.75	0.0
TRMB05028	JUNCTION	51.94	3.50	0.0
TRMB05028-S	JUNCTION	55.44	0.75	0.0
TRMB05029	JUNCTION	51.62	3.20	0.0
TRMB05029-S	JUNCTION	54.82	0.75	0.0
TRMB05030	JUNCTION	52.44	2.75	0.0
TRMB05030-S	JUNCTION	55.19	0.75	0.0
TRMB05031	JUNCTION	53.30	2.02	0.0
TRMB05031-S	JUNCTION	55.32	0.75	0.0
TRMB05032	JUNCTION	52.96	2.40	0.0
TRMB05032-S	JUNCTION	55.36	0.75	0.0
TRMB05033	JUNCTION	52.44	2.75	0.0
TRMB05033-S	JUNCTION	55.19	0.75	0.0
TRMB05034	JUNCTION	53.11	2.40	0.0
TRMB05034-S	JUNCTION	55.51	0.75	0.0
TRMB05035	JUNCTION	52.75	3.10	0.0
TRMB05035-S	JUNCTION	55.85	0.75	0.0
TRMB05036	JUNCTION	53.15	2.35	0.0
TRMB05036-S	JUNCTION	55.50	0.75	0.0
TRMB05037	JUNCTION	54.00	1.70	0.0
TRMB05037-S	JUNCTION	55.70	0.75	0.0
TRMB05038	JUNCTION	53.35	2.35	0.0
TRMB05038-S	JUNCTION	55.70	0.75	0.0
TRMB05039	JUNCTION	53.50	2.02	0.0
TRMB05039-S	JUNCTION	55.52	0.75	0.0
TRMB05040	JUNCTION	48.84	7.05	0.0
TRMB05040-S	JUNCTION	55.89	0.75	0.0
TRMB05041	JUNCTION	46.90	5.35	0.0
TRMB05041-S	JUNCTION	52.25	0.75	0.0
TRMB05042	JUNCTION	49.69	2.65	0.0
TRMB05042-S	JUNCTION	52.34	0.75	0.0
TRMB05043	JUNCTION	46.37	6.49	0.0
TRMB05043-S	JUNCTION	52.86	0.75	0.0
TRMB05044	JUNCTION	47.57	3.55	0.0
TRMB05044-S	JUNCTION	51.12	0.75	0.0
TRMB05045	JUNCTION	46.68	5.80	0.0
TRMB05045-S	JUNCTION	52.48	0.75	0.0
TRMB05046	JUNCTION	43.27	4.40	0.0
TRMB05046-S	JUNCTION	47.67	0.75	0.0
TRMB05048	JUNCTION	42.82	5.46	0.0
TRMB05048-S	JUNCTION	48.28	0.75	0.0
PCTB01066	OUTFALL	17.98	3.00	0.0
PCTB02009	OUTFALL	21.77	3.00	0.0

# Alternative #1 (10-Year)

PCTB02081	OUTFALL	16.83	6.70	0.0
TRMB02001	OUTFALL	-0.35	4.00	0.0
TRMB03012	OUTFALL	7.18	3.50	0.0
TRMB03066	OUTFALL	0.00	3.50	0.0
TRMB05001	OUTFALL	23.60	4.00	0.0

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Link Summary  
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Name	From Node	To Node	Type	Length	%Slope
Roughness					
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C1	PCTB02159	PCTB02076	CONDUIT	86.8	0.3340
0.0150					
C14	PCTB02329	PCTB02002	CONDUIT	27.5	0.5451
0.0200					
C2	J1	PCTB01068_US	CONDUIT	252.3	0.6501
0.0100					
C2_1	PCTB02191	PCTB02191_DS	CONDUIT	20.7	5.8640
0.0150					
C2_1-S	PCTB02191-S	PCTB02191_DS-S	CONDUIT	20.7	3.8732
0.0140					
C2_2	PCTB02191_DS	PCTB02080	CONDUIT	619.3	0.0355
0.0200					
C3	PCTB02280-S	PCTB02282-S	CONDUIT	309.1	-0.8314
0.0140					
C4	J2	TRMB05008	CONDUIT	142.5	0.0842
0.0100					
C5	TRMB02048	TRMB02049	CONDUIT	38.1	8.7010
0.0100					
C9	TRMB05043	TRMB05009_DS	CONDUIT	14.1	18.3407
0.0150					
C9-S	TRMB05043-S	TRMB05009_DS-S	CONDUIT	14.1	13.9111
0.0140					
CountrySideE_Ditch	JMTB01006	CountrySideE_Ditch_Culvert_In	CONDUIT		
3616.4	0.0812	0.0200			
CountrySideE_Ditch_Culvert	CountrySideE_Ditch_Culvert_In	PCTB02257	CONDUIT		
106.3	0.1411	0.0150			
CountrySideE_Ditch_Culvert-S	CountrySideE_Ditch_Culvert_In-S	PCTB02257-S			
CONDUIT	106.3	0.5079	0.0140		
JMTB01003	JMTB01003	JMTB01004	CONDUIT	9.3	0.2141
0.0150					
JMTB01003-S	JMTB01003-S	JMTB01004-S	CONDUIT	9.3	-6.1142
0.0140					
JMTB01004	JMTB01004	JMTB01005	CONDUIT	38.6	0.2593
0.0130					
JMTB01004-S	JMTB01004-S	JMTB01005-S	CONDUIT	38.6	0.7778
0.0140					
JMTB01005	JMTB01005	JMTB01006	CONDUIT	338.1	0.0926
0.0130					
JMTB01005-S	JMTB01005-S	JMTB01006-S	CONDUIT	338.1	0.2227
0.0140					
JMTB01102	JMTB01102	JMTB01103	CONDUIT	20.3	0.8358
0.0130					
JMTB01102-S	JMTB01102-S	JMTB01103-S	CONDUIT	20.3	-2.5082
0.0140					
JMTB01103	JMTB01103	JMTB01105	CONDUIT	164.6	0.2369
0.0130					
JMTB01103_1	JMTB01105	JMTB01003	CONDUIT	299.1	0.3376
0.0200					

## Alternative #1 (10-Year)

JMTB01103-S 0.0140	JMTB01103-S	JMTB01105-S	CONDUIT	164.6	1.0693
JMTB01104 0.0130	JMTB01104	JMTB01103	CONDUIT	21.3	0.9864
JMTB01104-S 0.0140	JMTB01104-S	JMTB01103-S	CONDUIT	21.3	0.7985
PCTB01068 0.0150	PCTB01068	PCTB01066	CONDUIT	512.6	0.2675
PCTB01068_US 0.0150	PCTB01068_US	PCTB01068	CONDUIT	220.6	0.2947
PCTB01068_US-S 0.0140	PCTB01068_US-S	PCTB01068-S	CONDUIT	220.6	-0.0272
PCTB02001_1 0.0200	PCTB02001	J1	CONDUIT	158.6	0.0883
PCTB02001_2 0.0200	J1	PCTB02015	CONDUIT	766.0	0.0875
PCTB02002 0.0130	PCTB02002	PCTB02001	CONDUIT	48.2	0.1452
PCTB02002-S 0.0140	PCTB02002-S	PCTB02001-S	CONDUIT	48.2	1.8053
PCTB02003 0.0150	PCTB02003	PCTB02004	CONDUIT	63.9	-0.2816
PCTB02003-S 0.0140	PCTB02003-S	PCTB02004-S	CONDUIT	63.9	-0.2816
PCTB02008 0.0150	PCTB02008	PCTB02009	CONDUIT	87.0	-0.1471
PCTB02011 0.0130	PCTB02012	PCTB02011	CONDUIT	28.6	-0.8404
PCTB02011_1 0.0200	PCTB02011	PCTB02008	CONDUIT	306.7	0.0717
PCTB02011-S 0.0140	PCTB02012-S	PCTB02011-S	CONDUIT	28.6	-2.4517
PCTB02014 0.0130	PCTB02015	PCTB02014	CONDUIT	28.1	0.9612
PCTB02014_1 0.0200	PCTB02014	PCTB02012	CONDUIT	793.0	-0.1160
PCTB02014-S 0.0140	PCTB02015-S	PCTB02014-S	CONDUIT	28.1	1.4597
PCTB02016 0.0150	PCTB02016	PCTB02017	CONDUIT	31.9	0.7513
PCTB02016-S 0.0140	PCTB02016-S	PCTB02017-S	CONDUIT	31.9	-0.0313
PCTB02020 0.0100	PCTB02005	PCTB02016	CONDUIT	261.2	0.0383
PCTB02021 0.0100	PCTB02017	PCTB02003	CONDUIT	302.9	0.0033
PCTB02022 0.0150	PCTB02022	PCTB02023	CONDUIT	32.9	0.0608
PCTB02022-S 0.0140	PCTB02022-S	PCTB02023-S	CONDUIT	32.9	0.1216
PCTB02023 0.0150	PCTB02023	PCTB02332	CONDUIT	127.2	0.0786
PCTB02023-S 0.0140	PCTB02023-S	PCTB02332-S	CONDUIT	127.2	-0.7468
PCTB02076 0.0150	PCTB02076	PCTB02075	CONDUIT	113.4	0.4320
PCTB02080 0.0150	PCTB02080	PCTB02081	CONDUIT	172.5	0.0006
PCTB02160 0.0150	PCTB02160	PCTB02159	CONDUIT	71.5	-0.0140
PCTB02172 0.0100	PCTB02075	PCTB02080	CONDUIT	82.9	0.4702

## Alternative #1 (10-Year)

PCTB02189 0.0130	PCTB02189	PCTB02191	CONDUIT	231.5	0.5010
PCTB02189-S 0.0140	PCTB02189-S	PCTB02191-S	CONDUIT	231.5	0.3283
PCTB02208 0.0150	PCTB02209	PCTB02207	CONDUIT	96.0	0.4789
PCTB02208-S 0.0140	PCTB02209-S	PCTB02207-S	CONDUIT	96.0	0.4789
PCTB02231 0.0150	PCTB02231	PCTB02229	CONDUIT	282.3	0.0779
PCTB02231-S 0.0140	PCTB02231-S	PCTB02229-S	CONDUIT	282.3	0.0992
PCTB02237 0.0150	PCTB02237	PCTB02235	CONDUIT	88.8	0.2027
PCTB02237-S 0.0140	PCTB02237-S	PCTB02235-S	CONDUIT	88.8	0.2049
PCTB02239 0.0200	PCTB02233	PCTB02237	CONDUIT	348.6	1.5435
PCTB02240 0.0200	PCTB02207	PCTB02237	CONDUIT	464.7	0.1270
PCTB02259_1 0.0100	PCTB02257	PCTB02257_1	CONDUIT	35.4	0.0028
PCTB02259_2 0.0100	PCTB02257_1	PCTB02260	CONDUIT	146.5	-0.0137
PCTB02260 0.0150	PCTB02260	PCTB02262	CONDUIT	69.1	0.1447
PCTB02260-S 0.0140	PCTB02260-S	PCTB02262-S	CONDUIT	69.1	0.2171
PCTB02264 0.0100	PCTB02262	PCTB02209	CONDUIT	476.6	0.0420
PCTB02274 0.0130	PCTB02008	PCTB02005	CONDUIT	1148.4	-0.2403
PCTB02275 0.0150	PCTB02275	PCTB02257_1	CONDUIT	24.9	0.3614
PCTB02275-S 0.0140	PCTB02275-S	PCTB02257_1-S	CONDUIT	24.9	-4.8652
PCTB02276 0.0150	PCTB02276	PCTB02275	CONDUIT	593.0	0.0118
PCTB02276-S 0.0140	PCTB02276-S	PCTB02275-S	CONDUIT	593.0	0.0961
PCTB02278 0.0150	PCTB02278	PCTB02276	CONDUIT	157.0	0.4585
PCTB02278-S 0.0140	PCTB02278-S	PCTB02276-S	CONDUIT	157.0	-0.9425
PCTB02279 0.0100	PCTB02004	PCTB02278	CONDUIT	1283.9	0.1495
PCTB02280 0.0130	PCTB02280	PCTB02292	CONDUIT	147.4	0.6038
PCTB02280-S 0.0140	PCTB02280-S	PCTB02292-S	CONDUIT	147.4	-0.2849
PCTB02281 0.0130	PCTB02281	PCTB02280	CONDUIT	24.6	1.0981
PCTB02281-S 0.0140	PCTB02281-S	PCTB02280-S	CONDUIT	24.6	0.7727
PCTB02282 0.0130	PCTB02282	PCTB02312	CONDUIT	153.8	0.9820
PCTB02282-S 0.0140	PCTB02282-S	PCTB02312-S	CONDUIT	153.8	1.2357
PCTB02283 0.0130	PCTB02283	PCTB02282	CONDUIT	36.7	0.4357
PCTB02283-S 0.0140	PCTB02283-S	PCTB02282-S	CONDUIT	36.7	-6.2212

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PCTB02284 0.0150	PCTB02284	PCTB02283	CONDUIT	58.2	0.5846
PCTB02284-S 0.0140	PCTB02284-S	PCTB02283-S	CONDUIT	58.2	0.5330
PCTB02292 0.0200	PCTB02292	PCTB02294	CONDUIT	1086.7	0.0304
PCTB02294 0.0150	PCTB02294	PCTB02295	CONDUIT	39.6	1.0848
PCTB02294-S 0.0140	PCTB02294-S	PCTB02295-S	CONDUIT	39.6	1.0848
PCTB02295 0.0200	PCTB02295	PCTB02191_DS	CONDUIT	168.6	0.0237
PCTB02297 0.0130	PCTB02297	PCTB02281	CONDUIT	495.7	0.2522
PCTB02297-S 0.0140	PCTB02297-S	PCTB02281-S	CONDUIT	495.7	0.1089
PCTB02299 0.0100	PCTB02220	PCTB02160	CONDUIT	412.9	0.1361
PCTB02300 0.0100	PCTB02229	PCTB02220	CONDUIT	240.9	0.1362
PCTB02301 0.0100	PCTB02235	PCTB02231	CONDUIT	830.0	0.0904
PCTB02302 0.0200	PCTB02302	PCTB02312	CONDUIT	219.7	0.0410
PCTB02303 0.0150	PCTB02303	PCTB02302	CONDUIT	44.3	-0.4742
PCTB02303-S 0.0140	PCTB02303-S	PCTB02302-S	CONDUIT	44.3	4.3165
PCTB02304 0.0150	PCTB02304	PCTB02303	CONDUIT	18.8	1.2753
PCTB02304-S 0.0140	PCTB02304-S	PCTB02303-S	CONDUIT	18.8	-8.8012
PCTB02312 0.0200	PCTB02312	PCTB02292	CONDUIT	351.4	0.0711
PCTB02329 0.0150	PCTB02330	PCTB02329	CONDUIT	167.7	0.0596
PCTB02329-S 0.0140	PCTB02330-S	PCTB02329-S	CONDUIT	167.7	0.7096
PCTB02330 0.0150	PCTB02331	PCTB02330	CONDUIT	65.3	0.0766
PCTB02330-S 0.0140	PCTB02331-S	PCTB02330-S	CONDUIT	65.3	-0.5821
PCTB02331 0.0150	PCTB02332	PCTB02331	CONDUIT	189.0	0.0265
PCTB02331-S 0.0140	PCTB02332-S	PCTB02331-S	CONDUIT	189.0	0.3334
TRMB02002 0.0150	TRMB02002	TRMB02001	CONDUIT	187.6	3.1488
TRMB02003 0.0150	TRMB02003	TRMB02002	CONDUIT	35.5	-7.5532
TRMB02003-S 0.0140	TRMB02003-S	TRMB02002-S	CONDUIT	35.5	-10.2939
TRMB02006 0.0150	TRMB02006	TRMB02003	CONDUIT	394.8	1.4488
TRMB02006-S 0.0140	TRMB02006-S	TRMB02003-S	CONDUIT	394.8	1.3475
TRMB02009 0.0150	TRMB02009	TRMB02006	CONDUIT	238.7	3.6346
TRMB02009-S 0.0140	TRMB02009-S	TRMB02006-S	CONDUIT	238.7	3.7395
TRMB02012 0.0150	TRMB02012	TRMB02009	CONDUIT	204.7	1.0895

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TRMB02012-S 0.0140	TRMB02012-S	TRMB02009-S	CONDUIT	204.7	-0.0098
TRMB02015 0.0150	TRMB02015	TRMB02012	CONDUIT	183.9	0.8427
TRMB02015-S 0.0140	TRMB02015-S	TRMB02012-S	CONDUIT	183.9	-0.9026
TRMB02016 0.0150	TRMB02016	TRMB02012	CONDUIT	33.8	4.8578
TRMB02016-S 0.0140	TRMB02016-S	TRMB02015-S	CONDUIT	25.8	0.3107
TRMB02018 0.0150	TRMB02018	TRMB02016	CONDUIT	363.9	0.4865
TRMB02018-S 0.0140	TRMB02018-S	TRMB02016-S	CONDUIT	348.9	0.9860
TRMB02022 0.0150	TRMB02023	TRMB02018	CONDUIT	192.3	0.5667
TRMB02022-S 0.0140	TRMB02022-S	TRMB02018-S	CONDUIT	221.7	-0.0451
TRMB02023 0.0130	TRMB02022	TRMB02023	CONDUIT	273.1	0.7396
TRMB02023-S 0.0140	TRMB02022-S	TRMB02023-S	CONDUIT	245.0	0.0004
TRMB02044_1-S 0.0140	TRMB02044-S	TRMB02044_DS-S	CONDUIT	531.7	0.7674
TRMB02044_2 0.0150	TRMB02044	TRMB02049	CONDUIT	120.9	0.7777
TRMB02044_2-S 0.0140	TRMB02044_DS-S	TRMB02022-S	CONDUIT	437.6	1.0192
TRMB02044_3 0.0150	TRMB02044_DS	J3	CONDUIT	217.0	0.0691
TRMB02044_4 0.0150	J3	TRMB02023	CONDUIT	320.5	0.0003
TRMB02044_5 0.0150	TRMB02049	TRMB02044_DS	CONDUIT	680.2	0.8160
TRMB02045 0.0150	TRMB02045	TRMB02044	CONDUIT	31.0	0.4516
TRMB02045-S 0.0140	TRMB02045-S	TRMB02044-S	CONDUIT	24.4	-1.4732
TRMB02046-S 0.0140	TRMB02046-S	TRMB02045-S	CONDUIT	16.0	-0.6888
TRMB02047-S 0.0140	TRMB02047-S	TRMB02046-S	CONDUIT	36.1	0.3602
TRMB02048 0.0130	TRMB02047	TRMB02048	CONDUIT	111.5	1.0674
TRMB02048-S 0.0140	TRMB02048-S	TRMB02047-S	CONDUIT	111.5	2.2339
TRMB02049-S 0.0140	TRMB02049-S	TRMB02048-S	CONDUIT	38.1	0.2364
TRMB02050 0.0150	TRMB02050	TRMB02045	CONDUIT	62.2	0.1446
TRMB02050-S 0.0140	TRMB02050-S	TRMB02045-S	CONDUIT	62.2	-1.1573
TRMB02051 0.0150	TRMB02051	TRMB02050	CONDUIT	153.6	0.1432
TRMB02051-S 0.0140	TRMB02051-S	TRMB02050-S	CONDUIT	153.6	-0.7292
TRMB02052 0.0130	TRMB02052	TRMB02051	CONDUIT	20.4	0.7840
TRMB02052-S 0.0140	TRMB02052-S	TRMB02051-S	CONDUIT	20.4	-0.4900
TRMB02056 0.0130	TRMB02056	TRMB02052	CONDUIT	20.4	0.7824



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TRMB02056-S 0.0140	TRMB02056-S	TRMB02052-S	CONDUIT	20.4	1.9564
TRMB02057 0.0130	TRMB02057	TRMB02056	CONDUIT	17.6	0.7391
TRMB02057-S 0.0140	TRMB02057-S	TRMB02056-S	CONDUIT	17.6	0.7959
TRMB02060 0.0150	TRMB02060	TRMB02057	CONDUIT	295.1	0.9352
TRMB02060-S 0.0140	TRMB02060-S	TRMB02057-S	CONDUIT	295.1	1.9994
TRMB02063 0.0130	TRMB02063	TRMB02060	CONDUIT	222.3	2.6419
TRMB02063-S 0.0140	TRMB02063-S	TRMB02060-S	CONDUIT	222.3	1.0933
TRMB02064 0.0130	TRMB02064	TRMB02063	CONDUIT	125.5	0.6935
TRMB02064-S 0.0140	TRMB02064-S	TRMB02063-S	CONDUIT	125.5	0.7094
TRMB02067 0.0130	TRMB02067	TRMB02064	CONDUIT	117.7	0.1869
TRMB02067-S 0.0140	TRMB02067-S	TRMB02064-S	CONDUIT	117.7	1.3935
TRMB02068 0.0130	TRMB02068	TRMB02067	CONDUIT	181.4	0.4741
TRMB02068-S 0.0140	TRMB02068-S	TRMB02067-S	CONDUIT	181.4	1.3563
TRMB02069 0.0130	TRMB02069	TRMB02068	CONDUIT	44.4	1.0140
TRMB02069-S 0.0140	TRMB02069-S	TRMB02068-S	CONDUIT	44.4	1.6676
TRMB02070 0.0130	TRMB02070	TRMB02069	CONDUIT	35.3	0.4249
TRMB02070-S 0.0140	TRMB02070-S	TRMB02069-S	CONDUIT	35.3	0.5666
TRMB03016 0.0150	TRMB03016	TRMB03012	CONDUIT	44.3	1.7151
TRMB03022 0.0160	TRMB03022	TRMB03016	CONDUIT	145.8	1.3442
TRMB03025 0.0150	TRMB03025	TRMB03022	CONDUIT	55.0	5.2628
TRMB03025-S 0.0140	TRMB03025-S	TRMB03022-S	CONDUIT	55.0	12.8713
TRMB03026 0.0150	TRMB03026	TRMB03022	CONDUIT	14.1	24.1547
TRMB03027 0.0130	TRMB03027	TRMB03026	CONDUIT	31.1	1.0930
TRMB03028 0.0150	TRMB03028	TRMB03025	CONDUIT	42.8	-0.0234
TRMB03028-S 0.0140	TRMB03028-S	TRMB03025-S	CONDUIT	19.2	2.6010
TRMB03029 0.0130	TRMB03029	TRMB03028	CONDUIT	120.1	0.8325
TRMB03029-S 0.0140	TRMB03029-S	TRMB03028-S	CONDUIT	87.0	-1.1034
TRMB03030 0.0150	J5	TRMB03029	CONDUIT	124.4	0.8840
TRMB03030-S 0.0140	TRMB03030-S	TRMB03029-S	CONDUIT	90.4	0.9074
TRMB03031 0.0150	TRMB03031	TRMB03030	CONDUIT	235.9	1.2676
TRMB03032 0.0150	TRMB03032	J5	CONDUIT	651.6	0.9791

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TRMB03032-S 0.0140	TRMB03032-S	TRMB03031-S	CONDUIT	327.8	0.7748
TRMB03033 0.0130	TRMB03033	TRMB03034	CONDUIT	7.3	2.6072
TRMB03033-S 0.0140	TRMB03033-S	TRMB03034-S	CONDUIT	7.3	-2.0580
TRMB03034 0.0150	TRMB03034	TRMB03036	CONDUIT	267.6	2.0971
TRMB03034-S 0.0140	TRMB03034-S	TRMB03036-S	CONDUIT	135.6	0.7966
TRMB03035-S 0.0140	TRMB03035-S	TRMB03036-S	CONDUIT	5.8	0.0171
TRMB03036 0.0130	TRMB03036	TRMB03032	CONDUIT	162.5	0.2892
TRMB03036-S 0.0140	TRMB03036-S	TRMB03032-S	CONDUIT	133.5	0.4945
TRMB03037 0.0130	TRMB03037	TRMB03034	CONDUIT	32.3	1.2714
TRMB03037-S 0.0140	TRMB03037-S	TRMB03034-S	CONDUIT	32.3	0.9613
TRMB03038 0.0130	TRMB03038	J4	CONDUIT	33.3	14.6155
TRMB03038-S 0.0140	TRMB03038-S	TRMB03036-S	CONDUIT	33.1	3.3856
TRMB03039 0.0130	TRMB03039	TRMB03036	CONDUIT	16.0	10.0884
TRMB03039-S 0.0140	TRMB03039-S	TRMB03036-S	CONDUIT	148.0	0.4189
TRMB03042 0.0130	TRMB03042	TRMB03039	CONDUIT	395.7	3.1758
TRMB03042-S 0.0140	TRMB03042-S	TRMB03039-S	CONDUIT	395.7	2.7228
TRMB03043 0.0130	TRMB03043	TRMB03039	CONDUIT	263.2	0.3724
TRMB03043-S 0.0140	TRMB03043-S	TRMB03039-S	CONDUIT	263.2	-0.4978
TRMB03044 0.0150	TRMB03044	TRMB03039	CONDUIT	112.7	1.8462
TRMB03044-S 0.0140	TRMB03044-S	TRMB03039-S	CONDUIT	112.7	-1.2070
TRMB03049 0.0150	TRMB03049	TRMB03043	CONDUIT	15.6	2.7557
TRMB03049-S 0.0140	TRMB03049-S	TRMB03043-S	CONDUIT	15.6	4.0392
TRMB03051 0.0130	TRMB03051	TRMB03043	CONDUIT	18.3	5.5245
TRMB03051-S 0.0140	TRMB03051-S	TRMB03043-S	CONDUIT	18.3	-2.4584
TRMB03052 0.0130	TRMB03052	TRMB03051	CONDUIT	28.9	5.8864
TRMB03052-S 0.0140	TRMB03052-S	TRMB03051-S	CONDUIT	28.9	0.7605
TRMB03054 0.0130	TRMB03054	TRMB03051	CONDUIT	185.4	0.0593
TRMB03054-S 0.0140	TRMB03054-S	TRMB03051-S	CONDUIT	185.4	0.1241
TRMB03055 0.0130	TRMB03055	TRMB03051	CONDUIT	225.6	0.0754
TRMB03055-S 0.0140	TRMB03055-S	TRMB03051-S	CONDUIT	225.6	0.0355
TRMB03063 0.0130	TRMB03063	TRMB03054	CONDUIT	249.0	1.0282

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TRMB03063-S 0.0140	TRMB03063-S	TRMB03054-S	CONDUIT	249.0	1.0844
TRMB03065 0.0150	TRMB03065	TRMB03066	CONDUIT	145.2	1.7432
TRMB03067 0.0130	TRMB03067	TRMB03065	CONDUIT	65.2	24.6749
TRMB03067-S 0.0140	TRMB03067-S	TRMB03065-S	CONDUIT	65.2	10.2592
TRMB03068 0.0150	TRMB03068	TRMB03065	CONDUIT	52.7	2.7145
TRMB03068-S 0.0140	TRMB03068-S	TRMB03069-S	CONDUIT	18.3	6.3104
TRMB03069 0.0150	TRMB03069	TRMB03065	CONDUIT	82.1	1.0603
TRMB03069-S 0.0140	TRMB03069-S	TRMB03065-S	CONDUIT	41.7	0.5518
TRMB03070 0.0150	TRMB03070	TRMB03069	CONDUIT	41.7	2.8329
TRMB03070-S 0.0140	J9	TRMB03069-S	CONDUIT	63.4	-0.1420
TRMB03072 0.0150	TRMB03072	TRMB03069	CONDUIT	118.6	4.7109
TRMB03072-S_1 0.0140	TRMB03072-S	J9	CONDUIT	118.3	3.2471
TRMB03073 0.0150	TRMB03073	J8	CONDUIT	132.5	4.1091
TRMB03073-S 0.0140	TRMB03073-S	TRMB03070-S	CONDUIT	70.4	7.4750
TRMB03083 0.0130	TRMB03087	TRMB03084	CONDUIT	27.7	0.0036
TRMB03083-S 0.0140	TRMB03083-S	TRMB03072-S	CONDUIT	29.0	1.7909
TRMB03084 0.0150	TRMB03084	TRMB03072	CONDUIT	57.8	1.5919
TRMB03084-S 0.0140	TRMB03084-S	TRMB03072-S	CONDUIT	6.8	-2.2064
TRMB03087-S 0.0140	TRMB03087-S	TRMB03083-S	CONDUIT	106.8	-2.1999
TRMB03088_1 0.0150	TRMB03088	J6	CONDUIT	255.1	1.5836
TRMB03088_2 0.0150	J7	J8	CONDUIT	55.6	1.3126
TRMB03088_3 0.0150	J6	J7	CONDUIT	434.9	1.2993
TRMB03088_5 0.0150	J8	TRMB03084	CONDUIT	93.2	1.3095
TRMB03088-S 0.0140	TRMB03088-S	TRMB03087-S	CONDUIT	586.4	2.3164
TRMB03089 0.0130	TRMB03089	TRMB03088	CONDUIT	39.9	2.5071
TRMB03089-S 0.0140	TRMB03089-S	TRMB03088-S	CONDUIT	39.9	-0.0752
TRMB03090 0.0130	TRMB03090	TRMB03089	CONDUIT	14.6	-1.2304
TRMB03090-S 0.0140	TRMB03090-S	TRMB03089-S	CONDUIT	14.6	-6.0259
TRMB03091 0.0150	TRMB03091	TRMB03090	CONDUIT	209.3	1.9501
TRMB03091-S 0.0140	TRMB03091-S	TRMB03090-S	CONDUIT	209.3	2.3327
TRMB03092 0.0130	TRMB03092	TRMB03090	CONDUIT	117.8	6.3962

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TRMB03092-S 0.0140	TRMB03092-S	TRMB03090-S	CONDUIT	117.8	2.3179
TRMB03094 0.0150	TRMB03094	TRMB03091	CONDUIT	103.8	1.5906
TRMB03094-S 0.0140	TRMB03094-S	TRMB03091-S	CONDUIT	103.8	1.0603
TRMB03095 0.0150	TRMB03095	TRMB03094	CONDUIT	9.0	49.2696
TRMB03095-S 0.0140	TRMB03095-S	TRMB03094-S	CONDUIT	9.0	0.0112
TRMB03096 0.0150	TRMB03096	TRMB03094	CONDUIT	25.1	0.2388
TRMB03096-S 0.0140	TRMB03096-S	TRMB03094-S	CONDUIT	25.1	5.7396
TRMB03097 0.0130	TRMB03097	TRMB03094	CONDUIT	110.6	5.6782
TRMB03097-S 0.0140	TRMB03097-S	TRMB03094-S	CONDUIT	110.6	4.8520
TRMB03101 0.0130	TRMB03101	TRMB03096	CONDUIT	10.9	43.7634
TRMB03101-S 0.0140	TRMB03101-S	TRMB03096-S	CONDUIT	10.9	7.7652
TRMB03102 0.0150	TRMB03102	TRMB03096	CONDUIT	47.8	2.3432
TRMB03102-S 0.0140	TRMB03102-S	TRMB03096-S	CONDUIT	47.8	2.7620
TRMB03103 0.0150	TRMB03103	TRMB03102	CONDUIT	95.9	3.9020
TRMB03103-S 0.0140	TRMB03103-S	TRMB03102-S	CONDUIT	95.9	3.5051
TRMB03111 0.0130	TRMB03111	TRMB03103	CONDUIT	73.5	2.9825
TRMB03111-S 0.0140	TRMB03111-S	TRMB03103-S	CONDUIT	73.5	1.6201
TRMB04089_1 0.0150	TRMB04089	TRMB05017_US	CONDUIT	303.9	0.2929
TRMB04089_1-S 0.0140	TRMB04089-S	TRMB05017_US-S	CONDUIT	303.9	0.8556
TRMB04089_2 0.0150	TRMB05017_US	TRMB05017	CONDUIT	292.1	0.2910
TRMB04089_2-S 0.0140	TRMB05017_US-S	TRMB05017-S	CONDUIT	292.1	0.8525
TRMB05002 0.0150	TRMB05002	TRMB05001	CONDUIT	48.8	31.3024
TRMB05003 0.0150	TRMB05003	TRMB05002	CONDUIT	84.0	1.4636
TRMB05003-S 0.0140	TRMB05003-S	TRMB05002-S	CONDUIT	84.0	3.9054
TRMB05004 0.0130	TRMB05004	TRMB05003	CONDUIT	5.4	1.4735
TRMB05004-S 0.0140	TRMB05004-S	TRMB05003-S	CONDUIT	5.4	-13.5670
TRMB05005 0.0130	TRMB05005	TRMB05003	CONDUIT	23.4	2.4773
TRMB05005-S 0.0140	TRMB05005-S	TRMB05003-S	CONDUIT	23.4	3.9313
TRMB05006 0.0150	TRMB05006	TRMB05003	CONDUIT	254.7	0.5262
TRMB05006-S 0.0140	TRMB05006-S	TRMB05003-S	CONDUIT	254.7	0.8403
TRMB05008 0.0130	TRMB05008	TRMB05006	CONDUIT	143.5	2.0350

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TRMB05008-S 0.0140	TRMB05008-S	TRMB05006-S	CONDUIT	143.5	-1.2403
TRMB05009_1 0.0150	TRMB05009	TRMB05009_DS	CONDUIT	111.0	1.0629
TRMB05009_1-S 0.0140	TRMB05009-S	TRMB05009_DS-S	CONDUIT	111.0	0.5314
TRMB05009_2 0.0150	TRMB05009_DS	TRMB05006	CONDUIT	288.9	1.0628
TRMB05009_2-S 0.0140	TRMB05009_DS-S	TRMB05006-S	CONDUIT	288.9	0.5400
TRMB05010 0.0130	TRMB05010	TRMB05006	CONDUIT	27.1	20.4438
TRMB05010-S 0.0140	TRMB05010-S	TRMB05006-S	CONDUIT	27.1	-0.4804
TRMB05011 0.0130	TRMB05011	TRMB05010	CONDUIT	23.6	3.0986
TRMB05011-S 0.0140	TRMB05011-S	TRMB05010-S	CONDUIT	23.6	2.4615
TRMB05012 0.0130	TRMB05012	TRMB05011	CONDUIT	28.8	-0.3467
TRMB05012-S 0.0140	TRMB05012-S	TRMB05011-S	CONDUIT	28.8	-0.3467
TRMB05013 0.0130	TRMB05013	TRMB05009	CONDUIT	5.1	121.2552
TRMB05013-S 0.0140	TRMB05013-S	TRMB05009-S	CONDUIT	5.1	-8.8232
TRMB05014 0.0130	TRMB05014	TRMB05009	CONDUIT	16.2	22.7773
TRMB05014-S 0.0140	TRMB05014-S	TRMB05009-S	CONDUIT	16.2	-1.8510
TRMB05015 0.0150	TRMB05015	TRMB05009	CONDUIT	253.6	0.4101
TRMB05015-S 0.0140	TRMB05015-S	TRMB05009-S	CONDUIT	253.6	1.2384
TRMB05016 0.0130	TRMB05016	TRMB05015	CONDUIT	21.9	20.2672
TRMB05016-S 0.0140	TRMB05016-S	TRMB05015-S	CONDUIT	21.9	-1.0935
TRMB05017 0.0150	TRMB05017	TRMB05015	CONDUIT	51.2	0.3517
TRMB05017-S 0.0140	TRMB05017-S	TRMB05015-S	CONDUIT	51.2	2.0129
TRMB05018 0.0150	TRMB05018	TRMB05015	CONDUIT	19.6	22.4197
TRMB05018-S 0.0140	TRMB05018-S	TRMB05015-S	CONDUIT	19.6	-0.8159
TRMB05019 0.0130	TRMB05019	TRMB05016	CONDUIT	9.6	2.1835
TRMB05019-S 0.0140	TRMB05019-S	TRMB05016-S	CONDUIT	9.6	-3.0159
TRMB05020 0.0150	TRMB05020	TRMB05016	CONDUIT	17.5	2.1172
TRMB05020-S 0.0140	TRMB05020-S	TRMB05016-S	CONDUIT	17.5	-0.7437
TRMB05021 0.0130	TRMB05021	TRMB05019	CONDUIT	115.6	0.7354
TRMB05021-S 0.0140	TRMB05021-S	TRMB05019-S	CONDUIT	115.6	0.4759
TRMB05022 0.0150	TRMB05022	TRMB05018	CONDUIT	11.0	-2.1843
TRMB05022-S 0.0140	TRMB05022-S	TRMB05018-S	CONDUIT	11.0	-0.8190

## Alternative #1 (10-Year)

TRMB05023 0.0150	TRMB05023	TRMB05022	CONDUIT	232.1	0.5645
TRMB05023-S 0.0140	TRMB05023-S	TRMB05022-S	CONDUIT	232.1	-1.2886
TRMB05025 0.0130	TRMB05025	TRMB05017	CONDUIT	10.8	84.3531
TRMB05025-S 0.0140	TRMB05025-S	TRMB05017-S	CONDUIT	10.8	-4.4447
TRMB05026 0.0130	TRMB05026	TRMB05043	CONDUIT	20.4	18.3123
TRMB05026-S 0.0140	TRMB05026-S	TRMB05043-S	CONDUIT	20.4	-0.7832
TRMB05027 0.0130	TRMB05027	TRMB05017	CONDUIT	13.0	57.3219
TRMB05027-S 0.0140	TRMB05027-S	TRMB05017-S	CONDUIT	13.0	-7.2441
TRMB05028 0.0130	TRMB05028	TRMB05021	CONDUIT	100.2	0.4692
TRMB05028-S 0.0140	TRMB05028-S	TRMB05021-S	CONDUIT	100.2	0.7687
TRMB05029 0.0130	TRMB05029	TRMB05021	CONDUIT	21.5	0.6964
TRMB05029-S 0.0140	TRMB05029-S	TRMB05021-S	CONDUIT	21.5	0.6964
TRMB05030 0.0130	TRMB05030	TRMB05028	CONDUIT	17.0	2.9355
TRMB05030-S 0.0140	TRMB05030-S	TRMB05028-S	CONDUIT	17.0	-1.4673
TRMB05031 0.0130	TRMB05031	TRMB05028	CONDUIT	37.1	3.6643
TRMB05031-S 0.0140	TRMB05031-S	TRMB05028-S	CONDUIT	37.1	-0.3231
TRMB05032 0.0130	TRMB05032	TRMB05028	CONDUIT	38.7	2.6359
TRMB05032-S 0.0140	TRMB05032-S	TRMB05028-S	CONDUIT	38.7	-0.2067
TRMB05033 0.0130	TRMB05033	TRMB05030	CONDUIT	21.9	0.0046
TRMB05033-S 0.0140	TRMB05033-S	TRMB05030-S	CONDUIT	21.9	0.0046
TRMB05034 0.0130	TRMB05034	TRMB05032	CONDUIT	21.7	0.6903
TRMB05034-S 0.0140	TRMB05034-S	TRMB05032-S	CONDUIT	21.7	0.6903
TRMB05035 0.0150	TRMB05035	TRMB05040	CONDUIT	16.2	24.8548
TRMB05035-S 0.0140	TRMB05035-S	TRMB05040-S	CONDUIT	16.2	-0.2468
TRMB05036 0.0130	TRMB05036	TRMB05035	CONDUIT	42.8	0.9344
TRMB05036-S 0.0140	TRMB05036-S	TRMB05035-S	CONDUIT	42.8	-0.8176
TRMB05037 0.0130	TRMB05037	TRMB05036	CONDUIT	21.3	3.9994
TRMB05037-S 0.0140	TRMB05037-S	TRMB05036-S	CONDUIT	21.3	0.9403
TRMB05038 0.0130	TRMB05038	TRMB05035	CONDUIT	41.3	1.4522
TRMB05038-S 0.0140	TRMB05038-S	TRMB05035-S	CONDUIT	41.3	-0.3630
TRMB05039 0.0130	TRMB05039	TRMB05038	CONDUIT	25.0	0.5993

## Alternative #1 (10-Year)

TRMB05039-S 0.0140	TRMB05039-S	TRMB05038-S	CONDUIT	25.0	-0.7192
TRMB05040 0.0150	TRMB05040	TRMB05041	CONDUIT	280.1	0.6927
TRMB05040-S 0.0140	TRMB05040-S	TRMB05041-S	CONDUIT	280.1	1.2997
TRMB05041 0.0150	TRMB05041	TRMB05045	CONDUIT	31.1	0.7074
TRMB05041-S 0.0140	TRMB05041-S	TRMB05045-S	CONDUIT	31.1	-0.7396
TRMB05042 0.0130	TRMB05042	TRMB05026	CONDUIT	27.0	-1.3335
TRMB05042-S 0.0140	TRMB05042-S	TRMB05026-S	CONDUIT	27.0	-1.3335
TRMB05044 0.0130	TRMB05044	TRMB05045	CONDUIT	116.6	0.7635
TRMB05044-S 0.0140	TRMB05044-S	TRMB05045-S	CONDUIT	116.6	-1.1668
TRMB05045 0.0150	TRMB05045	TRMB05046	CONDUIT	298.8	0.7297
TRMB05045-S 0.0140	TRMB05045-S	TRMB05046-S	CONDUIT	298.8	1.6101
TRMB05046 0.0150	TRMB05046	TRMB05048	CONDUIT	11.9	4.1983
TRMB05046-S 0.0140	TRMB05046-S	TRMB05048-S	CONDUIT	11.9	-5.1242
TRMB05048 0.0150	TRMB05048	J2	CONDUIT	30.3	0.6601

CountrySideE\_Ditch\_Culvert\_In-IC CountrySideE\_Ditch\_Culvert\_In-S  
CountrySideE\_Ditch\_Culvert\_In OUTLET

JMTB01003-IC	JMTB01003-S	JMTB01003	OUTLET
JMTB01004-IC	JMTB01004-S	JMTB01004	OUTLET
JMTB01005-IC	JMTB01005-S	JMTB01005	OUTLET
JMTB01006-IC	JMTB01006-S	JMTB01006	OUTLET
JMTB01102-IC	JMTB01102-S	JMTB01102	OUTLET
JMTB01103-IC	JMTB01103-S	JMTB01103	OUTLET
JMTB01104-IC	JMTB01104-S	JMTB01104	OUTLET
JMTB01105-IC	JMTB01105-S	JMTB01105	OUTLET
PCTB01068_US-IC	PCTB01068_US-S	PCTB01068_US	OUTLET
PCTB01068-IC	PCTB01068-S	PCTB01068	OUTLET
PCTB02001-IC	PCTB02001-S	PCTB02001	OUTLET
PCTB02002-IC	PCTB02002-S	PCTB02002	OUTLET
PCTB02003-IC	PCTB02003-S	PCTB02003	OUTLET
PCTB02004-IC	PCTB02004-S	PCTB02004	OUTLET
PCTB02011-IC	PCTB02011-S	PCTB02011	OUTLET
PCTB02012-IC	PCTB02012-S	PCTB02012	OUTLET
PCTB02014-IC	PCTB02014-S	PCTB02014	OUTLET
PCTB02015-IC	PCTB02015-S	PCTB02015	OUTLET
PCTB02016-IC	PCTB02016-S	PCTB02016	OUTLET
PCTB02017-IC	PCTB02017-S	PCTB02017	OUTLET
PCTB02022-IC	PCTB02022-S	PCTB02022	OUTLET
PCTB02023-IC	PCTB02023-S	PCTB02023	OUTLET
PCTB02189-IC	PCTB02189-S	PCTB02189	OUTLET
PCTB02191_DS-IC	PCTB02191_DS-S	PCTB02191_DS	OUTLET
PCTB02191-IC	PCTB02191-S	PCTB02191	OUTLET
PCTB02207-IC	PCTB02207-S	PCTB02207	OUTLET
PCTB02209-IC	PCTB02209-S	PCTB02209	OUTLET
PCTB02229-IC	PCTB02229-S	PCTB02229	OUTLET
PCTB02231-IC	PCTB02231-S	PCTB02231	OUTLET
PCTB02235-IC	PCTB02235-S	PCTB02235	OUTLET
PCTB02237-IC	PCTB02237-S	PCTB02237	OUTLET
PCTB02257_1-IC	PCTB02257_1-S	PCTB02257_1	OUTLET

## Alternative #1 (10-Year)

PCTB02257-IC	PCTB02257-S	PCTB02257	OUTLET
PCTB02260-IC	PCTB02260-S	PCTB02260	OUTLET
PCTB02262-IC	PCTB02262-S	PCTB02262	OUTLET
PCTB02275-IC	PCTB02275-S	PCTB02275	OUTLET
PCTB02276-IC	PCTB02276-S	PCTB02276	OUTLET
PCTB02278-IC	PCTB02278-S	PCTB02278	OUTLET
PCTB02280-IC	PCTB02280-S	PCTB02280	OUTLET
PCTB02281-IC	PCTB02281-S	PCTB02281	OUTLET
PCTB02282-IC	PCTB02282-S	PCTB02282	OUTLET
PCTB02283-IC	PCTB02283-S	PCTB02283	OUTLET
PCTB02284-IC	PCTB02284-S	PCTB02284	OUTLET
PCTB02292-IC	PCTB02292-S	PCTB02292	OUTLET
PCTB02294-IC	PCTB02294-S	PCTB02294	OUTLET
PCTB02295-IC	PCTB02295-S	PCTB02295	OUTLET
PCTB02297-IC	PCTB02297-S	PCTB02297	OUTLET
PCTB02302-IC	PCTB02302-S	PCTB02302	OUTLET
PCTB02303-IC	PCTB02303-S	PCTB02303	OUTLET
PCTB02304-IC	PCTB02304-S	PCTB02304	OUTLET
PCTB02312-IC	PCTB02312-S	PCTB02312	OUTLET
PCTB02329-IC	PCTB02329-S	PCTB02329	OUTLET
PCTB02330-IC	PCTB02330-S	PCTB02330	OUTLET
PCTB02331-IC	PCTB02331-S	PCTB02331	OUTLET
PCTB02332-IC	PCTB02332-S	PCTB02332	OUTLET
TRMB02002-IC	TRMB02002-S	TRMB02002	OUTLET
TRMB02003-IC	TRMB02003-S	TRMB02003	OUTLET
TRMB02006-IC	TRMB02006-S	TRMB02006	OUTLET
TRMB02009-IC	TRMB02009-S	TRMB02009	OUTLET
TRMB02012-IC	TRMB02012-S	TRMB02012	OUTLET
TRMB02015-IC	TRMB02015-S	TRMB02015	OUTLET
TRMB02016-IC	TRMB02016-S	TRMB02016	OUTLET
TRMB02018-IC	TRMB02018-S	TRMB02018	OUTLET
TRMB02022-IC	TRMB02022-S	TRMB02022	OUTLET
TRMB02023-IC	TRMB02023-S	TRMB02023	OUTLET
TRMB02044_DS-IC	TRMB02044_DS-S	TRMB02044_DS	OUTLET
TRMB02044-IC	TRMB02044-S	TRMB02044	OUTLET
TRMB02045-IC	TRMB02045-S	TRMB02045	OUTLET
TRMB02046-IC	TRMB02046-S	TRMB02046	OUTLET
TRMB02047-IC	TRMB02047-S	TRMB02047	OUTLET
TRMB02048-IC	TRMB02048-S	TRMB02048	OUTLET
TRMB02049-IC	TRMB02049-S	TRMB02049	OUTLET
TRMB02050-IC	TRMB02050-S	TRMB02050	OUTLET
TRMB02051-IC	TRMB02051-S	TRMB02051	OUTLET
TRMB02052-IC	TRMB02052-S	TRMB02052	OUTLET
TRMB02056-IC	TRMB02056-S	TRMB02056	OUTLET
TRMB02057-IC	TRMB02057-S	TRMB02057	OUTLET
TRMB02060-IC	TRMB02060-S	TRMB02060	OUTLET
TRMB02063-IC	TRMB02063-S	TRMB02063	OUTLET
TRMB02064-IC	TRMB02064-S	TRMB02064	OUTLET
TRMB02067-IC	TRMB02067-S	TRMB02067	OUTLET
TRMB02068-IC	TRMB02068-S	TRMB02068	OUTLET
TRMB02069-IC	TRMB02069-S	TRMB02069	OUTLET
TRMB02070-IC	TRMB02070-S	TRMB02070	OUTLET
TRMB03016-IC	TRMB03016-S	TRMB03016	OUTLET
TRMB03022-IC	TRMB03022-S	TRMB03022	OUTLET
TRMB03025-IC	TRMB03025-S	TRMB03025	OUTLET
TRMB03028-IC	TRMB03028-S	TRMB03028	OUTLET
TRMB03029-IC	TRMB03029-S	TRMB03029	OUTLET
TRMB03030-IC	TRMB03030-S	TRMB03030	OUTLET
TRMB03031-IC	TRMB03031-S	J5	OUTLET
TRMB03032-IC	TRMB03032-S	TRMB03032	OUTLET
TRMB03033-IC	TRMB03033-S	TRMB03033	OUTLET
TRMB03034-IC	TRMB03034-S	TRMB03034	OUTLET



## Alternative #1 (10-Year)

TRMB03036-IC	TRMB03036-S	J4	OUTLET
TRMB03037-IC	TRMB03037-S	TRMB03037	OUTLET
TRMB03038-IC	TRMB03038-S	TRMB03038	OUTLET
TRMB03039-IC	TRMB03039-S	TRMB03039	OUTLET
TRMB03042-IC	TRMB03042-S	TRMB03042	OUTLET
TRMB03043-IC	TRMB03043-S	TRMB03043	OUTLET
TRMB03044-IC	TRMB03044-S	TRMB03044	OUTLET
TRMB03049-IC	TRMB03049-S	TRMB03049	OUTLET
TRMB03051-IC	TRMB03051-S	TRMB03051	OUTLET
TRMB03052-IC	TRMB03052-S	TRMB03052	OUTLET
TRMB03054-IC	TRMB03054-S	TRMB03054	OUTLET
TRMB03055-IC	TRMB03055-S	TRMB03055	OUTLET
TRMB03063-IC	TRMB03063-S	TRMB03063	OUTLET
TRMB03065-IC	TRMB03065-S	TRMB03065	OUTLET
TRMB03067-IC	TRMB03067-S	TRMB03067	OUTLET
TRMB03068-IC	TRMB03068-S	TRMB03068	OUTLET
TRMB03069-IC	TRMB03069-S	TRMB03069	OUTLET
TRMB03070-IC	TRMB03070-S	J8	OUTLET
TRMB03072-IC	TRMB03072-S	TRMB03072	OUTLET
TRMB03073-IC	TRMB03073-S	TRMB03073	OUTLET
TRMB03084-IC	TRMB03084-S	TRMB03084	OUTLET
TRMB03087-IC	TRMB03087-S	TRMB03087	OUTLET
TRMB03088-IC	TRMB03088-S	TRMB03088	OUTLET
TRMB03089-IC	TRMB03089-S	TRMB03089	OUTLET
TRMB03090-IC	TRMB03090-S	TRMB03090	OUTLET
TRMB03091-IC	TRMB03091-S	TRMB03091	OUTLET
TRMB03092-IC	TRMB03092-S	TRMB03092	OUTLET
TRMB03094-IC	TRMB03094-S	TRMB03094	OUTLET
TRMB03095-IC	TRMB03095-S	TRMB03095	OUTLET
TRMB03096-IC	TRMB03096-S	TRMB03096	OUTLET
TRMB03097-IC	TRMB03097-S	TRMB03097	OUTLET
TRMB03101-IC	TRMB03101-S	TRMB03101	OUTLET
TRMB03102-IC	TRMB03102-S	TRMB03102	OUTLET
TRMB03103-IC	TRMB03103-S	TRMB03103	OUTLET
TRMB03111-IC	TRMB03111-S	TRMB03111	OUTLET
TRMB04089-IC	TRMB04089-S	TRMB04089	OUTLET
TRMB05002-IC	TRMB05002-S	TRMB05002	OUTLET
TRMB05003-IC	TRMB05003-S	TRMB05003	OUTLET
TRMB05004-IC	TRMB05004-S	TRMB05004	OUTLET
TRMB05005-IC	TRMB05005-S	TRMB05005	OUTLET
TRMB05006-IC	TRMB05006-S	TRMB05006	OUTLET
TRMB05008-IC	TRMB05008-S	TRMB05008	OUTLET
TRMB05009_DS-IC	TRMB05009_DS-S	TRMB05009_DS	OUTLET
TRMB05009-IC	TRMB05009-S	TRMB05009	OUTLET
TRMB05010-IC	TRMB05010-S	TRMB05010	OUTLET
TRMB05011-IC	TRMB05011-S	TRMB05011	OUTLET
TRMB05012-IC	TRMB05012-S	TRMB05012	OUTLET
TRMB05013-IC	TRMB05013-S	TRMB05013	OUTLET
TRMB05014-IC	TRMB05014-S	TRMB05014	OUTLET
TRMB05015-IC	TRMB05015-S	TRMB05015	OUTLET
TRMB05016-IC	TRMB05016-S	TRMB05016	OUTLET
TRMB05017_US-IC	TRMB05017_US-S	TRMB05017_US	OUTLET
TRMB05017-IC	TRMB05017-S	TRMB05017	OUTLET
TRMB05018-IC	TRMB05018-S	TRMB05018	OUTLET
TRMB05019-IC	TRMB05019-S	TRMB05019	OUTLET
TRMB05020-IC	TRMB05020-S	TRMB05020	OUTLET
TRMB05021-IC	TRMB05021-S	TRMB05021	OUTLET
TRMB05022-IC	TRMB05022-S	TRMB05022	OUTLET
TRMB05023-IC	TRMB05023-S	TRMB05023	OUTLET
TRMB05025-IC	TRMB05025-S	TRMB05025	OUTLET
TRMB05026-IC	TRMB05026-S	TRMB05026	OUTLET
TRMB05027-IC	TRMB05027-S	TRMB05027	OUTLET

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TRMB05028-IC	TRMB05028-S	TRMB05028	OUTLET
TRMB05029-IC	TRMB05029-S	TRMB05029	OUTLET
TRMB05030-IC	TRMB05030-S	TRMB05030	OUTLET
TRMB05031-IC	TRMB05031-S	TRMB05031	OUTLET
TRMB05032-IC	TRMB05032-S	TRMB05032	OUTLET
TRMB05033-IC	TRMB05033-S	TRMB05033	OUTLET
TRMB05034-IC	TRMB05034-S	TRMB05034	OUTLET
TRMB05035-IC	TRMB05035-S	TRMB05035	OUTLET
TRMB05036-IC	TRMB05036-S	TRMB05036	OUTLET
TRMB05037-IC	TRMB05037-S	TRMB05037	OUTLET
TRMB05038-IC	TRMB05038-S	TRMB05038	OUTLET
TRMB05039-IC	TRMB05039-S	TRMB05039	OUTLET
TRMB05040-IC	TRMB05040-S	TRMB05040	OUTLET
TRMB05041-IC	TRMB05041-S	TRMB05041	OUTLET
TRMB05042-IC	TRMB05042-S	TRMB05042	OUTLET
TRMB05043-IC	TRMB05043-S	TRMB05043	OUTLET
TRMB05044-IC	TRMB05044-S	TRMB05044	OUTLET
TRMB05045-IC	TRMB05045-S	TRMB05045	OUTLET
TRMB05046-IC	TRMB05046-S	TRMB05046	OUTLET
TRMB05048-IC	TRMB05048-S	TRMB05048	OUTLET

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 Cross Section Summary  
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Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
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C1 2231.53	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
C14 64.66	PARABOLIC	2.00	10.67	1.16	8.00	1
C2 23.71	CIRCULAR	2.00	3.14	0.50	2.00	1
C2_1 86.08	CIRCULAR	2.50	4.91	0.63	2.50	1
C2_1-S 272.36	Transect1	0.75	21.13	0.48	55.00	1
C2_2 875.98	TRAPEZOIDAL	7.50	225.00	4.64	45.00	1
C3 126.19	Transect1	0.75	21.13	0.48	55.00	1
C4 15.47	CIRCULAR	2.50	4.91	0.63	2.50	1
C5 13.66	CIRCULAR	1.00	0.79	0.25	1.00	1
C9 23.98	CIRCULAR	1.25	1.23	0.31	1.25	1
C9-S 516.16	Transect1	0.75	21.13	0.48	55.00	1
CountrySideE_Ditch 61.07	TRAPEZOIDAL	2.00	22.00	1.50	13.00	1
CountrySideE_Ditch_Culvert 2 46.76	CIRCULAR		4.00	12.57	1.00	4.00
CountrySideE_Ditch_Culvert-S 1 98.63	Transect1		0.75	21.13	0.48	55.00
JMTB01003 27.99	RECT_CLOSED	2.00	8.00	0.67	4.00	1

## Alternative #1 (10-Year)

JMTB01003-S 342.19	Transect1	0.75	21.13	0.48	55.00	1
JMTB01004 8.07	CIRCULAR	1.75	2.41	0.44	1.75	4
JMTB01004-S 122.05	Transect1	0.75	21.13	0.48	55.00	1
JMTB01005 21.23	RECT_CLOSED	2.00	8.00	0.67	4.00	2
JMTB01005-S 65.31	Transect1	0.75	21.13	0.48	55.00	1
JMTB01102 20.68	CIRCULAR	2.00	3.14	0.50	2.00	1
JMTB01102-S 219.17	Transect1	0.75	21.13	0.48	55.00	1
JMTB01103 15.08	CIRCULAR	2.25	3.98	0.56	2.25	1
JMTB01103_1 28.68	PARABOLIC	2.50	6.67	0.99	4.00	1
JMTB01103-S 143.11	Transect1	0.75	21.13	0.48	55.00	1
JMTB01104 6.42	CIRCULAR	1.25	1.23	0.31	1.25	1
JMTB01104-S 123.66	Transect1	0.75	21.13	0.48	55.00	1
PCTB01068 29.89	CIRCULAR	3.00	7.07	0.75	3.00	2
PCTB01068_US 31.38	CIRCULAR	3.00	7.07	0.75	3.00	2
PCTB01068_US-S 22.83	Transect1	0.75	21.13	0.48	55.00	1
PCTB02001_1 189.07	TRAPEZOIDAL	2.10	64.05	1.55	41.00	1
PCTB02001_2 188.22	TRAPEZOIDAL	2.10	64.05	1.55	41.00	1
PCTB02002 43.15	RECT_CLOSED	2.00	12.00	0.75	6.00	1
PCTB02002-S 185.94	Transect1	0.75	21.13	0.48	55.00	1
PCTB02003 10.40	CIRCULAR	2.00	3.14	0.50	2.00	1
PCTB02003-S 73.44	Transect1	0.75	21.13	0.48	55.00	1
PCTB02008 22.17	CIRCULAR	3.00	7.07	0.75	3.00	2
PCTB02011 131.68	CIRCULAR	4.00	12.57	1.00	4.00	1
PCTB02011_1 128.84	TRAPEZOIDAL	3.50	38.47	2.18	14.98	1
PCTB02011-S 216.69	Transect1	0.75	21.13	0.48	55.00	1
PCTB02014 65.39	CIRCULAR	3.00	7.07	0.75	3.00	1
PCTB02014_1 142.27	TRAPEZOIDAL	3.50	35.02	2.03	15.01	1
PCTB02014-S 167.20	Transect1	0.75	21.13	0.48	55.00	1
PCTB02016 7.89	CIRCULAR	1.50	1.77	0.38	1.50	1
PCTB02016-S 24.49	Transect1	0.75	21.13	0.48	55.00	1
PCTB02020 31.64	TRAPEZOIDAL	1.00	12.50	0.81	15.00	1

## Alternative #1 (10-Year)

PCTB02021	TRAPEZOIDAL	1.00	7.50	0.72	10.00	1
5.15						
PCTB02022	RECT_CLOSED	2.00	8.00	0.67	4.00	1
14.91						
PCTB02022-S	Transect1	0.75	21.13	0.48	55.00	1
48.25						
PCTB02023	RECT_CLOSED	2.00	8.00	0.67	4.00	1
16.96						
PCTB02023-S	Transect1	0.75	21.13	0.48	55.00	1
119.59						
PCTB02076	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
2537.96						
PCTB02080	HORIZ_ELLIPSE	6.70	56.97	2.05	8.00	1
21.94						
PCTB02160	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
456.69						
PCTB02172	TRAPEZOIDAL	7.00	161.07	3.76	40.02	1
3971.77						
PCTB02189	CIRCULAR	2.50	4.91	0.63	2.50	1
29.03						
PCTB02189-S	Transect1	0.75	21.13	0.48	55.00	1
79.29						
PCTB02208	CIRCULAR	4.00	12.57	1.00	4.00	1
86.15						
PCTB02208-S	Transect1	0.75	21.13	0.48	55.00	1
95.77						
PCTB02231	CIRCULAR	4.00	12.57	1.00	4.00	2
34.75						
PCTB02231-S	Transect1	0.75	21.13	0.48	55.00	1
43.58						
PCTB02237	CIRCULAR	4.00	12.57	1.00	4.00	2
56.05						
PCTB02237-S	Transect1	0.75	21.13	0.48	55.00	1
62.65						
PCTB02239	TRIANGULAR	3.50	43.75	1.69	25.00	1
571.89						
PCTB02240	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
644.39						
PCTB02259_1	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
192.32						
PCTB02259_2	TRAPEZOIDAL	4.00	120.00	2.89	40.00	1
422.62						
PCTB02260	CIRCULAR	4.00	12.57	1.00	4.00	2
47.36						
PCTB02260-S	Transect1	0.75	21.13	0.48	55.00	1
64.48						
PCTB02264	TRAPEZOIDAL	4.00	140.00	2.74	50.00	1
834.98						
PCTB02274	PARABOLIC	4.00	53.33	2.43	20.00	1
539.91						
PCTB02275	CIRCULAR	3.50	9.62	0.88	3.50	1
52.42						
PCTB02275-S	Transect1	0.75	21.13	0.48	55.00	1
305.25						
PCTB02276	CIRCULAR	3.50	9.62	0.88	3.50	1
9.47						
PCTB02276-S	Transect1	0.75	21.13	0.48	55.00	1
42.91						
PCTB02278	CIRCULAR	2.00	3.14	0.50	2.00	1
13.28						
PCTB02278-S	Transect1	0.75	21.13	0.48	55.00	1
134.35						

## Alternative #1 (10-Year)

PCTB02279 721.01	TRAPEZOIDAL	4.00	72.00	2.30	30.00	1
PCTB02280 5.02	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02280-S 73.87	Transect1	0.75	21.13	0.48	55.00	1
PCTB02281 6.77	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02281-S 121.65	Transect1	0.75	21.13	0.48	55.00	1
PCTB02282 6.40	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02282-S 153.84	Transect1	0.75	21.13	0.48	55.00	1
PCTB02283 4.26	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02283-S 345.17	Transect1	0.75	21.13	0.48	55.00	1
PCTB02284 4.28	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02284-S 101.04	Transect1	0.75	21.13	0.48	55.00	1
PCTB02292 618.28	TRAPEZOIDAL	7.50	176.06	4.47	34.95	1
PCTB02294 235.10	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02294-S 144.14	Transect1	0.75	21.13	0.48	55.00	1
PCTB02295 700.47	TRAPEZOIDAL	10.00	200.00	5.35	25.00	1
PCTB02297 3.24	CIRCULAR	1.25	1.23	0.31	1.25	1
PCTB02297-S 45.68	Transect1	0.75	21.13	0.48	55.00	1
PCTB02299 2528.04	TRAPEZOIDAL	9.00	162.18	4.79	25.04	1
PCTB02300 3361.85	TRAPEZOIDAL	9.00	202.47	5.27	29.99	1
PCTB02301 267.24	TRAPEZOIDAL	5.00	35.00	2.23	10.00	1
PCTB02302 476.90	TRAPEZOIDAL	6.00	135.60	3.58	35.20	1
PCTB02303 155.43	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02303-S 287.52	Transect1	0.75	21.13	0.48	55.00	1
PCTB02304 254.90	CIRCULAR	5.00	19.63	1.25	5.00	1
PCTB02304-S 410.56	Transect1	0.75	21.13	0.48	55.00	1
PCTB02312 691.12	TRAPEZOIDAL	6.00	150.00	3.55	40.00	1
PCTB02329 23.96	RECT_CLOSED	2.00	12.00	0.75	6.00	1
PCTB02329-S 116.57	Transect1	0.75	21.13	0.48	55.00	1
PCTB02330 27.16	RECT_CLOSED	2.00	12.00	0.75	6.00	1
PCTB02330-S 105.59	Transect1	0.75	21.13	0.48	55.00	1
PCTB02331 15.96	RECT_CLOSED	2.00	12.00	0.75	6.00	1

## Alternative #1 (10-Year)

PCTB02331-S 79.91	Transect1	0.75	21.13	0.48	55.00	1
TRMB02002 220.91	CIRCULAR	4.00	12.57	1.00	4.00	1
TRMB02003 239.64	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02003-S 444.01	Transect1	0.75	21.13	0.48	55.00	1
TRMB02006 104.95	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02006-S 160.65	Transect1	0.75	21.13	0.48	55.00	1
TRMB02009 166.23	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02009-S 267.62	Transect1	0.75	21.13	0.48	55.00	1
TRMB02012 91.01	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02012-S 13.68	Transect1	0.75	21.13	0.48	55.00	1
TRMB02015 80.05	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02015-S 131.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB02016 192.18	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02016-S 77.14	Transect1	0.75	21.13	0.48	55.00	1
TRMB02018 60.82	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02018-S 137.42	Transect1	0.75	21.13	0.48	55.00	1
TRMB02022 65.64	CIRCULAR	3.50	9.62	0.88	3.50	2
TRMB02022-S 29.39	Transect1	0.75	21.13	0.48	55.00	1
TRMB02023 57.36	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02023-S 2.80	Transect1	0.75	21.13	0.48	55.00	1
TRMB02044_1-S 121.23	Transect1	0.75	21.13	0.48	55.00	1
TRMB02044_2 76.89	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02044_2-S 139.71	Transect1	0.75	21.13	0.48	55.00	1
TRMB02044_3 22.92	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02044_4 1.54	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02044_5 78.76	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02045 58.60	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02045-S 167.97	Transect1	0.75	21.13	0.48	55.00	1
TRMB02046-S 114.86	Transect1	0.75	21.13	0.48	55.00	1
TRMB02047-S 83.06	Transect1	0.75	21.13	0.48	55.00	1
TRMB02048 10.85	CIRCULAR	1.50	1.77	0.38	1.50	1

## Alternative #1 (10-Year)

TRMB02048-S 206.84	Transect1	0.75	21.13	0.48	55.00	1
TRMB02049-S 67.29	Transect1	0.75	21.13	0.48	55.00	1
TRMB02050 33.16	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02050-S 148.87	Transect1	0.75	21.13	0.48	55.00	1
TRMB02051 33.00	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02051-S 118.18	Transect1	0.75	21.13	0.48	55.00	1
TRMB02052 89.08	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB02052-S 96.87	Transect1	0.75	21.13	0.48	55.00	1
TRMB02056 59.00	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02056-S 193.57	Transect1	0.75	21.13	0.48	55.00	1
TRMB02057 57.34	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02057-S 123.46	Transect1	0.75	21.13	0.48	55.00	1
TRMB02060 55.90	CIRCULAR	3.00	7.07	0.75	3.00	1
TRMB02060-S 195.68	Transect1	0.75	21.13	0.48	55.00	1
TRMB02063 36.77	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02063-S 144.70	Transect1	0.75	21.13	0.48	55.00	1
TRMB02064 18.84	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB02064-S 116.56	Transect1	0.75	21.13	0.48	55.00	1
TRMB02067 6.85	CIRCULAR	1.75	2.41	0.44	1.75	1
TRMB02067-S 163.36	Transect1	0.75	21.13	0.48	55.00	1
TRMB02068 10.91	CIRCULAR	1.75	2.41	0.44	1.75	1
TRMB02068-S 161.17	Transect1	0.75	21.13	0.48	55.00	1
TRMB02069 15.96	CIRCULAR	1.75	2.41	0.44	1.75	1
TRMB02069-S 178.71	Transect1	0.75	21.13	0.48	55.00	1
TRMB02070 10.33	CIRCULAR	1.75	2.41	0.44	1.75	1
TRMB02070-S 104.17	Transect1	0.75	21.13	0.48	55.00	1
TRMB03016 114.19	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB03022 84.66	TRAPEZOIDAL	2.00	8.00	0.97	7.00	1
TRMB03025 200.03	CIRCULAR	3.50	9.62	0.88	3.50	1
TRMB03025-S 496.49	Transect1	0.75	21.13	0.48	55.00	1
TRMB03026 15.18	CIRCULAR	1.00	0.79	0.25	1.00	1

## Alternative #1 (10-Year)

TRMB03027	CIRCULAR	1.00	0.79	0.25	1.00	1
3.72						
TRMB03028	CIRCULAR	3.50	9.62	0.88	3.50	1
13.33						
TRMB03028-S	Transect1	0.75	21.13	0.48	55.00	1
223.19						
TRMB03029	CIRCULAR	3.50	9.62	0.88	3.50	1
91.80						
TRMB03029-S	Transect1	0.75	21.13	0.48	55.00	1
145.37						
TRMB03030	CIRCULAR	3.50	9.62	0.88	3.50	1
81.98						
TRMB03030-S	Transect1	0.75	21.13	0.48	55.00	1
131.83						
TRMB03031	TRAPEZOIDAL	6.00	104.99	3.21	30.00	1
2547.14						
TRMB03032	CIRCULAR	3.50	9.62	0.88	3.50	1
86.28						
TRMB03032-S	Transect1	0.75	21.13	0.48	55.00	1
121.82						
TRMB03033	CIRCULAR	1.25	1.23	0.31	1.25	1
10.43						
TRMB03033-S	Transect1	0.75	21.13	0.48	55.00	1
198.53						
TRMB03034	CIRCULAR	2.50	4.91	0.63	2.50	1
51.48						
TRMB03034-S	Transect1	0.75	21.13	0.48	55.00	1
123.52						
TRMB03035-S	Transect1	0.75	21.13	0.48	55.00	1
18.11						
TRMB03036	CIRCULAR	3.00	7.07	0.75	3.00	1
35.87						
TRMB03036-S	Transect1	0.75	21.13	0.48	55.00	1
97.32						
TRMB03037	CIRCULAR	1.00	0.79	0.25	1.00	1
4.02						
TRMB03037-S	Transect1	0.75	21.13	0.48	55.00	1
135.68						
TRMB03038	CIRCULAR	1.00	0.79	0.25	1.00	1
13.62						
TRMB03038-S	Transect1	0.75	21.13	0.48	55.00	1
254.64						
TRMB03039	CIRCULAR	3.00	7.07	0.75	3.00	1
211.85						
TRMB03039-S	Transect1	0.75	21.13	0.48	55.00	1
89.57						
TRMB03042	CIRCULAR	1.25	1.23	0.31	1.25	1
11.51						
TRMB03042-S	Transect1	0.75	21.13	0.48	55.00	1
228.36						
TRMB03043	CIRCULAR	2.50	4.91	0.63	2.50	1
25.03						
TRMB03043-S	Transect1	0.75	21.13	0.48	55.00	1
97.64						
TRMB03044	CIRCULAR	1.50	1.77	0.38	1.50	1
12.37						
TRMB03044-S	Transect1	0.75	21.13	0.48	55.00	1
152.04						
TRMB03049	CIRCULAR	1.75	2.41	0.44	1.75	1
22.80						
TRMB03049-S	Transect1	0.75	21.13	0.48	55.00	1
278.13						



## Alternative #1 (10-Year)

TRMB03051	CIRCULAR	2.00	3.14	0.50	2.00	1
53.17						
TRMB03051-S	Transect1	0.75	21.13	0.48	55.00	1
216.99						
TRMB03052	CIRCULAR	1.00	0.79	0.25	1.00	1
8.64						
TRMB03052-S	Transect1	0.75	21.13	0.48	55.00	1
120.68						
TRMB03054	CIRCULAR	2.00	3.14	0.50	2.00	1
5.51						
TRMB03054-S	Transect1	0.75	21.13	0.48	55.00	1
48.75						
TRMB03055	CIRCULAR	2.00	3.14	0.50	2.00	1
6.21						
TRMB03055-S	Transect1	0.75	21.13	0.48	55.00	1
26.06						
TRMB03063	CIRCULAR	1.50	1.77	0.38	1.50	1
10.65						
TRMB03063-S	Transect1	0.75	21.13	0.48	55.00	1
144.11						
TRMB03065	CIRCULAR	3.50	9.62	0.88	3.50	1
115.12						
TRMB03067	CIRCULAR	1.00	0.79	0.25	1.00	1
17.70						
TRMB03067-S	Transect1	0.75	21.13	0.48	55.00	1
443.26						
TRMB03068	CIRCULAR	2.00	3.14	0.50	2.00	1
32.30						
TRMB03068-S	Transect1	0.75	21.13	0.48	55.00	1
347.64						
TRMB03069	CIRCULAR	3.50	9.62	0.88	3.50	1
89.78						
TRMB03069-S	Transect1	0.75	21.13	0.48	55.00	1
102.80						
TRMB03070	CIRCULAR	3.50	9.62	0.88	3.50	1
146.76						
TRMB03070-S	Transect1	0.75	21.13	0.48	55.00	1
52.16						
TRMB03072	CIRCULAR	3.50	9.62	0.88	3.50	1
189.25						
TRMB03072-S_1	Transect1	0.75	21.13	0.48	55.00	1
249.38						
TRMB03073	CIRCULAR	1.25	1.23	0.31	1.25	1
11.35						
TRMB03073-S	Transect1	0.75	21.13	0.48	55.00	1
378.36						
TRMB03083	CIRCULAR	3.50	9.62	0.88	3.50	1
6.04						
TRMB03083-S	Transect1	0.75	21.13	0.48	55.00	1
185.20						
TRMB03084	CIRCULAR	3.50	9.62	0.88	3.50	1
110.01						
TRMB03084-S	Transect1	0.75	21.13	0.48	55.00	1
205.56						
TRMB03087-S	Transect1	0.75	21.13	0.48	55.00	1
205.26						
TRMB03088_1	CIRCULAR	3.00	7.07	0.75	3.00	1
72.74						
TRMB03088_2	CIRCULAR	3.00	7.07	0.75	3.00	1
66.23						
TRMB03088_3	CIRCULAR	3.00	7.07	0.75	3.00	1
65.89						

## Alternative #1 (10-Year)

TRMB03088_5	CIRCULAR	3.50	9.62	0.88	3.50	1
99.78						
TRMB03088-S	Transect1	0.75	21.13	0.48	55.00	1
210.63						
TRMB03089	CIRCULAR	3.00	7.07	0.75	3.00	1
105.61						
TRMB03089-S	Transect1	0.75	21.13	0.48	55.00	1
37.95						
TRMB03090	CIRCULAR	3.00	7.07	0.75	3.00	1
73.99						
TRMB03090-S	Transect1	0.75	21.13	0.48	55.00	1
339.72						
TRMB03091	CIRCULAR	3.00	7.07	0.75	3.00	1
80.72						
TRMB03091-S	Transect1	0.75	21.13	0.48	55.00	1
211.36						
TRMB03092	CIRCULAR	1.25	1.23	0.31	1.25	1
16.34						
TRMB03092-S	Transect1	0.75	21.13	0.48	55.00	1
210.69						
TRMB03094	CIRCULAR	3.00	7.07	0.75	3.00	1
72.90						
TRMB03094-S	Transect1	0.75	21.13	0.48	55.00	1
142.50						
TRMB03095	CIRCULAR	1.25	1.23	0.31	1.25	1
39.30						
TRMB03095-S	Transect1	0.75	21.13	0.48	55.00	1
14.62						
TRMB03096	CIRCULAR	3.00	7.07	0.75	3.00	1
28.25						
TRMB03096-S	Transect1	0.75	21.13	0.48	55.00	1
331.55						
TRMB03097	CIRCULAR	1.25	1.23	0.31	1.25	1
15.39						
TRMB03097-S	Transect1	0.75	21.13	0.48	55.00	1
304.83						
TRMB03101	CIRCULAR	1.50	1.77	0.38	1.50	1
69.49						
TRMB03101-S	Transect1	0.75	21.13	0.48	55.00	1
385.64						
TRMB03102	CIRCULAR	3.00	7.07	0.75	3.00	1
88.49						
TRMB03102-S	Transect1	0.75	21.13	0.48	55.00	1
229.99						
TRMB03103	CIRCULAR	3.00	7.07	0.75	3.00	1
114.19						
TRMB03103-S	Transect1	0.75	21.13	0.48	55.00	1
259.09						
TRMB03111	CIRCULAR	2.00	3.14	0.50	2.00	1
39.07						
TRMB03111-S	Transect1	0.75	21.13	0.48	55.00	1
176.15						
TRMB04089_1	CIRCULAR	3.50	9.62	0.88	3.50	1
47.19						
TRMB04089_1-S	Transect1	0.75	21.13	0.48	55.00	1
128.01						
TRMB04089_2	CIRCULAR	3.50	9.62	0.88	3.50	1
47.04						
TRMB04089_2-S	Transect1	0.75	21.13	0.48	55.00	1
127.78						
TRMB05002	CIRCULAR	4.00	12.57	1.00	4.00	1
696.51						

## Alternative #1 (10-Year)

TRMB05003	CIRCULAR	4.00	12.57	1.00	4.00	1
150.61						
TRMB05003-S	Transect1	0.75	21.13	0.48	55.00	1
273.49						
TRMB05004	CIRCULAR	3.50	9.62	0.88	3.50	1
122.13						
TRMB05004-S	Transect1	0.75	21.13	0.48	55.00	1
509.74						
TRMB05005	CIRCULAR	3.50	9.62	0.88	3.50	1
158.35						
TRMB05005-S	Transect1	0.75	21.13	0.48	55.00	1
274.39						
TRMB05006	CIRCULAR	4.00	12.57	1.00	4.00	1
90.30						
TRMB05006-S	Transect1	0.75	21.13	0.48	55.00	1
126.86						
TRMB05008	CIRCULAR	2.50	4.91	0.63	2.50	1
58.51						
TRMB05008-S	Transect1	0.75	21.13	0.48	55.00	1
154.13						
TRMB05009_1	CIRCULAR	3.50	9.62	0.88	3.50	1
89.90						
TRMB05009_1-S	Transect1	0.75	21.13	0.48	55.00	1
100.89						
TRMB05009_2	CIRCULAR	3.50	9.62	0.88	3.50	1
89.89						
TRMB05009_2-S	Transect1	0.75	21.13	0.48	55.00	1
101.70						
TRMB05010	CIRCULAR	2.00	3.14	0.50	2.00	1
102.29						
TRMB05010-S	Transect1	0.75	21.13	0.48	55.00	1
95.92						
TRMB05011	CIRCULAR	2.00	3.14	0.50	2.00	1
39.82						
TRMB05011-S	Transect1	0.75	21.13	0.48	55.00	1
217.12						
TRMB05012	CIRCULAR	1.25	1.23	0.31	1.25	1
3.80						
TRMB05012-S	Transect1	0.75	21.13	0.48	55.00	1
81.49						
TRMB05013	CIRCULAR	1.25	1.23	0.31	1.25	1
71.13						
TRMB05013-S	Transect1	0.75	21.13	0.48	55.00	1
411.07						
TRMB05014	CIRCULAR	1.25	1.23	0.31	1.25	1
30.83						
TRMB05014-S	Transect1	0.75	21.13	0.48	55.00	1
188.28						
TRMB05015	CIRCULAR	3.50	9.62	0.88	3.50	1
55.84						
TRMB05015-S	Transect1	0.75	21.13	0.48	55.00	1
154.01						
TRMB05016	CIRCULAR	2.50	4.91	0.63	2.50	1
184.66						
TRMB05016-S	Transect1	0.75	21.13	0.48	55.00	1
144.71						
TRMB05017	CIRCULAR	3.50	9.62	0.88	3.50	1
51.71						
TRMB05017-S	Transect1	0.75	21.13	0.48	55.00	1
196.34						
TRMB05018	CIRCULAR	1.25	1.23	0.31	1.25	1
26.51						

## Alternative #1 (10-Year)

TRMB05018-S 125.01	Transect1	0.75	21.13	0.48	55.00	1
TRMB05019 60.61	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB05019-S 240.33	Transect1	0.75	21.13	0.48	55.00	1
TRMB05020 8.15	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05020-S 119.35	Transect1	0.75	21.13	0.48	55.00	1
TRMB05021 35.18	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB05021-S 95.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05022 8.27	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05022-S 125.24	Transect1	0.75	21.13	0.48	55.00	1
TRMB05023 4.21	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05023-S 157.10	Transect1	0.75	21.13	0.48	55.00	1
TRMB05025 59.33	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05025-S 291.76	Transect1	0.75	21.13	0.48	55.00	1
TRMB05026 27.64	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05026-S 122.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05027 48.91	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05027-S 372.47	Transect1	0.75	21.13	0.48	55.00	1
TRMB05028 28.10	CIRCULAR	2.50	4.91	0.63	2.50	1
TRMB05028-S 121.33	Transect1	0.75	21.13	0.48	55.00	1
TRMB05029 5.39	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05029-S 115.49	Transect1	0.75	21.13	0.48	55.00	1
TRMB05030 38.76	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB05030-S 167.63	Transect1	0.75	21.13	0.48	55.00	1
TRMB05031 12.37	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05031-S 78.66	Transect1	0.75	21.13	0.48	55.00	1
TRMB05032 36.73	CIRCULAR	2.00	3.14	0.50	2.00	1
TRMB05032-S 62.91	Transect1	0.75	21.13	0.48	55.00	1
TRMB05033 0.44	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05033-S 9.35	Transect1	0.75	21.13	0.48	55.00	1
TRMB05034 5.37	CIRCULAR	1.25	1.23	0.31	1.25	1
TRMB05034-S 114.98	Transect1	0.75	21.13	0.48	55.00	1

# Alternative #1 (10-Year)

TRMB05035	CIRCULAR	1.50	1.77	0.38	1.50	1
45.39						
TRMB05035-S	Transect1	0.75	21.13	0.48	55.00	1
68.75						
TRMB05036	CIRCULAR	1.25	1.23	0.31	1.25	1
6.24						
TRMB05036-S	Transect1	0.75	21.13	0.48	55.00	1
125.13						
TRMB05037	CIRCULAR	1.25	1.23	0.31	1.25	1
12.92						
TRMB05037-S	Transect1	0.75	21.13	0.48	55.00	1
134.20						
TRMB05038	CIRCULAR	1.25	1.23	0.31	1.25	1
7.78						
TRMB05038-S	Transect1	0.75	21.13	0.48	55.00	1
83.38						
TRMB05039	CIRCULAR	1.25	1.23	0.31	1.25	1
5.00						
TRMB05039-S	Transect1	0.75	21.13	0.48	55.00	1
117.36						
TRMB05040	CIRCULAR	2.00	3.14	0.50	2.00	1
16.32						
TRMB05040-S	Transect1	0.75	21.13	0.48	55.00	1
157.77						
TRMB05041	CIRCULAR	2.25	3.98	0.56	2.25	1
22.58						
TRMB05041-S	Transect1	0.75	21.13	0.48	55.00	1
119.01						
TRMB05042	CIRCULAR	1.25	1.23	0.31	1.25	1
7.46						
TRMB05042-S	Transect1	0.75	21.13	0.48	55.00	1
159.81						
TRMB05044	CIRCULAR	1.75	2.41	0.44	1.75	1
13.85						
TRMB05044-S	Transect1	0.75	21.13	0.48	55.00	1
149.48						
TRMB05045	CIRCULAR	2.25	3.98	0.56	2.25	1
22.93						
TRMB05045-S	Transect1	0.75	21.13	0.48	55.00	1
175.60						
TRMB05046	CIRCULAR	2.50	4.91	0.63	2.50	1
72.84						
TRMB05046-S	Transect1	0.75	21.13	0.48	55.00	1
313.27						
TRMB05048	CIRCULAR	2.50	4.91	0.63	2.50	1
28.88						

\*\*\*\*\*  
 Transect Summary  
 \*\*\*\*\*

Transect Transect1  
 Area:

0.0005	0.0021	0.0048	0.0085	0.0133
0.0192	0.0261	0.0341	0.0431	0.0533
0.0644	0.0767	0.0900	0.1044	0.1198
0.1363	0.1539	0.1725	0.1922	0.2130
0.2343	0.2556	0.2769	0.2982	0.3195
0.3408	0.3621	0.3834	0.4047	0.4260
0.4473	0.4686	0.4899	0.5115	0.5340

# Alternative #1 (10-Year)

	0.5576	0.5823	0.6080	0.6349	0.6627
	0.6917	0.7217	0.7527	0.7849	0.8180
	0.8523	0.8876	0.9240	0.9615	1.0000
Hrad:					
	0.0151	0.0302	0.0453	0.0604	0.0755
	0.0906	0.1057	0.1208	0.1359	0.1510
	0.1661	0.1812	0.1963	0.2114	0.2265
	0.2416	0.2567	0.2718	0.2869	0.3020
	0.3319	0.3617	0.3915	0.4212	0.4508
	0.4804	0.5099	0.5394	0.5688	0.5982
	0.6275	0.6567	0.6859	0.7150	0.7424
	0.7680	0.7919	0.8142	0.8351	0.8547
	0.8731	0.8904	0.9067	0.9221	0.9367
	0.9506	0.9638	0.9764	0.9884	1.0000
Width:					
	0.0273	0.0545	0.0818	0.1091	0.1364
	0.1636	0.1909	0.2182	0.2455	0.2727
	0.3000	0.3273	0.3545	0.3818	0.4091
	0.4364	0.4636	0.4909	0.5182	0.5455
	0.5455	0.5455	0.5455	0.5455	0.5455
	0.5455	0.5455	0.5455	0.5455	0.5455
	0.5455	0.5455	0.5455	0.5636	0.5909
	0.6182	0.6455	0.6727	0.7000	0.7273
	0.7545	0.7818	0.8091	0.8364	0.8636
	0.8909	0.9182	0.9455	0.9727	1.0000

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation .....	508.966	5.794
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	190.488	2.169
Surface Runoff .....	271.095	3.086
Final Surface Storage ....	47.446	0.540
Continuity Error (%) .....	-0.012	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	270.934	88.288
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	0.000	0.000
External Outflow .....	-70.110	-22.846
Internal Outflow .....	340.115	110.832
Evaporation Loss .....	0.000	0.000
Exfiltration Loss .....	0.000	0.000
Initial Stored Volume ....	0.418	0.136
Final Stored Volume .....	17.191	5.602
Continuity Error (%) .....	-5.839	

\*\*\*\*\*  
 Highest Continuity Errors  
 \*\*\*\*\*  
 Node TRMB05002-S (-5061.26%)  
 Node TRMB05006-S (-5000.55%)  
 Node TRMB05021-S (-1827.13%)  
 Node TRMB05035-S (-837.74%)

# Alternative #1 (10-Year)

Node TRMB02069-S (-581.47%)

```
*****
Time-Step Critical Elements
*****
Link PCTB02237 (42.30%)
Link JMTB01004 (18.95%)
Link JMTB01003 (7.80%)
Link JMTB01104 (2.27%)
Link TRMB05033 (2.00%)
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*****
Highest Flow Instability Indexes
*****
Link TRMB05020-IC (146)
Link TRMB05030-IC (143)
Link TRMB05028-IC (138)
Link TRMB03067-IC (136)
Link TRMB05036-IC (135)
```

```
*****
Routing Time Step Summary
*****
Minimum Time Step      :      0.50 sec
Average Time Step      :      3.10 sec
Maximum Time Step      :      5.00 sec
Percent in Steady State :      0.00
Average Iterations per Step :      6.24
Percent Not Converging :     35.38
```

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

-----			Total	Total	Total	Total	Total	
Total	Peak	Runoff	Precip	Runon	Evap	Infil	Runoff	
Runoff	Runoff	Coeff	in	in	in	in	in	10^6
Subcatchment	Subcatchment							
gal	CFS							
-----								
PC_1321			5.79	0.00	0.00	2.21	2.90	
3.35	27.60	0.500						
PC_1323			5.79	0.00	0.00	2.82	2.30	
1.09	8.25	0.397						
PC_1324			5.79	0.00	0.00	2.06	2.85	
1.61	9.35	0.492						
PC_1325			5.79	0.00	0.00	2.78	2.19	
1.84	9.68	0.379						
PC_1326			5.79	0.00	0.00	2.07	3.15	
5.65	47.93	0.544						
PC_1327			5.79	0.00	0.00	2.00	2.95	
1.10	7.06	0.510						
PC_1350			5.79	0.00	0.00	2.43	2.64	
4.18	30.44	0.456						

## Alternative #1 (10-Year)

PC_1360			5.79	0.00	0.00	2.70	2.39
2.48	17.71	0.412					
PC_571			5.79	0.00	0.00	2.64	2.53
11.19	77.26	0.437					
SubCatch_ASH_ST			5.79	0.00	0.00	1.62	4.08
0.14	3.34	0.704					
SubCatch_AVERY_ST			5.79	0.00	0.00	3.06	2.58
0.03	0.54	0.446					
SubCatch_BELVOIR_HW			5.79	0.00	0.00	1.51	3.90
3.86	48.01	0.674					
SubCatch_BELVOIR_HW_1			5.79	0.00	0.00	2.09	2.84
2.02	12.19	0.491					
SubCatch_CHESTNUT_ST			5.79	0.00	0.00	1.67	4.02
2.10	47.95	0.694					
SubCatch_COLONIAL_AV			5.79	0.00	0.00	2.08	3.61
0.04	0.85	0.623					
SubCatch_COLONIAL_AV_1			5.79	0.00	0.00	1.84	3.85
0.04	0.82	0.665					
SubCatch_CONTENTNEA_ST			5.79	0.00	0.00	0.29	5.43
0.00	0.11	0.938					
SubCatch_CONTENTNEA_ST_1			5.79	0.00	0.00	2.18	3.51
0.18	3.96	0.605					
SubCatch_CONTENTNEA_ST_2			5.79	0.00	0.00	2.98	2.65
0.14	2.84	0.458					
SubCatch_CONTENTNEA_ST_3			5.79	0.00	0.00	2.23	3.46
0.07	1.61	0.597					
SubCatch_CONTENTNEA_ST_4			5.79	0.00	0.00	2.03	3.67
0.15	3.43	0.633					
SubCatch_CONTENTNEA_ST_5			5.79	0.00	0.00	2.58	3.10
0.13	2.64	0.534					
SubCatch_CONTENTNEA_ST_6			5.79	0.00	0.00	2.66	3.01
0.02	0.45	0.520					
SubCatch_DAVIS_ST			5.79	0.00	0.00	1.68	4.02
0.07	1.57	0.694					
SubCatch_DAVIS_ST_1			5.79	0.00	0.00	2.18	3.50
0.08	1.75	0.604					
SubCatch_DAVIS_ST_2			5.79	0.00	0.00	3.22	2.40
0.14	2.69	0.414					
SubCatch_DAVIS_ST_3			5.79	0.00	0.00	2.22	3.47
0.12	2.51	0.598					
SubCatch_DAVIS_ST_4			5.79	0.00	0.00	2.18	3.51
0.16	3.38	0.605					
SubCatch_E_1ST_ST			5.79	0.00	0.00	2.62	3.05
0.44	8.49	0.526					
SubCatch_E_1ST_ST_1			5.79	0.00	0.00	1.61	4.08
0.06	1.43	0.704					
SubCatch_E_1ST_ST_2			5.79	0.00	0.00	2.24	3.44
0.24	4.90	0.593					
SubCatch_E_2ND_ST			5.79	0.00	0.00	0.53	5.17
0.65	15.35	0.892					
SubCatch_E_2ND_ST_1			5.79	0.00	0.00	0.67	5.05
0.00	0.10	0.871					
SubCatch_E_2ND_ST_2			5.79	0.00	0.00	3.68	1.95
0.00	0.01	0.337					
SubCatch_E_2ND_ST_3			5.79	0.00	0.00	3.27	2.35
0.01	0.11	0.406					
SubCatch_E_2ND_ST_4			5.79	0.00	0.00	1.15	4.49
0.09	1.78	0.775					
SubCatch_E_3RD_ST			5.79	0.00	0.00	2.98	2.66
0.09	1.88	0.459					
SubCatch_E_3RD_ST_1			5.79	0.00	0.00	0.76	4.92
0.89	20.75	0.850					



## Alternative #1 (10-Year)

SubCatch_E_3RD_ST_2	5.79	0.00	0.00	2.27	3.42
0.18 4.00 0.590					
SubCatch_E_3RD_ST_3	5.79	0.00	0.00	1.87	3.82
0.18 4.22 0.659					
SubCatch_E_4TH_ST	5.79	0.00	0.00	2.43	3.26
0.08 1.85 0.562					
SubCatch_E_4TH_ST_1	5.79	0.00	0.00	1.59	4.11
0.34 8.07 0.710					
SubCatch_E_4TH_ST_2	5.79	0.00	0.00	2.15	3.53
0.08 1.79 0.608					
SubCatch_E_CATAWBA_RD	5.79	0.00	0.00	2.17	3.09
1.53 15.63 0.533					
SubCatch_FAIRFAX_AV	5.79	0.00	0.00	2.34	3.35
0.10 2.12 0.578					
SubCatch_FLEMING_SCHOOL_RD	5.79	0.00	0.00	2.49	2.66
1.97 16.67 0.459					
SubCatch_FLEMING_SCHOOL_RD_1	5.79	0.00	0.00	2.37	2.57
2.04 11.39 0.444					
SubCatch_FLEMING_SCHOOL_RD_2	5.79	0.00	0.00	1.47	3.56
0.35 2.86 0.615					
SubCatch_GREENFIELD_BV	5.79	0.00	0.00	1.77	3.27
2.62 20.43 0.564					
SubCatch_GREENFIELD_BV_1	5.79	0.00	0.00	0.87	4.47
1.00 11.96 0.771					
SubCatch_GREENFIELD_BV_2	5.79	0.00	0.00	2.20	2.72
0.63 3.63 0.470					
SubCatch_HAW_1	5.79	0.00	0.00	1.37	3.56
0.28 1.99 0.615					
SubCatch_HAW_2	5.79	0.00	0.00	2.61	2.83
1.35 15.39 0.488					
SubCatch_HOP_TYSON_RD	5.79	0.00	0.00	1.88	3.32
1.57 15.34 0.573					
SubCatch_JOHNSON_HEIGHTS	5.79	0.00	0.00	1.00	4.70
0.35 8.51 0.810					
SubCatch_LATHAM_ST	5.79	0.00	0.00	2.40	3.28
0.23 4.97 0.566					
SubCatch_N_ELM_ST	5.79	0.00	0.00	1.30	4.38
0.35 8.21 0.756					
SubCatch_N_ELM_ST_1	5.79	0.00	0.00	2.73	2.94
0.19 3.90 0.507					
SubCatch_N_ELM_ST_2	5.79	0.00	0.00	1.70	4.00
0.83 19.41 0.690					
SubCatch_N_HARDING_ST	5.79	0.00	0.00	2.75	2.93
0.18 3.93 0.506					
SubCatch_N_HARDING_ST_1	5.79	0.00	0.00	2.17	3.52
0.15 3.36 0.608					
SubCatch_N_HARDING_ST_2	5.79	0.00	0.00	2.37	3.32
0.27 6.06 0.573					
SubCatch_N_JARVIS_ST	5.79	0.00	0.00	2.33	3.27
0.28 5.19 0.565					
SubCatch_N_LIBRARY_ST	5.79	0.00	0.00	2.20	3.49
0.26 5.86 0.602					
SubCatch_N_MEMORIAL_DR	5.79	0.00	0.00	1.70	3.33
1.60 12.57 0.575					
SubCatch_N_OAK_ST	5.79	0.00	0.00	1.06	4.63
1.05 24.76 0.799					
SubCatch_N_OAK_ST_1	5.79	0.00	0.00	1.10	4.60
0.09 2.08 0.793					
SubCatch_N_OAK_ST_2	5.79	0.00	0.00	2.04	3.65
0.30 6.86 0.630					
SubCatch_N_SUMMIT_ST	5.79	0.00	0.00	2.85	2.80
0.02 0.34 0.483					

## Alternative #1 (10-Year)

SubCatch_N_SUMMIT_ST_1	5.79	0.00	0.00	1.95	3.73
0.48 10.19 0.644					
SubCatch_PARK_DR	5.79	0.00	0.00	3.14	2.53
0.10 1.98 0.436					
SubCatch_RIVER_DR	5.79	0.00	0.00	2.49	3.19
0.38 8.39 0.551					
SubCatch_S_ELM_ST	5.79	0.00	0.00	2.53	3.11
0.54 10.64 0.536					
SubCatch_S_ELM_ST_1	5.79	0.00	0.00	2.12	3.57
0.25 5.77 0.617					
SubCatch_S_HARDING_ST	5.79	0.00	0.00	2.35	3.34
0.41 9.34 0.577					
SubCatch_S_LIBRARY_ST	5.79	0.00	0.00	2.38	3.32
0.43 9.68 0.572					
SubCatch_S_OAK_ST	5.79	0.00	0.00	2.30	3.39
0.17 3.79 0.585					
SubCatch_S_OAK_ST_1	5.79	0.00	0.00	1.48	4.21
0.14 3.25 0.726					
SubCatch_S_ROTARY_AV	5.79	0.00	0.00	1.42	4.27
0.53 11.83 0.738					
SubCatch_S_ROTARY_AV_1	5.79	0.00	0.00	2.09	3.61
0.43 10.03 0.623					
SubCatch_S_ROTARY_AV_2	5.79	0.00	0.00	1.62	4.05
0.20 4.27 0.699					
SubCatch_S_ROTARY_AV_3	5.79	0.00	0.00	1.57	4.10
0.09 1.85 0.708					
SubCatch_S_ROTARY_AV_5	5.79	0.00	0.00	2.79	2.85
0.05 0.89 0.492					
SubCatch_S_WOODLAWN_AV	5.79	0.00	0.00	2.27	3.41
0.09 1.80 0.589					
SubCatch_SPRUCE_ST	5.79	0.00	0.00	2.40	3.14
4.19 66.05 0.541					
SubCatch_STATON_HOUSE_RD	5.79	0.00	0.00	1.54	3.62
3.11 29.64 0.625					
SubCatch_STUDENT_ST	5.79	0.00	0.00	1.25	4.44
0.69 15.57 0.766					
SubCatch_TRENT_CI	5.79	0.00	0.00	2.53	2.59
0.71 5.57 0.447					
SubCatch_TRENT_CI_1	5.79	0.00	0.00	1.49	3.65
2.80 26.20 0.631					
SubCatch_VANCE_2	5.79	0.00	0.00	2.33	3.36
0.26 5.68 0.579					
SubCatch_VANCE_ST_1	5.79	0.00	0.00	0.86	4.86
0.00 0.10 0.839					
SubCatch_VANCE_ST_2	5.79	0.00	0.00	2.53	3.15
0.03 0.57 0.543					
SubCatch_VANCE_ST_3	5.79	0.00	0.00	1.87	3.83
0.12 2.72 0.661					
SubCatch_VANCE_ST_4	5.79	0.00	0.00	2.28	3.41
0.11 2.39 0.588					
SubCatch_VANCE_ST_5	5.79	0.00	0.00	2.43	3.25
0.11 2.24 0.561					
SubCatch_VANCE_ST_6	5.79	0.00	0.00	1.79	3.90
0.02 0.56 0.674					
SubCatch_VANCE_ST_7	5.79	0.00	0.00	2.61	3.07
0.02 0.48 0.529					
SubCatch_W_3RD_ST	5.79	0.00	0.00	0.49	5.23
0.00 0.03 0.902					
SubCatch_W_3RD_ST_1	5.79	0.00	0.00	0.57	5.15
0.00 0.07 0.889					
SubCatch_W_3RD_ST_2	5.79	0.00	0.00	1.71	3.99
0.03 0.71 0.689					

# Alternative #1 (10-Year)

SubCatch_W_3RD_ST_3	5.79	0.00	0.00	2.15	3.53
0.10 2.16 0.610					
SubCatch_W_3RD_ST_5	5.79	0.00	0.00	2.50	3.18
0.06 1.36 0.549					
SubCatch_W_3RD_ST_6	5.79	0.00	0.00	1.53	4.17
0.05 1.11 0.720					
SubCatch_W_3RD_ST_7	5.79	0.00	0.00	1.68	4.02
0.02 0.43 0.693					
SubCatch_W_3RD_ST_8	5.79	0.00	0.00	2.27	3.42
0.04 0.97 0.590					
SubCatch_W_3RD_ST_9	5.79	0.00	0.00	2.92	2.73
0.10 2.17 0.472					
SubCatch_W_4TH_ST	5.79	0.00	0.00	2.40	3.28
0.07 1.52 0.566					
SubCatch_W_4TH_ST_2	5.79	0.00	0.00	1.84	3.86
0.07 1.63 0.666					
SubCatch_W_5th_ST	5.79	0.00	0.00	1.65	4.05
0.94 21.76 0.699					
SubCatch_WILLOW_ST	5.79	0.00	0.00	2.90	2.76
0.16 3.26 0.477					
SubCatch_WILLOW_ST_1	5.79	0.00	0.00	2.05	3.65
0.04 0.96 0.629					
SubCatch_WILSONACRES_APT	5.79	0.00	0.00	1.43	4.27
0.71 16.82 0.736					
SubCatch_WOODSIDE_RD	5.79	0.00	0.00	2.21	2.96
1.75 15.85 0.510					
SubCatch_WOODSIDE_RD_1	5.79	0.00	0.00	1.26	3.79
1.17 9.96 0.654					
SubInsert	5.79	0.00	0.00	1.70	3.76
1.68 21.76 0.650					

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Node Depth Summary  
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Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
CountrySideE_Ditch_Culvert_In	JUNCTION		2.47	3.26	24.91 0 13:38
CountrySideE_Ditch_Culvert_In-S	JUNCTION		0.17	0.33	27.83 0 13:00
J1	JUNCTION	0.99	1.93	23.57	0 12:46
J2	JUNCTION	2.88	4.00	45.52	0 12:01
J3	JUNCTION	1.25	3.17	27.17	0 12:02
J4	JUNCTION	14.92	22.73	22.73	0 11:58
J5	JUNCTION	0.57	2.34	17.22	0 12:01
J6	JUNCTION	0.58	2.19	19.69	0 12:01
J7	JUNCTION	0.59	2.18	14.03	0 12:01
J8	JUNCTION	0.59	2.72	13.84	0 12:00
J9	JUNCTION	0.07	0.30	14.44	0 12:00
JMTB01003	JUNCTION	0.91	1.81	26.83	0 12:57
JMTB01003-S	JUNCTION	0.30	0.75	27.77	0 11:51
JMTB01004	JUNCTION	0.88	1.78	26.78	0 12:56
JMTB01004-S	JUNCTION	0.04	0.16	27.75	0 11:52
JMTB01005	JUNCTION	0.86	1.75	26.65	0 13:02
JMTB01005-S	JUNCTION	0.00	0.01	27.30	0 13:05
JMTB01006	JUNCTION	1.00	1.92	26.51	0 13:09
JMTB01006-S	JUNCTION	0.49	0.75	27.29	0 11:51
JMTB01102	JUNCTION	0.92	2.30	28.89	0 12:30
JMTB01102-S	JUNCTION	0.20	0.75	29.81	0 12:30

## Alternative #1 (10-Year)

JMTB01103	JUNCTION	1.07	2.42	28.84	0	12:30
JMTB01103-S	JUNCTION	0.01	0.19	29.76	0	12:30
JMTB01104	JUNCTION	0.88	2.27	28.90	0	12:29
JMTB01104-S	JUNCTION	0.01	0.07	29.81	0	12:30
JMTB01105	JUNCTION	1.32	2.37	28.40	0	12:30
JMTB01105-S	JUNCTION	0.27	0.75	28.56	0	12:14
PCTB01068	JUNCTION	1.01	1.86	21.21	0	12:36
PCTB01068_US	JUNCTION	0.97	1.74	21.74	0	12:36
PCTB01068_US-S	JUNCTION	0.12	0.55	25.85	0	12:33
PCTB01068-S	JUNCTION	0.03	0.45	25.81	0	12:33
PCTB02001	JUNCTION	0.87	1.80	23.58	0	12:46
PCTB02001-S	JUNCTION	0.08	0.55	23.93	0	12:30
PCTB02002	JUNCTION	0.82	1.80	23.65	0	12:39
PCTB02002-S	JUNCTION	0.00	0.00	24.25	0	00:00
PCTB02003	JUNCTION	0.87	1.47	25.45	0	13:28
PCTB02003-S	JUNCTION	0.25	0.75	26.98	0	11:54
PCTB02004	JUNCTION	0.52	1.24	25.40	0	13:26
PCTB02004-S	JUNCTION	0.25	0.58	26.99	0	11:54
PCTB02005	JUNCTION	0.42	0.86	25.26	0	12:30
PCTB02008	JUNCTION	1.06	1.87	23.51	0	12:47
PCTB02011	JUNCTION	0.82	1.67	23.53	0	12:47
PCTB02011-S	JUNCTION	0.01	0.04	26.80	0	12:25
PCTB02012	JUNCTION	1.05	1.95	23.57	0	12:48
PCTB02012-S	JUNCTION	0.26	0.75	26.81	0	12:24
PCTB02014	JUNCTION	1.92	2.88	23.58	0	12:46
PCTB02014-S	JUNCTION	0.04	0.35	23.58	0	12:46
PCTB02015	JUNCTION	1.64	2.61	23.58	0	12:47
PCTB02015-S	JUNCTION	0.00	0.00	23.64	0	00:00
PCTB02016	JUNCTION	0.57	1.03	25.26	0	12:31
PCTB02016-S	JUNCTION	0.00	0.00	25.88	0	00:00
PCTB02017	JUNCTION	0.86	1.45	25.44	0	13:28
PCTB02017-S	JUNCTION	0.00	0.00	25.89	0	00:00
PCTB02022	JUNCTION	0.68	1.91	24.23	0	12:31
PCTB02022-S	JUNCTION	0.10	0.54	25.30	0	12:30
PCTB02023	JUNCTION	0.67	1.92	24.22	0	12:32
PCTB02023-S	JUNCTION	0.04	0.58	25.30	0	12:30
PCTB02075	JUNCTION	6.55	6.59	23.81	0	13:32
PCTB02076	JUNCTION	6.06	6.10	23.81	0	13:23
PCTB02080	JUNCTION	6.94	6.97	23.80	0	13:32
PCTB02159	JUNCTION	5.77	5.81	23.81	0	13:23
PCTB02160	JUNCTION	5.78	5.82	23.81	0	13:23
PCTB02189	JUNCTION	3.45	4.19	23.76	0	00:03
PCTB02189-S	JUNCTION	0.24	0.75	24.51	0	12:22
PCTB02191	JUNCTION	4.58	4.59	23.00	0	00:02
PCTB02191_DS	JUNCTION	6.55	6.59	23.79	0	13:24
PCTB02191_DS-S	JUNCTION	0.75	0.75	22.95	0	00:07
PCTB02191-S	JUNCTION	0.08	0.38	23.38	0	12:25
PCTB02207	JUNCTION	3.36	3.85	24.47	0	13:36
PCTB02207-S	JUNCTION	0.00	0.00	24.62	0	00:00
PCTB02209	JUNCTION	2.98	3.69	24.77	0	13:38
PCTB02209-S	JUNCTION	0.00	0.00	25.08	0	00:00
PCTB02220	JUNCTION	5.22	5.32	23.87	0	00:08
PCTB02229	JUNCTION	4.89	5.14	24.02	0	00:08
PCTB02229-S	JUNCTION	0.00	0.00	24.52	0	00:00
PCTB02231	JUNCTION	4.79	5.08	24.18	0	13:36
PCTB02231-S	JUNCTION	0.00	0.00	24.80	0	00:00
PCTB02233	JUNCTION	0.00	0.00	25.41	0	00:00
PCTB02235	JUNCTION	4.06	4.40	24.25	0	13:35
PCTB02235-S	JUNCTION	0.29	0.75	26.15	0	11:55
PCTB02237	JUNCTION	3.94	4.43	24.46	0	13:36
PCTB02237-S	JUNCTION	0.13	0.57	26.15	0	11:56
PCTB02257	JUNCTION	2.73	3.47	24.83	0	13:38

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PCTB02257_1	JUNCTION	2.73	3.47	24.83	0	13:38
PCTB02257_1-S	JUNCTION	0.05	0.16	26.92	0	11:59
PCTB02257-S	JUNCTION	0.23	0.75	27.71	0	12:23
PCTB02260	JUNCTION	2.71	3.45	24.83	0	13:38
PCTB02260-S	JUNCTION	0.00	0.00	25.93	0	00:00
PCTB02262	JUNCTION	2.78	3.49	24.77	0	13:39
PCTB02262-S	JUNCTION	0.00	0.00	25.78	0	00:00
PCTB02275	JUNCTION	2.65	3.40	24.85	0	13:38
PCTB02275-S	JUNCTION	0.01	0.17	25.72	0	12:31
PCTB02276	JUNCTION	2.62	3.39	24.91	0	13:39
PCTB02276-S	JUNCTION	0.00	0.00	26.12	0	00:00
PCTB02278	JUNCTION	2.16	3.15	25.39	0	15:08
PCTB02278-S	JUNCTION	0.19	0.75	25.39	0	13:25
PCTB02280	JUNCTION	3.66	3.69	22.58	0	00:11
PCTB02280-S	JUNCTION	0.53	0.75	23.33	0	11:59
PCTB02281	JUNCTION	3.53	3.61	22.77	0	00:11
PCTB02281-S	JUNCTION	0.29	0.57	23.34	0	12:00
PCTB02282	JUNCTION	3.32	3.57	23.33	0	12:29
PCTB02282-S	JUNCTION	0.03	0.14	25.29	0	12:30
PCTB02283	JUNCTION	2.92	2.95	22.87	0	00:13
PCTB02283-S	JUNCTION	0.01	0.20	23.07	0	12:30
PCTB02284	JUNCTION	2.58	2.92	23.18	0	00:13
PCTB02284-S	JUNCTION	0.00	0.00	23.18	0	00:00
PCTB02292	JUNCTION	5.62	5.78	23.78	0	00:23
PCTB02292-S	JUNCTION	0.36	0.49	23.49	0	12:30
PCTB02294	JUNCTION	5.97	6.07	23.74	0	00:24
PCTB02294-S	JUNCTION	0.30	0.40	23.07	0	00:17
PCTB02295	JUNCTION	6.50	6.54	23.78	0	13:02
PCTB02295-S	JUNCTION	0.75	0.75	22.99	0	00:08
PCTB02297	JUNCTION	2.60	2.90	23.31	0	00:14
PCTB02297-S	JUNCTION	0.07	0.30	23.61	0	12:30
PCTB02302	JUNCTION	5.27	5.51	23.85	0	00:22
PCTB02302-S	JUNCTION	0.32	0.51	23.85	0	00:22
PCTB02303	JUNCTION	5.44	7.12	25.25	0	00:14
PCTB02303-S	JUNCTION	0.07	0.18	25.43	0	12:30
PCTB02304	JUNCTION	5.18	5.23	23.60	0	00:14
PCTB02304-S	JUNCTION	0.33	0.75	24.35	0	11:49
PCTB02312	JUNCTION	5.36	5.56	23.81	0	00:22
PCTB02312-S	JUNCTION	0.41	0.53	23.78	0	00:22
PCTB02329	JUNCTION	0.78	1.82	23.82	0	12:32
PCTB02329-S	JUNCTION	0.00	0.05	24.28	0	12:30
PCTB02330	JUNCTION	0.75	1.90	24.00	0	12:32
PCTB02330-S	JUNCTION	0.01	0.20	25.62	0	12:30
PCTB02331	JUNCTION	0.74	1.92	24.07	0	12:32
PCTB02331-S	JUNCTION	0.14	0.64	25.68	0	12:30
PCTB02332	JUNCTION	0.72	1.92	24.12	0	12:32
PCTB02332-S	JUNCTION	0.00	0.01	25.68	0	12:30
TRMB02002	JUNCTION	0.59	1.99	7.54	0	12:05
TRMB02002-S	JUNCTION	0.00	0.08	16.29	0	12:00
TRMB02003	JUNCTION	3.26	5.37	8.25	0	12:04
TRMB02003-S	JUNCTION	0.02	0.47	13.05	0	12:04
TRMB02006	JUNCTION	0.51	1.60	10.20	0	12:05
TRMB02006-S	JUNCTION	0.01	0.24	18.14	0	12:00
TRMB02009	JUNCTION	0.40	1.21	18.48	0	12:04
TRMB02009-S	JUNCTION	0.03	0.24	27.06	0	12:00
TRMB02012	JUNCTION	0.57	1.96	21.46	0	12:04
TRMB02012-S	JUNCTION	0.00	0.00	26.80	0	12:00
TRMB02015	JUNCTION	0.05	0.55	21.60	0	12:05
TRMB02015-S	JUNCTION	0.05	0.75	25.89	0	11:56
TRMB02016	JUNCTION	0.35	1.02	22.16	0	12:04
TRMB02016-S	JUNCTION	0.05	0.69	25.91	0	11:57
TRMB02018	JUNCTION	0.66	2.06	24.97	0	12:04

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TRMB02018-S	JUNCTION	0.03	0.40	29.06	0	12:03
TRMB02022	JUNCTION	2.47	3.10	26.88	0	12:04
TRMB02022-S	JUNCTION	0.09	1.08	29.64	0	12:03
TRMB02023	JUNCTION	0.55	1.62	25.62	0	12:03
TRMB02023-S	JUNCTION	0.02	0.45	29.64	0	12:03
TRMB02044	JUNCTION	0.42	1.43	32.07	0	12:02
TRMB02044_DS	JUNCTION	1.22	3.48	27.63	0	12:02
TRMB02044_DS-S	JUNCTION	0.08	0.47	33.49	0	12:00
TRMB02044-S	JUNCTION	0.00	0.00	37.10	0	00:00
TRMB02045	JUNCTION	0.50	1.76	32.54	0	12:01
TRMB02045-S	JUNCTION	0.00	0.00	36.74	0	00:00
TRMB02046	JUNCTION	0.02	0.02	33.05	0	00:20
TRMB02046-S	JUNCTION	0.00	0.00	36.63	0	12:00
TRMB02047	JUNCTION	0.22	0.74	34.93	0	12:00
TRMB02047-S	JUNCTION	0.01	0.14	36.90	0	12:00
TRMB02048	JUNCTION	0.11	0.37	33.37	0	12:00
TRMB02048-S	JUNCTION	0.00	0.00	39.25	0	12:00
TRMB02049	JUNCTION	0.48	1.60	31.30	0	12:01
TRMB02049-S	JUNCTION	0.00	0.13	39.47	0	12:00
TRMB02050	JUNCTION	0.61	2.01	32.88	0	12:01
TRMB02050-S	JUNCTION	0.00	0.00	36.02	0	00:00
TRMB02051	JUNCTION	0.64	2.20	33.29	0	12:01
TRMB02051-S	JUNCTION	0.00	0.10	35.00	0	12:00
TRMB02052	JUNCTION	0.51	2.25	33.50	0	12:01
TRMB02052-S	JUNCTION	0.00	0.00	34.80	0	12:00
TRMB02056	JUNCTION	0.41	2.11	33.52	0	12:01
TRMB02056-S	JUNCTION	0.00	0.09	35.29	0	12:00
TRMB02057	JUNCTION	0.43	2.01	33.55	0	12:01
TRMB02057-S	JUNCTION	0.01	0.23	35.57	0	12:00
TRMB02060	JUNCTION	0.38	1.09	35.39	0	12:01
TRMB02060-S	JUNCTION	0.02	0.22	41.46	0	12:00
TRMB02063	JUNCTION	0.24	0.76	40.93	0	12:00
TRMB02063-S	JUNCTION	0.00	0.00	43.67	0	11:57
TRMB02064	JUNCTION	0.36	1.33	42.37	0	12:00
TRMB02064-S	JUNCTION	0.00	0.03	44.59	0	12:00
TRMB02067	JUNCTION	0.49	1.64	42.90	0	12:00
TRMB02067-S	JUNCTION	0.01	0.16	46.36	0	12:00
TRMB02068	JUNCTION	0.30	0.93	43.05	0	12:00
TRMB02068-S	JUNCTION	0.01	0.14	48.80	0	12:00
TRMB02069	JUNCTION	0.14	0.46	43.03	0	12:00
TRMB02069-S	JUNCTION	0.00	0.00	49.40	0	13:10
TRMB02070	JUNCTION	0.20	0.61	43.33	0	12:00
TRMB02070-S	JUNCTION	0.00	0.03	49.63	0	12:00
TRMB03016	JUNCTION	0.54	2.35	10.29	0	12:00
TRMB03016-S	JUNCTION	0.00	0.00	14.88	0	00:00
TRMB03022	JUNCTION	0.48	1.55	11.45	0	12:02
TRMB03022-S	JUNCTION	0.00	0.00	12.57	0	12:00
TRMB03025	JUNCTION	0.34	1.14	13.93	0	12:02
TRMB03025-S	JUNCTION	0.00	0.08	19.67	0	12:00
TRMB03026	JUNCTION	0.04	0.18	15.29	0	12:00
TRMB03027	JUNCTION	0.10	0.47	15.92	0	12:00
TRMB03028	JUNCTION	0.91	3.08	15.86	0	12:02
TRMB03028-S	JUNCTION	0.00	0.00	20.09	0	00:00
TRMB03029	JUNCTION	0.48	1.95	15.73	0	12:02
TRMB03029-S	JUNCTION	0.00	0.00	19.13	0	00:00
TRMB03030	JUNCTION	0.00	0.00	14.88	0	00:00
TRMB03030-S	JUNCTION	0.00	0.00	19.95	0	00:00
TRMB03031	JUNCTION	0.00	0.00	17.87	0	00:00
TRMB03031-S	JUNCTION	0.01	0.14	26.22	0	12:00
TRMB03032	JUNCTION	0.47	1.67	22.93	0	12:01
TRMB03032-S	JUNCTION	0.00	0.04	28.66	0	12:00
TRMB03033	JUNCTION	0.04	0.53	28.06	0	12:00

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TRMB03033-S	JUNCTION	0.00	0.00	30.21	0	12:00
TRMB03034	JUNCTION	0.20	0.72	28.06	0	12:00
TRMB03034-S	JUNCTION	0.00	0.13	30.49	0	12:00
TRMB03035-S	JUNCTION	0.00	0.00	29.28	0	12:02
TRMB03036	JUNCTION	0.62	2.49	24.22	0	12:01
TRMB03036-S	JUNCTION	0.00	0.01	29.29	0	12:00
TRMB03037	JUNCTION	0.40	1.99	29.74	0	11:48
TRMB03037-S	JUNCTION	0.01	0.24	30.91	0	12:00
TRMB03038	JUNCTION	0.00	0.00	26.54	0	00:00
TRMB03038-S	JUNCTION	0.00	0.00	30.40	0	00:00
TRMB03039	JUNCTION	0.22	0.75	24.09	0	12:01
TRMB03039-S	JUNCTION	0.00	0.11	30.01	0	12:00
TRMB03042	JUNCTION	0.19	0.53	36.43	0	12:00
TRMB03042-S	JUNCTION	0.01	0.19	40.86	0	12:00
TRMB03043	JUNCTION	0.42	1.60	25.92	0	12:01
TRMB03043-S	JUNCTION	0.00	0.00	28.59	0	12:00
TRMB03044	JUNCTION	0.21	0.90	26.32	0	12:00
TRMB03044-S	JUNCTION	0.01	0.42	28.96	0	12:00
TRMB03049	JUNCTION	0.07	1.17	25.92	0	12:01
TRMB03049-S	JUNCTION	0.00	0.00	29.22	0	00:00
TRMB03051	JUNCTION	0.21	0.72	26.05	0	12:01
TRMB03051-S	JUNCTION	0.00	0.01	28.15	0	12:00
TRMB03052	JUNCTION	0.00	0.00	27.03	0	00:00
TRMB03052-S	JUNCTION	0.00	0.00	28.36	0	00:00
TRMB03054	JUNCTION	0.48	1.59	27.03	0	12:00
TRMB03054-S	JUNCTION	0.00	0.19	28.56	0	12:01
TRMB03055	JUNCTION	0.45	1.31	26.81	0	12:00
TRMB03055-S	JUNCTION	0.01	0.26	28.48	0	12:00
TRMB03063	JUNCTION	0.25	0.69	28.69	0	12:00
TRMB03063-S	JUNCTION	0.01	0.21	31.28	0	12:00
TRMB03065	JUNCTION	0.64	2.42	4.95	0	12:01
TRMB03065-S	JUNCTION	0.00	0.04	14.04	0	12:00
TRMB03067	JUNCTION	0.06	0.12	18.26	0	11:47
TRMB03067-S	JUNCTION	0.00	0.01	20.66	0	11:49
TRMB03068	JUNCTION	0.22	0.56	5.39	0	11:48
TRMB03068-S	JUNCTION	0.02	0.16	15.54	0	12:00
TRMB03069	JUNCTION	0.72	2.87	6.27	0	12:01
TRMB03069-S	JUNCTION	0.01	0.20	14.43	0	12:00
TRMB03070	JUNCTION	0.09	1.69	6.27	0	12:01
TRMB03070-S	JUNCTION	0.00	0.02	14.16	0	12:00
TRMB03072	JUNCTION	0.46	1.51	10.49	0	12:01
TRMB03072-S	JUNCTION	0.00	0.00	18.10	0	12:30
TRMB03073	JUNCTION	0.17	0.47	17.03	0	12:00
TRMB03073-S	JUNCTION	0.01	0.11	19.50	0	12:00
TRMB03083	JUNCTION	0.00	0.00	9.78	0	00:00
TRMB03083-S	JUNCTION	0.00	0.00	18.62	0	00:00
TRMB03084	JUNCTION	0.77	3.17	13.07	0	12:01
TRMB03084-S	JUNCTION	0.01	0.22	18.17	0	12:30
TRMB03087	JUNCTION	0.78	3.17	13.07	0	12:01
TRMB03087-S	JUNCTION	0.03	0.48	16.75	0	12:30
TRMB03088	JUNCTION	0.55	2.03	23.57	0	12:00
TRMB03088-S	JUNCTION	0.00	0.00	29.85	0	00:00
TRMB03089	JUNCTION	0.45	1.59	24.13	0	12:00
TRMB03089-S	JUNCTION	0.00	0.00	29.82	0	00:00
TRMB03090	JUNCTION	1.13	3.78	26.14	0	12:00
TRMB03090-S	JUNCTION	0.03	0.75	29.69	0	11:57
TRMB03091	JUNCTION	0.48	1.62	28.06	0	12:00
TRMB03091-S	JUNCTION	0.01	0.31	34.13	0	12:00
TRMB03092	JUNCTION	0.15	0.40	30.28	0	12:00
TRMB03092-S	JUNCTION	0.01	0.13	31.80	0	12:00
TRMB03094	JUNCTION	0.50	1.68	29.77	0	12:00
TRMB03094-S	JUNCTION	0.01	0.38	35.30	0	12:00

## Alternative #1 (10-Year)

TRMB03095	JUNCTION	0.03	0.34	32.39	0	12:00
TRMB03095-S	JUNCTION	0.01	0.38	35.30	0	12:00
TRMB03096	JUNCTION	0.64	1.86	30.01	0	12:00
TRMB03096-S	JUNCTION	0.01	0.28	36.64	0	12:00
TRMB03097	JUNCTION	0.19	0.47	34.83	0	12:00
TRMB03097-S	JUNCTION	0.02	0.21	40.49	0	12:00
TRMB03101	JUNCTION	0.04	0.07	32.57	0	12:59
TRMB03101-S	JUNCTION	0.00	0.00	37.20	0	13:17
TRMB03102	JUNCTION	0.37	0.92	30.19	0	12:00
TRMB03102-S	JUNCTION	0.02	0.37	38.05	0	12:00
TRMB03103	JUNCTION	0.30	0.65	33.66	0	12:00
TRMB03103-S	JUNCTION	0.03	0.34	41.38	0	12:00
TRMB03111	JUNCTION	0.27	0.53	35.73	0	12:00
TRMB03111-S	JUNCTION	0.05	0.37	42.60	0	12:00
TRMB04089	JUNCTION	0.71	1.62	49.59	0	12:02
TRMB04089-S	JUNCTION	0.22	0.71	61.48	0	12:30
TRMB04265-S	JUNCTION	0.00	0.00	59.86	0	00:00
TRMB05002	JUNCTION	0.50	1.62	39.81	0	12:02
TRMB05002-S	JUNCTION	0.00	0.00	43.94	0	11:01
TRMB05003	JUNCTION	1.36	3.61	43.03	0	12:00
TRMB05003-S	JUNCTION	0.00	0.00	47.22	0	11:34
TRMB05004	JUNCTION	1.28	3.55	43.05	0	12:00
TRMB05004-S	JUNCTION	0.00	0.01	46.50	0	12:56
TRMB05005	JUNCTION	0.80	3.03	43.03	0	12:00
TRMB05005-S	JUNCTION	0.00	0.05	48.19	0	12:00
TRMB05006	JUNCTION	1.22	3.80	44.56	0	12:01
TRMB05006-S	JUNCTION	0.00	0.00	49.36	0	11:34
TRMB05008	JUNCTION	0.36	1.03	44.71	0	12:01
TRMB05008-S	JUNCTION	0.00	0.04	47.62	0	12:00
TRMB05009	JUNCTION	0.94	2.49	47.50	0	12:00
TRMB05009_DS	JUNCTION	0.94	2.48	46.31	0	12:01
TRMB05009_DS-S	JUNCTION	0.00	0.01	50.93	0	12:00
TRMB05009-S	JUNCTION	0.01	0.09	51.60	0	12:35
TRMB05010	JUNCTION	0.10	0.28	46.46	0	12:00
TRMB05010-S	JUNCTION	0.00	0.07	49.30	0	12:00
TRMB05011	JUNCTION	0.10	0.28	47.19	0	12:00
TRMB05011-S	JUNCTION	0.00	0.00	49.81	0	13:00
TRMB05012	JUNCTION	0.34	0.84	47.65	0	12:00
TRMB05012-S	JUNCTION	0.00	0.03	49.74	0	12:00
TRMB05013	JUNCTION	0.05	0.13	49.09	0	12:00
TRMB05013-S	JUNCTION	0.00	0.02	51.08	0	12:00
TRMB05014	JUNCTION	0.09	0.26	48.87	0	12:00
TRMB05014-S	JUNCTION	0.00	0.08	51.29	0	12:00
TRMB05015	JUNCTION	1.21	3.29	49.34	0	12:01
TRMB05015-S	JUNCTION	0.03	0.21	54.86	0	11:55
TRMB05016	JUNCTION	0.17	0.52	50.93	0	12:00
TRMB05016-S	JUNCTION	0.00	0.07	54.48	0	12:01
TRMB05017	JUNCTION	1.16	3.22	49.45	0	12:01
TRMB05017_US	JUNCTION	0.96	2.47	49.55	0	12:02
TRMB05017_US-S	JUNCTION	0.16	0.75	58.92	0	11:54
TRMB05017-S	JUNCTION	0.06	0.29	55.97	0	12:34
TRMB05018	JUNCTION	0.07	0.31	50.65	0	12:00
TRMB05018-S	JUNCTION	0.00	0.05	54.54	0	11:56
TRMB05019	JUNCTION	0.49	1.66	52.28	0	12:00
TRMB05019-S	JUNCTION	0.00	0.00	54.12	0	11:56
TRMB05020	JUNCTION	0.07	0.15	50.93	0	11:56
TRMB05020-S	JUNCTION	0.00	0.00	54.28	0	12:04
TRMB05021	JUNCTION	0.37	1.13	52.60	0	12:00
TRMB05021-S	JUNCTION	0.00	0.00	54.67	0	13:07
TRMB05022	JUNCTION	0.36	0.80	50.90	0	12:00
TRMB05022-S	JUNCTION	0.00	0.01	54.41	0	12:00
TRMB05023	JUNCTION	0.07	0.24	51.65	0	12:11



# Alternative #1 (10-Year)

TRMB05023-S	JUNCTION	0.08	0.23	51.64	0	12:30
TRMB05025	JUNCTION	0.10	0.32	53.52	0	11:49
TRMB05025-S	JUNCTION	0.13	0.75	55.95	0	11:49
TRMB05026	JUNCTION	0.10	0.30	50.35	0	12:00
TRMB05026-S	JUNCTION	0.00	0.00	52.70	0	00:00
TRMB05027	JUNCTION	0.12	0.36	53.06	0	11:48
TRMB05027-S	JUNCTION	0.15	0.75	55.49	0	11:48
TRMB05028	JUNCTION	0.40	1.29	53.23	0	12:00
TRMB05028-S	JUNCTION	0.00	0.00	55.44	0	12:00
TRMB05029	JUNCTION	0.23	1.00	52.62	0	12:00
TRMB05029-S	JUNCTION	0.00	0.02	54.84	0	12:00
TRMB05030	JUNCTION	0.16	0.71	53.15	0	12:00
TRMB05030-S	JUNCTION	0.00	0.01	55.20	0	12:00
TRMB05031	JUNCTION	0.16	0.53	53.83	0	12:00
TRMB05031-S	JUNCTION	0.01	0.21	55.53	0	12:00
TRMB05032	JUNCTION	0.16	0.45	53.41	0	12:00
TRMB05032-S	JUNCTION	0.00	0.03	55.39	0	12:00
TRMB05033	JUNCTION	0.36	1.21	53.65	0	11:55
TRMB05033-S	JUNCTION	0.00	0.13	55.32	0	12:00
TRMB05034	JUNCTION	0.22	0.90	54.01	0	12:30
TRMB05034-S	JUNCTION	0.00	0.07	55.58	0	12:30
TRMB05035	JUNCTION	0.14	0.38	53.13	0	12:00
TRMB05035-S	JUNCTION	0.00	0.00	55.85	0	12:04
TRMB05036	JUNCTION	0.27	0.89	54.04	0	12:00
TRMB05036-S	JUNCTION	0.00	0.01	55.51	0	12:00
TRMB05037	JUNCTION	0.12	0.34	54.34	0	12:00
TRMB05037-S	JUNCTION	0.00	0.04	55.74	0	12:00
TRMB05038	JUNCTION	0.23	0.78	54.13	0	12:00
TRMB05038-S	JUNCTION	0.00	0.02	55.72	0	12:00
TRMB05039	JUNCTION	0.19	0.72	54.22	0	12:00
TRMB05039-S	JUNCTION	0.00	0.03	55.55	0	12:00
TRMB05040	JUNCTION	0.37	1.07	49.91	0	12:00
TRMB05040-S	JUNCTION	0.00	0.08	55.97	0	12:00
TRMB05041	JUNCTION	0.40	1.26	48.16	0	12:00
TRMB05041-S	JUNCTION	0.00	0.09	52.34	0	12:00
TRMB05042	JUNCTION	0.59	1.55	51.24	0	11:59
TRMB05042-S	JUNCTION	0.00	0.12	52.46	0	12:00
TRMB05043	JUNCTION	0.10	0.32	46.69	0	12:00
TRMB05043-S	JUNCTION	0.00	0.00	52.86	0	00:00
TRMB05044	JUNCTION	0.12	0.43	48.00	0	12:01
TRMB05044-S	JUNCTION	0.00	0.01	51.13	0	12:00
TRMB05045	JUNCTION	0.45	1.33	48.01	0	12:01
TRMB05045-S	JUNCTION	0.00	0.04	52.52	0	12:00
TRMB05046	JUNCTION	1.50	2.00	45.27	0	12:01
TRMB05046-S	JUNCTION	0.00	0.00	47.67	0	12:24
TRMB05048	JUNCTION	1.66	2.81	45.63	0	12:01
TRMB05048-S	JUNCTION	0.00	0.06	48.34	0	12:30
PCTB01066	OUTFALL	0.79	1.42	19.40	0	12:36
PCTB02009	OUTFALL	0.76	1.24	23.01	0	12:47
PCTB02081	OUTFALL	6.98	6.99	23.81	0	23:45
TRMB02001	OUTFALL	0.58	1.88	1.52	0	12:05
TRMB03012	OUTFALL	0.50	1.76	8.94	0	12:00
TRMB03066	OUTFALL	0.63	2.21	2.21	0	12:01
TRMB05001	OUTFALL	0.43	1.02	24.62	0	12:01

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Node Inflow Summary  
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# Alternative #1 (10-Year)

Total Inflow Volume Node gal	Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	10^6
11.8	2.966			0.00	48.89 0 12:49	0	
3.44	-0.312	COUNTRYSIDE DITCH CULVERT IN		19.03	19.03 0 13:00	3.44	
6.31	1.069	JUNCTION	0.00	36.41	0 12:31	0	
1.47	0.060	JUNCTION	0.00	16.81	0 12:01	0	
3.44	0.133	JUNCTION	0.00	40.35	0 12:02	0	
0.00614	0.000	JUNCTION	0.00	0.99	0 12:00	0	
2.53	0.042	JUNCTION	0.00	43.48	0 12:01	0	
3.6	0.041	JUNCTION	0.00	58.05	0 12:00	0	
3.6	0.033	JUNCTION	0.00	58.02	0 12:01	0	
3.91	0.017	JUNCTION	0.00	62.60	0 12:00	0	
0.00168	14.915	JUNCTION	0.00	0.69	0 11:53	0	
6.57	-0.011	JUNCTION	0.00	32.88	0 12:30	0	
3.1	-0.930	JUNCTION	29.63	29.63	0 12:30	3.1	
6.96	0.018	JUNCTION	0.00	36.79	0 12:30	0	
0.46	0.000	JUNCTION	0.00	5.55	0 11:51	0	
7.03	0.103	JUNCTION	0.00	37.74	0 12:30	0	
0.0695	0.001	JUNCTION	0.00	1.03	0 11:52	0	
9.99	1.343	JUNCTION	0.00	46.24	0 12:31	0	
6.75	-0.623	JUNCTION	54.99	54.99	0 12:30	6.75	
1.76	-0.276	JUNCTION	0.00	8.64	0 12:30	0	
1.96	-0.582	JUNCTION	16.67	16.67	0 12:30	1.96	
2.32	0.045	JUNCTION	0.00	15.59	0 12:30	0	
0.22	-0.542	JUNCTION	0.00	8.21	0 12:30	0	
0.384	-0.449	JUNCTION	0.00	2.62	0 12:30	0	
0.354	-8.783	JUNCTION	2.86	2.86	0 12:30	0.354	
4.28	0.080	JUNCTION	0.00	24.23	0 12:30	0	

## Alternative #1 (10-Year)

JMTB01105-S	JUNCTION	11.39	15.16	0	12:30	2.04
2.09 -1.719						
PCTB01068	JUNCTION	0.00	39.44	0	12:35	0
7.52 0.108						
PCTB01068_US	JUNCTION	0.00	32.75	0	12:35	0
7.29 0.037						
PCTB01068_US-S	JUNCTION	15.39	15.39	0	12:30	1.35
1.35 -3.931						
PCTB01068-S	JUNCTION	0.00	7.45	0	12:30	0
0.241 -0.227						
PCTB02001	JUNCTION	0.00	37.23	0	12:31	0
4.2 0.193						
PCTB02001-S	JUNCTION	7.57	7.57	0	12:30	0.99
0.99 -4.295						
PCTB02002	JUNCTION	0.00	29.98	0	12:31	0
3.17 0.038						
PCTB02002-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02003	JUNCTION	0.00	8.66	0	11:54	0
1.77 0.350						
PCTB02003-S	JUNCTION	0.00	22.89	0	12:30	0
2.06 -0.308						
PCTB02004	JUNCTION	0.00	13.14	0	12:30	0
3.15 0.348						
PCTB02004-S	JUNCTION	30.44	30.44	0	12:30	4.18
4.18 -0.609						
PCTB02005	JUNCTION	17.71	20.59	0	12:30	2.48
3.24 0.333						
PCTB02008	JUNCTION	0.00	30.55	0	12:44	0
4.81 0.543						
PCTB02011	JUNCTION	0.00	13.42	0	12:45	0
1.74 0.319						
PCTB02011-S	JUNCTION	0.00	2.09	0	12:24	0
0.118 -0.007						
PCTB02012	JUNCTION	0.00	11.50	0	12:43	0
2.87 0.540						
PCTB02012-S	JUNCTION	12.19	12.19	0	12:30	2.02
2.02 -1.765						
PCTB02014	JUNCTION	0.00	6.98	0	13:00	0
2.21 1.757						
PCTB02014-S	JUNCTION	0.00	4.92	0	13:00	0
0.000933 -33.887						
PCTB02015	JUNCTION	0.00	8.72	0	12:03	0
2.26 4.989						
PCTB02015-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02016	JUNCTION	0.00	5.12	0	14:56	0
0.863 0.537						
PCTB02016-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02017	JUNCTION	0.00	5.11	0	14:54	0
0.859 0.707						
PCTB02017-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
PCTB02022	JUNCTION	0.00	7.35	0	12:30	0
1.27 0.067						
PCTB02022-S	JUNCTION	15.34	15.34	0	12:30	1.57
1.57 -2.473						
PCTB02023	JUNCTION	0.00	14.93	0	12:30	0
1.63 0.087						
PCTB02023-S	JUNCTION	0.00	7.94	0	12:30	0
0.34 -5.427						

## Alternative #1 (10-Year)

PCTB02075	JUNCTION	0.00	396.73	0	00:05	0
22.8	0.772					
PCTB02076	JUNCTION	0.00	369.73	0	00:05	0
22.6	0.567					
PCTB02080	JUNCTION	0.00	677.43	0	00:04	0
91.6	0.565					
PCTB02159	JUNCTION	0.00	335.37	0	00:05	0
22.5	0.397					
PCTB02160	JUNCTION	0.00	301.15	0	00:06	0
22.4	0.766					
PCTB02189	JUNCTION	0.00	17.44	0	00:03	0
2.4	0.181					
PCTB02189-S	JUNCTION	69.77	69.77	0	12:30	5.53
5.53	-0.009					
PCTB02191	JUNCTION	0.00	48.81	0	12:31	0
24.7	0.028					
PCTB02191_DS	JUNCTION	0.00	380.44	0	00:02	0
88.7	0.463					
PCTB02191_DS-S	JUNCTION	0.00	64.63	0	12:31	0
10.1	0.056					
PCTB02191-S	JUNCTION	0.00	58.18	0	12:23	0
3.14	-0.017					
PCTB02207	JUNCTION	0.00	70.84	0	13:53	0
18.2	0.929					
PCTB02207-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02209	JUNCTION	0.00	70.72	0	13:48	0
18.1	0.866					
PCTB02209-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02220	JUNCTION	0.00	240.79	0	00:06	0
22.2	0.989					
PCTB02229	JUNCTION	0.00	244.80	0	00:06	0
22	0.533					
PCTB02229-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02231	JUNCTION	0.00	147.02	0	00:06	0
21.9	0.565					
PCTB02231-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02233	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02235	JUNCTION	0.00	106.00	0	00:08	0
21.7	0.428					
PCTB02235-S	JUNCTION	27.59	27.59	0	12:30	3.35
3.35	-0.856					
PCTB02237	JUNCTION	0.00	91.76	0	00:10	0
19.4	1.318					
PCTB02237-S	JUNCTION	0.00	9.15	0	11:55	0
0.894	-0.027					
PCTB02257	JUNCTION	0.00	56.48	0	13:16	0
13.4	0.153					
PCTB02257_1	JUNCTION	0.00	70.88	0	13:25	0
17.8	0.296					
PCTB02257_1-S	JUNCTION	8.25	8.25	0	12:30	1.09
1.09	-3.981					
PCTB02257-S	JUNCTION	0.00	13.25	0	13:00	0
1.81	-0.073					
PCTB02260	JUNCTION	0.00	70.82	0	13:26	0
17.8	0.235					
PCTB02260-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					

# Alternative #1 (10-Year)

PCTB02262	JUNCTION	0.00	70.78	0	13:26	0
17.9	0.823					
PCTB02262-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02275	JUNCTION	0.00	11.46	0	12:35	0
3.36	0.543					
PCTB02275-S	JUNCTION	0.00	4.40	0	12:30	0
0.187	-5.368					
PCTB02276	JUNCTION	0.00	10.85	0	15:49	0
3.15	0.606					
PCTB02276-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02278	JUNCTION	0.00	18.90	0	15:37	0
3.22	3.214					
PCTB02278-S	JUNCTION	0.00	8.66	0	14:39	0
0.0656	-3.590					
PCTB02280	JUNCTION	0.00	18.94	0	12:32	0
10.1	0.013					
PCTB02280-S	JUNCTION	0.00	29.29	0	12:30	0
7.6	0.190					
PCTB02281	JUNCTION	0.00	9.66	0	12:00	0
3.45	0.041					
PCTB02281-S	JUNCTION	0.00	12.16	0	11:59	0
2.76	0.138					
PCTB02282	JUNCTION	0.00	6.66	0	12:30	0
2.96	0.037					
PCTB02282-S	JUNCTION	11.96	11.96	0	12:30	1
1	-0.029					
PCTB02283	JUNCTION	0.00	11.11	0	12:30	0
3.09	0.023					
PCTB02283-S	JUNCTION	0.00	4.50	0	12:30	0
0.128	-6.087					
PCTB02284	JUNCTION	0.00	3.14	0	00:13	0
0.00132	40.083					
PCTB02284-S	JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal					
PCTB02292	JUNCTION	0.00	255.36	0	00:13	0
44.3	1.554					
PCTB02292-S	JUNCTION	19.42	27.70	0	12:30	2.38
7.53	0.030					
PCTB02294	JUNCTION	0.00	279.20	0	00:11	0
51.2	0.996					
PCTB02294-S	JUNCTION	12.57	22.72	0	12:30	1.6
7.97	0.064					
PCTB02295	JUNCTION	0.00	283.07	0	00:11	0
59.1	0.148					
PCTB02295-S	JUNCTION	0.00	35.10	0	12:30	0
15.8	0.024					
PCTB02297	JUNCTION	0.00	5.45	0	12:30	0
0.985	0.307					
PCTB02297-S	JUNCTION	9.96	9.96	0	12:30	1.17
1.17	-0.108					
PCTB02302	JUNCTION	0.00	112.12	0	00:13	0
33.6	0.266					
PCTB02302-S	JUNCTION	0.00	7.44	0	16:39	0
0.692	2.262					
PCTB02303	JUNCTION	0.00	65.24	0	12:30	0
34.6	0.058					
PCTB02303-S	JUNCTION	20.43	20.43	0	12:30	2.61
2.61	-0.023					
PCTB02304	JUNCTION	0.00	73.89	0	12:32	0
37	0.027					

## Alternative #1 (10-Year)

PCTB02304-S	JUNCTION	26.20	35.72	0	12:30	2.8
3.65 -0.504						
PCTB02312	JUNCTION	0.00	176.27	0	00:12	0
35.5 0.744						
PCTB02312-S	JUNCTION	0.00	7.95	0	12:56	0
0.11 12.459						
PCTB02329	JUNCTION	0.00	30.07	0	12:31	0
3.17 0.071						
PCTB02329-S	JUNCTION	0.00	2.32	0	12:30	0
0.0349 -0.650						
PCTB02330	JUNCTION	0.00	27.86	0	12:31	0
3.14 0.080						
PCTB02330-S	JUNCTION	0.00	6.81	0	12:30	0
0.168 0.001						
PCTB02331	JUNCTION	0.00	23.50	0	12:31	0
3.01 -0.009						
PCTB02331-S	JUNCTION	15.63	15.63	0	12:30	1.53
1.53 -1.738						
PCTB02332	JUNCTION	0.00	15.61	0	12:30	0
1.63 0.165						
PCTB02332-S	JUNCTION	0.00	0.74	0	12:30	0
0.00338 -0.020						
TRMB02002	JUNCTION	0.00	99.13	0	12:05	0
6.67 -0.004						
TRMB02002-S	JUNCTION	3.90	3.90	0	12:00	0.188
0.188 -30.260						
TRMB02003	JUNCTION	0.00	96.56	0	12:05	0
6.45 0.582						
TRMB02003-S	JUNCTION	0.00	9.95	0	12:00	0
0.129 -5.572						
TRMB02006	JUNCTION	0.00	89.73	0	12:04	0
6.32 0.042						
TRMB02006-S	JUNCTION	0.00	14.03	0	12:00	0
0.235 -2.287						
TRMB02009	JUNCTION	0.00	85.16	0	12:04	0
6.19 0.018						
TRMB02009-S	JUNCTION	19.40	19.40	0	12:00	0.829
0.829 -1.114						
TRMB02012	JUNCTION	0.00	80.62	0	12:04	0
5.6 0.036						
TRMB02012-S	JUNCTION	0.00	0.38	0	12:00	0
0.00652 -12.147						
TRMB02015	JUNCTION	0.00	8.66	0	11:56	0
0.235 0.010						
TRMB02015-S	JUNCTION	0.00	33.17	0	12:00	0
0.525 -0.917						
TRMB02016	JUNCTION	0.00	71.71	0	12:04	0
5.35 -0.012						
TRMB02016-S	JUNCTION	8.51	37.51	0	12:00	0.351
0.954 -4.514						
TRMB02018	JUNCTION	0.00	63.65	0	12:03	0
4.88 0.031						
TRMB02018-S	JUNCTION	6.86	36.49	0	12:02	0.298
0.964 -5.411						
TRMB02022	JUNCTION	0.00	10.38	0	12:03	0
0.626 0.047						
TRMB02022-S	JUNCTION	3.51	49.59	0	12:00	0.147
1.28 -1.418						
TRMB02023	JUNCTION	0.00	57.39	0	12:02	0
4.46 0.006						
TRMB02023-S	JUNCTION	8.21	8.66	0	12:00	0.346
0.348 -14.823						

# Alternative #1 (10-Year)

TRMB02044	JUNCTION	0.00	26.86	0	12:01	0	
1.63 0.023							
TRMB02044_DS	JUNCTION	0.00	40.65	0	12:00	0	
3.44 0.134							
TRMB02044_DS-S	JUNCTION	53.94	53.94	0	12:00	2.39	
2.39 -0.993							
TRMB02044-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB02045	JUNCTION	0.00	26.86	0	12:01	0	
1.63 0.022							
TRMB02045-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB02046	JUNCTION	0.00	0.50	0	12:00	0	
0.0118 0.000							
TRMB02046-S	JUNCTION	0.00	0.50	0	12:00	0	
0.00453 -61.786							
TRMB02047	JUNCTION	0.00	3.69	0	12:00	0	
0.254 -0.451							
TRMB02047-S	JUNCTION	4.22	4.22	0	12:00	0.183	
0.183 -29.027							
TRMB02048	JUNCTION	0.00	4.08	0	12:00	0	
0.263 0.018							
TRMB02048-S	JUNCTION	0.00	0.39	0	12:00	0	
0.00353 -54.766							
TRMB02049	JUNCTION	0.00	33.98	0	12:00	0	
2.15 0.039							
TRMB02049-S	JUNCTION	4.00	4.00	0	12:00	0.178	
0.178 -32.488							
TRMB02050	JUNCTION	0.00	26.86	0	12:01	0	
1.63 0.041							
TRMB02050-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB02051	JUNCTION	0.00	26.88	0	12:01	0	
1.63 0.017							
TRMB02051-S	JUNCTION	3.34	3.34	0	12:00	0.142	
0.142 -42.673							
TRMB02052	JUNCTION	0.00	24.03	0	12:01	0	
1.39 0.032							
TRMB02052-S	JUNCTION	0.00	0.55	0	12:00	0	
0.00264 -65.849							
TRMB02056	JUNCTION	0.00	23.56	0	12:01	0	
1.38 0.020							
TRMB02056-S	JUNCTION	0.00	3.44	0	12:00	0	
0.029 -0.897							
TRMB02057	JUNCTION	0.00	20.60	0	12:00	0	
1.35 0.052							
TRMB02057-S	JUNCTION	0.00	8.29	0	12:00	0	
0.125 -12.689							
TRMB02060	JUNCTION	0.00	15.85	0	12:00	0	
1.23 -0.128							
TRMB02060-S	JUNCTION	13.12	13.12	0	12:00	0.561	
0.561 -9.969							
TRMB02063	JUNCTION	0.00	11.24	0	12:00	0	
0.737 0.038							
TRMB02063-S	JUNCTION	0.00	0.01	0	12:00	0	1.77e-
005 -13.208							
TRMB02064	JUNCTION	0.00	11.20	0	12:00	0	
0.737 0.043							
TRMB02064-S	JUNCTION	0.00	1.67	0	12:00	0	
0.014 -11.995							
TRMB02067	JUNCTION	0.00	9.56	0	12:00	0	
0.721 -0.004							

# Alternative #1 (10-Year)

TRMB02067-S	JUNCTION	3.79	5.79	0	12:00	0.168	
0.193 -29.361							
TRMB02068	JUNCTION	0.00	5.57	0	12:00	0	
0.462 -0.112							
TRMB02068-S	JUNCTION	5.77	5.77	0	12:00	0.252	
0.252 -27.255							
TRMB02069	JUNCTION	0.00	1.89	0	12:00	0	
0.14 0.015							
TRMB02069-S	JUNCTION	0.00	0.01	0	11:59	0	
0.000114 -85.326							
TRMB02070	JUNCTION	0.00	1.83	0	12:00	0	
0.139 0.061							
TRMB02070-S	JUNCTION	1.85	1.85	0	12:00	0.0831	
0.0831 -40.256							
TRMB03016	JUNCTION	11.65	57.85	0	12:00	0.54	
3.37 0.016							
TRMB03016-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03022	JUNCTION	0.00	46.84	0	12:02	0	
2.83 0.023							
TRMB03022-S	JUNCTION	0.00	0.58	0	12:00	0	
0.00676 -73.175							
TRMB03025	JUNCTION	0.00	45.77	0	12:02	0	
2.77 -0.014							
TRMB03025-S	JUNCTION	3.36	3.36	0	12:00	0.146	
0.146 -41.519							
TRMB03026	JUNCTION	0.00	0.96	0	12:00	0	
0.0416 0.022							
TRMB03027	JUNCTION	0.96	0.96	0	12:00	0.0416	
0.0416 0.022							
TRMB03028	JUNCTION	0.00	43.36	0	12:02	0	
2.52 0.038							
TRMB03028-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03029	JUNCTION	0.00	43.46	0	12:01	0	
2.53 0.021							
TRMB03029-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03030	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03030-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03031	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB03031-S	JUNCTION	3.93	3.97	0	12:00	0.182	
0.183 -28.875							
TRMB03032	JUNCTION	0.00	39.86	0	12:01	0	
2.27 0.092							
TRMB03032-S	JUNCTION	1.98	1.98	0	12:00	0.0981	
0.0981 -46.479							
TRMB03033	JUNCTION	0.00	0.66	0	12:00	0	
0.00491 1.134							
TRMB03033-S	JUNCTION	0.00	0.66	0	12:00	0	
0.00407 -13.031							
TRMB03034	JUNCTION	0.00	9.25	0	12:00	0	
0.466 -0.102							
TRMB03034-S	JUNCTION	0.00	5.09	0	12:00	0	
0.0652 -10.811							
TRMB03035-S	JUNCTION	0.00	0.00	0	12:00	0	1.43e-
007 0.143 gal							
TRMB03036	JUNCTION	0.00	38.12	0	12:00	0	
2.09 0.063							



## Alternative #1 (10-Year)

TRMB03036-S	JUNCTION	0.00	1.00	0	12:00	0
0.00612 -0.414						
TRMB03037	JUNCTION	0.00	4.93	0	12:00	0
0.394 -0.439						
TRMB03037-S	JUNCTION	10.03	10.03	0	12:00	0.434
0.434 -5.451						
TRMB03038	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03038-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03039	JUNCTION	0.00	29.05	0	12:01	0
1.62 0.017						
TRMB03039-S	JUNCTION	0.00	4.92	0	12:00	0
0.0689 -3.621						
TRMB03042	JUNCTION	0.00	4.35	0	12:00	0
0.385 -0.221						
TRMB03042-S	JUNCTION	9.34	9.34	0	12:00	0.413
0.413 -8.941						
TRMB03043	JUNCTION	0.00	15.11	0	12:01	0
0.847 0.071						
TRMB03043-S	JUNCTION	0.00	0.29	0	12:00	0
0.00229 -4.698						
TRMB03044	JUNCTION	0.00	6.50	0	12:00	0
0.33 -0.805						
TRMB03044-S	JUNCTION	6.06	6.94	0	12:00	0.269
0.276 -16.546						
TRMB03049	JUNCTION	0.00	0.23	0	11:48	0
0.000697 0.082						
TRMB03049-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03051	JUNCTION	0.00	14.83	0	12:00	0
0.845 0.037						
TRMB03051-S	JUNCTION	0.00	0.85	0	12:00	0
0.00593 -20.673						
TRMB03052	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03052-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03054	JUNCTION	0.00	8.90	0	12:00	0
0.493 0.107						
TRMB03054-S	JUNCTION	0.00	5.07	0	12:00	0
0.0683 -12.706						
TRMB03055	JUNCTION	0.00	5.12	0	12:00	0
0.344 -0.188						
TRMB03055-S	JUNCTION	5.86	5.86	0	12:00	0.256
0.256 -26.662						
TRMB03063	JUNCTION	0.00	4.60	0	12:00	0
0.415 -0.174						
TRMB03063-S	JUNCTION	9.68	9.68	0	12:00	0.429
0.429 -11.200						
TRMB03065	JUNCTION	0.00	83.49	0	12:01	0
5.38 0.014						
TRMB03065-S	JUNCTION	0.00	1.90	0	12:00	0
0.0173 -15.452						
TRMB03067	JUNCTION	0.00	1.01	0	11:47	0
0.0822 1.316						
TRMB03067-S	JUNCTION	0.34	0.34	0	12:00	0.019
0.019 -76.920						
TRMB03068	JUNCTION	0.00	4.05	0	12:00	0
0.457 -1.371						
TRMB03068-S	JUNCTION	10.72	10.72	0	12:00	0.51
0.51 -10.013						

# Alternative #1 (10-Year)

TRMB03069	JUNCTION	0.00	77.47	0	12:01	0
4.82 0.023						
TRMB03069-S	JUNCTION	0.00	6.66	0	12:00	0
0.111 -7.097						
TRMB03070	JUNCTION	0.00	1.07	0	11:52	0
0.00276 0.179						
TRMB03070-S	JUNCTION	0.00	1.50	0	12:00	0
0.0192 -34.765						
TRMB03072	JUNCTION	0.00	72.98	0	12:01	0
4.71 0.009						
TRMB03072-S	JUNCTION	0.00	0.44	0	12:30	0
0.00449 -0.107						
TRMB03073	JUNCTION	0.00	3.39	0	12:00	0
0.279 -0.790						
TRMB03073-S	JUNCTION	4.90	4.90	0	12:00	0.236
0.236 -20.714						
TRMB03083	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03083-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03084	JUNCTION	0.00	72.86	0	12:01	0
4.71 -0.032						
TRMB03084-S	JUNCTION	5.19	5.19	0	12:30	0.276
0.276 -12.634						
TRMB03087	JUNCTION	0.00	6.94	0	12:30	0
0.488 -0.052						
TRMB03087-S	JUNCTION	8.49	8.49	0	12:00	0.437
0.437 -10.603						
TRMB03088	JUNCTION	0.00	58.06	0	12:00	0
3.6 0.021						
TRMB03088-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03089	JUNCTION	0.00	58.07	0	12:00	0
3.6 0.011						
TRMB03089-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB03090	JUNCTION	0.00	58.06	0	12:00	0
3.6 0.055						
TRMB03090-S	JUNCTION	0.00	23.94	0	12:00	0
0.257 -3.913						
TRMB03091	JUNCTION	0.00	45.77	0	12:00	0
3.08 0.006						
TRMB03091-S	JUNCTION	2.70	27.29	0	12:00	0.136
0.414 -18.234						
TRMB03092	JUNCTION	0.00	3.67	0	12:00	0
0.312 -0.839						
TRMB03092-S	JUNCTION	6.08	6.08	0	12:00	0.288
0.288 -16.582						
TRMB03094	JUNCTION	0.00	40.28	0	12:00	0
2.8 0.009						
TRMB03094-S	JUNCTION	0.10	37.18	0	12:00	0.00411
0.52 -4.218						
TRMB03095	JUNCTION	0.00	6.20	0	12:00	0
0.114 0.197						
TRMB03095-S	JUNCTION	0.01	7.27	0	11:52	0.00053
0.102 -10.004						
TRMB03096	JUNCTION	0.00	23.38	0	12:00	0
2.01 0.040						
TRMB03096-S	JUNCTION	0.00	31.77	0	12:00	0
0.468 -1.190						
TRMB03097	JUNCTION	0.00	4.54	0	12:00	0
0.509 -0.575						

# Alternative #1 (10-Year)

TRMB03097-S	JUNCTION	15.35	15.35	0	12:00	0.647	
0.647 -4.319							
TRMB03101	JUNCTION	0.00	0.51	0	12:58	0	
0.0465 1.648							
TRMB03101-S	JUNCTION	0.11	0.11	0	12:30	0.00575	
0.00575 -87.648							
TRMB03102	JUNCTION	0.00	18.01	0	12:00	0	
1.84 0.053							
TRMB03102-S	JUNCTION	1.78	37.91	0	12:00	0.0889	
0.706 -7.870							
TRMB03103	JUNCTION	0.00	11.92	0	12:00	0	
1.54 -0.024							
TRMB03103-S	JUNCTION	11.83	42.00	0	12:00	0.526	
1.14 -2.776							
TRMB03111	JUNCTION	0.00	6.11	0	12:00	0	
0.984 -0.010							
TRMB03111-S	JUNCTION	36.32	36.32	0	12:00	1.58	
1.58 -1.058							
TRMB04089	JUNCTION	0.00	8.42	0	12:30	0	
2.28 0.051							
TRMB04089-S	JUNCTION	121.10	121.10	0	12:30	7.49	
7.49 -0.073							
TRMB04265-S	JUNCTION	1.52	1.52	0	12:00	0.0712	
0.0712 0.000							
TRMB05002	JUNCTION	0.00	100.08	0	12:01	0	
10.5 0.008							
TRMB05002-S	JUNCTION	0.00	0.00	0	11:36	0	2.29e-
006 -98.062							
TRMB05003	JUNCTION	0.00	100.14	0	12:01	0	
10.5 0.049							
TRMB05003-S	JUNCTION	0.00	0.08	0	12:00	0	
0.000887 -83.943							
TRMB05004	JUNCTION	0.00	1.26	0	11:50	0	
0.0997 1.815							
TRMB05004-S	JUNCTION	0.48	0.48	0	12:00	0.0233	
0.0233 -76.199							
TRMB05005	JUNCTION	0.00	2.16	0	12:00	0	
0.204 0.351							
TRMB05005-S	JUNCTION	2.24	2.24	0	12:00	0.105	
0.105 -46.762							
TRMB05006	JUNCTION	0.00	97.85	0	12:00	0	
10.2 0.053							
TRMB05006-S	JUNCTION	0.00	0.01	0	11:46	0	6.7e-
005 -98.039							
TRMB05008	JUNCTION	0.00	18.69	0	12:01	0	
1.66 0.039							
TRMB05008-S	JUNCTION	2.12	2.12	0	12:00	0.0981	
0.0981 -48.142							
TRMB05009	JUNCTION	0.00	71.30	0	12:00	0	
7.84 0.033							
TRMB05009_DS	JUNCTION	0.00	75.64	0	12:00	0	
8.22 0.040							
TRMB05009_DS-S	JUNCTION	0.85	0.99	0	12:00	0.0382	
0.0418 -73.586							
TRMB05009-S	JUNCTION	0.00	3.89	0	12:34	0	
0.11 -0.419							
TRMB05010	JUNCTION	0.00	4.23	0	12:00	0	
0.342 -0.014							
TRMB05010-S	JUNCTION	2.64	2.64	0	12:00	0.127	
0.127 -41.577							
TRMB05011	JUNCTION	0.00	1.60	0	12:00	0	
0.125 0.011							

# Alternative #1 (10-Year)

TRMB05011-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							
TRMB05012	JUNCTION	0.00	1.61	0	12:00	0	
0.125 -0.009							
TRMB05012-S	JUNCTION	1.61	1.61	0	12:00	0.0733	
0.0733 -41.473							
TRMB05013	JUNCTION	0.00	1.54	0	12:00	0	
0.134 0.431							
TRMB05013-S	JUNCTION	1.11	1.54	0	12:00	0.0476	
0.0566 -57.704							
TRMB05014	JUNCTION	0.00	2.85	0	12:00	0	
0.2 0.256							
TRMB05014-S	JUNCTION	2.39	2.86	0	12:00	0.11	
0.119 -40.534							
TRMB05015	JUNCTION	0.00	64.60	0	12:00	0	
7.42 0.050							
TRMB05015-S	JUNCTION	0.03	13.57	0	11:55	0.00142	
0.541 -3.203							
TRMB05016	JUNCTION	0.00	17.65	0	12:00	0	
1.2 0.016							
TRMB05016-S	JUNCTION	0.00	2.80	0	11:56	0	
0.078 -2.051							
TRMB05017	JUNCTION	0.00	40.43	0	12:34	0	
5.77 0.060							
TRMB05017_US	JUNCTION	0.00	17.06	0	12:30	0	
3.75 0.089							
TRMB05017_US-S	JUNCTION	2.72	114.39	0	12:30	0.119	
5.33 -0.163							
TRMB05017-S	JUNCTION	0.00	77.63	0	12:34	0	
3.59 -0.024							
TRMB05018	JUNCTION	0.00	3.60	0	12:00	0	
0.144 0.037							
TRMB05018-S	JUNCTION	0.00	2.40	0	11:55	0	
0.0674 -1.733							
TRMB05019	JUNCTION	0.00	14.93	0	12:00	0	
1.09 0.043							
TRMB05019-S	JUNCTION	0.00	0.15	0	11:55	0	
0.0028 -19.348							
TRMB05020	JUNCTION	0.00	0.49	0	11:56	0	
0.0365 1.436							
TRMB05020-S	JUNCTION	0.10	0.20	0	11:56	0.00396	
0.00578 -84.138							
TRMB05021	JUNCTION	0.00	14.86	0	12:00	0	
1.09 0.027							
TRMB05021-S	JUNCTION	0.00	0.01	0	11:45	0	3.95e-
005 -94.811							
TRMB05022	JUNCTION	0.00	1.33	0	12:00	0	
0.0776 0.664							
TRMB05022-S	JUNCTION	0.97	1.04	0	12:00	0.0445	
0.0458 -19.200							
TRMB05023	JUNCTION	0.00	4.24	0	12:46	0	
0.0195 -14.867							
TRMB05023-S	JUNCTION	0.43	3.21	0	12:52	0.0185	
0.0205 5.184							
TRMB05025	JUNCTION	0.00	8.66	0	11:49	0	
0.633 0.099							
TRMB05025-S	JUNCTION	0.57	26.36	0	12:00	0.0274	
1.05 -4.544							
TRMB05026	JUNCTION	0.00	3.42	0	12:00	0	
0.226 -0.026							
TRMB05026-S	JUNCTION	0.00	0.00	0	00:00	0	
0 0.000 gal							

## Alternative #1 (10-Year)

TRMB05027	JUNCTION	0.00	8.66	0	11:48	0
0.746 0.075						
TRMB05027-S	JUNCTION	0.56	33.48	0	12:00	0.0244
1.4 -3.381						
TRMB05028	JUNCTION	0.00	13.51	0	12:00	0
0.972 0.065						
TRMB05028-S	JUNCTION	0.11	0.43	0	12:00	0.00443
0.00636 -87.550						
TRMB05029	JUNCTION	0.00	1.36	0	12:00	0
0.117 -0.160						
TRMB05029-S	JUNCTION	1.36	1.36	0	12:00	0.0647
0.0647 -44.778						
TRMB05030	JUNCTION	0.00	4.40	0	12:00	0
0.32 0.212						
TRMB05030-S	JUNCTION	0.45	0.81	0	12:00	0.0221
0.0249 -72.020						
TRMB05031	JUNCTION	0.00	4.62	0	12:00	0
0.281 -0.396						
TRMB05031-S	JUNCTION	4.97	4.97	0	12:00	0.232
0.232 -17.881						
TRMB05032	JUNCTION	0.00	4.09	0	12:00	0
0.319 0.156						
TRMB05032-S	JUNCTION	1.63	1.73	0	12:00	0.0713
0.0733 -51.925						
TRMB05033	JUNCTION	0.00	3.60	0	12:00	0
0.235 1.623						
TRMB05033-S	JUNCTION	3.96	3.96	0	12:00	0.18
0.18 -24.504						
TRMB05034	JUNCTION	0.00	2.69	0	12:30	0
0.165 -1.298						
TRMB05034-S	JUNCTION	2.84	2.84	0	12:30	0.143
0.143 -14.062						
TRMB05035	JUNCTION	0.00	6.34	0	12:00	0
0.574 0.085						
TRMB05035-S	JUNCTION	0.07	0.18	0	11:59	0.0028
0.00403 -89.336						
TRMB05036	JUNCTION	0.00	2.87	0	12:00	0
0.256 0.384						
TRMB05036-S	JUNCTION	0.71	0.76	0	12:00	0.0314
0.0318 -69.847						
TRMB05037	JUNCTION	0.00	2.12	0	12:00	0
0.15 -0.267						
TRMB05037-S	JUNCTION	2.16	2.16	0	12:00	0.0997
0.0997 -33.831						
TRMB05038	JUNCTION	0.00	3.31	0	12:00	0
0.281 0.123						
TRMB05038-S	JUNCTION	1.57	1.57	0	12:00	0.0688
0.0688 -52.888						
TRMB05039	JUNCTION	0.00	1.76	0	12:00	0
0.134 -0.548						
TRMB05039-S	JUNCTION	1.75	1.76	0	12:00	0.0808
0.081 -39.733						
TRMB05040	JUNCTION	0.00	9.15	0	12:00	0
0.809 -0.080						
TRMB05040-S	JUNCTION	3.38	3.38	0	12:00	0.156
0.156 -35.396						
TRMB05041	JUNCTION	0.00	12.04	0	12:00	0
1.03 0.067						
TRMB05041-S	JUNCTION	2.51	3.00	0	12:00	0.117
0.122 -45.163						
TRMB05042	JUNCTION	0.00	3.42	0	12:00	0
0.224 -0.765						

# Alternative #1 (10-Year)

TRMB05042-S	JUNCTION	3.43	3.43	0	12:00	0.153
0.153 -31.637						
TRMB05043	JUNCTION	0.00	3.42	0	12:00	0
0.226 0.028						
TRMB05043-S	JUNCTION	0.00	0.00	0	00:00	0
0 0.000 gal						
TRMB05044	JUNCTION	0.00	1.04	0	11:39	0
0.0965 0.625						
TRMB05044-S	JUNCTION	0.82	0.86	0	12:00	0.0366
0.0372 -61.394						
TRMB05045	JUNCTION	0.00	14.85	0	12:00	0
1.28 0.138						
TRMB05045-S	JUNCTION	2.17	2.17	0	12:00	0.104
0.104 -33.592						
TRMB05046	JUNCTION	0.00	14.86	0	12:01	0
1.29 0.026						
TRMB05046-S	JUNCTION	0.00	0.21	0	12:30	0
0.00278 -63.949						
TRMB05048	JUNCTION	0.00	16.79	0	12:01	0
1.47 -0.121						
TRMB05048-S	JUNCTION	2.69	2.69	0	12:30	0.14
0.14 -22.986						
PCTB01066	OUTFALL	0.00	39.42	0	12:36	0
7.52 0.000						
PCTB02009	OUTFALL	77.26	103.52	0	12:30	11.2
15 0.000						
PCTB02081	OUTFALL	0.00	677.43	0	00:04	0
71.1 0.000						
TRMB02001	OUTFALL	0.00	99.10	0	12:05	0
6.67 0.000						
TRMB03012	OUTFALL	0.00	57.63	0	12:00	0
3.37 0.000						
TRMB03066	OUTFALL	0.00	83.44	0	12:01	0
5.38 0.000						
TRMB05001	OUTFALL	0.00	100.04	0	12:01	0
10.5 0.000						

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J4	JUNCTION	11.77	0.000	0.000
JMTB01003-S	JUNCTION	2.19	0.000	0.000
JMTB01006-S	JUNCTION	9.47	0.000	0.000
JMTB01102	JUNCTION	0.75	0.301	0.169
JMTB01103	JUNCTION	0.54	0.173	0.727
JMTB01104	JUNCTION	4.83	1.017	0.843
JMTB01105-S	JUNCTION	2.89	0.000	0.000
PCTB02003-S	JUNCTION	3.00	0.000	0.000
PCTB02012-S	JUNCTION	1.29	0.000	0.000
PCTB02189	JUNCTION	23.69	1.690	0.000
PCTB02189-S	JUNCTION	0.15	0.000	0.000
PCTB02191	JUNCTION	23.70	2.090	0.000
PCTB02191_DS-S	JUNCTION	23.63	0.000	0.000
PCTB02231	JUNCTION	3.11	0.081	0.619

# Alternative #1 (10-Year)

PCTB02235-S	JUNCTION	1.63	0.000	0.000
PCTB02237	JUNCTION	6.45	0.430	1.120
PCTB02257-S	JUNCTION	3.14	0.000	0.000
PCTB02278-S	JUNCTION	0.84	0.000	0.000
PCTB02280	JUNCTION	23.57	2.440	0.000
PCTB02280-S	JUNCTION	4.14	0.000	0.000
PCTB02281	JUNCTION	23.56	2.360	0.000
PCTB02282	JUNCTION	23.54	2.320	1.820
PCTB02283	JUNCTION	23.53	1.700	0.000
PCTB02284	JUNCTION	23.53	1.670	0.000
PCTB02295-S	JUNCTION	23.61	0.000	0.000
PCTB02297	JUNCTION	23.50	1.650	0.000
PCTB02303	JUNCTION	23.47	2.120	0.000
PCTB02304	JUNCTION	23.46	0.230	0.000
PCTB02304-S	JUNCTION	5.13	0.000	0.000
TRMB02003	JUNCTION	2.57	1.875	4.325
TRMB02015-S	JUNCTION	0.71	0.000	0.000
TRMB02046	JUNCTION	23.75	0.019	3.581
TRMB03016-S	JUNCTION	23.75	0.000	0.000
TRMB03037	JUNCTION	0.88	0.987	0.933
TRMB03083	JUNCTION	23.75	0.000	8.840
TRMB03090	JUNCTION	0.75	0.781	2.799
TRMB03090-S	JUNCTION	0.57	0.000	0.000
TRMB04265-S	JUNCTION	23.75	0.000	0.000
TRMB05004	JUNCTION	0.07	0.046	3.444
TRMB05017_US-S	JUNCTION	0.66	0.000	0.000
TRMB05025-S	JUNCTION	1.36	0.000	0.000
TRMB05027-S	JUNCTION	1.79	0.000	0.000
TRMB05042	JUNCTION	0.21	0.301	1.099

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

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
J4	0.58	0.99	0 12:00	0.004	0.000
JMTB01003-S	2.18	16.01	0 12:30	0.381	0.000
JMTB01006-S	9.45	46.32	0 12:30	3.826	0.000
JMTB01105-S	2.88	6.50	0 12:30	0.161	0.000
PCTB02003-S	3.00	14.23	0 12:30	0.395	0.000
PCTB02012-S	1.29	1.48	0 12:30	0.024	0.000
PCTB02189	0.01	15.48	0 00:03	0.001	0.000
PCTB02189-S	0.14	2.91	0 12:30	0.006	0.000
PCTB02191	23.63	48.81	0 12:31	24.655	0.000
PCTB02191_DS-S	23.63	64.63	0 12:31	10.079	0.000
PCTB02235-S	1.62	11.45	0 12:30	0.200	0.000
PCTB02257-S	3.13	4.59	0 13:00	0.229	0.000
PCTB02278-S	0.50	4.33	0 15:04	0.058	0.000
PCTB02280	23.50	18.94	0 12:32	10.086	0.000
PCTB02280-S	4.12	17.39	0 12:30	0.621	0.000
PCTB02281	12.51	4.42	0 12:00	0.910	0.000
PCTB02283	23.49	11.10	0 12:30	3.091	0.000
PCTB02284	0.01	2.66	0 00:13	0.000	0.000
PCTB02295-S	23.61	35.10	0 12:30	15.734	0.000
PCTB02297	6.92	3.33	0 12:30	0.289	0.000

# Alternative #1 (10-Year)

PCTB02303	0.01	21.73	0	00:14	0.000	0.000
PCTB02304	23.44	73.89	0	12:32	36.938	0.000
PCTB02304-S	5.12	27.05	0	12:30	1.253	0.000
TRMB02015-S	0.71	24.50	0	12:00	0.294	0.000
TRMB03090-S	0.56	15.28	0	12:00	0.060	0.000
TRMB04265-S	23.72	1.52	0	12:00	0.071	0.000
TRMB05017_US-S	0.66	28.10	0	12:30	0.284	0.000
TRMB05025-S	1.36	17.70	0	12:00	0.466	0.000
TRMB05027-S	1.78	24.82	0	12:00	0.708	0.000

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 Outfall Loading Summary  
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Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
PCTB01066	99.79	15.01	39.42	7.517
PCTB02009	99.92	33.60	103.52	15.024
PCTB02081	100.00	102.87	677.43	71.129
TRMB02001	99.97	13.47	99.10	6.667
TRMB03012	99.85	6.51	57.63	3.373
TRMB03066	99.95	10.72	83.44	5.376
TRMB05001	99.91	21.40	100.04	10.502
System	99.91	203.58	677.50	119.587

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 Link Flow Summary  
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Link	Type	Maximum  Flow  CFS	Time of Max Occurrence days hr:min	Maximum  Veloc  ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	335.37	0 00:05	7.97	0.15	0.85
C14	CONDUIT	29.98	0 12:31	3.91	0.46	0.90
C2	CONDUIT	25.40	0 12:40	8.63	1.07	0.91
C2_1	CONDUIT	34.03	0 13:25	6.93	0.40	1.00
C2_1-S	CHANNEL	52.04	0 12:25	4.13	0.19	0.75
C2_2	CONDUIT	380.44	0 00:02	4.32	0.43	0.89
C3	CHANNEL	1.65	0 12:30	0.19	0.01	0.59
C4	CONDUIT	16.83	0 12:01	6.12	1.09	0.55
C5	CONDUIT	4.07	0 12:00	7.08	0.30	0.69
C9	CONDUIT	3.42	0 12:00	4.22	0.14	0.63
C9-S	CHANNEL	0.00	0 00:00	0.00	0.00	0.01
CountrySideE_Ditch	CONDUIT	43.12	0 12:49	2.03	0.71	0.98
CountrySideE_Ditch_Culvert	CONDUIT	47.82	0 13:16	3.80	0.51	0.82
CountrySideE_Ditch_Culvert-S	CHANNEL	13.25	0 13:00	2.68	0.13	0.72
JMTB01003	CONDUIT	32.81	0 12:30	4.97	1.17	0.90
JMTB01003-S	CHANNEL	5.55	0 11:51	0.61	0.02	0.61
JMTB01004	CONDUIT	36.77	0 12:30	4.01	1.14	1.00
JMTB01004-S	CHANNEL	1.03	0 11:52	2.81	0.01	0.11
JMTB01005	CONDUIT	37.58	0 12:31	3.09	0.88	0.92
JMTB01005-S	CHANNEL	0.00	0 12:20	0.00	0.00	0.51
JMTB01102	CONDUIT	8.66	0 12:30	3.37	0.42	1.00



## Alternative #1 (10-Year)

JMTB01102-S	CHANNEL	7.97	0	12:30	0.84	0.04	0.62
JMTB01103	CONDUIT	15.57	0	12:30	3.92	1.03	1.00
JMTB01103_1	CONDUIT	24.22	0	12:30	4.88	0.84	0.83
JMTB01103-S	CHANNEL	3.82	0	12:30	0.64	0.03	0.62
JMTB01104	CONDUIT	2.63	0	12:30	2.14	0.41	1.00
JMTB01104-S	CHANNEL	0.24	0	12:30	0.91	0.00	0.17
PCTB01068	CONDUIT	39.42	0	12:36	4.97	0.66	0.55
PCTB01068_US	CONDUIT	32.75	0	12:36	3.85	0.52	0.60
PCTB01068_US-S	CHANNEL	7.45	0	12:30	0.95	0.33	0.67
PCTB02001_1	CONDUIT	36.41	0	12:31	1.03	0.19	0.89
PCTB02001_2	CONDUIT	6.41	0	15:30	0.19	0.03	0.96
PCTB02002	CONDUIT	29.89	0	12:31	3.49	0.69	0.90
PCTB02002-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.36
PCTB02003	CONDUIT	5.59	0	12:32	3.51	0.54	0.68
PCTB02003-S	CHANNEL	22.89	0	12:30	2.38	0.31	0.89
PCTB02008	CONDUIT	30.34	0	12:47	4.11	0.68	0.52
PCTB02011	CONDUIT	11.38	0	12:45	4.21	0.09	0.45
PCTB02011_1	CONDUIT	13.40	0	12:45	0.84	0.10	0.51
PCTB02011-S	CHANNEL	2.09	0	12:24	0.28	0.01	0.53
PCTB02014	CONDUIT	5.95	0	15:30	2.82	0.09	0.91
PCTB02014_1	CONDUIT	6.60	0	12:03	1.37	0.05	0.69
PCTB02014-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.23
PCTB02016	CONDUIT	5.12	0	14:56	3.43	0.65	0.81
PCTB02016-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02020	CONDUIT	5.13	0	14:56	0.54	0.16	0.91
PCTB02021	CONDUIT	5.11	0	14:54	0.68	0.99	1.00
PCTB02022	CONDUIT	7.33	0	12:30	1.26	0.49	0.96
PCTB02022-S	CHANNEL	7.94	0	12:30	2.23	0.16	0.74
PCTB02023	CONDUIT	14.89	0	12:31	1.94	0.88	0.96
PCTB02023-S	CHANNEL	0.00	0	12:30	0.00	0.00	0.39
PCTB02076	CONDUIT	369.73	0	00:05	6.92	0.15	0.91
PCTB02080	CONDUIT	677.43	0	00:04	12.70	30.88	1.00
PCTB02160	CONDUIT	301.15	0	00:06	9.60	0.66	0.83
PCTB02172	CONDUIT	396.73	0	00:05	5.88	0.10	0.97
PCTB02189	CONDUIT	17.44	0	00:03	3.89	0.60	1.00
PCTB02189-S	CHANNEL	58.18	0	12:23	4.61	0.73	0.75
PCTB02208	CONDUIT	70.84	0	13:53	5.78	0.82	0.94
PCTB02208-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02231	CONDUIT	147.02	0	00:06	6.32	2.12	1.00
PCTB02231-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02237	CONDUIT	91.76	0	00:10	6.16	0.82	1.00
PCTB02237-S	CHANNEL	9.15	0	11:55	1.02	0.15	0.88
PCTB02239	CONDUIT	0.00	0	00:00	0.00	0.00	0.50
PCTB02240	CONDUIT	70.94	0	13:54	2.12	0.11	0.98
PCTB02259_1	CONDUIT	56.45	0	13:16	0.60	0.29	0.87
PCTB02259_2	CONDUIT	70.82	0	13:26	1.20	0.17	0.87
PCTB02260	CONDUIT	70.78	0	13:26	3.60	0.75	0.87
PCTB02260-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
PCTB02264	CONDUIT	70.72	0	13:48	1.52	0.08	0.90
PCTB02274	CONDUIT	20.14	0	12:30	2.61	0.04	0.33
PCTB02275	CONDUIT	11.45	0	15:48	2.52	0.22	0.98
PCTB02275-S	CHANNEL	4.40	0	12:30	4.84	0.01	0.21
PCTB02276	CONDUIT	10.87	0	15:48	2.00	1.15	0.97
PCTB02276-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.11
PCTB02278	CONDUIT	10.85	0	15:49	3.45	0.82	1.00
PCTB02278-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.50
PCTB02279	CONDUIT	12.59	0	12:23	0.92	0.02	0.55
PCTB02280	CONDUIT	5.25	0	00:23	4.28	1.05	1.00
PCTB02280-S	CHANNEL	27.65	0	12:30	2.78	0.37	0.83
PCTB02281	CONDUIT	5.24	0	12:50	4.27	0.77	1.00
PCTB02281-S	CHANNEL	10.28	0	11:59	1.02	0.08	0.88
PCTB02282	CONDUIT	4.08	0	00:22	3.33	0.64	1.00

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PCTB02282-S	CHANNEL	2.01	0	12:30	0.49	0.01	0.39
PCTB02283	CONDUIT	6.66	0	12:28	5.43	1.56	1.00
PCTB02283-S	CHANNEL	4.50	0	12:30	5.57	0.01	0.23
PCTB02284	CONDUIT	3.14	0	00:13	2.71	0.73	1.00
PCTB02284-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.13
PCTB02292	CONDUIT	255.26	0	00:13	3.92	0.41	0.79
PCTB02294	CONDUIT	273.67	0	00:11	14.25	1.16	1.00
PCTB02294-S	CHANNEL	22.71	0	12:30	1.87	0.16	0.77
PCTB02295	CONDUIT	283.07	0	00:11	3.83	0.40	0.66
PCTB02297	CONDUIT	2.51	0	00:14	2.09	0.77	1.00
PCTB02297-S	CHANNEL	4.27	0	12:30	0.51	0.09	0.57
PCTB02299	CONDUIT	240.79	0	00:06	5.25	0.10	0.62
PCTB02300	CONDUIT	244.80	0	00:06	4.39	0.07	0.57
PCTB02301	CONDUIT	105.87	0	00:08	5.23	0.40	0.94
PCTB02302	CONDUIT	101.70	0	00:13	2.92	0.21	0.92
PCTB02303	CONDUIT	63.00	0	00:25	5.28	0.41	1.00
PCTB02303-S	CHANNEL	6.67	0	12:30	1.81	0.02	0.40
PCTB02304	CONDUIT	65.23	0	12:32	3.76	0.26	1.00
PCTB02304-S	CHANNEL	9.53	0	12:30	1.52	0.02	0.62
PCTB02312	CONDUIT	162.80	0	00:12	3.48	0.24	0.94
PCTB02329	CONDUIT	27.80	0	12:32	2.52	1.16	0.93
PCTB02329-S	CHANNEL	2.32	0	12:30	2.98	0.02	0.17
PCTB02330	CONDUIT	23.41	0	12:31	2.05	0.86	0.96
PCTB02330-S	CHANNEL	6.81	0	12:30	0.84	0.06	0.56
PCTB02331	CONDUIT	15.52	0	12:31	1.35	0.97	0.96
PCTB02331-S	CHANNEL	0.74	0	12:30	0.14	0.01	0.43
TRMB02002	CONDUIT	99.10	0	12:05	16.47	0.45	0.48
TRMB02003	CONDUIT	96.57	0	12:05	5.97	0.20	0.78
TRMB02003-S	CHANNEL	1.11	0	12:00	4.52	0.00	0.36
TRMB02006	CONDUIT	89.71	0	12:05	5.98	0.43	0.73
TRMB02006-S	CHANNEL	8.86	0	12:00	4.04	0.06	0.46
TRMB02009	CONDUIT	85.15	0	12:05	11.81	0.26	0.40
TRMB02009-S	CHANNEL	14.03	0	12:00	5.84	0.05	0.32
TRMB02012	CONDUIT	80.59	0	12:04	9.53	0.44	0.45
TRMB02012-S	CHANNEL	0.38	0	12:00	0.53	0.03	0.16
TRMB02015	CONDUIT	8.66	0	12:05	1.79	0.05	0.36
TRMB02015-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.50
TRMB02016	CONDUIT	71.70	0	12:04	9.18	0.19	0.43
TRMB02016-S	CHANNEL	33.17	0	12:00	2.52	0.43	0.96
TRMB02018	CONDUIT	63.57	0	12:04	7.77	0.52	0.44
TRMB02018-S	CHANNEL	30.15	0	12:03	2.84	0.22	0.72
TRMB02022	CONDUIT	57.35	0	12:03	5.60	0.44	0.53
TRMB02022-S	CHANNEL	31.25	0	12:04	2.41	1.06	0.76
TRMB02023	CONDUIT	10.38	0	12:04	4.17	0.18	0.41
TRMB02023-S	CHANNEL	1.55	0	11:56	1.01	0.55	0.60
TRMB02044_1-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.31
TRMB02044_2	CONDUIT	26.85	0	12:02	6.74	0.35	0.43
TRMB02044_2-S	CHANNEL	46.16	0	12:00	3.22	0.33	0.81
TRMB02044_3	CONDUIT	40.35	0	12:02	4.27	1.76	0.95
TRMB02044_4	CONDUIT	40.32	0	12:02	5.75	26.18	0.68
TRMB02044_5	CONDUIT	33.86	0	12:01	4.55	0.43	0.73
TRMB02045	CONDUIT	26.86	0	12:01	6.30	0.46	0.46
TRMB02045-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02046-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.01
TRMB02047-S	CHANNEL	0.50	0	12:00	2.06	0.01	0.09
TRMB02048	CONDUIT	3.69	0	12:00	6.14	0.34	0.37
TRMB02048-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.09
TRMB02049-S	CHANNEL	0.39	0	12:00	1.82	0.01	0.09
TRMB02050	CONDUIT	26.86	0	12:01	5.09	0.81	0.54
TRMB02050-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB02051	CONDUIT	26.86	0	12:01	4.45	0.81	0.60
TRMB02051-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.06

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TRMB02052	CONDUIT	24.04	0	12:01	3.73	0.27	0.64
TRMB02052-S	CHANNEL	0.22	0	12:00	1.80	0.00	0.07
TRMB02056	CONDUIT	23.58	0	12:01	4.29	0.40	0.73
TRMB02056-S	CHANNEL	0.34	0	12:00	2.85	0.00	0.06
TRMB02057	CONDUIT	20.55	0	12:01	5.41	0.36	0.69
TRMB02057-S	CHANNEL	3.44	0	12:00	2.74	0.03	0.22
TRMB02060	CONDUIT	15.82	0	12:01	5.83	0.28	0.52
TRMB02060-S	CHANNEL	8.29	0	12:00	4.58	0.04	0.30
TRMB02063	CONDUIT	11.19	0	12:00	7.88	0.30	0.46
TRMB02063-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.15
TRMB02064	CONDUIT	11.18	0	12:00	6.77	0.59	0.52
TRMB02064-S	CHANNEL	0.01	0	12:00	1.00	0.00	0.02
TRMB02067	CONDUIT	9.55	0	12:00	4.39	1.39	0.85
TRMB02067-S	CHANNEL	1.67	0	12:00	3.67	0.01	0.13
TRMB02068	CONDUIT	5.52	0	12:00	2.97	0.51	0.74
TRMB02068-S	CHANNEL	2.01	0	12:00	1.87	0.01	0.20
TRMB02069	CONDUIT	1.83	0	12:00	2.22	0.11	0.40
TRMB02069-S	CHANNEL	0.00	0	11:39	0.00	0.00	0.09
TRMB02070	CONDUIT	1.83	0	12:00	3.10	0.18	0.30
TRMB02070-S	CHANNEL	0.01	0	11:59	1.04	0.00	0.02
TRMB03016	CONDUIT	57.63	0	12:00	9.82	0.50	0.59
TRMB03022	CONDUIT	46.83	0	12:02	7.22	0.55	0.89
TRMB03025	CONDUIT	45.77	0	12:02	13.47	0.23	0.38
TRMB03025-S	CHANNEL	0.58	0	12:00	7.10	0.00	0.05
TRMB03026	CONDUIT	0.96	0	12:00	10.47	0.06	0.17
TRMB03027	CONDUIT	0.96	0	12:00	4.36	0.26	0.32
TRMB03028	CONDUIT	43.35	0	12:02	7.16	3.25	0.60
TRMB03028-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.05
TRMB03029	CONDUIT	43.36	0	12:02	5.95	0.47	0.72
TRMB03029-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03030	CONDUIT	43.46	0	12:01	7.23	0.53	0.61
TRMB03030-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03031	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
TRMB03032	CONDUIT	39.76	0	12:01	6.98	0.46	0.57
TRMB03032-S	CHANNEL	0.04	0	12:00	0.13	0.00	0.12
TRMB03033	CONDUIT	0.67	0	12:00	1.09	0.06	0.50
TRMB03033-S	CHANNEL	0.66	0	12:00	2.73	0.00	0.09
TRMB03034	CONDUIT	9.24	0	12:00	3.19	0.18	0.64
TRMB03034-S	CHANNEL	0.71	0	12:00	2.72	0.01	0.10
TRMB03035-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.01
TRMB03036	CONDUIT	38.03	0	12:01	7.27	1.06	0.69
TRMB03036-S	CHANNEL	0.00	0	12:00	0.04	0.00	0.03
TRMB03037	CONDUIT	4.93	0	12:00	6.87	1.23	0.86
TRMB03037-S	CHANNEL	5.09	0	12:00	3.05	0.04	0.25
TRMB03038	CONDUIT	0.00	0	00:00	0.00	0.00	0.50
TRMB03038-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.01
TRMB03039	CONDUIT	29.03	0	12:01	7.47	0.14	0.54
TRMB03039-S	CHANNEL	0.29	0	12:00	1.77	0.00	0.08
TRMB03042	CONDUIT	4.35	0	12:00	8.07	0.38	0.51
TRMB03042-S	CHANNEL	4.92	0	12:00	5.21	0.02	0.20
TRMB03043	CONDUIT	15.04	0	12:01	6.63	0.60	0.47
TRMB03043-S	CHANNEL	0.29	0	12:00	2.03	0.00	0.07
TRMB03044	CONDUIT	6.50	0	12:00	6.55	0.53	0.55
TRMB03044-S	CHANNEL	0.91	0	12:00	0.27	0.01	0.35
TRMB03049	CONDUIT	0.23	0	11:48	0.27	0.01	0.79
TRMB03049-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03051	CONDUIT	14.82	0	12:01	7.84	0.28	0.58
TRMB03051-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.01
TRMB03052	CONDUIT	0.00	0	00:00	0.00	0.00	0.36
TRMB03052-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03054	CONDUIT	8.88	0	12:00	4.72	1.61	0.58
TRMB03054-S	CHANNEL	0.30	0	12:01	0.62	0.01	0.13

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TRMB03055	CONDUIT	5.11	0	12:00	3.19	0.82	0.51
TRMB03055-S	CHANNEL	0.56	0	12:00	0.62	0.02	0.18
TRMB03063	CONDUIT	4.60	0	12:00	3.80	0.43	0.73
TRMB03063-S	CHANNEL	5.07	0	12:00	3.64	0.04	0.26
TRMB03065	CONDUIT	83.44	0	12:01	12.37	0.72	0.66
TRMB03067	CONDUIT	0.52	0	11:47	1.41	0.03	0.56
TRMB03067-S	CHANNEL	0.03	0	11:47	0.04	0.00	0.02
TRMB03068	CONDUIT	4.13	0	11:49	6.14	0.13	0.51
TRMB03068-S	CHANNEL	6.66	0	12:00	5.10	0.02	0.25
TRMB03069	CONDUIT	77.45	0	12:01	9.93	0.86	0.76
TRMB03069-S	CHANNEL	1.90	0	12:00	2.64	0.02	0.16
TRMB03070	CONDUIT	1.07	0	11:52	0.33	0.01	0.65
TRMB03070-S	CHANNEL	0.69	0	11:53	0.62	0.01	0.33
TRMB03072	CONDUIT	72.98	0	12:01	11.53	0.39	0.63
TRMB03072-S_1	CHANNEL	0.00	0	12:30	0.00	0.00	0.12
TRMB03073	CONDUIT	3.39	0	12:00	3.77	0.30	0.69
TRMB03073-S	CHANNEL	1.50	0	12:00	6.38	0.00	0.09
TRMB03083	CONDUIT	7.27	0	12:36	1.20	1.20	0.90
TRMB03083-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03084	CONDUIT	72.86	0	12:01	10.67	0.66	0.67
TRMB03084-S	CHANNEL	0.44	0	12:30	0.69	0.00	0.15
TRMB03087-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.32
TRMB03088_1	CONDUIT	58.05	0	12:00	10.94	0.80	0.70
TRMB03088_2	CONDUIT	57.99	0	12:01	9.97	0.88	0.82
TRMB03088_3	CONDUIT	58.02	0	12:01	10.53	0.88	0.73
TRMB03088_5	CONDUIT	62.54	0	12:00	7.48	0.63	0.84
TRMB03088-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.32
TRMB03089	CONDUIT	58.06	0	12:00	13.06	0.55	0.60
TRMB03089-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB03090	CONDUIT	58.07	0	12:00	10.01	0.78	0.76
TRMB03090-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.50
TRMB03091	CONDUIT	45.76	0	12:00	7.84	0.57	0.77
TRMB03091-S	CHANNEL	21.67	0	12:00	4.61	0.10	0.70
TRMB03092	CONDUIT	3.67	0	12:00	4.26	0.22	0.66
TRMB03092-S	CHANNEL	2.38	0	12:00	3.77	0.01	0.59
TRMB03094	CONDUIT	40.24	0	12:00	10.11	0.55	0.55
TRMB03094-S	CHANNEL	24.70	0	12:00	4.23	0.17	0.46
TRMB03095	CONDUIT	6.20	0	12:00	7.55	0.16	0.63
TRMB03095-S	CHANNEL	7.27	0	11:52	1.73	0.50	0.51
TRMB03096	CONDUIT	23.37	0	12:00	5.63	0.83	0.59
TRMB03096-S	CHANNEL	26.41	0	12:00	4.86	0.08	0.44
TRMB03097	CONDUIT	4.54	0	12:00	5.06	0.30	0.69
TRMB03097-S	CHANNEL	10.78	0	12:00	5.83	0.04	0.39
TRMB03101	CONDUIT	0.27	0	12:59	0.66	0.00	0.51
TRMB03101-S	CHANNEL	0.00	0	11:39	0.00	0.00	0.19
TRMB03102	CONDUIT	18.01	0	12:00	5.76	0.20	0.46
TRMB03102-S	CHANNEL	31.77	0	12:00	6.03	0.14	0.43
TRMB03103	CONDUIT	11.92	0	12:00	8.07	0.10	0.26
TRMB03103-S	CHANNEL	36.13	0	12:00	5.88	0.14	0.47
TRMB03111	CONDUIT	6.11	0	12:00	7.80	0.16	0.30
TRMB03111-S	CHANNEL	30.18	0	12:00	4.90	0.17	0.47
TRMB04089_1	CONDUIT	8.40	0	12:30	2.71	0.18	0.58
TRMB04089_1-S	CHANNEL	112.42	0	12:30	5.61	0.88	0.97
TRMB04089_2	CONDUIT	17.72	0	12:34	3.55	0.38	0.81
TRMB04089_2-S	CHANNEL	77.63	0	12:34	6.97	0.61	0.69
TRMB05002	CONDUIT	100.04	0	12:01	28.78	0.14	0.33
TRMB05003	CONDUIT	100.08	0	12:01	11.49	0.66	0.65
TRMB05003-S	CHANNEL	0.00	0	11:36	0.00	0.00	0.01
TRMB05004	CONDUIT	0.65	0	14:55	0.84	0.01	1.00
TRMB05004-S	CHANNEL	0.00	0	11:36	0.00	0.00	0.01
TRMB05005	CONDUIT	2.15	0	11:58	1.74	0.01	0.93
TRMB05005-S	CHANNEL	0.08	0	12:00	2.92	0.00	0.03

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TRMB05006	CONDUIT	97.69	0	12:01	8.05	1.08	0.93
TRMB05006-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.01
TRMB05008	CONDUIT	18.63	0	12:02	5.07	0.32	0.71
TRMB05008-S	CHANNEL	0.00	0	11:46	0.00	0.00	0.03
TRMB05009_1	CONDUIT	71.46	0	12:01	9.80	0.79	0.71
TRMB05009_1-S	CHANNEL	0.18	0	12:35	1.80	0.00	0.06
TRMB05009_2	CONDUIT	75.40	0	12:01	8.63	0.84	0.85
TRMB05009_2-S	CHANNEL	0.01	0	11:46	0.00	0.00	0.01
TRMB05010	CONDUIT	4.23	0	12:00	3.59	0.04	0.57
TRMB05010-S	CHANNEL	0.00	0	11:46	0.00	0.00	0.05
TRMB05011	CONDUIT	1.60	0	12:00	6.00	0.04	0.14
TRMB05011-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.05
TRMB05012	CONDUIT	1.60	0	12:00	2.99	0.42	0.45
TRMB05012-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.02
TRMB05013	CONDUIT	1.53	0	12:00	4.28	0.02	0.55
TRMB05013-S	CHANNEL	0.43	0	12:00	3.66	0.00	0.07
TRMB05014	CONDUIT	2.85	0	12:00	4.23	0.09	0.60
TRMB05014-S	CHANNEL	0.47	0	11:57	2.39	0.00	0.11
TRMB05015	CONDUIT	64.52	0	12:01	7.62	1.16	0.82
TRMB05015-S	CHANNEL	3.89	0	12:34	3.83	0.03	0.20
TRMB05016	CONDUIT	17.64	0	12:00	5.69	0.10	0.60
TRMB05016-S	CHANNEL	2.80	0	11:56	2.98	0.02	0.18
TRMB05017	CONDUIT	40.93	0	12:34	5.14	0.79	0.93
TRMB05017-S	CHANNEL	13.54	0	11:55	4.29	0.07	0.34
TRMB05018	CONDUIT	3.60	0	12:00	4.46	0.14	0.62
TRMB05018-S	CHANNEL	2.40	0	11:55	2.75	0.02	0.18
TRMB05019	CONDUIT	14.88	0	12:00	7.25	0.25	0.44
TRMB05019-S	CHANNEL	0.15	0	11:55	2.59	0.00	0.05
TRMB05020	CONDUIT	0.25	0	11:56	1.43	0.03	0.26
TRMB05020-S	CHANNEL	0.11	0	11:56	1.68	0.00	0.05
TRMB05021	CONDUIT	14.79	0	12:00	5.26	0.42	0.56
TRMB05021-S	CHANNEL	0.00	0	12:13	0.00	0.00	0.00
TRMB05022	CONDUIT	1.29	0	12:00	2.45	0.16	0.45
TRMB05022-S	CHANNEL	0.07	0	11:56	1.44	0.00	0.04
TRMB05023	CONDUIT	0.33	0	12:11	2.44	0.08	0.41
TRMB05023-S	CHANNEL	0.00	0	12:00	0.00	0.00	0.16
TRMB05025	CONDUIT	8.66	0	11:49	10.66	0.15	0.63
TRMB05025-S	CHANNEL	25.81	0	12:34	3.96	0.09	0.69
TRMB05026	CONDUIT	3.42	0	12:00	14.56	0.12	0.25
TRMB05026-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.00
TRMB05027	CONDUIT	8.66	0	11:48	10.40	0.18	0.64
TRMB05027-S	CHANNEL	32.96	0	12:34	4.84	0.09	0.69
TRMB05028	CONDUIT	13.47	0	12:00	5.73	0.48	0.48
TRMB05028-S	CHANNEL	0.00	0	11:17	0.00	0.00	0.00
TRMB05029	CONDUIT	1.35	0	12:00	1.48	0.25	0.85
TRMB05029-S	CHANNEL	0.01	0	13:04	0.00	0.00	0.01
TRMB05030	CONDUIT	4.40	0	11:59	3.40	0.11	0.50
TRMB05030-S	CHANNEL	0.00	0	11:17	0.00	0.00	0.01
TRMB05031	CONDUIT	4.62	0	12:00	4.95	0.37	0.71
TRMB05031-S	CHANNEL	0.33	0	12:00	0.56	0.00	0.14
TRMB05032	CONDUIT	4.08	0	12:00	3.38	0.11	0.43
TRMB05032-S	CHANNEL	0.00	0	11:50	0.00	0.00	0.02
TRMB05033	CONDUIT	3.60	0	12:00	3.97	8.25	0.75
TRMB05033-S	CHANNEL	0.36	0	12:00	1.53	0.04	0.09
TRMB05034	CONDUIT	2.69	0	12:30	4.00	0.50	0.54
TRMB05034-S	CHANNEL	0.15	0	12:30	1.48	0.00	0.06
TRMB05035	CONDUIT	6.34	0	12:00	7.52	0.14	0.48
TRMB05035-S	CHANNEL	0.11	0	11:59	1.40	0.00	0.05
TRMB05036	CONDUIT	2.86	0	12:00	4.56	0.46	0.51
TRMB05036-S	CHANNEL	0.00	0	11:30	0.00	0.00	0.01
TRMB05037	CONDUIT	2.12	0	12:00	3.50	0.16	0.49
TRMB05037-S	CHANNEL	0.04	0	12:00	1.36	0.00	0.03

## Alternative #1 (10-Year)

TRMB05038	CONDUIT	3.30	0	12:00	5.94	0.42	0.46
TRMB05038-S	CHANNEL	0.00	0	11:30	0.00	0.00	0.02
TRMB05039	CONDUIT	1.75	0	12:00	2.29	0.35	0.60
TRMB05039-S	CHANNEL	0.01	0	12:00	0.50	0.00	0.04
TRMB05040	CONDUIT	9.12	0	12:00	4.81	0.56	0.58
TRMB05040-S	CHANNEL	0.43	0	12:00	1.34	0.00	0.11
TRMB05041	CONDUIT	12.01	0	12:00	5.08	0.53	0.57
TRMB05041-S	CHANNEL	0.06	0	12:00	0.60	0.00	0.08
TRMB05042	CONDUIT	3.42	0	12:00	4.29	0.46	0.62
TRMB05042-S	CHANNEL	0.00	0	00:00	0.00	0.00	0.08
TRMB05044	CONDUIT	0.84	0	11:59	1.14	0.06	0.50
TRMB05044-S	CHANNEL	0.04	0	12:00	1.48	0.00	0.03
TRMB05045	CONDUIT	14.73	0	12:01	6.08	0.64	0.59
TRMB05045-S	CHANNEL	0.04	0	12:00	1.98	0.00	0.03
TRMB05046	CONDUIT	14.83	0	12:01	6.40	0.20	0.48
TRMB05046-S	CHANNEL	0.18	0	12:30	3.37	0.00	0.04
TRMB05048	CONDUIT	16.81	0	12:01	4.82	0.58	0.67
CountrySideE_Ditch_Culvert_In-IC	DUMMY			5.78	0	13:00	
JMTB01003-IC	DUMMY	8.66	0	11:51			
JMTB01004-IC	DUMMY	4.05	0	11:52			
JMTB01005-IC	DUMMY	0.97	0	12:20			
JMTB01006-IC	DUMMY	8.66	0	11:51			
JMTB01102-IC	DUMMY	8.64	0	12:30			
JMTB01103-IC	DUMMY	4.31	0	12:30			
JMTB01104-IC	DUMMY	2.62	0	12:30			
JMTB01105-IC	DUMMY	8.66	0	12:14			
PCTB01068_US-IC	DUMMY	7.41	0	12:33			
PCTB01068-IC	DUMMY	6.72	0	12:33			
PCTB02001-IC	DUMMY	7.40	0	12:30			
PCTB02002-IC	DUMMY	0.00	0	00:00			
PCTB02003-IC	DUMMY	8.66	0	11:54			
PCTB02004-IC	DUMMY	7.64	0	11:54			
PCTB02011-IC	DUMMY	2.06	0	12:25			
PCTB02012-IC	DUMMY	8.66	0	12:24			
PCTB02014-IC	DUMMY	5.65	0	13:00			
PCTB02015-IC	DUMMY	0.00	0	00:00			
PCTB02016-IC	DUMMY	0.00	0	00:00			
PCTB02017-IC	DUMMY	0.00	0	00:00			
PCTB02022-IC	DUMMY	7.35	0	12:30			
PCTB02023-IC	DUMMY	7.60	0	12:30			
PCTB02189-IC	DUMMY	8.66	0	12:22			
PCTB02191_DS-IC	DUMMY	12.60	0	13:24			
PCTB02191-IC	DUMMY	6.14	0	12:25			
PCTB02207-IC	DUMMY	0.00	0	00:00			
PCTB02209-IC	DUMMY	0.00	0	00:00			
PCTB02229-IC	DUMMY	0.00	0	00:00			
PCTB02231-IC	DUMMY	0.00	0	00:00			
PCTB02235-IC	DUMMY	8.66	0	11:55			
PCTB02237-IC	DUMMY	7.57	0	11:56			
PCTB02257_1-IC	DUMMY	3.96	0	11:59			
PCTB02257-IC	DUMMY	8.66	0	12:23			
PCTB02260-IC	DUMMY	0.00	0	00:00			
PCTB02262-IC	DUMMY	0.00	0	00:00			
PCTB02275-IC	DUMMY	4.06	0	12:31			
PCTB02276-IC	DUMMY	0.00	0	00:00			
PCTB02278-IC	DUMMY	8.66	0	14:39			
PCTB02280-IC	DUMMY	8.66	0	11:59			
PCTB02281-IC	DUMMY	7.54	0	12:00			
PCTB02282-IC	DUMMY	3.77	0	12:30			
PCTB02283-IC	DUMMY	4.45	0	12:30			
PCTB02284-IC	DUMMY	0.00	0	00:00			
PCTB02292-IC	DUMMY	8.85	0	00:23			

## Alternative #1 (10-Year)

PCTB02294-IC	DUMMY	10.36	0	00:24
PCTB02295-IC	DUMMY	12.39	0	13:02
PCTB02297-IC	DUMMY	5.45	0	12:30
PCTB02302-IC	DUMMY	7.09	0	00:22
PCTB02303-IC	DUMMY	4.20	0	12:30
PCTB02304-IC	DUMMY	8.66	0	11:49
PCTB02312-IC	DUMMY	7.46	0	00:22
PCTB02329-IC	DUMMY	2.31	0	12:31
PCTB02330-IC	DUMMY	4.48	0	12:30
PCTB02331-IC	DUMMY	8.01	0	12:30
PCTB02332-IC	DUMMY	0.73	0	12:30
TRMB02002-IC	DUMMY	2.76	0	12:00
TRMB02003-IC	DUMMY	6.85	0	12:04
TRMB02006-IC	DUMMY	4.94	0	12:00
TRMB02009-IC	DUMMY	4.89	0	12:00
TRMB02012-IC	DUMMY	0.38	0	12:00
TRMB02015-IC	DUMMY	8.66	0	11:56
TRMB02016-IC	DUMMY	8.29	0	11:57
TRMB02018-IC	DUMMY	6.30	0	12:03
TRMB02022-IC	DUMMY	10.38	0	12:03
TRMB02023-IC	DUMMY	6.72	0	12:03
TRMB02044_DS-IC	DUMMY	6.83	0	12:00
TRMB02044-IC	DUMMY	0.00	0	00:00
TRMB02045-IC	DUMMY	0.00	0	00:00
TRMB02046-IC	DUMMY	0.50	0	12:00
TRMB02047-IC	DUMMY	3.69	0	12:00
TRMB02048-IC	DUMMY	0.39	0	12:00
TRMB02049-IC	DUMMY	3.59	0	12:00
TRMB02050-IC	DUMMY	0.00	0	00:00
TRMB02051-IC	DUMMY	3.10	0	12:00
TRMB02052-IC	DUMMY	0.55	0	12:00
TRMB02056-IC	DUMMY	3.07	0	12:00
TRMB02057-IC	DUMMY	4.79	0	12:00
TRMB02060-IC	DUMMY	4.70	0	12:00
TRMB02063-IC	DUMMY	0.05	0	12:00
TRMB02064-IC	DUMMY	1.65	0	12:00
TRMB02067-IC	DUMMY	4.05	0	12:00
TRMB02068-IC	DUMMY	3.73	0	12:00
TRMB02069-IC	DUMMY	0.11	0	11:39
TRMB02070-IC	DUMMY	1.83	0	12:00
TRMB03016-IC	DUMMY	0.00	0	00:00
TRMB03022-IC	DUMMY	0.58	0	12:00
TRMB03025-IC	DUMMY	2.76	0	12:00
TRMB03028-IC	DUMMY	0.00	0	00:00
TRMB03029-IC	DUMMY	0.00	0	00:00
TRMB03030-IC	DUMMY	0.00	0	00:00
TRMB03031-IC	DUMMY	3.80	0	12:00
TRMB03032-IC	DUMMY	1.90	0	12:00
TRMB03033-IC	DUMMY	0.66	0	12:00
TRMB03034-IC	DUMMY	3.66	0	12:00
TRMB03036-IC	DUMMY	0.99	0	12:00
TRMB03037-IC	DUMMY	4.93	0	12:00
TRMB03038-IC	DUMMY	0.00	0	00:00
TRMB03039-IC	DUMMY	3.26	0	12:00
TRMB03042-IC	DUMMY	4.35	0	12:00
TRMB03043-IC	DUMMY	0.29	0	12:00
TRMB03044-IC	DUMMY	6.50	0	12:00
TRMB03049-IC	DUMMY	0.00	0	00:00
TRMB03051-IC	DUMMY	0.84	0	12:00
TRMB03052-IC	DUMMY	0.00	0	00:00
TRMB03054-IC	DUMMY	4.33	0	12:01
TRMB03055-IC	DUMMY	5.12	0	12:00

## Alternative #1 (10-Year)

TRMB03063-IC	DUMMY	4.60	0	12:00
TRMB03065-IC	DUMMY	1.90	0	12:00
TRMB03067-IC	DUMMY	1.01	0	11:47
TRMB03068-IC	DUMMY	4.05	0	12:00
TRMB03069-IC	DUMMY	4.52	0	12:00
TRMB03070-IC	DUMMY	1.49	0	12:00
TRMB03072-IC	DUMMY	0.44	0	12:30
TRMB03073-IC	DUMMY	3.39	0	12:00
TRMB03084-IC	DUMMY	4.73	0	12:30
TRMB03087-IC	DUMMY	6.94	0	12:30
TRMB03088-IC	DUMMY	0.00	0	00:00
TRMB03089-IC	DUMMY	0.00	0	00:00
TRMB03090-IC	DUMMY	8.66	0	11:57
TRMB03091-IC	DUMMY	5.53	0	12:00
TRMB03092-IC	DUMMY	3.67	0	12:00
TRMB03094-IC	DUMMY	6.19	0	12:00
TRMB03095-IC	DUMMY	6.20	0	12:00
TRMB03096-IC	DUMMY	5.29	0	12:00
TRMB03097-IC	DUMMY	4.54	0	12:00
TRMB03101-IC	DUMMY	0.51	0	12:58
TRMB03102-IC	DUMMY	6.10	0	12:00
TRMB03103-IC	DUMMY	5.81	0	12:00
TRMB03111-IC	DUMMY	6.11	0	12:00
TRMB04089-IC	DUMMY	8.42	0	12:30
TRMB05002-IC	DUMMY	0.10	0	11:35
TRMB05003-IC	DUMMY	0.54	0	11:40
TRMB05004-IC	DUMMY	1.20	0	11:57
TRMB05005-IC	DUMMY	2.16	0	12:00
TRMB05006-IC	DUMMY	0.10	0	11:33
TRMB05008-IC	DUMMY	2.11	0	12:00
TRMB05009_DS-IC	DUMMY	1.14	0	11:45
TRMB05009-IC	DUMMY	2.95	0	12:35
TRMB05010-IC	DUMMY	2.63	0	12:00
TRMB05011-IC	DUMMY	0.00	0	00:00
TRMB05012-IC	DUMMY	1.61	0	12:00
TRMB05013-IC	DUMMY	1.54	0	12:00
TRMB05014-IC	DUMMY	2.85	0	12:00
TRMB05015-IC	DUMMY	4.60	0	11:55
TRMB05016-IC	DUMMY	2.56	0	12:01
TRMB05017_US-IC	DUMMY	8.66	0	11:54
TRMB05017-IC	DUMMY	5.39	0	12:34
TRMB05018-IC	DUMMY	2.32	0	11:56
TRMB05019-IC	DUMMY	0.32	0	12:08
TRMB05020-IC	DUMMY	0.49	0	11:56
TRMB05021-IC	DUMMY	0.21	0	13:04
TRMB05022-IC	DUMMY	1.03	0	12:00
TRMB05023-IC	DUMMY	4.24	0	12:46
TRMB05025-IC	DUMMY	8.66	0	11:49
TRMB05026-IC	DUMMY	0.00	0	00:00
TRMB05027-IC	DUMMY	8.66	0	11:48
TRMB05028-IC	DUMMY	0.43	0	12:00
TRMB05029-IC	DUMMY	1.36	0	12:00
TRMB05030-IC	DUMMY	0.88	0	11:49
TRMB05031-IC	DUMMY	4.62	0	12:00
TRMB05032-IC	DUMMY	1.72	0	12:00
TRMB05033-IC	DUMMY	3.60	0	12:00
TRMB05034-IC	DUMMY	2.69	0	12:30
TRMB05035-IC	DUMMY	0.35	0	11:30
TRMB05036-IC	DUMMY	0.80	0	11:47
TRMB05037-IC	DUMMY	2.12	0	12:00
TRMB05038-IC	DUMMY	1.55	0	12:00
TRMB05039-IC	DUMMY	1.76	0	12:00



# Alternative #1 (10-Year)

TRMB05040-IC	DUMMY	2.81	0	12:00
TRMB05041-IC	DUMMY	2.93	0	12:00
TRMB05042-IC	DUMMY	3.42	0	12:00
TRMB05043-IC	DUMMY	0.00	0	00:00
TRMB05044-IC	DUMMY	1.04	0	11:39
TRMB05045-IC	DUMMY	2.01	0	12:00
TRMB05046-IC	DUMMY	0.39	0	11:45
TRMB05048-IC	DUMMY	2.52	0	12:30

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 Flow Classification Summary  
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Conduit	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.45	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C14	2.29	0.01	0.00	0.00	0.96	0.04	0.00	0.00	0.00	0.00
C2	1.00	0.00	0.00	0.00	0.12	0.88	0.00	0.00	0.49	0.00
C2_1	6.41	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C2_1-S	3.97	0.00	0.18	0.00	0.78	0.04	0.00	0.00	0.97	0.00
C2_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C3	1.00	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.99	0.00
C4	1.00	0.00	0.01	0.00	0.41	0.57	0.00	0.00	0.00	0.00
C5	3.03	0.00	0.00	0.00	0.86	0.14	0.00	0.00	1.00	0.00
C9	9.19	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.99	0.00
C9-S	9.93	0.41	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CountrySideE_Ditch	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.78	0.00
CountrySideE_Ditch_Culvert	1.00	1.00	0.01	0.00	0.00	0.98	0.00	0.00	0.01	0.00
0.00										
CountrySideE_Ditch_Culvert-S		1.00	0.26	0.02	0.00	0.33	0.39	0.00	0.00	
0.24 0.00										
JMTB01003	6.17	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
JMTB01003-S	10.55	0.16	0.56	0.00	0.28	0.00	0.00	0.00	0.00	0.00
JMTB01004	1.41	0.00	0.00	0.00	0.98	0.02	0.00	0.00	0.00	0.00
JMTB01004-S	1.20	0.72	0.00	0.00	0.01	0.27	0.00	0.00	0.00	0.00
JMTB01005	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.38	0.00
JMTB01005-S	1.00	0.15	0.61	0.00	0.24	0.00	0.00	0.00	0.50	0.00
JMTB01102	3.59	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.46	0.00
JMTB01102-S	3.41	0.18	0.59	0.00	0.23	0.00	0.00	0.00	0.71	0.00
JMTB01103	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.46	0.00
JMTB01103_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
JMTB01103-S	1.00	0.21	0.57	0.00	0.22	0.00	0.00	0.00	0.94	0.00
JMTB01104	2.72	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.32	0.00
JMTB01104-S	2.20	0.35	0.05	0.00	0.27	0.33	0.00	0.00	0.06	0.00
PCTB01068	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB01068_US	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.11	0.00
PCTB01068_US-S	1.00	0.20	0.48	0.00	0.32	0.00	0.00	0.00	0.00	0.00
PCTB02001_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
PCTB02001_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.03	0.00
PCTB02002	1.21	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.03	0.00
PCTB02002-S	1.28	0.28	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02003	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.03	0.00
PCTB02003-S	1.00	0.12	0.07	0.00	0.38	0.42	0.00	0.00	0.05	0.00
PCTB02008	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02011	3.82	0.00	0.00	0.00	0.91	0.08	0.00	0.00	0.38	0.00
PCTB02011_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00

## Alternative #1 (10-Year)

PCTB02011-S	2.41	0.27	0.52	0.00	0.21	0.00	0.00	0.00	0.00	0.00
PCTB02014	3.40	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02014_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.05	0.00
PCTB02014-S	2.03	0.83	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02016	1.79	0.00	0.00	0.00	0.96	0.04	0.00	0.00	0.23	0.00
PCTB02016-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02020	1.00	0.00	0.00	0.00	0.95	0.00	0.00	0.05	0.26	0.00
PCTB02021	1.00	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.03	0.00
PCTB02022	1.50	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
PCTB02022-S	1.00	0.11	0.06	0.00	0.19	0.63	0.00	0.00	0.00	0.00
PCTB02023	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.06	0.00
PCTB02023-S	1.00	0.46	0.53	0.00	0.01	0.00	0.00	0.00	0.48	0.00
PCTB02076	1.20	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02080	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02160	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02172	2.17	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02189	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02189-S	1.00	0.02	0.00	0.00	0.04	0.93	0.00	0.00	0.00	0.00
PCTB02208	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02208-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02231	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02231-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02237	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02237-S	1.00	0.19	0.22	0.00	0.59	0.00	0.00	0.00	0.00	0.00
PCTB02239	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02240	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02259_1	1.62	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02259_2	1.00	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02260	1.09	0.01	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02260-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02264	1.00	0.01	0.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02274	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
PCTB02275	3.23	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02275-S	3.61	0.15	0.10	0.00	0.04	0.71	0.00	0.00	0.01	0.00
PCTB02276	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02276-S	1.00	0.43	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02278	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02278-S	1.00	0.63	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02279	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.67	0.00
PCTB02280	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02280-S	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.98	0.00
PCTB02281	2.41	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02281-S	1.89	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
PCTB02282	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02282-S	1.00	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.99	0.00
PCTB02283	1.34	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02283-S	2.70	0.05	0.00	0.00	0.19	0.76	0.00	0.00	0.02	0.00
PCTB02284	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
PCTB02284-S	1.00	0.60	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCTB02292	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02294	3.11	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02294-S	1.30	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.61	0.00
PCTB02295	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02297	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02297-S	1.00	0.01	0.05	0.00	0.94	0.00	0.00	0.00	0.98	0.00
PCTB02299	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02300	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02301	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02302	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02303	2.33	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02303-S	1.93	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.99	0.00
PCTB02304	6.82	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00

## Alternative #1 (10-Year)

PCTB02304-S	6.10	0.04	0.01	0.00	0.87	0.08	0.00	0.00	0.98	0.00
PCTB02312	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02329	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
PCTB02329-S	1.00	0.82	0.00	0.00	0.02	0.16	0.00	0.00	0.00	0.00
PCTB02330	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
PCTB02330-S	1.00	0.14	0.67	0.00	0.18	0.00	0.00	0.00	0.00	0.00
PCTB02331	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.02	0.00
PCTB02331-S	1.00	0.14	0.84	0.00	0.01	0.00	0.00	0.00	0.00	0.00
TRMB02002	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.04	0.00
TRMB02003	5.01	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.04	0.00
TRMB02003-S	3.46	0.34	0.18	0.00	0.27	0.22	0.00	0.00	0.03	0.00
TRMB02006	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB02006-S	1.00	0.67	0.05	0.00	0.21	0.06	0.00	0.00	0.36	0.00
TRMB02009	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB02009-S	1.00	0.02	0.01	0.00	0.34	0.64	0.00	0.00	0.01	0.00
TRMB02012	1.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.01	0.00
TRMB02012-S	1.00	0.02	0.00	0.00	0.97	0.01	0.00	0.00	0.00	0.00
TRMB02015	1.00	0.00	0.40	0.00	0.60	0.00	0.00	0.00	0.99	0.00
TRMB02015-S	1.00	0.83	0.07	0.00	0.10	0.00	0.00	0.00	0.50	0.00
TRMB02016	4.53	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB02016-S	1.39	0.11	0.05	0.00	0.57	0.27	0.00	0.00	0.00	0.00
TRMB02018	1.00	0.00	0.00	0.00	0.02	0.98	0.00	0.00	0.00	0.00
TRMB02018-S	1.00	0.13	0.00	0.00	0.75	0.12	0.00	0.00	0.60	0.00
TRMB02022	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB02022-S	1.00	0.00	0.12	0.00	0.86	0.02	0.00	0.00	0.48	0.00
TRMB02023	1.00	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.99	0.00
TRMB02023-S	1.00	0.17	0.00	0.00	0.05	0.00	0.78	0.00	0.00	0.00
TRMB02044_1-S	1.00	0.06	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02044_2	1.00	0.00	0.00	0.00	0.40	0.60	0.00	0.00	1.00	0.00
TRMB02044_2-S	1.00	0.00	0.06	0.00	0.16	0.78	0.00	0.00	0.08	0.00
TRMB02044_3	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02044_4	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02044_5	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB02045	2.69	0.00	0.00	0.00	0.76	0.24	0.00	0.00	0.00	0.00
TRMB02045-S	2.35	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02046-S	2.80	0.90	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02047-S	1.03	0.32	0.13	0.00	0.28	0.26	0.00	0.00	0.00	0.00
TRMB02048	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB02048-S	1.00	0.43	0.49	0.00	0.09	0.00	0.00	0.00	0.89	0.00
TRMB02049-S	1.00	0.52	0.14	0.00	0.12	0.22	0.00	0.00	0.00	0.00
TRMB02050	1.13	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02050-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02051	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02051-S	1.00	0.51	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB02052	4.87	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.02	0.00
TRMB02052-S	1.98	0.43	0.07	0.00	0.29	0.21	0.00	0.00	0.00	0.00
TRMB02056	4.44	0.00	0.00	0.00	0.28	0.72	0.00	0.00	0.90	0.00
TRMB02056-S	3.10	0.93	0.03	0.00	0.01	0.04	0.00	0.00	0.00	0.00
TRMB02057	5.10	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.01	0.00
TRMB02057-S	2.66	0.78	0.00	0.00	0.17	0.05	0.00	0.00	0.00	0.00
TRMB02060	1.00	0.00	0.00	0.00	0.04	0.96	0.00	0.00	0.97	0.00
TRMB02060-S	1.00	0.07	0.06	0.00	0.44	0.43	0.00	0.00	0.01	0.00
TRMB02063	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB02063-S	1.00	0.13	0.87	0.00	0.00	0.00	0.00	0.00	0.50	0.00
TRMB02064	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB02064-S	1.00	0.94	0.00	0.00	0.04	0.02	0.00	0.00	0.00	0.00
TRMB02067	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB02067-S	1.00	0.25	0.05	0.00	0.53	0.18	0.00	0.00	0.01	0.00
TRMB02068	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.99	0.00
TRMB02068-S	1.00	0.29	0.02	0.00	0.35	0.34	0.00	0.00	0.18	0.00
TRMB02069	1.59	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB02069-S	1.35	0.31	0.67	0.00	0.02	0.00	0.00	0.00	0.95	0.00

## Alternative #1 (10-Year)

TRMB02070	1.67	0.00	0.00	0.00	0.91	0.09	0.00	0.00	0.00	0.00
TRMB02070-S	1.20	0.64	0.08	0.00	0.22	0.06	0.00	0.00	0.00	0.00
TRMB03016	2.54	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
TRMB03022	1.00	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.74	0.00
TRMB03025	2.86	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB03025-S	2.46	0.26	0.15	0.00	0.39	0.19	0.00	0.00	0.00	0.00
TRMB03026	8.84	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
TRMB03027	1.67	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB03028	1.40	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03028-S	3.66	0.41	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03029	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.99	0.00
TRMB03029-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03030	1.00	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.00	0.00
TRMB03030-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03031	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03032	1.00	0.00	0.00	0.00	0.05	0.95	0.00	0.00	1.00	0.00
TRMB03032-S	1.00	0.28	0.11	0.00	0.52	0.09	0.00	0.00	0.70	0.00
TRMB03033	10.18	0.00	0.65	0.00	0.35	0.00	0.00	0.00	0.35	0.00
TRMB03033-S	8.86	0.83	0.00	0.00	0.13	0.04	0.00	0.00	0.00	0.00
TRMB03034	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03034-S	1.00	0.83	0.00	0.00	0.13	0.04	0.00	0.00	0.00	0.00
TRMB03035-S	3.74	0.34	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00
TRMB03036	1.00	0.00	0.00	0.00	0.72	0.28	0.00	0.00	0.00	0.00
TRMB03036-S	1.00	0.29	0.67	0.00	0.04	0.00	0.00	0.00	0.50	0.00
TRMB03037	1.67	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB03037-S	1.54	0.28	0.18	0.00	0.22	0.32	0.00	0.00	0.01	0.00
TRMB03038	3.46	0.35	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03038-S	2.35	0.96	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03039	12.41	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB03039-S	1.00	0.88	0.00	0.00	0.07	0.04	0.00	0.00	0.00	0.00
TRMB03042	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.85	0.00
TRMB03042-S	1.00	0.09	0.04	0.00	0.53	0.33	0.00	0.00	0.00	0.00
TRMB03043	1.00	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.01	0.00
TRMB03043-S	1.00	0.88	0.00	0.00	0.07	0.04	0.00	0.00	0.00	0.00
TRMB03044	1.00	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.54	0.00
TRMB03044-S	1.00	0.39	0.49	0.00	0.11	0.00	0.00	0.00	0.98	0.00
TRMB03049	5.44	0.00	0.75	0.00	0.25	0.00	0.00	0.00	0.40	0.00
TRMB03049-S	5.34	0.96	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03051	6.81	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB03051-S	3.77	0.93	0.03	0.00	0.04	0.00	0.00	0.00	0.50	0.00
TRMB03052	2.88	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03052-S	1.60	0.93	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03054	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03054-S	1.00	0.82	0.02	0.00	0.15	0.00	0.00	0.00	0.00	0.00
TRMB03055	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03055-S	1.00	0.29	0.03	0.00	0.59	0.10	0.00	0.00	0.00	0.00
TRMB03063	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03063-S	1.00	0.08	0.08	0.00	0.47	0.37	0.00	0.00	0.00	0.00
TRMB03065	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
TRMB03067	2.16	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03067-S	1.88	0.46	0.08	0.00	0.44	0.02	0.00	0.00	0.03	0.00
TRMB03068	1.74	0.00	0.00	0.00	0.05	0.02	0.00	0.93	0.04	0.00
TRMB03068-S	5.47	0.23	0.15	0.00	0.23	0.39	0.00	0.00	0.04	0.00
TRMB03069	1.22	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.01	0.00
TRMB03069-S	1.01	0.75	0.04	0.00	0.16	0.06	0.00	0.00	0.00	0.00
TRMB03070	3.10	0.00	0.83	0.00	0.17	0.00	0.00	0.00	0.45	0.00
TRMB03070-S	1.00	0.15	0.62	0.00	0.23	0.00	0.00	0.00	0.44	0.00
TRMB03072	1.28	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB03072-S_1	1.00	0.95	0.01	0.00	0.03	0.00	0.00	0.00	0.50	0.00
TRMB03073	1.00	0.00	0.00	0.00	0.98	0.02	0.00	0.00	0.99	0.00
TRMB03073-S	1.52	0.32	0.21	0.00	0.19	0.28	0.00	0.00	0.01	0.00
TRMB03083	2.03	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.02	0.00

## Alternative #1 (10-Year)

TRMB03083-S	2.11	0.97	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03084	1.91	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB03084-S	9.74	0.61	0.36	0.00	0.04	0.00	0.00	0.00	0.00	0.00
TRMB03087-S	1.00	0.10	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03088_1	1.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.98	0.00
TRMB03088_2	1.73	0.00	0.00	0.00	0.01	0.99	0.00	0.00	0.54	0.00
TRMB03088_3	1.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.37	0.00
TRMB03088_5	1.13	0.00	0.00	0.00	0.08	0.92	0.00	0.00	0.92	0.00
TRMB03088-S	1.00	0.10	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03089	3.10	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB03089-S	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03090	6.94	0.00	0.00	0.00	0.96	0.04	0.00	0.00	0.00	0.00
TRMB03090-S	6.70	0.81	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB03091	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03091-S	1.00	0.21	0.12	0.00	0.50	0.18	0.00	0.00	0.04	0.00
TRMB03092	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03092-S	1.00	0.25	0.15	0.00	0.35	0.25	0.00	0.00	0.04	0.00
TRMB03094	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.21	0.00
TRMB03094-S	1.00	0.16	0.41	0.00	0.37	0.06	0.00	0.00	0.87	0.00
TRMB03095	21.41	0.00	0.01	0.00	0.95	0.04	0.00	0.00	0.99	0.00
TRMB03095-S	2.35	0.42	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00
TRMB03096	2.75	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB03096-S	3.82	0.48	0.31	0.00	0.14	0.07	0.00	0.00	0.44	0.00
TRMB03097	1.00	0.00	0.00	0.00	0.14	0.86	0.00	0.00	1.00	0.00
TRMB03097-S	1.00	0.17	0.09	0.00	0.28	0.47	0.00	0.00	0.05	0.00
TRMB03101	21.32	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB03101-S	10.03	0.42	0.09	0.00	0.49	0.00	0.00	0.00	0.06	0.00
TRMB03102	2.34	0.00	0.00	0.00	0.07	0.93	0.00	0.00	1.00	0.00
TRMB03102-S	1.51	0.28	0.12	0.00	0.38	0.22	0.00	0.00	0.00	0.00
TRMB03103	1.35	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB03103-S	1.00	0.08	0.09	0.00	0.42	0.41	0.00	0.00	0.32	0.00
TRMB03111	1.39	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.89	0.00
TRMB03111-S	1.00	0.06	0.03	0.00	0.11	0.80	0.00	0.00	0.11	0.00
TRMB04089_1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.93	0.00
TRMB04089_1-S	1.00	0.02	0.00	0.00	0.01	0.96	0.00	0.00	0.11	0.00
TRMB04089_2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.73	0.00
TRMB04089_2-S	1.00	0.10	0.00	0.00	0.15	0.75	0.00	0.00	0.00	0.00
TRMB05002	6.84	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
TRMB05003	1.39	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB05003-S	1.00	0.94	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
TRMB05004	21.46	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
TRMB05004-S	25.46	0.47	0.42	0.00	0.11	0.00	0.00	0.00	0.53	0.00
TRMB05005	5.78	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.18	0.00
TRMB05005-S	3.52	0.47	0.12	0.00	0.23	0.18	0.00	0.00	0.00	0.00
TRMB05006	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.91	0.00
TRMB05006-S	1.00	0.88	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00
TRMB05008	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.99	0.00
TRMB05008-S	1.00	0.56	0.44	0.00	0.00	0.00	0.00	0.00	0.94	0.00
TRMB05009_1	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.42	0.00
TRMB05009_1-S	1.00	0.41	0.42	0.00	0.06	0.12	0.00	0.00	0.44	0.00
TRMB05009_2	1.00	0.00	0.00	0.00	0.26	0.73	0.00	0.00	1.00	0.00
TRMB05009_2-S	1.00	0.35	0.06	0.00	0.44	0.14	0.00	0.00	0.00	0.00
TRMB05010	7.50	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05010-S	1.49	0.53	0.42	0.00	0.05	0.00	0.00	0.00	0.70	0.00
TRMB05011	4.39	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.34	0.00
TRMB05011-S	2.93	0.58	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05012	1.64	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB05012-S	1.28	0.76	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05013	62.80	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05013-S	22.44	0.60	0.23	0.00	0.06	0.12	0.00	0.00	0.45	0.00
TRMB05014	9.71	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05014-S	3.83	0.61	0.21	0.00	0.05	0.13	0.00	0.00	0.48	0.00

## Alternative #1 (10-Year)

TRMB05015	1.00	0.00	0.00	0.00	0.31	0.69	0.00	0.00	0.00	0.00
TRMB05015-S	1.00	0.43	0.00	0.00	0.29	0.28	0.00	0.00	0.00	0.00
TRMB05016	10.61	0.00	0.00	0.00	0.99	0.01	0.00	0.00	1.00	0.00
TRMB05016-S	2.36	0.43	0.00	0.00	0.29	0.28	0.00	0.00	0.00	0.00
TRMB05017	1.56	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.06	0.00
TRMB05017-S	1.25	0.23	0.19	0.00	0.22	0.36	0.00	0.00	0.26	0.00
TRMB05018	7.13	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.98	0.00
TRMB05018-S	2.41	0.43	0.00	0.00	0.29	0.28	0.00	0.00	0.00	0.00
TRMB05019	11.08	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB05019-S	7.74	0.80	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.00
TRMB05020	3.71	0.00	0.00	0.00	0.97	0.03	0.00	0.00	0.99	0.00
TRMB05020-S	2.62	0.43	0.38	0.00	0.09	0.10	0.00	0.00	0.46	0.00
TRMB05021	1.00	0.00	0.00	0.00	0.74	0.26	0.00	0.00	0.99	0.00
TRMB05021-S	1.00	0.94	0.04	0.00	0.02	0.00	0.00	0.00	0.50	0.00
TRMB05022	5.95	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
TRMB05022-S	4.30	0.37	0.43	0.00	0.09	0.10	0.00	0.00	0.00	0.00
TRMB05023	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB05023-S	1.00	0.00	0.51	0.00	0.48	0.00	0.00	0.00	1.00	0.00
TRMB05025	25.30	0.00	0.00	0.00	0.80	0.20	0.00	0.00	1.00	0.00
TRMB05025-S	8.01	0.25	0.17	0.00	0.40	0.18	0.00	0.00	0.42	0.00
TRMB05026	7.07	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00
TRMB05026-S	2.28	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05027	17.75	0.00	0.00	0.00	0.77	0.23	0.00	0.00	1.00	0.00
TRMB05027-S	8.13	0.26	0.17	0.00	0.42	0.16	0.00	0.00	0.45	0.00
TRMB05028	1.00	0.00	0.00	0.00	0.05	0.95	0.00	0.00	0.00	0.00
TRMB05028-S	1.00	0.49	0.00	0.00	0.50	0.00	0.00	0.00	0.51	0.00
TRMB05029	2.49	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.08	0.00
TRMB05029-S	2.09	0.69	0.05	0.00	0.21	0.05	0.00	0.00	0.00	0.00
TRMB05030	5.97	0.00	0.00	0.00	0.98	0.02	0.00	0.00	0.97	0.00
TRMB05030-S	3.36	0.33	0.23	0.00	0.44	0.00	0.00	0.00	0.50	0.00
TRMB05031	2.21	0.00	0.00	0.00	0.98	0.02	0.00	0.00	1.00	0.00
TRMB05031-S	1.00	0.53	0.22	0.00	0.25	0.00	0.00	0.00	0.88	0.00
TRMB05032	2.55	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
TRMB05032-S	1.00	0.54	0.27	0.00	0.19	0.00	0.00	0.00	0.95	0.00
TRMB05033	1.53	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB05033-S	1.00	0.39	0.00	0.00	0.48	0.13	0.00	0.00	0.09	0.00
TRMB05034	2.47	0.00	0.25	0.00	0.20	0.56	0.00	0.00	0.01	0.00
TRMB05034-S	2.06	0.51	0.15	0.00	0.06	0.28	0.00	0.00	0.07	0.00
TRMB05035	10.07	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
TRMB05035-S	2.09	0.20	0.16	0.00	0.45	0.19	0.00	0.00	0.00	0.00
TRMB05036	1.34	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB05036-S	1.10	0.36	0.26	0.00	0.39	0.00	0.00	0.00	0.51	0.00
TRMB05037	3.97	0.00	0.00	0.00	0.62	0.38	0.00	0.00	1.00	0.00
TRMB05037-S	2.32	0.54	0.12	0.00	0.19	0.14	0.00	0.00	0.03	0.00
TRMB05038	1.54	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
TRMB05038-S	1.00	0.57	0.27	0.00	0.16	0.00	0.00	0.00	0.95	0.00
TRMB05039	2.08	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.23	0.00
TRMB05039-S	1.81	0.62	0.02	0.00	0.31	0.06	0.00	0.00	0.66	0.00
TRMB05040	1.00	0.00	0.00	0.00	0.64	0.36	0.00	0.00	0.89	0.00
TRMB05040-S	1.00	0.24	0.12	0.00	0.35	0.29	0.00	0.00	0.00	0.00
TRMB05041	2.28	0.00	0.00	0.00	0.75	0.25	0.00	0.00	0.60	0.00
TRMB05041-S	1.47	0.26	0.16	0.00	0.38	0.19	0.00	0.00	0.16	0.00
TRMB05042	2.30	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
TRMB05042-S	2.05	0.60	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRMB05044	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.98	0.00
TRMB05044-S	1.00	0.27	0.13	0.00	0.43	0.17	0.00	0.00	0.15	0.00
TRMB05045	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
TRMB05045-S	1.00	0.33	0.07	0.00	0.42	0.17	0.00	0.00	0.00	0.00
TRMB05046	9.99	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.99	0.00
TRMB05046-S	7.70	0.55	0.13	0.00	0.10	0.22	0.00	0.00	0.00	0.00
TRMB05048	2.45	0.01	0.00	0.00	0.98	0.00	0.00	0.01	0.67	0.00

# Alternative #1 (10-Year)

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 Conduit Surcharge Summary  
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Conduit	----- Both Ends	Hours Full Upstream	----- Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited	
C2	0.01	0.01	0.01	1.66	0.01	
C2_1	23.70	23.70	23.70	0.01	0.01	
C4	0.01	0.01	0.01	0.11	0.01	
CountrySideE_Ditch_Culvert		0.01	0.01	0.01	1.57	0.01
JMTB01003	0.01	0.01	0.01	1.66	0.01	
JMTB01004	0.25	0.25	0.25	12.35	0.25	
JMTB01005	0.01	0.01	0.01	4.73	0.01	
JMTB01102	0.75	0.75	0.75	0.01	0.01	
JMTB01103	0.54	0.54	0.54	0.17	0.32	
JMTB01104	4.84	4.84	4.84	0.01	0.01	
PCTB01068	0.01	0.01	0.01	2.04	0.01	
PCTB01068_US	0.01	0.01	0.01	1.02	0.01	
PCTB02008	0.01	0.01	0.01	1.83	0.01	
PCTB02021	6.51	6.51	6.51	0.01	0.01	
PCTB02080	23.46	23.46	23.46	23.75	0.01	
PCTB02189	23.69	23.69	23.69	0.01	0.01	
PCTB02231	23.63	23.63	23.63	11.19	4.52	
PCTB02237	6.45	6.45	6.45	5.22	2.44	
PCTB02260	0.01	0.01	0.01	6.01	0.01	
PCTB02276	0.01	0.01	0.01	4.36	0.01	
PCTB02278	9.91	9.91	9.92	0.01	0.01	
PCTB02280	23.57	23.57	23.57	3.07	0.01	
PCTB02281	23.56	23.56	23.56	0.01	0.01	
PCTB02282	23.54	23.54	23.54	0.01	0.01	
PCTB02283	23.53	23.53	23.53	14.91	0.01	
PCTB02284	23.53	23.53	23.53	0.01	0.01	
PCTB02294	23.49	23.49	23.49	0.12	0.01	
PCTB02297	23.50	23.50	23.50	0.01	0.01	
PCTB02303	23.45	23.45	23.45	0.01	0.01	
PCTB02304	23.45	23.45	23.46	0.01	0.01	
PCTB02329	0.01	0.01	0.01	0.62	0.01	
TRMB02018	0.01	0.01	0.01	0.12	0.01	
TRMB02022-S	0.01	0.01	0.01	0.20	0.01	
TRMB02044_3	0.01	0.01	0.01	0.78	0.01	
TRMB02044_4	0.01	0.01	0.01	22.72	0.01	
TRMB02067	0.01	0.01	0.01	0.73	0.01	
TRMB03028	0.01	0.01	0.01	0.96	0.01	
TRMB03036	0.01	0.01	0.01	0.11	0.01	
TRMB03037	0.01	0.01	0.01	0.75	0.01	
TRMB03054	0.01	0.01	0.01	0.75	0.01	
TRMB03083	0.01	0.01	0.01	0.68	0.01	
TRMB05004	0.07	0.07	0.07	0.01	0.01	
TRMB05006	0.01	0.01	0.01	0.60	0.01	
TRMB05015	0.01	0.01	0.01	0.77	0.01	
TRMB05033	0.01	0.01	0.01	3.13	0.01	

Analysis begun on: Fri Nov 20 20:57:51 2015  
 Analysis ended on: Fri Nov 20 20:58:06 2015  
 Total elapsed time: 00:00:15





**APPENDIX I**  
**BMP CONCEPTUAL DESIGN**

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-1

Project Name Ironwood Golf Club Wet Pond

Prepared by: YB

Checked by:

Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	1,188,709	74,686
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	234,838	59,070
Required Runoff Treatment Volume (ft <sup>3</sup> )	19,570	4,922
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	29.00	
Total Subbasin Drainage Area (ft <sup>2</sup> )	1,263,395	
Required Treatment Volume (ft <sup>2</sup> *in)	293,907	
Required Treatment Volume (ft <sup>3</sup> )	24,492	
<b>Surface Area of Ironwood Golf Club Wet Pond</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	15,818	
Available Bioretention Surface Area (ac)	0.363	
Percent Impervious Cover	5.9%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	0.32	
Required Surface Area (ft <sup>2</sup> )	13,897	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	210	
Width of BMP <sup>3</sup> (ft)	70	
Capacity (ft <sup>3</sup> )	66,150	

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-2

Project Name Moyewood Wetland Repair

Prepared by: YB

Checked by:

Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	5,017,746	4,817,690
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	991,291	3,810,339
Required Runoff Treatment Volume (ft <sup>3</sup> )	82,608	317,528
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	225.79	
Total Subbasin Drainage Area (ft <sup>2</sup> )	9,835,436	
Required Treatment Volume (ft <sup>2</sup> *in)	4,801,630	
Required Treatment Volume (ft <sup>3</sup> )	400,136	
<b>Surface Area of Moyewood Wetland Repair</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	61,234	
Available Bioretention Surface Area (ac)	1.406	
Percent Impervious Cover	49.0%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	2.48	
Required Surface Area (ft <sup>2</sup> )	108,190	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	900	
Width of BMP <sup>3</sup> (ft)	300	
Capacity (ft <sup>3</sup> )	1,215,000	

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-3A  
 Project Name: Thomas Foreman Park Bioretention  
 Prepared by: YB  
 Checked by:  
 Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	49,446	15,801
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	9,768	12,497
Required Runoff Treatment Volume (ft <sup>3</sup> )	814	1,041
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	1.50	
Total Subbasin Drainage Area (ft <sup>2</sup> )	65,247	
Required Treatment Volume (ft <sup>2</sup> *in)	22,266	
Required Treatment Volume (ft <sup>3</sup> )	1,855	
<b>Surface Area of Thomas Foreman Park Bioretention</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	1,018	
Available Bioretention Surface Area (ac)	0.023	
Percent Impervious Cover	24.2%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	0.02	
Required Surface Area (ft <sup>2</sup> )	718	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	70	
Width of BMP <sup>3</sup> (ft)	23	
Capacity (ft <sup>3</sup> )	7,350	

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-3B  
 Project Name: Thomas Foreman Park Permeable Pavement  
 Prepared by: YB  
 Checked by:  
 Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	17,960	10,727
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	3,548	8,484
Required Runoff Treatment Volume (ft <sup>3</sup> )	296	707
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	0.66	
Total Subbasin Drainage Area (ft <sup>2</sup> )	28,687	
Required Treatment Volume (ft <sup>2</sup> *in)	12,032	
Required Treatment Volume (ft <sup>3</sup> )	1,003	
<b>Surface Area of Thomas Foreman Park Permeable Pavement</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	1,657	
Available Bioretention Surface Area (ac)	0.038	
Percent Impervious Cover	37.4%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	0.01	
Required Surface Area (ft <sup>2</sup> )	316	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	65	
Width of BMP <sup>3</sup> (ft)	22	
Capacity (ft <sup>3</sup> )	6,338	

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-4  
 Project Name: Third Street Community Center Bioretention  
 Prepared by: YB  
 Checked by:  
 Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	59,317	52,891
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	11,719	41,832
Required Runoff Treatment Volume (ft <sup>3</sup> )	977	3,486
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	2.58	
Total Subbasin Drainage Area (ft <sup>2</sup> )	112,209	
Required Treatment Volume (ft <sup>2</sup> *in)	53,551	
Required Treatment Volume (ft <sup>3</sup> )	4,463	
<b>Surface Area of Third Street Community Center Bioretention</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	1,415	
Available Bioretention Surface Area (ac)	0.032	
Percent Impervious Cover	47.1%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	0.03	
Required Surface Area (ft <sup>2</sup> )	1,234	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	110	
Width of BMP <sup>3</sup> (ft)	37	
Capacity (ft <sup>3</sup> )	18,150	

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-5  
 Project Name: Town Common on Tar River Tiered Bioretention  
 Prepared by: YB  
 Checked by:  
 Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	157,869	627,657
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	31,188	496,417
Required Runoff Treatment Volume (ft <sup>3</sup> )	2,599	41,368
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	18.03	
Total Subbasin Drainage Area (ft <sup>2</sup> )	785,526	
Required Treatment Volume (ft <sup>2</sup> *in)	527,606	
Required Treatment Volume (ft <sup>3</sup> )	43,967	
<b>Surface Area of Town Common on Tar River Tiered Bioretention</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	8,761	
Available Bioretention Surface Area (ac)	0.201	
Percent Impervious Cover	79.9%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	0.20	
Required Surface Area (ft <sup>2</sup> )	8,641	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	180	
Width of BMP <sup>3</sup> (ft)	60	
Capacity (ft <sup>3</sup> )	48,600	

**Greenville Watershed Inventory and Master Plan**

Project ID: WQ-6  
 Project Name S Tar River Greenway Open Daylighting  
 Prepared by: YB  
 Checked by:  
 Date:

Manual Input
Referenced Input
Calculation

**DRAINAGE AREA INPUT PARAMETERS**

Depth of Precipitation for Design Storm (in)	1	
	<b>Pervious</b>	<b>Impervious</b>
Drainage Area (ft <sup>2</sup> )	1,286,642	972,853
Subbasin CN <sup>1</sup>	86	98
Maximum Soil Retention, S (in)	1.63	0.20
Depth of Runoff (in)	0.20	0.79
Required Runoff Treatment Volume (ft <sup>2</sup> *in)	254,185	769,435
Required Runoff Treatment Volume (ft <sup>3</sup> )	21,182	64,120
<b>Summary Calculations</b>		
Total Subbasin Drainage Area (ac)	51.87	
Total Subbasin Drainage Area (ft <sup>2</sup> )	2,259,495	
Required Treatment Volume (ft <sup>2</sup> *in)	1,023,620	
Required Treatment Volume (ft <sup>3</sup> )	85,302	
<b>Surface Area of S Tar River Greenway Open Daylighting</b>		
Available Bioretention Surface Area (ft <sup>2</sup> )	16,038	
Available Bioretention Surface Area (ac)	0.368	
Percent Impervious Cover	43.1%	
Permanent Pool Average Depth <sup>2</sup> (ft)	4.5	
Surface Area / Drainage Area Ratio <sup>2</sup>	1.1%	
Required Surface Area (ac)	0.57	
Required Surface Area (ft <sup>2</sup> )	24,854	
<b>BMP Treatment Capacity</b>		
Length of BMP (ft)	515	
Width of BMP <sup>3</sup> (ft)	172	
Capacity (ft <sup>3</sup> )	397,838	



**APPENDIX J**  
**DIGITAL COPY OF HYDRAULIC AND**  
**HYDROLOGIC MODELS (CD INCLUDED)**



**APPENDIX K**  
**STREAM ASSESSMENT**

Table K-1: Harris Mill Run/Schoolhouse Branch Bank Erosion Hazard Index Summary

Assessment Number	BEHI Score	BEHI Classification	Stream Reach
3	42.8	Very High	Sams Branch 1 - 3
1	35.5	High	Sams Branch 1 - 1
2	34.8	High	Sains Branch 1 - 2
6	34.8	High	Sains Branch 2 - 2
8	36.8	High	Schoolhouse Branch Tributary 1 - 1
12	34	High	Harris Mill Run - 1
4	23	Moderate	Sams Branch Tributary 1 - 1
9	28.9	Moderate	Schoolhouse Branch 1 - 1
10	22	Moderate	Schoolhouse Branch 1 - 2
11	28.9	Moderate	Schoolhouse Branch 1 - 3
13	26.5	Moderate	Harris Mill Run - 2
5	16	Low	Sains Branch 2 - 1
7	19.4	Low	Sains Branch 2 - 3

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SB1-1		Bank Erosion Hazard Rating Guide					Crew: MP, RH
<b>Bank Erosion Potential</b>	Bank Height (ft): Bankfull Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>	
	Value	1.0-1.1	1.0-0.9	100-80	0-20	100-80	
	Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V:85 I:2
	Value	1.11-1.19	0.89-0.5	79-55	21-60	79-55	
	Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	
	Value	1.2-1.5	0.49-0.3	54-30	61-80	54-30	
	Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V:77 I:5
	Value	1.6-2.0	0.29-0.15	29-15	81-90	29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	
	<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	
	Value	2.1-2.8	0.14-0.05	14-5.0	91-119	14-10	
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0	
<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V:0.07 I:8.5	V: I:	V: I:		
Value	>2.8	<0.05	<5	>119	<10		
Index	10	10	10	10	10		
<b>EXTREME</b>	<b>Choice</b>	V: 3.9 I: 10	V: I:	V:0.7 I:10	V: I:	V: I:	
V = value, I = index		<b>SUB-TOTAL (Sum one index from each column)</b>					
<b>Bank Material Description:</b>							
<b>Bank Materials</b>							
<b>Bedrock</b> (Bedrock banks have very low bank erosion potential)							
<b>Boulders</b> (Banks composed of boulders have low bank erosion potential)							
<b>Cobble</b> (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)							
<b>Gravel</b> (Add 5-10 points depending percentage of bank material that is composed of sand)							
<b>Sand</b> (Add 10 points)							
<b>Silt Clay</b> (+ 0: no adjustment)							
<b>BANK MATERIAL ADJUSTMENT</b>							
<b>Stratification Comments:</b>							
<b>Stratification</b>							
Add 5-10 points depending on position of unstable layers in relation to bankfull stage							
<b>STRATIFICATION ADJUSTMENT</b>							
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>		
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50		
<b>Bank location description (circle one)</b>					<b>GRAND TOTAL</b>	35.5	
Straight Reach    Outside of Bend					<b>BEHI RATING</b>		

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SB1-2		Bank Erosion Hazard Rating Guide				Crew: MP, RH	
<b>Bank Erosion Potential</b>	Bank Height (ft): Bankfull Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>	
	Value	1.0-1.1	1.0-0.9	100-80	0-20	100-80	
	Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
	Value	1.11-1.19	0.89-0.5	79-55	21-60	79-55	
	Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
			<b>0.57</b>	<b>3.8</b>			
	Value	1.2-1.5	0.49-0.3	54-30	61-80	54-30	
	Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
						<b>40</b>	<b>5</b>
	Value	1.6-2.0	0.29-0.15	29-15	81-90	29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	
	<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
Value	2.1-2.8	0.14-0.05	14-5.0	91-119	14-10		
Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		
<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
			<b>14.2</b>	<b>8</b>	<b>90</b>	<b>8</b>	
Value	>2.8	<0.05	<5	>119	<10		
Index	10	10	10	10	10		
<b>EXTREME</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
		<b>3.52</b>	<b>10</b>				
<b>SUB-TOTAL (Sum one index from each column)</b>		<b>10</b>	<b>3.8</b>	<b>8</b>	<b>8</b>	<b>5</b>	
V = value, I = index							
<b>Bank Material Description:</b>							
<b>Bank Materials</b>							
<b>Bedrock</b> (Bedrock banks have very low bank erosion potential)							
<b>Boulders</b> (Banks composed of boulders have low bank erosion potential)							
<b>Cobble</b> (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)							
<b>Gravel</b> (Add 5-10 points depending percentage of bank material that is composed of sand)							
<b>Sand</b> (Add 10 points)							
<b>Silt Clay</b> (+ 0: no adjustment)							
						<b>BANK MATERIAL ADJUSTMENT</b>	
<b>Stratification Comments:</b>							
<b>Stratification</b>							
Add 5-10 points depending on position of unstable layers in relation to bankfull stage							
						<b>STRATIFICATION ADJUSTMENT</b>	
<b>VERY LOW</b> 5-9.5	<b>LOW</b> 10-19.5	<b>MODERATE</b> 20-29.5	<b>HIGH</b> 30-39.5	<b>VERY HIGH</b> 40-45	<b>EXTREME</b> 46-50		
<b>Bank location description (circle one)</b> Straight Reach    Outside of Bend						<b>GRAND TOTAL BEHI RATING</b>	
						<b>34.8</b>	

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SB1-3		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
<b>Bank Erosion Potential</b>	Bank Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>		
	Value	1.0-1.1	1.0-0.9	100-80	0-20		100-80	
	Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9		1.0-1.9	
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:
	Value	1.11-1.19	0.89-0.5	79-55	21-60		79-55	
	Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9		2.0-3.9	
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:
	Value	1.2-1.5	0.49-0.3	54-30	61-80		54-30	
	Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9		4.0-5.9	
	<b>MODERATE</b>	<b>Choice</b>	V: I:	<b>V:0.3 I:5.9</b>	V: I:	V: I:	V: I:	V: I:
	Value	1.6-2.0	0.29-0.15	29-15	81-90		29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9		6.0-7.9	
	<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	<b>V:90 I:7.9</b>	V: I:	V: I:
	Value	2.1-2.8	0.14-0.05	14-5.0	91-119		14-10	
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		8.0-9.0	
<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V: I:	<b>V:5 I:9</b>	V: I:	V: I:	V: I:	
Value	>2.8	<0.05	<5	>119		<10		
Index	10	10	10	10		10		
<b>EXTREME</b>	<b>Choice</b>	<b>V:3.1 I:10</b>	V: I:	V: I:	V: I:	<b>V:5 I:10</b>	V: I:	
V = value, I = index		<b>SUB-TOTAL (Sum one index from each column)</b>						
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
Bedrock (Bedrock banks have very low bank erosion potential)								
Boulders (Banks composed of boulders have low bank erosion potential)								
Cobble (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
Gravel (Add 5-10 points depending percentage of bank material that is composed of sand)								
Sand (Add 10 points)								
Silt Clay (+ 0: no adjustment)								
						<b>BANK MATERIAL ADJUSTMENT</b>		
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
						<b>STRATIFICATION ADJUSTMENT</b>		
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
<b>Bank location description (circle one)</b>						<b>GRAND TOTAL</b>		42.8
Straight Reach    Outside of Bend						<b>BEHI RATING</b>		

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SBTB1-2		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
Bank Erosion Potential	Bank Height (ft): 6.33	Bank Height/ Bankfull Ht	Root Depth/ Bank Height	Root Density %	Bank Angle (Degrees)	Surface Protection%		
	Bankfull Height (ft): 2.33							
	VERY LOW	Value	1.0-1.1	1.0-0.9	100-80	0-20		100-80
		Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9		1.0-1.9
		Choice	V: I:	V:1 I:0	V: I:	V: I:		V: I:
	LOW	Value	1.11-1.19	0.89-0.5	79-55	21-60		79-55
		Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9		2.0-3.9
		Choice	V: I:	V: I:	V: I:	V:60 I:4		V:60 I:4
	MODERATE	Value	1.2-1.5	0.49-0.3	54-30	61-80		54-30
		Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9		4.0-5.9
Choice		V: I:	V: I:	V:40 I:5	V: I:		V: I:	
HIGH	Value	1.6-2.0	0.29-0.15	29-15	81-90		29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9		6.0-7.9	
	Choice	V: I:	V: I:	V: I:	V: I:		V: I:	
VERY HIGH	Value	2.1-2.8	0.14-0.05	14-5.0	91-119		14-10	
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		8.0-9.0	
	Choice	V: I:	V: I:	V: I:	V: I:		V: I:	
EXTREME	Value	>2.8	<0.05	<5	>119		<10	
	Index	10	10	10	10		10	
	Choice	V:2.85 I:10	V: I:	V: I:	V: I:		V: I:	
SUB-TOTAL (Sum one index from each column)							24	
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
<b>Bedrock</b> (Bedrock banks have very low bank erosion potential)								
<b>Boulders</b> (Banks composed of boulders have low bank erosion potential)								
<b>Cobble</b> (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
<b>Gravel</b> (Add 5-10 points depending percentage of bank material that is composed of sand)								
<b>Sand</b> (Add 10 points)								
<b>Silt Clay</b> (+ 0: no adjustment)								
BANK MATERIAL ADJUSTMENT								
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
STRATIFICATION ADJUSTMENT								
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
<b>Bank location description (circle one)</b>							<b>GRAND TOTAL</b>	23
Straight Reach Outside of Bend							<b>BEHI RATING</b>	



Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SB2-1		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
<b>Bank Erosion Potential</b>	Bank Height (ft): 4.92 Bankfull Height (ft): 2.0	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>		
	Value	1.0-1.1	1.0-0.9	100-80	0-20	100-80		
	Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9		
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	<b>V:1 I:0</b>	V: I:	V: I:	<b>V:80 I:1.9</b>	
	Value	1.11-1.19	0.89-0.5	79-55	21-60	79-55		
	Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9		
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
	Value	1.2-1.5	0.49-0.3	54-30	61-80	54-30		
	Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9		
	<b>MODERATE</b>	<b>Choice</b>	V: I:	<b>V:35 I:5</b>	<b>V:80 I:5.9</b>	V: I:	V: I:	
	Value	1.6-2.0	0.29-0.15	29-15	81-90	29-15		
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9		
	<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
	Value	2.1-2.8	0.14-0.05	14-5.0	91-119	14-10		
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		
<b>VERY HIGH</b>	<b>Choice</b>	<b>V:2.46 I:8.5</b>	V: I:	V: I:	V: I:	V: I:		
Value	>2.8	<0.05	<5	>119	<10			
Index	10	10	10	10	10			
<b>EXTREME</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:		
V = value, I = index		<b>SUB-TOTAL (Sum one index from each column)</b>						
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
Bedrock (Bedrock banks have very low bank erosion potential)								
Boulders (Banks composed of boulders have low bank erosion potential)								
Cobble (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
Gravel (Add 5-10 points depending percentage of bank material that is composed of sand)								
Sand (Add 10 points)								
Silt Clay (+ 0: no adjustment)								
<b>BANK MATERIAL ADJUSTMENT</b>								
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
<b>STRATIFICATION ADJUSTMENT</b>								
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
<b>Bank location description (circle one)</b>						<b>GRAND TOTAL</b>	16	
Straight Reach    Outside of Bend						<b>BEHI RATING</b>		

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SB2-2		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
Bank Erosion Potential	Bank Height (ft):	Bank Height/ Bankfull Ht	Root Depth/ Bank Height	Root Density %	Bank Angle (Degrees)	Surface Protection%		
	VERY LOW	Value	1.0-1.1	1.0-0.9	100-80	0-20		100-80
		Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9		1.0-1.9
		Choice	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:
	LOW	Value	1.11-1.19	0.89-0.5	79-55	21-60		79-55
		Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9		2.0-3.9
		Choice	V: I:	V:0.6 I:3.7	V: I:	V: I:	V: I:	V: I:
	MODERATE	Value	1.2-1.5	0.49-0.3	54-30	61-80		54-30
		Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9		4.0-5.9
		Choice	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:
HIGH	Value	1.6-2.0	0.29-0.15	29-15	81-90		29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9		6.0-7.9	
	Choice	V:1.83 I:7.7	V: I:	V: I:	V:90 I:8.1	V:20 I:7	V: I:	
VERY HIGH	Value	2.1-2.8	0.14-0.05	14-5.0	91-119		14-10	
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		8.0-9.0	
	Choice	V: I:	V: I:	V:9 I:8.3	V: I:	V: I:	V: I:	
EXTREME	Value	>2.8	<0.05	<5	>119		<10	
	Index	10	10	10	10		10	
	Choice	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:	
V = value, I = index		SUB-TOTAL (Sum one index from each column)						
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
Bedrock (Bedrock banks have very low bank erosion potential)								
Boulders (Banks composed of boulders have low bank erosion potential)								
Cobble (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
Gravel (Add 5-10 points depending percentage of bank material that is composed of sand)								
Sand (Add 10 points)								
Silt Clay (+ 0: no adjustment)								
<b>BANK MATERIAL ADJUSTMENT</b>								
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
<b>STRATIFICATION ADJUSTMENT</b>								
VERY LOW	LOW	MODERATE	HIGH	VERY HIGH	EXTREME			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
Bank location description (circle one)					<b>GRAND TOTAL</b>	34.8		
Straight Reach Outside of Bend					<b>BEHI RATING</b>			

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SB2-3		Bank Erosion Hazard Rating Guide					Crew: MP, RH		
<b>Bank Erosion Potential</b>	Bank Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>		<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>		<b>Surface Protection%</b>	
	Bankfull Height (ft):								
		Value	1.0-1.1	1.0-0.9		100-80	0-20		100-80
		Index	1.0-1.9	1.0-1.9		1.0-1.9	1.0-1.9		1.0-1.9
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V:1 I:1		V: I:	V: I:		V: I:
		Value	1.11-1.19	0.89-0.5		79-55	21-60		79-55
		Index	2.0-3.9	2.0-3.9		2.0-3.9	2.0-3.9		2.0-3.9
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:		V: I:	V:60 I:4		V: I:
		Value	1.2-1.5	0.49-0.3		54-30	61-80		54-30
		Index	4.0-5.9	4.0-5.9		4.0-5.9	4.0-5.9		4.0-5.9
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:		V: I:	V: I:		V:40 I:5
		Value	1.6-2.0	0.29-0.15		29-15	81-90		29-15
		Index	6.0-7.9	6.0-7.9		6.0-7.9	6.0-7.9		6.0-7.9
	<b>HIGH</b>	<b>Choice</b>	V:2.0 I:7.9	V: I:		V:25 I:5.5	V: I:		V: I:
		Value	2.1-2.8	0.14-0.05		14-5.0	91-119		14-10
		Index	8.0-9.0	8.0-9.0		8.0-9.0	8.0-9.0		8.0-9.0
	<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V: I:		V: I:	V: I:		V: I:
		Value	>2.8	<0.05		<5	>119		<10
	Index	10	10		10	10		10	
<b>EXTREME</b>	<b>Choice</b>	V: I:	V: I:		V: I:	V: I:		V: I:	
V = value, I = index		<b>SUB-TOTAL (Sum one index from each column)</b>							
<b>Bank Material Description:</b>									
<b>Bank Materials</b>									
Bedrock (Bedrock banks have very low bank erosion potential)									
Boulders (Banks composed of boulders have low bank erosion potential)									
Cobble (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)									
Gravel (Add 5-10 points depending percentage of bank material that is composed of sand)									
Sand (Add 10 points)									
Silt Clay (+ 0: no adjustment)									
							<b>BANK MATERIAL ADJUSTMENT</b>		
<b>Stratification Comments:</b>									
<b>Stratification</b>									
Add 5-10 points depending on position of unstable layers in relation to bankfull stage									
							<b>STRATIFICATION ADJUSTMENT</b>		
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>				
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50				
<b>Bank location description (circle one)</b>						<b>GRAND TOTAL</b>			
Straight Reach    Outside of Bend						<b>BEHI RATING</b>	19.4		

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SHTB-1		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
Bank Erosion Potential	Bank Height (ft):	Bank Height/ Bankfull Ht	Root Depth/ Bank Height	Root Density %	Bank Angle (Degrees)	Surface Protection%		
		Value	1.0-1.1	1.0-0.9	100-80	0-20		100-80
		Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9		1.0-1.9
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
		Value	1.11-1.19	0.89-0.5	79-55	21-60		79-55
		Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9		2.0-3.9
	<b>LOW</b>	<b>Choice</b>	V: I:	V:0.5 I:4	V: I:	V:90 I:	V:30 I:	
		Value	1.2-1.5	0.49-0.3	54-30	61-80		54-30
		Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9		4.0-5.9
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V:30 I:5.9	
	Value	1.6-2.0	0.29-0.15	29-15	81-90		29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9		6.0-7.9	
<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V:90 I:7.9	V: I:		
	Value	2.1-2.8	0.14-0.05	14-5.0	91-119		14-10	
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		8.0-9.0	
<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V: I:	V:14 I:9	V: I:	V: I:		
	Value	>2.8	<0.05	<5	>119		<10	
	Index	10	10	10	10		10	
<b>EXTREME</b>	<b>Choice</b>	V:2.9 I:10	V: I:	V: I:	V: I:	V: I:		
V = value, I = index		<b>SUB-TOTAL (Sum one index from each column)</b>						
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
Bedrock (Bedrock banks have very low bank erosion potential)								
Boulders (Banks composed of boulders have low bank erosion potential)								
Cobble (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
Gravel (Add 5-10 points depending percentage of bank material that is composed of sand)								
Sand (Add 10 points)								
Silt Clay (+ 0: no adjustment)								
<b>BANK MATERIAL ADJUSTMENT</b>						()		
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
<b>STRATIFICATION ADJUSTMENT</b>						()		
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
<b>Bank location description (circle one)</b>						<b>GRAND TOTAL</b>	36.8	
Straight Reach    Outside of Bend						<b>BEHI RATING</b>		

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SHB1-1		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
<b>Bank Erosion Potential</b>	Bank Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>		
	Bankfull Height (ft):							
		Value	1.0-1.1	1.0-0.9	100-80	0-20		100-80
		Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9		1.0-1.9
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:
		Value	1.11-1.19	0.89-0.5	79-55	21-60		79-55
		Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9		2.0-3.9
	<b>LOW</b>	<b>Choice</b>	V: I:	V:0.5 3.9	V: I:	V:60 I:3.9	V: I:	V: I:
		Value	1.2-1.5	0.49-0.3	54-30	61-80		54-30
		Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9		4.0-5.9
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V:40 I:5	V: I:
		Value	1.6-2.0	0.29-0.15	29-15	81-90		29-15
		Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9		6.0-7.9
	<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V:15 7.9	V: I:	V: I:	V: I:
		Value	2.1-2.8	0.14-0.05	14-5.0	91-119		14-10
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		8.0-9.0	
<b>VERY HIGH</b>	<b>Choice</b>	V:2.2 I:8.2	V: I:	V: I:	V: I:	V: I:	V: I:	
	Value	>2.8	<0.05	<5	>119		<10	
	Index	10	10	10	10		10	
<b>EXTREME</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	V: I:	
V = value, I = index		<b>SUB-TOTAL (Sum one index from each column)</b>						
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
Bedrock (Bedrock banks have very low bank erosion potential)								
Boulders (Banks composed of boulders have low bank erosion potential)								
Cobble (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
Gravel (Add 5-10 points depending percentage of bank material that is composed of sand)								
Sand (Add 10 points)								
Silt Clay (+ 0: no adjustment)								
						<b>BANK MATERIAL ADJUSTMENT</b>		
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
						<b>STRATIFICATION ADJUSTMENT</b>		
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
<b>Bank location description (circle one)</b>						<b>GRAND TOTAL</b>	28.9	
Straight Reach Outside of Bend						<b>BEHI RATING</b>		

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SHB1-2		Bank Erosion Hazard Rating Guide					Crew: MP, RH
<b>Bank Erosion Potential</b>	Bank Height (ft): Bankfull Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>	
	Value	1.0-1.1	1.0-0.9	100-80	0-20	100-80	
	Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
			<b>1</b>	<b>1</b>			<b>90</b>
	Value	1.11-1.19	0.89-0.5	79-55	21-60	79-55	
	Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
	Value	1.2-1.5	0.49-0.3	54-30	61-80	54-30	
	Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:
				<b>40</b>	<b>5</b>	<b>75</b>	<b>5</b>
	Value	1.6-2.0	0.29-0.15	29-15	81-90	29-15	
	Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	
<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
Value	2.1-2.8	0.14-0.05	14-5.0	91-119	14-10		
Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		
<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
Value	>2.8	<0.05	<5	>119	<10		
Index	10	10	10	10	10		
<b>EXTREME</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
		<b>3</b>	<b>10</b>				
<b>SUB-TOTAL (Sum one index from each column)</b>		<b>10</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>1</b>	
V = value, I = index							
<b>Bank Material Description:</b>							
<b>Bank Materials</b>							
<b>Bedrock</b> (Bedrock banks have very low bank erosion potential)							
<b>Boulders</b> (Banks composed of boulders have low bank erosion potential)							
<b>Cobble</b> (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)							
<b>Gravel</b> (Add 5-10 points depending percentage of bank material that is composed of sand)							
<b>Sand</b> (Add 10 points)							
<b>Silt Clay</b> (+ 0: no adjustment)							
<b>BANK MATERIAL ADJUSTMENT</b>							
<b>Stratification Comments:</b>							
<b>Stratification</b>							
Add 5-10 points depending on position of unstable layers in relation to bankfull stage							
<b>STRATIFICATION ADJUSTMENT</b>							
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>		
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50		
<b>Bank location description (circle one)</b>					<b>GRAND TOTAL BEHI RATING</b>	22	
Straight Reach Outside of Bend							

Worksheet 21. Summary of bank erosion hazard index (BEHI)

Stream Reach SHB1-2		Bank Erosion Hazard Rating Guide					Crew: MP, RH	
<b>Bank Erosion Potential</b>	Bank Height (ft):	<b>Bank Height/ Bankfull Ht</b>	<b>Root Depth/ Bank Height</b>	<b>Root Density %</b>	<b>Bank Angle (Degrees)</b>	<b>Surface Protection%</b>		
	Bankfull Height (ft):							
		Value	1.0-1.1	1.0-0.9	100-80	0-20	100-80	
		Index	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	1.0-1.9	
	<b>VERY LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
			<b>1</b>	<b>1</b>				
		Value	1.11-1.19	0.89-0.5	79-55	21-60	79-55	
		Index	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	2.0-3.9	
	<b>LOW</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
							<b>60</b>	<b>3.5</b>
		Value	1.2-1.5	0.49-0.3	54-30	61-80	54-30	
		Index	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	4.0-5.9	
	<b>MODERATE</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:	
		Value	1.6-2.0	0.29-0.15	29-15	81-90	29-15	
		Index	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	6.0-7.9	
<b>HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:		
				<b>25</b>	<b>6.5</b>	<b>90</b>	<b>7.9</b>	
	Value	2.1-2.8	0.14-0.05	14-5.0	91-119	14-10		
	Index	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0	8.0-9.0		
<b>VERY HIGH</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:		
	Value	>2.8	<0.05	<5	>119	<10		
	Index	10	10	10	10	10		
<b>EXTREME</b>	<b>Choice</b>	V: I:	V: I:	V: I:	V: I:	V: I:		
		<b>3.4</b>	<b>10</b>					
	<b>SUB-TOTAL (Sum one index from each column)</b>	<b>10</b>	<b>1</b>	<b>6.5</b>	<b>7.9</b>	<b>3.5</b>		
V = value, I = index								
<b>Bank Material Description:</b>								
<b>Bank Materials</b>								
<b>Bedrock</b> (Bedrock banks have very low bank erosion potential)								
<b>Boulders</b> (Banks composed of boulders have low bank erosion potential)								
<b>Cobble</b> (Subtract 10 points. If sand/gravel matrix greater than 50% of bank material, then do not adjust)								
<b>Gravel</b> (Add 5-10 points depending percentage of bank material that is composed of sand)								
<b>Sand</b> (Add 10 points)								
<b>Silt Clay</b> (+ 0: no adjustment)								
						<b>BANK MATERIAL ADJUSTMENT</b>		
<b>Stratification Comments:</b>								
<b>Stratification</b>								
Add 5-10 points depending on position of unstable layers in relation to bankfull stage								
						<b>STRATIFICATION ADJUSTMENT</b>		
<b>VERY LOW</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>VERY HIGH</b>	<b>EXTREME</b>			
5-9.5	10-19.5	20-29.5	30-39.5	40-45	46-50			
<b>Bank location description (circle one)</b>						<b>GRAND TOTAL BEHI RATING</b>	28.9	
Straight Reach Outside of Bend								

**APPENDIX L**  
**NCDOT BRIDGE INSPECTION REPORTS**



NCDOT Bridge Inspections

<b>Bridge Number</b>	<b>Inspection Date</b>	<b>Route</b>	<b>Across</b>	<b>Inspection Type</b>
730487	12/16/2013	NC 43	Harris Mill Run	Routine



NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRIDGE MANAGEMENT UNIT

ATTENTION

PM ISSUED FOR DRIFT IN SPAN 2  
 PHASE 2 OF 2 COMPLETED W/UPDATED DATA  
 INSPECTION RUN SOUTH TO NORTH (NC 43). THE  
 PLANS SHOW PROJECT IN A NORTH TO SOUTH  
 ORIENTATION

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY PITT BRIDGE NUMBER 730487 INSPECTION CYCLE 2 YRS  
 ROUTE NC43 ACROSS HARRIS MILL RUN M.P. \_\_\_\_\_

LOCATION 0.1 MI.N.JCT.SR1204

**RC DECK ON PPC GIRDERS**

SUPERSTRUCTURE \_\_\_\_\_

**END BTS/INT BTS; RC CAPS ON STEEL H-PILES**

SUBSTRUCTURE \_\_\_\_\_

**1 @50.083', 2 @65', 1 @66.583'**

SPANS \_\_\_\_\_

LONGITUDE 77° 25' 7.99"

LATITUDE 35° 37' 23.62"

INSPECTION DATE 11/20/2013

PRESENT CONDITION GOOD

PRESENT POSTING N **NOT POSTED**

PROPOSED POSTING \_\_\_\_\_

OTHER SIGNS PRESENT NONE



**LOOKING NORTH**

Fracture Critical	<u>No</u>
Temporary Shoring	<u>No</u>
Scour Critical	<u>No</u>
Scour POA	<u>No</u>

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
<u>No</u> WEIGHT LIMIT	_____
<u>No</u> DELINEATORS	_____
<u>No</u> NARROW BRIDGE	_____
<u>No</u> ONE LANE BRIDGE	_____
<u>No</u> LOW CLEARANCE	_____

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 12/16/2013

**IDENTIFICATION**

(1) STATE NAME -NORTH CAROLINA BRIDGE **730487**  
 (8) STRUCTURE NUMBER(FEDERAL) 000000001470487  
 (5) INVENTORY ROUTE (ON/UNDER) - ON 31000430  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 1  
 (3) COUNTY CODE 147 (4) PLACE CODE 28080  
 (6) FEATURE INTERSECTED - HARRIS MILL RUN  
 (7) FACILITY CARRIED NC43  
 (9) LOCATION 0.1 MI. N. OF JCT. SR1204  
 (11)MILEPOINT  
 (16)LAT 35° 37' 23.62" (17)LONG 77° 25' 7.99"  
 (98)BORDER BRIDGE STATE CODE PCT SHARE  
 (99)BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 94  
 STATUS = Not Deficient

**CLASSIFICATION** **CODE**

(112)NBIS BRIDGE SYSTEM - YES  
 (104)HIGHWAY SYSTEM Is not on NHS 0  
 (26) FUNCTIONAL CLASS - Minor Arterial 06  
 (100)STRAHNET HIGHWAY - Not a STRAHNET Route 0  
 (101)PARALLEL STRUCTURE - No Parallel Structure N  
 (102)DIRECTION OF TRAFFIC - 2-way Traffic 2  
 (103)TEMPORARY STRUCTURE -  
 (110)DESIGNATED NATIONAL NETWORK - On the National Network 1  
 (20) TOLL On Free Road 3  
 (31) MAINTAIN - State Highway Agency 01  
 (22) OWNER - State Highway Agency 01  
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

**STRUCTURE TYPE AND MATERIAL**

(43) STRUCTURE TYPE MAIN: Prestressed Concrete Continuous  
 TYPE - Stringer Multibeam or Girder CODE 602  
 (44) STRUCTURE TYPE APPR :  
 TYPE - CODE 000  
 (45) NUMBER OF SPANS IN MAIN UNIT 4  
 (46) NUMBER OF APPROACH SPANS  
 (107)DECK STRUCTURE TYPE - 1 CODE  
 (108)WEARING SURFACE / PROTECTIVE SYSTEM :  
 (A) TYPE OF WEARING SURFACE - CODE  
 (B) TYPE OF MEMBRANE - CODE  
 (C) TYPE OF DECK PROTECTION - CODE

**CONDITION** **CODE**

(58) DECK 8  
 (59) SUPERSTRUCTURE 8  
 (60) SUBSTRUCTURE 8  
 (61) CHANNEL & CHANNEL PROTECTION 5  
 (62) CULVERTS N

**LOAD RATING AND POSTING** **CODE**

(31) DESIGN LOAD HL 93 A  
 (63) OPERATING RATING METHOD - Load and Resistance Factor 3  
 (64) OPERATING RATING - HS-48 86  
 (65) INVENTORY RATING METHOD - Load and Resistance Factor 3  
 (66) INVENTORY RATING - HS-31 55  
 (70) BRIDGE POSTING - No Posting Required 5  
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED A  
 DESCRIPTION - Open, No Restriction

**AGE AND SERVICE**

(27) YEAR BUILT 2012  
 (106)YEAR RECONSTRUCTED  
 (42) TYPE OF SERVICE : ON - Highway - Pedestrian  
 UNDER - Waterway CODE 55  
 (28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 0  
 (29) AVERAGE DAILY TRAFFIC 16000  
 (30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 8%  
 (19) BYPASS OR DETOUR LENGTH 5 MI

**APPRAISAL** **CODE**

(67) STRUCTURAL EVALUATION 8  
 (68) DECK GEOMETRY 9  
 (69) UNDERCLEARANCES,VERTI & HORIZ N  
 (71) WATERWAY ADEQUACY 8  
 (72) APPROACH ROADWAY ALIGNMENT 6  
 (36) TRAFFIC SAFETY FEATURES 1111  
 (113)SCOUR CRITICAL BRIDGES 8

**GEOMETRIC DATA**

(48) LENGTH OF MAXIMUM SPAN 64 FT  
 (49) STRUCTURE LENGTH 247 FT  
 (50)CURB OR SIDEWALK: LEFT 5.167 FT RIGHT 5.5 FT  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 73.75 FT  
 (52) DECK WIDTH OUT TO OUT 87.083 FT  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 74 FT  
 (33) BRIDGE MEDIAN - No Median CODE 0  
 (34) SKEW 30° (35) STRUCTURE FLARED 0  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.9 FT  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 73.75 FT  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.9 FT  
 (54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad 0 FT  
 (55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT  
 (56) MIN LAT UNDERCLEAR LT REF - 000 FT

**PROPOSED IMPROVEMENTS**

(75) TYPE OF WORK - CODE  
 (76) LENGTH OF STRUCTURE IMPROVEMENT  
 (94) BRIDGE IMPROVEMENT COST  
 (95) ROADWAY IMPROVEMENT COST  
 (96) TOTAL PROJECT COST  
 (97) YEAR OF IMPROVEMENT COST ESTIMATE  
 (114)FUTURE ADT 32000 (115) YEAR FUTURE ADT 2025

**INSPECTIONS**

(90) INSPECTION DATE 11/20/2013  
 (92) CRITICAL FEATURE INSPECTION : (93) CFI DATE  
 A) FRACTURE CRIT DETAIL - NO A)  
 B) UNDERWATER INSP - NO B)  
 C) OTHER SPECIAL INSP NO C)  
 SCOUR

**NAVIGATION DATA**

(38) NAVIGATION CONTROL - No Navigational Control CODE 0  
 (111)PIER PROTECTION - CODE  
 (39) NAVIGATION VERTICAL CLEARANCE 0  
 (116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT  
 (40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 12/16/2013

COUNTY : PITT DIVISION : 2 DISTRICT : 1 STRUCTURE NUMBER : 730487 LENGTH : 247 FEET

ROUTE CARRIED : NC43 FEATURE INTERSECTED : HARRIS MILL RUN

LOCATED : 0.1 MI. N. OF JCT. SR1204 BRIDGE NAME : CITY : \* GREENVILLE

FUNC. CLASS : 06 SYST.ON : FA SYST.UNDER : NFA ADT & YR : 16000 2012 RAIL TYPE : LT 749 RT 41

BUILT : 2012 BY : DOH PROJ : 41431.3.2 FED.AID PROJ : STP-0043 DESIGN LOAD : HL 93

REHAB : BY : PROJ : ALIGNMENT : TAN SKEW : 120 LANES : ON 2 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 31 FT WATER DEPTH : 1 FT

SUPERSTRUCTURE : RC DECK ON CONT. PPC GIRDERS

SUBSTRUCTURE : END BTS./IBT; RC CAPS ON STEEL H-PILES

SPANS : 1@50.083', 2@65', 1@66.583' CONT.

BEAMS OR GIRDERS : 5 LINES OF 45IN. CONT. PPC GIRDERS @ 10.083' CTS.

FLOOR : 9.25 RC/NO AWS ENCROACHMENT : DECK (OUT TO OUT) : 87.083 FT

CLEAR ROADWAY : 73.75 FT BETWEEN RAILS : 84.417 FT SIDEWALK OR CURB : LT 5.167 FT RT 5.5 FT

VERT.CL.OVER : 99.9 FT

INV.RTG. : HS-31 OPE.RTG. : HS-48 CONTR.MEMBER : POSTED : SV TTST DATE 01/01/0001

SYSTEM : Primary N.C. Route GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

REMARKS :

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 730487 COUNTY PITT ROUTE NC43 OVER HARRIS MILL RUN  
 STRUCTURE TYPE  
 ROUTE ORIENTATION S - N SPANS

EVALUATION CODES: CRITICAL (C, 0 - 3); POOR (P, 4); FAIR (F, 5, 6); GOOD (G, 7 - 9)

INSPECTION ITEM				ITEM 61		
DECK ITEMS		GRADES				
1. WEARING SURFACE				45. CHANNEL & CHANNEL PROT.	a. WATERWAY	F
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58					b. ALIGNMENT	F
a. CONCRETE	4	G	c. SCOUR		F	
b. TIMBER			d. SLOPE PROT., RIP-RAP, DIKES, ETC.			
3. RAILING				50. APPROACH ROADWAY CONDITION		
a. CONCRETE		G	51. APPROACH SLABS			
b. TIMBER			52. PAINT SYSTEM CODE			
c. ALUMINUM		G	53. UTILITIES			
d. STEEL			54. RESPONSE TO LIVE LOAD			
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS				55. ESTIMATED REMAINING LIFE		
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)				60. REGULATORY SIGN NOTICE ISSUED		
6. DECK EXP JTS. OR DEVICES. NO. OF EACH				61. PROMPT-ACTION NOTICE ISSUED		
a. STEEL PL OR FINGER			62. PRESENTLY POSTED			
b. MISC PREFAB			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)			
c. COMPRESSION SEAL	2	G	64. TOTAL SNOOPER INSP. TIME (HRS)			
d. STANDARD JOINTS			65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)			
e. OPEN JOINTS						
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)				70. SI&A GENERAL CONDITION RATINGS		
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59				a. DECK	ITEM 58	8
10. LONGITUDINAL BEAMS OR GIRDERS				b. SUPERSTRUCTURE	ITEM 59	8
11. LONGITUDINAL JOIST OR STRINGERS				c. SUBSTRUCTURE	ITEM 60	8
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S				d. CHANNEL & CHANNEL PROT.	ITEM 61	5
13. END DIAP'S, CURTAIN WALLS, & CONN'S				71. SI&A FIELD APPRAISAL RATINGS		
14. FLOOR BEAMS AND CONNECTIONS				a. WATERWAY ADAQUACY		8
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)				b. APPR. RDWY. ALIGNMENT		6
16. DRAINAGE SYSTEM (ON STRUCTURE)				72. FIELD SCOUR EVALUATION		
17. MOVABLE SPAN MACHINERY				F		
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)				USE OF INSP. ACCESSIBILITY EQUIPMENT		
35. TIM SUB STR.				SNOOPER (CODE S, 4, OR N)		
a. ABUT. & INT. BENT CAPS & RISERS			HRS	NO		
b. PILES, POST, SILLS, & BRACING			LADDER			
c. BULKHEADS, WING'S, & TIE BACKS			NO			
36. CONC SUB STR.				BUCKET TRUCK		
a. ABUT. & INT. BENT CAPS	G		BOAT			
b. ABUT. & BENT COL'S BREASTWALLS			NO			
c. ABUT. & INT. BENT PILES			OTHER			
d. BACKWALLS, WING'S, RETAIN. WALLS	G					
e. ABUT. & BENT FOOTINGS & SILLS						
37. STEEL SUB STR.				SPECIAL INSPECTION REQUESTED FOR		
a. ABUT. & INT. BENT CAPS & RISERS						
b. PILES, BRACING, AND BULKHEADS	G					
38. FOUNDATION PILES TYPE MATERIAL				NOTE		
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)				F		
40. FENDER SYSTEMS				80. INSPECTED BY:		
41. DRIFT				P		
				81. REVIEWED BY: <i>B. Collette</i>		

Bridge I&A Form 1(82)H		<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspection &amp; Analysis</u>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader <b>BG LITTLETON, JR.</b>			
Assisted By <b>JC TART</b>			
Item No.	Grade		
2a	G	(RC DECK) DECK OVER BT 1 IN NBL HAS DIAGONAL CRACKS TO 1/16". SIMILAR CRACKS IN BOTH LANES OVER ALL INTERIOR BENTS. (PHOTO)	
3a	G	(CONCRETE RAILING) CONCRETE END POST. (PHOTO)	
3c	G	(ALUMINUM RAILING) ATTACHED TO THE TOP OF THE PARAPETS. (PHOTO)	
4	G	(CURBS & PARAPETS) CURBS AT THE SIDE WALKS. PARAPETS WITH ALUMINUM SECTIONS ALONG THE TOP. (PHOTO)	
5	G	(WALKWAY) ALONG THE RAILS. (PHOTO)	
6c	G	(COMPRESSION SEALS) ARMORED COMPRESSION SEALS LOCATED OVER END BENTS 1 & 2. (PHOTO)	
10	G	(PPC GIRDERS) 10 LINES OF TYPE III PPC GIRDERS ARE CONTINUOUS FOR LIVE LOAD OVER INTERIOR BENTS.	
10A	NO	(CURVED GIRDERS) NO CURVED GIRDERS.	
15	G	(BEARINGS) ELASTOMERIC BEARING PADS. (PHOTO)	
16	G	(DRAINAGE SYSTEM) CLOSED DECK DRAINAGE SYSTEM LOCATED IN BAYS 1 & 9. (PHOTO)	
37b	G	(STEEL H-PILES) 14" GALV. STEEL H-PILES AT INTERIOR BENTS. (PHOTO) 12" STEEL H-PILES NOT VISIBLE AT END BENTS.	

Bridge I&A Form 1(82)H		<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspection &amp; Analysis</u>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader <b>BG LITTLETON, JR.</b>			
Assisted By <b>JC TART</b>			
Item No.	Grade		
39	F	(SLOPE PROTECTION) RIPRAP AT END BENTS. (PHOTO) TREES AT SPAN 3 SIDE OF BENT 2. (PHOTO) TREES UNDER SPANS 2 & 3. (PHOTO) TREES & VEGETATION AT SLOPES ALONG THE WEST SIDE. (PHOTO)	
41	P	(DRIFT) PM ISSUED FOR; (PM)-LARGE TREES & DRIFT HAS CAUSED SILT BUILD UP AND DIVERSION OF FLOW IN SPAN 2. LATERAL BANK MIGRATION (SCOUR) AT SPAN 2 SIDE OF BENT 2. (PHOTOS)	
45a	F	(WATERWAY) WATERWAY HAS BEEN BLOCKED AND/OR OBSTRUCTED BY DEBRIS, TREES & SILT IN SPAN 2. SEE PM FOR DRIFT. (PHOTOS)	
45b	F	(CHANNEL ALIGNMENT) OVERALL ALIGNMENT IS GOOD, BUT HAS BEEN DIVERTED BY DRIFT IN SPAN 2 TOWARDS BENT 2. (PHOTO)	
45c	F	(SCOUR) LATERAL BANK MIGRATION AT SPAN 2 SIDE OF BENT 2 DUE TO DRIFT. (PHOTOS)	
50	G	(APPROACH ROADWAY) APPROACHES ARE COMPLETE WITH NO NOTEWORTHY PROBLEMS. NO GUARDRAIL SECTION AT SW CORNER. (PHOTO) ROADWAY HAS A DIVIDED MEDIAN. (PHOTOS)	
51	G	(APPROACH SLABS) LOCATED AT BOTH APPROACHES WITH NO NOTEWORTHY PROBLEMS. (PHOTO)	
62	NO	(PRESENTLY POSTED) NOT POSTED	
71b	6	(ROADWAY ALIGNMENT) CURVE AT THE NORTH APPROACH.	
72	F	(FIELD SCOUR EVALUATION) SCOUR (LBM) HAS OCCURED AT SPAN 2. PILE PENETRATIONS ARE ADEQUATE. SEE PLANS.	

Bridge I&A Form 1(82)H <b>State of North Carolina</b> <b>Dept. of Transportation</b> <b>Division of Highways</b>	<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspeccion &amp; Analysis</u>	
Team Leader <b>BG LITTLETON, JR.</b>		
Assisted By <b>JC TART</b>		
<b>Item No.</b>	<b>Grade</b>	




# BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 730487

County PITT

Date: 11/20/2013

**These Repairs Should Be Made Within Twelve Months From Date Of This Inspection**

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 3366	Drift and Debris Removal	HR	300	(PM)-LARGE TREES & DRIFT HAS CAUSED SILT BUILD UP AND DIVERSION OF FLOW AND LATERAL BANK MIGRATION (SCOUR) INTO SPAN 2 SIDE OF BENT 2. (PHOTO 1 OF 5)  (PM)-CLOSE UP VIEW OF DRIFT/TREES & SILT BUILD UP IN CHANNEL OF SPAN 2. (PHOTO 2 OF 5)  (PM)-VIEW LOOKING UPSTREAM AT DIVERSION DUE TO OBSTRUCTED WATERWAY IN SPAN 2. (PHOTO 3 OF 5)  (PM)-VIEW SHOWING LOSS OF MATERIAL & LATERAL BANK MIGRATION AT SPAN 2 SIDE OF BENT 2, LOOKING UPSTREAM. (PHOTO 4 OF 5)  LOOKING NORTH, CURRENT POSTING = NOT POSTED (PHOTO 5 OF 5)	
2910	Manual Brush and Tree Control	LF	250	TREES & VEGETATION ALONG THE WEST SIDE AND UNDER SPANS 1, 2 & 3.	

**Key**

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

## BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 730487

County PITT

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3366	Drift and Debris Removal	300      HR
Location:		
Pier Substructure	Bent/Span No.    2	BENT 2 & WATERWAY
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
11/21/2013	BG LITTLETON, JR.	JC TART
Details		
<p>(PM)-LARGE TREES &amp; DRIFT HAS CAUSED SILT BUILD UP AND DIVERSION OF FLOW AND LATERAL BANK MIGRATION (SCOUR) INTO SPAN 2 SIDE OF BENT 2. (PHOTO 1 OF 5)</p> <p>(PM)-CLOSE UP VIEW OF DRIFT/TREES &amp; SILT BUILD UP IN CHANNEL OF SPAN 2. (PHOTO 2 OF 5)</p> <p>(PM)-VIEW LOOKING UPSTREAM AT DIVERSION DUE TO OBSTRUCTED WATERWAY IN SPAN 2. (PHOTO 3 OF 5)</p> <p>(PM)-VIEW SHOWING LOSS OF MATERIAL &amp; LATERAL BANK MIGRATION AT SPAN 2 SIDE OF BENT 2, LOOKING UPSTREAM. (PHOTO 4 OF 5)</p> <p>LOOKING NORTH, CURRENT POSTING = NOT POSTED (PHOTO 5 OF 5)</p>		



SOUTH APPROACH & SLABS. NORTH END SIMILAR.



DECK OVER BT 1 IN NBL HAS DIAGONAL CRACKS TO 1/16". SIMILAR CRACKS IN BOTH LANES OVER ALL INTERIOR BENTS.



(PM)-LARGE TREES & DRIFT HAS CAUSED SILT BUILD UP AND DIVERSION OF FLOW AND LATERAL BANK MIGRATION (SCOUR) INTO SPAN 2 SIDE OF BENT 2.



(PM)-VIEW SHOWING LOSS OF MATERIAL & LATERAL BANK MIGRATION AT SPAN 2 SIDE OF BENT 2, LOOKING UPSTREAM.



(PM)-CLOSE UP VIEW OF DRIFT/TREES & SILT BUILD UP IN CHANNEL OF SPAN 2.



(PM)-VIEW LOOKING UPSTREAM AT DIVERSION DUE TO OBSTRUCTED WATERWAY IN SPAN 2.



TREES AT SPAN 3 SIDE OF BENT 2



TREES UNDER SPANS 2 & 3

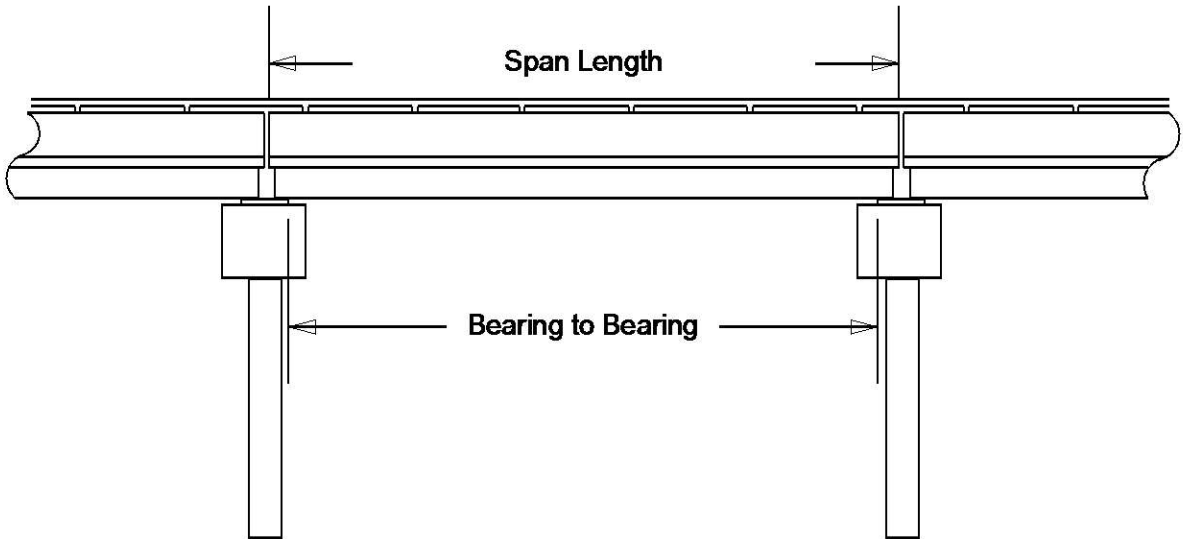


TREES & VEGETATION AT SLOPES ALONG THE WEST SIDE.

# Structure Data Worksheet

Spans

County: PITT                      Structure No: 730487      Date: 11/20/2013                      Inspected By: BGL



Span No	Span Length	Bearing to Bearing	Comments
1	50.083'	47'	
2	65'	62.833'	
3	65'	62.833'	
4	66.583'	63.5'	



# Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 730487 County: PITT Date: 11/20/2013 By: BGL

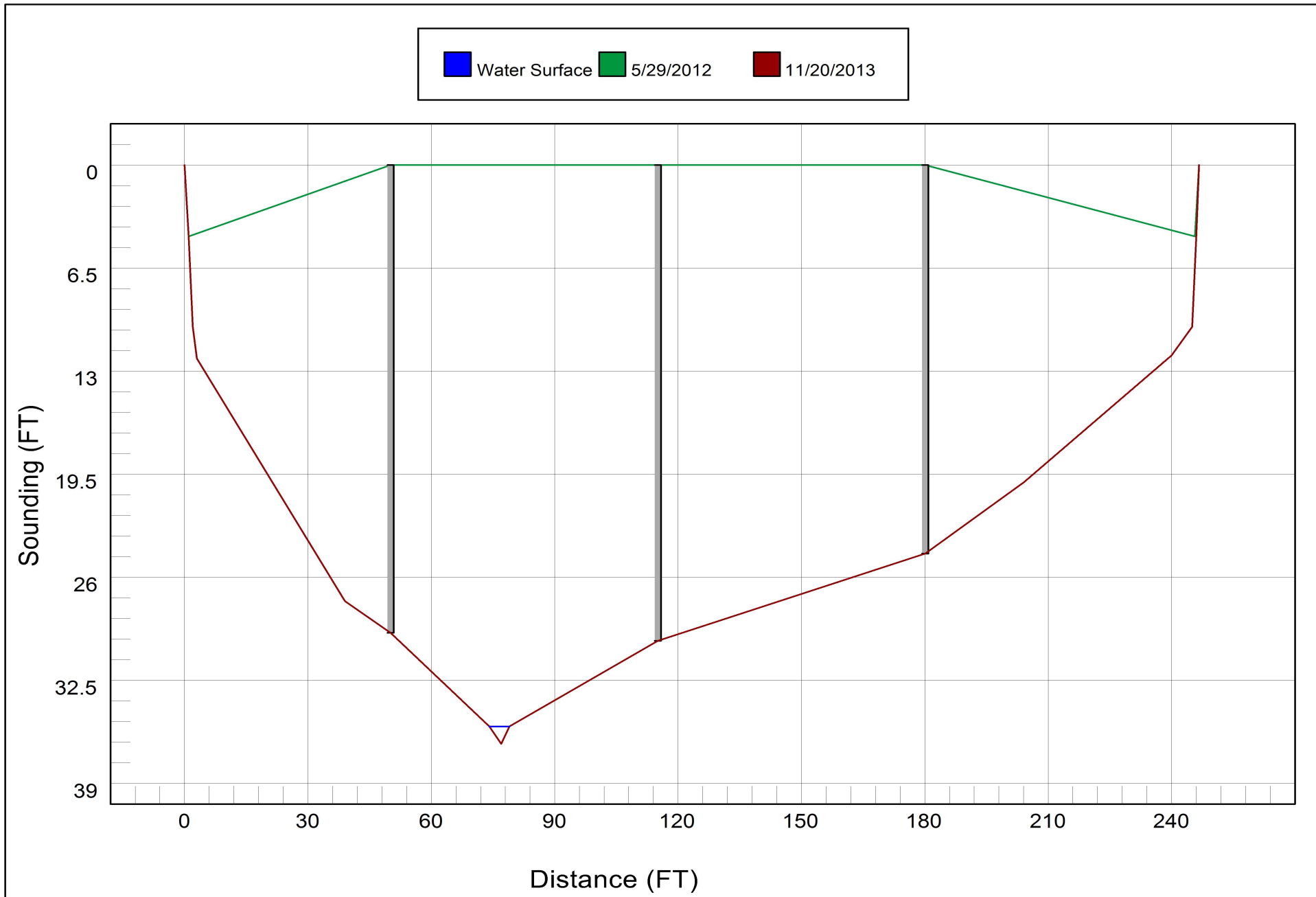
Record sounding from top of rail. Other location if needed: TOP OF ALUMINUM RAIL

Distance from Highwater Mark to top of rail: 0 Location of Highwater Mark: NONE AT TIME OF INSPECTION

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	0		0	0	
1	4.5	TOP OF RETAINING WALL			
2	10.2	Top of Cap			
3	12.2	TOP OF RIPRAP			
39	27.5	TOE OF RIPRAP	39	29	TOE OF RIPRAP
50.1	29.5	BENT 1	50.1	28.2	BENT 1
74.1	35.4	WATER SURFACE/WATER EDGE (WSWE)-EAST			
77	36.5				
79	35.4	Water Surface/Water Edge (WSWE)			
115.1	30	BENT 2	115.1	32.6	BENT 2
180.1	24.5	BENT 3	180.1	26.9	BENT 3/TOE OF RIPRAP
204.1	20	TOE OF RIPRAP			
240	12	TOP OF RIPRAP			
245	10.2	Top of Cap			
246	4.5	TOP OF RETAINING WALL			
246.667	0		246.667	0	

### STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



# Bridge Inspection Field Sketch



MEASURED AT BEGINNING OF SOUTH APPROACH SLAB

Left Lanes			
Roadway	24ft Wide	2 Paved Lanes	South Bound
Right Shoulder	4ft Wide	4ft Paved	
Left Shoulder	0.833ft Wide	0.833ft Paved	
Right Guardrail			
Left Guardrail			
Median	16ft Wide	0.667ft High	
Right Lanes			
Roadway	24ft Wide	2 Paved Lanes	North Bound
Left Shoulder	0.833ft Wide	0.833ft Paved	
Right Shoulder	9.5ft Wide	4ft Paved	5.5ft Unpaved
Left Guardrail			
Right Guardrail	5.5ft from road		

**Title**  
APPROACH ROADWAY

**Description**  
SOUTH APPROACH-LOOKING NORTH

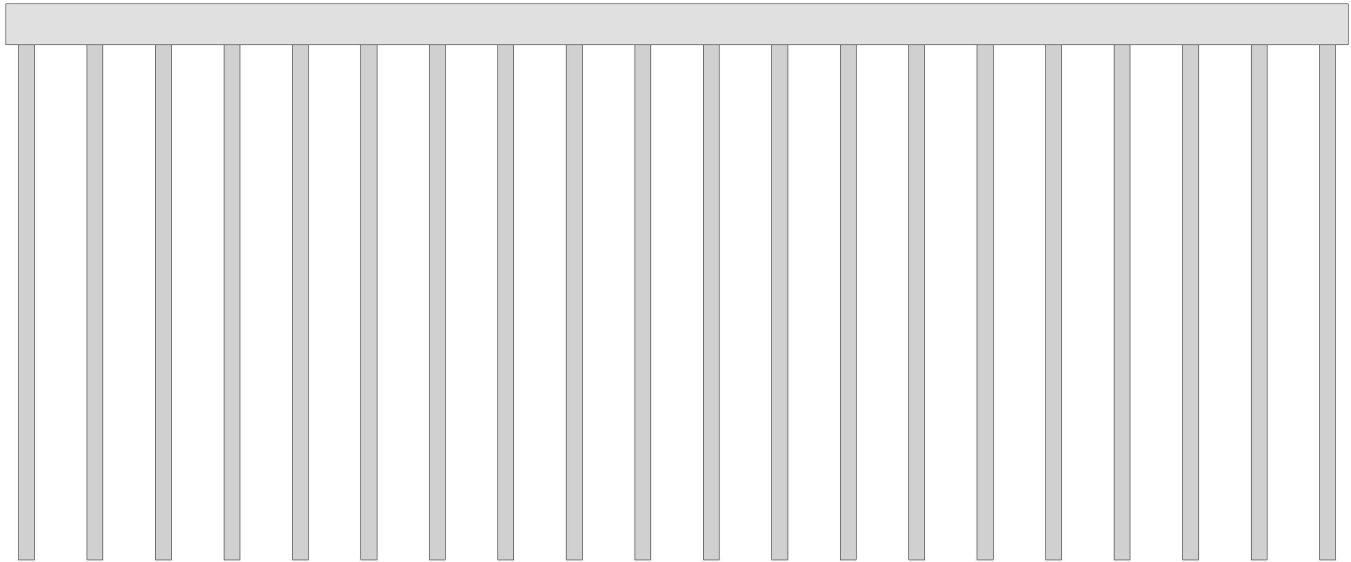
**Bridge No:** 730487

**Drawn By:** BG LITTLETON, JR.

**Date:** 11-20-13

**File Name:** S0046000261

# Bridge Inspection Field Sketch

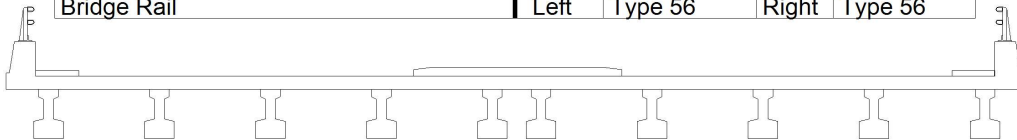


<b>Cap Information</b>			<b>Material</b> Cast-in-Place Concrete							
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.		Right Beam to End of Cap.			
98.000 ft.	4.250 ft.	3.000 ft.	1.500 ft.	1.500 ft.						
<b>Subcap Information</b>			<b>Material</b>							
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.					
<b>Sill Information</b>			<b>Material</b>							
Length	Width	Height								
<b>Pile #</b>	<b>Material</b>	<b>Spacing</b>	<b>Width/Dia.</b>	<b>Height</b>	<b>Length</b>	<b>Orientation</b>	<b>Driven?</b>	<b>Replacement?</b>	<b>Removed?</b>	<b>Collar?</b>
1	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
2	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
3	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
4	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
5	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
6	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
7	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
8	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
9	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
10	Steel	5 ft.	1.167 ft.			Vertical	Yes	No	No	No
<p><b>NOTE; PILES 11 THRU 20 ARE SIMILAR TO ABOVE, BUT WERE NOT SHOWN IN TABLE FORM DUE TO TABLE SIZE THERE ARE AT TOTAL OF 20 @ 14" STEEL H-PILES @ 5' CTRS. ALL BENTS SIMILAR.</b></p>										
<b>Bent/Abutment #:</b> 1			<b>Similar Bents:</b> 2 & 3							

<b>Title</b> SUBSTRUCTURE-INTERIOR BENTS			<b>Description</b> BENT 1-ALL BENTS SIMILAR			
<b>Bridge No:</b> 730487	<b>Drawn By:</b> BG LITTLETON, JR.	<b>Date:</b> 11-20-13	<b>File Name:</b> S0046000262			

# Bridge Inspection Field Sketch

Deck Width/Out to Out	87.083ft	Between Rails	84.417ft
Clear Roadway	73.75ft	Wearing Surface	
Median Width	16ft	Median Height	0.667ft
Curb Height		Left	0.583ft
		Right	0.583ft
Sidewalk Width		Left	5.167ft
		Right	5.5ft
Clear Roadway (Rail to Median)		Left	29.083ft
		Right	28.667ft
Guardrail Width		Left	1.167ft
		Right	1.167ft
Top of Rail to Deck/Wearing Surface		Left	5.167ft
		Right	5.167ft
Bridge Rail		Left	Type 56
		Right	Type 56



Measurements for Span #	1	ALL SPANS SIMILAR	
Deck Thickness	1.031	Left Overhang	3.125
Top of Rail to Bottom of Beam	10.083	Right Overhang	3.208

Beam Number	Beam Type	Spacing	Comments
1	PPC Girder	10.083ft	AASHTO TYPE III PPC GIRDERS
2	PPC Girder	10.083ft	CONTINUOUS FOR LIVE LOAD
3	PPC Girder	10.083ft	
4	PPC Girder	10.083ft	
5	PPC Girder	4.417ft	
6	PPC Girder	10.083ft	
7	PPC Girder	10.083ft	
8	PPC Girder	10.083ft	
9	PPC Girder	10.083ft	
10	PPC Girder	ft	

**Title**  
SUPERSTRUCTURE

**Description**  
SECTION THRU-ALL SPANS SIMILAR

Bridge No: 730487

Drawn By: BG LITTLETON, JR.

Date: 11-20-13

File Name: S0046000263



SE GUARDRAIL END TERMINAL. (NW END SIMILAR)



LOOKING NORTH, NC 43



LOOKING NORTH



SE GUARDRAIL POST SPACINGS AT TRANSITION TO BRIDGE RAIL. (NE & NW TRANSITIONS SIMILAR, NO GUARDRAIL AT SW CORNER)



ARMORED COMPRESSION SEAL OVER END BENT 1. (SIMILAR OVER END BENT 2)



RT SIDE SIDEWALK & RAIL CONFIGURATION. LT SIDE SIMILAR.





SE GUARDRAIL CONNECTION. (SE,NE,NW CONNECTIONS SIMILAR)



RC DECK WITH CONCRETE MEDIAN AT CENTERLINE



LOOKING DOWNSTREAM-EAST



NE GUARDRAIL END TERMINAL



LOOKING SOUTH, NC 43 TOWARDS GREENVILLE



LOOKING SOUTH FROM NORTH APPROACH AT CONCRETE MEDIAN AT CENTERLINE.



EAST SIDE, LOOKING SOUTH



SIMILAR ELASTOMERIC BEARINGS



END BENT 2. (END BT 1 SIMILAR)



SPAN 4 SIDE OF BENT 3 (BT 1 ON PLANS)



CLOSED DECK DRAINAGE SYSTEM ALONG BAY 9 IN SPAN 4. SIMILAR IN ALL SPANS.



SPAN 3 UNDERSIDE. (ALL SPANS SIMILAR)



SPAN 3 SIDE OF BENT 2. (BT 2 ON PLANS)



SPAN 2 SIDE OF BENT 1 (BT 3 ON PLANS)

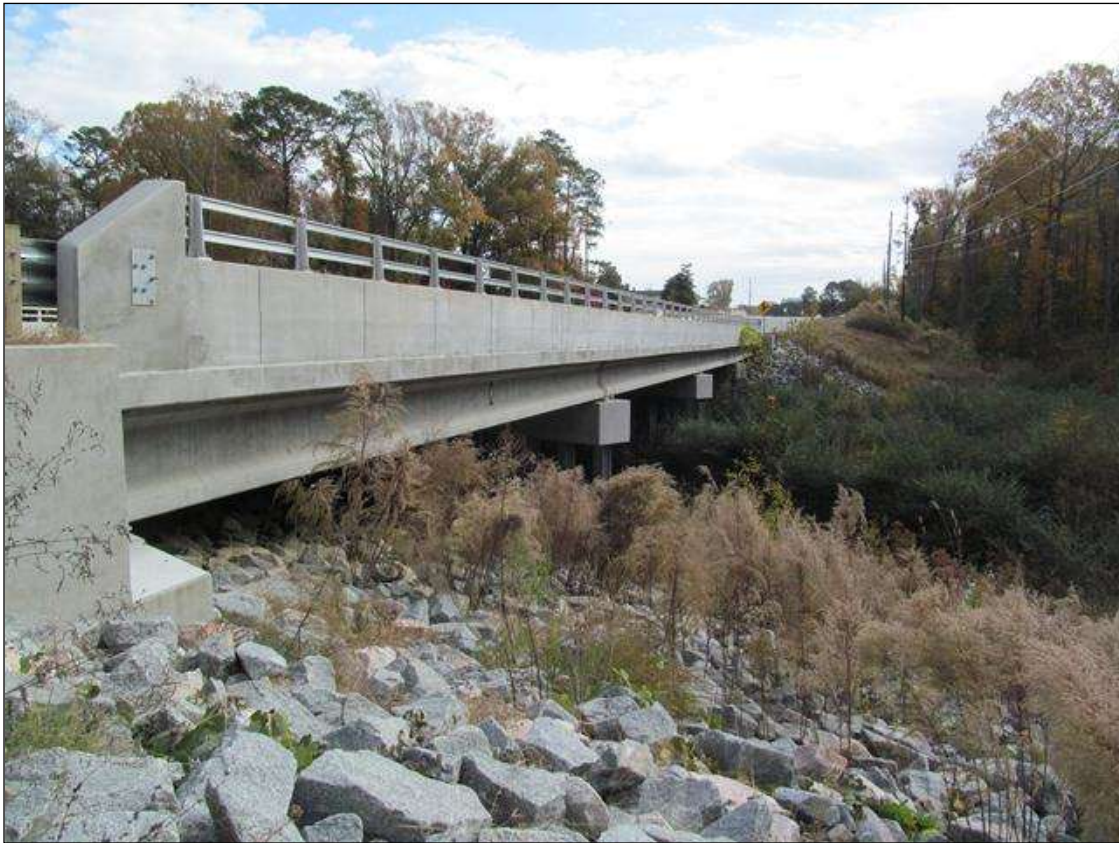


CLOSED DECK DRAINAGE SYSTEM ALONG BAY 1 IN SPAN 3. (SIMILAR IN ALL SPANS)



DECK UNDERSIDE IN SPAN 3 SHOWING GIRDER SPACING FOR G-5 & 6 AT CENTERLINE. THIS WAS A PHASED CONSTRUCTION.





WEST SIDE, LOOKING SOUTH



LOOKING UPSTREAM-WEST



NO GUARDRAIL AT THE SW CORNER

**APPENDIX M**  
**PRIORITIZATION MATRIX**

# Project Prioritization Matrix

CATEGORY	Public Health and Safety - Flooding	Severity of Street Flooding (Public ROW)	Cost Effectiveness	Effect of Drainage Improvements	Water Quality - BMP	Water Quality - Erosion Control	Implementation Constraints	Grant Funding	Constructibility	TOTAL WEIGHTED SCORE									
<b>Primary System Projects</b>																			
W 5th Street Crossing (Schoolhouse Branch) - Alternative 1	1	10	3	30	1	10	3	18	0	0	3	18	0	0	3	9	95		
W 5th Street Crossing (Schoolhouse Branch) - Alternative 2	1	10	3	30	3	30	3	18	0	0	3	18	0	0	3	9	115		
<b>Secondary System Projects</b>																			
Davis Street and Vance Street (Tar River)	1	10	3	30	1	10	3	18	0	0	5	30	0	0	1	3	101		
Jarvis Street (Tar River)	0	0	3	30	1	10	1	6	0	0	5	30	0	0	1	3	79		
Harding Street (Tar River)	1	10	3	30	1	10	3	18	0	0	5	30	0	0	1	3	101		
Elm Street (Tar River)	0	0	3	30	1	10	3	18	0	0	5	30	0	0	1	3	91		
<b>Stream Stabilization Projects</b>																			
Project 1 - Ironwood Golf Course (4 Reaches) (Sams Branch)	1	10	0	0	0	0	0	0	1	6	5	30	3	18	1	6	3	9	79
Project 2 - Beasley Drive - Channel Stabilization (Schoolhouse Branch)	5	50	0	0	3	30	3	18	0	0	5	30	3	18	1	6	3	9	161
<b>Water Quality Projects</b>																			
Ironwood Wet Pond (Sams Branch)	0	0	0	0	0	0	0	0	5	30	3	18	3	18	0	0	3	9	75
Moyewood Wetland Repair (Tar River)	0	0	0	0	0	0	0	0	5	30	1	6	5	30	0	0	5	15	81
Thomas Foreman Park Bioretention and Permeable Pavement	0	0	0	0	0	0	0	0	5	30	1	6	5	30	1	6	5	15	87
Town Common on Tar River Tiered Bioretention (Tar River)	0	0	0	0	0	0	0	0	5	30	1	6	5	30	1	6	5	15	87
Third Street Community Center Bioretention (Tar River)	0	0	0	0	0	0	0	0	5	30	1	6	5	30	1	6	5	15	87
S Tar River Greenway Pipe Daylighting (Tar River)	0	0	0	0	0	0	0	0	5	30	1	6	5	30	1	6	5	15	87

\*Raw numbers are shown in left side of column and weighted numbers are provided in right side of column. Totals are based on weighted numbers.

**Prioritization process for capital projects**

To develop a systematic procedure for implementing proposed capital projects across the City, a quantitative Appendix M scores to aid in the prioritization process. Weights are given to the most critical factors and a composite score is developed for each project. In the final capital plan for each watershed, the projects are then ranked based on the weighted scores.

**Table 15. Capital Project Prioritization Matrix**

Category	General Description	Score	Evaluation Criteria
Public Health and Safety	Evaluates potential impact of flooding on public health and safety. Generally, refers to flooding in and around habitable structures.	5	Flood water depth and/or velocity completely surrounds and threatens the structural integrity of habitable structures or vehicles. Finished Floor Flooding Occurs during the design storm.
		3	Flood water surrounds structure but does not cause imminent danger. Crawl space and HVAC units are flooded.
		1	Yard flooding occurs and flood waters are near HVAC, crawl spaces or foundations.
		0	Minor yard flooding may occur but habitable structure is not directly affected.
Severity of Street Flooding (City Owned)	Evaluates impact of flood depths to or through an area	5	Street spread requirements are not met and are so severe that the street becomes impassable during the design storm or street flooding has spread into private Flooding is noted on NCDOT roads as a result spread issues on adjacent town owned street.
		3	Street spread requirements are not met and the streets are passable only through the center of the street. Flooding noted on collector and local streets.
		1	Spread requirements exceeded but street flooding is considered minor nuisance for traffic.
		0	Spread requirements are met.
Cost Effectiveness	Evaluates the benefit/cost of the proposed improvements	5	Project benefit ratio is greater than 1.5
		3	Project benefit ratio is between 0.5 and 1.5
		1	Project benefit ratio is between 0.075 and 0.5
		0	Project ratio is less than 0.075
Effect of Improvements	Evaluates the number of drainage issues resolved and the number of citizens positively affected	5	Multiple major drainage issues are being resolved through the proposed improvements such as street spread and increased drainage capacity. Proposed improvements would resolve major drainage issues for more than 5 properties.
		3	Single drainage issue is being resolved and it is considered major. Proposed improvements would resolve drainage issues for 3-5 properties.
		1	Single drainage issue is being resolved and it is considered major. Proposed improvements would resolve drainage issues for 2-3 properties.
		0	Single drainage issue is being resolved and it is considered minor. Proposed improvements would resolve drainage issue(s) for a single property at most.
		0	Single drainage issue is being resolved and it is considered minor. Proposed improvements would resolve drainage issue(s) for a single property at most.
		0	Single drainage issue is being resolved and it is considered minor. Proposed improvements would resolve drainage issue(s) for a single property at most.

Category	General Description	Score	Evaluation Criteria
Water Quality /Quantity	Evaluates the impact a BMP would have on water quality, water quantity and NPDES Phase II Compliance	5	Provides both water quantity and water quality benefits. Does not use manufactured or proprietary BMP technology. Incorporates some form of green solution such as infiltration, LID, sustainability etc. Is considered a BMP retrofit.
		3	Provides water quality benefits but does not provide water quantity benefit. Is considered a BMP retrofit
		1	Improvements will have minimal impacts on water quality and would primarily serve as a demonstration project. Is considered a BMP retrofit.
		0	Improvements will have no measurable impact on water quality and would serve only as a demonstration project.
Open Channel - Erosion Control	Evaluates the severity of erosion control issues and impact on water quality	5	Severe erosion problems are evident and are contributing significantly to water quality issues.
		3	Moderate erosion problems are evident and are contributing to water quality issues.
		1	Minor erosion control issues are evident and are contributing to water quality issues.
		0	Minor erosion control issues are evident and are not contributing to water quality issues in a significant way.
Implementation Constraints	Considers potential constraints that may either delay or make the project too difficult to construct. Some examples would include significant permitting issues, high mitigation costs, numerous easement needs, required partnering with other communities or the NCDOT, or railroads.	5	Only minor local or state permits required. Does not involve ACOE, DWQ or FEMA. Proposed improvements can be completed without permanent or temporary easements. Project can proceed independent of other stormwater improvements identified in the master plan.
		3	Requires State and Federal permits that are typically easy to obtain such as Nationwide permits, FEMA No Rise etc. Primarily requires temporary easements with only a few permanent easements needed to build the project. Improvements may have limited coordination with other projects such as DOT widening, GUC utility improvements or down stream drainage improvements. Significant delays in the schedule due to this Project can proceed independent of other stormwater improvements identified in the master plan.
		1	Project is self mitigating or requires very minor mitigation. Numerous permits required including federal, state and local agencies. Examples would include an individual permit or FEMA CLOMR/LOMR. Extensive permanent and temporary easements are required. Project can not proceed independent of other stormwater improvements identified in the master plan.
		0	

Category	General Description	Score	Evaluation Criteria
Grant Funding	Evaluates the availability and potential to receive grant funding	5	Project qualifies for multiple grants. Grant does not require significant match (20% match or less) Town does not have an open grant from the agency providing the funding. Project meets all ranking criteria and will score highly in most if not all categories.
		3	Project qualifies for only one type of grant funding. Grant requires match between 20% and 50% range. Town has an open grant from agency providing the funding. Project meets most if not all of the ranking criteria and will score high in key categories.
		1	Project qualifies for only one type of grant funding. Grant requires match equal to or greater than 50%. Town has an open grant from agency providing the funding.
			Project meets some of the ranking criteria and may score high in one or two categories.
		0	Project does not qualify for any type of grant funding
Construct ability	Evaluates relative constructability of the project including site constraints, traffic and neighborhood impacts, and impacts on adjacent property owners.	5	Limited to no site constraints. Limited to no utility conflicts. Limited to no impacts on adjacent property owners.
			Limited to no impacts on traffic or surround neighborhoods.
		3	Some site constraints exist but are considered fairly minor. Some utility conflicts exist but are routine and do not require major utility relocation. Some traffic and neighborhood impacts occur but are fairly minor. Examples include temporary lane closures, occasional hauling or traffic detours though adjacent neighborhoods.
			1
Traffic and neighborhood impacts occur and are fairly major. Examples included extended road closures or hauling operations.			

To calculate the project benefit ratio used in evaluating the cost effectiveness, the following steps were taken for each project location:

Appendix M

1. The weighted scores for the Public Health and Safety, Severity of Street Flooding, and Effect of Improvements categories were added together.
2. The sum of the three categories was divided by the total project cost.
3. The quotient was multiplied by a common multiplier, 5,000, to determine the benefit ratio.
4. The value was then assigned a score based on the evaluation criteria shown below for the cost effectiveness criteria.

Score	Evaluation Criteria
5	Project benefit ratio is greater than 1.5
3	Project benefit ratio is between 0.5 and 1.5
1	Project benefit ratio is between 0.075 and 0.5
0	Project ratio is less than 0.075

5. The applicable weighting factor is then applied to the score. The final number obtained is listed in the project prioritization matrix.

CATEGORY	Public Health and Safety	Severity of Street Flooding (Public ROW)	Effect of Improvements	Total Project Cost	Benefit Ratio	Raw Score
<b>Primary System Projects</b>						
W 5th Street Crossing (Schoolhouse Branch) - Alternative 1	10	30	18	\$893,000	0.325	1
W 5th Street Crossing (Schoolhouse Branch) - Alternative 2	10	30	18	\$469,000	0.618	3
<b>Secondary System Projects</b>						
Davis Street and Vance Street (Tar River)	10	30	18	\$1,038,000	0.279	1
Jarvis Street (Tar River)	0	30	6	\$913,000	0.197	1
Harding Street (Tar River)	10	30	18	\$1,142,000	0.254	1
Elm Street (Tar River)	0	30	18	\$3,049,000	0.079	1
<b>Stream Stabilization Projects</b>						
Project 1 - Ironwood Golf Course (4 Reaches) (Sams Branch)	10	0	0	\$704,000	0.071	0
Project 2 - Beasley Drive - Channel Stabilization (Schoolhouse Branch)	50	0	18	\$301,000	1.130	3
<b>Water Quality Projects</b>						
Ironwood Wet Pond (Sams Branch)	0	0	0	\$304,000	0.000	0
Moyewood Wetland Repair (Tar River)	0	0	0	\$39,000	0.000	0
Thomas Foreman Park Bioretention and Permeable Pavement	0	0	0	\$346,000	0.000	0
Town Common on Tar River Tiered Bioretention (Tar River)	0	0	0	\$138,000	0.000	0
Third Street Community Center Bioretention (Tar River)	0	0	0	\$117,000	0.000	0
S Tar River Greenway Pipe Daylighting (Tar River)	0	0	0	\$138,000	0.000	0



<b>Weight Factor</b>	<b>Criteria</b>
10	Public Health and Safety
	Severity of Street Flooding (City Owned)
	Cost Effectiveness
6	Effect of Improvements
	Water Quality - BMP and Erosion Control
	Implementation Constraints
	Grant Funding
3	Construction Impacts
	Constructability

The above table presents the weighting factors that will be applied to the prioritization criteria, with the reason being that some criteria are viewed as more important (i.e. deserve a higher weighting) than others. So each score of each prioritization criteria will be multiplied by the assigned weight factor for that prioritization criteria category as shown in the Priority Matrix.