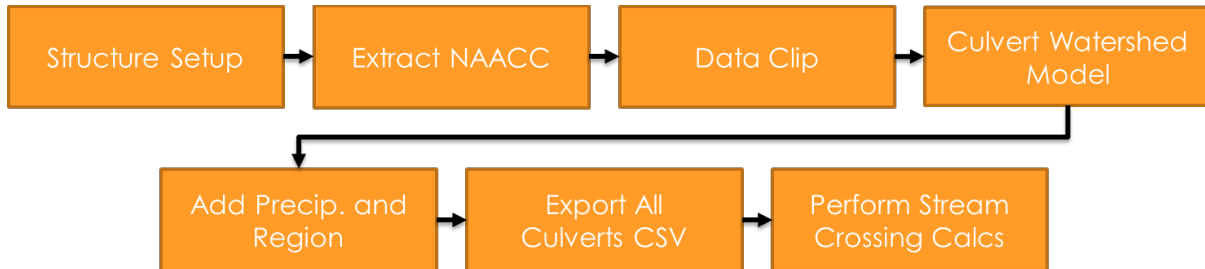


**ANALYSIS, CALIBRATION, AND VALIDATION OF THE CORNELL CULVERTS MODEL FOR USE IN THE ASHOKAN RESERVOIR WATERSHED, CATSKILL REGION NEW YORK**

**TECHNICAL REPORT - PHASES 1 & 2**

## **Appendix A CCM Modeling Methodology - Details**

This appendix contains notes detailing understandings and recommendations on how the CCM model operates and how it might be revised. Here is an overall schematic describing the CCM model process, followed by notes in tabular formats. There are detailed notes about sub routines and recommendation of the Culvert Watershed Model portion of CCM



### Structure Setup

<b>Submodel:</b>	None
<b>Description:</b>	Manual process that involves project/model setup.
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>• Manual process that relies on user to copy/paste.</li> <li>• Relies on user to name files/directories in specific format.</li> </ul>
<b>Recommendation:</b>	Create tool to create project/model template for the user, extract NAACC input file (combines next step), and creates clip shapefile. Eliminate dependency on user for specific file and directory naming.

### Extract NAACC

<b>Submodel:</b>	None
<b>Description:</b>	Script that extracts raw NAACC.csv file to model input formats.
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>• Manual process that relies on user to use raw input entry for scripts.</li> <li>• Relies on user to name files in specific format.</li> </ul>
<b>Recommendation:</b>	Create tool to create project/model template for the user, extract NAACC input file (combines next step), and creates clip shapefile. Eliminate dependency on user for specific file and directory naming.

### Data Clip

<b>Submodel:</b>	None
<b>Description:</b>	Clips the data
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>• Raster clipping occurs without setting snap raster environment.</li> </ul>
<b>Recommendation:</b>	Simplify the user experience by creating a tool with front end user parameters. Additionally, when working with raster data specifying the snap raster environment helps ensure that the raster cell can be compared by verifying alignment.

### Culvert Watershed Model

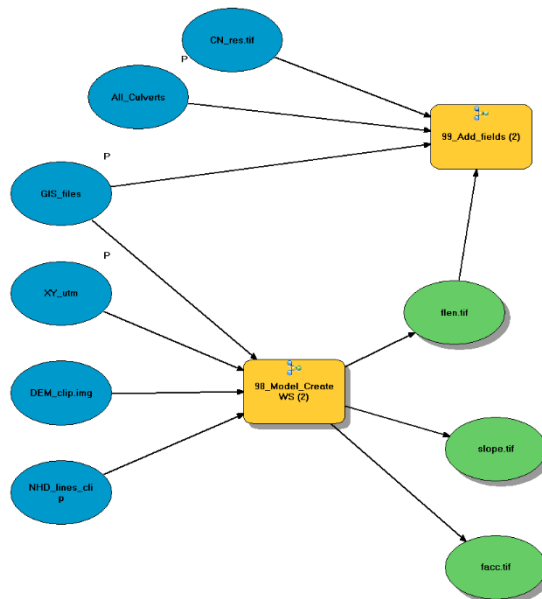
<b>Submodels:</b>	The Culvert Watershed process references 6 subprocessing models (98, 99, 93, 94, 95, and 96).
<b>Description:</b>	The model is a workhorse step, that delineates watersheds for each of the input culvert locations. Using that watershed, it calculates statistics for that identified area.
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>• Intermediate outputs did not specify file extensions (Addressed).</li> <li>• Digital Elevation Model (DEM) not properly “burned” with stream network, causing many culvert location to not have a watershed delineated (Addressed).</li> <li>• Models show as broken (Addressed).</li> <li>• Tools do not have front-end user interface. User interaction could be greatly simplified.</li> <li>• Due to complexity of model it is difficult to read/follow.</li> <li>• Raster to Polygon conversion process for watersheds simplifies the geometry greatly. For small watersheds, this can yield inaccurate representation of the data.</li> </ul>
<b>Recommendation:</b>	<ul style="list-style-type: none"> <li>• Convert to Python tool with front-end interface. Python script will allow for better transparency. Currently, each tool needs to be opened individually for parameters and process to be viewed.</li> <li>• Update raster to polygon conversion to remove polygon simplification method.</li> </ul>

### Model 01 Culvert Watershed Model

Description: Main model of the CCM. Creates watershed for each culvert point and calculates statistics.

Identified issues:

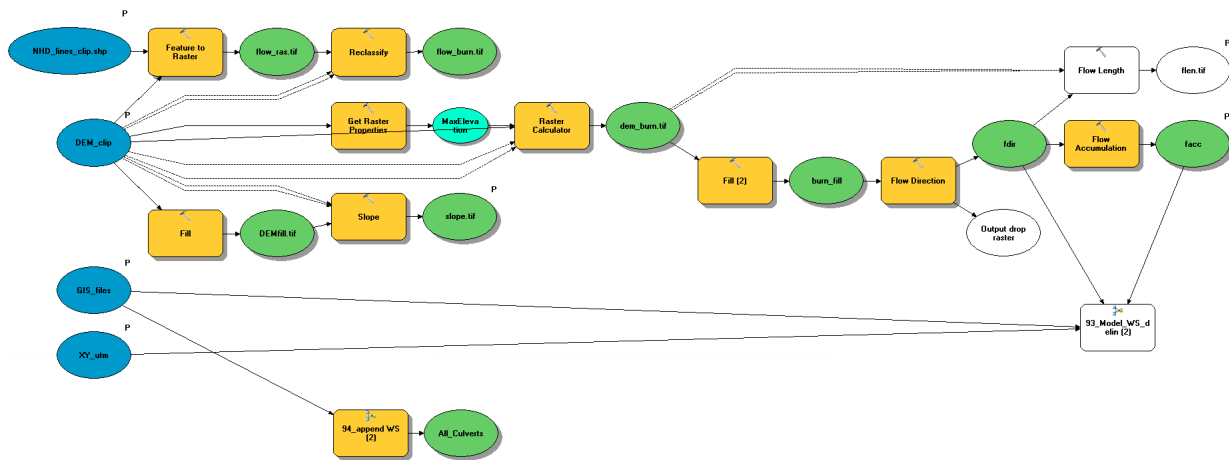
1. Model was initially “broken” due to the submodels being broken.



### Submodel 98 Model Create WS

Identified issues:

1. Intermediate process outputs did not specify file extension. Once file extensions were specified tool was “fixed”.
2. Stream burning methodology is unexpected. DEM is being “raised” around the stream, instead of stream being burned (i.e., lowered) into the DEM.
3. Raster representation of stream network appears off and requires further exploration.
4. Streaming burning was incorrectly calculated, and not actually burned stream network into DEM for subsequent analyses. (Addressed)



### Submodel 93 Model WS Delin

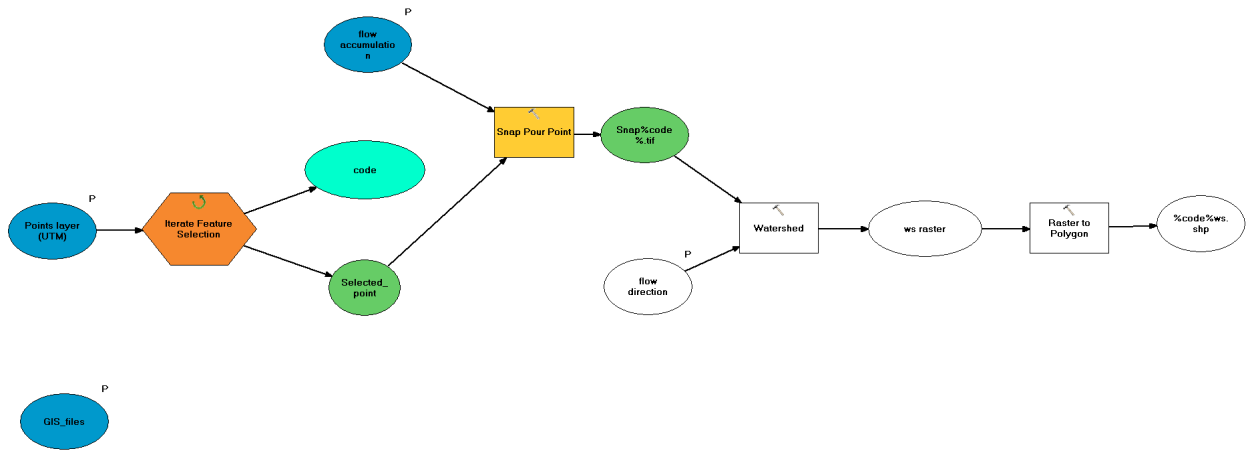
Description: Functional model to snap culvert points to stream network (flow accumulation raster) and then delineate watershed. Lastly, convert to polygon format.

Identified issues:

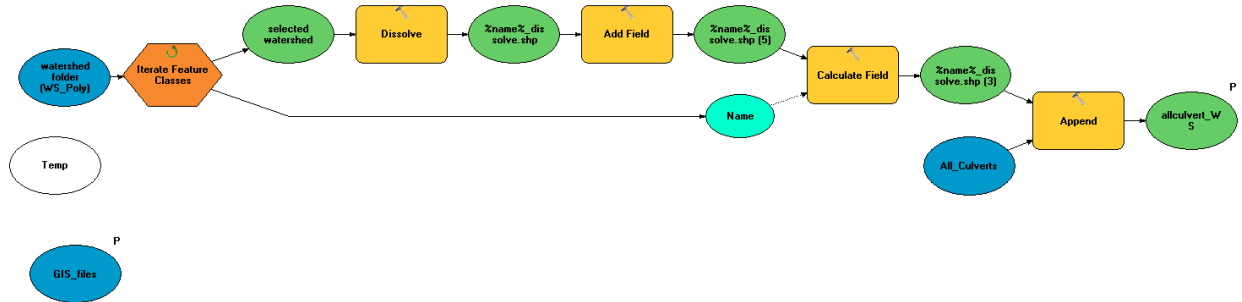
1. Raster to polygon conversion process simplifies the polygon. This can create odd-shaped watersheds, like this example:



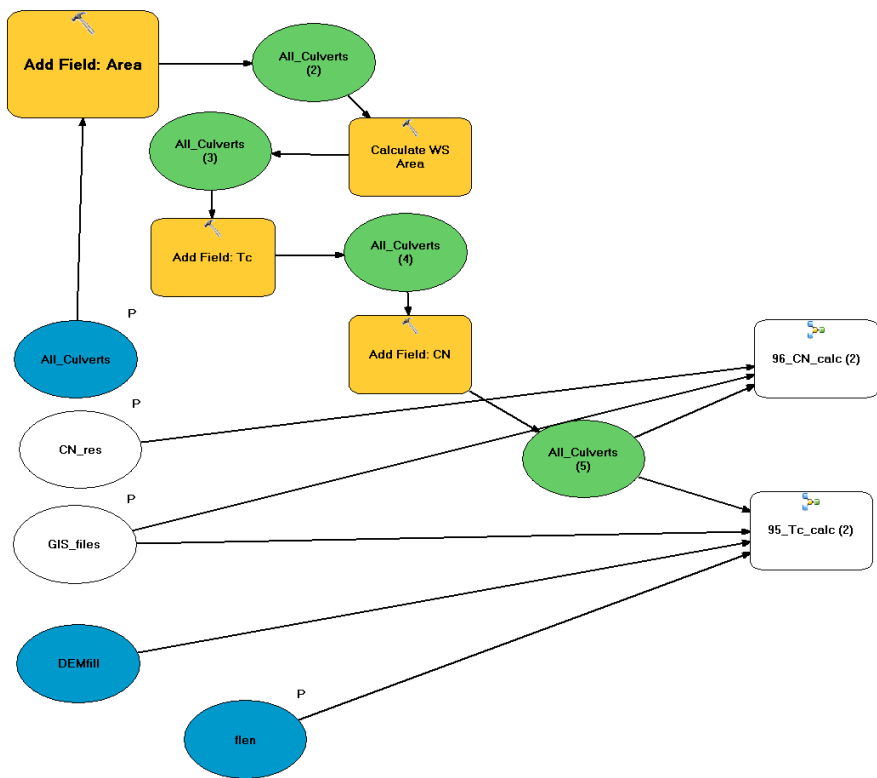
Snap pour point distance parameter may require adjustment.



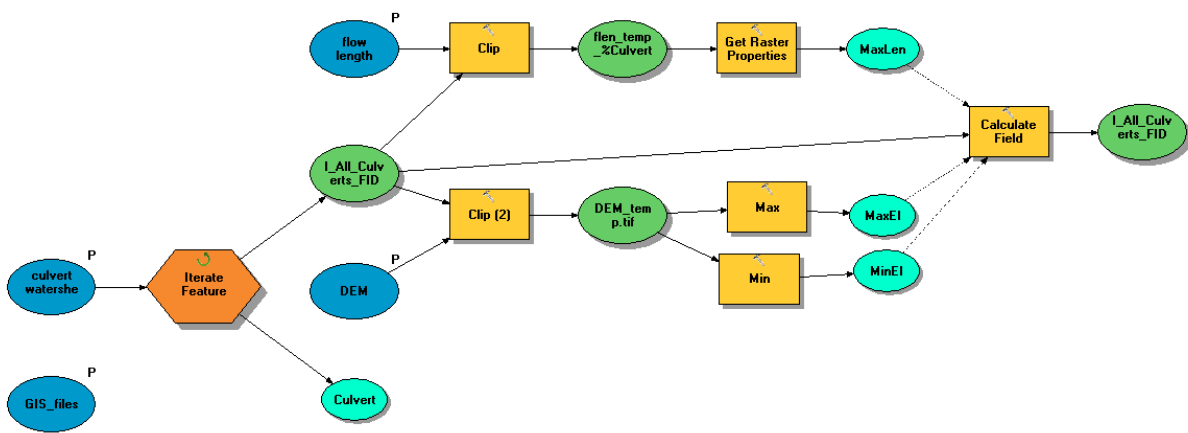
### Submodel 94 Append WS



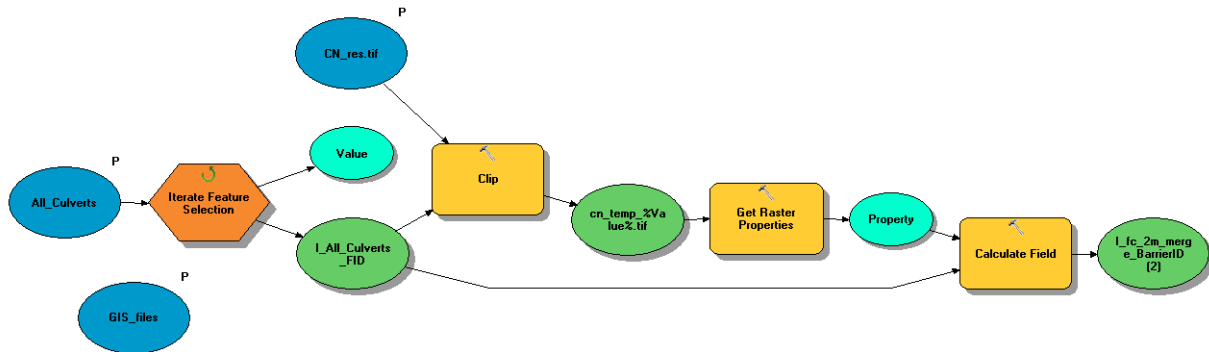
### Submodel 99 Add Fields



### Submodel 95 Tc Calc



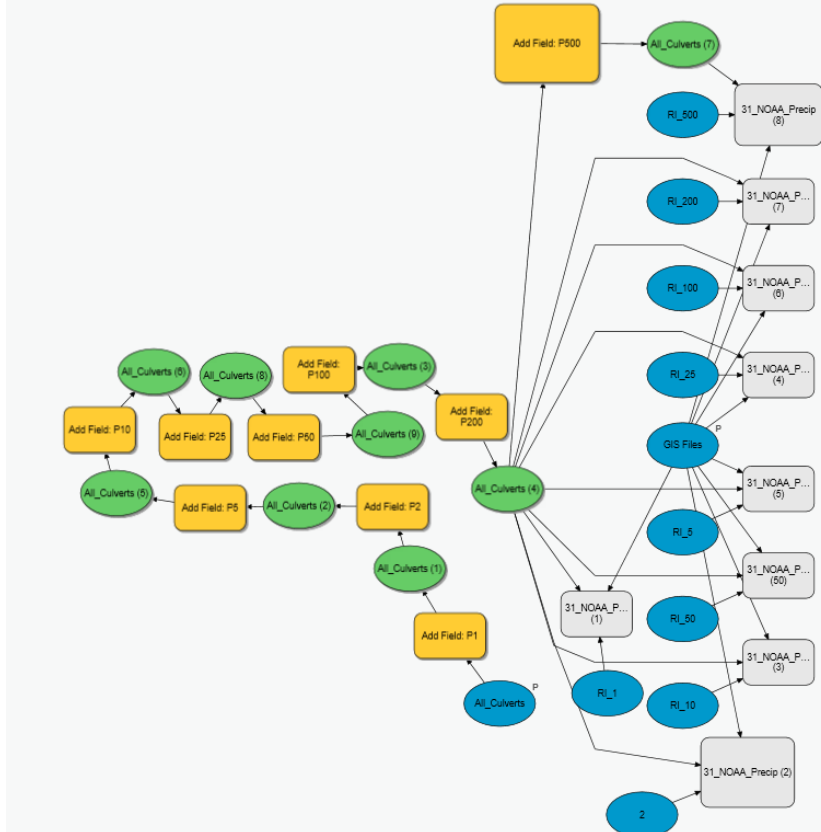
### Submodel 96 CN Calc



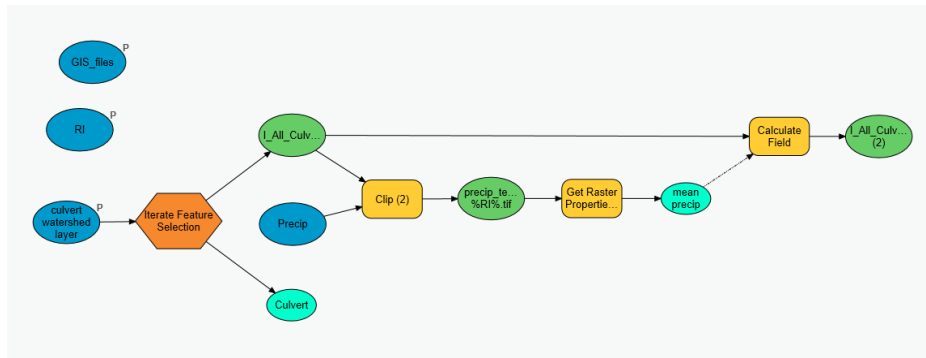
### Add Precip and Region

<b>Submodel:</b>	31 NOAA Precip
<b>Description:</b>	Add Fields to All Culverts shapefile for precipitation and region. Calculates precipitation values within each watershed.
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>P500 field type (Integer) is not consistent with the other precipitation fields</li> </ul>
<b>Recommendation:</b>	Updates P500 field type to decimal Simplify process and combine with Region calculation.

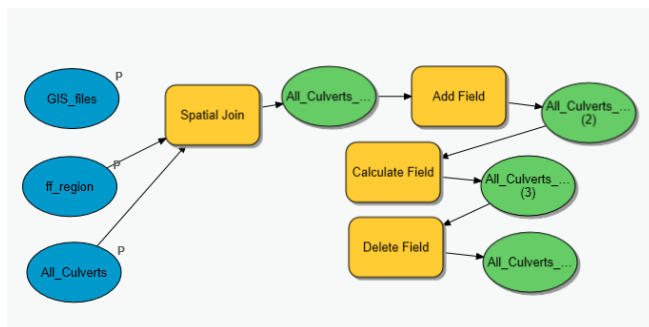
### 02 Add Precip



### 31 NOAA Precip



### 03 Region

























#### Export All Culverts

<b>Submodel:</b>	None
<b>Description:</b>	Manual process to save attribute table of All Culverts shapefile to project directory.
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>Relies on user to output name in specific format.</li> </ul>
<b>Recommendation:</b>	Integrate into Add Precip and Region.

#### Perform Stream Calculations

<b>Submodel:</b>	The streams calculation process utilizes nine(9) Python scripts, with the master file being Culvert_Eval.py. The other 8 scripts are referenced from the master file.
<b>Description:</b>	Creates the output of the model.
<b>Identified Issues:</b>	<ul style="list-style-type: none"> <li>Inconsistent text cases (TES10 vs Tes10). Python is case sensitive, and when script is attempting to retrieve data from dictionaries, case matters.</li> </ul>
<b>Recommendation:</b>	<ul style="list-style-type: none"> <li>Create a user interface for the culvert_eval.py script. This can be done without significant changes to the existing structure (i.e., the subscripts can stay as is).</li> <li>The option exists to simplify the tool output—though this is not required. However, it would improve the user experience to create a single Excel file output, with each section as its own worksheet in the one Excel file.</li> </ul>

**Scripts:**

Name	Date modified	Type	Size
 00_Cornell_Model_Data.docx	8/7/2019 8:03 AM	Microsoft Word D...	615 KB
 00_Full_Culvert_Instructions_V2.1.docx	8/7/2019 8:03 AM	Microsoft Word D...	4,231 KB
 00_Read_Me.txt	8/7/2019 8:03 AM	Text Document	2 KB
 capacity.py	8/7/2019 8:03 AM	PY File	6 KB
 capacity.pyc	11/10/2021 12:20 PM	Compiled Python ...	3 KB
 capacity_prep.py	8/7/2019 8:03 AM	PY File	11 KB
 capacity_prep.pyc	11/10/2021 12:20 PM	Compiled Python ...	4 KB
 Culvert_Eval.py	8/7/2019 8:03 AM	PY File	6 KB
 CulvertModelOutputExplanation_v2.1.xlsx	8/7/2019 8:03 AM	Microsoft Excel W...	15 KB
 CulvertTools_V2.1.tbx	8/7/2019 8:03 AM	ArcGIS Toolbox	7,861 KB
 extract_NAACC.py	8/7/2019 8:03 AM	PY File	7 KB
 final_output.py	12/9/2021 11:52 AM	PY File	10 KB
 final_output.pyc	11/10/2021 12:20 PM	Compiled Python ...	5 KB
 loader.py	8/7/2019 8:03 AM	PY File	7 KB
 loader.pyc	11/10/2021 12:20 PM	Compiled Python ...	3 KB
 Precip_Append.py	8/7/2019 8:03 AM	PY File	3 KB
 Precip_Append.pyc	11/10/2021 12:20 PM	Compiled Python ...	2 KB
 return_periods.py	8/7/2019 8:03 AM	PY File	8 KB
 runoffP.py	8/7/2019 8:03 AM	PY File	12 KB
 runoffP.pyc	11/10/2021 12:20 PM	Compiled Python ...	6 KB
 sorterPrecip.py	8/7/2019 8:03 AM	PY File	4 KB
 sorterPrecip.pyc	11/10/2021 12:20 PM	Compiled Python ...	3 KB

**ANALYSIS, CALIBRATION, AND VALIDATION OF THE CORNELL CULVERTS MODEL FOR USE IN THE ASHOKAN RESERVOIR WATERSHED, CATSKILL REGION NEW YORK**

**TECHNICAL REPORT - PHASES 1 & 2**

## **Appendix B Hydrologic Modeling**

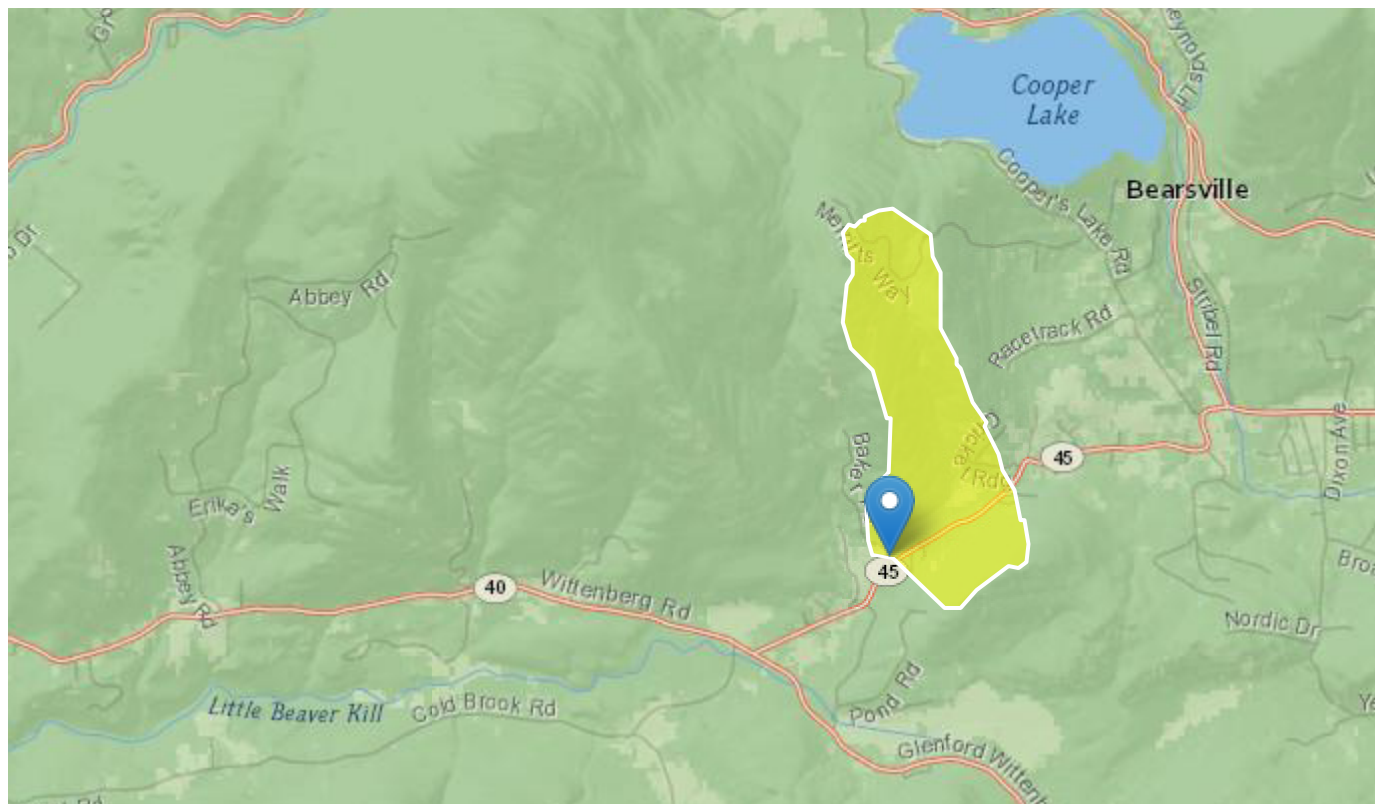
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115193208935000

Clicked Point (Latitude, Longitude): 42.03112, -74.18428

Time: 2021-11-15 14:32:28 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.78	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00519	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
MAR	Mean annual runoff for the period of record in inches	28	inches
JUNAVPRE	Mean June Precipitation	4.84	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	567779.9	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4654510	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	251	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	1.99	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	0.26	percent
JULAVPRE	Mean July Precipitation	4.73	inches
MAYAVPRE	Mean May Precipitation	4.88	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.7	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	75.6	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	4.72	percent
EL1200	Percentage of basin at or above 1200 ft elevation	46.1	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.78	square miles	1.93	996
LAGFACTOR	Lag Factor	0.00519	dimensionless	0.014	6.997
STORAGE	Percent Storage	0	percent	0	11.88
MAR	Mean Annual Runoff in inches	28	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

Statistic	Value	Unit
80-percent AEP flood	39.6	ft <sup>3</sup> /s
66.7-percent AEP flood	51.3	ft <sup>3</sup> /s
50-percent AEP flood	68.8	ft <sup>3</sup> /s
20-percent AEP flood	125	ft <sup>3</sup> /s
10-percent AEP flood	173	ft <sup>3</sup> /s
4-percent AEP flood	245	ft <sup>3</sup> /s
2-percent AEP flood	307	ft <sup>3</sup> /s
1-percent AEP flood	377	ft <sup>3</sup> /s
0.5-percent AEP flood	456	ft <sup>3</sup> /s
0.2-percent AEP flood	576	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J., 2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.78	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.84	inches	3.59	5.33
CENTROIDX	CENTROIDX	567779.9	meters	166000	658000
CENTROIDY	CENTROIDY	4654510	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	251	feet per mi	1.56	152
LENGTH	Main Channel Length	1.99	miles	0.88	305
MAR	Mean Annual Runoff in inches	28	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	0.26	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.73	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	4.88	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	13.7	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	75.6	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	4.72	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	46.1	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIs 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIs 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	91	ft <sup>3</sup> /s
1 Percent Duration	15.5	ft <sup>3</sup> /s
5 Percent Duration	5.53	ft <sup>3</sup> /s
10 Percent Duration	3.54	ft <sup>3</sup> /s
15 Percent Duration	2.56	ft <sup>3</sup> /s
20 Percent Duration	2.07	ft <sup>3</sup> /s
25 Percent Duration	1.63	ft <sup>3</sup> /s
35 Percent Duration	1.13	ft <sup>3</sup> /s
50 Percent Duration	0.705	ft <sup>3</sup> /s
65 Percent Duration	0.316	ft <sup>3</sup> /s
75 Percent Duration	0.15	ft <sup>3</sup> /s
80 Percent Duration	0.102	ft <sup>3</sup> /s
85 Percent Duration	0.0684	ft <sup>3</sup> /s
90 Percent Duration	0.0458	ft <sup>3</sup> /s
95 Percent Duration	0.0258	ft <sup>3</sup> /s
99 Percent Duration	0.0107	ft <sup>3</sup> /s

Statistic	Value	Unit
99.99 Percent Duration	0.00288	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L., 2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.78	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.78	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.78	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.78	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	14.8	ft <sup>2</sup>
Bankfull Depth	0.99	ft
Bankfull Streamflow	96.6	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	15.3	ft
Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	13.7	ft
Bieger_D_channel_depth	1.04	ft
Bieger_D_channel_cross_sectional_area	14.5	ft <sup>2</sup>
Bankfull Statistics Flow Report [Appalacian Plateaus P Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	14.1	ft
Bieger_P_channel_depth	1.05	ft
Bieger_P_channel_cross_sectional_area	14.6	ft <sup>2</sup>
Bankfull Statistics Flow Report [USA Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	11.3	ft
Bieger_USA_channel_depth	1.14	ft
Bieger_USA_channel_cross_sectional_area	14.9	ft <sup>2</sup>
Bankfull Statistics Flow Report [Area-Averaged]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	14.8	ft <sup>2</sup>
Bankfull Depth	0.99	ft
Bankfull Streamflow	96.6	ft <sup>3</sup> /s
Bankfull Width	15.3	ft
Bieger_D_channel_width	13.7	ft
Bieger_D_channel_depth	1.04	ft
Bieger_D_channel_cross_sectional_area	14.5	ft <sup>2</sup>
Bieger_P_channel_width	14.1	ft
Bieger_P_channel_depth	1.05	ft

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_cross_sectional_area	14.6	ft^2
Bieger_USA_channel_width	11.3	ft
Bieger_USA_channel_depth	1.14	ft
Bieger_USA_channel_cross_sectional_area	14.9	ft^2

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

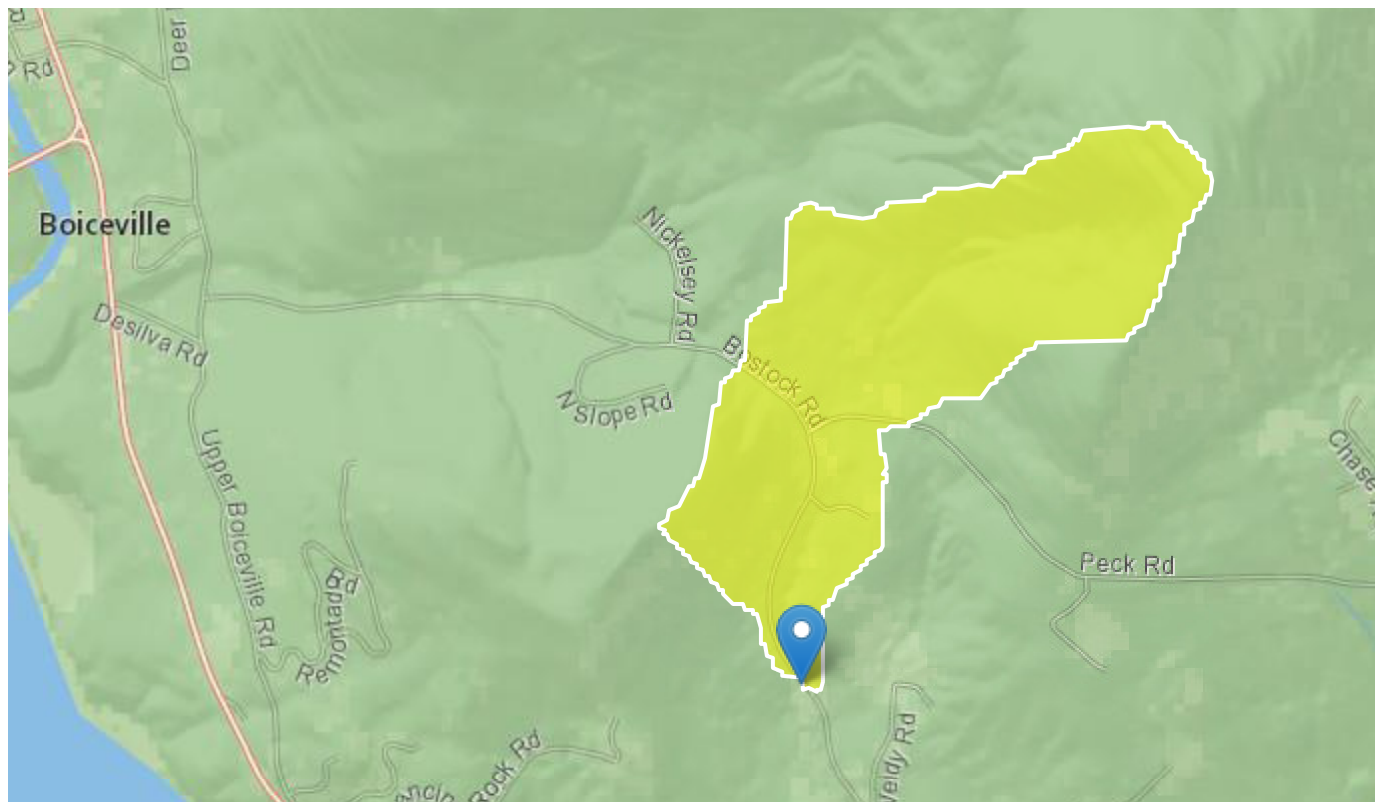
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115193831533000

Clicked Point (Latitude, Longitude): 41.98702, -74.23487

Time: 2021-11-15 14:38:50 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.61	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00279	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.35	percent
MAR	Mean annual runoff for the period of record in inches	28.2	inches
JUNAVPRE	Mean June Precipitation	5.22	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	563757.9	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4649790.5	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	326	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	1.92	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	22.6	percent
JULAVPRE	Mean July Precipitation	5.09	inches
MAYAVPRE	Mean May Precipitation	4.89	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	14.5	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	72.6	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	1.18	percent
EL1200	Percentage of basin at or above 1200 ft elevation	88.6	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.61	square miles	1.93	996
LAGFACTOR	Lag Factor	0.00279	dimensionless	0.014	6.997
STORAGE	Percent Storage	0.35	percent	0	11.88
MAR	Mean Annual Runoff in inches	28.2	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

Statistic	Value	Unit
80-percent AEP flood	29.6	ft <sup>3</sup> /s
66.7-percent AEP flood	38.4	ft <sup>3</sup> /s
50-percent AEP flood	51.6	ft <sup>3</sup> /s
20-percent AEP flood	94.1	ft <sup>3</sup> /s
10-percent AEP flood	131	ft <sup>3</sup> /s
4-percent AEP flood	185	ft <sup>3</sup> /s
2-percent AEP flood	233	ft <sup>3</sup> /s
1-percent AEP flood	287	ft <sup>3</sup> /s
0.5-percent AEP flood	347	ft <sup>3</sup> /s
0.2-percent AEP flood	440	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J., 2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.61	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	5.22	inches	3.59	5.33
CENTROIDX	CENTROIDX	563757.9	meters	166000	658000
CENTROIDY	CENTROIDY	4649790.5	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	326	feet per mi	1.56	152
LENGTH	Main Channel Length	1.92	miles	0.88	305
MAR	Mean Annual Runoff in inches	28.2	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	22.6	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	5.09	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	4.89	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	14.5	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	72.6	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	1.18	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	88.6	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsl 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsl 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	85.6	ft <sup>3</sup> /s
1 Percent Duration	8.68	ft <sup>3</sup> /s
5 Percent Duration	3.71	ft <sup>3</sup> /s
10 Percent Duration	2.6	ft <sup>3</sup> /s
15 Percent Duration	1.97	ft <sup>3</sup> /s
20 Percent Duration	1.59	ft <sup>3</sup> /s
25 Percent Duration	1.37	ft <sup>3</sup> /s
35 Percent Duration	1.02	ft <sup>3</sup> /s
50 Percent Duration	0.735	ft <sup>3</sup> /s
65 Percent Duration	0.517	ft <sup>3</sup> /s
75 Percent Duration	0.409	ft <sup>3</sup> /s
80 Percent Duration	0.325	ft <sup>3</sup> /s
85 Percent Duration	0.252	ft <sup>3</sup> /s
90 Percent Duration	0.195	ft <sup>3</sup> /s
95 Percent Duration	0.137	ft <sup>3</sup> /s
99 Percent Duration	0.0843	ft <sup>3</sup> /s

Statistic	Value	Unit
99.99 Percent Duration	0.0654	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L., 2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.61	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.61	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.61	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.61	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	12.2	ft <sup>2</sup>
Bankfull Depth	0.916	ft
Bankfull Streamflow	79.7	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	13.6	ft
Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	12.4	ft
Bieger_D_channel_depth	0.973	ft
Bieger_D_channel_cross_sectional_area	12.2	ft <sup>2</sup>
Bankfull Statistics Flow Report [Appalacian Plateaus P Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	12.7	ft
Bieger_P_channel_depth	0.974	ft
Bieger_P_channel_cross_sectional_area	12.3	ft <sup>2</sup>
Bankfull Statistics Flow Report [USA Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	10.4	ft
Bieger_USA_channel_depth	1.09	ft
Bieger_USA_channel_cross_sectional_area	13.1	ft <sup>2</sup>
Bankfull Statistics Flow Report [Area-Averaged]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	12.2	ft <sup>2</sup>
Bankfull Depth	0.916	ft
Bankfull Streamflow	79.7	ft <sup>3</sup> /s
Bankfull Width	13.6	ft
Bieger_D_channel_width	12.4	ft
Bieger_D_channel_depth	0.973	ft
Bieger_D_channel_cross_sectional_area	12.2	ft <sup>2</sup>
Bieger_P_channel_width	12.7	ft
Bieger_P_channel_depth	0.974	ft

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_cross_sectional_area	12.3	ft^2
Bieger_USA_channel_width	10.4	ft
Bieger_USA_channel_depth	1.09	ft
Bieger_USA_channel_cross_sectional_area	13.1	ft^2

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

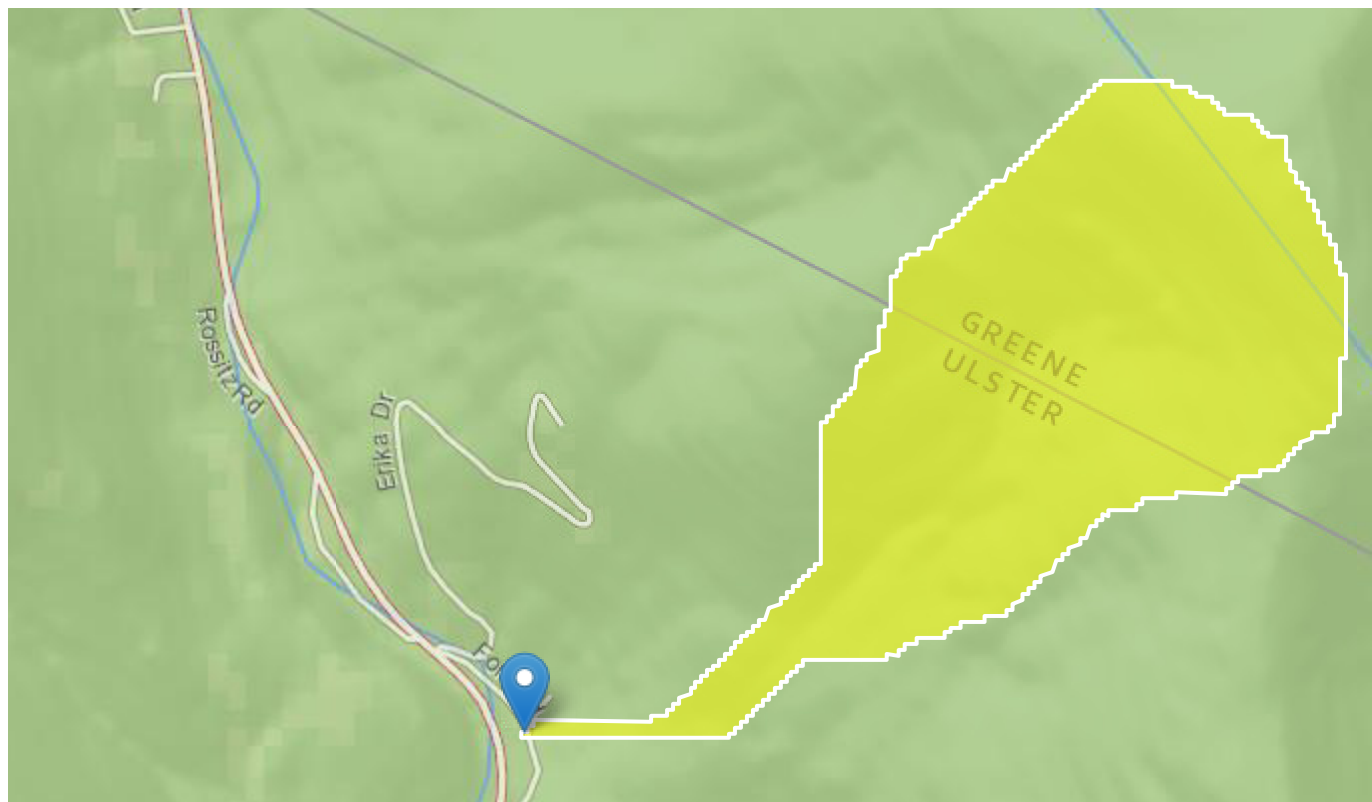
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115185524946000

Clicked Point (Latitude, Longitude): 42.14218, -74.40632

Time: 2021-11-15 13:55:47 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.25	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.000868	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
MAR	Mean annual runoff for the period of record in inches	30.1	inches
JUNAVPRE	Mean June Precipitation	4.38	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	549990.6	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4666362.1	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	1400	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	1.18	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	0	percent
JULAVPRE	Mean July Precipitation	4.27	inches
MAYAVPRE	Mean May Precipitation	4.58	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	12.7	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	70.5	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	0.0307	percent
EL1200	Percentage of basin at or above 1200 ft elevation	100	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	1.93	996
LAGFACTOR	Lag Factor	0.000868	dimensionless	0.014	6.997
STORAGE	Percent Storage	0	percent	0	11.88
MAR	Mean Annual Runoff in inches	30.1	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	14.1	ft <sup>3</sup> /s
66.7-percent AEP flood	18.6	ft <sup>3</sup> /s
50-percent AEP flood	25.3	ft <sup>3</sup> /s
20-percent AEP flood	47.2	ft <sup>3</sup> /s
10-percent AEP flood	66.1	ft <sup>3</sup> /s
4-percent AEP flood	94.2	ft <sup>3</sup> /s
2-percent AEP flood	119	ft <sup>3</sup> /s
1-percent AEP flood	147	ft <sup>3</sup> /s
0.5-percent AEP flood	179	ft <sup>3</sup> /s
0.2-percent AEP flood	227	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	0.25	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.38	inches	3.59	5.33
CENTROIDX	CENTROIDX	549990.6	meters	166000	658000
CENTROIDY	CENTROIDY	4666362.1	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	1400	feet per mi	1.56	152
LENGTH	Main Channel Length	1.18	miles	0.88	305
MAR	Mean Annual Runoff in inches	30.1	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	0	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.27	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	4.58	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	12.7	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	70.5	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	0.0307	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	100	percent	0	100

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIs 2014 5220]

Statistic	Value	Unit
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*Flow-Duration Statistics Citations*

Bankfull Statistics Parameters [17.0 Percent (0.0429 square miles) Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	3.72	237

Bankfull Statistics Parameters [83.0 Percent (0.209 square miles) Bankfull Region 4a SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	11.4	163

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalacian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [17.0 Percent (0.0429 square miles) Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [17.0 Percent (0.0429 square miles) Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	6.1	ft <sup>2</sup>
Bankfull Depth	0.692	ft
Bankfull Streamflow	39.7	ft <sup>3</sup> /s
Bankfull Width	9.04	ft

Bankfull Statistics Disclaimers [83.0 Percent (0.209 square miles) Bankfull Region 4a SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [83.0 Percent (0.209 square miles) Bankfull Region 4a SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	2.08	ft <sup>2</sup>
Bankfull Depth	0.486	ft
Bankfull Streamflow	7.79	ft <sup>3</sup> /s
Bankfull Width	4.27	ft

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	8.55	ft
Bieger_D_channel_depth	0.753	ft
Bieger_D_channel_cross_sectional_area	6.5	ft <sup>2</sup>

Bankfull Statistics Flow Report [Appalachian Plateaus P Bieger 2015]

Statistic	Value	Unit
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<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	8.65	ft
Bieger_P_channel_depth	0.752	ft
Bieger_P_channel_cross_sectional_area	6.45	ft <sup>2</sup>

## Bankfull Statistics Flow Report [USA Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	7.6	ft
Bieger_USA_channel_depth	0.897	ft
Bieger_USA_channel_cross_sectional_area	8.08	ft <sup>2</sup>

## Bankfull Statistics Flow Report [Area-Averaged]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	2.76	ft <sup>2</sup>
Bankfull Depth	0.521	ft
Bankfull Streamflow	13.2	ft <sup>3</sup> /s
Bankfull Width	5.08	ft
Bieger_D_channel_width	8.55	ft
Bieger_D_channel_depth	0.753	ft
Bieger_D_channel_cross_sectional_area	6.5	ft <sup>2</sup>
Bieger_P_channel_width	8.65	ft
Bieger_P_channel_depth	0.752	ft
Bieger_P_channel_cross_sectional_area	6.45	ft <sup>2</sup>
Bieger_USA_channel_width	7.6	ft
Bieger_USA_channel_depth	0.897	ft
Bieger_USA_channel_cross_sectional_area	8.08	ft <sup>2</sup>

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty,**

**17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

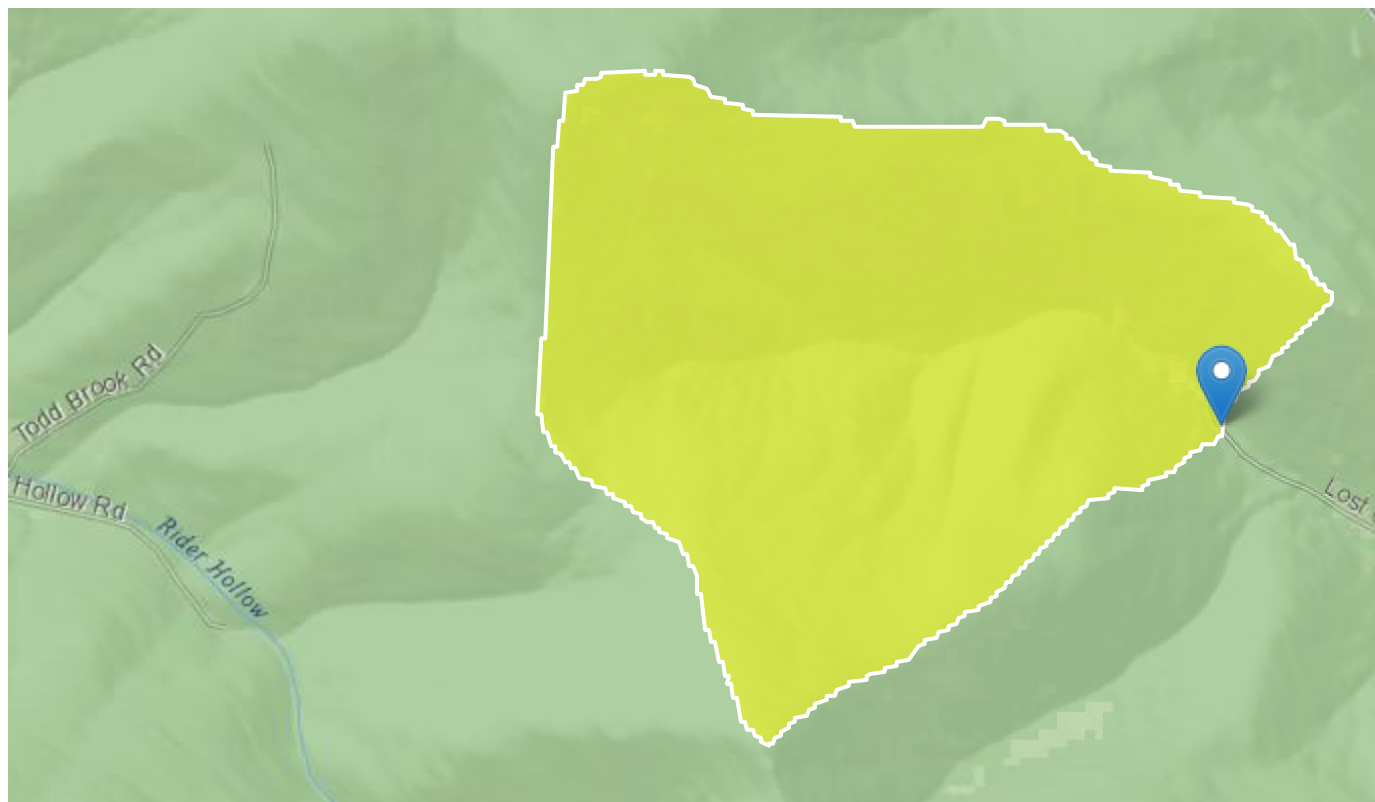
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115184605582000

Clicked Point (Latitude, Longitude): 42.10525, -74.46991

Time: 2021-11-15 13:46:24 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.55	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0027	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
MAR	Mean annual runoff for the period of record in inches	33.5	inches
JUNAVPRE	Mean June Precipitation	4.44	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	542606.9	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4661830.6	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	380	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	2.01	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	1.98	percent
JULAVPRE	Mean July Precipitation	4.42	inches
MAYAVPRE	Mean May Precipitation	4.7	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	12.5	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	70.2	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	1.26	percent
EL1200	Percentage of basin at or above 1200 ft elevation	100	percent

Peak-Flow Statistics Parameters [100.0 Percent (1.56 square miles) 2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.55	square miles	1.93	996
LAGFACTOR	Lag Factor	0.0027	dimensionless	0.014	6.997
STORAGE	Percent Storage	0	percent	0	11.88
MAR	Mean Annual Runoff in inches	33.5	inches	16.03	33.95

Peak-Flow Statistics Disclaimers [100.0 Percent (1.56 square miles) 2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [100.0 Percent (1.56 square miles) 2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	84.1	ft <sup>3</sup> /s
66.7-percent AEP flood	110	ft <sup>3</sup> /s
50-percent AEP flood	149	ft <sup>3</sup> /s
20-percent AEP flood	276	ft <sup>3</sup> /s
10-percent AEP flood	385	ft <sup>3</sup> /s
4-percent AEP flood	548	ft <sup>3</sup> /s
2-percent AEP flood	692	ft <sup>3</sup> /s
1-percent AEP flood	854	ft <sup>3</sup> /s
0.5-percent AEP flood	1040	ft <sup>3</sup> /s
0.2-percent AEP flood	1320	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Bankfull Statistics Parameters [Bankfull Region 4a SIR2009 5144]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	1.55	square miles	11.4	163

## Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	1.55	square miles	0.07722	940.1535

## Bankfull Statistics Parameters [Appalacian Plateaus P Bieger 2015]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	1.55	square miles	0.081081	536.995602

## Bankfull Statistics Parameters [USA Bieger 2015]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
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Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.55	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4a SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4a SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	10.7	ft <sup>2</sup>
Bankfull Depth	0.921	ft
Bankfull Streamflow	46.6	ft <sup>3</sup> /s
Bankfull Width	11.6	ft

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	18.2	ft
Bieger_D_channel_depth	1.27	ft
Bieger_D_channel_cross_sectional_area	23.5	ft <sup>2</sup>

Bankfull Statistics Flow Report [Appalachian Plateaus P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	19	ft
Bieger_P_channel_depth	1.28	ft
Bieger_P_channel_cross_sectional_area	24	ft <sup>2</sup>

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
Bieger_USA_channel_width	14.4	ft
Bieger_USA_channel_depth	1.32	ft
Bieger_USA_channel_cross_sectional_area	21.7	ft <sup>2</sup>

Bankfull Statistics Flow Report [Area-Averaged]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	10.7	ft^2
Bankfull Depth	0.921	ft
Bankfull Streamflow	46.6	ft^3/s
Bankfull Width	11.6	ft
Bieger_D_channel_width	18.2	ft
Bieger_D_channel_depth	1.27	ft
Bieger_D_channel_cross_sectional_area	23.5	ft^2
Bieger_P_channel_width	19	ft
Bieger_P_channel_depth	1.28	ft
Bieger_P_channel_cross_sectional_area	24	ft^2
Bieger_USA_channel_width	14.4	ft
Bieger_USA_channel_depth	1.32	ft
Bieger_USA_channel_cross_sectional_area	21.7	ft^2

#### *Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can)**

#### Flow-Duration Statistics Parameters [Statewide duration flows excl LongIs 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	1.55	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.44	inches	3.59	5.33
CENTROIDX	CENTROIDX	542606.9	meters	166000	658000
CENTROIDY	CENTROIDY	4661830.6	meters	4560000	4920000

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CSL1085LO	10-85 slope of lower half of main channel	380	feet per mi	1.56	152
LENGTH	Main Channel Length	2.01	miles	0.88	305
MAR	Mean Annual Runoff in inches	33.5	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	1.98	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.42	inches	3.2	5.26
MAYAVPRE	Mean May Precipitation	4.7	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	12.5	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	70.2	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	1.26	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	100	percent	0	100

#### Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsI 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

#### Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsI 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	156	ft <sup>3</sup> /s
1 Percent Duration	35.5	ft <sup>3</sup> /s
5 Percent Duration	13	ft <sup>3</sup> /s
10 Percent Duration	8.12	ft <sup>3</sup> /s
15 Percent Duration	6.24	ft <sup>3</sup> /s
20 Percent Duration	5.06	ft <sup>3</sup> /s
25 Percent Duration	4.21	ft <sup>3</sup> /s
35 Percent Duration	3.04	ft <sup>3</sup> /s
50 Percent Duration	1.84	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
65 Percent Duration	1.07	ft <sup>3</sup> /s
75 Percent Duration	0.625	ft <sup>3</sup> /s
80 Percent Duration	0.48	ft <sup>3</sup> /s
85 Percent Duration	0.358	ft <sup>3</sup> /s
90 Percent Duration	0.262	ft <sup>3</sup> /s
95 Percent Duration	0.174	ft <sup>3</sup> /s
99 Percent Duration	0.0985	ft <sup>3</sup> /s
99.99 Percent Duration	0.0318	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L.,2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

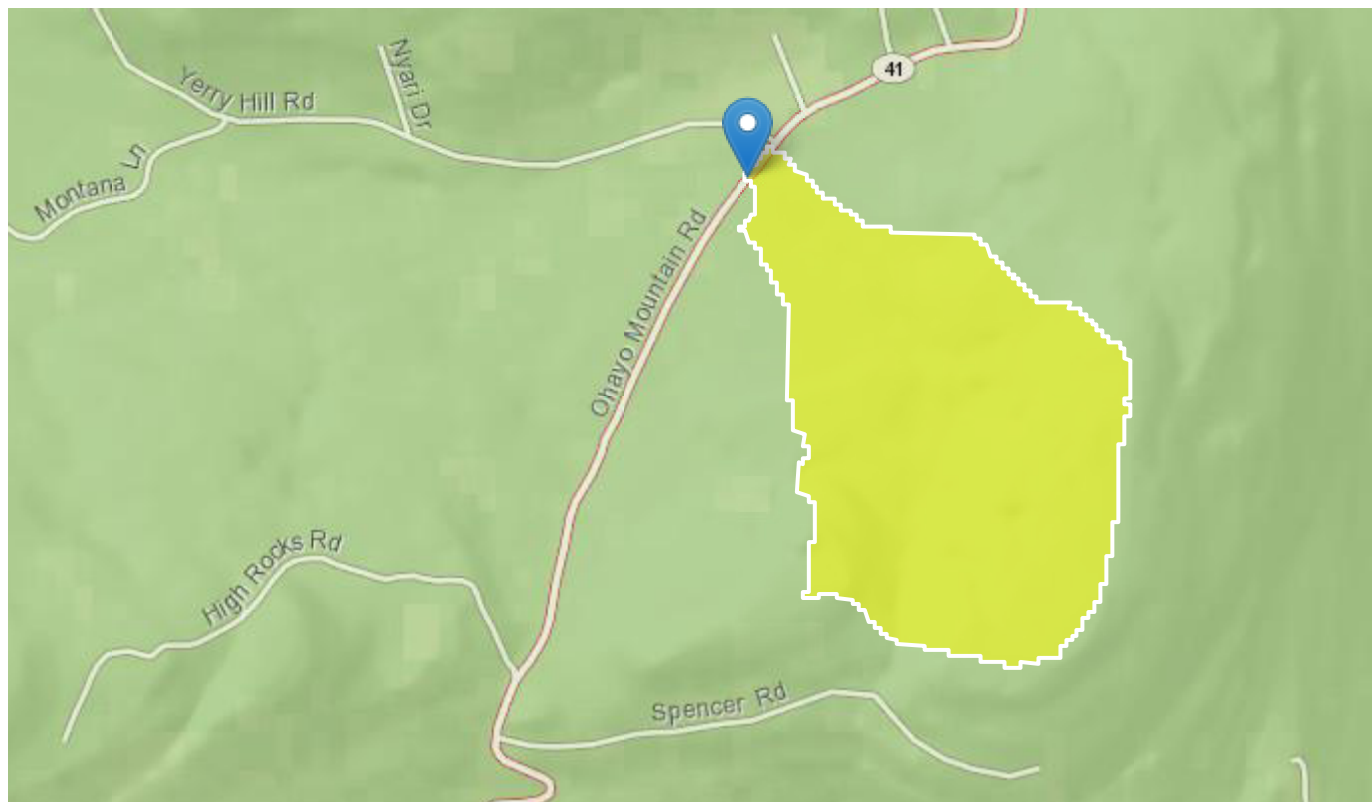
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115194258344000

Clicked Point (Latitude, Longitude): 42.02015, -74.13310

Time: 2021-11-15 14:43:18 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.16	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00155	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
MAR	Mean annual runoff for the period of record in inches	25.8	inches
JUNAVPRE	Mean June Precipitation	4.59	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	572126.6	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4651932.6	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	309	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	0.71	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	0	percent
JULAVPRE	Mean July Precipitation	4.49	inches
MAYAVPRE	Mean May Precipitation	4.74	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.1	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	76.4	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	0	percent
EL1200	Percentage of basin at or above 1200 ft elevation	41.7	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.16	square miles	1.93	996
LAGFACTOR	Lag Factor	0.00155	dimensionless	0.014	6.997
STORAGE	Percent Storage	0	percent	0	11.88
MAR	Mean Annual Runoff in inches	25.8	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	8.47	ft <sup>3</sup> /s
66.7-percent AEP flood	11	ft <sup>3</sup> /s
50-percent AEP flood	14.9	ft <sup>3</sup> /s
20-percent AEP flood	27.3	ft <sup>3</sup> /s
10-percent AEP flood	37.9	ft <sup>3</sup> /s
4-percent AEP flood	53.7	ft <sup>3</sup> /s
2-percent AEP flood	67.5	ft <sup>3</sup> /s
1-percent AEP flood	82.9	ft <sup>3</sup> /s
0.5-percent AEP flood	100	ft <sup>3</sup> /s
0.2-percent AEP flood	127	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	0.16	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.59	inches	3.59	5.33
CENTROIDX	CENTROIDX	572126.6	meters	166000	658000
CENTROIDY	CENTROIDY	4651932.6	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	309	feet per mi	1.56	152
LENGTH	Main Channel Length	0.71	miles	0.88	305
MAR	Mean Annual Runoff in inches	25.8	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	0	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.49	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	4.74	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	13.1	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	76.4	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	0	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	41.7	percent	0	100

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIs 2014 5220]

Statistic	Value	Unit
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*Flow-Duration Statistics Citations*

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.16	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.16	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.16	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.16	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	4.31	ft <sup>2</sup>
Bankfull Depth	0.602	ft
Bankfull Streamflow	28.1	ft <sup>3</sup> /s
Bankfull Width	7.36	ft

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	7.1	ft
Bieger_D_channel_depth	0.662	ft
Bieger_D_channel_cross_sectional_area	4.75	ft <sup>2</sup>

Bankfull Statistics Flow Report [Appalachian Plateaus P Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	7.14	ft
Bieger_P_channel_depth	0.661	ft
Bieger_P_channel_cross_sectional_area	4.68	ft <sup>2</sup>

Bankfull Statistics Flow Report [USA Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	6.5	ft
Bieger_USA_channel_depth	0.816	ft
Bieger_USA_channel_cross_sectional_area	6.35	ft <sup>2</sup>

Bankfull Statistics Flow Report [Area-Averaged]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	4.31	ft <sup>2</sup>
Bankfull Depth	0.602	ft
Bankfull Streamflow	28.1	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	7.36	ft
Bieger_D_channel_width	7.1	ft
Bieger_D_channel_depth	0.662	ft
Bieger_D_channel_cross_sectional_area	4.75	ft^2
Bieger_P_channel_width	7.14	ft
Bieger_P_channel_depth	0.661	ft
Bieger_P_channel_cross_sectional_area	4.68	ft^2
Bieger_USA_channel_width	6.5	ft
Bieger_USA_channel_depth	0.816	ft
Bieger_USA_channel_cross_sectional_area	6.35	ft^2

#### *Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

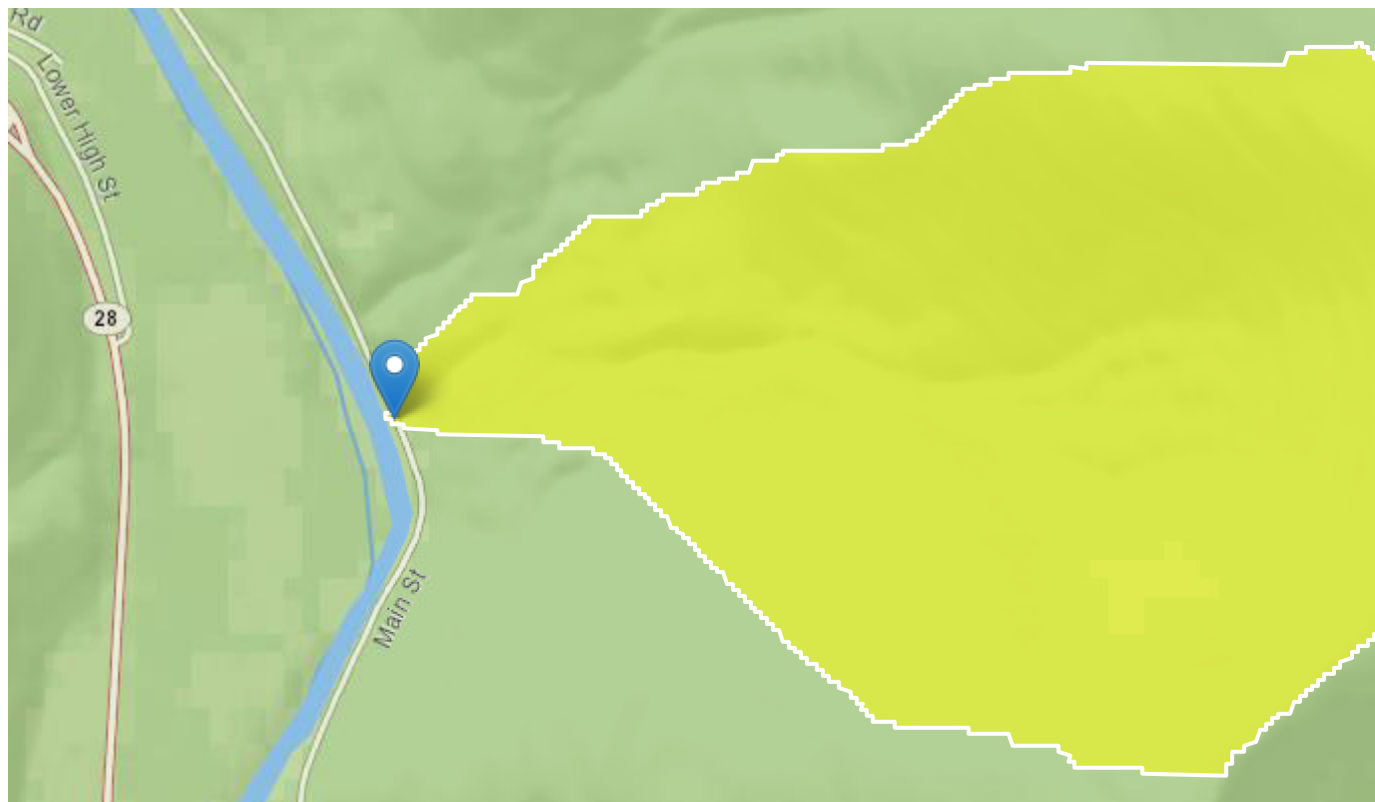
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115190518673000

Clicked Point (Latitude, Longitude): 42.07495, -74.30121

Time: 2021-11-15 14:05:38 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.63	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00103	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
MAR	Mean annual runoff for the period of record in inches	29.6	inches
JUNAVPRE	Mean June Precipitation	4.92	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	558940.7	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4658386.9	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	920	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	1.43	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	0.0435	percent
JULAVPRE	Mean July Precipitation	4.44	inches
MAYAVPRE	Mean May Precipitation	5.04	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.4	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	71.6	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	0	percent
EL1200	Percentage of basin at or above 1200 ft elevation	87.3	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.63	square miles	1.93	996
LAGFACTOR	Lag Factor	0.00103	dimensionless	0.014	6.997
STORAGE	Percent Storage	0	percent	0	11.88
MAR	Mean Annual Runoff in inches	29.6	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	33.5	ft <sup>3</sup> /s
66.7-percent AEP flood	43.7	ft <sup>3</sup> /s
50-percent AEP flood	59	ft <sup>3</sup> /s
20-percent AEP flood	108	ft <sup>3</sup> /s
10-percent AEP flood	151	ft <sup>3</sup> /s
4-percent AEP flood	214	ft <sup>3</sup> /s
2-percent AEP flood	269	ft <sup>3</sup> /s
1-percent AEP flood	331	ft <sup>3</sup> /s
0.5-percent AEP flood	402	ft <sup>3</sup> /s
0.2-percent AEP flood	509	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	0.63	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.92	inches	3.59	5.33
CENTROIDX	CENTROIDX	558940.7	meters	166000	658000
CENTROIDY	CENTROIDY	4658386.9	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	920	feet per mi	1.56	152
LENGTH	Main Channel Length	1.43	miles	0.88	305
MAR	Mean Annual Runoff in inches	29.6	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	0.0435	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.44	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	5.04	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	13.4	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	71.6	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	0	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	87.3	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsI 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsI 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	87.5	ft <sup>3</sup> /s
1 Percent Duration	16.2	ft <sup>3</sup> /s
5 Percent Duration	5.13	ft <sup>3</sup> /s
10 Percent Duration	3.08	ft <sup>3</sup> /s
15 Percent Duration	2.21	ft <sup>3</sup> /s
20 Percent Duration	1.79	ft <sup>3</sup> /s
25 Percent Duration	1.38	ft <sup>3</sup> /s
35 Percent Duration	0.928	ft <sup>3</sup> /s
50 Percent Duration	0.528	ft <sup>3</sup> /s
65 Percent Duration	0.236	ft <sup>3</sup> /s
75 Percent Duration	0	ft <sup>3</sup> /s
80 Percent Duration	0	ft <sup>3</sup> /s
85 Percent Duration	0	ft <sup>3</sup> /s
90 Percent Duration	0	ft <sup>3</sup> /s
95 Percent Duration	0	ft <sup>3</sup> /s
99 Percent Duration	0	ft <sup>3</sup> /s

Statistic	Value	Unit
99.99 Percent Duration	0.0014	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L., 2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.63	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.63	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.63	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.63	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	12.5	ft <sup>2</sup>
Bankfull Depth	0.926	ft
Bankfull Streamflow	81.7	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	13.8	ft
Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	12.5	ft
Bieger_D_channel_depth	0.982	ft
Bieger_D_channel_cross_sectional_area	12.5	ft <sup>2</sup>
Bankfull Statistics Flow Report [Appalacian Plateaus P Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	12.9	ft
Bieger_P_channel_depth	0.983	ft
Bieger_P_channel_cross_sectional_area	12.6	ft <sup>2</sup>
Bankfull Statistics Flow Report [USA Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	10.5	ft
Bieger_USA_channel_depth	1.09	ft
Bieger_USA_channel_cross_sectional_area	13.3	ft <sup>2</sup>
Bankfull Statistics Flow Report [Area-Averaged]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	12.5	ft <sup>2</sup>
Bankfull Depth	0.926	ft
Bankfull Streamflow	81.7	ft <sup>3</sup> /s
Bankfull Width	13.8	ft
Bieger_D_channel_width	12.5	ft
Bieger_D_channel_depth	0.982	ft
Bieger_D_channel_cross_sectional_area	12.5	ft <sup>2</sup>
Bieger_P_channel_width	12.9	ft
Bieger_P_channel_depth	0.983	ft

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_cross_sectional_area	12.6	ft^2
Bieger_USA_channel_width	10.5	ft
Bieger_USA_channel_depth	1.09	ft
Bieger_USA_channel_cross_sectional_area	13.3	ft^2

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

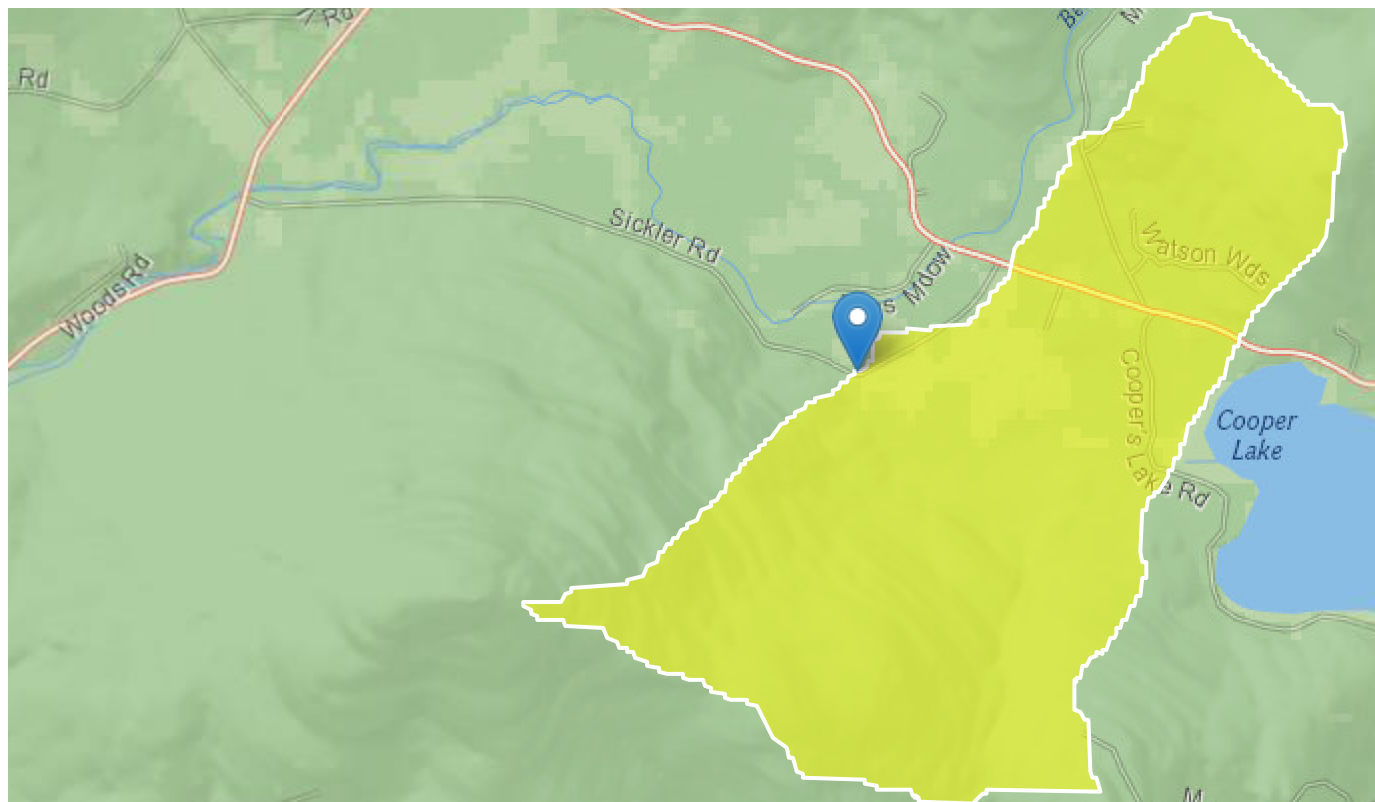
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115192115600000

Clicked Point (Latitude, Longitude): 42.06546, -74.19889

Time: 2021-11-15 14:21:36 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.28	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0242	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.1	percent
MAR	Mean annual runoff for the period of record in inches	28.9	inches
JUNAVPRE	Mean June Precipitation	4.76	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	566780.1	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4657054.5	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	30.3	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	2.18	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	4	percent
JULAVPRE	Mean July Precipitation	4.72	inches
MAYAVPRE	Mean May Precipitation	4.91	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.7	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	75.1	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	19.6	percent
EL1200	Percentage of basin at or above 1200 ft elevation	56.2	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.28	square miles	1.93	996
LAGFACTOR	Lag Factor	0.0242	dimensionless	0.014	6.997
STORAGE	Percent Storage	0.1	percent	0	11.88
MAR	Mean Annual Runoff in inches	28.9	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	62.8	ft <sup>3</sup> /s
66.7-percent AEP flood	81.3	ft <sup>3</sup> /s
50-percent AEP flood	109	ft <sup>3</sup> /s
20-percent AEP flood	197	ft <sup>3</sup> /s
10-percent AEP flood	273	ft <sup>3</sup> /s
4-percent AEP flood	385	ft <sup>3</sup> /s
2-percent AEP flood	483	ft <sup>3</sup> /s
1-percent AEP flood	594	ft <sup>3</sup> /s
0.5-percent AEP flood	718	ft <sup>3</sup> /s
0.2-percent AEP flood	908	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J., 2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	1.28	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.76	inches	3.59	5.33
CENTROIDX	CENTROIDX	566780.1	meters	166000	658000
CENTROIDY	CENTROIDY	4657054.5	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	30.3	feet per mi	1.56	152
LENGTH	Main Channel Length	2.18	miles	0.88	305
MAR	Mean Annual Runoff in inches	28.9	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	4	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.72	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	4.91	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	13.7	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	75.1	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	19.6	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	56.2	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsl 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsl 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	112	ft <sup>3</sup> /s
1 Percent Duration	22.1	ft <sup>3</sup> /s
5 Percent Duration	8.73	ft <sup>3</sup> /s
10 Percent Duration	5.78	ft <sup>3</sup> /s
15 Percent Duration	4.37	ft <sup>3</sup> /s
20 Percent Duration	3.54	ft <sup>3</sup> /s
25 Percent Duration	2.96	ft <sup>3</sup> /s
35 Percent Duration	2.15	ft <sup>3</sup> /s
50 Percent Duration	1.4	ft <sup>3</sup> /s
65 Percent Duration	0.746	ft <sup>3</sup> /s
75 Percent Duration	0.465	ft <sup>3</sup> /s
80 Percent Duration	0.36	ft <sup>3</sup> /s
85 Percent Duration	0.275	ft <sup>3</sup> /s
90 Percent Duration	0.212	ft <sup>3</sup> /s
95 Percent Duration	0.145	ft <sup>3</sup> /s
99 Percent Duration	0.0848	ft <sup>3</sup> /s

Statistic	Value	Unit
99.99 Percent Duration	0.00943	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L., 2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.28	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.28	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.28	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.28	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	21.7	ft <sup>2</sup>
Bankfull Depth	1.16	ft
Bankfull Streamflow	142	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	19.2	ft

## Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	16.8	ft
Bieger_D_channel_depth	1.2	ft
Bieger_D_channel_cross_sectional_area	20.5	ft <sup>2</sup>

## Bankfull Statistics Flow Report [Appalacian Plateaus P Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	17.5	ft
Bieger_P_channel_depth	1.21	ft
Bieger_P_channel_cross_sectional_area	20.9	ft <sup>2</sup>

## Bankfull Statistics Flow Report [USA Bieger 2015]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	13.5	ft
Bieger_USA_channel_depth	1.27	ft
Bieger_USA_channel_cross_sectional_area	19.5	ft <sup>2</sup>

## Bankfull Statistics Flow Report [Area-Averaged]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	21.7	ft <sup>2</sup>
Bankfull Depth	1.16	ft
Bankfull Streamflow	142	ft <sup>3</sup> /s
Bankfull Width	19.2	ft
Bieger_D_channel_width	16.8	ft
Bieger_D_channel_depth	1.2	ft
Bieger_D_channel_cross_sectional_area	20.5	ft <sup>2</sup>
Bieger_P_channel_width	17.5	ft
Bieger_P_channel_depth	1.21	ft

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_cross_sectional_area	20.9	ft^2
Bieger_USA_channel_width	13.5	ft
Bieger_USA_channel_depth	1.27	ft
Bieger_USA_channel_cross_sectional_area	19.5	ft^2

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

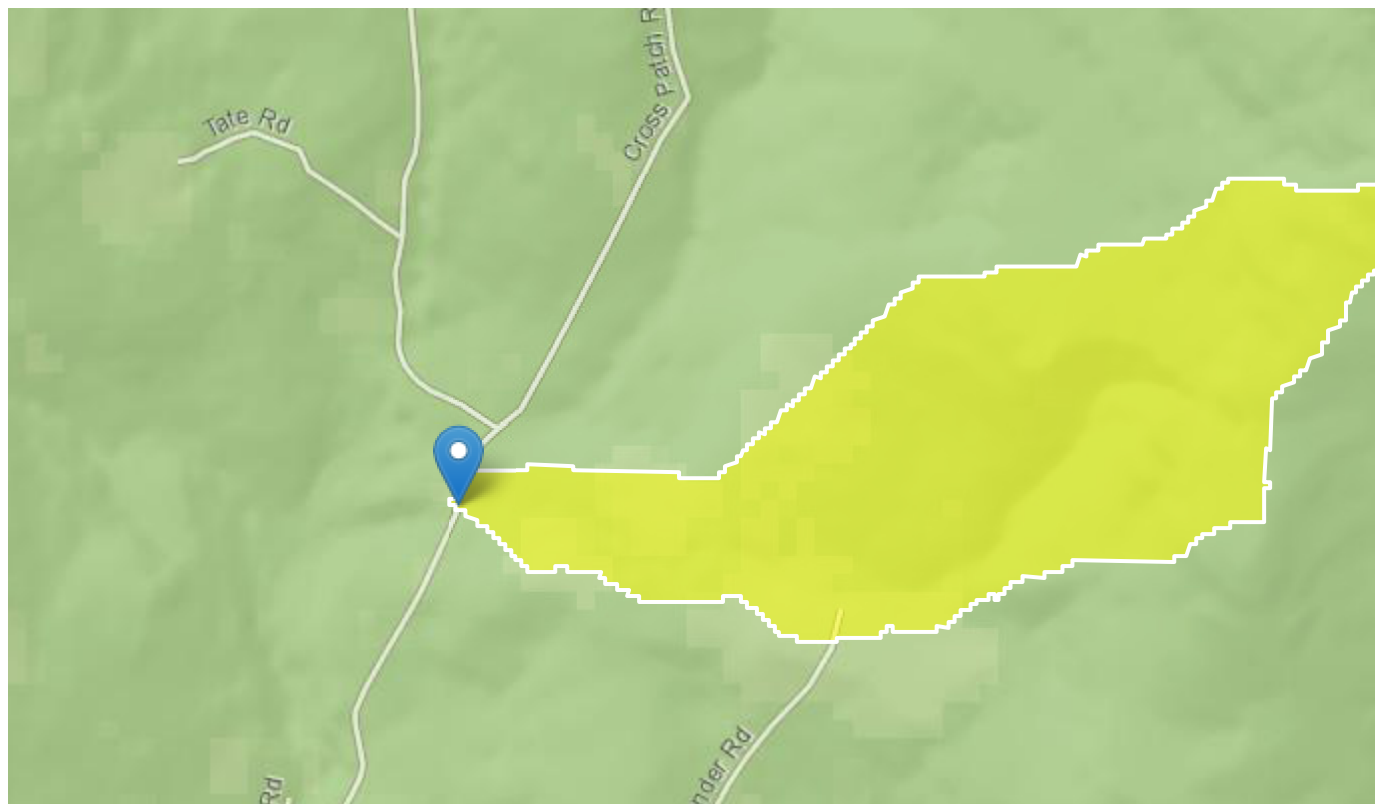
# StreamStats Report

Region ID: NY

Workspace ID: NY20211115191555769000

Clicked Point (Latitude, Longitude): 42.08723, -74.22385

Time: 2021-11-15 14:16:15 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.26	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00312	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
MAR	Mean annual runoff for the period of record in inches	29.6	inches
JUNAVPRE	Mean June Precipitation	4.91	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	565142.1	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4659900.3	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	238	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	1.38	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	26.5	percent
JULAVPRE	Mean July Precipitation	4.62	inches
MAYAVPRE	Mean May Precipitation	4.94	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.6	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	73.2	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	44.7	percent
EL1200	Percentage of basin at or above 1200 ft elevation	100	percent

## Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.26	square miles	1.93	996
LAGFACTOR	Lag Factor	0.00312	dimensionless	0.014	6.997
STORAGE	Percent Storage	0	percent	0	11.88
MAR	Mean Annual Runoff in inches	29.6	inches	16.03	33.95

## Peak-Flow Statistics Disclaimers [2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	14.5	ft <sup>3</sup> /s
66.7-percent AEP flood	19.1	ft <sup>3</sup> /s
50-percent AEP flood	25.9	ft <sup>3</sup> /s
20-percent AEP flood	48.2	ft <sup>3</sup> /s
10-percent AEP flood	67.3	ft <sup>3</sup> /s
4-percent AEP flood	95.9	ft <sup>3</sup> /s
2-percent AEP flood	121	ft <sup>3</sup> /s
1-percent AEP flood	149	ft <sup>3</sup> /s
0.5-percent AEP flood	181	ft <sup>3</sup> /s
0.2-percent AEP flood	230	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	0.26	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	4.91	inches	3.59	5.33
CENTROIDX	CENTROIDX	565142.1	meters	166000	658000
CENTROIDY	CENTROIDY	4659900.3	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	238	feet per mi	1.56	152
LENGTH	Main Channel Length	1.38	miles	0.88	305
MAR	Mean Annual Runoff in inches	29.6	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	26.5	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	4.62	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	4.94	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	13.6	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	73.2	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	44.7	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	100	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsl 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsl 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	31.1	ft <sup>3</sup> /s
1 Percent Duration	4.49	ft <sup>3</sup> /s
5 Percent Duration	1.74	ft <sup>3</sup> /s
10 Percent Duration	1.15	ft <sup>3</sup> /s
15 Percent Duration	0.89	ft <sup>3</sup> /s
20 Percent Duration	0.719	ft <sup>3</sup> /s
25 Percent Duration	0.629	ft <sup>3</sup> /s
35 Percent Duration	0.473	ft <sup>3</sup> /s
50 Percent Duration	0.309	ft <sup>3</sup> /s
65 Percent Duration	0.192	ft <sup>3</sup> /s
75 Percent Duration	0.152	ft <sup>3</sup> /s
80 Percent Duration	0.128	ft <sup>3</sup> /s
85 Percent Duration	0.108	ft <sup>3</sup> /s
90 Percent Duration	0.0926	ft <sup>3</sup> /s
95 Percent Duration	0.0731	ft <sup>3</sup> /s
99 Percent Duration	0.0562	ft <sup>3</sup> /s

Statistic	Value	Unit
99.99 Percent Duration	0.0106	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L., 2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.26	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.26	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.26	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.26	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	6.28	ft <sup>2</sup>
Bankfull Depth	0.701	ft
Bankfull Streamflow	41	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	9.2	ft
Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	8.69	ft
Bieger_D_channel_depth	0.762	ft
Bieger_D_channel_cross_sectional_area	6.68	ft <sup>2</sup>
Bankfull Statistics Flow Report [Appalacian Plateaus P Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	8.8	ft
Bieger_P_channel_depth	0.761	ft
Bieger_P_channel_cross_sectional_area	6.64	ft <sup>2</sup>
Bankfull Statistics Flow Report [USA Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	7.71	ft
Bieger_USA_channel_depth	0.905	ft
Bieger_USA_channel_cross_sectional_area	8.26	ft <sup>2</sup>
Bankfull Statistics Flow Report [Area-Averaged]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	6.28	ft <sup>2</sup>
Bankfull Depth	0.701	ft
Bankfull Streamflow	41	ft <sup>3</sup> /s
Bankfull Width	9.2	ft
Bieger_D_channel_width	8.69	ft
Bieger_D_channel_depth	0.762	ft
Bieger_D_channel_cross_sectional_area	6.68	ft <sup>2</sup>
Bieger_P_channel_width	8.8	ft
Bieger_P_channel_depth	0.761	ft

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_cross_sectional_area	6.64	ft^2
Bieger_USA_channel_width	7.71	ft
Bieger_USA_channel_depth	0.905	ft
Bieger_USA_channel_cross_sectional_area	8.26	ft^2

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

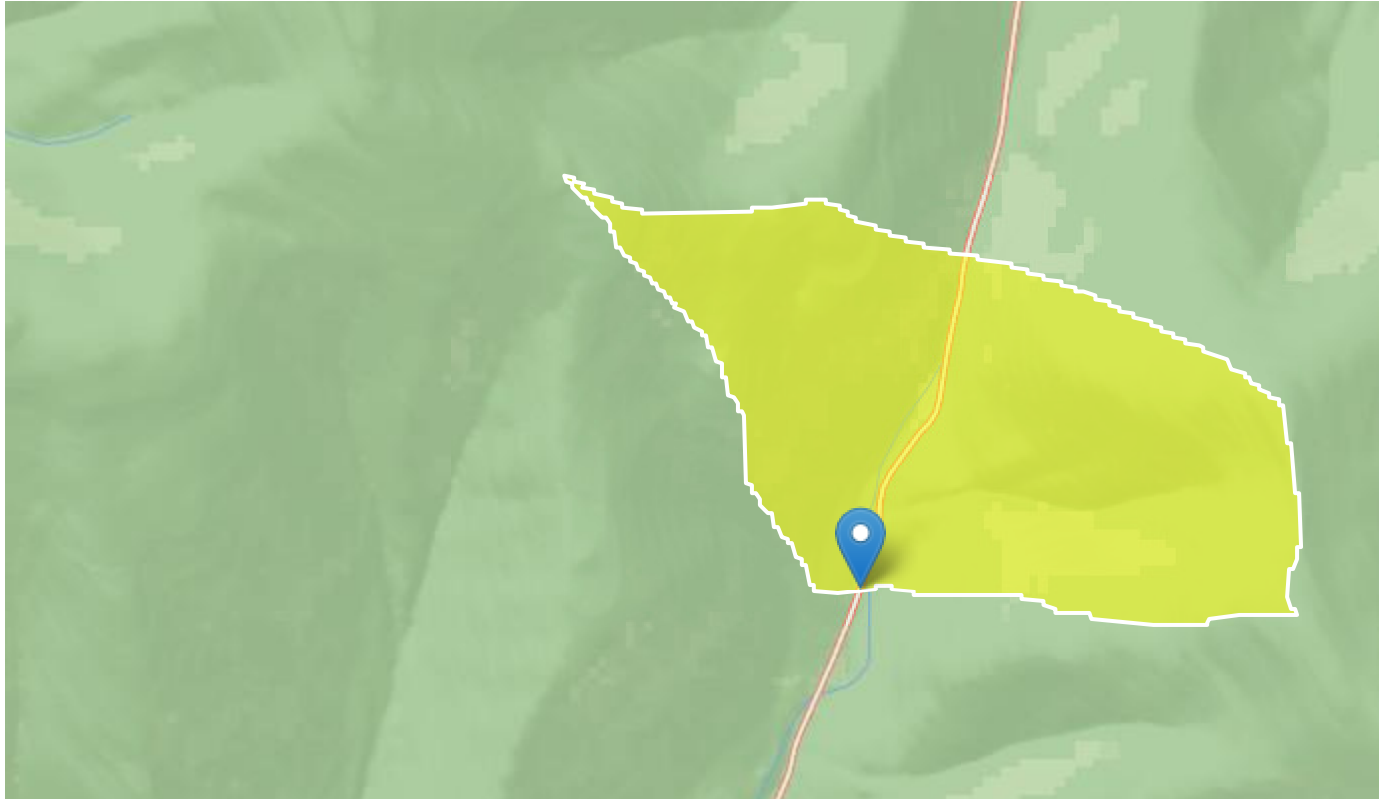
# StreamStats Report

**Region ID:** NY

**Workspace ID:** NY20211115200014137000

**Clicked Point (Latitude, Longitude):** 42.15440, -74.20601

**Time:** 2021-11-15 15:00:33 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.91	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00258	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.49	percent
MAR	Mean annual runoff for the period of record in inches	30.3	inches
JUNAVPRE	Mean June Precipitation	5.22	inches

Parameter Code	Parameter Description	Value	Unit
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	566008.4	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4667822.4	meters
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	145	feet per mi
LENGTH	Length along the main channel from the measuring location extended to the basin divide	1.52	miles
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	1.44	percent
JULAVPRE	Mean July Precipitation	5.7	inches
MAYAVPRE	Mean May Precipitation	5.3	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	16	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	69.2	degrees F
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	0	percent
EL1200	Percentage of basin at or above 1200 ft elevation	100	percent

Peak-Flow Statistics Parameters [99.9 Percent (0.911 square miles) 2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.91	square miles	1.93	996
LAGFACTOR	Lag Factor	0.00258	dimensionless	0.014	6.997
STORAGE	Percent Storage	0.49	percent	0	11.88
MAR	Mean Annual Runoff in inches	30.3	inches	16.03	33.95

Peak-Flow Statistics Disclaimers [99.9 Percent (0.911 square miles) 2006 Full Region 2]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

## Peak-Flow Statistics Flow Report [99.9 Percent (0.911 square miles) 2006 Full Region 2]

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
80-percent AEP flood	43.9	ft <sup>3</sup> /s
66.7-percent AEP flood	57.2	ft <sup>3</sup> /s
50-percent AEP flood	77	ft <sup>3</sup> /s
20-percent AEP flood	141	ft <sup>3</sup> /s
10-percent AEP flood	196	ft <sup>3</sup> /s
4-percent AEP flood	279	ft <sup>3</sup> /s
2-percent AEP flood	352	ft <sup>3</sup> /s
1-percent AEP flood	434	ft <sup>3</sup> /s
0.5-percent AEP flood	527	ft <sup>3</sup> /s
0.2-percent AEP flood	671	ft <sup>3</sup> /s

*Peak-Flow Statistics Citations*

**Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006-5112, 152 p. (<http://pubs.usgs.gov/sir/2006/5112/>)**

## Flow-Duration Statistics Parameters [Statewide duration flows excl LongIsl 2014 5220]

<b>Parameter Code</b>	<b>Parameter Name</b>	<b>Value</b>	<b>Units</b>	<b>Min Limit</b>	<b>Max Limit</b>
DRNAREA	Drainage Area	0.91	square miles	3.14	4780
JUNAVPRE	Mean June Precipitation	5.22	inches	3.59	5.33
CENTROIDX	CENTROIDX	566008.4	meters	166000	658000
CENTROIDY	CENTROIDY	4667822.4	meters	4560000	4920000
CSL1085LO	10-85 slope of lower half of main channel	145	feet per mi	1.56	152
LENGTH	Main Channel Length	1.52	miles	0.88	305
MAR	Mean Annual Runoff in inches	30.3	inches	11.6	37.4
SSURGOB	SSURGO Percent Hydrologic Soil Type B	1.44	percent	1.14	65.7
JULAVPRE	Mean July Precipitation	5.7	inches	3.2	5.26

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
MAYAVPRE	Mean May Precipitation	5.3	inches	3.15	5.68
PRJUNAUG00	Basin average mean precip for June to August	16	inches	10.5	15.5
JUNMAXTMP	Maximum June Temperature	69.2	degrees F	68.8	78.8
SSURGOA	SSURGO Percent Hydrologic Soil Type A	0	percent	0.62	51.2
EL1200	Percentage of Basin Above 1200 ft	100	percent	0	100

Flow-Duration Statistics Disclaimers [Statewide duration flows excl LongIsI 2014 5220]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Statewide duration flows excl LongIsI 2014 5220]

Statistic	Value	Unit
0.01 Percent Duration	111	ft <sup>3</sup> /s
1 Percent Duration	14.4	ft <sup>3</sup> /s
5 Percent Duration	6.06	ft <sup>3</sup> /s
10 Percent Duration	4.34	ft <sup>3</sup> /s
15 Percent Duration	3.13	ft <sup>3</sup> /s
20 Percent Duration	2.53	ft <sup>3</sup> /s
25 Percent Duration	2.06	ft <sup>3</sup> /s
35 Percent Duration	1.48	ft <sup>3</sup> /s
50 Percent Duration	1.1	ft <sup>3</sup> /s
65 Percent Duration	0.834	ft <sup>3</sup> /s
75 Percent Duration	0	ft <sup>3</sup> /s
80 Percent Duration	0	ft <sup>3</sup> /s
85 Percent Duration	0	ft <sup>3</sup> /s
90 Percent Duration	0	ft <sup>3</sup> /s
95 Percent Duration	0	ft <sup>3</sup> /s
99 Percent Duration	0	ft <sup>3</sup> /s

Statistic	Value	Unit
99.99 Percent Duration	0.0271	ft <sup>3</sup> /s

*Flow-Duration Statistics Citations*

**Gazoorian, C.L., 2015, Estimation of unaltered daily mean streamflow at ungaged streams of New York, excluding Long Island, water years 1961–2010: U.S. Geological Survey Scientific Investigations Report 2014–5220, 29 p. (<https://pubs.usgs.gov/sir/2014/5220/>)**

Bankfull Statistics Parameters [Bankfull Region 4 SIR2009 5144]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.91	square miles	3.72	237

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.91	square miles	0.07722	940.1535

Bankfull Statistics Parameters [Appalachian Plateaus P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.91	square miles	0.081081	536.995602

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.91	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Region 4 SIR2009 5144]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Bankfull Statistics Flow Report [Bankfull Region 4 SIR2009 5144]

Statistic	Value	Unit
Bankfull Area	16.6	ft <sup>2</sup>
Bankfull Depth	1.04	ft
Bankfull Streamflow	109	ft <sup>3</sup> /s

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Width	16.4	ft
Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_D_channel_width	14.6	ft
Bieger_D_channel_depth	1.09	ft
Bieger_D_channel_cross_sectional_area	16.1	ft <sup>2</sup>
Bankfull Statistics Flow Report [Appalacian Plateaus P Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_width	15.1	ft
Bieger_P_channel_depth	1.09	ft
Bieger_P_channel_cross_sectional_area	16.4	ft <sup>2</sup>
Bankfull Statistics Flow Report [USA Bieger 2015]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_USA_channel_width	12	ft
Bieger_USA_channel_depth	1.18	ft
Bieger_USA_channel_cross_sectional_area	16.2	ft <sup>2</sup>
Bankfull Statistics Flow Report [Area-Averaged]		
<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bankfull Area	16.6	ft <sup>2</sup>
Bankfull Depth	1.04	ft
Bankfull Streamflow	109	ft <sup>3</sup> /s
Bankfull Width	16.4	ft
Bieger_D_channel_width	14.6	ft
Bieger_D_channel_depth	1.09	ft
Bieger_D_channel_cross_sectional_area	16.1	ft <sup>2</sup>
Bieger_P_channel_width	15.1	ft
Bieger_P_channel_depth	1.09	ft

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>
Bieger_P_channel_cross_sectional_area	16.4	ft^2
Bieger_USA_channel_width	12	ft
Bieger_USA_channel_depth	1.18	ft
Bieger_USA_channel_cross_sectional_area	16.2	ft^2

*Bankfull Statistics Citations*

**Mulvihill, C.I., Baldigo, B.P., Miller, S.J. , and DeKoskie, Douglas,2009, Bankfull Discharge and Channel Characteristics of Streams in New York State: U.S. Geological Survey Scientific Investigations Report 2009-5144, 51 p. (<http://pubs.usgs.gov/sir/2009/5144/>)**  
**Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. ([https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm\\_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm\\_medium=PDF&utm\\_can](https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can))**

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Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

Site Name	Return Period	Rainfall Intensity	Composite Runoff Coefficient C	Drainage Area	Runoff Q	*NY DOT Highway deisgn manual (Chapter 8) states Rational Equation should only be used for drainage areas up to 200 acres	
		In/hr	unitless	Acres	cfs		
	<b>Rainfall Duration</b>	<b>56</b>					
Baker_Unnamed	1yr	1.00	0.20	486.02	97.2		
	2yr	1.22	0.20	486.02	118.6		
	5yr	1.51	0.20	486.02	146.8		
	10yr	1.77	0.20	486.02	172.1		
	25yr	2.19	0.20	486.02	212.9		
	100yr	3.04	0.20	486.02	295.5		
	<b>Rainfall Duration</b>	<b>68</b>	<b>Use 60 min Duration</b>				
Bostock_Unnamed	1yr	0.96	0.20	378.55	72.4		
	2yr	1.17	0.20	378.55	88.2		
	5yr	1.45	0.20	378.55	109.3		
	10yr	1.7	0.20	378.55	128.2		
	25yr	2.11	0.20	378.55	159.1		
	100yr	2.94	0.20	378.55	221.7		
	<b>Rainfall Duration</b>	<b>53</b>					
Ford	1yr	1.04	0.18	126.59	24.2		
	2yr	1.26	0.18	126.59	29.3		
	5yr	1.56	0.18	126.59	36.3		
	10yr	1.82	0.18	126.59	42.4		
	25yr	2.26	0.18	126.59	52.6		
	100yr	3.12	0.18	126.59	72.6		
	<b>Rainfall Duration</b>	<b>61</b>	<b>Use 60 min Duration</b>				
Lost Cove	1yr	0.96	0.19	921.43	163.7		
	2yr	1.17	0.19	921.43	199.5		
	5yr	1.45	0.19	921.43	247.3		
	10yr	1.7	0.19	921.43	289.9		
	25yr	2.11	0.19	921.43	359.9		
	100yr	2.94	0.19	921.43	501.4		
	<b>Rainfall Duration</b>	<b>51</b>					
Ohayo	1yr	1.07	0.22	126.68	29.4		
	2yr	1.29	0.22	126.68	35.5		
	5yr	1.59	0.22	126.68	43.8		
	10yr	1.87	0.22	126.68	51.5		
	25yr	2.31	0.22	126.68	63.6		
	100yr	3.18	0.22	126.68	87.5		
	<b>Rainfall Duration</b>	<b>63</b>	<b>Use 60 min Duration</b>				
Plank	1yr	0.96	0.19	417.75	76.6		
	2yr	1.17	0.19	417.75	93.4		
	5yr	1.45	0.19	417.75	115.8		
	10yr	1.7	0.19	417.75	135.7		
	25yr	2.11	0.19	417.75	168.5		
	100yr	2.94	0.19	417.75	234.7		

Site Name	Return Period	Rainfall Intensity	Composite Runoff Coefficient C	Drainage Area	Runoff Q
		In/hr	unitless	Acres	cfs
	<b>Rainfall Duration</b>	<b>112</b>	<b>Use 60 min Duration/ Greene County</b>		
Stony Clove	1yr	0.91	0.18	490.70	78.7
	2yr	1.11	0.18	490.70	96.1
	5yr	1.36	0.18	490.70	117.7
	10yr	1.58	0.18	490.70	136.7
	25yr	1.94	0.18	490.70	167.9
	100yr	2.66	0.18	490.70	230.2
	<b>Rainfall Duration</b>	<b>54</b>			
Sickler	1yr	1.03	0.19	833.38	163.8
	2yr	1.25	0.19	833.38	198.7
	5yr	1.54	0.19	833.38	244.8
	10yr	1.8	0.19	833.38	286.2
	25yr	2.23	0.19	833.38	354.6
	100yr	3.09	0.19	833.38	491.3
	<b>Rainfall Duration</b>	<b>61</b>			
Silver Hollow	1yr	0.96	0.17	218.59	35.6
	2yr	1.17	0.17	218.59	43.4
	5yr	1.45	0.17	218.59	53.8
	10yr	1.7	0.17	218.59	63.0
	25yr	2.11	0.17	218.59	78.2
	100yr	2.94	0.17	218.59	109.0
	<b>Rainfall Duration</b>	<b>20</b>			
Woodland	1yr	1.95	0.20	105.51	40.9
	2yr	2.34	0.20	105.51	49.1
	5yr	2.79	0.20	105.51	58.5
	10yr	3.2	0.20	105.51	67.1
	25yr	3.85	0.20	105.51	80.8
	100yr	5.12	0.20	105.51	107.4

\*NY DOT Highway deisgn manual (Chapter 8) states Rational Equation should only be used for drainage areas up to 200 acres

## Ulster/Greene County, New York

## Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Woodland	105.51	0.336	77	Outlet	
Baker	486.02	0.935	73	Outlet	
Bostock	378.55	1.134	72	Outlet	
Ford	126.58	0.882	74	Outlet	
Lost Clove	921.43	1.018	74	Outlet	
Ohayo	126.68	0.856	77	Outlet	
Plank	417.75	1.054	75	Outlet	
Sickler	833.38	1.867	66	Outlet	
Silver	217.59	0.905	54	Outlet	Silver Hollow
StonyClove	490.71	1.019	69	Outlet	
Total Area:	4104.20 (ac)				

## Ulster/Greene County, New York

## Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
-----							
Woodland							
SHEET	100	0.1100	0.400				0.183
SHALLOW	1413	0.3820	0.050				0.039
CHANNEL	3754	0.2390	0.050	3.00	6.00	9.147	0.114
							Time of Concentration
							.336
							=====
Baker							
SHEET	100	0.0980	0.800				0.334
SHALLOW	1572	0.2260	0.050				0.057
CHANNEL	1186	0.0540	0.045	2.00	3.00	5.883	0.056
CHANNEL	7958	0.0810	0.045	2.00	6.00	4.530	0.488
							Time of Concentration
							0.935
							=====
Bostock							
SHEET	100	0.0140	0.800				0.727
SHALLOW	2871	0.3200	0.050				0.087
CHANNEL	2588	0.1100	0.045	1.00	3.00	5.286	0.136
CHANNEL	4272	0.0650	0.045	4.00	6.00	6.449	0.184
							Time of Concentration
							1.134
							=====
Ford							
SHEET	100	0.0150	0.800				0.707
SHALLOW	1996	0.3100	0.050				0.062
CHANNEL	4100	0.2300	0.050	8.00	13.50	10.079	0.113
							Time of Concentration
							.882
							=====
Lost Clove							
SHEET	100	0.0200	0.800				0.630
SHALLOW	1892	0.3910	0.050				0.052
CHANNEL	3531	0.2260	0.050	5.75	10.50	9.523	0.103
CHANNEL	4368	0.0680	0.050	11.50	21.00	5.207	0.233
							Time of Concentration
							1.018
							=====
Ohayo							
SHEET	100	0.0311	0.800				0.528
SHALLOW	1122	0.1500	0.050				0.050
CHANNEL	2728	0.0482	0.050	3.50	13.00	2.726	0.278
							Time of Concentration
							.856
							=====
Plank							
SHEET	100	0.0091	0.800				0.863

## Ulster/Greene County, New York

## Sub-Area Time of Concentration Details (continued)

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
SHALLOW	3327	0.3790	0.050				0.093
CHANNEL	3242	0.1690	0.050	7.50	11.50	9.189	0.098
Time of Concentration							1.054
							=====
Sickler							
SHEET	100	0.0072	0.800				0.948
SHALLOW	2355	0.1480	0.050				0.105
CHANNEL	3055	0.0085	0.040	6.00	6.50	3.251	0.261
CHANNEL	4819	0.0047	0.040	12.00	13.00	2.421	0.553
Time of Concentration							1.867
							=====
Silver							
SHEET	100	0.0284	0.800				0.548
SHALLOW	2003	0.1750	0.050				0.082
CHANNEL	2497	0.0900	0.050	3.50	6.50	5.928	0.117
CHANNEL	2577	0.0529	0.050	7.00	13.00	4.531	0.158
Time of Concentration							.905
							=====
StonyClove							
SHEET	100	0.0133	0.800				0.742
SHALLOW	2191	0.4340	0.050				0.057
CHANNEL	3283	0.2590	0.050	2.25	5.00	8.941	0.102
CHANNEL	1404	0.0274	0.050	5.50	10.00	3.305	0.118
Time of Concentration							1.019
							=====

## Ulster/Greene County, New York

## Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use		Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Woodland	Paved parking lots, roofs, driveways		D	.146	98
	Woods	(good)	C	5.944	70
	Woods	(good)	D	99.417	77
	Total Area / Weighted Curve Number				105.51
				=====	==
Baker	Open space; grass cover > 75%	(good)	A	.999	39
	Open space; grass cover > 75%	(good)	C	.677	74
	Open space; grass cover > 75%	(good)	D	5.542	80
	Paved parking lots, roofs, driveways		D	7.584	98
	Meadow -cont. grass (non grazed)		A	5.588	30
	Meadow -cont. grass (non grazed)		C	.442	71
	Meadow -cont. grass (non grazed)		D	1.033	78
	Woods	(good)	A	15.552	30
	Woods	(good)	C	137.026	70
	Woods	(good)	D	311.576	77
Total Area / Weighted Curve Number				486.02	73
				=====	==
Bostock	Open space; grass cover > 75%	(good)	A	.555	39
	Open space; grass cover > 75%	(good)	B	1.512	61
	Open space; grass cover > 75%	(good)	C	.897	74
	Open space; grass cover > 75%	(good)	D	4.279	80
	Paved parking lots, roofs, driveways		D	7.856	98
	Meadow -cont. grass (non grazed)		B	.148	58
	Meadow -cont. grass (non grazed)		D	.006	78
	Woods	(good)	A	3.842	30
	Woods	(good)	B	63.683	55
	Woods	(good)	C	65.603	70
	Woods	(good)	D	230.169	77
	Total Area / Weighted Curve Number				378.55
				=====	==
Ford	Open space; grass cover > 75%	(good)	D	.021	80
	Paved parking lots, roofs, driveways		D	.339	98
	Woods	(good)	A	.019	30
	Woods	(good)	C	57.734	70
	Woods	(good)	D	68.471	77
Total Area / Weighted Curve Number				126.58	74
				=====	==
Lost Clove	Open space; grass cover > 75%	(good)	A	.864	39
	Open space; grass cover > 75%	(good)	B	.066	61
	Open space; grass cover > 75%	(good)	C	.539	74
	Paved parking lots, roofs, driveways		D	1.058	98
	Meadow -cont. grass (non grazed)		C	.014	71
	Woods	(good)	A	9.566	30
	Woods	(good)	B	19.587	55
	Woods	(good)	C	312.288	70

## Ulster/Greene County, New York

## Sub-Area Land Use and Curve Number Details (continued)

Sub-Area Identifier	Land Use		Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
	Woods	(good)	D	577.452	77
	Total Area / Weighted Curve Number			921.43 =====	74 ==
Ohayo	Open space; grass cover > 75%	(good)	D	4.023	80
	Paved parking lots, roofs, driveways		D	2.96	98
	Woods	(good)	C	11.268	70
	Woods	(good)	D	108.427	77
	Total Area / Weighted Curve Number			126.68 =====	77 ==
Plank	Open space; grass cover > 75%	(good)	C	.187	74
	Open space; grass cover > 75%	(good)	D	.134	80
	Paved parking lots, roofs, driveways		D	1.209	98
	Woods	(good)	C	116.791	70
	Woods	(good)	D	299.433	77
	Total Area / Weighted Curve Number			417.75 =====	75 ==
Sickler	Open space; grass cover > 75%	(good)	A	33.6	39
	Open space; grass cover > 75%	(good)	B	3.405	61
	Open space; grass cover > 75%	(good)	C	.165	74
	Open space; grass cover > 75%	(good)	D	3.947	80
	Paved parking lots, roofs, driveways		D	18.273	98
	Meadow -cont. grass (non grazed)		A	.201	30
	Meadow -cont. grass (non grazed)		B	.186	58
	Meadow -cont. grass (non grazed)		D	7.15	78
	Woods	(good)	A	126.352	30
	Woods	(good)	B	18.137	55
	Woods	(good)	C	230.189	70
	Woods	(good)	D	391.774	77
	Total Area / Weighted Curve Number			833.38 =====	66 ==
Silver	Open space; grass cover > 75%	(good)	A	17.355	39
	Open space; grass cover > 75%	(good)	B	9.404	61
	Paved parking lots, roofs, driveways		D	5.194	98
	Meadow -cont. grass (non grazed)		D	.48	78
	Woods	(good)	A	70.131	30
	Woods	(good)	B	39.021	55
	Woods	(good)	C	24.04	70
	Woods	(good)	D	51.962	77
	Total Area / Weighted Curve Number			217.59 =====	54 ==
StonyClove	Open space; grass cover > 75%	(good)	B	.307	61
	Open space; grass cover > 75%	(good)	C	.245	74
	Open space; grass cover > 75%	(good)	D	.171	80

Ulster/Greene County, New York

Sub-Area Land Use and Curve Number Details (continued)

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
	Paved parking lots, roofs, driveways	D	6.79	98
	Brush - brush, weed, grass mix (poor)	B	.966	67
	Brush - brush, weed, grass mix (poor)	D	.363	83
	Woods (good)	B	91.166	55
	Woods (good)	C	292.588	70
	Woods (good)	D	98.109	77
Total Area / Weighted Curve Number			490.71	69
			=====	==

# Extreme Precipitation Tables

## Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

<b>Smoothing</b>	Yes
<b>State</b>	New York
<b>Location</b>	
<b>Longitude</b>	74.312 degrees West
<b>Latitude</b>	41.859 degrees North
<b>Elevation</b>	0 feet
<b>Date/Time</b>	Thu, 18 Nov 2021 13:15:03 -0500

### Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.31	0.47	0.59	0.77	0.96	1.20	<b>1yr</b>	0.83	1.12	1.39	1.74	2.17	2.71	3.19	<b>1yr</b>	2.40	3.06	3.51	4.14	4.73	<b>1yr</b>
<b>2yr</b>	0.37	0.57	0.70	0.93	1.17	1.47	<b>2yr</b>	1.01	1.34	1.69	2.11	2.62	3.26	3.78	<b>2yr</b>	2.89	3.63	4.13	4.85	5.52	<b>2yr</b>
<b>5yr</b>	0.43	0.67	0.84	1.13	1.45	1.83	<b>5yr</b>	1.25	1.66	2.12	2.65	3.28	4.06	4.80	<b>5yr</b>	3.59	4.61	5.20	5.97	6.78	<b>5yr</b>
<b>10yr</b>	0.49	0.76	0.96	1.31	1.70	2.17	<b>10yr</b>	1.47	1.95	2.52	3.15	3.89	4.78	5.76	<b>10yr</b>	4.23	5.54	6.20	6.99	7.92	<b>10yr</b>
<b>25yr</b>	0.57	0.91	1.16	1.59	2.11	2.72	<b>25yr</b>	1.82	2.41	3.16	3.95	4.87	5.96	7.33	<b>25yr</b>	5.27	7.05	7.83	8.62	9.73	<b>25yr</b>
<b>50yr</b>	0.64	1.03	1.32	1.85	2.49	3.23	<b>50yr</b>	2.15	2.84	3.77	4.71	5.78	7.04	8.81	<b>50yr</b>	6.23	8.47	9.35	10.11	11.37	<b>50yr</b>
<b>100yr</b>	0.73	1.18	1.52	2.15	2.94	3.84	<b>100yr</b>	2.54	3.34	4.49	5.60	6.87	8.32	10.59	<b>100yr</b>	7.36	10.18	11.17	11.86	13.30	<b>100yr</b>
<b>200yr</b>	0.83	1.36	1.76	2.52	3.48	4.56	<b>200yr</b>	3.00	3.93	5.34	6.66	8.14	9.83	12.74	<b>200yr</b>	8.70	12.25	13.35	13.92	15.57	<b>200yr</b>
<b>500yr</b>	1.00	1.64	2.14	3.11	4.35	5.73	<b>500yr</b>	3.75	4.89	6.72	8.37	10.22	12.28	16.29	<b>500yr</b>	10.87	15.67	16.91	17.22	19.17	<b>500yr</b>

### Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.27	0.42	0.51	0.68	0.84	1.05	<b>1yr</b>	0.73	1.03	1.22	1.55	1.87	2.17	2.75	<b>1yr</b>	1.92	2.65	2.78	3.51	4.41	<b>1yr</b>
<b>2yr</b>	0.35	0.54	0.67	0.90	1.11	1.34	<b>2yr</b>	0.96	1.31	1.52	1.94	2.43	3.17	3.66	<b>2yr</b>	2.80	3.52	4.00	4.71	5.36	<b>2yr</b>
<b>5yr</b>	0.40	0.62	0.77	1.05	1.34	1.56	<b>5yr</b>	1.16	1.52	1.75	2.23	2.86	3.75	4.42	<b>5yr</b>	3.32	4.25	4.84	5.52	6.30	<b>5yr</b>
<b>10yr</b>	0.44	0.68	0.84	1.18	1.52	1.73	<b>10yr</b>	1.31	1.69	1.95	2.44	3.18	4.29	5.09	<b>10yr</b>	3.80	4.90	5.54	6.21	7.12	<b>10yr</b>
<b>25yr</b>	0.50	0.76	0.95	1.35	1.78	1.97	<b>25yr</b>	1.54	1.93	2.24	2.87	3.65	5.07	6.12	<b>25yr</b>	4.49	5.88	6.38	7.27	8.34	<b>25yr</b>
<b>50yr</b>	0.55	0.84	1.04	1.50	2.02	2.17	<b>50yr</b>	1.74	2.13	2.47	3.21	4.07	5.76	7.01	<b>50yr</b>	5.09	6.75	7.22	8.23	9.39	<b>50yr</b>
<b>100yr</b>	0.61	0.92	1.15	1.67	2.28	2.41	<b>100yr</b>	1.97	2.36	2.72	3.61	4.53	6.53	8.04	<b>100yr</b>	5.78	7.73	7.65	9.30	10.59	<b>100yr</b>
<b>200yr</b>	0.68	1.02	1.30	1.88	2.62	2.66	<b>200yr</b>	2.26	2.60	2.98	4.07	5.03	7.40	9.25	<b>200yr</b>	6.55	8.90	8.59	10.52	11.97	<b>200yr</b>
<b>500yr</b>	0.79	1.18	1.52	2.21	3.14	3.06	<b>500yr</b>	2.71	2.99	3.40	4.80	5.82	8.77	11.17	<b>500yr</b>	7.76	10.74	10.00	12.42	14.11	<b>500yr</b>

### Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.34	0.53	0.65	0.87	1.07	1.33	<b>1yr</b>	0.92	1.30	1.44	1.86	2.35	2.96	3.50	<b>1yr</b>	2.62	3.36	3.82	4.47	5.04	<b>1yr</b>
<b>2yr</b>	0.39	0.60	0.74	1.00	1.23	1.48	<b>2yr</b>	1.06	1.45	1.70	2.12	2.68	3.40	3.96	<b>2yr</b>	3.01	3.81	4.35	5.04	5.73	<b>2yr</b>
<b>5yr</b>	0.47	0.72	0.90	1.23	1.57	1.86	<b>5yr</b>	1.36	1.81	2.12	2.79	3.44	4.36	5.20	<b>5yr</b>	3.86	5.00	5.57	6.42	7.25	<b>5yr</b>
<b>10yr</b>	0.56	0.86	1.06	1.48	1.91	2.27	<b>10yr</b>	1.65	2.22	2.59	3.45	4.21	5.28	6.42	<b>10yr</b>	4.67	6.17	6.79	7.73	8.68	<b>10yr</b>
<b>25yr</b>	0.70	1.07	1.33	1.90	2.49	2.99	<b>25yr</b>	2.15	2.92	3.40	4.54	5.51	6.84	8.52	<b>25yr</b>	6.05	8.20	9.15	9.87	11.05	<b>25yr</b>
<b>50yr</b>	0.83	1.27	1.58	2.27	3.06	3.56	<b>50yr</b>	2.64	3.48	4.18	5.59	6.74	8.31	10.58	<b>50yr</b>	7.36	10.17	11.26	11.89	13.25	<b>50yr</b>
<b>100yr</b>	1.00	1.51	1.89	2.73	3.74	4.35	<b>100yr</b>	3.23	4.25	5.12	6.86	8.25	10.11	13.12	<b>100yr</b>	8.95	12.61	15.05	14.32	15.90	<b>100yr</b>
<b>200yr</b>	1.19	1.79	2.27	3.29	4.58	5.31	<b>200yr</b>	3.95	5.19	6.29	8.42	10.12	12.32	16.28	<b>200yr</b>	10.90	15.66	18.81	17.26	19.08	<b>200yr</b>
<b>500yr</b>	1.51	2.24	2.88	4.19	5.96	6.93	<b>500yr</b>	5.14	6.77	8.24	11.04	13.26	16.01	21.68	<b>500yr</b>	14.17	20.85	25.27	22.10	24.27	<b>500yr</b>



# Extreme Precipitation Tables

## Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

<b>Smoothing</b>	Yes
<b>State</b>	New York
<b>Location</b>	
<b>Longitude</b>	74.124 degrees West
<b>Latitude</b>	42.296 degrees North
<b>Elevation</b>	0 feet
<b>Date/Time</b>	Thu, 18 Nov 2021 13:23:51 -0500

### Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.29	0.45	0.56	0.73	0.91	1.14	<b>1yr</b>	0.79	1.05	1.31	1.62	1.99	2.46	2.84	<b>1yr</b>	2.18	2.73	3.19	3.79	4.33	<b>1yr</b>
<b>2yr</b>	0.35	0.54	0.67	0.88	1.11	1.39	<b>2yr</b>	0.96	1.27	1.59	1.97	2.41	2.95	3.34	<b>2yr</b>	2.61	3.22	3.72	4.36	4.94	<b>2yr</b>
<b>5yr</b>	0.41	0.63	0.79	1.06	1.36	1.72	<b>5yr</b>	1.17	1.56	1.98	2.46	3.03	3.72	4.25	<b>5yr</b>	3.30	4.08	4.67	5.36	6.07	<b>5yr</b>
<b>10yr</b>	0.45	0.71	0.90	1.22	1.58	2.02	<b>10yr</b>	1.37	1.83	2.35	2.93	3.61	4.44	5.10	<b>10yr</b>	3.93	4.90	5.55	6.28	7.09	<b>10yr</b>
<b>25yr</b>	0.53	0.84	1.06	1.47	1.94	2.51	<b>25yr</b>	1.68	2.25	2.93	3.67	4.56	5.61	6.49	<b>25yr</b>	4.96	6.24	6.98	7.74	8.73	<b>25yr</b>
<b>50yr</b>	0.58	0.93	1.20	1.68	2.27	2.97	<b>50yr</b>	1.96	2.64	3.48	4.38	5.45	6.70	7.80	<b>50yr</b>	5.93	7.50	8.31	9.08	10.21	<b>50yr</b>
<b>100yr</b>	0.66	1.07	1.38	1.95	2.66	3.50	<b>100yr</b>	2.30	3.10	4.12	5.21	6.49	8.01	9.39	<b>100yr</b>	7.09	9.03	9.92	10.65	11.96	<b>100yr</b>
<b>200yr</b>	0.75	1.22	1.58	2.27	3.12	4.13	<b>200yr</b>	2.69	3.64	4.88	6.19	7.75	9.58	11.31	<b>200yr</b>	8.48	10.87	11.84	12.51	14.01	<b>200yr</b>
<b>500yr</b>	0.89	1.46	1.90	2.76	3.86	5.16	<b>500yr</b>	3.33	4.50	6.12	7.81	9.80	12.16	14.48	<b>500yr</b>	10.76	13.92	15.00	15.49	17.29	<b>500yr</b>

### Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.25	0.39	0.48	0.65	0.79	0.97	<b>1yr</b>	0.69	0.95	1.16	1.56	1.97	2.14	2.52	<b>1yr</b>	1.89	2.42	2.57	3.27	3.71	<b>1yr</b>
<b>2yr</b>	0.33	0.51	0.63	0.85	1.05	1.26	<b>2yr</b>	0.91	1.23	1.45	1.94	2.47	2.86	3.17	<b>2yr</b>	2.53	3.05	3.56	4.18	4.74	<b>2yr</b>
<b>5yr</b>	0.38	0.58	0.72	0.99	1.26	1.47	<b>5yr</b>	1.08	1.44	1.67	2.18	2.94	3.34	3.88	<b>5yr</b>	2.96	3.73	4.18	4.84	5.44	<b>5yr</b>
<b>10yr</b>	0.41	0.63	0.78	1.09	1.40	1.62	<b>10yr</b>	1.21	1.59	1.87	2.39	3.31	3.73	4.45	<b>10yr</b>	3.30	4.28	4.66	5.19	6.02	<b>10yr</b>
<b>25yr</b>	0.45	0.69	0.86	1.23	1.62	1.85	<b>25yr</b>	1.40	1.81	2.12	2.69	3.87	4.25	5.00	<b>25yr</b>	3.76	4.80	5.39	5.85	6.75	<b>25yr</b>
<b>50yr</b>	0.49	0.75	0.93	1.34	1.81	2.03	<b>50yr</b>	1.56	1.99	2.32	2.96	4.35	4.64	5.67	<b>50yr</b>	4.11	5.46	6.02	6.40	7.37	<b>50yr</b>
<b>100yr</b>	0.53	0.81	1.01	1.46	2.00	2.23	<b>100yr</b>	1.73	2.18	2.54	3.25	4.90	5.06	6.07	<b>100yr</b>	4.48	5.83	6.72	6.96	8.04	<b>100yr</b>
<b>200yr</b>	0.59	0.88	1.12	1.62	2.26	2.44	<b>200yr</b>	1.95	2.39	2.75	3.58	5.50	5.43	6.85	<b>200yr</b>	4.81	6.58	7.52	7.62	8.79	<b>200yr</b>
<b>500yr</b>	0.67	0.99	1.28	1.86	2.64	2.76	<b>500yr</b>	2.28	2.70	3.12	4.10	6.44	5.85	8.10	<b>500yr</b>	5.18	7.79	8.76	8.60	9.89	<b>500yr</b>

### Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.32	0.50	0.61	0.82	1.01	1.26	<b>1yr</b>	0.87	1.23	1.39	1.86	2.48	2.72	3.17	<b>1yr</b>	2.41	3.05	3.55	4.15	4.69	<b>1yr</b>
<b>2yr</b>	0.37	0.57	0.70	0.94	1.16	1.40	<b>2yr</b>	1.01	1.37	1.63	2.10	2.73	3.06	3.55	<b>2yr</b>	2.71	3.41	3.96	4.62	5.26	<b>2yr</b>
<b>5yr</b>	0.44	0.68	0.85	1.16	1.48	1.74	<b>5yr</b>	1.28	1.70	2.02	2.74	3.48	4.11	4.60	<b>5yr</b>	3.64	4.42	5.23	5.90	6.63	<b>5yr</b>
<b>10yr</b>	0.52	0.80	0.99	1.38	1.78	2.09	<b>10yr</b>	1.54	2.05	2.45	3.34	4.20	5.11	5.68	<b>10yr</b>	4.53	5.47	6.49	7.24	8.00	<b>10yr</b>
<b>25yr</b>	0.65	0.99	1.23	1.76	2.31	2.69	<b>25yr</b>	2.00	2.63	3.17	4.33	5.43	6.86	8.36	<b>25yr</b>	6.07	8.04	8.69	9.41	10.29	<b>25yr</b>
<b>50yr</b>	0.77	1.17	1.46	2.10	2.82	3.27	<b>50yr</b>	2.44	3.20	3.86	5.28	6.58	8.61	10.55	<b>50yr</b>	7.62	10.14	10.82	11.48	12.48	<b>50yr</b>
<b>100yr</b>	0.92	1.39	1.74	2.52	3.45	3.97	<b>100yr</b>	2.98	3.88	4.70	6.42	7.99	10.79	13.57	<b>100yr</b>	9.55	13.04	13.53	14.00	15.13	<b>100yr</b>
<b>200yr</b>	1.10	1.65	2.09	3.03	4.23	4.82	<b>200yr</b>	3.65	4.71	5.72	7.80	9.72	13.53	17.13	<b>200yr</b>	11.98	16.47	16.84	17.11	18.38	<b>200yr</b>
<b>500yr</b>	1.39	2.07	2.66	3.86	5.49	6.22	<b>500yr</b>	4.74	6.09	7.41	10.09	12.60	18.28	23.30	<b>500yr</b>	16.18	22.40	22.62	22.22	23.78	<b>500yr</b>



WinTR-20: version 3.10 0 0 0.5 0  
 Baker Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 0.7594 73. 0.935

STORM ANALYSIS:  
 1\_yr 2.71 1\_yr\_sm 2 3.26  
 2\_yr 3.26 2\_yr\_sm 2 3.26  
 5\_yr 4.06 5\_yr\_sm 2 3.26  
 10\_yr 4.78 10\_yr\_sm 2 3.26  
 25\_yr 5.96 25\_yr\_sm 2 3.26  
 50\_yr 7.04 50\_yr\_sm 2 3.26  
 100yr 8.32 100\_yr\_sm 2 3.26

RAINFALL DISTRIBUTION:  
 1\_yr\_sm 0.1  
 0.00000 0.00140 0.00280 0.00410 0.00550  
 0.00700 0.00840 0.00980 0.01130 0.01270  
 0.01420 0.01560 0.01710 0.01860 0.02010  
 0.02160 0.02310 0.02470 0.02620 0.02780  
 0.02930 0.03090 0.03250 0.03410 0.03570  
 0.03730 0.03890 0.04050 0.04220 0.04380  
 0.04550 0.04710 0.04880 0.05050 0.05220  
 0.05390 0.05560 0.05730 0.05900 0.06080  
 0.06250 0.06430 0.06610 0.06780 0.06960  
 0.07140 0.07320 0.07510 0.07690 0.07870  
 0.08060 0.08240 0.08430 0.08620 0.08810  
 0.09000 0.09190 0.09380 0.09570 0.09770  
 0.09960 0.10180 0.10410 0.10630 0.10860  
 0.11090 0.11330 0.11570 0.11810 0.12060  
 0.12310 0.12560 0.12810 0.13070 0.13330  
 0.13600 0.13860 0.14130 0.14400 0.14670  
 0.14950 0.15230 0.15510 0.15800 0.16090  
 0.16380 0.16680 0.16980 0.17280 0.17590  
 0.17900 0.18240 0.18590 0.18960 0.19330  
 0.19730 0.20130 0.20550 0.20980 0.21420  
 0.21880 0.22350 0.22830 0.23330 0.23830  
 0.24350 0.24990 0.25650 0.26350 0.27090  
 0.27860 0.28660 0.29500 0.30380 0.31310  
 0.32290 0.33620 0.35020 0.37120 0.40440  
 0.46940 0.59560 0.62880 0.64980 0.66380  
 0.67710 0.68690 0.69620 0.70500 0.71340  
 0.72140 0.72910 0.73650 0.74350 0.75010  
 0.75650 0.76170 0.76670 0.77170 0.77650

Baker.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

Baker.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

		Baker.out			
	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

		Baker.out			
	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm	0.1				
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

		Baker.out			
	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

Baker.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

NN N

WinTR-20 Printed Page File      End of Input Data List

Baker Site CCM Analysis

Name of printed page file:  
 C:\Users\bschrey\Desktop\TR-20\CCM\Baker.out

STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.759		0.684		12.70	133.1	175.27

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Rate (cfs)
11.000	0.0	0.9	10.7	117.0	102.1	60.7	42.9
14.500	32.8	27.4	23.4	20.6	19.3	18.4	17.6
18.000	16.8	15.4	14.1	13.5	13.2	12.9	12.6
21.500	12.4	12.1	11.8	11.5	11.2	10.9	7.5
25.000	2.1	0.5	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.759		0.684		12.70	133.1	175.27

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Rate (cfs)
11.000	0.0	0.9	10.7	117.0	102.1	60.7	42.9
14.500	32.8	27.4	23.4	20.6	19.3	18.4	17.6
18.000	16.8	15.4	14.1	13.5	13.2	12.9	12.6
21.500	12.4	12.1	11.8	11.5	11.2	10.9	7.5
25.000	2.1	0.5	0.0				

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Baker.out

SA-1            0.759                            1.021                            12.65            213.6            281.22

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.500	0.0	1.6	7.3	26.9	191.9	160.0	91.2
14.000	61.3	46.4	38.6	32.5	28.4	26.5	25.1
17.500	24.0	22.8	20.9	19.0	18.2	17.8	17.4
21.000	17.0	16.6	16.2	15.8	15.4	15.0	14.5
24.500	10.0	2.8	0.7	0.0			



Baker Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.759		1.021		12.65	213.6	281.22

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.500	0.0	1.6	7.3	26.9	191.9	160.0	91.2
14.000	61.3	46.4	38.6	32.5	28.4	26.5	25.1
17.500	24.0	22.8	20.9	19.0	18.2	17.8	17.4
21.000	17.0	16.6	16.2	15.8	15.4	15.0	14.5
24.500	10.0	2.8	0.7	0.0			

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.759		1.570		12.67	337.5	444.44

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.0	1.1	4.5	10.7	22.9	59.0	309.5
13.000	249.3	139.8	93.4	68.9	56.5	47.2	40.5
16.500	37.5	35.5	33.9	32.0	29.3	26.4	25.2
20.000	24.5	23.9	23.3	22.8	22.3	21.7	21.1
23.500	20.5	19.8	13.6	3.8	0.9	0.1	0.0

Area or Reach	Drainage Area	Rain Gage ID or	Runoff Amount	Elevation	Peak Time	Flow Rate	Rate
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Identifier	(sq mi)	Location	(in)	Baker.out (ft)	(hr)	(cfs)	(csm)
OUTLET	0.759		1.570		12.67	337.5	444.44

Line

Start Time (hr)	Flow (cfs)	Values @ (cfs)	time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	(cfs)
9.500	0.0	1.1	4.5	10.7	22.9	59.0	309.5
13.000	249.3	139.8	93.4	68.9	56.5	47.2	40.5
16.500	37.5	35.5	33.9	32.0	29.3	26.4	25.2
20.000	24.5	23.9	23.3	22.8	22.3	21.7	21.1
23.500	20.5	19.8	13.6	3.8	0.9	0.0	

STORM 10\_yr



Baker Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.759		2.109		12.66	457.1	601.89

Line

Start Time (hr)	Flow (cfs)	Values @ (cfs)	time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	(cfs)
9.000	0.0	2.2	6.1	11.8	21.5	40.4	93.4
12.500	422.6	336.6	189.1	124.4	90.4	73.5	61.0
16.000	51.9	47.9	45.3	43.1	40.7	36.7	32.8
19.500	31.0	30.1	29.3	28.6	27.9	27.3	26.5
23.000	25.7	25.0	24.2	16.7	4.7	1.2	0.2
26.500	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.759		2.109		12.66	457.1	601.89

Line

Start Time (hr)	Flow (cfs)	Values @ (cfs)	time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	(cfs)
9.000	0.0	2.2	6.1	11.8	21.5	40.4	93.4
12.500	422.6	336.6	189.1	124.4	90.4	73.5	61.0

Baker.out

16.000	51.9	47.9	45.3	43.1	40.7	36.7	32.8
19.500	31.0	30.1	29.3	28.6	27.9	27.3	26.5
23.000	25.7	25.0	24.2	16.7	4.7	1.2	0.0

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.759		3.055		12.65	661.1	870.59

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.500	0.0	0.1	2.7	5.9	10.4	17.6	27.1
11.000	42.6	73.8	158.6	617.8	485.7	271.5	174.9
14.500	125.6	101.4	83.6	70.7	64.8	61.3	58.3
18.000	54.8	49.5	43.6	41.1	39.9	38.8	37.8
21.500	36.9	35.9	34.9	33.9	32.9	31.9	21.9
25.000	6.1	1.5	0.3	0.0			



Baker Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.759		3.055		12.65	661.1	870.59

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.500	0.0	0.1	2.7	5.9	10.4	17.6	27.1
11.000	42.6	73.8	158.6	617.8	485.7	271.5	174.9
14.500	125.6	101.4	83.6	70.7	64.8	61.3	58.3
18.000	54.8	49.5	43.6	41.1	39.9	38.8	37.8
21.500	36.9	35.9	34.9	33.9	32.9	31.9	21.9
25.000	6.1	1.5	0.0				

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Baker.out

SA-1            0.759                            3.969                            12.61            853.9    1124.44

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.000	0.0	1.4	4.5	8.4	12.9	19.2	29.8
10.500	43.0	65.3	109.9	227.8	805.2	628.7	351.9
14.000	226.1	159.7	128.1	104.5	87.2	79.6	74.9
17.500	71.1	67.1	60.2	52.9	49.8	48.4	46.9
21.000	45.6	44.5	43.4	42.2	40.9	39.8	38.4
24.500	26.4	7.4	1.8	0.4	0.0		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.759		3.969		12.61	853.9	1124.44

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.000	0.0	1.4	4.5	8.4	12.9	19.2	29.8
10.500	43.0	65.3	109.9	227.8	805.2	628.7	351.9
14.000	226.1	159.7	128.1	104.5	87.2	79.6	74.9
17.500	71.1	67.1	60.2	52.9	49.8	48.4	46.9
21.000	45.6	44.5	43.4	42.2	40.9	39.8	38.4
24.500	26.4	7.4	1.8	0.0			

STORM 100yr



Baker Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.759		5.094		12.64	1088.6	1433.47

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	2.4	6.5	11.5	17.0	23.0	31.7
10.000	46.3	63.8	94.5	156.4	315.2	1029.6	801.0
13.500	449.6	285.9	199.2	158.5	129.2	108.0	98.5
17.000	92.6	87.9	82.7	73.8	63.7	59.5	57.8
20.500	56.1	54.5	53.1	51.7	50.3	48.6	47.3

Baker.out

24.000      45.7      31.4      8.8      2.2      0.5      0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
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OUTLET	0.759		5.094		12.64	1088.6	1433.47
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Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
-----------------	------------	------------	------------	------------	------------	------------	------------

6.500	0.0	2.4	6.5	11.5	17.0	23.0	31.7
10.000	46.3	63.8	94.5	156.4	315.2	1029.6	801.0
13.500	449.6	285.9	199.2	158.5	129.2	108.0	98.5
17.000	92.6	87.9	82.7	73.8	63.7	59.5	57.8
20.500	56.1	54.5	53.1	51.7	50.3	48.6	47.3
24.000	45.7	31.4	8.8	2.2	0.4	0.0	



Baker Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Peak Flow by Storm				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.759	133.1	213.6	337.5	457.1	661.1
OUTLET	0.759	133.1	213.6	337.5	457.1	661.1

Area or Reach Identifier	Drainage Area (sq mi)	Peak Flow by Storm
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Reach Identifier	Area (sq mi)	Baker.out		(cfs)	(cfs)	(cfs)
		50_yr (cfs)	100yr (cfs)			
SA-1	0.759	853.9	1088.6			
OUTLET	0.759	853.9	1088.6			



WinTR-20: version 3.10 0 0 0.5 0  
 Bostock Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 0.5915 72. 1.134

STORM ANALYSIS:

1_yr	2.71	1_yr_sm	2	3.26
2_yr	3.26	2_yr_sm	2	3.26
5_yr	4.06	5_yr_sm	2	3.26
10_yr	4.78	10_yr_sm	2	3.26
25_yr	5.96	25_yr_sm	2	3.26
50_yr	7.04	50_yr_sm	2	3.26
100yr	8.32	100_yr_sm	2	3.26

RAINFALL DISTRIBUTION:

1_yr_sm	0.1			
	0.00000	0.00140	0.00280	0.00410
	0.00700	0.00840	0.00980	0.01130
	0.01420	0.01560	0.01710	0.01860
	0.02160	0.02310	0.02470	0.02620
	0.02930	0.03090	0.03250	0.03410
	0.03730	0.03890	0.04050	0.04220
	0.04550	0.04710	0.04880	0.05050
	0.05390	0.05560	0.05730	0.05900
	0.06250	0.06430	0.06610	0.06780
	0.07140	0.07320	0.07510	0.07690
	0.08060	0.08240	0.08430	0.08620
	0.09000	0.09190	0.09380	0.09570
	0.09960	0.10180	0.10410	0.10630
	0.11090	0.11330	0.11570	0.11810
	0.12310	0.12560	0.12810	0.13070
	0.13600	0.13860	0.14130	0.14400
	0.14950	0.15230	0.15510	0.15800
	0.16380	0.16680	0.16980	0.17280
	0.17900	0.18240	0.18590	0.18960
	0.19730	0.20130	0.20550	0.20980
	0.21880	0.22350	0.22830	0.23330
	0.24350	0.24990	0.25650	0.26350
	0.27860	0.28660	0.29500	0.30380
	0.32290	0.33620	0.35020	0.37120
	0.46940	0.59560	0.62880	0.64980
	0.67710	0.68690	0.69620	0.70500
	0.72140	0.72910	0.73650	0.74350
	0.75650	0.76170	0.76670	0.77170

Bostock.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

Bostock.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

Bostock.out

	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

Bostock.out

	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm	0.1				
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

Bostock.out

	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

Bostock.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

Bostock.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

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WinTR-20 Printed Page File      End of Input Data List

Bostock Site CCM Analysis

Name of printed page file:  
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STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.591		0.641		12.82	83.1	140.48

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Rate (cfs)
11.500	0.0	4.3	59.4	78.3	50.1	35.5	26.7
15.000	21.9	18.4	16.0	14.7	13.9	13.3	12.7
18.500	11.8	10.8	10.3	10.0	9.7	9.5	9.3
22.000	9.1	8.9	8.7	8.5	8.3	6.5	2.6
25.500	0.8	0.1	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.591		0.641		12.82	83.1	140.48

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Rate (cfs)
11.500	0.0	4.3	59.4	78.3	50.1	35.5	26.7
15.000	21.9	18.4	16.0	14.7	13.9	13.3	12.7
18.500	11.8	10.8	10.3	10.0	9.7	9.5	9.3
22.000	9.1	8.9	8.7	8.5	8.3	6.5	2.6
25.500	0.8	0.0					

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.591		0.966		12.82	136.4	230.53

Bostock.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	2.9	13.7	103.2	126.4	77.8	52.4
14.500	38.6	31.3	26.0	22.3	20.4	19.2	18.4
18.000	17.5	16.2	14.7	13.9	13.6	13.2	12.9
21.500	12.6	12.4	12.0	11.8	11.4	11.1	8.8
25.000	3.5	1.1	0.3	0.0			

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Bostock Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.591		0.966		12.82	136.4	230.53

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	2.9	13.7	103.2	126.4	77.8	52.4
14.500	38.6	31.3	26.0	22.3	20.4	19.2	18.4
18.000	17.5	16.2	14.7	13.9	13.6	13.2	12.9
21.500	12.6	12.4	12.0	11.8	11.4	11.1	8.8
25.000	3.5	1.1	0.0				

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
SA-1	0.591		1.502		12.78	220.4	372.55

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	1.6	5.3	12.7	33.0	173.2	202.3
13.500	121.8	81.2	58.4	46.6	38.3	32.2	29.3
17.000	27.5	26.1	24.7	22.9	20.7	19.5	18.8
20.500	18.3	17.8	17.4	17.1	16.6	16.2	15.7
24.000	15.3	12.0	4.8	1.5	0.5	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)

Bostock.out

OUTLET            0.591                            1.502                            12.78            220.4            372.55

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	1.6	5.3	12.7	33.0	173.2	202.3
13.500	121.8	81.2	58.4	46.6	38.3	32.2	29.3
17.000	27.5	26.1	24.7	22.9	20.7	19.5	18.8
20.500	18.3	17.8	17.4	17.1	16.6	16.2	15.7
24.000	15.3	12.0	4.8	1.5	0.2	0.0	

STORM 10\_yr



Bostock Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	0.591		2.029		12.75	301.2	509.18

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	0.4	2.6	6.2	12.3	24.2	55.2
12.500	243.2	274.9	166.0	109.4	77.5	61.2	49.9
16.000	41.6	37.6	35.2	33.4	31.6	29.0	25.8
19.500	24.1	23.2	22.6	22.0	21.5	21.0	20.4
23.000	19.8	19.3	18.7	14.7	5.9	1.9	0.6
26.500	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	0.591		2.029		12.75	301.2	509.18

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	0.4	2.6	6.2	12.3	24.2	55.2
12.500	243.2	274.9	166.0	109.4	77.5	61.2	49.9
16.000	41.6	37.6	35.2	33.4	31.6	29.0	25.8

Bostock.out

19.500	24.1	23.2	22.6	22.0	21.5	21.0	20.4
23.000	19.8	19.3	18.7	14.7	5.9	1.9	0.6
26.500	0.0						

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.591		2.960		12.80	442.4	747.92

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time increment (cfs)	of 0.500 hr (cfs)	Flow Rate (cfs)	Rate (cfs)
8.000	0.0	0.8	2.7	5.6	10.3	26.7
11.500	46.4	96.7	364.7	401.8	241.5	109.0
15.000	85.3	69.0	57.2	51.3	47.9	42.8
18.500	39.2	34.7	32.2	31.0	30.0	28.5
22.000	27.8	27.0	26.3	25.5	24.7	19.4
25.500	2.5	0.8	0.0			7.8



Bostock Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.591		2.960		12.80	442.4	747.92

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time increment (cfs)	of 0.500 hr (cfs)	Flow Rate (cfs)	Rate (cfs)
8.000	0.0	0.8	2.7	5.6	10.3	26.7
11.500	46.4	96.7	364.7	401.8	241.5	109.0
15.000	85.3	69.0	57.2	51.3	47.9	42.8
18.500	39.2	34.7	32.2	31.0	30.0	28.5
22.000	27.8	27.0	26.3	25.5	24.7	19.4
25.500	2.5	0.8	0.0			7.8

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Bostock.out

SA-1            0.591                            3.863                            12.74            576.9            975.28

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.500	0.0	1.7	4.3	7.4	11.6	18.6	27.7
11.000	42.0	70.8	141.1	483.0	522.1	314.7	203.3
14.500	140.0	108.5	86.9	71.1	63.3	58.9	55.7
18.000	52.5	48.0	42.2	39.1	37.6	36.4	35.4
21.500	34.5	33.7	32.8	31.8	30.9	29.9	23.5
25.000	9.4	3.0	0.9	0.2	0.0		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.591		3.862		12.74	576.9	975.28

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.500	0.0	1.7	4.3	7.4	11.6	18.6	27.7
11.000	42.0	70.8	141.1	483.0	522.1	314.7	203.3
14.500	140.0	108.5	86.9	71.1	63.3	58.9	55.7
18.000	52.5	48.0	42.2	39.1	37.6	36.4	35.4
21.500	34.5	33.7	32.8	31.8	30.9	29.9	23.5
25.000	9.4	3.0	0.9	0.0			

STORM 100yr



Bostock Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.591		4.976		12.74	741.0	1252.71

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	0.5	2.8	6.2	10.2	14.6	20.3
10.000	30.0	42.5	62.1	102.2	198.1	627.3	669.0
13.500	404.0	259.0	176.2	135.1	107.9	88.3	78.6
17.000	73.0	69.0	65.0	59.1	51.2	47.0	45.1
20.500	43.7	42.4	41.3	40.2	39.2	37.9	36.8
24.000	35.7	28.1	11.2	3.5	1.1	0.3	0.0

Bostock.out

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	----- Elevation (ft)	----- Peak Flow Time (hr)	----- Rate (cfs)	----- Rate (csm)
OUTLET	0.591		4.976		12.74	741.0	1252.71

Line

Start Time (hr)	----- (cfs)	Flow Values @ time (cfs)	----- (cfs)	Values @ time increment of 0.500 hr (cfs)	----- (cfs)	----- (cfs)	----- (cfs)
6.500	0.0	0.5	2.8	6.2	10.2	14.6	20.3
10.000	30.0	42.5	62.1	102.2	198.1	627.3	669.0
13.500	404.0	259.0	176.2	135.1	107.9	88.3	78.6
17.000	73.0	69.0	65.0	59.1	51.2	47.0	45.1
20.500	43.7	42.4	41.3	40.2	39.2	37.9	36.8
24.000	35.7	28.1	11.2	3.5	1.1	0.0	



Bostock Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.591	83.1	136.4	220.4	301.2	442.4
OUTLET	0.591	83.1	136.4	220.4	301.2	442.4

Area or Reach	Drainage Area	----- Peak Flow by Storm -----	
		50_yr	100yr

Identifier	(sq mi)	Bostock.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	0.591	576.9	741.0			
OUTLET	0.591	576.9	741.0			



WinTR-20: version 3.10 0 0 0.5 0  
 Ford Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 0.1978 74. 0.882

STORM ANALYSIS:

1_yr	2.71	1_yr_sm	2	3.26
2_yr	3.26	2_yr_sm	2	3.26
5_yr	4.06	5_yr_sm	2	3.26
10_yr	4.78	10_yr_sm	2	3.26
25_yr	5.96	25_yr_sm	2	3.26
50_yr	7.04	50_yr_sm	2	3.26
100yr	8.32	100_yr_sm	2	3.26

RAINFALL DISTRIBUTION:

1_yr_sm	0.1			
0.00000	0.00140	0.00280	0.00410	0.00550
0.00700	0.00840	0.00980	0.01130	0.01270
0.01420	0.01560	0.01710	0.01860	0.02010
0.02160	0.02310	0.02470	0.02620	0.02780
0.02930	0.03090	0.03250	0.03410	0.03570
0.03730	0.03890	0.04050	0.04220	0.04380
0.04550	0.04710	0.04880	0.05050	0.05220
0.05390	0.05560	0.05730	0.05900	0.06080
0.06250	0.06430	0.06610	0.06780	0.06960
0.07140	0.07320	0.07510	0.07690	0.07870
0.08060	0.08240	0.08430	0.08620	0.08810
0.09000	0.09190	0.09380	0.09570	0.09770
0.09960	0.10180	0.10410	0.10630	0.10860
0.11090	0.11330	0.11570	0.11810	0.12060
0.12310	0.12560	0.12810	0.13070	0.13330
0.13600	0.13860	0.14130	0.14400	0.14670
0.14950	0.15230	0.15510	0.15800	0.16090
0.16380	0.16680	0.16980	0.17280	0.17590
0.17900	0.18240	0.18590	0.18960	0.19330
0.19730	0.20130	0.20550	0.20980	0.21420
0.21880	0.22350	0.22830	0.23330	0.23830
0.24350	0.24990	0.25650	0.26350	0.27090
0.27860	0.28660	0.29500	0.30380	0.31310
0.32290	0.33620	0.35020	0.37120	0.40440
0.46940	0.59560	0.62880	0.64980	0.66380
0.67710	0.68690	0.69620	0.70500	0.71340
0.72140	0.72910	0.73650	0.74350	0.75010
0.75650	0.76170	0.76670	0.77170	0.77650

Ford.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

		Ford.out			
	0.85270	0.85540	0.85810	0.86080	0.86340
	0.86600	0.86860	0.87120	0.87370	0.87630
	0.87870	0.88120	0.88360	0.88600	0.88840
	0.89070	0.89300	0.89520	0.89750	0.89970
	0.90180	0.90380	0.90570	0.90760	0.90950
	0.91130	0.91320	0.91510	0.91690	0.91880
	0.92060	0.92240	0.92420	0.92600	0.92780
	0.92960	0.93140	0.93320	0.93490	0.93670
	0.93840	0.94010	0.94180	0.94350	0.94520
	0.94690	0.94860	0.95030	0.95190	0.95360
	0.95520	0.95680	0.95850	0.96010	0.96170
	0.96330	0.96490	0.96640	0.96800	0.96960
	0.97110	0.97260	0.97420	0.97570	0.97720
	0.97870	0.98020	0.98170	0.98310	0.98460
	0.98600	0.98750	0.98890	0.99030	0.99170
	0.99310	0.99450	0.99590	0.99730	0.99860
	1.00000				
5_yr_sm		0.1			
	0.00000	0.00130	0.00270	0.00400	0.00530
	0.00670	0.00810	0.00950	0.01080	0.01220
	0.01370	0.01510	0.01650	0.01790	0.01940
	0.02080	0.02230	0.02380	0.02530	0.02680
	0.02830	0.02980	0.03130	0.03280	0.03440
	0.03590	0.03750	0.03910	0.04070	0.04220
	0.04390	0.04550	0.04710	0.04870	0.05030
	0.05200	0.05360	0.05530	0.05690	0.05860
	0.06030	0.06200	0.06370	0.06540	0.06710
	0.06890	0.07060	0.07240	0.07410	0.07590
	0.07770	0.07950	0.08130	0.08310	0.08490
	0.08680	0.08860	0.09040	0.09230	0.09420
	0.09610	0.09820	0.10040	0.10260	0.10490
	0.10710	0.10940	0.11180	0.11410	0.11650
	0.11900	0.12140	0.12390	0.12650	0.12900
	0.13160	0.13420	0.13680	0.13940	0.14210
	0.14480	0.14760	0.15030	0.15320	0.15600
	0.15890	0.16170	0.16470	0.16760	0.17060
	0.17360	0.17710	0.18070	0.18430	0.18820
	0.19210	0.19620	0.20050	0.20480	0.20930
	0.21390	0.21860	0.22350	0.22850	0.23370
	0.23890	0.24530	0.25210	0.25930	0.26680
	0.27460	0.28310	0.29190	0.30130	0.31110
	0.32140	0.33640	0.35220	0.37510	0.40910
	0.47320	0.59090	0.62490	0.64780	0.66360
	0.67860	0.68890	0.69870	0.70810	0.71690
	0.72540	0.73320	0.74070	0.74790	0.75470
	0.76110	0.76630	0.77150	0.77650	0.78140
	0.78610	0.79070	0.79520	0.79950	0.80380
	0.80790	0.81180	0.81570	0.81930	0.82290
	0.82640	0.82940	0.83240	0.83530	0.83830
	0.84110	0.84400	0.84680	0.84970	0.85240
	0.85520	0.85790	0.86060	0.86320	0.86580
	0.86840	0.87100	0.87350	0.87610	0.87860
	0.88100	0.88350	0.88590	0.88820	0.89060
	0.89290	0.89510	0.89740	0.89960	0.90180

		Ford.out			
	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

		Ford.out			
	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm	0.1				
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

		Ford.out			
	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

Ford.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

		Ford.out		
0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

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WinTR-20 Printed Page File      End of Input Data List

Ford Site CCM Analysis

Name of printed page file:  
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STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		0.728		12.63	39.3	198.85

Line

Start Time (hr)	(cfs)	Flow (cfs)	Values @ time increment of 0.500 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	0.6	3.9	36.2	27.6	16.2	11.4
14.500	8.8	7.4	6.3	5.6	5.2	5.0	4.8
18.000	4.5	4.1	3.8	3.6	3.6	3.5	3.4
21.500	3.3	3.3	3.2	3.1	3.0	2.9	1.9
25.000	0.5	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.198		0.728		12.63	39.3	198.85

Line

Start Time (hr)	(cfs)	Flow (cfs)	Values @ time increment of 0.500 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	0.6	3.9	36.2	27.6	16.2	11.4
14.500	8.8	7.4	6.3	5.6	5.2	5.0	4.8
18.000	4.5	4.1	3.8	3.6	3.6	3.5	3.4
21.500	3.3	3.3	3.2	3.1	3.0	2.9	1.9
25.000	0.0						

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		1.075		12.61	61.7	311.90

Ford.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.500	0.0	0.8	2.7	8.8	58.0	42.2	23.8
14.000	16.0	12.3	10.3	8.7	7.6	7.1	6.7
17.500	6.5	6.1	5.6	5.1	4.9	4.8	4.6
21.000	4.6	4.5	4.3	4.2	4.1	4.0	3.9
24.500	2.5	0.6	0.0				

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Ford Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.198		1.075		12.61	61.7	311.90

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.500	0.0	0.8	2.7	8.8	58.0	42.2	23.8
14.000	16.0	12.3	10.3	8.7	7.6	7.1	6.7
17.500	6.5	6.1	5.6	5.1	4.9	4.8	4.6
21.000	4.6	4.5	4.3	4.2	4.1	4.0	3.9
24.500	2.5	0.6	0.0				

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	0.198		1.638		12.60	95.9	484.95

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.0	0.7	1.7	3.6	7.1	17.9	91.2
13.000	64.8	36.1	24.1	18.0	14.9	12.4	10.7
16.500	10.0	9.5	9.0	8.5	7.7	7.0	6.7
20.000	6.5	6.4	6.2	6.1	5.9	5.8	5.6
23.500	5.4	5.3	3.4	0.9	0.0		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)

Ford.out

OUTLET            0.198                            1.638                            12.60                            95.9                            484.95

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.0	0.7	1.7	3.6	7.1	17.9	91.2
13.000	64.8	36.1	24.1	18.0	14.9	12.4	10.7
16.500	10.0	9.5	9.0	8.5	7.7	7.0	6.7
20.000	6.5	6.4	6.2	6.1	5.9	5.8	5.6
23.500	5.4	5.3	3.4	0.9	0.0		

STORM 10\_yr



Ford Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	0.198		2.188		12.59	128.6	649.91

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	1.0	2.2	3.8	6.6	12.1	27.8
12.500	122.8	87.0	48.4	31.9	23.4	19.3	16.0
16.000	13.7	12.7	12.0	11.4	10.8	9.7	8.6
19.500	8.2	8.0	7.8	7.6	7.4	7.2	7.0
23.000	6.8	6.6	6.4	4.2	1.0	0.1	0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	0.198		2.188		12.59	128.6	649.91

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	1.0	2.2	3.8	6.6	12.1	27.8
12.500	122.8	87.0	48.4	31.9	23.4	19.3	16.0
16.000	13.7	12.7	12.0	11.4	10.8	9.7	8.6
19.500	8.2	8.0	7.8	7.6	7.4	7.2	7.0

Ford.out

23.000	6.8	6.6	6.4	4.2	1.0	0.0
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STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		3.149		12.61	184.2	931.23

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ (cfs)	time (cfs)	increment (cfs)	of (cfs)	0.500 (cfs)	hr (cfs)
8.000	0.0	1.2	2.1	3.4	5.4	8.1	12.5	
11.500	21.4	46.1	177.5	124.5	68.9	44.5	32.3	
15.000	26.4	21.8	18.5	17.0	16.1	15.4	14.4	
18.500	12.9	11.4	10.8	10.5	10.2	10.0	9.7	
22.000	9.5	9.2	8.9	8.7	8.4	5.5	1.4	
25.500	0.3	0.0						



Ford Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.198		3.149		12.61	184.2	931.23

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ (cfs)	time (cfs)	increment (cfs)	of (cfs)	0.500 (cfs)	hr (cfs)
8.000	0.0	1.2	2.1	3.4	5.4	8.1	12.5	
11.500	21.4	46.1	177.5	124.5	68.9	44.5	32.3	
15.000	26.4	21.8	18.5	17.0	16.1	15.4	14.4	
18.500	12.9	11.4	10.8	10.5	10.2	10.0	9.7	
22.000	9.5	9.2	8.9	8.7	8.4	5.5	1.4	
25.500	0.0							

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Ford.out

SA-1            0.198                            4.075                            12.61            236.5    1195.89

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.000	0.0	0.7	1.7	2.8	4.0	5.8	8.8
10.500	12.4	18.8	31.3	65.2	228.7	160.5	89.0
14.000	57.3	40.9	33.2	27.1	22.7	20.9	19.7
17.500	18.7	17.6	15.7	13.8	13.1	12.7	12.3
21.000	12.0	11.7	11.4	11.1	10.8	10.4	10.1
24.500	6.6	1.6	0.3	0.0			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	0.198		4.075		12.61	236.5	1195.89

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.000	0.0	0.7	1.7	2.8	4.0	5.8	8.8
10.500	12.4	18.8	31.3	65.2	228.7	160.5	89.0
14.000	57.3	40.9	33.2	27.1	22.7	20.9	19.7
17.500	18.7	17.6	15.7	13.8	13.1	12.7	12.3
21.000	12.0	11.7	11.4	11.1	10.8	10.4	10.1
24.500	6.6	1.6	0.0				

STORM 100yr



Ford Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	0.198		5.211		12.59	299.5	1514.02

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	1.1	2.3	3.7	5.2	6.8	9.3
10.000	13.3	18.1	26.8	44.1	89.8	289.7	204.4
13.500	113.4	72.1	50.8	40.9	33.4	28.1	25.7
17.000	24.3	23.0	21.7	19.2	16.6	15.6	15.2
20.500	14.7	14.3	13.9	13.6	13.2	12.7	12.4
24.000	12.0	7.8	1.9	0.4	0.0		

Ford.out

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	----- Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.198		5.211		12.59	299.5	1514.02

Line

Start Time (hr)	----- (cfs)	Flow Values @ time (cfs)	increment of (cfs)	0.500 hr (cfs)	----- (cfs)	(cfs)	(cfs)
6.500	0.0	1.1	2.3	3.7	5.2	6.8	9.3
10.000	13.3	18.1	26.8	44.1	89.8	289.7	204.4
13.500	113.4	72.1	50.8	40.9	33.4	28.1	25.7
17.000	24.3	23.0	21.7	19.2	16.6	15.6	15.2
20.500	14.7	14.3	13.9	13.6	13.2	12.7	12.4
24.000	12.0	7.8	1.9	0.0			



Ford Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.198	39.3	61.7	95.9	128.6	184.2
OUTLET	0.198	39.3	61.7	95.9	128.6	184.2

Area or Reach	Drainage Area	----- Peak Flow by Storm -----	
		50_yr	100yr

Identifrier	(sq mi)	Ford.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	0.198	236.5	299.5			
OUTLET	0.198	236.5	299.5			



WinTR-20: version 3.10 0 0 0.5 0  
 Lost CloveSite CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 1.4397 74. 1.018

STORM ANALYSIS:

1_yr	2.71	1_yr_sm	2	3.26
2_yr	3.26	2_yr_sm	2	3.26
5_yr	4.06	5_yr_sm	2	3.26
10_yr	4.78	10_yr_sm	2	3.26
25_yr	5.96	25_yr_sm	2	3.26
50_yr	7.04	50_yr_sm	2	3.26
100yr	8.32	100_yr_sm	2	3.26

RAINFALL DISTRIBUTION:

1_yr_sm	0.1			
	0.00000	0.00140	0.00280	0.00410
	0.00700	0.00840	0.00980	0.01130
	0.01420	0.01560	0.01710	0.01860
	0.02160	0.02310	0.02470	0.02620
	0.02930	0.03090	0.03250	0.03410
	0.03730	0.03890	0.04050	0.04220
	0.04550	0.04710	0.04880	0.05050
	0.05390	0.05560	0.05730	0.05900
	0.06250	0.06430	0.06610	0.06780
	0.07140	0.07320	0.07510	0.07690
	0.08060	0.08240	0.08430	0.08620
	0.09000	0.09190	0.09380	0.09570
	0.09960	0.10180	0.10410	0.10630
	0.11090	0.11330	0.11570	0.11810
	0.12310	0.12560	0.12810	0.13070
	0.13600	0.13860	0.14130	0.14400
	0.14950	0.15230	0.15510	0.15800
	0.16380	0.16680	0.16980	0.17280
	0.17900	0.18240	0.18590	0.18960
	0.19730	0.20130	0.20550	0.20980
	0.21880	0.22350	0.22830	0.23330
	0.24350	0.24990	0.25650	0.26350
	0.27860	0.28660	0.29500	0.30380
	0.32290	0.33620	0.35020	0.37120
	0.46940	0.59560	0.62880	0.64980
	0.67710	0.68690	0.69620	0.70500
	0.72140	0.72910	0.73650	0.74350
	0.75650	0.76170	0.76670	0.77170

LostClove.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

LostClove.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

LostClove.out

	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

LostClove.out

	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm		0.1			
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

LostClove.out

	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

LostClove.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

LostClove.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

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WinTR-20 Printed Page File      End of Input Data List

Lost CloveSite CCM Analysis

Name of printed page file:  
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STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.440		0.730		12.73	259.6	180.32

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	(cfs)
11.000	0.0	3.3	22.9	214.4	219.2	129.8	90.5
14.500	68.1	56.4	47.4	41.5	38.5	36.6	35.0
18.000	33.3	30.8	28.0	26.8	26.1	25.5	24.9
21.500	24.4	23.8	23.3	22.8	22.1	21.5	15.8
25.000	5.2	1.4	0.4	0.0			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	1.440		0.730		12.73	259.6	180.32

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	(cfs)
11.000	0.0	3.3	22.9	214.4	219.2	129.8	90.5
14.500	68.1	56.4	47.4	41.5	38.5	36.6	35.0
18.000	33.3	30.8	28.0	26.8	26.1	25.5	24.9
21.500	24.4	23.8	23.3	22.8	22.1	21.5	15.8
25.000	5.2	1.4	0.4	0.0			

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.440		1.077		12.69	407.7	283.16

LostClove.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	0.5	4.9	16.7	53.6	348.6	338.4
13.500	194.0	128.9	95.6	78.6	65.6	56.7	52.5
17.000	49.7	47.4	45.0	41.5	37.7	35.9	35.0
20.500	34.1	33.3	32.6	31.8	31.0	30.2	29.3
24.000	28.5	21.1	6.9	1.9	0.5	0.0	

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Lost CloveSite CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	1.440		1.077		12.69	407.7	283.16

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	0.5	4.9	16.7	53.6	348.6	338.4
13.500	194.0	128.9	95.6	78.6	65.6	56.7	52.5
17.000	49.7	47.4	45.0	41.5	37.7	35.9	35.0
20.500	34.1	33.3	32.6	31.8	31.0	30.2	29.3
24.000	28.5	21.1	6.9	1.9	0.5	0.0	

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	1.440		1.640		12.71	637.2	442.56

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.308E-01	3.9	11.0	23.1	46.5	111.0	553.9
13.000	522.0	295.4	194.9	141.3	114.5	94.5	80.5
16.500	73.9	69.7	66.4	62.7	57.7	51.9	49.3
20.000	47.8	46.5	45.4	44.4	43.4	42.2	41.1
23.500	39.9	38.6	28.4	9.3	2.6	0.7	0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)

LostClove.out

OUTLET 1.440 1.640 12.71 637.2 442.56

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.308E-01	3.9	11.0	23.1	46.5	111.0	553.9
13.000	522.0	295.4	194.9	141.3	114.5	94.5	80.5
16.500	73.9	69.7	66.4	62.7	57.7	51.9	49.3
20.000	47.8	46.5	45.4	44.4	43.4	42.2	41.1
23.500	39.9	38.6	28.4	9.3	2.6	0.7	0.0

STORM 10\_yr



Lost CloveSite CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	1.440		2.190		12.69	856.5	594.94

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.500	0.0	1.6	6.1	14.0	25.2	43.6	79.5
12.000	175.0	757.5	698.3	396.4	258.7	184.7	148.3
15.500	121.7	102.8	93.8	88.5	84.0	79.4	72.2
19.000	64.2	60.5	58.5	56.8	55.4	54.1	52.9
22.500	51.3	49.9	48.5	46.9	34.6	11.3	3.2
26.000	0.8	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	1.440		2.190		12.69	856.5	594.94

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.500	0.0	1.6	6.1	14.0	25.2	43.6	79.5
12.000	175.0	757.5	698.3	396.4	258.7	184.7	148.3
15.500	121.7	102.8	93.8	88.5	84.0	79.4	72.2

LostClove.out

19.000	64.2	60.5	58.5	56.8	55.4	54.1	52.9
22.500	51.3	49.9	48.5	46.9	34.6	11.3	3.2
26.000	0.8	0.0					

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.440		3.151		12.68	1229.8	854.18

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.500	0.0	2.3	7.3	13.8	22.4	36.4	54.6
11.000	83.7	141.8	294.1	1103.5	998.3	565.9	362.7
14.500	255.8	203.8	166.2	139.3	126.6	119.1	113.1
18.000	106.4	96.8	85.2	79.7	77.1	74.9	73.0
21.500	71.2	69.3	67.4	65.5	63.5	61.6	45.3
25.000	14.8	4.1	1.1	0.2	0.0		



Lost CloveSite CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	1.440		3.151		12.68	1229.8	854.18

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.500	0.0	2.3	7.3	13.8	22.4	36.4	54.6
11.000	83.7	141.8	294.1	1103.5	998.3	565.9	362.7
14.500	255.8	203.8	166.2	139.3	126.6	119.1	113.1
18.000	106.4	96.8	85.2	79.7	77.1	74.9	73.0
21.500	71.2	69.3	67.4	65.5	63.5	61.6	45.3
25.000	14.8	4.1	1.1	0.0			

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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LostClove.out

SA-1            1.440                            4.077                            12.71            1581.5    1098.52

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	0.6	4.4	11.0	18.7	27.4	39.4
10.000	59.6	85.0	126.2	208.9	415.6	1427.0	1288.3
13.500	732.0	467.6	325.0	256.9	207.4	171.6	155.1
17.000	145.3	137.7	129.9	117.6	103.0	96.4	93.2
20.500	90.3	87.8	85.6	83.6	81.3	78.8	76.6
24.000	73.9	54.3	17.8	4.9	1.3	0.2	0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	1.440		4.077		12.71	1581.5	1098.52

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	0.6	4.4	11.0	18.7	27.4	39.4
10.000	59.6	85.0	126.2	208.9	415.6	1427.0	1288.3
13.500	732.0	467.6	325.0	256.9	207.4	171.6	155.1
17.000	145.3	137.7	129.9	117.6	103.0	96.4	93.2
20.500	90.3	87.8	85.6	83.6	81.3	78.8	76.6
24.000	73.9	54.3	17.8	4.9	1.3	0.0	

STORM 100yr



Lost CloveSite CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.440		5.213		12.66	2008.3	1394.94

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.000	0.0	1.3	6.7	15.1	24.9	35.5	47.1
9.500	63.3	91.0	124.7	180.7	294.4	573.6	1824.6
13.000	1635.2	931.2	590.6	405.1	317.3	255.7	211.9
16.500	191.4	179.1	169.6	159.8	143.9	124.0	115.0
20.000	111.1	107.8	104.7	101.9	99.3	96.6	93.5
23.500	90.9	87.8	64.6	21.1	5.9	1.6	0.3

27.000 0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	----- Elevation (ft)	Peak Flow Time (hr)	----- Rate (cfs)	----- Rate (csm)
OUTLET	1.440		5.213		12.66	2008.3	1394.94

Line

Start Time (hr)	----- (cfs)	Flow Values @ time increment of 0.500 hr (cfs)	----- (cfs)	----- (cfs)	----- (cfs)	----- (cfs)	----- (cfs)
6.000	0.0	1.3	6.7	15.1	24.9	35.5	47.1
9.500	63.3	91.0	124.7	180.7	294.4	573.6	1824.6
13.000	1635.2	931.2	590.6	405.1	317.3	255.7	211.9
16.500	191.4	179.1	169.6	159.8	143.9	124.0	115.0
20.000	111.1	107.8	104.7	101.9	99.3	96.6	93.5
23.500	90.9	87.8	64.6	21.1	5.9	1.6	0.0



Lost CloveSite CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	1.440	259.6	407.7	637.2	856.5	1229.8
OUTLET	1.440	259.6	407.7	637.2	856.5	1229.8

Area or Reach	Drainage Area	----- Peak Flow by Storm -----	
		50_yr	100yr

Identifier	(sq mi)	LostClove.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	1.440	1581.5	2008.3			
OUTLET	1.440	1581.5	2008.3			



WinTR-20: version 3.10 0 0 0.5 0  
 Ohayo Little Beaver Kill Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 0.1979 77. 0.856

STORM ANALYSIS:

1_yr	2.71	1_yr_sm	2	3.26
2_yr	3.26	2_yr_sm	2	3.26
5_yr	4.06	5_yr_sm	2	3.26
10_yr	4.78	10_yr_sm	2	3.26
25_yr	5.96	25_yr_sm	2	3.26
50_yr	7.04	50_yr_sm	2	3.26
100yr	8.32	100_yr_sm	2	3.26

RAINFALL DISTRIBUTION:

1_yr_sm	0.1			
	0.00000	0.00140	0.00280	0.00410
	0.00700	0.00840	0.00980	0.01130
	0.01420	0.01560	0.01710	0.01860
	0.02160	0.02310	0.02470	0.02620
	0.02930	0.03090	0.03250	0.03410
	0.03730	0.03890	0.04050	0.04220
	0.04550	0.04710	0.04880	0.05050
	0.05390	0.05560	0.05730	0.05900
	0.06250	0.06430	0.06610	0.06780
	0.07140	0.07320	0.07510	0.07690
	0.08060	0.08240	0.08430	0.08620
	0.09000	0.09190	0.09380	0.09570
	0.09960	0.10180	0.10410	0.10630
	0.11090	0.11330	0.11570	0.11810
	0.12310	0.12560	0.12810	0.13070
	0.13600	0.13860	0.14130	0.14400
	0.14950	0.15230	0.15510	0.15800
	0.16380	0.16680	0.16980	0.17280
	0.17900	0.18240	0.18590	0.18960
	0.19730	0.20130	0.20550	0.20980
	0.21880	0.22350	0.22830	0.23330
	0.24350	0.24990	0.25650	0.26350
	0.27860	0.28660	0.29500	0.30380
	0.32290	0.33620	0.35020	0.37120
	0.46940	0.59560	0.62880	0.64980
	0.67710	0.68690	0.69620	0.70500
	0.72140	0.72910	0.73650	0.74350
	0.75650	0.76170	0.76670	0.77170

Ohayo.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

Ohayo.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

	Ohayo.out				
	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

		Ohayo.out			
	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm	0.1				
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

		Ohayo.out			
	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

Ohayo.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

NN N

WinTR-20 Printed Page File      End of Input Data List

Ohayo Little Beaver Kill Site CCM Analysis

Name of printed page file:  
C:\Users\bschrey\Desktop\TR-20\CCM\Ohayo.out

STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		0.873		12.63	50.4	254.81

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
10.500	0.0	0.7	2.2	7.1	48.1	32.8	18.7
14.000	13.0	9.9	8.3	7.1	6.3	5.9	5.6
17.500	5.3	5.1	4.6	4.2	4.1	4.0	3.9
21.000	3.8	3.7	3.6	3.5	3.4	3.3	3.2
24.500	2.0	0.5	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.198		0.873		12.63	50.4	254.81

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
10.500	0.0	0.7	2.2	7.1	48.1	32.8	18.7
14.000	13.0	9.9	8.3	7.1	6.3	5.9	5.6
17.500	5.3	5.1	4.6	4.2	4.1	4.0	3.9
21.000	3.8	3.7	3.6	3.5	3.4	3.3	3.2
24.500	2.0	0.1	0.0				

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		1.253		12.60	75.5	381.61

Ohayo.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	1.1	2.4	4.9	12.9	72.6	48.4
13.500	26.6	17.7	13.5	11.3	9.5	8.3	7.8
17.000	7.4	7.1	6.7	6.1	5.5	5.3	5.2
20.500	5.1	5.0	4.8	4.7	4.6	4.5	4.3
24.000	4.2	2.7	0.6	0.0			

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Ohayo Little Beaver Kill Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.198		1.253		12.60	75.5	381.61

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	1.1	2.4	4.9	12.9	72.6	48.4
13.500	26.6	17.7	13.5	11.3	9.5	8.3	7.8
17.000	7.4	7.1	6.7	6.1	5.5	5.3	5.2
20.500	5.1	5.0	4.8	4.7	4.6	4.5	4.3
24.000	4.2	2.7	0.6	0.0			

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	0.198		1.857		12.57	112.3	567.69

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	1.0	2.0	3.4	5.8	10.2	23.5
12.500	108.7	71.5	39.1	25.9	19.3	16.0	13.3
16.000	11.5	10.7	10.2	9.7	9.1	8.3	7.5
19.500	7.2	7.0	6.8	6.6	6.5	6.3	6.1
23.000	6.0	5.8	5.6	3.5	0.8	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)

Ohayo.out

OUTLET            0.198                            1.857                            12.57            112.3            567.69

Line  
Start Time      ----- Flow Values @ time increment of 0.500 hr -----  
                  (hr)            (cfs)            (cfs)            (cfs)            (cfs)            (cfs)            (cfs)

9.000	0.0	1.0	2.0	3.4	5.8	10.2	23.5
12.500	108.7	71.5	39.1	25.9	19.3	16.0	13.3
16.000	11.5	10.7	10.2	9.7	9.1	8.3	7.5
19.500	7.2	7.0	6.8	6.6	6.5	6.3	6.1
23.000	6.0	5.8	5.6	3.5	0.8	0.0	

STORM 10\_yr



Ohayo Little Beaver Kill Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	0.198		2.438		12.60	147.1	743.25

Line  
Start Time      ----- Flow Values @ time increment of 0.500 hr -----  
                  (hr)            (cfs)            (cfs)            (cfs)            (cfs)            (cfs)            (cfs)

8.000	0.0	0.7	1.4	2.3	3.9	5.9	9.3
11.500	15.9	34.5	143.1	94.1	51.5	33.7	24.7
15.000	20.4	16.9	14.5	13.4	12.7	12.1	11.4
18.500	10.2	9.1	8.7	8.4	8.2	8.0	7.8
22.000	7.6	7.4	7.2	7.0	6.7	4.3	1.0
25.500	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	0.198		2.438		12.60	147.1	743.25

Line  
Start Time      ----- Flow Values @ time increment of 0.500 hr -----  
                  (hr)            (cfs)            (cfs)            (cfs)            (cfs)            (cfs)            (cfs)

8.000	0.0	0.7	1.4	2.3	3.9	5.9	9.3
11.500	15.9	34.5	143.1	94.1	51.5	33.7	24.7
15.000	20.4	16.9	14.5	13.4	12.7	12.1	11.4

Ohayo.out

18.500	10.2	9.1	8.7	8.4	8.2	8.0	7.8
22.000	7.6	7.4	7.2	7.0	6.7	4.3	1.0
25.500	0.0						

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		3.442		12.56	205.3	1037.18

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.000	0.0	0.8	1.6	2.6	3.7	5.2	7.7
10.500	10.8	16.0	26.2	55.0	200.3	131.8	71.9
14.000	46.2	33.6	27.5	22.6	19.3	17.8	16.9
17.500	16.0	15.0	13.5	11.9	11.3	11.0	10.7
21.000	10.4	10.1	9.8	9.6	9.3	9.0	8.7
24.500	5.5	1.3	0.2	0.0			



Ohayo Little Beaver Kill Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.198		3.442		12.56	205.3	1037.18

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.000	0.0	0.8	1.6	2.6	3.7	5.2	7.7
10.500	10.8	16.0	26.2	55.0	200.3	131.8	71.9
14.000	46.2	33.6	27.5	22.6	19.3	17.8	16.9
17.500	16.0	15.0	13.5	11.9	11.3	11.0	10.7
21.000	10.4	10.1	9.8	9.6	9.3	9.0	8.7
24.500	5.5	1.3	0.0				

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
--------------------------	-----------------------	--------------------------	--------------------	----------------	----------------	-----------------	------------

Ohayo.out

SA-1            0.198                            4.400                            12.60            259.2    1309.76

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	1.1	2.2	3.3	4.6	5.9	8.0
10.000	11.6	15.7	23.0	37.2	75.4	253.8	167.7
13.500	91.8	58.7	42.0	34.3	27.9	23.5	21.6
17.000	20.4	19.3	18.2	16.2	14.2	13.5	13.1
20.500	12.7	12.4	12.1	11.8	11.5	11.1	10.8
24.000	10.4	6.5	1.5	0.3	0.0		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.198		4.400		12.60	259.2	1309.76

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	1.1	2.2	3.3	4.6	5.9	8.0
10.000	11.6	15.7	23.0	37.2	75.4	253.8	167.7
13.500	91.8	58.7	42.0	34.3	27.9	23.5	21.6
17.000	20.4	19.3	18.2	16.2	14.2	13.5	13.1
20.500	12.7	12.4	12.1	11.8	11.5	11.1	10.8
24.000	10.4	6.5	1.5	0.0			

STORM 100yr



Ohayo Little Beaver Kill Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.198		5.567		12.60	323.8	1636.02

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.000	0.0	1.4	2.7	4.2	5.7	7.3	9.1
9.500	11.9	16.6	21.9	31.7	50.9	101.3	317.6
13.000	210.8	115.5	73.2	51.7	41.9	34.1	28.7
16.500	26.4	24.9	23.6	22.2	19.6	17.0	16.0
20.000	15.5	15.1	14.6	14.3	13.9	13.5	13.1
23.500	12.7	12.3	7.7	1.8	0.4	0.0	

Ohayo.out

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	----- Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.198		5.567		12.60	323.8	1636.02

Line

Start Time (hr)	----- (cfs)	Flow Values @ time (cfs)	increment of (cfs)	0.500 hr (cfs)	----- (cfs)	(cfs)	(cfs)
6.000	0.0	1.4	2.7	4.2	5.7	7.3	9.1
9.500	11.9	16.6	21.9	31.7	50.9	101.3	317.6
13.000	210.8	115.5	73.2	51.7	41.9	34.1	28.7
16.500	26.4	24.9	23.6	22.2	19.6	17.0	16.0
20.000	15.5	15.1	14.6	14.3	13.9	13.5	13.1
23.500	12.7	12.3	7.7	1.8	0.0		



Ohayo Little Beaver Kill Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.198	50.4	75.5	112.3	147.1	205.3
OUTLET	0.198	50.4	75.5	112.3	147.1	205.3

Area or Reach	Drainage Area	----- Peak Flow by Storm -----	
		50_yr	100yr

Identifier	(sq mi)	Ohayo.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	0.198	259.2	323.8			
OUTLET	0.198	259.2	323.8			



WinTR-20: version 3.10 0 0 0.5 0  
 Plank Site CCM Analysis

SUB-AREA:  
     SA-1       OUTLET       0.6527    75.       1.054

STORM ANALYSIS:  
     1\_yr           2.71       1\_yr\_sm   2       3.26  
     2\_yr           3.26       2\_yr\_sm   2       3.26  
     5\_yr           4.06       5\_yr\_sm   2       3.26  
     10\_yr          4.78       10\_yr\_sm  2       3.26  
     25\_yr          5.96       25\_yr\_sm  2       3.26  
     50\_yr          7.04       50\_yr\_sm  2       3.26  
     100yr          8.32       100\_yr\_sm 2       3.26

RAINFALL DISTRIBUTION:  
     1\_yr\_sm       0.1  
           0.00000   0.00140   0.00280   0.00410   0.00550  
           0.00700   0.00840   0.00980   0.01130   0.01270  
           0.01420   0.01560   0.01710   0.01860   0.02010  
           0.02160   0.02310   0.02470   0.02620   0.02780  
           0.02930   0.03090   0.03250   0.03410   0.03570  
           0.03730   0.03890   0.04050   0.04220   0.04380  
           0.04550   0.04710   0.04880   0.05050   0.05220  
           0.05390   0.05560   0.05730   0.05900   0.06080  
           0.06250   0.06430   0.06610   0.06780   0.06960  
           0.07140   0.07320   0.07510   0.07690   0.07870  
           0.08060   0.08240   0.08430   0.08620   0.08810  
           0.09000   0.09190   0.09380   0.09570   0.09770  
           0.09960   0.10180   0.10410   0.10630   0.10860  
           0.11090   0.11330   0.11570   0.11810   0.12060  
           0.12310   0.12560   0.12810   0.13070   0.13330  
           0.13600   0.13860   0.14130   0.14400   0.14670  
           0.14950   0.15230   0.15510   0.15800   0.16090  
           0.16380   0.16680   0.16980   0.17280   0.17590  
           0.17900   0.18240   0.18590   0.18960   0.19330  
           0.19730   0.20130   0.20550   0.20980   0.21420  
           0.21880   0.22350   0.22830   0.23330   0.23830  
           0.24350   0.24990   0.25650   0.26350   0.27090  
           0.27860   0.28660   0.29500   0.30380   0.31310  
           0.32290   0.33620   0.35020   0.37120   0.40440  
           0.46940   0.59560   0.62880   0.64980   0.66380  
           0.67710   0.68690   0.69620   0.70500   0.71340  
           0.72140   0.72910   0.73650   0.74350   0.75010  
           0.75650   0.76170   0.76670   0.77170   0.77650

		Plank.out			
	0.78120	0.78580	0.79020	0.79450	0.79870
	0.80270	0.80670	0.81040	0.81410	0.81760
	0.82100	0.82410	0.82720	0.83020	0.83320
	0.83620	0.83910	0.84200	0.84490	0.84770
	0.85050	0.85330	0.85600	0.85870	0.86140
	0.86400	0.86670	0.86930	0.87190	0.87440
	0.87690	0.87940	0.88190	0.88430	0.88670
	0.88910	0.89140	0.89370	0.89590	0.89820
	0.90040	0.90230	0.90430	0.90620	0.90810
	0.91000	0.91190	0.91380	0.91570	0.91760
	0.91940	0.92130	0.92310	0.92490	0.92680
	0.92860	0.93040	0.93220	0.93390	0.93570
	0.93750	0.93920	0.94100	0.94270	0.94440
	0.94610	0.94780	0.94950	0.95120	0.95290
	0.95450	0.95620	0.95780	0.95950	0.96110
	0.96270	0.96430	0.96590	0.96750	0.96910
	0.97070	0.97220	0.97380	0.97530	0.97690
	0.97840	0.97990	0.98140	0.98290	0.98440
	0.98580	0.98730	0.98870	0.99020	0.99160
	0.99300	0.99450	0.99590	0.99720	0.99860
	1.00000				
2_yr_sm	0.1				
	0.00000	0.00140	0.00270	0.00410	0.00550
	0.00690	0.00830	0.00970	0.01110	0.01250
	0.01400	0.01540	0.01690	0.01830	0.01980
	0.02130	0.02280	0.02430	0.02580	0.02740
	0.02890	0.03040	0.03200	0.03360	0.03510
	0.03670	0.03830	0.03990	0.04150	0.04320
	0.04480	0.04640	0.04810	0.04970	0.05140
	0.05310	0.05480	0.05650	0.05820	0.05990
	0.06160	0.06330	0.06510	0.06680	0.06860
	0.07040	0.07220	0.07400	0.07580	0.07760
	0.07940	0.08120	0.08310	0.08490	0.08680
	0.08870	0.09050	0.09240	0.09430	0.09620
	0.09820	0.10030	0.10250	0.10480	0.10700
	0.10930	0.11160	0.11400	0.11640	0.11880
	0.12130	0.12370	0.12630	0.12880	0.13140
	0.13400	0.13660	0.13920	0.14190	0.14460
	0.14730	0.15010	0.15290	0.15570	0.15860
	0.16150	0.16440	0.16730	0.17030	0.17330
	0.17640	0.17980	0.18330	0.18690	0.19070
	0.19460	0.19870	0.20280	0.20710	0.21160
	0.21610	0.22080	0.22560	0.23050	0.23560
	0.24080	0.24690	0.25330	0.26000	0.26710
	0.27450	0.28280	0.29160	0.30080	0.31040
	0.32060	0.33450	0.34930	0.37150	0.40460
	0.46960	0.59540	0.62850	0.65070	0.66550
	0.67940	0.68960	0.69920	0.70840	0.71720
	0.72550	0.73290	0.74000	0.74670	0.75310
	0.75920	0.76440	0.76950	0.77440	0.77920
	0.78390	0.78840	0.79290	0.79720	0.80130
	0.80540	0.80930	0.81310	0.81670	0.82020
	0.82360	0.82670	0.82970	0.83270	0.83560
	0.83850	0.84140	0.84430	0.84710	0.84990

Plank.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

		Plank.out			
	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm		0.1			
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

		Plank.out			
	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm	0.1				
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

		Plank.out			
	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

Plank.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

		Plank.out		
0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

NN N

WinTR-20 Printed Page File      End of Input Data List

Plank Site CCM Analysis

Name of printed page file:  
 C:\Users\bschrey\Desktop\TR-20\CCM\Plank.out

STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.653		0.776		12.74	124.6	190.93

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Rate (cfs)
11.000	0.0	2.6	12.2	100.5	108.7	64.3	44.3
14.500	33.0	27.1	22.7	19.8	18.3	17.3	16.6
18.000	15.8	14.6	13.3	12.6	12.3	12.0	11.7
21.500	11.5	11.2	11.0	10.7	10.4	10.1	7.6
25.000	2.7	0.8	0.1	0.0			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.653		0.776		12.74	124.6	190.93

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Rate (cfs)
11.000	0.0	2.6	12.2	100.5	108.7	64.3	44.3
14.500	33.0	27.1	22.7	19.8	18.3	17.3	16.6
18.000	15.8	14.6	13.3	12.6	12.3	12.0	11.7
21.500	11.5	11.2	11.0	10.7	10.4	10.1	7.6
25.000	2.7	0.8	0.0				

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.653		1.134		12.74	192.8	295.40

Plank.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	0.7	3.4	9.3	26.3	159.9	165.6
13.500	95.2	62.7	46.0	37.6	31.2	26.8	24.7
17.000	23.3	22.3	21.1	19.5	17.7	16.8	16.4
20.500	15.9	15.6	15.2	14.9	14.5	14.1	13.7
24.000	13.3	10.1	3.5	1.0	0.2	0.0	

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Plank Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.653		1.134		12.74	192.8	295.40

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.000	0.0	0.7	3.4	9.3	26.3	159.9	165.6
13.500	95.2	62.7	46.0	37.6	31.2	26.8	24.7
17.000	23.3	22.3	21.1	19.5	17.7	16.8	16.4
20.500	15.9	15.6	15.2	14.9	14.5	14.1	13.7
24.000	13.3	10.1	3.5	1.0	0.0		

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	0.653		1.711		12.74	296.1	453.58

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	0.7	2.8	6.4	12.2	23.3	53.2
12.500	252.3	251.3	143.1	93.9	67.5	54.3	44.6
16.000	37.8	34.6	32.5	31.0	29.3	26.9	24.3
19.500	23.0	22.2	21.6	21.1	20.6	20.2	19.6
23.000	19.1	18.5	17.9	13.5	4.7	1.4	0.4
26.500	0.0						

Area or Reach	Drainage Area	Rain Gage ID or	Runoff Amount	Elevation	Peak Flow Time	Peak Flow Rate	Peak Flow Rate
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Identifier	(sq mi)	Location	(in)	Plank.out (ft)	(hr)	(cfs)	(csm)
OUTLET	0.653		1.711		12.74	296.1	453.58

Line

Start Time (hr)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)
9.000	0.0	0.7	2.8	6.4	12.2	23.3	53.2
12.500	252.3	251.3	143.1	93.9	67.5	54.3	44.6
16.000	37.8	34.6	32.5	31.0	29.3	26.9	24.3
19.500	23.0	22.2	21.6	21.1	20.6	20.2	19.6
23.000	19.1	18.5	17.9	13.5	4.7	1.4	0.0

STORM 10\_yr



Plank Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
SA-1	0.653		2.272		12.71	395.3	605.71

Line

Start Time (hr)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)
8.500	0.0	1.5	3.9	7.8	13.2	21.8	38.6
12.000	82.2	342.8	333.7	190.8	124.0	87.8	70.1
15.500	57.1	48.1	43.7	41.1	39.0	36.9	33.6
19.000	29.9	28.1	27.1	26.3	25.6	25.0	24.5
22.500	23.7	23.1	22.4	21.7	16.4	5.7	1.7
26.000	0.5	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.653		2.272		12.71	395.3	605.71

Line

Start Time (hr)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)	Flow Values @ (cfs)
8.500	0.0	1.5	3.9	7.8	13.2	21.8	38.6
12.000	82.2	342.8	333.7	190.8	124.0	87.8	70.1
15.500	57.1	48.1	43.7	41.1	39.0	36.9	33.6

Plank.out

19.000	29.9	28.1	27.1	26.3	25.6	25.0	24.5
22.500	23.7	23.1	22.4	21.7	16.4	5.7	1.7
26.000	0.2	0.0					

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.653		3.247		12.69	563.2	862.83

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.500	0.0	2.0	4.5	7.6	11.7	18.3	26.9
11.000	40.4	67.1	135.8	496.3	473.8	270.8	173.0
14.500	121.1	95.8	77.7	64.9	58.7	55.1	52.2
18.000	49.2	44.8	39.5	36.8	35.6	34.5	33.6
21.500	32.8	31.9	31.0	30.1	29.2	28.3	21.3
25.000	7.5	2.2	0.6	0.0			



Plank Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.653		3.247		12.69	563.2	862.83

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.500	0.0	2.0	4.5	7.6	11.7	18.3	26.9
11.000	40.4	67.1	135.8	496.3	473.8	270.8	173.0
14.500	121.1	95.8	77.7	64.9	58.7	55.1	52.2
18.000	49.2	44.8	39.5	36.8	35.6	34.5	33.6
21.500	32.8	31.9	31.0	30.1	29.2	28.3	21.3
25.000	7.5	2.2	0.6	0.0			

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Plank.out

SA-1	0.653		4.184		12.70	722.6	1107.09
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Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	0.8	3.1	6.4	10.0	14.1	19.7
10.000	29.2	41.0	59.9	97.8	191.0	642.4	606.9
13.500	348.1	222.3	153.3	120.4	96.7	79.7	71.7
17.000	67.0	63.4	59.8	54.3	47.6	44.4	42.9
20.500	41.5	40.3	39.3	38.4	37.3	36.2	35.1
24.000	33.9	25.5	8.9	2.6	0.7	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.653		4.184		12.70	722.6	1107.09

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.500	0.0	0.8	3.1	6.4	10.0	14.1	19.7
10.000	29.2	41.0	59.9	97.8	191.0	642.4	606.9
13.500	348.1	222.3	153.3	120.4	96.7	79.7	71.7
17.000	67.0	63.4	59.8	54.3	47.6	44.4	42.9
20.500	41.5	40.3	39.3	38.4	37.3	36.2	35.1
24.000	33.9	25.5	8.9	2.6	0.7	0.0	

STORM 100yr



Plank Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.653		5.331		12.71	913.5	1399.55

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.000	0.0	1.3	4.3	8.4	13.0	18.0	23.4
9.500	30.8	43.7	59.3	84.8	136.7	261.5	817.1
13.000	767.8	441.8	280.0	190.7	148.3	118.9	98.2
16.500	88.2	82.4	77.9	73.4	66.3	57.2	52.9
20.000	51.0	49.4	48.0	46.7	45.5	44.2	42.8
23.500	41.6	40.2	30.3	10.6	3.1	0.9	0.0

Plank.out

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.653		5.331		12.71	913.5	1399.55

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
6.000	0.0	1.3	4.3	8.4	13.0	18.0	23.4
9.500	30.8	43.7	59.3	84.8	136.7	261.5	817.1
13.000	767.8	441.8	280.0	190.7	148.3	118.9	98.2
16.500	88.2	82.4	77.9	73.4	66.3	57.2	52.9
20.000	51.0	49.4	48.0	46.7	45.5	44.2	42.8
23.500	41.6	40.2	30.3	10.6	3.1	0.9	0.0



Plank Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Peak Flow by Storm				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.653	124.6	192.8	296.1	395.3	563.2
OUTLET	0.653	124.6	192.8	296.1	395.3	563.2

Area or Reach	Drainage Area	50_yr	100yr
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Identifier	(sq mi)	Plank.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	0.653	722.6	913.5			
OUTLET	0.653	722.6	913.5			



WinTR-20: version 3.10 0 0 0.5 0  
 Sickler Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 1.3022 66. 1.867

STORM ANALYSIS:  
 1\_yr 2.71 1\_yr\_sm 2 3.26  
 2\_yr 3.26 2\_yr\_sm 2 3.26  
 5\_yr 4.06 5\_yr\_sm 2 3.26  
 10\_yr 4.78 10\_yr\_sm 2 3.26  
 25\_yr 5.96 25\_yr\_sm 2 3.26  
 50\_yr 7.04 50\_yr\_sm 2 3.26  
 100yr 8.32 100\_yr\_sm 2 3.26

RAINFALL DISTRIBUTION:  
 1\_yr\_sm 0.1  
 0.00000 0.00140 0.00280 0.00410 0.00550  
 0.00700 0.00840 0.00980 0.01130 0.01270  
 0.01420 0.01560 0.01710 0.01860 0.02010  
 0.02160 0.02310 0.02470 0.02620 0.02780  
 0.02930 0.03090 0.03250 0.03410 0.03570  
 0.03730 0.03890 0.04050 0.04220 0.04380  
 0.04550 0.04710 0.04880 0.05050 0.05220  
 0.05390 0.05560 0.05730 0.05900 0.06080  
 0.06250 0.06430 0.06610 0.06780 0.06960  
 0.07140 0.07320 0.07510 0.07690 0.07870  
 0.08060 0.08240 0.08430 0.08620 0.08810  
 0.09000 0.09190 0.09380 0.09570 0.09770  
 0.09960 0.10180 0.10410 0.10630 0.10860  
 0.11090 0.11330 0.11570 0.11810 0.12060  
 0.12310 0.12560 0.12810 0.13070 0.13330  
 0.13600 0.13860 0.14130 0.14400 0.14670  
 0.14950 0.15230 0.15510 0.15800 0.16090  
 0.16380 0.16680 0.16980 0.17280 0.17590  
 0.17900 0.18240 0.18590 0.18960 0.19330  
 0.19730 0.20130 0.20550 0.20980 0.21420  
 0.21880 0.22350 0.22830 0.23330 0.23830  
 0.24350 0.24990 0.25650 0.26350 0.27090  
 0.27860 0.28660 0.29500 0.30380 0.31310  
 0.32290 0.33620 0.35020 0.37120 0.40440  
 0.46940 0.59560 0.62880 0.64980 0.66380  
 0.67710 0.68690 0.69620 0.70500 0.71340  
 0.72140 0.72910 0.73650 0.74350 0.75010  
 0.75650 0.76170 0.76670 0.77170 0.77650

## Sickler.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860
1.00000				
2_yr_sm	0.1			
0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

## Sickler.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				
5_yr_sm	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

## Sickler.out

	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

## Sickler.out

	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm		0.1			
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

## Sickler.out

	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

## Sickler.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

Sickler.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

NN N

WinTR-20 Printed Page File      End of Input Data List

Sickler Site CCM Analysis

Name of printed page file:  
 C:\Users\bschrey\Desktop\TR-20\CCM\Sickler.out

STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.302		0.413		13.60	68.9	52.90

Line

Start Time (hr)	(cfs)	Flow (cfs)	Values @ time increment (cfs)	(cfs)	of 0.500 hr (cfs)	(cfs)	(cfs)
11.500	0.0	0.3	16.2	53.6	68.8	61.3	50.8
15.000	42.4	35.9	30.9	27.3	25.0	23.4	22.2
18.500	21.0	19.6	18.3	17.4	16.9	16.5	16.1
22.000	15.8	15.5	15.2	14.9	14.5	13.4	9.8
25.500	5.6	2.7	1.4	0.7	0.3	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	1.302		0.413		13.60	68.9	52.90

Line

Start Time (hr)	(cfs)	Flow (cfs)	Values @ time increment (cfs)	(cfs)	of 0.500 hr (cfs)	(cfs)	(cfs)
11.500	0.0	0.3	16.2	53.6	68.8	61.3	50.8
15.000	42.4	35.9	30.9	27.3	25.0	23.4	22.2
18.500	21.0	19.6	18.3	17.4	16.9	16.5	16.1
22.000	15.8	15.5	15.2	14.9	14.5	13.4	9.8
25.500	5.6	2.7	1.4	0.7	0.0		

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.302		0.673		13.46	131.6	101.09

Sickler.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.500	0.0	1.9	38.0	110.0	131.1	108.7	85.2
15.000	68.5	56.6	47.7	41.3	37.3	34.7	32.5
18.500	30.6	28.5	26.5	25.1	24.3	23.6	23.1
22.000	22.6	22.1	21.6	21.1	20.5	18.9	13.9
25.500	7.9	3.9	1.9	1.0	0.5	0.0	

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Sickler Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	1.302		0.673		13.46	131.6	101.09

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.500	0.0	1.9	38.0	110.0	131.1	108.7	85.2
15.000	68.5	56.6	47.7	41.3	37.3	34.7	32.5
18.500	30.6	28.5	26.5	25.1	24.3	23.6	23.1
22.000	22.6	22.1	21.6	21.1	20.5	18.9	13.9
25.500	7.9	3.9	1.9	1.0	0.0		

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	1.302		1.122		13.32	242.2	185.98

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	1.3	11.4	87.0	212.8	238.7	190.4
14.500	145.1	113.5	91.5	75.5	64.3	57.2	52.6
18.000	48.9	45.8	42.3	39.1	36.9	35.5	34.4
21.500	33.5	32.7	32.0	31.2	30.4	29.6	27.2
25.000	20.0	11.3	5.6	2.8	1.4	0.7	0.3
28.500	0.0						

Area or Reach	Drainage Area	Rain Gage ID or	Runoff Amount	Elevation	Peak Flow Time	Peak Flow Rate	Peak Flow Rate
---------------	---------------	-----------------	---------------	-----------	----------------	----------------	----------------

Identifier	(sq mi)	Location	Sickler.out (in)	(ft)	(hr)	(cfs)	(csm)
OUTLET	1.302		1.121		13.32	242.2	185.98

Line

Start Time (hr)	Flow Values @ time (cfs)	increment of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)
11.000	0.0	1.3	11.4	87.0	212.8	238.7	190.4
14.500	145.1	113.5	91.5	75.5	64.3	57.2	52.6
18.000	48.9	45.8	42.3	39.1	36.9	35.5	34.4
21.500	33.5	32.7	32.0	31.2	30.4	29.6	27.2
25.000	20.0	11.3	5.6	2.8	1.4	0.7	0.0

STORM 10\_yr



Sickler Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	1.302		1.579		13.28	356.5	273.79

Line

Start Time (hr)	Flow Values @ time (cfs)	increment of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)
10.500	0.0	1.5	8.1	30.4	147.5	321.6	349.4
14.000	273.5	205.9	158.4	126.0	102.8	86.7	76.5
17.500	69.8	64.7	60.4	55.3	50.6	47.4	45.3
21.000	43.8	42.5	41.5	40.5	39.4	38.4	37.3
24.500	34.3	25.2	14.2	7.0	3.5	1.7	0.8
28.000	0.4	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	1.302		1.579		13.28	356.5	273.79

Line

Start Time (hr)	Flow Values @ time (cfs)	increment of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)	of 0.500 hr (cfs)
10.500	0.0	1.5	8.1	30.4	147.5	321.6	349.4
14.000	273.5	205.9	158.4	126.0	102.8	86.7	76.5
17.500	69.8	64.7	60.4	55.3	50.6	47.4	45.3

Sickler.out

21.000	43.8	42.5	41.5	40.5	39.4	38.4	37.3
24.500	34.3	25.2	14.2	7.0	3.5	1.7	0.8
28.000	0.0						

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.302		2.410		13.25	563.9	433.02

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
9.500	0.0	1.1	4.9	13.6	31.2	75.0	259.7
13.000	519.2	548.7	422.9	312.1	236.0	185.3	149.5
16.500	124.6	109.0	98.9	91.3	84.8	77.3	70.3
20.000	65.5	62.4	60.2	58.4	56.8	55.3	53.9
23.500	52.4	50.9	46.8	34.3	19.3	9.5	4.8
27.000	2.4	1.1	0.5	0.1	0.0		



Sickler Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	1.302		2.410		13.25	563.9	433.02

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
9.500	0.0	1.1	4.9	13.6	31.2	75.0	259.7
13.000	519.2	548.7	422.9	312.1	236.0	185.3	149.5
16.500	124.6	109.0	98.9	91.3	84.8	77.3	70.3
20.000	65.5	62.4	60.2	58.4	56.8	55.3	53.9
23.500	52.4	50.9	46.8	34.3	19.3	9.5	4.8
27.000	2.4	1.1	0.5	0.0			

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Sickler.out

SA-1            1.302                            3.236                            13.29            772.3            593.10

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	2.1	7.2	16.5	31.7	59.5	123.6
12.500	376.6	715.4	745.6	570.7	418.7	313.5	243.5
16.000	194.1	159.9	138.7	124.9	114.8	106.5	96.7
19.500	87.6	81.4	77.5	74.6	72.2	70.2	68.4
23.000	66.6	64.7	62.8	57.7	42.2	23.8	11.7
26.500	5.8	2.9	1.4	0.7	0.3	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	1.302		3.235		13.29	772.3	593.10

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.000	0.0	2.1	7.2	16.5	31.7	59.5	123.6
12.500	376.6	715.4	745.6	570.7	418.7	313.5	243.5
16.000	194.1	159.9	138.7	124.9	114.8	106.5	96.7
19.500	87.6	81.4	77.5	74.6	72.2	70.2	68.4
23.000	66.6	64.7	62.8	57.7	42.2	23.8	11.7
26.500	5.8	2.9	1.4	0.7	0.0		

STORM 100yr



Sickler Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	1.302		4.271		13.23	1028.6	789.86

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.000	0.0	1.1	4.4	10.5	20.5	35.4	58.0
11.500	99.0	192.4	526.0	963.6	991.5	756.2	548.9
15.000	406.4	312.9	248.0	203.5	175.8	158.0	144.9
18.500	134.0	120.9	108.5	100.0	94.8	91.1	88.1
22.000	85.5	83.2	80.8	78.5	76.1	69.9	51.2
25.500	28.9	14.3	7.1	3.5	1.7	0.8	0.3

Sickler.out

29.000 0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	1.302		4.271		13.23	1028.6	789.86

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
8.000	0.0	1.1	4.4	10.5	20.5	35.4	58.0
11.500	99.0	192.4	526.0	963.6	991.5	756.2	548.9
15.000	406.4	312.9	248.0	203.5	175.8	158.0	144.9
18.500	134.0	120.9	108.5	100.0	94.8	91.1	88.1
22.000	85.5	83.2	80.8	78.5	76.1	69.9	51.2
25.500	28.9	14.3	7.1	3.5	1.7	0.8	0.0



Sickler Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Peak Flow by Storm				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	1.302	68.9	131.6	242.2	356.5	563.9
OUTLET	1.302	68.9	131.6	242.2	356.5	563.9

Area or Reach	Drainage Area	50_yr	100yr
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Identifier	(sq mi)	Sickler.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	1.302	772.3	1028.6			
OUTLET	1.302	772.3	1028.6			



SilverHollow.out

WinTR-20 Printed Page File Beginning of Input Data List  
 C:\Users\bschrey\Desktop\TR-20\CCM\SilverHollow.inp

WinTR-20: version 3.10 0 0 0.5 0  
 Silver Hollow Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 0.3400 54. 0.905

STORM ANALYSIS:

1_yr	2.71	1_yr_sm	2	3.26
2_yr	3.26	2_yr_sm	2	3.26
5_yr	4.06	5_yr_sm	2	3.26
10_yr	4.78	10_yr_sm	2	3.26
25_yr	5.96	25_yr_sm	2	3.26
50_yr	7.04	50_yr_sm	2	3.26
100yr	8.32	100_yr_sm	2	3.26

RAINFALL DISTRIBUTION:

1_yr_sm	0.1			
	0.00000	0.00140	0.00280	0.00410
	0.00700	0.00840	0.00980	0.01130
	0.01420	0.01560	0.01710	0.01860
	0.02160	0.02310	0.02470	0.02620
	0.02930	0.03090	0.03250	0.03410
	0.03730	0.03890	0.04050	0.04220
	0.04550	0.04710	0.04880	0.05050
	0.05390	0.05560	0.05730	0.05900
	0.06250	0.06430	0.06610	0.06780
	0.07140	0.07320	0.07510	0.07690
	0.08060	0.08240	0.08430	0.08620
	0.09000	0.09190	0.09380	0.09570
	0.09960	0.10180	0.10410	0.10630
	0.11090	0.11330	0.11570	0.11810
	0.12310	0.12560	0.12810	0.13070
	0.13600	0.13860	0.14130	0.14400
	0.14950	0.15230	0.15510	0.15800
	0.16380	0.16680	0.16980	0.17280
	0.17900	0.18240	0.18590	0.18960
	0.19730	0.20130	0.20550	0.20980
	0.21880	0.22350	0.22830	0.23330
	0.24350	0.24990	0.25650	0.26350
	0.27860	0.28660	0.29500	0.30380
	0.32290	0.33620	0.35020	0.37120
	0.46940	0.59560	0.62880	0.64980
	0.67710	0.68690	0.69620	0.70500
	0.72140	0.72910	0.73650	0.74350
	0.75650	0.76170	0.76670	0.77170

SilverHollow.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

SilverHollow.out

0.85270 0.85540 0.85810 0.86080 0.86340  
 0.86600 0.86860 0.87120 0.87370 0.87630  
 0.87870 0.88120 0.88360 0.88600 0.88840  
 0.89070 0.89300 0.89520 0.89750 0.89970  
 0.90180 0.90380 0.90570 0.90760 0.90950  
 0.91130 0.91320 0.91510 0.91690 0.91880  
 0.92060 0.92240 0.92420 0.92600 0.92780  
 0.92960 0.93140 0.93320 0.93490 0.93670  
 0.93840 0.94010 0.94180 0.94350 0.94520  
 0.94690 0.94860 0.95030 0.95190 0.95360  
 0.95520 0.95680 0.95850 0.96010 0.96170  
 0.96330 0.96490 0.96640 0.96800 0.96960  
 0.97110 0.97260 0.97420 0.97570 0.97720  
 0.97870 0.98020 0.98170 0.98310 0.98460  
 0.98600 0.98750 0.98890 0.99030 0.99170  
 0.99310 0.99450 0.99590 0.99730 0.99860  
 1.00000

5\_yr\_sm

0.1  
 0.00000 0.00130 0.00270 0.00400 0.00530  
 0.00670 0.00810 0.00950 0.01080 0.01220  
 0.01370 0.01510 0.01650 0.01790 0.01940  
 0.02080 0.02230 0.02380 0.02530 0.02680  
 0.02830 0.02980 0.03130 0.03280 0.03440  
 0.03590 0.03750 0.03910 0.04070 0.04220  
 0.04390 0.04550 0.04710 0.04870 0.05030  
 0.05200 0.05360 0.05530 0.05690 0.05860  
 0.06030 0.06200 0.06370 0.06540 0.06710  
 0.06890 0.07060 0.07240 0.07410 0.07590  
 0.07770 0.07950 0.08130 0.08310 0.08490  
 0.08680 0.08860 0.09040 0.09230 0.09420  
 0.09610 0.09820 0.10040 0.10260 0.10490  
 0.10710 0.10940 0.11180 0.11410 0.11650  
 0.11900 0.12140 0.12390 0.12650 0.12900  
 0.13160 0.13420 0.13680 0.13940 0.14210  
 0.14480 0.14760 0.15030 0.15320 0.15600  
 0.15890 0.16170 0.16470 0.16760 0.17060  
 0.17360 0.17710 0.18070 0.18430 0.18820  
 0.19210 0.19620 0.20050 0.20480 0.20930  
 0.21390 0.21860 0.22350 0.22850 0.23370  
 0.23890 0.24530 0.25210 0.25930 0.26680  
 0.27460 0.28310 0.29190 0.30130 0.31110  
 0.32140 0.33640 0.35220 0.37510 0.40910  
 0.47320 0.59090 0.62490 0.64780 0.66360  
 0.67860 0.68890 0.69870 0.70810 0.71690  
 0.72540 0.73320 0.74070 0.74790 0.75470  
 0.76110 0.76630 0.77150 0.77650 0.78140  
 0.78610 0.79070 0.79520 0.79950 0.80380  
 0.80790 0.81180 0.81570 0.81930 0.82290  
 0.82640 0.82940 0.83240 0.83530 0.83830  
 0.84110 0.84400 0.84680 0.84970 0.85240  
 0.85520 0.85790 0.86060 0.86320 0.86580  
 0.86840 0.87100 0.87350 0.87610 0.87860  
 0.88100 0.88350 0.88590 0.88820 0.89060  
 0.89290 0.89510 0.89740 0.89960 0.90180

## SilverHollow.out

	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

## SilverHollow.out

	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm	0.1				
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

## SilverHollow.out

	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

SilverHollow.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

SilverHollow.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

YY Y

NN N

SilverHollow.out

WinTR-20 Printed Page File      End of Input Data List

Silver Hollow Site CCM Analysis

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STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.340		0.105		13.97	2.5	7.48

Line

Start Time (hr)	(cfs)	Flow (cfs)	Values @ time increment (cfs)	(cfs)	of 0.500 hr (cfs)	(cfs)	(cfs)
12.500	0.0	1.2	2.2	2.5	2.5	2.4	2.3
16.000	2.1	2.1	2.1	2.1	2.1	2.0	1.8
19.500	1.8	1.8	1.8	1.8	1.8	1.8	1.7
23.000	1.7	1.7	1.7	1.1	0.2	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.340		0.105		13.97	2.5	7.48

Line

Start Time (hr)	(cfs)	Flow (cfs)	Values @ time increment (cfs)	(cfs)	of 0.500 hr (cfs)	(cfs)	(cfs)
12.500	0.0	1.2	2.2	2.5	2.5	2.4	2.3
16.000	2.1	2.1	2.1	2.1	2.1	2.0	1.8
19.500	1.8	1.8	1.8	1.8	1.8	1.8	1.7
23.000	1.7	1.7	1.7	1.1	0.0		

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.340		0.240		12.96	8.9	26.04

Line

SilverHollow.out

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
12.000	0.0	4.4	8.8	8.1	7.0	6.1	5.5
15.500	4.9	4.4	4.2	4.1	4.0	3.9	3.6
19.000	3.3	3.2	3.2	3.2	3.1	3.1	3.1
22.500	3.0	3.0	2.9	2.8	1.9	0.5	0.0

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Silver Hollow Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.340		0.239		12.96	8.9	26.04

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
12.000	0.0	4.4	8.8	8.1	7.0	6.1	5.5
15.500	4.9	4.4	4.2	4.1	4.0	3.9	3.6
19.000	3.3	3.2	3.2	3.2	3.1	3.1	3.1
22.500	3.0	3.0	2.9	2.8	1.9	0.2	0.0

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	0.340		0.510		12.77	30.6	90.03

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
12.000	0.0	22.1	27.6	20.1	15.6	12.6	10.9
15.500	9.4	8.2	7.8	7.5	7.3	6.9	6.4
19.000	5.8	5.6	5.5	5.4	5.3	5.3	5.2
22.500	5.1	5.0	4.8	4.7	3.2	0.8	0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.340		0.510		12.77	30.6	90.03

SilverHollow.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
12.000	0.0	22.1	27.6	20.1	15.6	12.6	10.9
15.500	9.4	8.2	7.8	7.5	7.3	6.9	6.4
19.000	5.8	5.6	5.5	5.4	5.3	5.3	5.2
22.500	5.1	5.0	4.8	4.7	3.2	0.8	0.0

STORM 10\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.340		0.815		12.74	59.9	176.12

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Silver Hollow Site CCM Analysis

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.500	0.0	1.0	48.3	50.6	34.0	25.0	19.5
15.000	16.6	14.0	12.2	11.4	11.0	10.5	10.1
18.500	9.1	8.2	7.8	7.7	7.5	7.4	7.2
22.000	7.1	6.9	6.8	6.6	6.4	4.3	1.1
25.500	0.2	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.340		0.815		12.74	59.9	176.12

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.500	0.0	1.0	48.3	50.6	34.0	25.0	19.5
15.000	16.6	14.0	12.2	11.4	11.0	10.5	10.1
18.500	9.1	8.2	7.8	7.7	7.5	7.4	7.2
22.000	7.1	6.9	6.8	6.6	6.4	4.3	1.1
25.500	0.0						

STORM 25\_yr

Area or Reach	Drainage Area	Rain Gage ID or	Runoff Amount	Elevation	Peak Time	Flow Rate	Rate
---------------	---------------	-----------------	---------------	-----------	-----------	-----------	------

Identifier	(sq mi)	Location	SilverHollow.out				
			(in)	(ft)	(hr)	(cfs)	(csm)
SA-1	0.340		1.417		12.69	120.4	354.21

Line							
Start Time	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.500	0.0	9.9	105.2	96.2	60.5	42.2	31.9
15.000	26.7	22.4	19.2	17.9	17.1	16.4	15.5
18.500	14.0	12.4	11.8	11.5	11.3	11.0	10.8
22.000	10.6	10.3	10.1	9.8	9.5	6.4	1.7
25.500	0.4	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow			
				Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.340		1.417		12.69	120.4	354.21

Line							
Start Time	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.500	0.0	9.9	105.2	96.2	60.5	42.2	31.9
15.000	26.7	22.4	19.2	17.9	17.1	16.4	15.5

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Silver Hollow Site CCM Analysis

Line							
Start Time	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
18.500	14.0	12.4	11.8	11.5	11.3	11.0	10.8
22.000	10.6	10.3	10.1	9.8	9.5	6.4	1.7
25.500	0.0						

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow			
				Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
SA-1	0.340		2.055		12.70	184.4	542.33

Line							
Start Time	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	4.6	26.1	166.2	144.2	88.5	60.6
14.500	44.7	37.0	30.6	25.9	23.9	22.7	21.7
18.000	20.6	18.5	16.4	15.5	15.1	14.7	14.4

SilverHollow.out

21.500	14.1	13.8	13.4	13.1	12.7	12.3	8.2
25.000	2.2	0.5	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.340		2.054		12.70	184.4	542.33

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	Rate (cfs)	Rate (cfs)
11.000	0.0	4.6	26.1	166.2	144.2	88.5	60.6	
14.500	44.7	37.0	30.6	25.9	23.9	22.7	21.7	
18.000	20.6	18.5	16.4	15.5	15.1	14.7	14.4	
21.500	14.1	13.8	13.4	13.1	12.7	12.3	8.2	
25.000	2.2	0.5	0.0					

STORM 100yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.340		2.891		12.63	268.0	788.30

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	Rate (cfs)	Rate (cfs)
10.500	0.0	4.3	15.1	50.3	246.1	206.6	124.6	
14.000	83.5	60.4	49.5	40.8	34.5	31.8	30.1	

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Silver Hollow Site CCM Analysis

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	Rate (cfs)	Rate (cfs)
17.500	28.8	27.2	24.3	21.1	19.8	19.3	18.8	
21.000	18.3	17.9	17.5	17.0	16.5	16.1	15.6	
24.500	10.4	2.7	0.6	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.340		2.891		12.63	268.0	788.30

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ time (cfs)	increment (cfs)	of 0.500 (cfs)	hr (cfs)	Rate (cfs)	Rate (cfs)
-----------------	------------	--------------	--------------	-----------------	----------------	----------	------------	------------

(hr)	(cfs)	(cfs)	SilverHollow.out				
			(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
10.500	0.0	4.3	15.1	50.3	246.1	206.6	124.6
14.000	83.5	60.4	49.5	40.8	34.5	31.8	30.1
17.500	28.8	27.2	24.3	21.1	19.8	19.3	18.8
21.000	18.3	17.9	17.5	17.0	16.5	16.1	15.6
24.500	10.4	2.7	0.6	0.0			



Silver Hollow Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.340	2.5	8.9	30.6	59.9	120.4
OUTLET	0.340	2.5	8.9	30.6	59.9	120.4

Area or Reach	Drainage Area	----- Peak Flow by Storm -----	
		50_yr	100yr

Identifier	(sq mi)	SilverHollow.out				
		(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
SA-1	0.340	184.4	268.0			
OUTLET	0.340	184.4	268.0			



StonyClove.out

WinTR-20 Printed Page File Beginning of Input Data List  
 C:\Users\bschrey\Desktop\TR-20\CCM\StonyClove.inp

WinTR-20: version 3.10 0 0 0.5 0  
 Stony Clove Site CCM Analysis

SUB-AREA:  
 SA-1 OUTLET 0.7667 69. 1.019

STORM ANALYSIS:  
 1\_yr 2.46 1\_yr\_sm 2 2.95  
 2\_yr 2.95 2\_yr\_sm 2 2.95  
 5\_yr 3.72 5\_yr\_sm 2 2.95  
 10\_yr 4.44 10\_yr\_sm 2 2.95  
 25\_yr 5.61 25\_yr\_sm 2 2.95  
 50\_yr 6.70 50\_yr\_sm 2 2.95  
 100yr 8.01 100\_yr\_sm 2 2.95

RAINFALL DISTRIBUTION:  
 1\_yr\_sm 0.1  
 0.00000 0.00140 0.00280 0.00410 0.00550  
 0.00700 0.00840 0.00980 0.01130 0.01270  
 0.01420 0.01560 0.01710 0.01860 0.02010  
 0.02160 0.02310 0.02470 0.02620 0.02780  
 0.02930 0.03090 0.03250 0.03410 0.03570  
 0.03730 0.03890 0.04050 0.04220 0.04380  
 0.04550 0.04710 0.04880 0.05050 0.05220  
 0.05390 0.05560 0.05730 0.05900 0.06080  
 0.06250 0.06430 0.06610 0.06780 0.06960  
 0.07140 0.07320 0.07510 0.07690 0.07870  
 0.08060 0.08240 0.08430 0.08620 0.08810  
 0.09000 0.09190 0.09380 0.09570 0.09770  
 0.09960 0.10180 0.10410 0.10630 0.10860  
 0.11090 0.11330 0.11570 0.11810 0.12060  
 0.12310 0.12560 0.12810 0.13070 0.13330  
 0.13600 0.13860 0.14130 0.14400 0.14670  
 0.14950 0.15230 0.15510 0.15800 0.16090  
 0.16380 0.16680 0.16980 0.17280 0.17590  
 0.17900 0.18240 0.18590 0.18960 0.19330  
 0.19730 0.20130 0.20550 0.20980 0.21420  
 0.21880 0.22350 0.22830 0.23330 0.23830  
 0.24350 0.24990 0.25650 0.26350 0.27090  
 0.27860 0.28660 0.29500 0.30380 0.31310  
 0.32290 0.33620 0.35020 0.37120 0.40440  
 0.46940 0.59560 0.62880 0.64980 0.66380  
 0.67710 0.68690 0.69620 0.70500 0.71340  
 0.72140 0.72910 0.73650 0.74350 0.75010

StonyClove.out

0.75650	0.76170	0.76670	0.77170	0.77650
0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860
1.00000				

2\_yr\_sm

	0.1			
0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560

StonyClove.out

0.83850	0.84140	0.84430	0.84710	0.84990
0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060

StonyClove.out

0.89290	0.89510	0.89740	0.89960	0.90180
0.90390	0.90580	0.90770	0.90960	0.91140
0.91320	0.91510	0.91690	0.91870	0.92050
0.92230	0.92410	0.92590	0.92760	0.92940
0.93110	0.93290	0.93460	0.93630	0.93800
0.93970	0.94140	0.94310	0.94470	0.94640
0.94800	0.94970	0.95130	0.95290	0.95450
0.95610	0.95780	0.95930	0.96090	0.96250
0.96410	0.96560	0.96720	0.96870	0.97020
0.97170	0.97320	0.97470	0.97620	0.97770
0.97920	0.98060	0.98210	0.98350	0.98490
0.98630	0.98780	0.98920	0.99050	0.99190
0.99330	0.99470	0.99600	0.99730	0.99870
1.00000				
10_yr_sm	0.1			
0.00000	0.00130	0.00260	0.00390	0.00520
0.00650	0.00780	0.00920	0.01050	0.01190
0.01320	0.01460	0.01600	0.01740	0.01880
0.02020	0.02160	0.02310	0.02450	0.02590
0.02740	0.02890	0.03030	0.03180	0.03330
0.03480	0.03630	0.03790	0.03940	0.04090
0.04250	0.04410	0.04560	0.04720	0.04880
0.05030	0.05190	0.05360	0.05520	0.05680
0.05840	0.06010	0.06170	0.06340	0.06510
0.06680	0.06840	0.07010	0.07190	0.07360
0.07530	0.07700	0.07880	0.08050	0.08230
0.08410	0.08590	0.08770	0.08950	0.09130
0.09310	0.09520	0.09740	0.09960	0.10190
0.10410	0.10640	0.10880	0.11110	0.11350
0.11600	0.11840	0.12090	0.12340	0.12600
0.12850	0.13110	0.13370	0.13640	0.13910
0.14180	0.14450	0.14730	0.15010	0.15290
0.15570	0.15860	0.16160	0.16450	0.16750
0.17050	0.17400	0.17760	0.18130	0.18520
0.18920	0.19330	0.19760	0.20200	0.20650
0.21110	0.21590	0.22080	0.22590	0.23110
0.23640	0.24300	0.24990	0.25730	0.26500
0.27300	0.28190	0.29120	0.30100	0.31140
0.32220	0.33770	0.35400	0.37760	0.41210
0.47410	0.58790	0.62240	0.64600	0.66230
0.67780	0.68860	0.69900	0.70880	0.71810
0.72700	0.73500	0.74270	0.75010	0.75700
0.76360	0.76890	0.77410	0.77920	0.78410
0.78890	0.79350	0.79800	0.80240	0.80670
0.81080	0.81480	0.81870	0.82240	0.82600
0.82950	0.83250	0.83550	0.83840	0.84140
0.84430	0.84710	0.84990	0.85270	0.85550
0.85820	0.86090	0.86360	0.86630	0.86890
0.87150	0.87400	0.87660	0.87910	0.88160
0.88400	0.88650	0.88890	0.89120	0.89360
0.89590	0.89810	0.90040	0.90260	0.90480
0.90690	0.90870	0.91050	0.91230	0.91410
0.91590	0.91770	0.91950	0.92120	0.92300
0.92470	0.92640	0.92810	0.92990	0.93160

StonyClove.out

	0.93330	0.93490	0.93660	0.93830	0.93990
	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm		0.1			
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430

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	0.96580	0.96730	0.96870	0.97020	0.97160
	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250

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	0.99380	0.99500	0.99630	0.99750	0.99880
	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470

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0.00590	0.00710	0.00830	0.00950	0.01070
0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

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Stony Clove Site CCM Analysis

Name of printed page file:  
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STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	0.767		0.402		12.80	60.2	78.49

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
11.500	0.0	0.5	43.1	55.4	37.1	27.9	21.9
15.000	18.6	15.9	14.1	13.2	12.6	12.1	11.6
18.500	10.8	9.9	9.5	9.3	9.1	8.9	8.7
22.000	8.6	8.4	8.2	8.0	7.8	5.8	1.9
25.500	0.5	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.767		0.402		12.80	60.2	78.49

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
11.500	0.0	0.5	43.1	55.4	37.1	27.9	21.9
15.000	18.6	15.9	14.1	13.2	12.6	12.1	11.6
18.500	10.8	9.9	9.5	9.3	9.1	8.9	8.7
22.000	8.6	8.4	8.2	8.0	7.8	5.8	1.9
25.500	0.4	0.0					

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
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StonyClove.out

SA-1            0.767                            0.643                            12.76            113.5            148.05

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ (cfs)	time (cfs)	increment (cfs)	of (cfs)	0.500 (cfs)	hr (cfs)
11.500	0.0	4.6	88.9	100.0	62.0	43.5	33.3	
15.000	27.9	23.6	20.5	19.1	18.2	17.5	16.6	
18.500	15.4	14.0	13.4	13.1	12.8	12.6	12.3	
22.000	12.1	11.8	11.5	11.2	10.9	8.1	2.7	
25.500	0.7	0.0						

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Stony Clove Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.767		0.643		12.76	113.5	148.05

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ (cfs)	time (cfs)	increment (cfs)	of (cfs)	0.500 (cfs)	hr (cfs)
11.500	0.0	4.6	88.9	100.0	62.0	43.5	33.3	
15.000	27.9	23.6	20.5	19.1	18.2	17.5	16.6	
18.500	15.4	14.0	13.4	13.1	12.8	12.6	12.3	
22.000	12.1	11.8	11.5	11.2	10.9	8.1	2.7	
25.500	0.7	0.0						

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.767		1.088		12.73	210.6	274.72

Line

Start Time (hr)	Flow (cfs)	Values (cfs)	@ (cfs)	time (cfs)	increment (cfs)	of (cfs)	0.500 (cfs)	hr (cfs)
11.000	0.749E-01	4.7	23.6	174.9	179.5	106.9	73.2	
14.500	54.2	44.6	37.1	31.8	29.3	27.8	26.5	
18.000	25.2	23.2	20.9	19.9	19.4	18.9	18.4	
21.500	18.1	17.7	17.2	16.8	16.3	15.9	11.7	
25.000	3.8	1.1	0.2	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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StonyClove.out

Reach Identifier	Area (sq mi)	ID or Location	Amount (in)	Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.767		1.088		12.73	210.6	274.72

Line

Start Time (hr)	Flow (cfs)	Values @ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Rate (cfs)	Rate (cfs)	
11.000	0.749E-01	4.7	23.6	174.9	179.5	106.9	73.2
14.500	54.2	44.6	37.1	31.8	29.3	27.8	26.5
18.000	25.2	23.2	20.9	19.9	19.4	18.9	18.4
21.500	18.1	17.7	17.2	16.8	16.3	15.9	11.7
25.000	3.8	1.1	0.0				

STORM 10\_yr



Stony Clove Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.767		1.561		12.70	312.8	407.92

Line

Start Time (hr)	Flow (cfs)	Values @ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Rate (cfs)	Rate (cfs)	
10.000	0.0	1.0	5.6	16.5	48.6	266.9	263.7
13.500	155.5	104.2	75.7	61.5	50.8	43.1	39.5
17.000	37.3	35.5	33.7	30.7	27.3	25.8	25.0
20.500	24.3	23.7	23.2	22.7	22.1	21.5	20.9
24.000	20.2	14.9	4.9	1.4	0.3	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.767		1.561		12.70	312.8	407.92

Line

Start Time (hr)	Flow (cfs)	Values @ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Rate (cfs)	Rate (cfs)	
10.000	0.0	1.0	5.6	16.5	48.6	266.9	263.7
13.500	155.5	104.2	75.7	61.5	50.8	43.1	39.5

StonyClove.out

17.000	37.3	35.5	33.7	30.7	27.3	25.8	25.0
20.500	24.3	23.7	23.2	22.7	22.1	21.5	20.9
24.000	20.2	14.9	4.9	1.4	0.0		

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	0.767		2.411		12.71	492.9	642.88

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
9.000	0.0	1.1	4.8	10.9	21.2	42.2	99.6
12.500	430.9	410.8	239.3	156.3	111.6	89.8	73.6
16.000	61.9	56.4	53.1	50.6	47.7	43.4	38.3
19.500	35.9	34.8	33.8	33.0	32.2	31.4	30.6
23.000	29.7	28.8	27.9	20.6	6.8	1.9	0.5
26.500	0.0						



Stony Clove Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	0.767		2.411		12.71	492.9	642.88

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
9.000	0.0	1.1	4.8	10.9	21.2	42.2	99.6
12.500	430.9	410.8	239.3	156.3	111.6	89.8	73.6
16.000	61.9	56.4	53.1	50.6	47.7	43.4	38.3
19.500	35.9	34.8	33.8	33.0	32.2	31.4	30.6
23.000	29.7	28.8	27.9	20.6	6.8	1.9	0.2
26.500	0.0						

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
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Identifier	(sq mi)	Location	StonyClove.out				
			(in)	(ft)	(hr)	(cfs)	(csm)
SA-1	0.767		3.269		12.71	671.8	876.23

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.000	0.0	0.4	2.9	7.0	13.9	23.5	39.4
11.500	71.7	155.9	594.5	557.4	324.0	210.5	147.8
15.000	117.7	95.4	79.2	71.7	67.3	63.9	60.3
18.500	54.7	48.0	44.9	43.5	42.2	41.1	40.0
22.000	39.1	38.1	36.9	35.9	34.7	25.5	8.4
25.500	2.3	0.6	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow			
				Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.767		3.269		12.71	671.8	876.23

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.000	0.0	0.4	2.9	7.0	13.9	23.5	39.4
11.500	71.7	155.9	594.5	557.4	324.0	210.5	147.8
15.000	117.7	95.4	79.2	71.7	67.3	63.9	60.3
18.500	54.7	48.0	44.9	43.5	42.2	41.1	40.0
22.000	39.1	38.1	36.9	35.9	34.7	25.5	8.4
25.500	2.3	0.6	0.0				

STORM 100yr



Stony Clove Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow			
				Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
SA-1	0.767		4.358		12.70	895.1	1167.53

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.500	0.0	2.0	5.7	10.5	16.9	27.5	41.2
11.000	64.3	111.8	232.4	801.7	740.4	429.7	276.0
14.500	190.9	150.5	121.7	101.1	91.4	85.7	81.3
18.000	76.6	69.1	59.6	55.3	53.5	51.9	50.5

StonyClove.out

21.500	49.2	48.0	46.6	45.2	43.9	42.5	31.3
25.000	10.3	2.9	0.8	0.0			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	----- Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	----- Rate (csm)
OUTLET	0.767		4.358		12.70	895.1	1167.53

Line

Start Time (hr)	----- Flow (cfs)	Flow Values @ time (cfs)	increment of (cfs)	0.500 hr (cfs)	----- (cfs)	(cfs)	(cfs)
7.500	0.0	2.0	5.7	10.5	16.9	27.5	41.2
11.000	64.3	111.8	232.4	801.7	740.4	429.7	276.0
14.500	190.9	150.5	121.7	101.1	91.4	85.7	81.3
18.000	76.6	69.1	59.6	55.3	53.5	51.9	50.5
21.500	49.2	48.0	46.6	45.2	43.9	42.5	31.3
25.000	10.3	2.9	0.8	0.0			



Stony Clove Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.767	60.2	113.5	210.6	312.8	492.9
OUTLET	0.767	60.2	113.5	210.6	312.8	492.9

StonyClove.out

Area or Reach Identifier	Drainage Area (sq mi)	----- Peak Flow by Storm -----				
		50_yr (cfs)	100yr (cfs)	(cfs)	(cfs)	(cfs)
SA-1	0.767	671.8	895.1			
OUTLET	0.767	671.8	895.1			



WinTR-20: version 3.10 0 0 0.5 0  
 Woodland Site CCM Analysis

SUB-AREA:  
     SA-1       OUTLET       0.1649   77.       0.336

STORM ANALYSIS:  
     1\_yr           2.71       1\_yr\_sm   2       3.26  
     2\_yr           3.26       2\_yr\_sm   2       3.26  
     5\_yr           4.06       5\_yr\_sm   2       3.26  
     10\_yr          4.78       10\_yr\_sm  2       3.26  
     25\_yr          5.96       25\_yr\_sm  2       3.26  
     50\_yr          7.04       50\_yr\_sm  2       3.26  
     100yr          8.32       100\_yr\_sm 2       3.26

RAINFALL DISTRIBUTION:  
     1\_yr\_sm       0.1  
           0.00000   0.00140   0.00280   0.00410   0.00550  
           0.00700   0.00840   0.00980   0.01130   0.01270  
           0.01420   0.01560   0.01710   0.01860   0.02010  
           0.02160   0.02310   0.02470   0.02620   0.02780  
           0.02930   0.03090   0.03250   0.03410   0.03570  
           0.03730   0.03890   0.04050   0.04220   0.04380  
           0.04550   0.04710   0.04880   0.05050   0.05220  
           0.05390   0.05560   0.05730   0.05900   0.06080  
           0.06250   0.06430   0.06610   0.06780   0.06960  
           0.07140   0.07320   0.07510   0.07690   0.07870  
           0.08060   0.08240   0.08430   0.08620   0.08810  
           0.09000   0.09190   0.09380   0.09570   0.09770  
           0.09960   0.10180   0.10410   0.10630   0.10860  
           0.11090   0.11330   0.11570   0.11810   0.12060  
           0.12310   0.12560   0.12810   0.13070   0.13330  
           0.13600   0.13860   0.14130   0.14400   0.14670  
           0.14950   0.15230   0.15510   0.15800   0.16090  
           0.16380   0.16680   0.16980   0.17280   0.17590  
           0.17900   0.18240   0.18590   0.18960   0.19330  
           0.19730   0.20130   0.20550   0.20980   0.21420  
           0.21880   0.22350   0.22830   0.23330   0.23830  
           0.24350   0.24990   0.25650   0.26350   0.27090  
           0.27860   0.28660   0.29500   0.30380   0.31310  
           0.32290   0.33620   0.35020   0.37120   0.40440  
           0.46940   0.59560   0.62880   0.64980   0.66380  
           0.67710   0.68690   0.69620   0.70500   0.71340  
           0.72140   0.72910   0.73650   0.74350   0.75010  
           0.75650   0.76170   0.76670   0.77170   0.77650

Woodland.out

0.78120	0.78580	0.79020	0.79450	0.79870
0.80270	0.80670	0.81040	0.81410	0.81760
0.82100	0.82410	0.82720	0.83020	0.83320
0.83620	0.83910	0.84200	0.84490	0.84770
0.85050	0.85330	0.85600	0.85870	0.86140
0.86400	0.86670	0.86930	0.87190	0.87440
0.87690	0.87940	0.88190	0.88430	0.88670
0.88910	0.89140	0.89370	0.89590	0.89820
0.90040	0.90230	0.90430	0.90620	0.90810
0.91000	0.91190	0.91380	0.91570	0.91760
0.91940	0.92130	0.92310	0.92490	0.92680
0.92860	0.93040	0.93220	0.93390	0.93570
0.93750	0.93920	0.94100	0.94270	0.94440
0.94610	0.94780	0.94950	0.95120	0.95290
0.95450	0.95620	0.95780	0.95950	0.96110
0.96270	0.96430	0.96590	0.96750	0.96910
0.97070	0.97220	0.97380	0.97530	0.97690
0.97840	0.97990	0.98140	0.98290	0.98440
0.98580	0.98730	0.98870	0.99020	0.99160
0.99300	0.99450	0.99590	0.99720	0.99860

1.00000

2\_yr\_sm

0.1

0.00000	0.00140	0.00270	0.00410	0.00550
0.00690	0.00830	0.00970	0.01110	0.01250
0.01400	0.01540	0.01690	0.01830	0.01980
0.02130	0.02280	0.02430	0.02580	0.02740
0.02890	0.03040	0.03200	0.03360	0.03510
0.03670	0.03830	0.03990	0.04150	0.04320
0.04480	0.04640	0.04810	0.04970	0.05140
0.05310	0.05480	0.05650	0.05820	0.05990
0.06160	0.06330	0.06510	0.06680	0.06860
0.07040	0.07220	0.07400	0.07580	0.07760
0.07940	0.08120	0.08310	0.08490	0.08680
0.08870	0.09050	0.09240	0.09430	0.09620
0.09820	0.10030	0.10250	0.10480	0.10700
0.10930	0.11160	0.11400	0.11640	0.11880
0.12130	0.12370	0.12630	0.12880	0.13140
0.13400	0.13660	0.13920	0.14190	0.14460
0.14730	0.15010	0.15290	0.15570	0.15860
0.16150	0.16440	0.16730	0.17030	0.17330
0.17640	0.17980	0.18330	0.18690	0.19070
0.19460	0.19870	0.20280	0.20710	0.21160
0.21610	0.22080	0.22560	0.23050	0.23560
0.24080	0.24690	0.25330	0.26000	0.26710
0.27450	0.28280	0.29160	0.30080	0.31040
0.32060	0.33450	0.34930	0.37150	0.40460
0.46960	0.59540	0.62850	0.65070	0.66550
0.67940	0.68960	0.69920	0.70840	0.71720
0.72550	0.73290	0.74000	0.74670	0.75310
0.75920	0.76440	0.76950	0.77440	0.77920
0.78390	0.78840	0.79290	0.79720	0.80130
0.80540	0.80930	0.81310	0.81670	0.82020
0.82360	0.82670	0.82970	0.83270	0.83560
0.83850	0.84140	0.84430	0.84710	0.84990

Woodland.out

0.85270	0.85540	0.85810	0.86080	0.86340
0.86600	0.86860	0.87120	0.87370	0.87630
0.87870	0.88120	0.88360	0.88600	0.88840
0.89070	0.89300	0.89520	0.89750	0.89970
0.90180	0.90380	0.90570	0.90760	0.90950
0.91130	0.91320	0.91510	0.91690	0.91880
0.92060	0.92240	0.92420	0.92600	0.92780
0.92960	0.93140	0.93320	0.93490	0.93670
0.93840	0.94010	0.94180	0.94350	0.94520
0.94690	0.94860	0.95030	0.95190	0.95360
0.95520	0.95680	0.95850	0.96010	0.96170
0.96330	0.96490	0.96640	0.96800	0.96960
0.97110	0.97260	0.97420	0.97570	0.97720
0.97870	0.98020	0.98170	0.98310	0.98460
0.98600	0.98750	0.98890	0.99030	0.99170
0.99310	0.99450	0.99590	0.99730	0.99860
1.00000				

5\_yr\_sm

	0.1			
0.00000	0.00130	0.00270	0.00400	0.00530
0.00670	0.00810	0.00950	0.01080	0.01220
0.01370	0.01510	0.01650	0.01790	0.01940
0.02080	0.02230	0.02380	0.02530	0.02680
0.02830	0.02980	0.03130	0.03280	0.03440
0.03590	0.03750	0.03910	0.04070	0.04220
0.04390	0.04550	0.04710	0.04870	0.05030
0.05200	0.05360	0.05530	0.05690	0.05860
0.06030	0.06200	0.06370	0.06540	0.06710
0.06890	0.07060	0.07240	0.07410	0.07590
0.07770	0.07950	0.08130	0.08310	0.08490
0.08680	0.08860	0.09040	0.09230	0.09420
0.09610	0.09820	0.10040	0.10260	0.10490
0.10710	0.10940	0.11180	0.11410	0.11650
0.11900	0.12140	0.12390	0.12650	0.12900
0.13160	0.13420	0.13680	0.13940	0.14210
0.14480	0.14760	0.15030	0.15320	0.15600
0.15890	0.16170	0.16470	0.16760	0.17060
0.17360	0.17710	0.18070	0.18430	0.18820
0.19210	0.19620	0.20050	0.20480	0.20930
0.21390	0.21860	0.22350	0.22850	0.23370
0.23890	0.24530	0.25210	0.25930	0.26680
0.27460	0.28310	0.29190	0.30130	0.31110
0.32140	0.33640	0.35220	0.37510	0.40910
0.47320	0.59090	0.62490	0.64780	0.66360
0.67860	0.68890	0.69870	0.70810	0.71690
0.72540	0.73320	0.74070	0.74790	0.75470
0.76110	0.76630	0.77150	0.77650	0.78140
0.78610	0.79070	0.79520	0.79950	0.80380
0.80790	0.81180	0.81570	0.81930	0.82290
0.82640	0.82940	0.83240	0.83530	0.83830
0.84110	0.84400	0.84680	0.84970	0.85240
0.85520	0.85790	0.86060	0.86320	0.86580
0.86840	0.87100	0.87350	0.87610	0.87860
0.88100	0.88350	0.88590	0.88820	0.89060
0.89290	0.89510	0.89740	0.89960	0.90180

Woodland.out

	0.90390	0.90580	0.90770	0.90960	0.91140
	0.91320	0.91510	0.91690	0.91870	0.92050
	0.92230	0.92410	0.92590	0.92760	0.92940
	0.93110	0.93290	0.93460	0.93630	0.93800
	0.93970	0.94140	0.94310	0.94470	0.94640
	0.94800	0.94970	0.95130	0.95290	0.95450
	0.95610	0.95780	0.95930	0.96090	0.96250
	0.96410	0.96560	0.96720	0.96870	0.97020
	0.97170	0.97320	0.97470	0.97620	0.97770
	0.97920	0.98060	0.98210	0.98350	0.98490
	0.98630	0.98780	0.98920	0.99050	0.99190
	0.99330	0.99470	0.99600	0.99730	0.99870
	1.00000				
10_yr_sm	0.1				
	0.00000	0.00130	0.00260	0.00390	0.00520
	0.00650	0.00780	0.00920	0.01050	0.01190
	0.01320	0.01460	0.01600	0.01740	0.01880
	0.02020	0.02160	0.02310	0.02450	0.02590
	0.02740	0.02890	0.03030	0.03180	0.03330
	0.03480	0.03630	0.03790	0.03940	0.04090
	0.04250	0.04410	0.04560	0.04720	0.04880
	0.05030	0.05190	0.05360	0.05520	0.05680
	0.05840	0.06010	0.06170	0.06340	0.06510
	0.06680	0.06840	0.07010	0.07190	0.07360
	0.07530	0.07700	0.07880	0.08050	0.08230
	0.08410	0.08590	0.08770	0.08950	0.09130
	0.09310	0.09520	0.09740	0.09960	0.10190
	0.10410	0.10640	0.10880	0.11110	0.11350
	0.11600	0.11840	0.12090	0.12340	0.12600
	0.12850	0.13110	0.13370	0.13640	0.13910
	0.14180	0.14450	0.14730	0.15010	0.15290
	0.15570	0.15860	0.16160	0.16450	0.16750
	0.17050	0.17400	0.17760	0.18130	0.18520
	0.18920	0.19330	0.19760	0.20200	0.20650
	0.21110	0.21590	0.22080	0.22590	0.23110
	0.23640	0.24300	0.24990	0.25730	0.26500
	0.27300	0.28190	0.29120	0.30100	0.31140
	0.32220	0.33770	0.35400	0.37760	0.41210
	0.47410	0.58790	0.62240	0.64600	0.66230
	0.67780	0.68860	0.69900	0.70880	0.71810
	0.72700	0.73500	0.74270	0.75010	0.75700
	0.76360	0.76890	0.77410	0.77920	0.78410
	0.78890	0.79350	0.79800	0.80240	0.80670
	0.81080	0.81480	0.81870	0.82240	0.82600
	0.82950	0.83250	0.83550	0.83840	0.84140
	0.84430	0.84710	0.84990	0.85270	0.85550
	0.85820	0.86090	0.86360	0.86630	0.86890
	0.87150	0.87400	0.87660	0.87910	0.88160
	0.88400	0.88650	0.88890	0.89120	0.89360
	0.89590	0.89810	0.90040	0.90260	0.90480
	0.90690	0.90870	0.91050	0.91230	0.91410
	0.91590	0.91770	0.91950	0.92120	0.92300
	0.92470	0.92640	0.92810	0.92990	0.93160
	0.93330	0.93490	0.93660	0.93830	0.93990

Woodland.out

	0.94160	0.94320	0.94480	0.94640	0.94810
	0.94970	0.95120	0.95280	0.95440	0.95590
	0.95750	0.95910	0.96060	0.96210	0.96370
	0.96520	0.96670	0.96820	0.96970	0.97110
	0.97260	0.97410	0.97550	0.97690	0.97840
	0.97980	0.98120	0.98260	0.98400	0.98540
	0.98680	0.98810	0.98950	0.99080	0.99220
	0.99350	0.99480	0.99610	0.99740	0.99870
	1.00000				
25_yr_sm		0.1			
	0.00000	0.00130	0.00250	0.00380	0.00510
	0.00640	0.00770	0.00900	0.01030	0.01170
	0.01300	0.01440	0.01570	0.01710	0.01850
	0.01980	0.02120	0.02260	0.02410	0.02550
	0.02690	0.02840	0.02980	0.03130	0.03270
	0.03420	0.03570	0.03720	0.03870	0.04020
	0.04170	0.04330	0.04480	0.04630	0.04790
	0.04950	0.05100	0.05260	0.05420	0.05580
	0.05740	0.05900	0.06060	0.06230	0.06390
	0.06560	0.06720	0.06890	0.07060	0.07230
	0.07400	0.07570	0.07740	0.07910	0.08080
	0.08260	0.08430	0.08610	0.08790	0.08970
	0.09140	0.09360	0.09580	0.09800	0.10020
	0.10250	0.10470	0.10710	0.10940	0.11180
	0.11420	0.11670	0.11920	0.12170	0.12420
	0.12680	0.12940	0.13200	0.13460	0.13730
	0.14000	0.14270	0.14540	0.14820	0.15110
	0.15390	0.15680	0.15970	0.16260	0.16560
	0.16860	0.17210	0.17570	0.17950	0.18340
	0.18740	0.19160	0.19580	0.20030	0.20480
	0.20950	0.21430	0.21930	0.22430	0.22960
	0.23490	0.24150	0.24860	0.25590	0.26370
	0.27180	0.28100	0.29070	0.30100	0.31170
	0.32300	0.33960	0.35700	0.38100	0.41530
	0.47770	0.58470	0.61900	0.64300	0.66040
	0.67700	0.68830	0.69900	0.70930	0.71900
	0.72820	0.73630	0.74410	0.75140	0.75850
	0.76510	0.77040	0.77570	0.78070	0.78570
	0.79050	0.79520	0.79970	0.80420	0.80840
	0.81260	0.81660	0.82050	0.82430	0.82790
	0.83140	0.83440	0.83740	0.84030	0.84320
	0.84610	0.84890	0.85180	0.85460	0.85730
	0.86000	0.86270	0.86540	0.86800	0.87060
	0.87320	0.87580	0.87830	0.88080	0.88330
	0.88580	0.88820	0.89060	0.89290	0.89530
	0.89750	0.89980	0.90200	0.90420	0.90640
	0.90860	0.91030	0.91210	0.91390	0.91570
	0.91740	0.91920	0.92090	0.92260	0.92430
	0.92600	0.92770	0.92940	0.93110	0.93280
	0.93440	0.93610	0.93770	0.93940	0.94100
	0.94260	0.94420	0.94580	0.94740	0.94900
	0.95050	0.95210	0.95370	0.95520	0.95670
	0.95830	0.95980	0.96130	0.96280	0.96430
	0.96580	0.96730	0.96870	0.97020	0.97160

Woodland.out

	0.97310	0.97450	0.97590	0.97740	0.97880
	0.98020	0.98150	0.98290	0.98430	0.98560
	0.98700	0.98830	0.98970	0.99100	0.99230
	0.99360	0.99490	0.99620	0.99750	0.99870
	1.00000				
50_yr_sm		0.1			
	0.00000	0.00120	0.00250	0.00370	0.00500
	0.00620	0.00750	0.00880	0.01010	0.01140
	0.01270	0.01400	0.01540	0.01670	0.01810
	0.01940	0.02080	0.02220	0.02350	0.02490
	0.02630	0.02780	0.02920	0.03060	0.03200
	0.03350	0.03490	0.03640	0.03790	0.03940
	0.04090	0.04230	0.04380	0.04540	0.04690
	0.04840	0.04990	0.05150	0.05300	0.05460
	0.05620	0.05770	0.05930	0.06090	0.06250
	0.06420	0.06580	0.06740	0.06910	0.07070
	0.07240	0.07410	0.07570	0.07740	0.07910
	0.08080	0.08250	0.08430	0.08600	0.08770
	0.08950	0.09160	0.09370	0.09590	0.09810
	0.10030	0.10260	0.10490	0.10720	0.10960
	0.11190	0.11430	0.11680	0.11930	0.12180
	0.12430	0.12680	0.12940	0.13200	0.13460
	0.13730	0.13990	0.14270	0.14540	0.14820
	0.15100	0.15380	0.15670	0.15960	0.16250
	0.16550	0.16900	0.17260	0.17640	0.18030
	0.18440	0.18860	0.19290	0.19740	0.20190
	0.20670	0.21150	0.21650	0.22160	0.22690
	0.23220	0.23910	0.24640	0.25410	0.26220
	0.27060	0.28010	0.29000	0.30060	0.31160
	0.32320	0.34040	0.35860	0.38370	0.41860
	0.47940	0.58140	0.61630	0.64140	0.65960
	0.67680	0.68840	0.69940	0.71000	0.71990
	0.72940	0.73780	0.74590	0.75360	0.76090
	0.76780	0.77310	0.77840	0.78350	0.78850
	0.79330	0.79810	0.80260	0.80710	0.81140
	0.81560	0.81970	0.82360	0.82740	0.83100
	0.83450	0.83750	0.84040	0.84330	0.84620
	0.84900	0.85180	0.85460	0.85730	0.86010
	0.86270	0.86540	0.86800	0.87060	0.87320
	0.87570	0.87820	0.88070	0.88320	0.88570
	0.88810	0.89040	0.89280	0.89510	0.89740
	0.89970	0.90190	0.90410	0.90630	0.90840
	0.91050	0.91230	0.91400	0.91570	0.91750
	0.91920	0.92090	0.92260	0.92430	0.92590
	0.92760	0.92930	0.93090	0.93260	0.93420
	0.93580	0.93750	0.93910	0.94070	0.94230
	0.94380	0.94540	0.94700	0.94850	0.95010
	0.95160	0.95310	0.95460	0.95620	0.95770
	0.95910	0.96060	0.96210	0.96360	0.96510
	0.96650	0.96800	0.96940	0.97080	0.97220
	0.97370	0.97510	0.97650	0.97780	0.97920
	0.98060	0.98190	0.98330	0.98460	0.98600
	0.98730	0.98860	0.98990	0.99120	0.99250
	0.99380	0.99500	0.99630	0.99750	0.99880

Woodland.out

	1.00000				
100_yr_sm	0.1				
	0.00000	0.00120	0.00240	0.00360	0.00490
	0.00610	0.00730	0.00860	0.00980	0.01110
	0.01240	0.01370	0.01500	0.01630	0.01760
	0.01890	0.02020	0.02160	0.02290	0.02430
	0.02560	0.02700	0.02840	0.02980	0.03120
	0.03260	0.03400	0.03540	0.03690	0.03830
	0.03980	0.04120	0.04270	0.04420	0.04560
	0.04710	0.04860	0.05010	0.05160	0.05320
	0.05470	0.05620	0.05780	0.05930	0.06090
	0.06250	0.06410	0.06570	0.06730	0.06890
	0.07050	0.07210	0.07370	0.07540	0.07700
	0.07870	0.08040	0.08210	0.08370	0.08540
	0.08710	0.08930	0.09140	0.09360	0.09580
	0.09800	0.10030	0.10260	0.10490	0.10730
	0.10970	0.11210	0.11460	0.11700	0.11960
	0.12210	0.12460	0.12720	0.12980	0.13250
	0.13510	0.13780	0.14050	0.14330	0.14610
	0.14890	0.15180	0.15460	0.15750	0.16050
	0.16350	0.16700	0.17060	0.17440	0.17830
	0.18240	0.18650	0.19090	0.19530	0.19990
	0.20460	0.20940	0.21440	0.21950	0.22480
	0.23020	0.23720	0.24460	0.25240	0.26060
	0.26920	0.27900	0.28920	0.30010	0.31140
	0.32330	0.34140	0.36030	0.38590	0.42090
	0.48050	0.57910	0.61410	0.63970	0.65860
	0.67670	0.68860	0.69990	0.71080	0.72100
	0.73080	0.73940	0.74760	0.75540	0.76280
	0.76980	0.77520	0.78050	0.78560	0.79060
	0.79540	0.80010	0.80470	0.80910	0.81350
	0.81760	0.82170	0.82560	0.82940	0.83300
	0.83650	0.83950	0.84250	0.84540	0.84820
	0.85110	0.85390	0.85670	0.85950	0.86220
	0.86490	0.86750	0.87020	0.87280	0.87540
	0.87790	0.88040	0.88300	0.88540	0.88790
	0.89030	0.89270	0.89510	0.89740	0.89970
	0.90200	0.90420	0.90640	0.90860	0.91070
	0.91290	0.91460	0.91630	0.91790	0.91960
	0.92130	0.92300	0.92460	0.92630	0.92790
	0.92950	0.93110	0.93270	0.93430	0.93590
	0.93750	0.93910	0.94070	0.94220	0.94380
	0.94530	0.94680	0.94840	0.94990	0.95140
	0.95290	0.95440	0.95580	0.95730	0.95880
	0.96020	0.96170	0.96310	0.96460	0.96600
	0.96740	0.96880	0.97020	0.97160	0.97300
	0.97440	0.97570	0.97710	0.97840	0.97980
	0.98110	0.98240	0.98370	0.98500	0.98630
	0.98760	0.98890	0.99020	0.99140	0.99270
	0.99390	0.99510	0.99640	0.99760	0.99880
	1.00000				
500_yr_sm	0.1				
	0.00000	0.00120	0.00230	0.00350	0.00470
	0.00590	0.00710	0.00830	0.00950	0.01070

Woodland.out

0.01190	0.01320	0.01440	0.01570	0.01690
0.01820	0.01950	0.02080	0.02210	0.02340
0.02470	0.02600	0.02730	0.02870	0.03000
0.03140	0.03270	0.03410	0.03550	0.03690
0.03830	0.03970	0.04110	0.04250	0.04390
0.04540	0.04680	0.04830	0.04970	0.05120
0.05260	0.05410	0.05560	0.05710	0.05860
0.06010	0.06170	0.06320	0.06470	0.06630
0.06780	0.06940	0.07100	0.07260	0.07420
0.07580	0.07740	0.07900	0.08060	0.08220
0.08390	0.08600	0.08810	0.09020	0.09240
0.09460	0.09690	0.09910	0.10140	0.10380
0.10610	0.10850	0.11090	0.11340	0.11590
0.11840	0.12090	0.12340	0.12600	0.12860
0.13120	0.13390	0.13660	0.13930	0.14210
0.14480	0.14770	0.15050	0.15340	0.15630
0.15920	0.16270	0.16640	0.17020	0.17420
0.17820	0.18240	0.18680	0.19130	0.19590
0.20060	0.20550	0.21050	0.21570	0.22100
0.22640	0.23360	0.24130	0.24940	0.25780
0.26670	0.27680	0.28750	0.29870	0.31050
0.32290	0.34210	0.36230	0.38920	0.42510
0.48310	0.57490	0.61080	0.63770	0.65790
0.67710	0.68950	0.70130	0.71250	0.72320
0.73330	0.74220	0.75060	0.75870	0.76640
0.77360	0.77900	0.78430	0.78950	0.79450
0.79940	0.80410	0.80870	0.81320	0.81760
0.82180	0.82580	0.82980	0.83360	0.83730
0.84080	0.84370	0.84660	0.84950	0.85230
0.85520	0.85790	0.86070	0.86340	0.86610
0.86880	0.87140	0.87400	0.87660	0.87910
0.88160	0.88410	0.88660	0.88910	0.89150
0.89390	0.89620	0.89860	0.90090	0.90310
0.90540	0.90760	0.90980	0.91190	0.91400
0.91610	0.91780	0.91940	0.92100	0.92260
0.92420	0.92580	0.92740	0.92900	0.93060
0.93220	0.93370	0.93530	0.93680	0.93830
0.93990	0.94140	0.94290	0.94440	0.94590
0.94740	0.94880	0.95030	0.95170	0.95320
0.95460	0.95610	0.95750	0.95890	0.96030
0.96170	0.96310	0.96450	0.96590	0.96730
0.96860	0.97000	0.97130	0.97270	0.97400
0.97530	0.97660	0.97790	0.97920	0.98050
0.98180	0.98310	0.98430	0.98560	0.98680
0.98810	0.98930	0.99050	0.99170	0.99290
0.99410	0.99530	0.99650	0.99770	0.99880
1.00000				

GLOBAL OUTPUT:

1

0.1

0.5

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WinTR-20 Printed Page File      End of Input Data List

Woodland Site CCM Analysis

Name of printed page file:  
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STORM 1\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.165		0.874		12.26	75.1	455.28

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
10.500	0.0	1.4	3.3	17.1	37.7	13.8	10.9
14.000	8.0	7.1	6.1	5.2	4.9	4.7	4.5
17.500	4.3	4.0	3.5	3.4	3.3	3.2	3.2
21.000	3.1	3.0	3.0	2.9	2.8	2.7	2.6
24.500	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.165		0.874		12.26	75.1	455.28

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
10.500	0.0	1.4	3.3	17.1	37.7	13.8	10.9
14.000	8.0	7.1	6.1	5.2	4.9	4.7	4.5
17.500	4.3	4.0	3.5	3.4	3.3	3.2	3.2
21.000	3.1	3.0	3.0	2.9	2.8	2.7	2.6
24.500	0.0						

STORM 2\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.165		1.253		12.25	110.7	671.59

Woodland.out

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.0	0.7	1.5	3.3	6.6	28.5	55.1
13.000	20.0	14.5	10.9	9.6	8.2	6.8	6.5
16.500	6.2	6.0	5.7	5.3	4.6	4.5	4.3
20.000	4.3	4.1	4.1	4.0	3.9	3.8	3.6
23.500	3.5	3.4	0.1	0.0			

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Woodland Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.165		1.253		12.25	110.7	671.59

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
9.500	0.0	0.7	1.5	3.3	6.6	28.5	55.1
13.000	20.0	14.5	10.9	9.6	8.2	6.8	6.5
16.500	6.2	6.0	5.7	5.3	4.6	4.5	4.3
20.000	4.3	4.1	4.1	4.0	3.9	3.8	3.6
23.500	3.5	3.4	0.0				

STORM 5\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
SA-1	0.165		1.857		12.24	160.5	973.02

Line	Flow Values @ time increment of 0.500 hr						
Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.500	0.0	0.6	1.4	2.5	4.0	7.4	12.4
12.000	48.4	81.0	29.0	21.7	15.6	13.6	11.6
15.500	9.5	9.0	8.5	8.2	7.7	7.2	6.2
19.000	6.0	5.8	5.7	5.5	5.4	5.3	5.1
22.500	5.0	4.8	4.7	4.6	0.2	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)

Woodland.out

OUTLET            0.165                            1.857                            12.24            160.5            973.02

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.500	0.0	0.6	1.4	2.5	4.0	7.4	12.4
12.000	48.4	81.0	29.0	21.7	15.6	13.6	11.6
15.500	9.5	9.0	8.5	8.2	7.7	7.2	6.2
19.000	6.0	5.8	5.7	5.5	5.4	5.3	5.1
22.500	5.0	4.8	4.7	4.6	0.0		

STORM 10\_yr



Woodland Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
SA-1	0.165		2.438		12.24	206.7	1253.21

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.000	0.0	1.0	1.7	2.9	4.5	6.5	11.5
11.500	19.0	68.0	105.6	38.7	28.2	20.0	17.3
15.000	14.8	11.9	11.2	10.7	10.2	9.6	9.0
18.500	7.5	7.2	7.1	6.9	6.8	6.5	6.4
22.000	6.1	6.0	5.9	5.7	5.5	0.3	0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Flow Rate (csm)
OUTLET	0.165		2.438		12.24	206.7	1253.21

Line

Start Time (hr)	Flow Values @ time increment of 0.500 hr						
(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
8.000	0.0	1.0	1.7	2.9	4.5	6.5	11.5
11.500	19.0	68.0	105.6	38.7	28.2	20.0	17.3
15.000	14.8	11.9	11.2	10.7	10.2	9.6	9.0
18.500	7.5	7.2	7.1	6.9	6.8	6.5	6.4

Woodland.out

22.000      6.1      6.0      5.9      5.7      5.5      0.0

STORM 25\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.165		3.443		12.24	282.2	1711.12

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.000	0.0	1.2	2.0	2.9	3.8	5.9	8.4
10.500	11.3	19.0	31.0	102.3	146.3	54.7	38.4
14.000	26.9	23.2	20.0	15.8	14.9	14.1	13.5
17.500	12.7	12.0	9.8	9.3	9.2	9.0	8.7
21.000	8.4	8.2	8.0	7.9	7.5	7.3	7.0
24.500	0.5	0.0					



Woodland Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.165		3.443		12.24	282.2	1711.12

Line

Start Time (hr)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
7.000	0.0	1.2	2.0	2.9	3.8	5.9	8.4
10.500	11.3	19.0	31.0	102.3	146.3	54.7	38.4
14.000	26.9	23.2	20.0	15.8	14.9	14.1	13.5
17.500	12.7	12.0	9.8	9.3	9.2	9.0	8.7
21.000	8.4	8.2	8.0	7.9	7.5	7.3	7.0
24.500	0.0						

STORM 50\_yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
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Woodland.out

SA-1            0.165                            4.400                            12.25            350.0    2122.33

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.000	0.0	0.7	1.6	2.6	3.6	4.7	5.9
9.500	8.9	12.3	16.1	27.4	43.2	137.4	185.7
13.000	69.7	49.5	33.6	28.9	24.6	19.2	18.1
16.500	17.1	16.4	15.4	14.4	11.7	11.1	10.9
20.000	10.7	10.4	10.2	10.0	9.5	9.2	9.1
23.500	8.8	8.4	0.6	0.0			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
OUTLET	0.165		4.400		12.25	350.0	2122.33

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
6.000	0.0	0.7	1.6	2.6	3.6	4.7	5.9
9.500	8.9	12.3	16.1	27.4	43.2	137.4	185.7
13.000	69.7	49.5	33.6	28.9	24.6	19.2	18.1
16.500	17.1	16.4	15.4	14.4	11.7	11.1	10.9
20.000	10.7	10.4	10.2	10.0	9.5	9.2	9.1
23.500	8.8	8.4	0.4	0.0			

STORM 100yr



Woodland Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Time (hr)	Flow Rate (cfs)	Rate (csm)
SA-1	0.165		5.567		12.25	429.5	2604.81

Line

Start Time (hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
5.500	0.0	0.9	2.0	3.2	4.5	5.9	7.3
9.000	8.8	12.9	17.3	22.3	37.5	58.7	178.5
12.500	232.5	88.3	61.6	41.3	35.3	30.1	23.4
16.000	22.1	20.9	19.9	18.8	17.5	13.7	13.3
19.500	12.9	12.6	12.3	12.0	11.7	11.4	11.0
23.000	10.6	10.3	9.9	0.7	0.0		

Woodland.out

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Elevation (ft)	Peak Flow Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.165		5.567		12.25	429.5	2604.81

Line

Start Time (hr)	Flow (cfs)	Values @ time (cfs)	increment (cfs)	of 0.500 hr (cfs)	Flow (cfs)	Flow (cfs)	Flow (cfs)
5.500	0.0	0.9	2.0	3.2	4.5	5.9	7.3
9.000	8.8	12.9	17.3	22.3	37.5	58.7	178.5
12.500	232.5	88.3	61.6	41.3	35.3	30.1	23.4
16.000	22.1	20.9	19.9	18.8	17.5	13.7	13.3
19.500	12.9	12.6	12.3	12.0	11.7	11.4	11.0
23.000	10.6	10.3	9.9	0.7	0.0		



Woodland Site CCM Analysis

Area or Reach Identifier	Drainage Area (sq mi)	Peak Flow by Storm				
		1_yr (cfs)	2_yr (cfs)	5_yr (cfs)	10_yr (cfs)	25_yr (cfs)
SA-1	0.165	75.1	110.7	160.5	206.7	282.2
OUTLET	0.165	75.1	110.7	160.5	206.7	282.2

Area or Reach	Drainage Area	Peak Flow by Storm	
		50_yr	100yr

Identifier	(sq mi)	Woodland.out		(cfs)	(cfs)	(cfs)
		(cfs)	(cfs)			
SA-1	0.165	350.0	429.5			
OUTLET	0.165	350.0	429.5			



Client:  
 County: Ulster Zone 2 N10\_D State: NY  
 Practice: Baker Site CCM Data  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 486.02 Acres (user entered value)  
 Curve Number: 73 (user entered value)  
 Watershed Length: 10815 Feet  
 Watershed Slope: 8.80 Percent  
 Time of Concentration: 1.47 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_D  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.08	3.81	4.99	5.98	7.33	8.38	9.42
Runoff (in)	.91	1.39	2.27	3.07	4.22	5.15	6.09
(ac-ft)	36.86	56.30	91.94	124.34	170.92	208.58	246.66
Peak Discharge (cfs)	124.15	200.99	338.06	462.53	637.81	778.29	919.33

Client:  
 County: Ulster Zone 2 N10\_D State: NY  
 Practice: Bostock Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 378.55 Acres (user entered value)  
 Curve Number: 72 (user entered value)  
 Watershed Length: 9831 Feet  
 Watershed Slope: 14.9 Percent  
 Time of Concentration: 1.08 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_D  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.08	3.81	4.99	5.98	7.33	8.38	9.42
Runoff (in)	.86	1.33	2.19	2.98	4.11	5.03	5.96
(ac-ft)	27.13	41.96	69.09	94.01	129.65	158.68	188.01
Peak Discharge (cfs)	110.69	181.88	310.61	428.09	593.40	726.11	860.24

Client:  
 County: Ulster Zone 3 N10\_C State: NY  
 Practice: Ford Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 126.58 Acres (user entered value)  
 Curve Number: 74 (user entered value)  
 Watershed Length: 6197 Feet  
 Watershed Slope: 25.5 Percent  
 Time of Concentration: 0.54 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_C  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	2.64	3.27	4.28	5.13	6.29	7.18	8.08
Runoff (in)	.69	1.08	1.81	2.47	3.43	4.20	5.00
(ac-ft)	7.28	11.39	19.09	26.05	36.18	44.30	52.74
Peak Discharge (cfs)	52.63	88.13	152.16	210.54	295.15	360.25	428.60

Client:  
 County: Ulster Zone 3 N10\_C State: NY  
 Practice: Lost Cove Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 921.43 Acres (user entered value)  
 Curve Number: 74 (user entered value)  
 Watershed Length: 9891 Feet  
 Watershed Slope: 18.6 Percent  
 Time of Concentration: 0.92 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_C  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	2.64	3.27	4.28	5.13	6.29	7.18	8.08
Runoff (in)	.69	1.08	1.81	2.47	3.43	4.20	5.00
(ac-ft)	52.98	82.93	138.98	189.66	263.38	322.50	383.93
Peak Discharge (cfs)	271.71	456.39	790.86	1,096.15	1,535.00	1,881.67	2,233.79

Client:  
 County: Ulster Zone 3 N10\_C State: NY  
 Practice: Ohayo\_LittleBeaverKill Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 126.68 Acres (user entered value)  
 Curve Number: 77 (user entered value)  
 Watershed Length: 3950 Feet  
 Watershed Slope: 7.64 Percent  
 Time of Concentration: 0.63 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_C  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	2.64	3.27	4.28	5.13	6.29	7.18	8.08
Runoff (in)	.83	1.26	2.03	2.73	3.73	4.53	5.35
(ac-ft)	8.76	13.30	21.43	28.82	39.38	47.82	56.48
Peak Discharge (cfs)	60.64	95.95	157.83	213.77	292.49	353.80	416.71

Client:  
 County: Ulster Zone 2 N10\_D State: NY  
 Practice: Plank Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 417.75 Acres (user entered value)  
 Curve Number: 75 (user entered value)  
 Watershed Length: 7754 Feet  
 Watershed Slope: 24.9 Percent  
 Time of Concentration: 0.63 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_D  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.08	3.81	4.99	5.98	7.33	8.38	9.42
Runoff (in)	1.01	1.53	2.44	3.27	4.44	5.39	6.34
(ac-ft)	35.16	53.26	84.94	113.84	154.57	187.64	220.71
Peak Discharge (cfs)	214.96	334.62	545.92	733.05	998.14	1,205.36	1,411.70

Client:  
 County: Ulster Zone 2 N10\_D State: NY  
 Practice: Sickler Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 833.38 Acres (user entered value)  
 Curve Number: 66 (user entered value)  
 Watershed Length: 10331 Feet  
 Watershed Slope: 3.83 Percent  
 Time of Concentration: 2.60 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_D  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.08	3.81	4.99	5.98	7.33	8.38	9.42
Runoff (in)	.58	.97	1.72	2.43	3.47	4.32	5.20
(ac-ft)	40.28	67.36	119.45	168.76	240.99	300.02	361.13
Peak Discharge (cfs)	80.25	149.68	286.97	416.42	604.81	759.82	918.66

Client:  
 County: Ulster Zone 2 N10\_D State: NY  
 Practice: Silver Hollow Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 217.59 Acres (user entered value)  
 Curve Number: 54 (user entered value)  
 Watershed Length: 7177 Feet  
 Watershed Slope: 9.95 Percent  
 Time of Concentration: 1.64 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_D  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.08	3.81	4.99	5.98	7.33	8.38	9.42
Runoff (in)	.19	.42	.92	1.43	2.24	2.93	3.67
(ac-ft)	3.45	7.62	16.68	25.93	40.62	53.13	66.55
Peak Discharge (cfs)	4.43	14.34	43.15	75.93	129.09	174.06	222.69

Client:  
 County: Greene Zone 1 N10\_C State: NY  
 Practice: Stony Clove Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 490.71 Acres (user entered value)  
 Curve Number: 69 (user entered value)  
 Watershed Length: 6382 Feet  
 Watershed Slope: 28.5 Percent  
 Time of Concentration: 0.60 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_C  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.73	4.64	6.12	7.35	9.04	10.3	11.6
Runoff (in)	1.10	1.70	2.81	3.80	5.25	6.36	7.54
(ac-ft)	44.98	69.52	114.91	155.39	214.69	260.08	308.33
Peak Discharge (cfs)	314.36	510.90	867.35	1,185.31	1,636.61	1,986.53	2,347.82

Client:  
 County: Ulster Zone 2 N10\_D State: NY  
 Practice: Woodland Site  
 Calculated By: Date: 11/22/2021  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

Drainage Area: 105.51 Acres (user entered value)  
 Curve Number: 77 (user entered value)  
 Watershed Length: 5267 Feet  
 Watershed Slope: 27.5 Percent  
 Time of Concentration: 0.42 Hours (calculated value)  
 Rainfall Distribution - Type: N10\_D  
 Dimensionless Unit Hydrograph: <standard> (default 484)

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr rainfall (in)	3.08	3.81	4.99	5.98	7.33	8.38	9.42
Runoff (in)	1.13	1.67	2.62	3.46	4.66	5.62	6.59
(ac-ft)	9.94	14.68	23.04	30.42	40.97	49.41	57.94
Peak Discharge (cfs)	78.51	118.52	188.37	249.73	335.00	401.31	467.66

**ANALYSIS, CALIBRATION, AND VALIDATION OF THE CORNELL CULVERTS MODEL FOR USE IN THE ASHOKAN RESERVOIR WATERSHED, CATSKILL REGION NEW YORK**

**TECHNICAL REPORT - PHASES 1 & 2**

## **Appendix C Hydraulic Modeling**

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 200 cfs

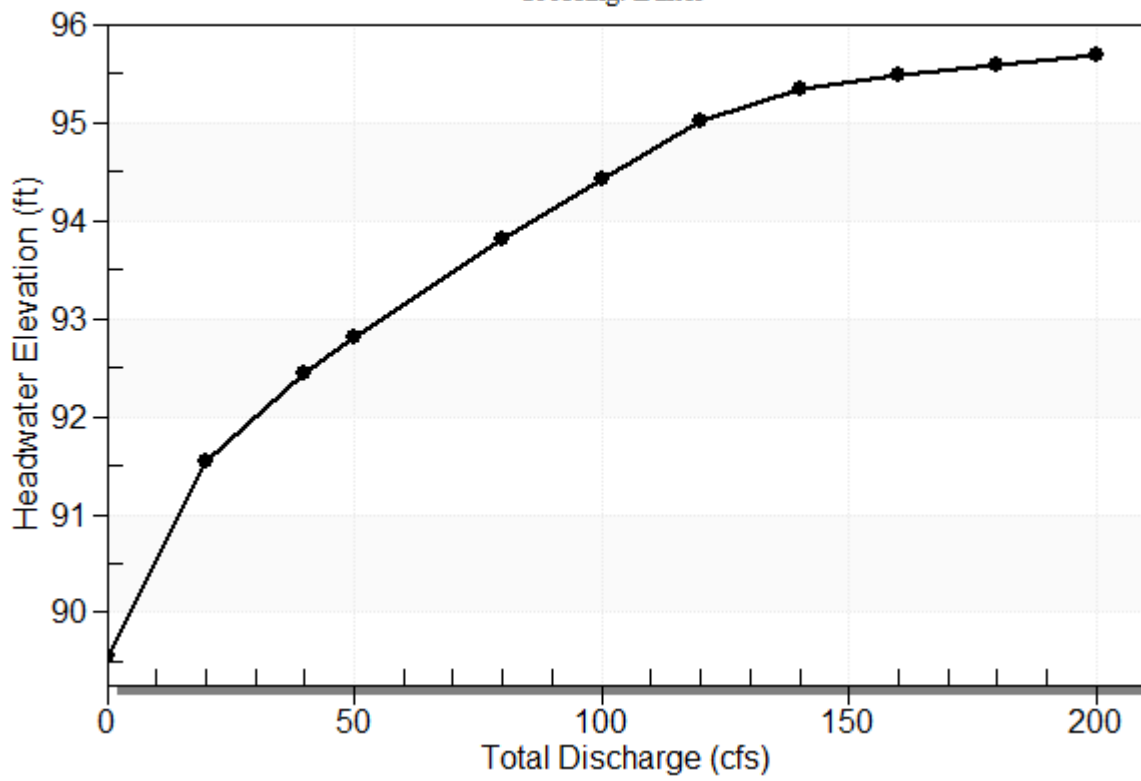
**Table 1 - Summary of Culvert Flows at Crossing: Baker**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex_Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
89.57	0.00	0.00	0.00	1
91.55	20.00	20.00	0.00	1
92.44	40.00	40.00	0.00	1
92.82	50.00	50.00	0.00	1
93.82	80.00	80.00	0.00	1
94.43	100.00	100.00	0.00	1
95.02	120.00	120.00	0.00	1
95.34	140.00	130.61	9.21	7
95.48	160.00	135.36	24.47	5
95.60	180.00	139.30	40.48	4
95.70	200.00	142.83	57.08	4
95.18	125.27	125.27	0.00	Overtopping

# Rating Curve Plot for Crossing: Baker

## Total Rating Curve

Crossing: Baker



**Table 2 - Culvert Summary Table: Ex\_Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	89.57	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
20.00	20.00	91.55	1.818	1.980	2-M2c	1.559	1.229	1.229	1.043	5.336	3.255
40.00	40.00	92.44	2.634	2.871	2-M2c	2.272	1.761	1.761	1.579	6.477	3.244
50.00	50.00	92.82	2.988	3.248	2-M2c	2.591	1.977	1.977	1.702	6.923	3.480
80.00	80.00	93.82	3.971	4.249	2-M2c	3.571	2.532	2.532	2.015	8.019	4.039
100.00	100.00	94.43	4.611	4.860	2-M2c	5.000	2.841	2.841	2.179	8.683	4.376
120.00	120.00	95.02	5.280	5.454	7-M2c	5.000	3.125	3.125	2.330	9.295	4.679
140.00	130.61	95.34	5.656	5.767	7-M2c	5.000	3.268	3.268	2.472	9.606	4.950
160.00	135.36	95.48	5.831	5.908	7-M2c	5.000	3.328	3.328	2.608	9.750	5.194
180.00	139.30	95.60	5.979	6.026	7-M2c	5.000	3.378	3.378	2.738	9.870	5.418
200.00	142.83	95.70	6.114	6.132	7-M2c	5.000	3.421	3.421	2.864	9.977	5.625

\*\*\*\*\*

Straight Culvert

Inlet Elevation (invert): 89.57 ft, Outlet Elevation (invert): 89.45 ft

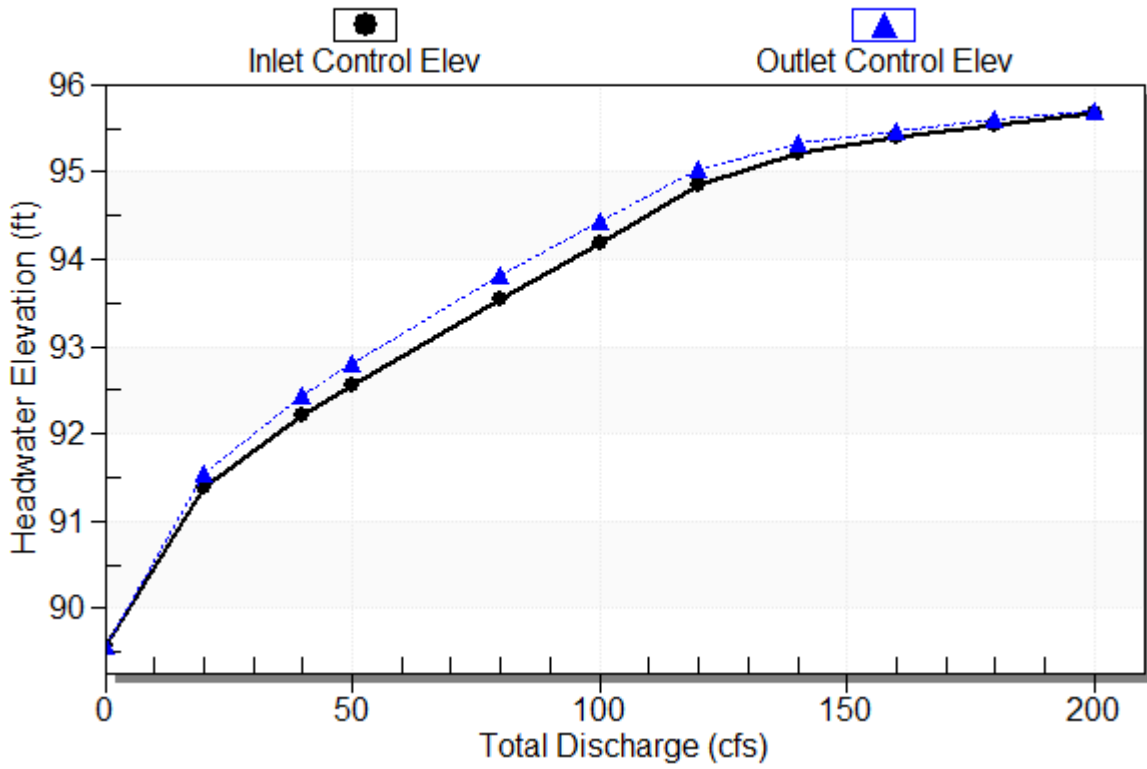
Culvert Length: 29.50 ft, Culvert Slope: 0.0041

\*\*\*\*\*

### Culvert Performance Curve Plot: Ex\_Culvert

## Performance Curve

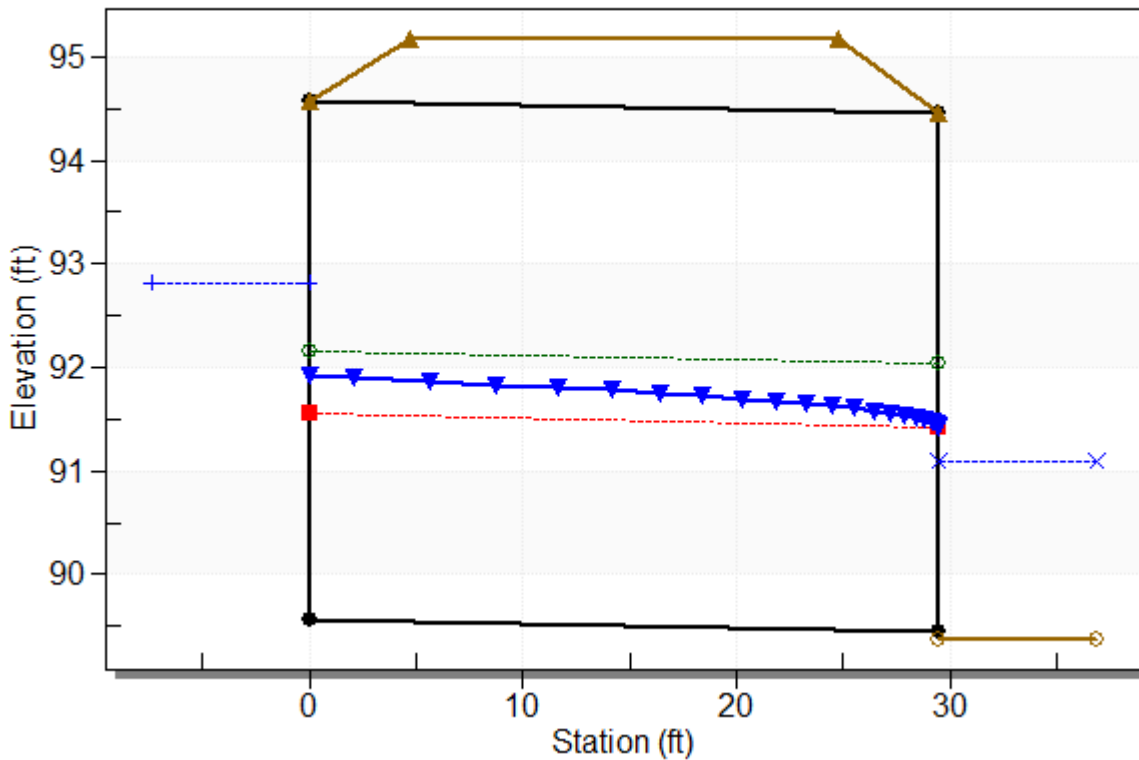
Culvert: Ex\_Culvert



## Water Surface Profile Plot for Culvert: Ex\_Culvert

### Crossing - Baker, Design Discharge - 50.0 cfs

Culvert - Ex\_Culvert, Culvert Discharge - 50.0 cfs



## Site Data - Ex\_Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 89.57 ft

Outlet Station: 29.50 ft

Outlet Elevation: 89.45 ft

Number of Barrels: 1

## Culvert Data Summary - Ex\_Culvert

Barrel Shape: Circular

Barrel Diameter: 5.00 ft

Barrel Material: Corrugated Steel

Embedment: 0.00 in

Barrel Manning's n: 0.0240

Culvert Type: Straight

Inlet Configuration: Thin Edge Projecting

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Baker)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	89.38	0.00	0.00	0.00	0.00
20.00	90.42	1.04	3.25	0.98	0.64
40.00	90.96	1.58	3.24	1.48	0.65
50.00	91.08	1.70	3.48	1.59	0.66
80.00	91.39	2.01	4.04	1.89	0.69
100.00	91.56	2.18	4.38	2.04	0.69
120.00	91.71	2.33	4.68	2.18	0.70
140.00	91.85	2.47	4.95	2.31	0.71
160.00	91.99	2.61	5.19	2.44	0.71
180.00	92.12	2.74	5.42	2.56	0.71
200.00	92.24	2.86	5.63	2.68	0.72

### **Tailwater Channel Data - Baker**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Baker**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 95.18 ft

Roadway Surface: Paved

Roadway Top Width: 20.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 300 cfs

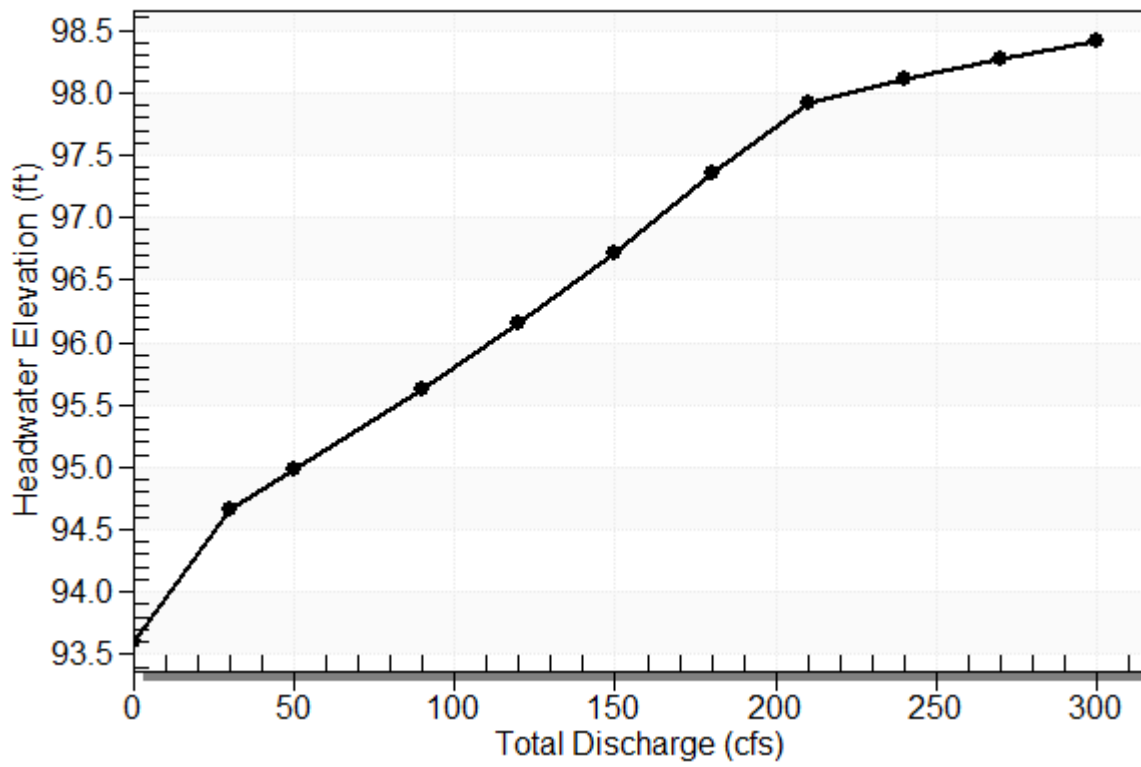
**Table 1 - Summary of Culvert Flows at Crossing: Bostock**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
93.61	0.00	0.00	0.00	1
94.67	30.00	30.00	0.00	1
94.97	50.00	50.00	0.00	1
95.62	90.00	90.00	0.00	1
96.16	120.00	120.00	0.00	1
96.72	150.00	150.00	0.00	1
97.35	180.00	180.00	0.00	1
97.91	210.00	203.65	6.29	8
98.10	240.00	213.50	26.29	4
98.28	270.00	218.48	51.41	5
98.42	300.00	223.61	76.16	4
97.79	198.65	198.65	0.00	Overtopping

# Rating Curve Plot for Crossing: Bostock

## Total Rating Curve

Crossing: Bostock



**Table 2 - Culvert Summary Table: Ex Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	93.61	0.000	3.470	0-NF	0.000	0.000	3.910	0.000	0.000	0.000
30.00	30.00	94.67	2.008	4.525	1-S1t	1.333	1.475	4.913	1.003	1.315	2.730
50.00	50.00	94.97	2.635	4.834	1-S1t	1.733	1.921	5.140	1.230	2.135	3.216
90.00	90.00	95.62	3.709	5.485	1-S1f	2.382	2.616	5.500	1.608	3.788	3.703
120.00	120.00	96.16	4.437	6.017	1-S1f	2.816	3.037	5.500	1.823	5.051	3.938
150.00	150.00	96.72	5.155	6.575	4-FFf	3.240	3.411	5.500	1.974	6.314	4.277
180.00	180.00	97.35	5.908	7.213	4-FFf	3.678	3.750	5.500	2.113	7.576	4.572
210.00	203.65	97.91	6.548	7.799	4-FFf	4.061	3.990	5.500	2.244	8.572	4.835
240.00	213.50	98.10	6.830	8.129	4-FFf	4.243	4.085	5.500	2.367	8.987	5.074
270.00	218.48	98.28	6.976	8.355	4-FFf	4.345	4.135	5.500	2.484	9.196	5.292
300.00	223.61	98.42	7.130	8.581	4-FFf	5.500	4.182	5.500	2.597	9.412	5.494

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Straight Culvert

Inlet Elevation (invert): 90.14 ft, Outlet Elevation (invert): 89.70 ft

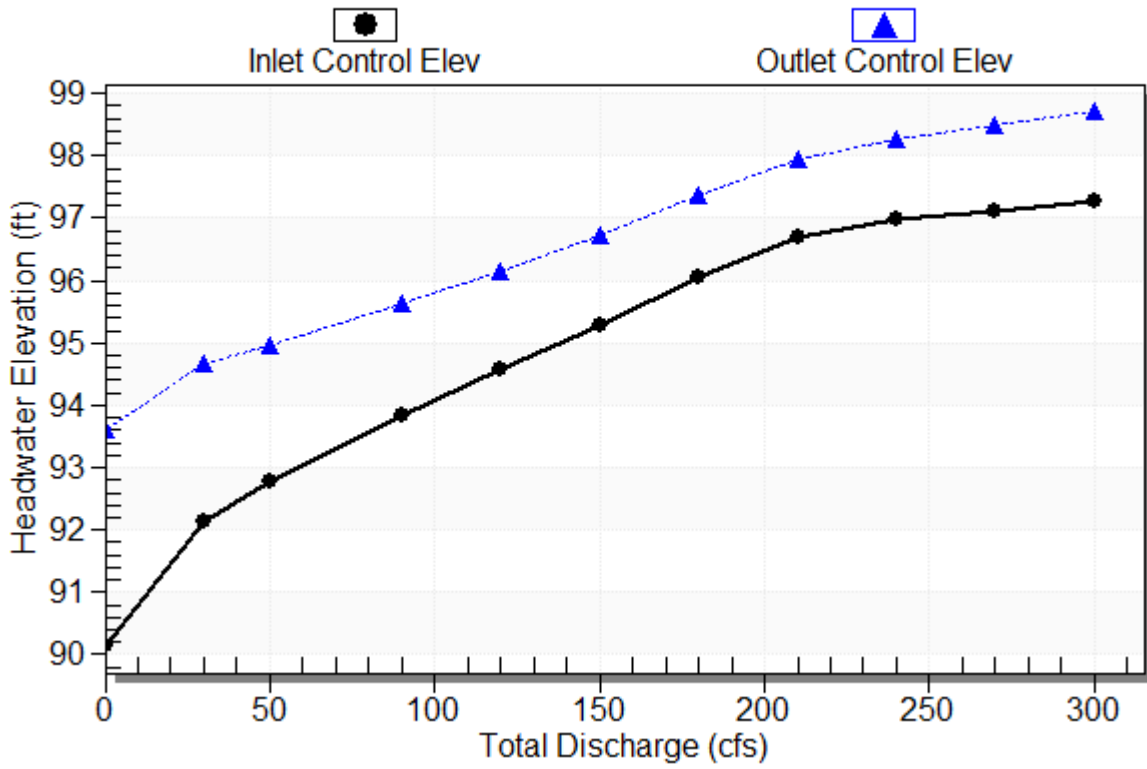
Culvert Length: 30.00 ft, Culvert Slope: 0.0147

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### Culvert Performance Curve Plot: Ex Culvert

## Performance Curve

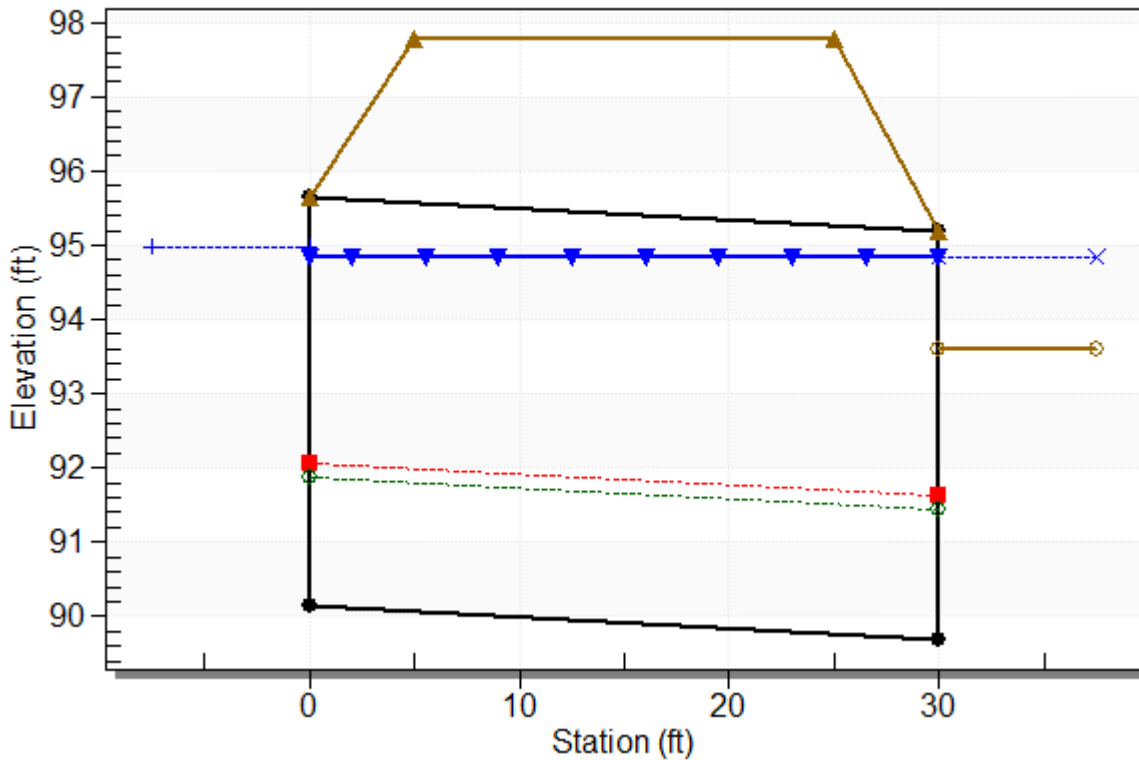
Culvert: Ex Culvert



## Water Surface Profile Plot for Culvert: Ex Culvert

### Crossing - Bostock, Design Discharge - 50.0 cfs

Culvert - Ex Culvert, Culvert Discharge - 50.0 cfs



## Site Data - Ex Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 90.14 ft

Outlet Station: 30.00 ft

Outlet Elevation: 89.70 ft

Number of Barrels: 1

## Culvert Data Summary - Ex Culvert

Barrel Shape: Circular

Barrel Diameter: 5.50 ft

Barrel Material: Corrugated Steel

Embedment: 0.00 in

Barrel Manning's n: 0.0240

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Bostock)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	93.61	0.00	0.00	0.00	0.00
30.00	94.61	1.00	2.73	0.94	0.64
50.00	94.84	1.23	3.22	1.15	0.66
90.00	95.22	1.61	3.70	1.50	0.68
120.00	95.43	1.82	3.94	1.71	0.69
150.00	95.58	1.97	4.28	1.85	0.70
180.00	95.72	2.11	4.57	1.98	0.71
210.00	95.85	2.24	4.84	2.10	0.72
240.00	95.98	2.37	5.07	2.22	0.73
270.00	96.09	2.48	5.29	2.33	0.74
300.00	96.21	2.60	5.49	2.43	0.74

### **Tailwater Channel Data - Bostock**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Bostock**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 97.79 ft

Roadway Surface: Paved

Roadway Top Width: 20.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 20 cfs

Maximum Flow: 100 cfs

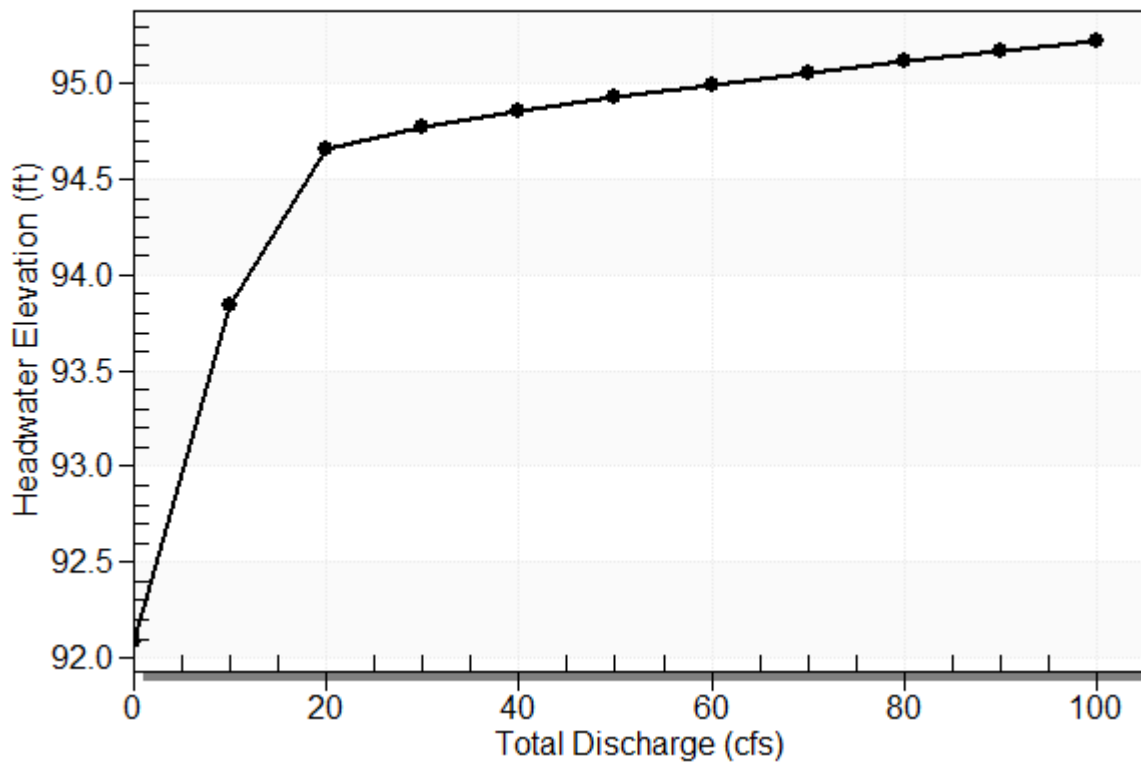
**Table 1 - Summary of Culvert Flows at Crossing: Ford**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex_Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
92.09	0.00	0.00	0.00	1
93.84	10.00	10.00	0.00	1
94.66	20.00	16.02	3.90	9
94.77	30.00	16.68	13.25	6
94.86	40.00	17.17	22.79	5
94.93	50.00	17.58	32.35	4
95.00	60.00	17.94	42.03	4
95.06	70.00	18.27	51.60	3
95.12	80.00	18.58	61.34	3
95.17	90.00	18.87	71.09	3
95.23	100.00	19.14	80.84	3
94.57	15.47	15.47	0.00	Overtopping

### Rating Curve Plot for Crossing: Ford

## Total Rating Curve

Crossing: Ford



**Table 2 - Culvert Summary Table: Ex\_Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	92.09	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
10.00	10.00	93.84	1.752	0.392	1-S2n	0.643	1.126	0.736	0.795	9.208	2.227
20.00	16.02	94.66	2.569	1.216	5-S2n	0.830	1.438	0.979	1.108	10.146	2.381
30.00	16.68	94.77	2.680	1.318	5-S2n	0.849	1.471	1.003	1.245	10.231	2.773
40.00	17.17	94.86	2.765	1.393	5-S2n	0.862	1.492	1.021	1.363	10.298	3.086
50.00	17.58	94.93	2.839	1.703	5-S2n	0.874	1.509	1.036	1.470	10.355	3.349
60.00	17.94	95.00	2.906	1.753	5-S2n	0.884	1.524	1.049	1.571	10.405	3.567
70.00	18.27	95.06	2.968	1.585	5-S2n	0.894	1.538	1.061	1.665	10.451	3.756
80.00	18.58	95.12	3.028	1.711	5-S2n	0.902	1.550	1.072	1.754	10.493	3.927
90.00	18.87	95.17	3.084	1.830	5-S2n	0.910	1.561	1.082	1.837	10.535	4.082
100.00	19.14	95.23	3.138	1.943	5-S2n	0.918	1.572	1.092	1.917	10.572	4.225

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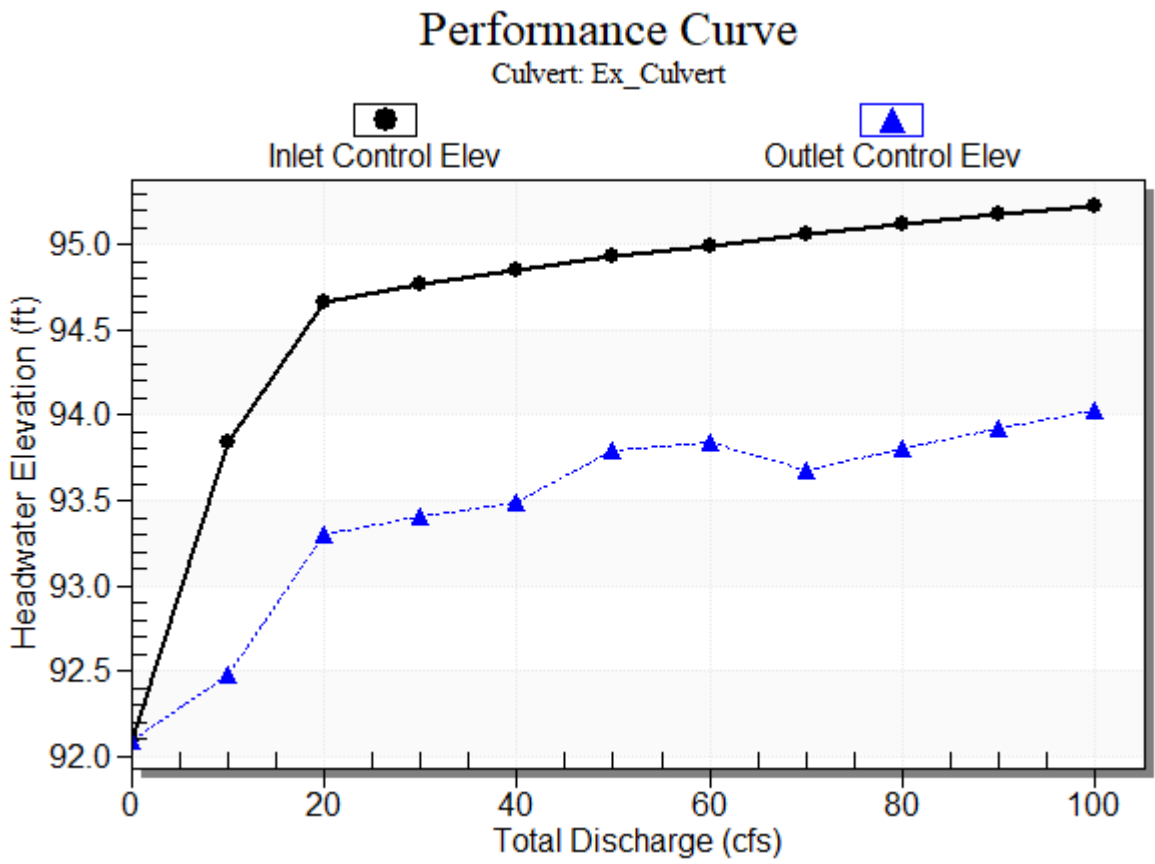
Straight Culvert

Inlet Elevation (invert): 92.09 ft, Outlet Elevation (invert): 91.03 ft

Culvert Length: 35.52 ft, Culvert Slope: 0.0299

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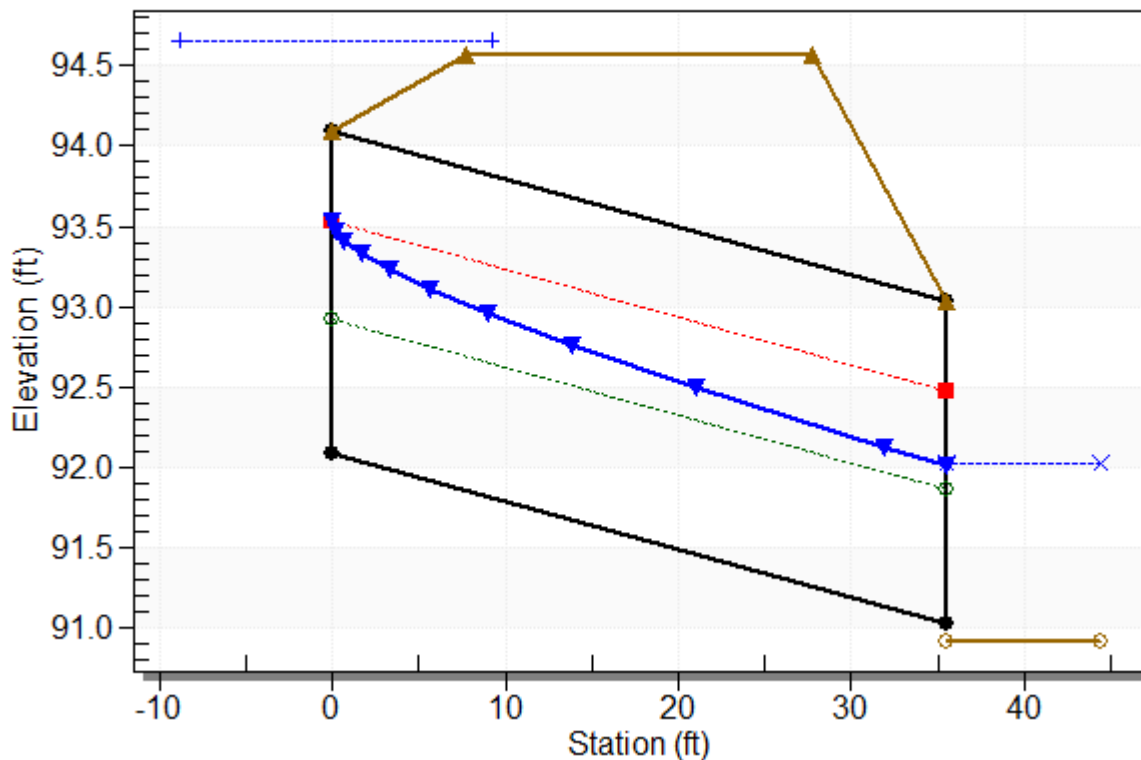
### Culvert Performance Curve Plot: Ex\_Culvert



## Water Surface Profile Plot for Culvert: Ex\_Culvert

### Crossing - Ford, Design Discharge - 20.0 cfs

Culvert - Ex\_Culvert, Culvert Discharge - 16.0 cfs



## Site Data - Ex\_Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 92.09 ft

Outlet Station: 35.50 ft

Outlet Elevation: 91.03 ft

Number of Barrels: 1

## Culvert Data Summary - Ex\_Culvert

Barrel Shape: Circular

Barrel Diameter: 2.00 ft

Barrel Material: Smooth HDPE

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Mitered to Conform to Slope

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Ford)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	90.92	0.00	0.00	0.00	0.00
10.00	91.72	0.80	2.23	0.74	0.59
20.00	92.03	1.11	2.38	1.04	0.61
30.00	92.16	1.24	2.77	1.16	0.63
40.00	92.28	1.36	3.09	1.28	0.65
50.00	92.39	1.47	3.35	1.38	0.66
60.00	92.49	1.57	3.57	1.47	0.67
70.00	92.59	1.67	3.76	1.56	0.68
80.00	92.67	1.75	3.93	1.64	0.68
90.00	92.76	1.84	4.08	1.72	0.69
100.00	92.84	1.92	4.23	1.79	0.69

### **Tailwater Channel Data - Ford**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Ford**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 94.57 ft

Roadway Surface: Paved

Roadway Top Width: 20.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 200 cfs

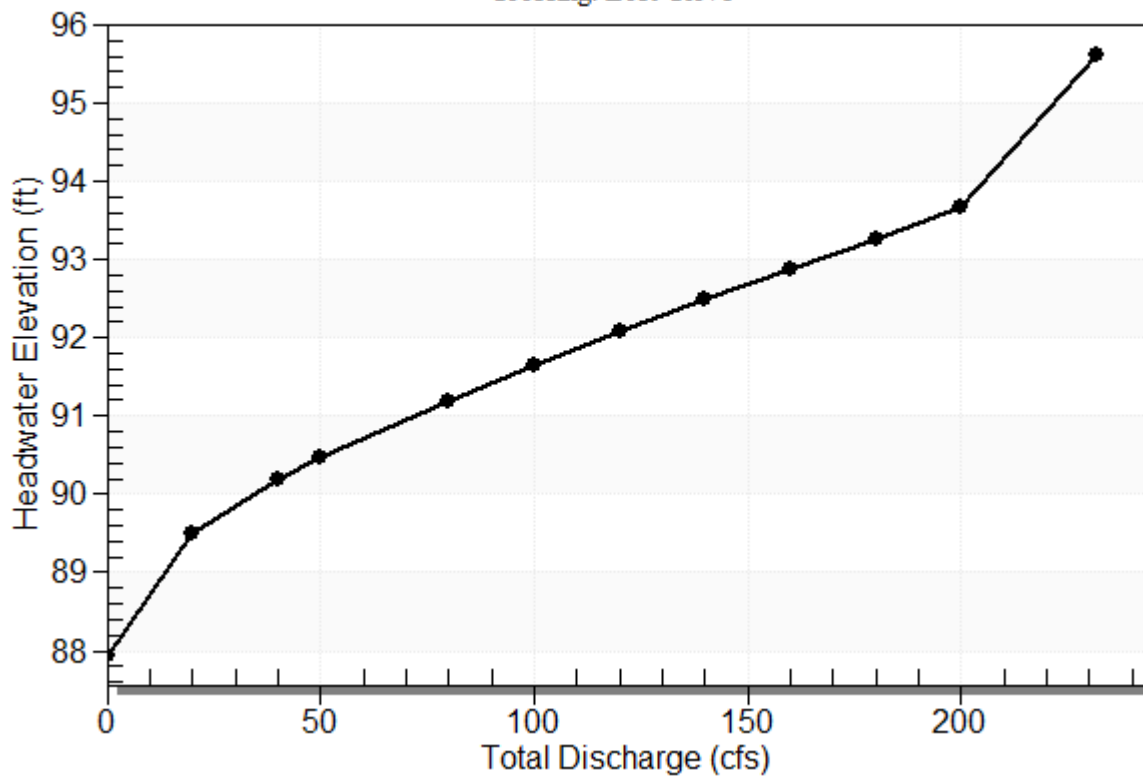
**Table 1 - Summary of Culvert Flows at Crossing: Lost Clove**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex_Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
87.95	0.00	0.00	0.00	1
89.51	20.00	20.00	0.00	1
90.19	40.00	40.00	0.00	1
90.46	50.00	50.00	0.00	1
91.19	80.00	80.00	0.00	1
91.65	100.00	100.00	0.00	1
92.07	120.00	120.00	0.00	1
92.48	140.00	140.00	0.00	1
92.88	160.00	160.00	0.00	1
93.27	180.00	180.00	0.00	1
93.67	200.00	200.00	0.00	1
94.31	231.66	231.66	0.00	Overtopping

# Rating Curve Plot for Crossing: Lost Clove

## Total Rating Curve

Crossing: Lost Clove



**Table 2 - Culvert Summary Table: Ex\_Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	87.95	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
20.00	20.00	89.51	1.559	0.666	1-S2n	0.701	1.155	0.840	0.760	7.858	2.902
40.00	40.00	90.19	2.236	1.190	1-S2n	0.985	1.648	1.238	0.954	8.935	3.717
50.00	50.00	90.46	2.514	1.416	1-S2n	1.098	1.851	1.403	1.033	9.352	4.043
80.00	80.00	91.19	3.244	2.028	1-S2n	1.385	2.363	1.833	1.249	10.282	4.717
100.00	100.00	91.65	3.696	2.410	1-S2n	1.550	2.652	2.082	1.373	10.789	5.060
120.00	120.00	92.07	4.122	2.795	1-S2n	1.701	2.924	2.311	1.486	11.235	5.353
140.00	140.00	92.48	4.529	3.172	1-S2n	1.842	3.167	2.525	1.591	11.645	5.610
160.00	160.00	92.88	4.927	3.554	1-S2n	1.975	3.395	2.727	1.696	12.023	5.792
180.00	180.00	93.27	5.320	3.945	1-S2n	2.102	3.611	2.919	1.823	12.386	5.786
200.00	200.00	93.67	5.716	4.343	1-S2n	2.223	3.813	3.102	1.969	12.731	5.547

\*\*\*\*\*

Straight Culvert

Inlet Elevation (invert): 87.95 ft, Outlet Elevation (invert): 87.45 ft

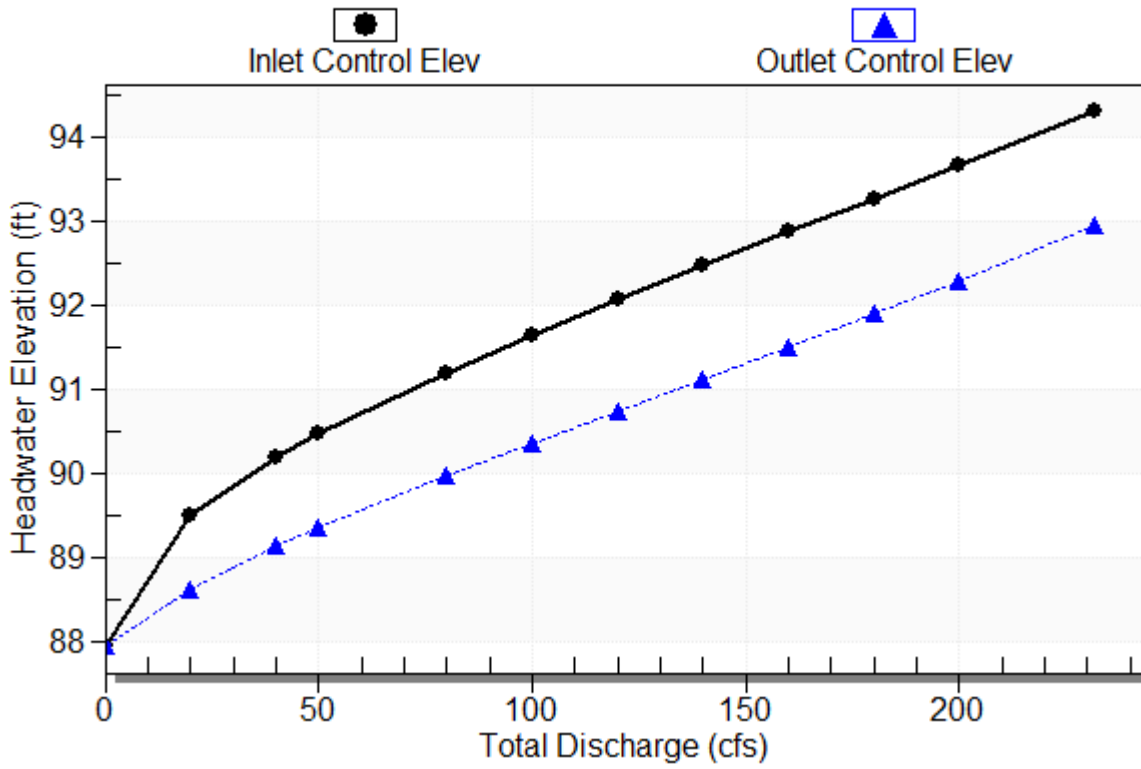
Culvert Length: 26.60 ft, Culvert Slope: 0.0188

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### Culvert Performance Curve Plot: Ex\_Culvert

## Performance Curve

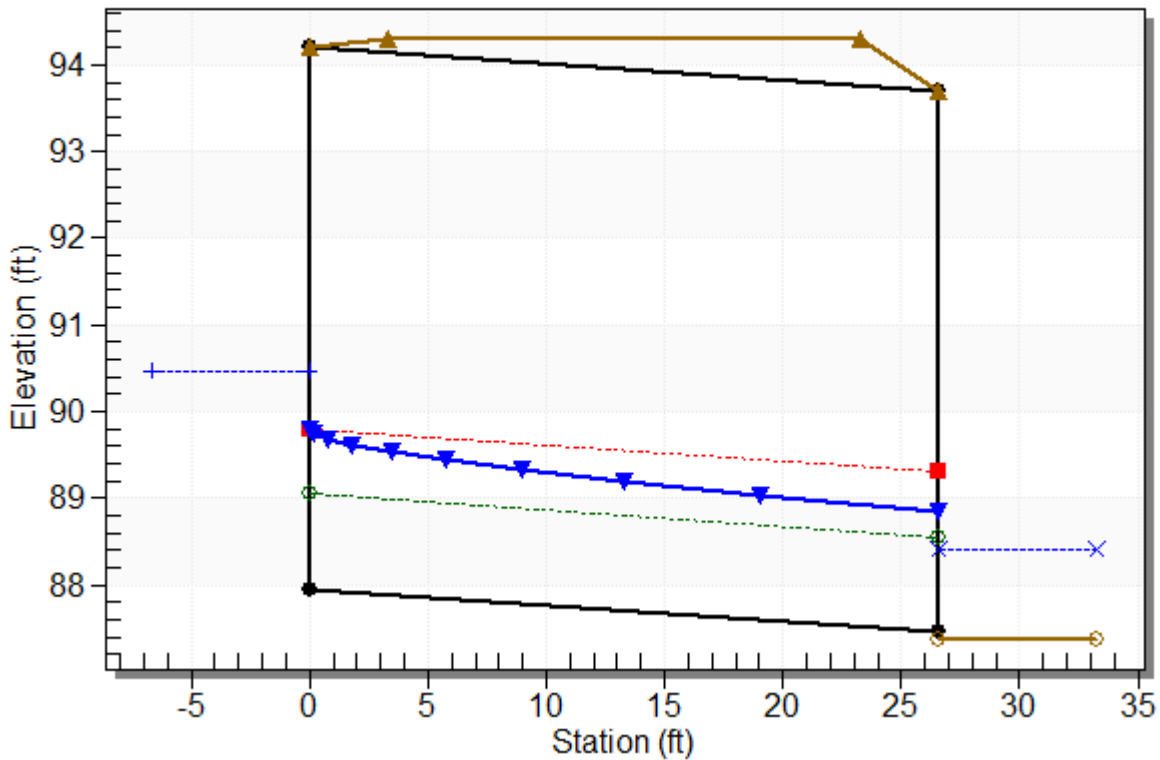
Culvert: Ex\_Culvert



## Water Surface Profile Plot for Culvert: Ex\_Culvert

### Crossing - Lost Clove, Design Discharge - 50.0 cfs

Culvert - Ex\_Culvert, Culvert Discharge - 50.0 cfs



## Site Data - Ex\_Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 87.95 ft

Outlet Station: 26.60 ft

Outlet Elevation: 87.45 ft

Number of Barrels: 1

## Culvert Data Summary - Ex\_Culvert

Barrel Shape: Circular

Barrel Diameter: 6.25 ft

Barrel Material: Corrugated Steel

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Lost Clove)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	87.38	0.00	0.00	0.00	0.00
20.00	88.14	0.76	2.90	1.42	0.85
40.00	88.33	0.95	3.72	1.79	0.90
50.00	88.41	1.03	4.04	1.93	0.92
80.00	88.63	1.25	4.72	2.34	0.95
100.00	88.75	1.37	5.06	2.57	0.96
120.00	88.87	1.49	5.35	2.78	0.97
140.00	88.97	1.59	5.61	2.98	0.98
160.00	89.08	1.70	5.79	3.18	0.99
180.00	89.20	1.82	5.79	3.41	0.99
200.00	89.35	1.97	5.55	3.69	0.98

### **Tailwater Channel Data - Lost Clove**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Lost Clove**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 94.31 ft

Roadway Surface: Paved

Roadway Top Width: 20.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 200 cfs

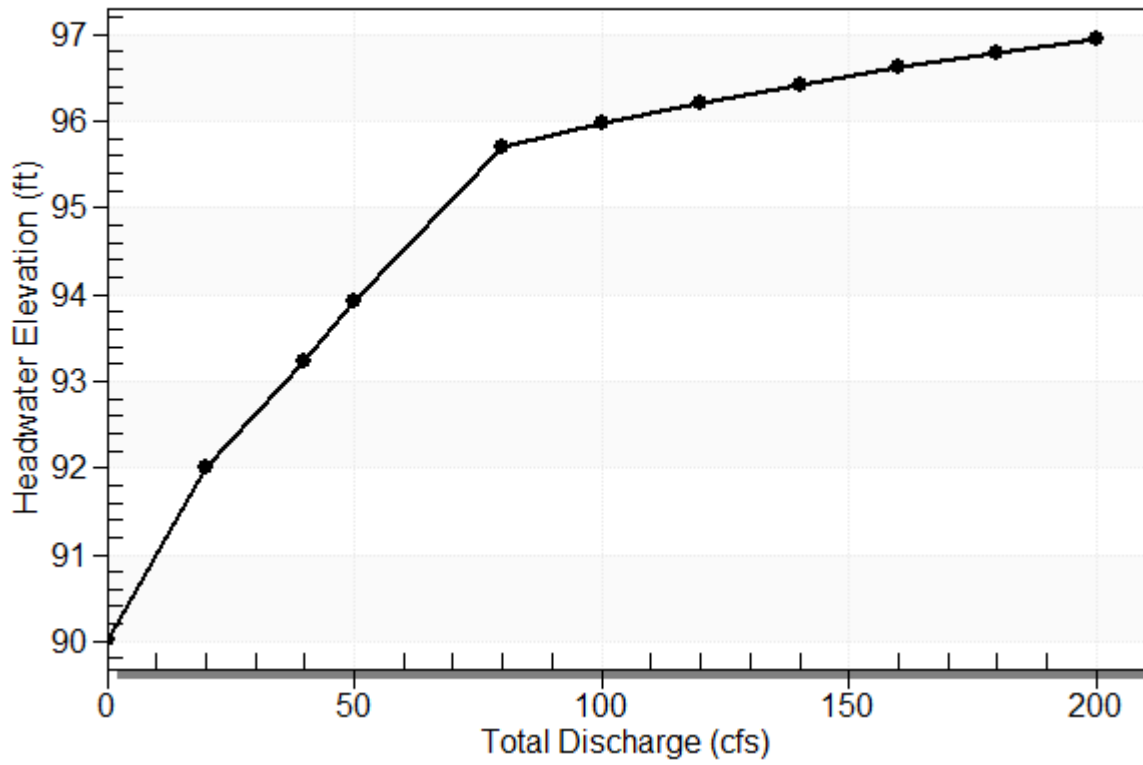
**Table 1 - Summary of Culvert Flows at Crossing: Ohayo**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
90.03	0.00	0.00	0.00	1
92.01	20.00	20.00	0.00	1
93.22	40.00	40.00	0.00	1
93.93	50.00	50.00	0.00	1
95.70	80.00	69.58	10.38	6
95.98	100.00	72.20	27.77	5
96.22	120.00	74.28	45.64	4
96.43	140.00	76.08	63.87	4
96.62	160.00	77.68	82.28	4
96.79	180.00	79.15	100.82	4
96.96	200.00	80.51	119.48	4
95.39	66.58	66.58	0.00	Overtopping

# Rating Curve Plot for Crossing: Ohayo

## Total Rating Curve

Crossing: Ohayo



**Table 2 - Culvert Summary Table: Ex Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	90.03	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
20.00	20.00	92.01	1.978	0.0*	1-S2n	0.679	1.436	0.825	1.276	12.213	3.682
40.00	40.00	93.22	3.192	0.906	5-S2n	0.968	2.057	1.253	1.752	13.816	4.290
50.00	50.00	93.93	3.895	1.981	5-S2n	1.090	2.298	1.440	1.923	14.424	4.588
80.00	69.58	95.70	5.671	3.415	5-S2n	1.308	2.652	1.765	2.578	15.594	4.291
100.00	72.20	95.98	5.954	3.631	5-S2n	1.335	2.686	1.805	2.727	15.751	4.665
120.00	74.28	96.22	6.187	3.726	5-S2n	1.357	2.711	1.837	2.865	15.885	4.992
140.00	76.08	96.43	6.395	4.001	5-S2n	1.376	2.731	1.863	2.994	15.999	5.284
160.00	77.68	96.62	6.585	4.253	5-S2n	1.393	2.748	1.886	3.118	16.101	5.549
180.00	79.15	96.79	6.763	4.496	5-S2n	1.408	2.762	1.907	3.236	16.207	5.791
200.00	80.51	96.96	6.930	4.726	5-S2n	1.422	2.773	1.926	3.349	16.298	6.016

\* Full Flow Headwater elevation is below inlet invert.

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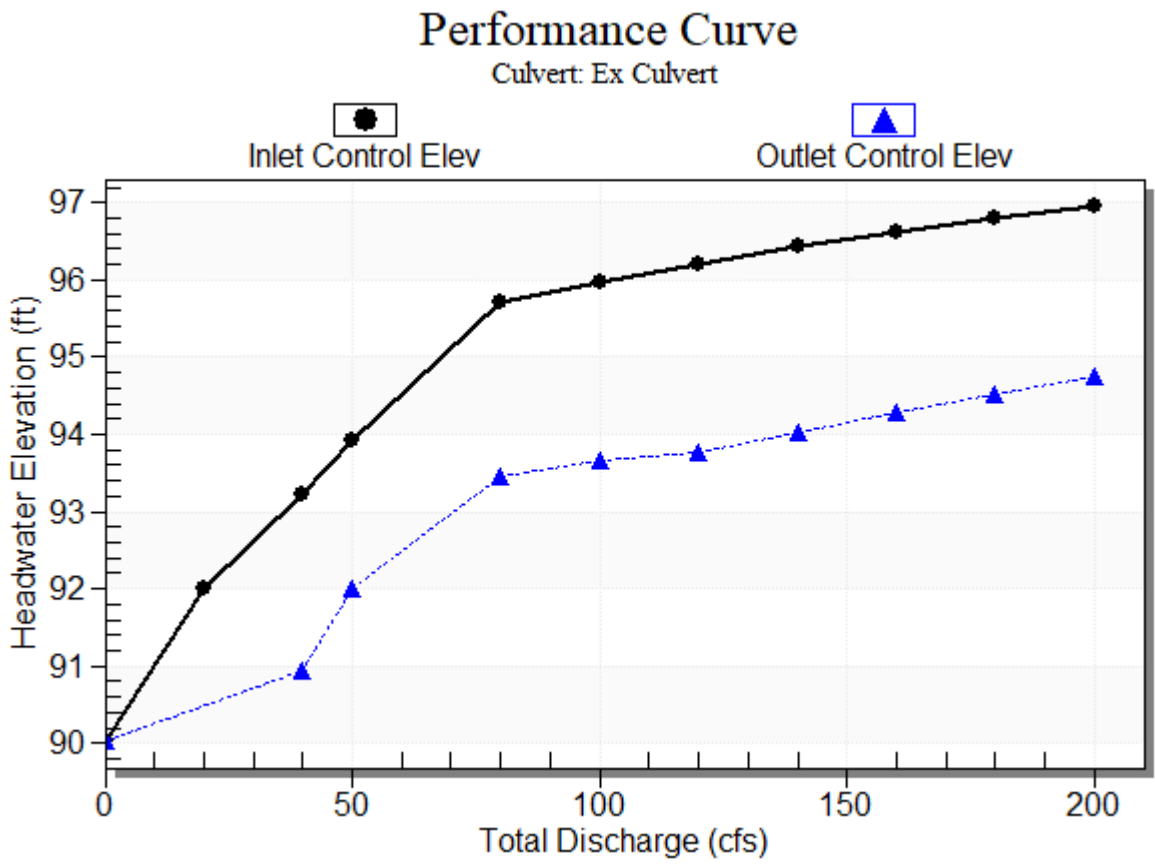
Straight Culvert

Inlet Elevation (invert): 90.03 ft, Outlet Elevation (invert): 88.02 ft

Culvert Length: 37.05 ft, Culvert Slope: 0.0543

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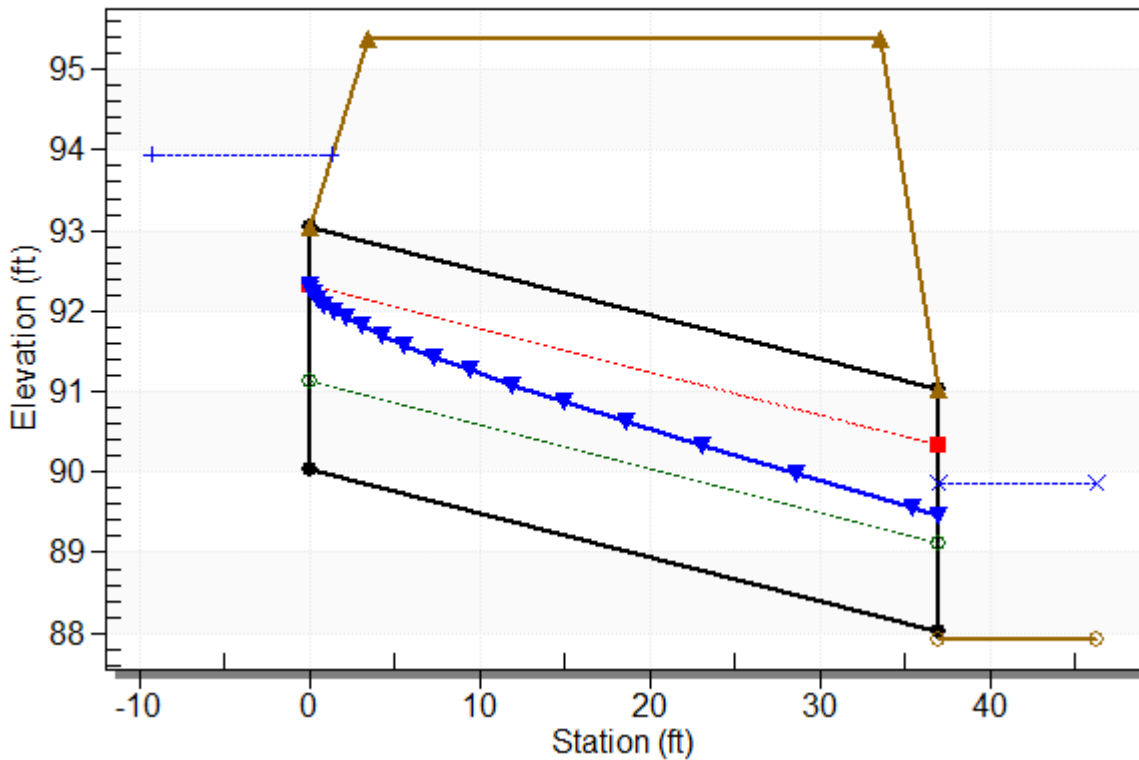
### Culvert Performance Curve Plot: Ex Culvert



## Water Surface Profile Plot for Culvert: Ex Culvert

### Crossing - Ohayo, Design Discharge - 50.0 cfs

Culvert - Ex Culvert , Culvert Discharge - 50.0 cfs



## Site Data - Ex Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 90.03 ft

Outlet Station: 37.00 ft

Outlet Elevation: 88.02 ft

Number of Barrels: 1

## Culvert Data Summary - Ex Culvert

Barrel Shape: Circular

Barrel Diameter: 3.00 ft

Barrel Material: Corrugated Steel

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Ohayo)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	87.93	0.00	0.00	0.00	0.00
20.00	89.21	1.28	3.68	1.59	0.72
40.00	89.68	1.75	4.29	2.19	0.74
50.00	89.85	1.92	4.59	2.40	0.75
80.00	90.51	2.58	4.29	3.22	0.76
100.00	90.66	2.73	4.67	3.40	0.77
120.00	90.79	2.86	4.99	3.57	0.78
140.00	90.92	2.99	5.28	3.74	0.79
160.00	91.05	3.12	5.55	3.89	0.79
180.00	91.17	3.24	5.79	4.04	0.80
200.00	91.28	3.35	6.02	4.18	0.80

### **Tailwater Channel Data - Ohayo**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Ohayo**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 20.00 ft

Crest Elevation: 95.39 ft

Roadway Surface: Paved

Roadway Top Width: 30.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 200 cfs

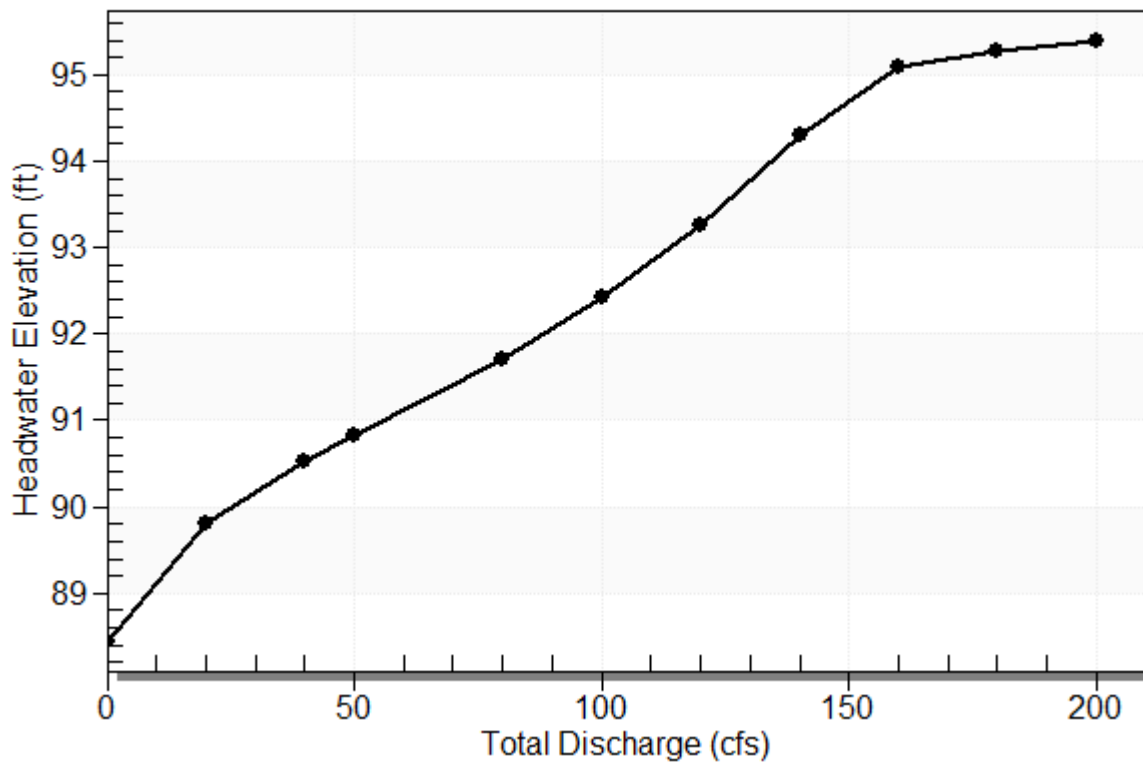
**Table 1 - Summary of Culvert Flows at Crossing: RT\_212**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex-Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
88.45	0.00	0.00	0.00	1
89.80	20.00	20.00	0.00	1
90.51	40.00	40.00	0.00	1
90.82	50.00	50.00	0.00	1
91.71	80.00	80.00	0.00	1
92.41	100.00	100.00	0.00	1
93.26	120.00	120.00	0.00	1
94.29	140.00	140.00	0.00	1
95.10	160.00	153.77	6.16	7
95.27	180.00	156.50	23.40	6
95.40	200.00	158.57	41.34	5
94.98	151.79	151.79	0.00	Overtopping

# Rating Curve Plot for Crossing: RT\_212

## Total Rating Curve

Crossing: RT\_212



**Table 2 - Culvert Summary Table: Ex-Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	88.45	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
20.00	20.00	89.80	1.353	0.0*	1-S2n	0.581	0.997	0.629	0.915	8.956	2.925
40.00	40.00	90.51	2.065	0.235	1-S2n	0.824	1.436	0.931	1.271	10.329	3.714
50.00	50.00	90.82	2.372	0.538	1-S2n	0.925	1.609	1.058	1.418	10.831	4.003
80.00	80.00	91.71	3.264	1.545	5-S2n	1.188	2.057	1.401	1.798	11.944	4.669
100.00	100.00	92.41	3.963	2.654	5-S2n	1.346	2.298	1.606	2.016	12.569	5.014
120.00	120.00	93.26	4.815	3.386	5-S2n	1.497	2.500	1.797	2.219	13.164	5.300
140.00	140.00	94.29	5.841	4.210	5-S2n	1.645	2.657	1.978	2.409	13.754	5.538
160.00	153.77	95.10	6.650	4.832	5-S2n	1.746	2.740	2.094	2.586	14.183	5.750
180.00	156.50	95.27	6.821	4.960	5-S2n	1.767	2.754	2.118	2.751	14.260	5.942
200.00	158.57	95.40	6.952	5.024	5-S2n	1.782	2.763	2.135	2.907	14.332	6.117

\* Full Flow Headwater elevation is below inlet invert.

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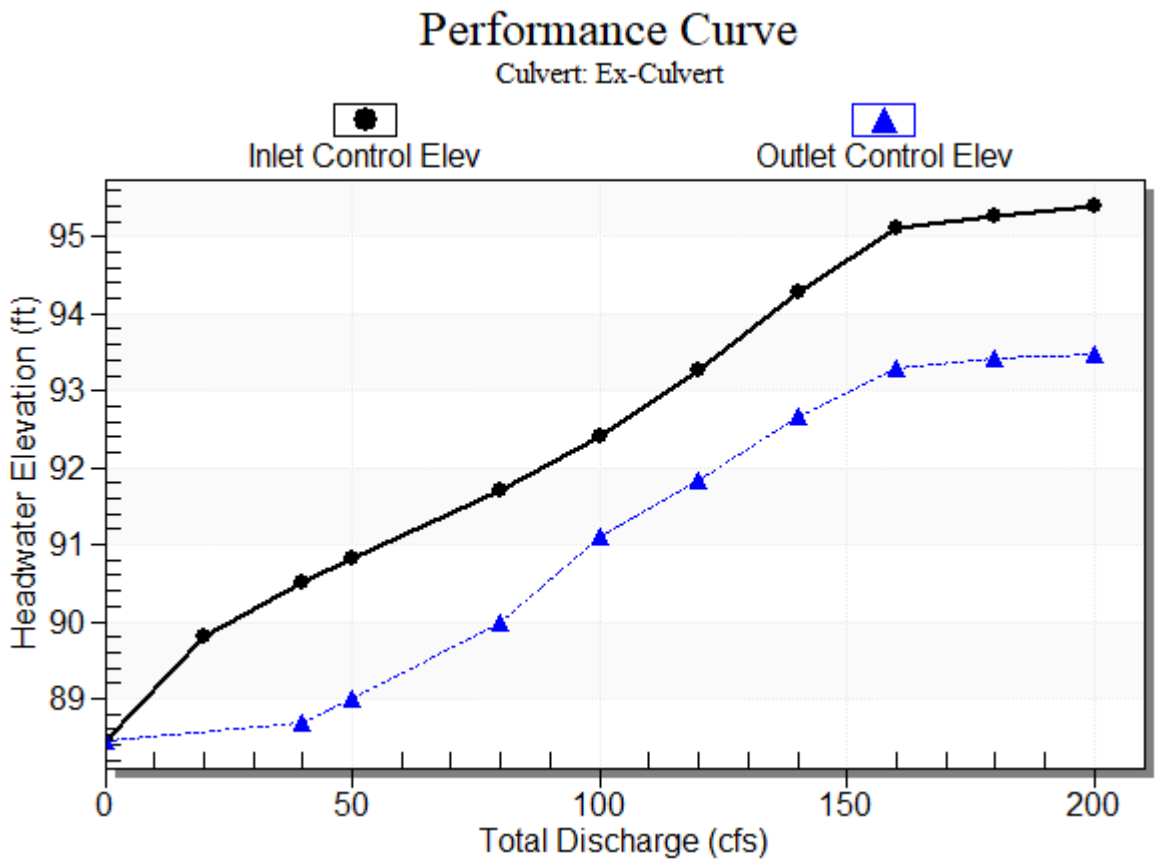
Straight Culvert

Inlet Elevation (invert): 88.45 ft, Outlet Elevation (invert): 87.02 ft

Culvert Length: 56.52 ft, Culvert Slope: 0.0253

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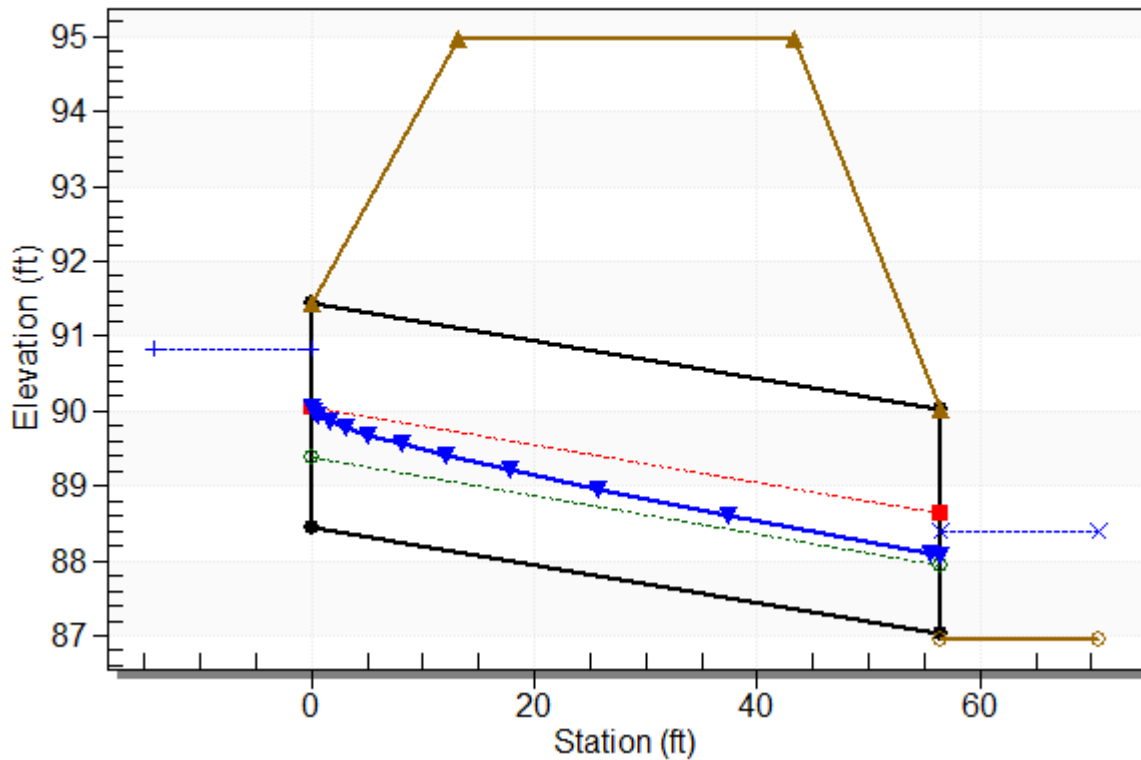
### Culvert Performance Curve Plot: Ex-Culvert



## Water Surface Profile Plot for Culvert: Ex-Culvert

Crossing - RT\_212, Design Discharge - 50.0 cfs

Culvert - Ex-Culvert, Culvert Discharge - 50.0 cfs



### Site Data - Ex-Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 88.45 ft

Outlet Station: 56.50 ft

Outlet Elevation: 87.02 ft

Number of Barrels: 2

### Culvert Data Summary - Ex-Culvert

Barrel Shape: Circular

Barrel Diameter: 3.00 ft

Barrel Material: Smooth HDPE

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: RT\_212)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	86.96	0.00	0.00	0.00	0.00
20.00	87.87	0.91	2.92	0.86	0.64
40.00	88.23	1.27	3.71	1.19	0.68
50.00	88.38	1.42	4.00	1.33	0.69
80.00	88.76	1.80	4.67	1.68	0.71
100.00	88.98	2.02	5.01	1.89	0.72
120.00	89.18	2.22	5.30	2.08	0.72
140.00	89.37	2.41	5.54	2.25	0.73
160.00	89.55	2.59	5.75	2.42	0.74
180.00	89.71	2.75	5.94	2.58	0.74
200.00	89.87	2.91	6.12	2.72	0.74

### **Tailwater Channel Data - RT\_212**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: RT\_212**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 94.98 ft

Roadway Surface: Paved

Roadway Top Width: 30.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 200 cfs

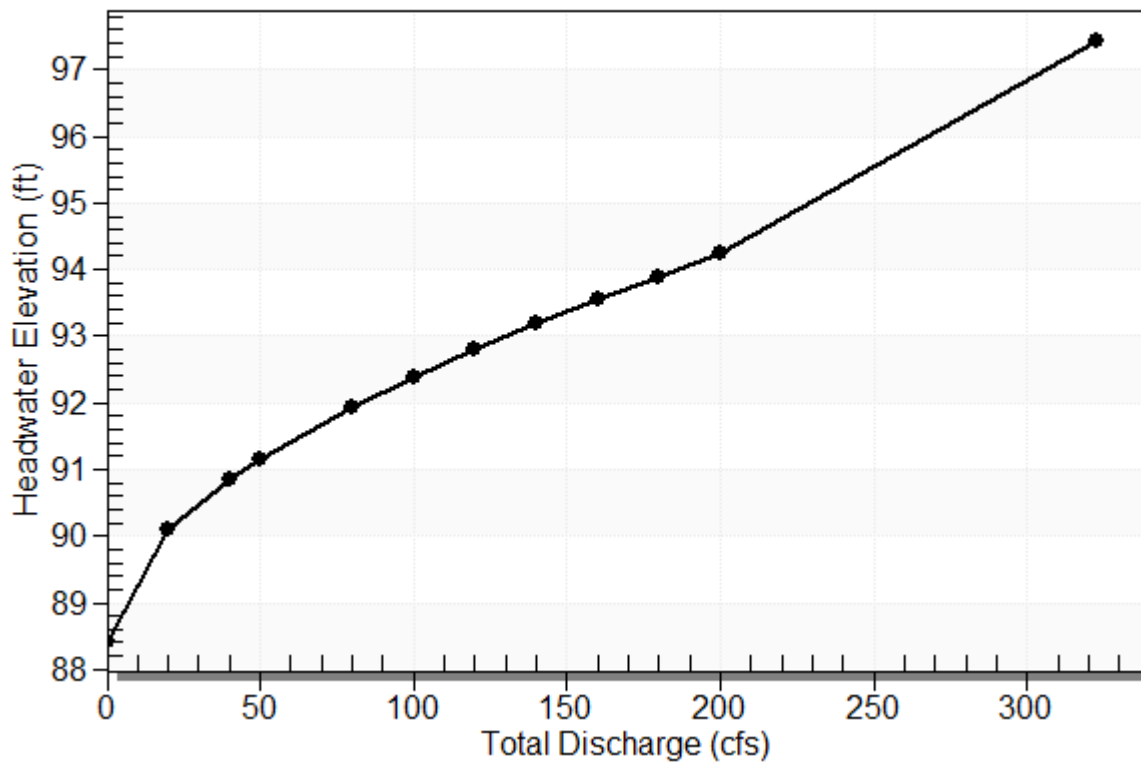
**Table 1 - Summary of Culvert Flows at Crossing: Sickler**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex_Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
88.43	0.00	0.00	0.00	1
90.11	20.00	20.00	0.00	1
90.86	40.00	40.00	0.00	1
91.16	50.00	50.00	0.00	1
91.94	80.00	80.00	0.00	1
92.39	100.00	100.00	0.00	1
92.80	120.00	120.00	0.00	1
93.18	140.00	140.00	0.00	1
93.55	160.00	160.00	0.00	1
93.90	180.00	180.00	0.00	1
94.24	200.00	200.00	0.00	1
96.21	322.55	322.55	0.00	Overtopping

Rating Curve Plot for Crossing: Sickler

### Total Rating Curve

Crossing: Sickler



**Table 2 - Culvert Summary Table: Ex\_Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	88.43	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
20.00	20.00	90.11	1.524	1.682	3-M1t	1.168	1.122	1.258	1.368	4.254	3.064
40.00	40.00	90.86	2.179	2.428	3-M1t	1.649	1.598	1.665	1.775	5.702	3.744
50.00	50.00	91.16	2.450	2.732	3-M2t	1.846	1.793	1.835	1.945	6.217	3.946
80.00	80.00	91.94	3.142	3.508	2-M2c	2.357	2.285	2.285	2.394	7.332	3.608
100.00	100.00	92.39	3.547	3.956	2-M2c	2.656	2.564	2.564	2.527	7.830	3.922
120.00	120.00	92.80	3.938	4.368	2-M2c	2.936	2.819	2.819	2.649	8.272	4.197
140.00	140.00	93.18	4.309	4.753	2-M2c	3.204	3.057	3.057	2.764	8.668	4.442
160.00	160.00	93.55	4.666	5.119	2-M2c	3.464	3.282	3.282	2.873	9.030	4.665
180.00	180.00	93.90	5.011	5.469	2-M2c	3.719	3.490	3.490	2.976	9.390	4.869
200.00	200.00	94.24	5.349	5.809	2-M2c	3.973	3.683	3.683	3.075	9.747	5.059

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Straight Culvert

Inlet Elevation (invert): 88.43 ft, Outlet Elevation (invert): 88.22 ft

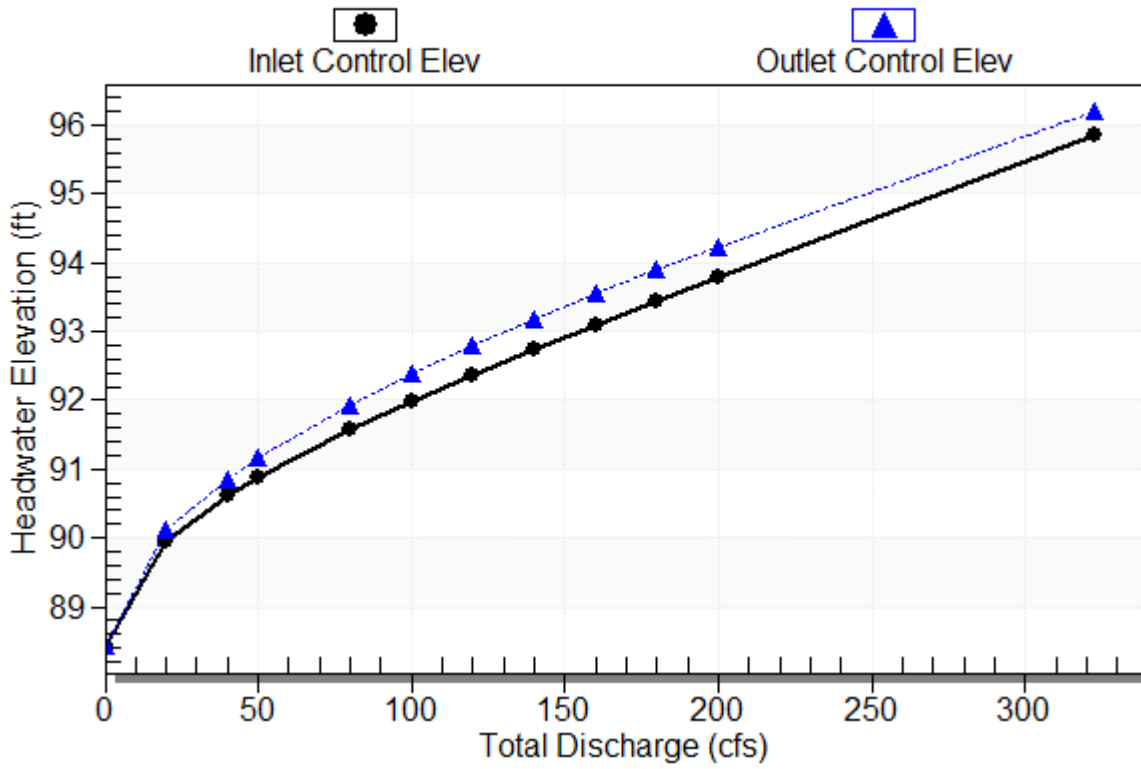
Culvert Length: 26.00 ft, Culvert Slope: 0.0081

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### Culvert Performance Curve Plot: Ex\_Culvert

## Performance Curve

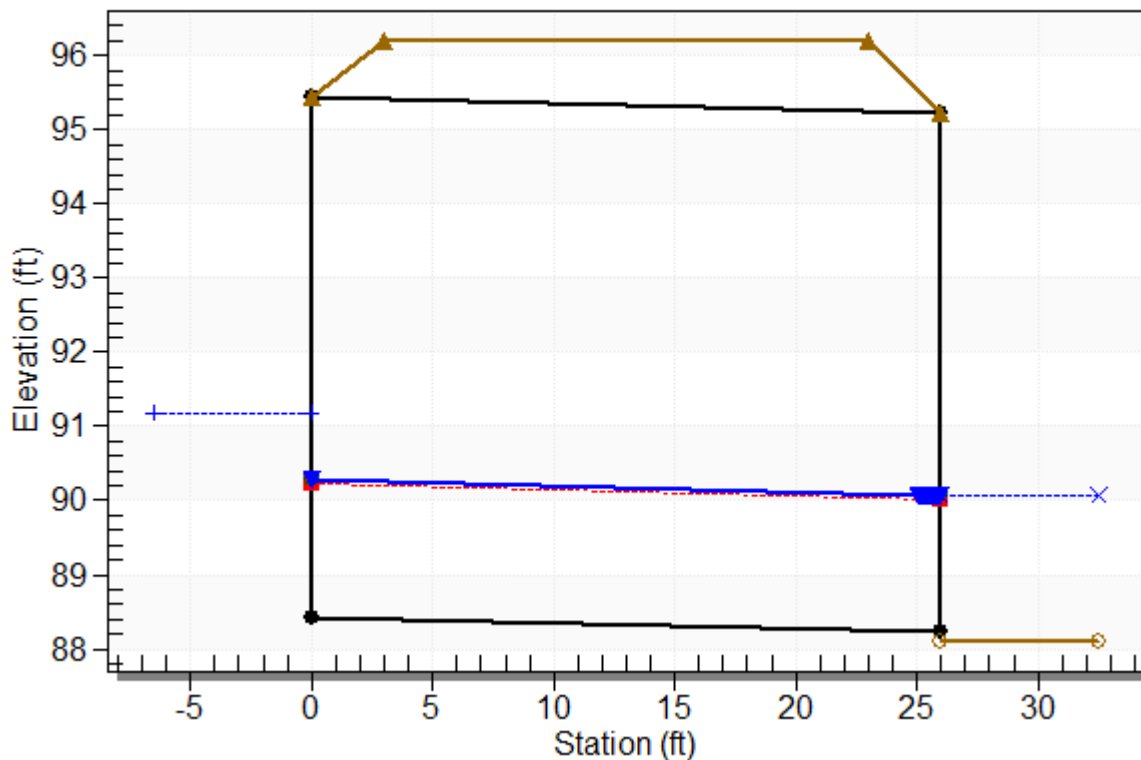
Culvert: Ex\_Culvert



## Water Surface Profile Plot for Culvert: Ex\_Culvert

### Crossing - Sickler, Design Discharge - 50.0 cfs

Culvert - Ex\_Culvert, Culvert Discharge - 50.0 cfs



## Site Data - Ex\_Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 88.43 ft

Outlet Station: 26.00 ft

Outlet Elevation: 88.22 ft

Number of Barrels: 1

## Culvert Data Summary - Ex\_Culvert

Barrel Shape: Circular

Barrel Diameter: 7.00 ft

Barrel Material: Corrugated Steel

Embedment: 0.00 in

Barrel Manning's n: 0.0240

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Sickler)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	88.11	0.00	0.00	0.00	0.00
20.00	89.48	1.37	3.06	1.28	0.64
40.00	89.89	1.78	3.74	1.66	0.68
50.00	90.05	1.94	3.95	1.82	0.68
80.00	90.50	2.39	3.61	2.24	0.67
100.00	90.64	2.53	3.92	2.37	0.69
120.00	90.76	2.65	4.20	2.48	0.70
140.00	90.87	2.76	4.44	2.59	0.71
160.00	90.98	2.87	4.66	2.69	0.71
180.00	91.09	2.98	4.87	2.79	0.72
200.00	91.18	3.07	5.06	2.88	0.72

### **Tailwater Channel Data - Sickler**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Sickler**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 96.21 ft

Roadway Surface: Paved

Roadway Top Width: 20.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 50 cfs

Maximum Flow: 200 cfs

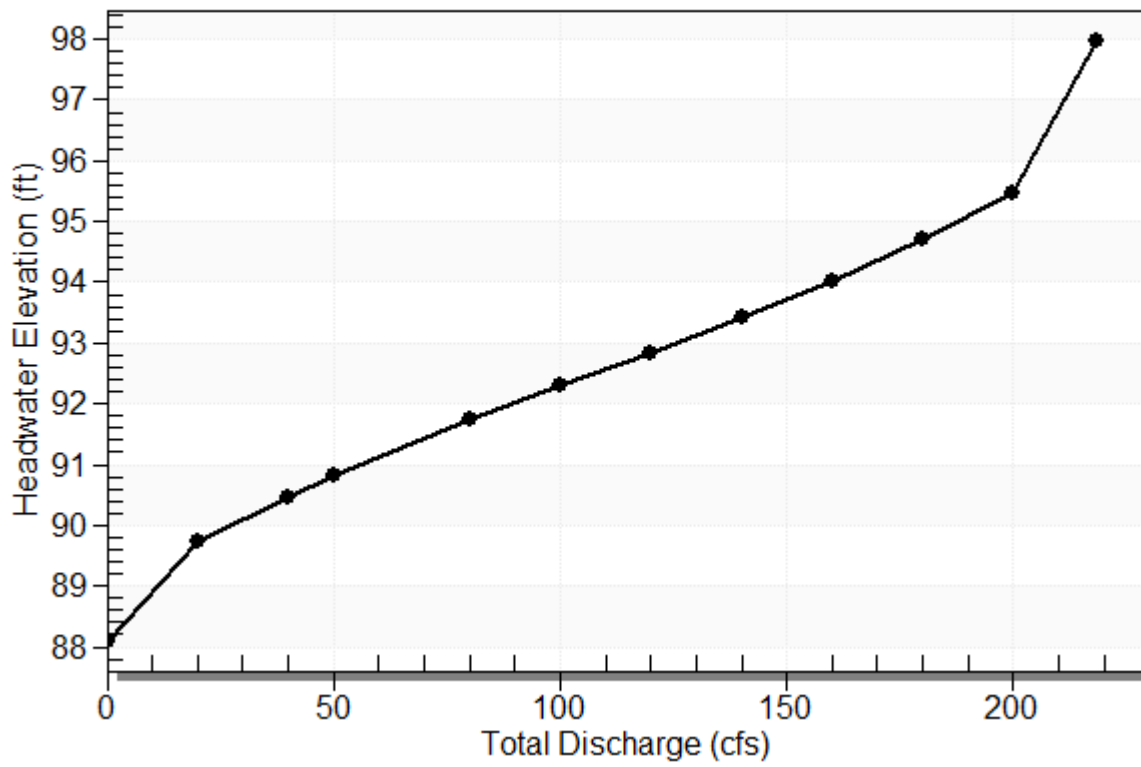
**Table 1 - Summary of Culvert Flows at Crossing: Silver Hollow**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex_Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
88.10	0.00	0.00	0.00	1
89.74	20.00	20.00	0.00	1
90.47	40.00	40.00	0.00	1
90.81	50.00	50.00	0.00	1
91.75	80.00	80.00	0.00	1
92.30	100.00	100.00	0.00	1
92.84	120.00	120.00	0.00	1
93.41	140.00	140.00	0.00	1
94.02	160.00	160.00	0.00	1
94.70	180.00	180.00	0.00	1
95.46	200.00	200.00	0.00	1
96.23	218.29	218.29	0.00	Overtopping

# Rating Curve Plot for Crossing: Silver Hollow

## Total Rating Curve

Crossing: Silver Hollow



**Table 2 - Culvert Summary Table: Ex\_Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	88.10	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
20.00	20.00	89.74	1.638	0.0*	1-S2n	0.634	1.229	0.742	1.041	10.572	3.123
40.00	40.00	90.47	2.366	0.306	1-S2n	0.887	1.761	1.105	1.462	11.950	3.861
50.00	50.00	90.81	2.707	0.581	1-S2n	0.990	1.977	1.261	1.635	12.405	4.126
80.00	80.00	91.75	3.651	1.391	1-S2n	1.253	2.532	1.667	2.073	13.477	4.711
100.00	100.00	92.30	4.203	1.936	1-S2n	1.405	2.841	1.906	2.319	14.048	5.007
120.00	120.00	92.84	4.744	2.509	1-S2n	1.544	3.125	2.127	2.541	14.569	5.257
140.00	140.00	93.41	5.307	3.111	5-S2n	1.674	3.386	2.335	2.750	15.052	5.453
160.00	160.00	94.02	5.919	3.740	5-S2n	1.797	3.622	2.533	3.205	15.511	4.632
180.00	180.00	94.70	6.598	4.982	5-S2n	1.915	3.838	2.720	3.359	15.966	4.646
200.00	200.00	95.46	7.358	5.579	5-S2n	2.029	4.036	2.898	3.484	16.428	4.705

\* Full Flow Headwater elevation is below inlet invert.

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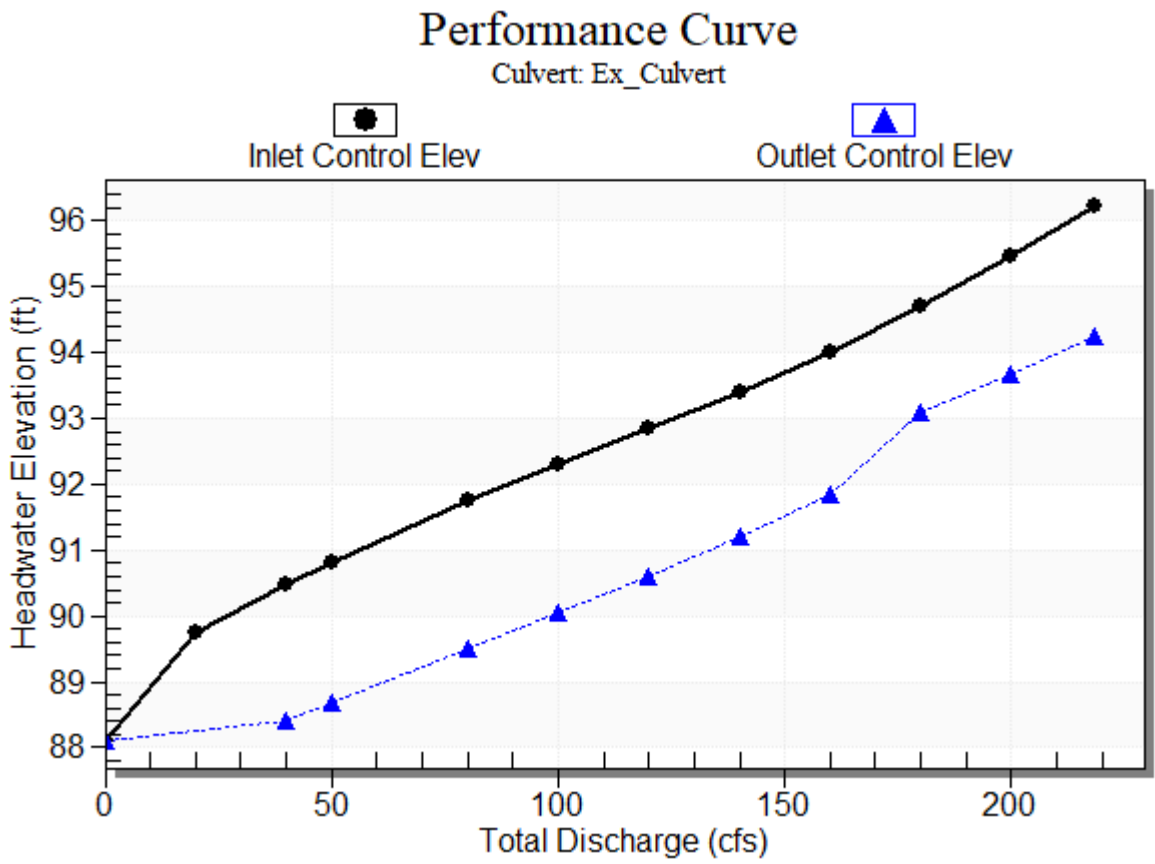
Straight Culvert

Inlet Elevation (invert): 88.10 ft, Outlet Elevation (invert): 86.54 ft

Culvert Length: 41.03 ft, Culvert Slope: 0.0380

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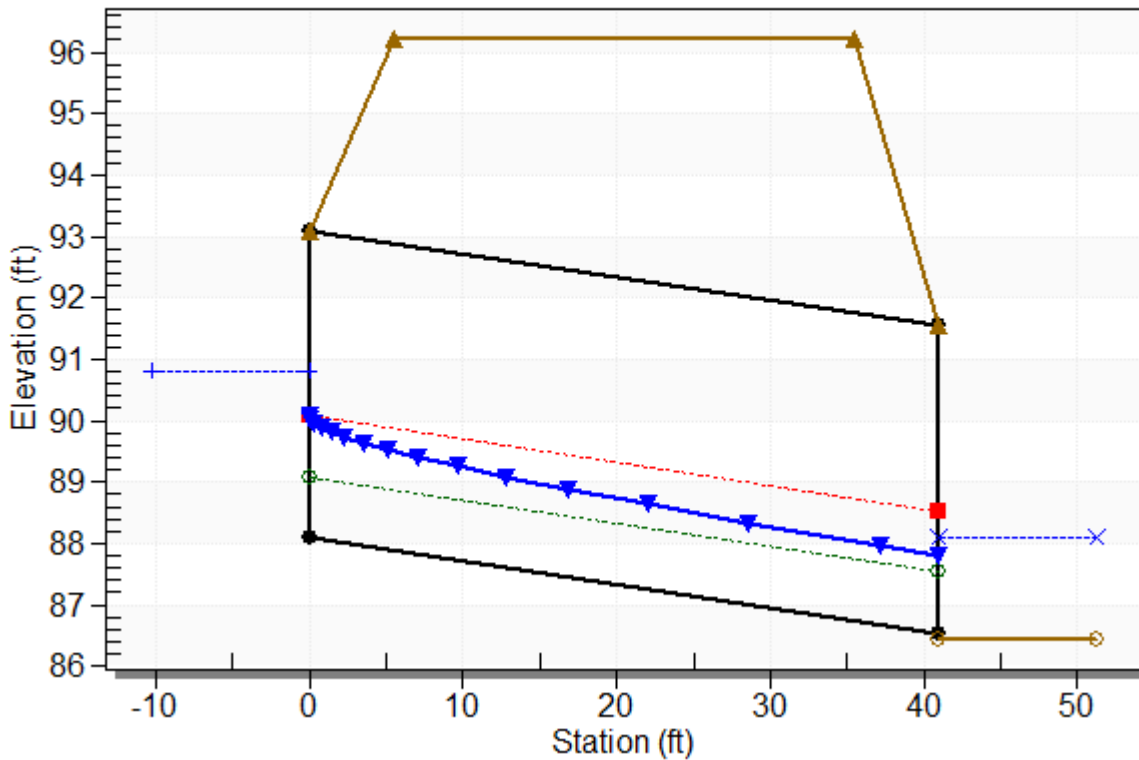
### Culvert Performance Curve Plot: Ex\_Culvert



## Water Surface Profile Plot for Culvert: Ex\_Culvert

### Crossing - Silver Hollow, Design Discharge - 50.0 cfs

Culvert - Ex\_Culvert, Culvert Discharge - 50.0 cfs



## Site Data - Ex\_Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 88.10 ft

Outlet Station: 41.00 ft

Outlet Elevation: 86.54 ft

Number of Barrels: 1

## Culvert Data Summary - Ex\_Culvert

Barrel Shape: Circular

Barrel Diameter: 5.00 ft

Barrel Material: Smooth HDPE

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Silver Hollow)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	86.45	0.00	0.00	0.00	0.00
20.00	87.49	1.04	3.12	0.97	0.64
40.00	87.91	1.46	3.86	1.37	0.67
50.00	88.08	1.63	4.13	1.53	0.68
80.00	88.52	2.07	4.71	1.94	0.69
100.00	88.77	2.32	5.01	2.17	0.70
120.00	88.99	2.54	5.26	2.38	0.70
140.00	89.20	2.75	5.45	2.57	0.71
160.00	89.65	3.20	4.63	3.00	0.70
180.00	89.81	3.36	4.65	3.14	0.71
200.00	89.93	3.48	4.71	3.26	0.71

### **Tailwater Channel Data - Silver Hollow**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Silver Hollow**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 96.23 ft

Roadway Surface: Paved

Roadway Top Width: 30.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 200 cfs

Maximum Flow: 600 cfs

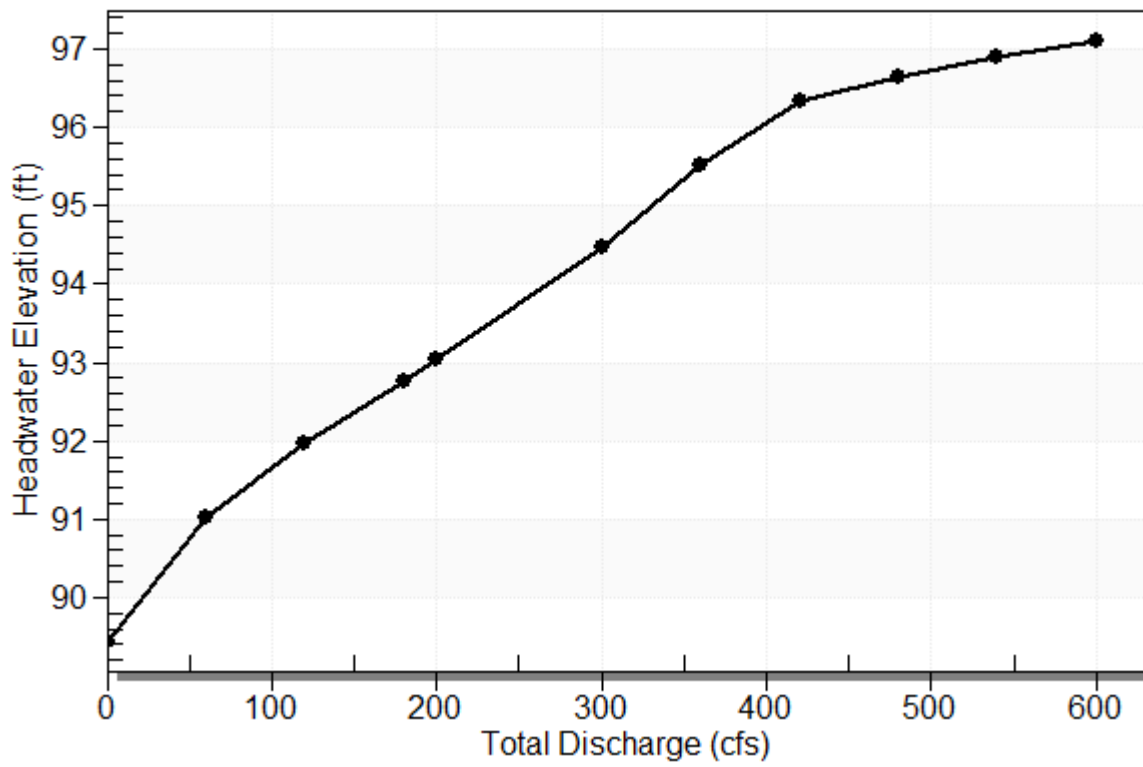
**Table 1 - Summary of Culvert Flows at Crossing: Stony Clove**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
89.45	0.00	0.00	0.00	1
91.02	60.00	60.00	0.00	1
91.97	120.00	120.00	0.00	1
92.77	180.00	180.00	0.00	1
93.03	200.00	200.00	0.00	1
94.46	300.00	300.00	0.00	1
95.53	360.00	360.00	0.00	1
96.32	420.00	398.57	21.38	5
96.63	480.00	412.56	67.38	5
96.89	540.00	423.66	116.16	4
97.11	600.00	433.33	166.56	4
96.05	385.75	385.75	0.00	Overtopping

# Rating Curve Plot for Crossing: Stony Clove

## Total Rating Curve

Crossing: Stony Clove



**Table 2 - Culvert Summary Table: Ex Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	89.45	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
60.00	60.00	91.02	1.570	0.810	1-S2n	0.563	1.038	0.658	1.908	9.116	2.758
120.00	120.00	91.97	2.515	1.443	1-S2n	0.872	1.648	1.106	2.354	10.847	3.387
180.00	180.00	92.77	3.318	2.100	1-S2n	1.132	2.159	1.503	2.700	11.975	3.816
200.00	200.00	93.03	3.578	2.334	1-S2n	1.212	2.316	1.628	2.802	12.282	3.933
300.00	300.00	94.46	5.014	4.174	5-S2n	1.583	3.035	2.213	3.234	13.555	4.471
360.00	360.00	95.53	6.080	5.055	5-S2n	1.789	3.427	2.539	3.461	14.177	4.733
420.00	398.57	96.32	6.873	5.681	5-S2n	1.916	3.668	2.742	3.673	14.536	4.962
480.00	412.56	96.63	7.183	5.893	5-S2n	1.961	3.700	2.813	3.872	14.664	5.166
540.00	423.66	96.89	7.437	6.054	5-S2n	1.997	3.700	2.868	4.060	14.773	5.351
600.00	433.33	97.11	7.665	6.306	5-S2n	2.028	3.700	2.913	4.219	14.877	5.567

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Straight Culvert

Inlet Elevation (invert): 89.45 ft, Outlet Elevation (invert): 88.70 ft

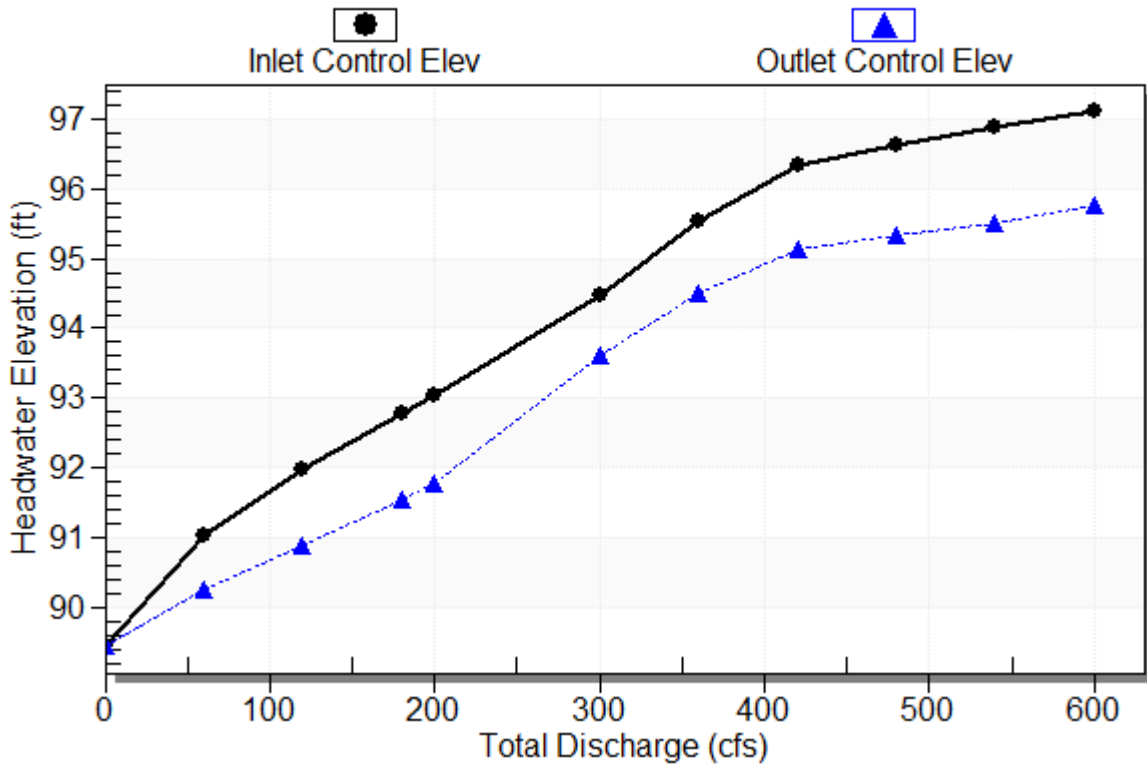
Culvert Length: 44.51 ft, Culvert Slope: 0.0169

\*\*\*\*\*

### Culvert Performance Curve Plot: Ex Culvert

## Performance Curve

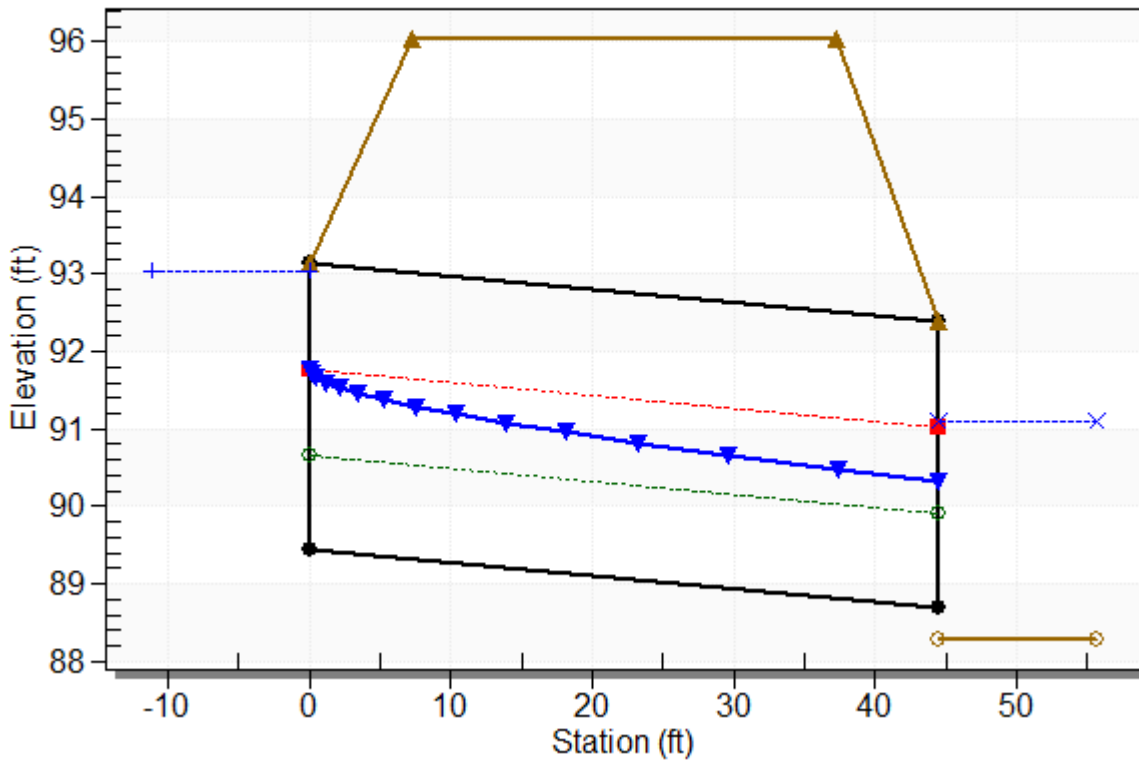
Culvert: Ex Culvert



## Water Surface Profile Plot for Culvert: Ex Culvert

Crossing - Stony Clove, Design Discharge - 200.0 cfs

Culvert - Ex Culvert, Culvert Discharge - 200.0 cfs



### Site Data - Ex Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 89.45 ft

Outlet Station: 44.50 ft

Outlet Elevation: 88.70 ft

Number of Barrels: 1

### Culvert Data Summary - Ex Culvert

Barrel Shape: Concrete Box

Barrel Span: 10.00 ft

Barrel Rise: 3.70 ft

Barrel Material: Concrete

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Square Edge (30-75° flare) Wingwall

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Stony Clove)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	88.29	0.00	0.00	0.00	0.00
60.00	90.20	1.91	2.76	1.19	0.55
120.00	90.64	2.35	3.39	1.47	0.57
180.00	90.99	2.70	3.82	1.68	0.58
200.00	91.09	2.80	3.93	1.75	0.59
300.00	91.52	3.23	4.47	2.02	0.60
360.00	91.75	3.46	4.73	2.16	0.60
420.00	91.96	3.67	4.96	2.29	0.61
480.00	92.16	3.87	5.17	2.42	0.61
540.00	92.35	4.06	5.35	2.53	0.62
600.00	92.51	4.22	5.57	2.63	0.62

### **Tailwater Channel Data - Stony Clove**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Stony Clove**

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

Crest Elevation: 96.05 ft

Roadway Surface: Paved

Roadway Top Width: 30.00 ft

# HY-8 Culvert Analysis Report

## Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0 cfs

Design Flow: 10 cfs

Maximum Flow: 100 cfs

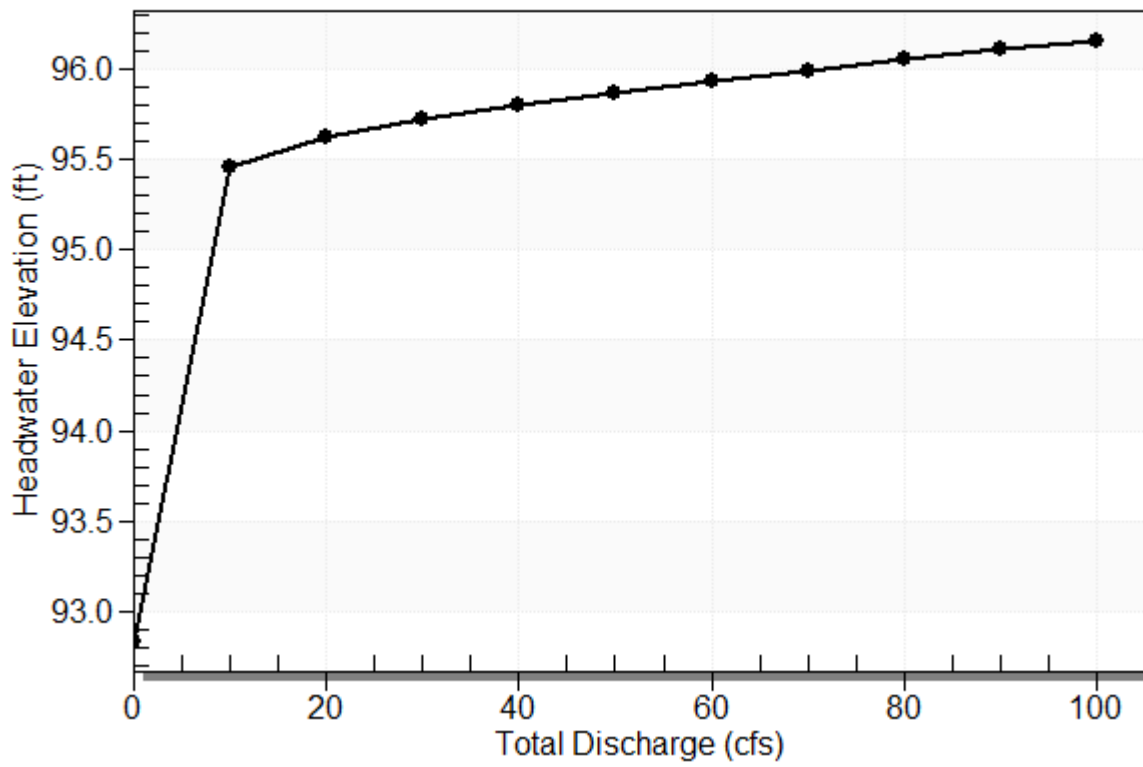
**Table 1 - Summary of Culvert Flows at Crossing: Woodland**

Headwater Elevation (ft)	Total Discharge (cfs)	Ex_Culvert Discharge (cfs)	Roadway Discharge (cfs)	Iterations
92.84	0.00	0.00	0.00	1
95.46	10.00	9.91	0.00	71
95.62	20.00	10.38	9.51	7
95.72	30.00	10.65	19.26	5
95.79	40.00	10.87	29.03	4
95.87	50.00	11.05	38.90	4
95.93	60.00	11.22	48.62	3
95.99	70.00	11.38	58.53	3
96.05	80.00	11.52	68.43	3
96.10	90.00	11.66	78.32	3
96.16	100.00	11.79	88.21	3
95.46	9.92	9.92	0.00	Overtopping

# Rating Curve Plot for Crossing: Woodland

## Total Rating Curve

Crossing: Woodland



**Table 2 - Culvert Summary Table: Ex\_Culvert**

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	92.84	0.000	0.000	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
10.00	9.91	95.46	2.616	1.139	5-S2n	0.695	1.212	0.788	0.753	10.192	2.588
20.00	10.38	95.62	2.780	1.273	5-S2n	0.715	1.238	0.811	1.057	10.308	3.191
30.00	10.65	95.72	2.875	1.240	5-S2n	0.725	1.252	0.824	1.295	10.373	3.548
40.00	10.87	95.79	2.954	1.493	5-S2n	0.734	1.263	0.834	1.491	10.422	3.821
50.00	11.05	95.87	3.025	1.711	5-S2n	0.741	1.272	0.843	1.657	10.464	4.049
60.00	11.22	95.93	3.089	1.894	5-S2n	0.748	1.280	0.851	1.793	10.501	4.301
70.00	11.38	95.99	3.151	2.066	5-JS1f	0.754	1.287	1.500	1.921	6.439	4.522
80.00	11.52	96.05	3.209	2.228	5-JS1f	0.760	1.294	1.500	2.041	6.521	4.719
90.00	11.66	96.10	3.264	2.382	5-JS1f	0.765	1.300	1.500	2.156	6.598	4.898
100.00	11.79	96.16	3.317	2.530	5-JS1f	0.771	1.305	1.500	2.265	6.672	5.062

\*\*\*\*\*

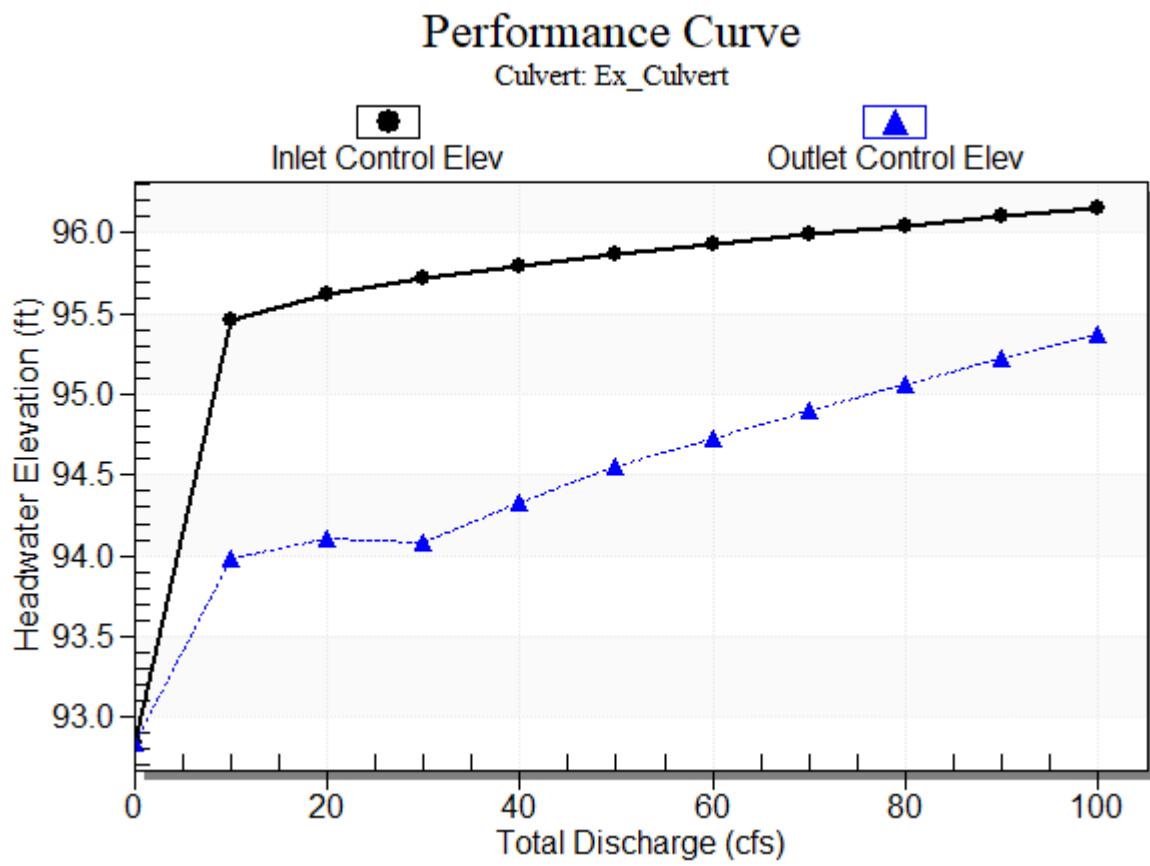
Straight Culvert

Inlet Elevation (invert): 92.84 ft, Outlet Elevation (invert): 91.39 ft

Culvert Length: 40.53 ft, Culvert Slope: 0.0358

\*\*\*\*\*

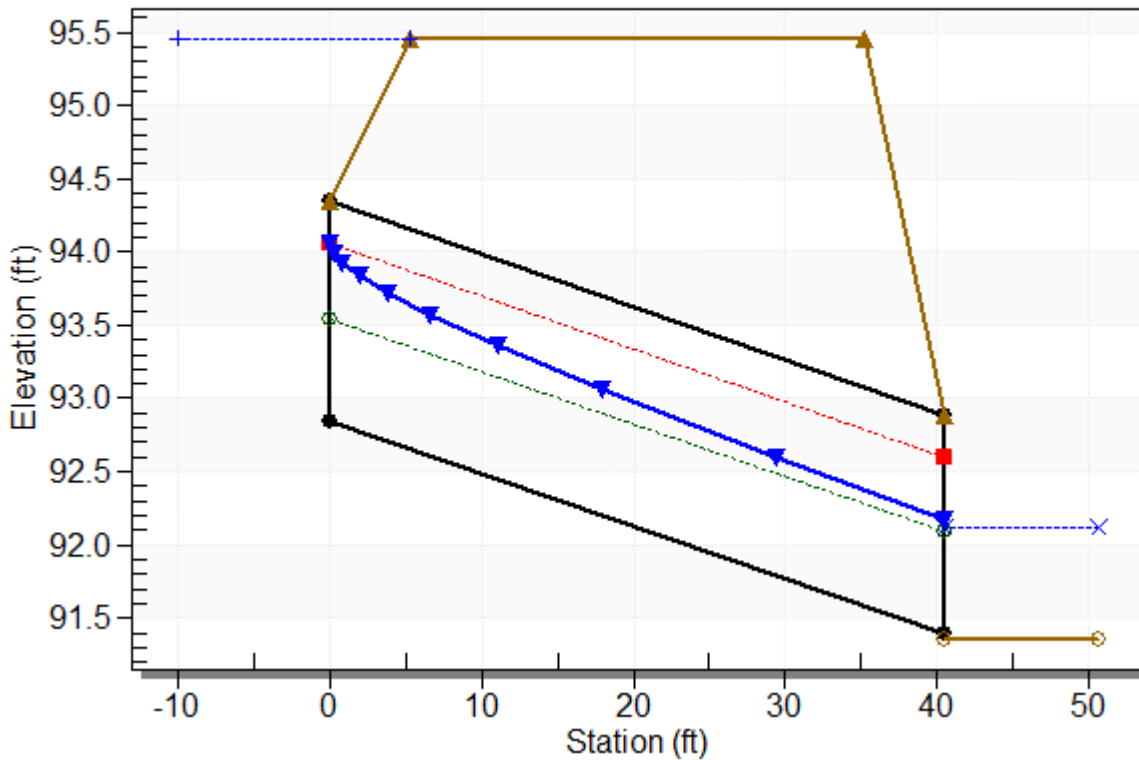
### Culvert Performance Curve Plot: Ex\_Culvert



## Water Surface Profile Plot for Culvert: Ex\_Culvert

### Crossing - Woodland, Design Discharge - 10.0 cfs

Culvert - Ex\_Culvert, Culvert Discharge - 9.9 cfs



## Site Data - Ex\_Culvert

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 92.84 ft

Outlet Station: 40.50 ft

Outlet Elevation: 91.39 ft

Number of Barrels: 1

## Culvert Data Summary - Ex\_Culvert

Barrel Shape: Circular

Barrel Diameter: 1.50 ft

Barrel Material: Smooth HDPE

Embedment: 0.00 in

Barrel Manning's n: 0.0120

Culvert Type: Straight

Inlet Configuration: Thin Edge Projecting

Inlet Depression: None

**Table 3 - Downstream Channel Rating Curve (Crossing: Woodland)**

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	91.36	0.00	0.00	0.00	0.00
10.00	92.11	0.75	2.59	0.71	0.63
20.00	92.42	1.06	3.19	0.99	0.66
30.00	92.66	1.30	3.55	1.21	0.67
40.00	92.85	1.49	3.82	1.40	0.68
50.00	93.02	1.66	4.05	1.55	0.69
60.00	93.15	1.79	4.30	1.68	0.70
70.00	93.28	1.92	4.52	1.80	0.71
80.00	93.40	2.04	4.72	1.91	0.71
90.00	93.52	2.16	4.90	2.02	0.71
100.00	93.62	2.26	5.06	2.12	0.72

### **Tailwater Channel Data - Woodland**

Tailwater Channel Option: Irregular Channel

### **Roadway Data for Crossing: Woodland**

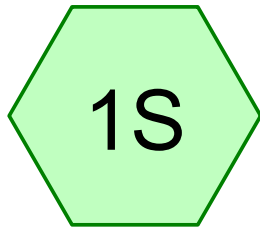
Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 50.00 ft

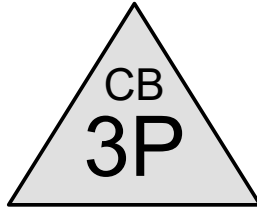
Crest Elevation: 95.46 ft

Roadway Surface: Paved

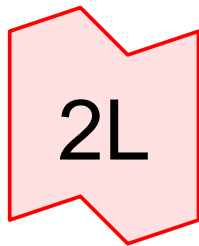
Roadway Top Width: 30.00 ft



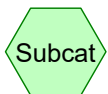
Subarea1



Culvert



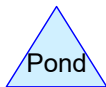
Outlet



Subcat



Reach



Pond



Link

**Routing Diagram for Baker**

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**Baker**

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Page 2

**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	89.57	89.45	29.5	0.0041	0.025	72.0	54.0	0.0

**Baker**

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NRCC 24-hr D 2\_yr Rainfall=3.54"

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Page 3

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea1**

Runoff Area=486.020 ac 0.00% Impervious Runoff Depth>1.02"  
Tc=56.1 min CN=73 Runoff=223.65 cfs 41.261 af

**Pond 3P: Culvert**

Peak Elev=96.02' Inflow=223.65 cfs 41.261 af  
Primary=183.17 cfs 39.632 af Secondary=40.48 cfs 1.629 af Outflow=223.65 cfs 41.261 af

**Link 2L: Outlet**

Inflow=183.17 cfs 39.632 af  
Primary=183.17 cfs 39.632 af

**Total Runoff Area = 486.020 ac Runoff Volume = 41.261 af Average Runoff Depth = 1.02"**  
**100.00% Pervious = 486.020 ac 0.00% Impervious = 0.000 ac**

### Summary for Subcatchment 1S: Subarea1

Runoff = 223.65 cfs @ 12.79 hrs, Volume= 41.261 af, Depth> 1.02"

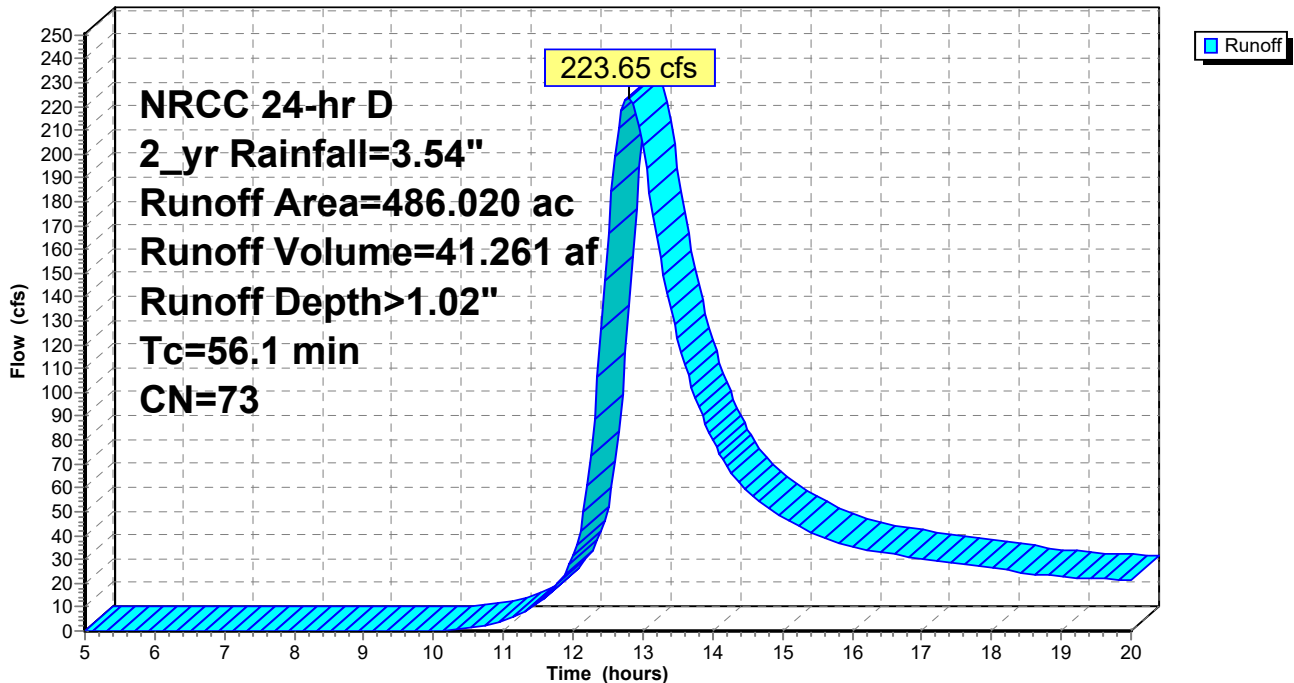
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D 2\_yr Rainfall=3.54"

Area (ac)	CN	Description
* 486.020	73	Combined Curve Number from TR-55 output
486.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.1					Direct Entry, Time of Concentration from TR-55

### Subcatchment 1S: Subarea1

Hydrograph



### Summary for Pond 3P: Culvert

[57] Hint: Peaked at 96.02' (Flood elevation advised)

Inflow Area = 486.020 ac, 0.00% Impervious, Inflow Depth > 1.02" for 2\_yr event  
 Inflow = 223.65 cfs @ 12.79 hrs, Volume= 41.261 af  
 Outflow = 223.65 cfs @ 12.79 hrs, Volume= 41.261 af, Atten= 0%, Lag= 0.0 min  
 Primary = 183.17 cfs @ 12.79 hrs, Volume= 39.632 af  
 Secondary = 40.48 cfs @ 12.79 hrs, Volume= 1.629 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.02' @ 12.79 hrs

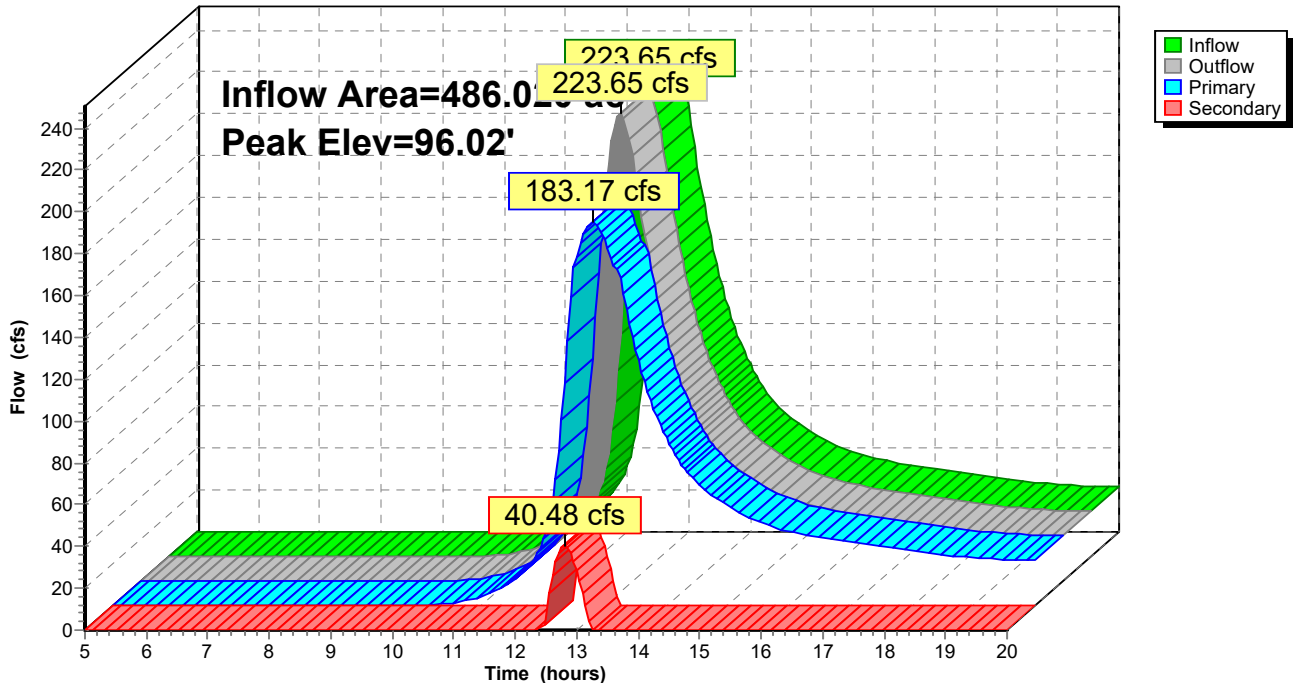
Device	Routing	Invert	Outlet Devices
#1	Primary	89.57'	<b>72.0" W x 54.0" H, R=54.0" Elliptical Culvert</b> L= 29.5' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 89.57' / 89.45' S= 0.0041 ' S= 0.0041 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 21.78 sf
#2	Secondary	95.18'	<b>20.0' long x 20.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=183.10 cfs @ 12.79 hrs HW=96.02' (Free Discharge)  
 ↳1=Culvert (Barrel Controls 183.10 cfs @ 8.41 fps)

**Secondary OutFlow** Max=40.35 cfs @ 12.79 hrs HW=96.02' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 40.35 cfs @ 2.41 fps)

### Pond 3P: Culvert

Hydrograph



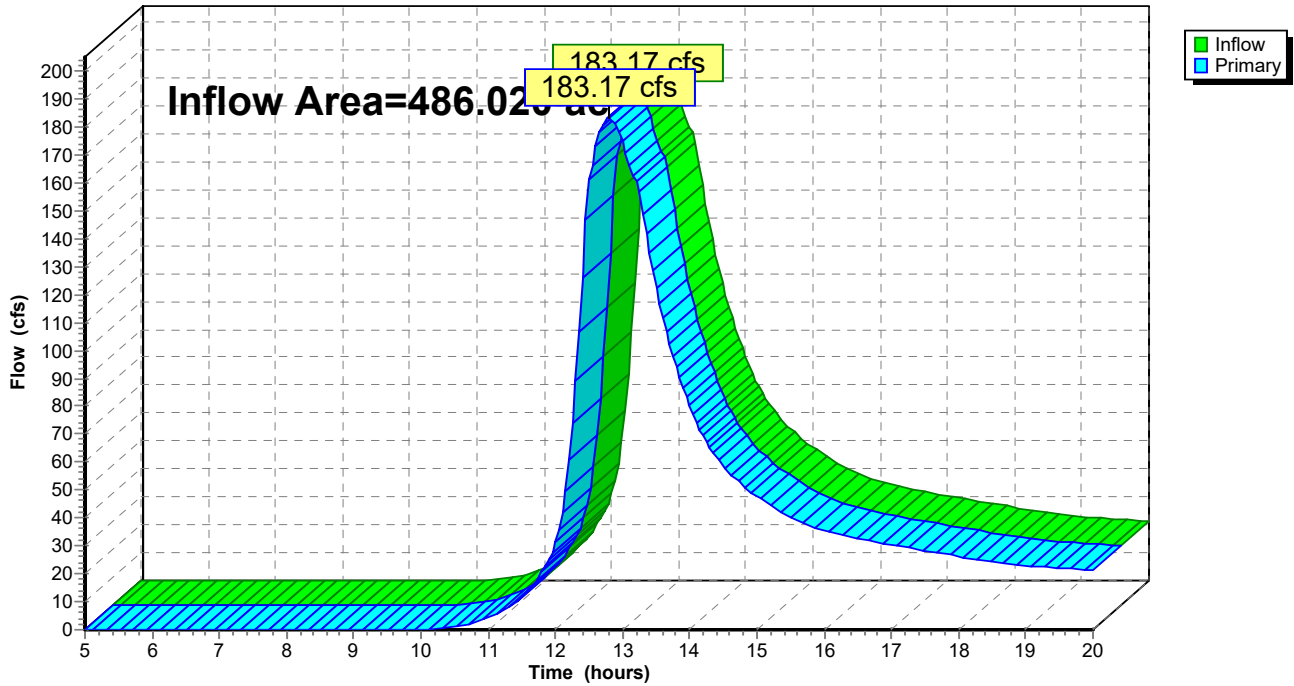
### Summary for Link 2L: Outlet

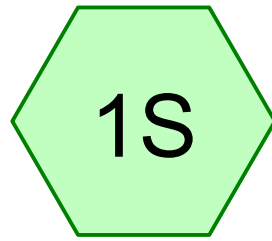
Inflow Area = 486.020 ac, 0.00% Impervious, Inflow Depth > 0.98" for 2\_yr event  
Inflow = 183.17 cfs @ 12.79 hrs, Volume= 39.632 af  
Primary = 183.17 cfs @ 12.79 hrs, Volume= 39.632 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

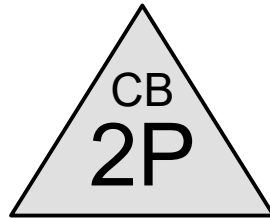
### Link 2L: Outlet

Hydrograph

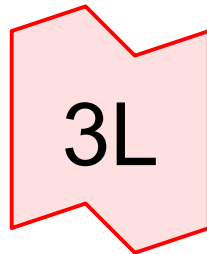




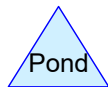
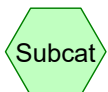
Subarea



Ex Culvert



Outlet



**Routing Diagram for Bostock**

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**Bostock**

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**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	90.14	89.70	30.0	0.0147	0.024	66.0	0.0	0.0

**Bostock**

NRCC 24-hr D Rainfall=4.78"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=378.550 ac 0.00% Impervious Runoff Depth>1.73"  
Tc=68.0 min CN=72 Runoff=270.14 cfs 54.627 af

**Pond 2P: Ex Culvert**

Peak Elev=98.32' Inflow=270.14 cfs 54.627 af  
Primary=249.06 cfs 53.964 af Secondary=21.09 cfs 0.663 af Outflow=270.14 cfs 54.627 af

**Link 3L: Outlet**

Inflow=249.06 cfs 53.964 af  
Primary=249.06 cfs 53.964 af

**Total Runoff Area = 378.550 ac Runoff Volume = 54.627 af Average Runoff Depth = 1.73"**  
**100.00% Pervious = 378.550 ac 0.00% Impervious = 0.000 ac**

### Summary for Subcatchment 1S: Subarea

Runoff = 270.14 cfs @ 12.93 hrs, Volume= 54.627 af, Depth> 1.73"

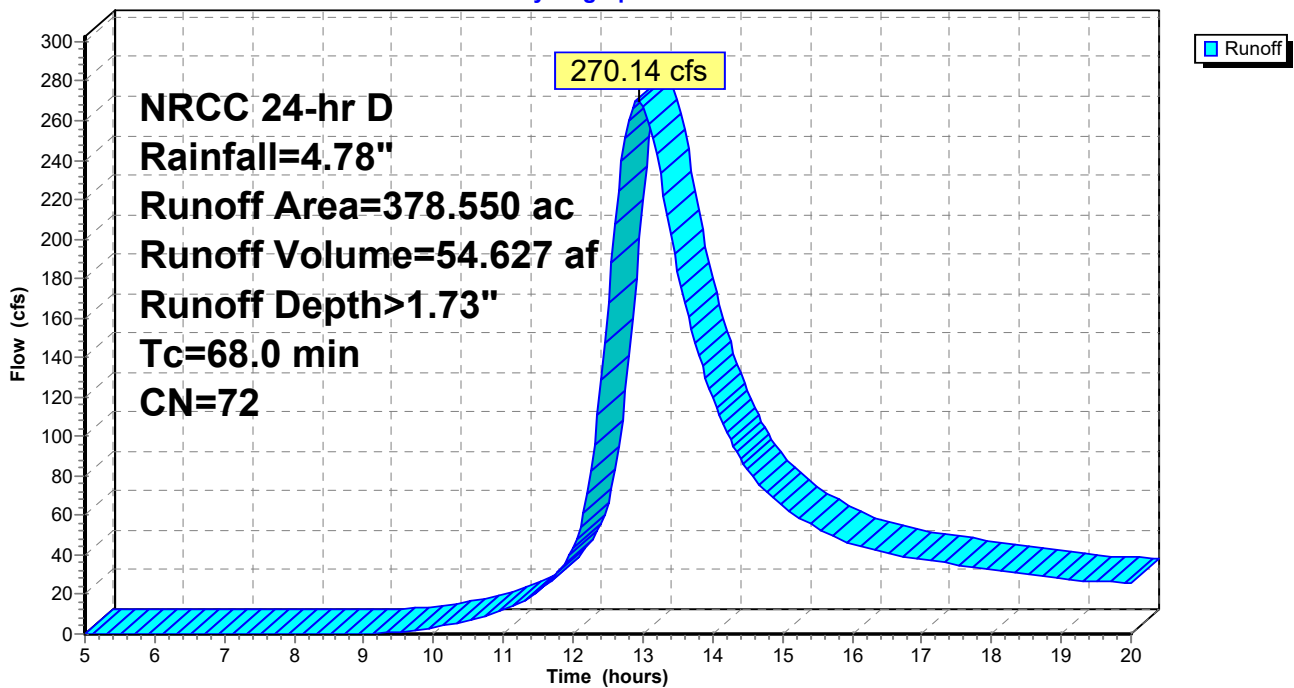
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=4.78"

Area (ac)	CN	Description
* 378.550	72	From TR-55 Output
378.550		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
68.0					Direct Entry, From TR-55 Date

### Subcatchment 1S: Subarea

Hydrograph



**Summary for Pond 2P: Ex Culvert**

[57] Hint: Peaked at 98.32' (Flood elevation advised)

Inflow Area = 378.550 ac, 0.00% Impervious, Inflow Depth > 1.73"  
 Inflow = 270.14 cfs @ 12.93 hrs, Volume= 54.627 af  
 Outflow = 270.14 cfs @ 12.93 hrs, Volume= 54.627 af, Atten= 0%, Lag= 0.0 min  
 Primary = 249.06 cfs @ 12.93 hrs, Volume= 53.964 af  
 Secondary = 21.09 cfs @ 12.93 hrs, Volume= 0.663 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 98.32' @ 12.93 hrs

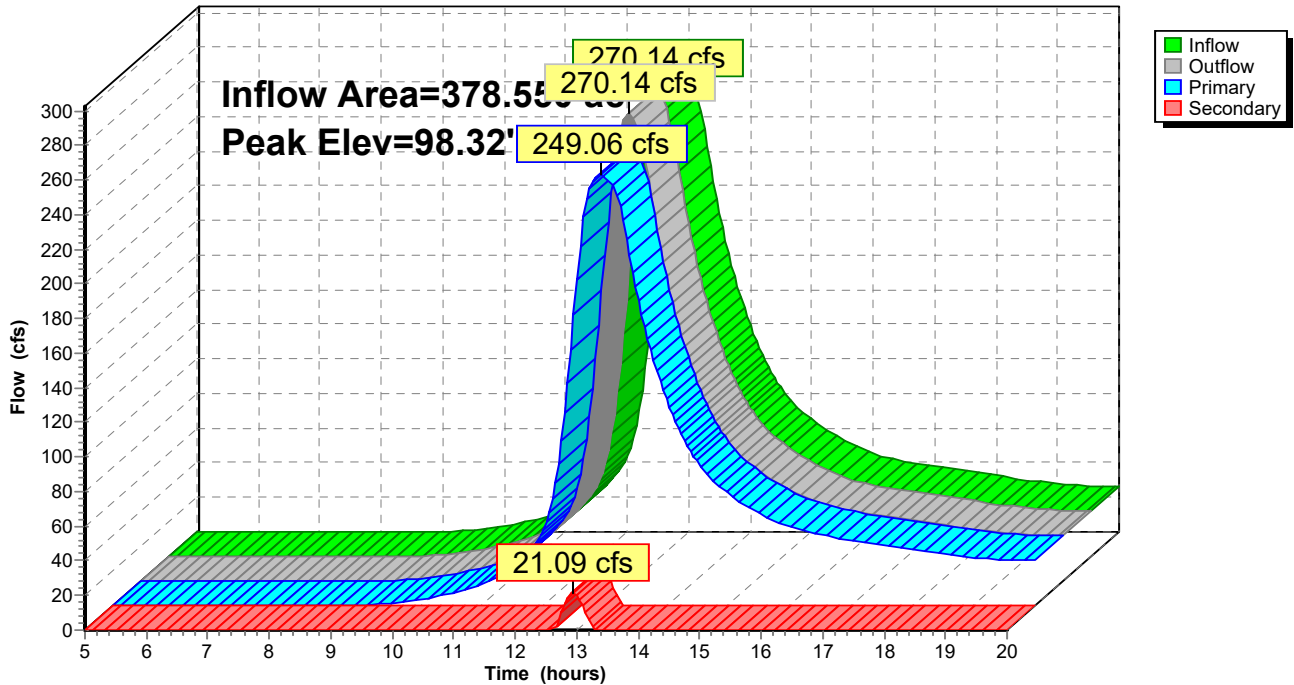
Device	Routing	Invert	Outlet Devices
#1	Primary	90.14'	<b>66.0" Round Culvert</b> L= 30.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 90.14' / 89.70' S= 0.0147 ' /' Cc= 0.900 n= 0.024, Flow Area= 23.76 sf
#2	Secondary	97.79'	<b>20.0' long x 20.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=248.94 cfs @ 12.93 hrs HW=98.32' (Free Discharge)  
 ↳1=Culvert (Barrel Controls 248.94 cfs @ 10.48 fps)

**Secondary OutFlow** Max=20.91 cfs @ 12.93 hrs HW=98.32' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 20.91 cfs @ 1.97 fps)

**Pond 2P: Ex Culvert**

Hydrograph



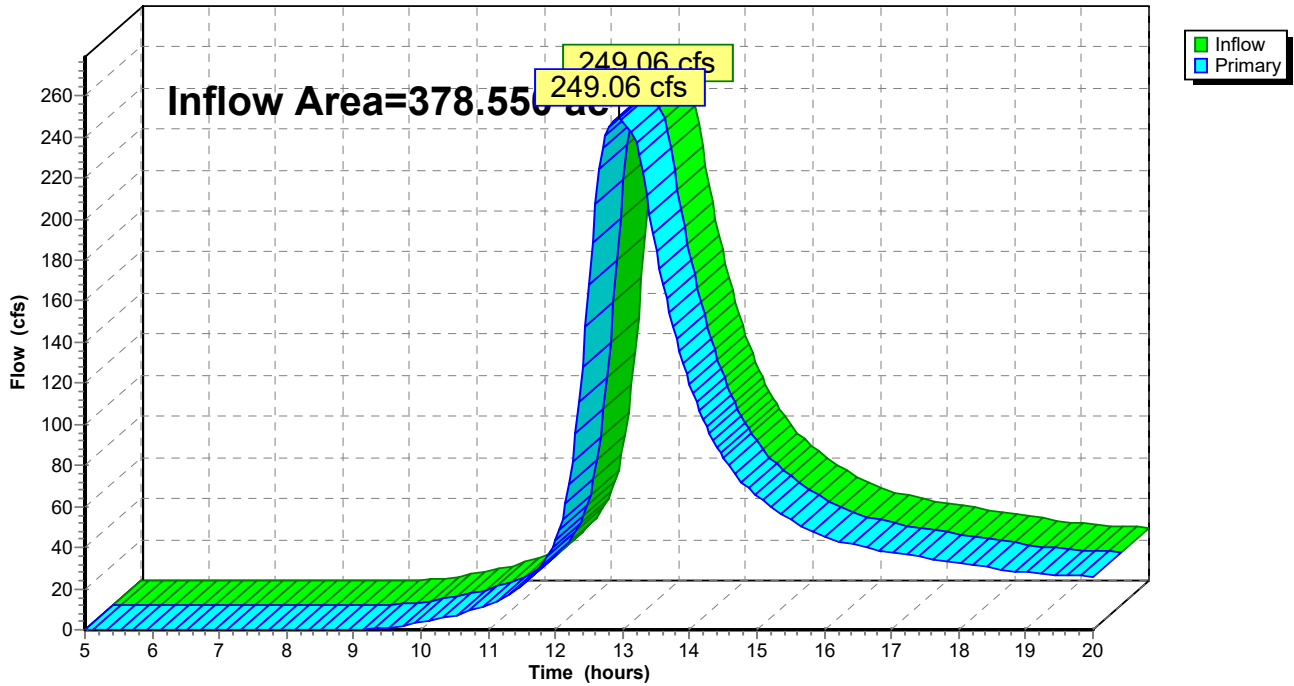
### Summary for Link 3L: Outlet

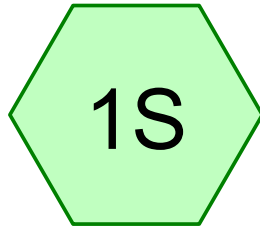
Inflow Area = 378.550 ac, 0.00% Impervious, Inflow Depth > 1.71"  
Inflow = 249.06 cfs @ 12.93 hrs, Volume= 53.964 af  
Primary = 249.06 cfs @ 12.93 hrs, Volume= 53.964 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

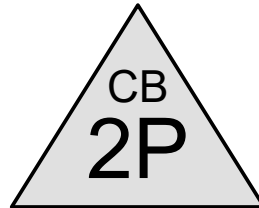
### Link 3L: Outlet

Hydrograph

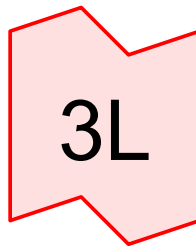




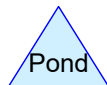
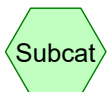
Subarea



Ex Culvert



Outlet



**Routing Diagram for Ford**

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**Ford**

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**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	92.09	91.03	35.5	0.0299	0.012	24.0	0.0	0.0

**Ford**

NRCC 24-hr D Rainfall=4.78"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=126.580 ac 0.00% Impervious Runoff Depth>1.90"  
Tc=52.9 min CN=74 Runoff=114.66 cfs 20.005 af

**Pond 2P: Ex Culvert**

Peak Elev=96.02' Inflow=114.66 cfs 20.005 af  
Primary=22.83 cfs 11.356 af Secondary=91.82 cfs 8.649 af Outflow=114.66 cfs 20.005 af

**Link 3L: Outlet**

Inflow=22.83 cfs 11.356 af  
Primary=22.83 cfs 11.356 af

**Total Runoff Area = 126.580 ac Runoff Volume = 20.005 af Average Runoff Depth = 1.90"**  
**100.00% Pervious = 126.580 ac 0.00% Impervious = 0.000 ac**

**Summary for Subcatchment 1S: Subarea**

Runoff = 114.66 cfs @ 12.73 hrs, Volume= 20.005 af, Depth> 1.90"

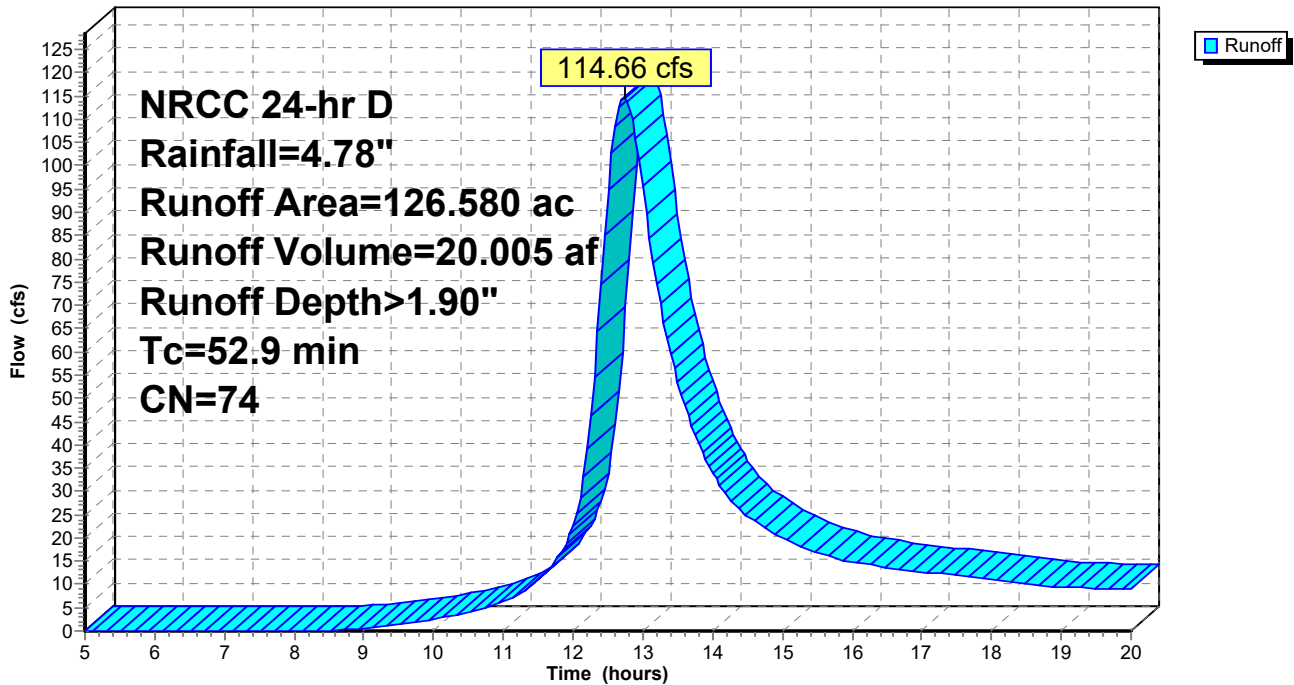
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=4.78"

Area (ac)	CN	Description
* 126.580	74	From TR-55 Inputs
126.580		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
52.9					Direct Entry, From TR-55 Input

**Subcatchment 1S: Subarea**

Hydrograph



**Summary for Pond 2P: Ex Culvert**

[57] Hint: Peaked at 96.02' (Flood elevation advised)

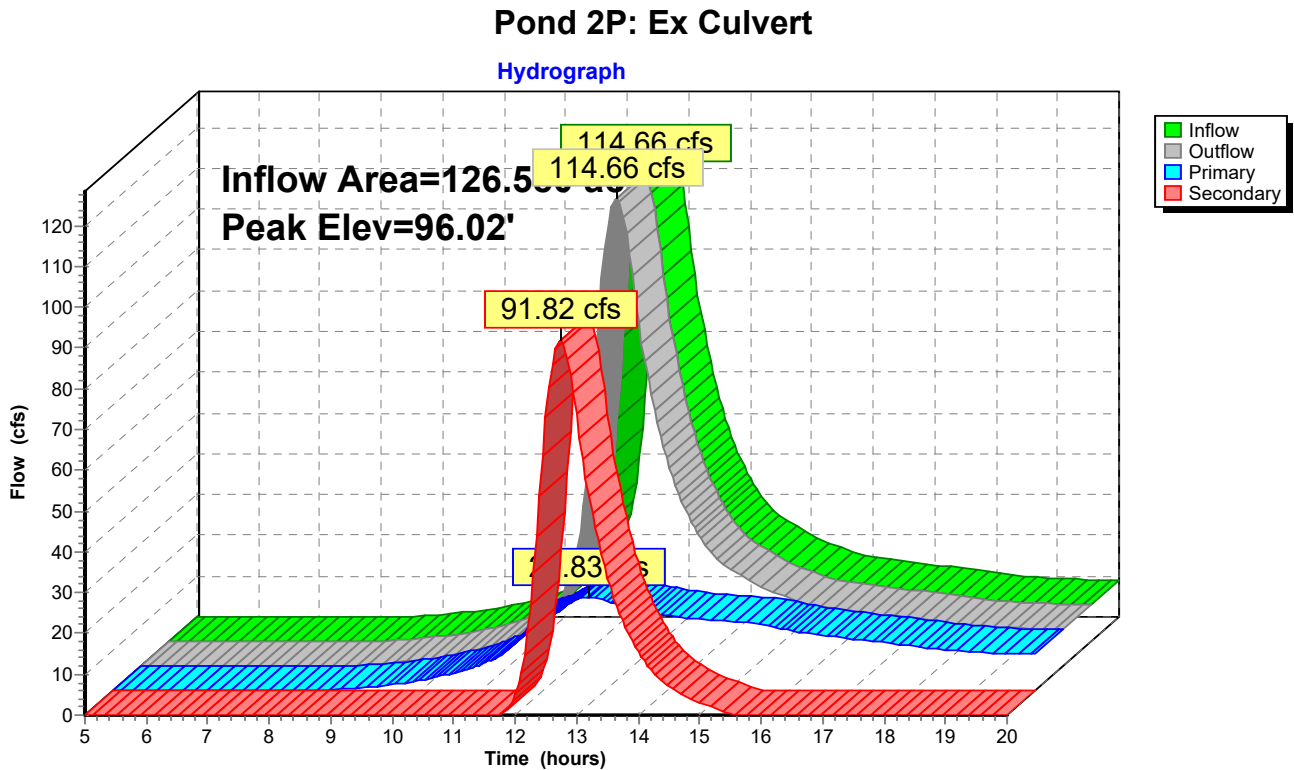
Inflow Area = 126.580 ac, 0.00% Impervious, Inflow Depth > 1.90"  
 Inflow = 114.66 cfs @ 12.73 hrs, Volume= 20.005 af  
 Outflow = 114.66 cfs @ 12.73 hrs, Volume= 20.005 af, Atten= 0%, Lag= 0.0 min  
 Primary = 22.83 cfs @ 12.73 hrs, Volume= 11.356 af  
 Secondary = 91.82 cfs @ 12.73 hrs, Volume= 8.649 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.02' @ 12.73 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	92.09'	<b>24.0" Round Culvert</b> L= 35.5' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 92.09' / 91.03' S= 0.0299 ' S= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Secondary	94.57'	<b>20.0' long x 30.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=22.83 cfs @ 12.73 hrs HW=96.01' (Free Discharge)  
 ←1=Culvert (Inlet Controls 22.83 cfs @ 7.27 fps)

**Secondary OutFlow** Max=91.59 cfs @ 12.73 hrs HW=96.01' (Free Discharge)  
 ←2=Broad-Crested Rectangular Weir (Weir Controls 91.59 cfs @ 3.17 fps)



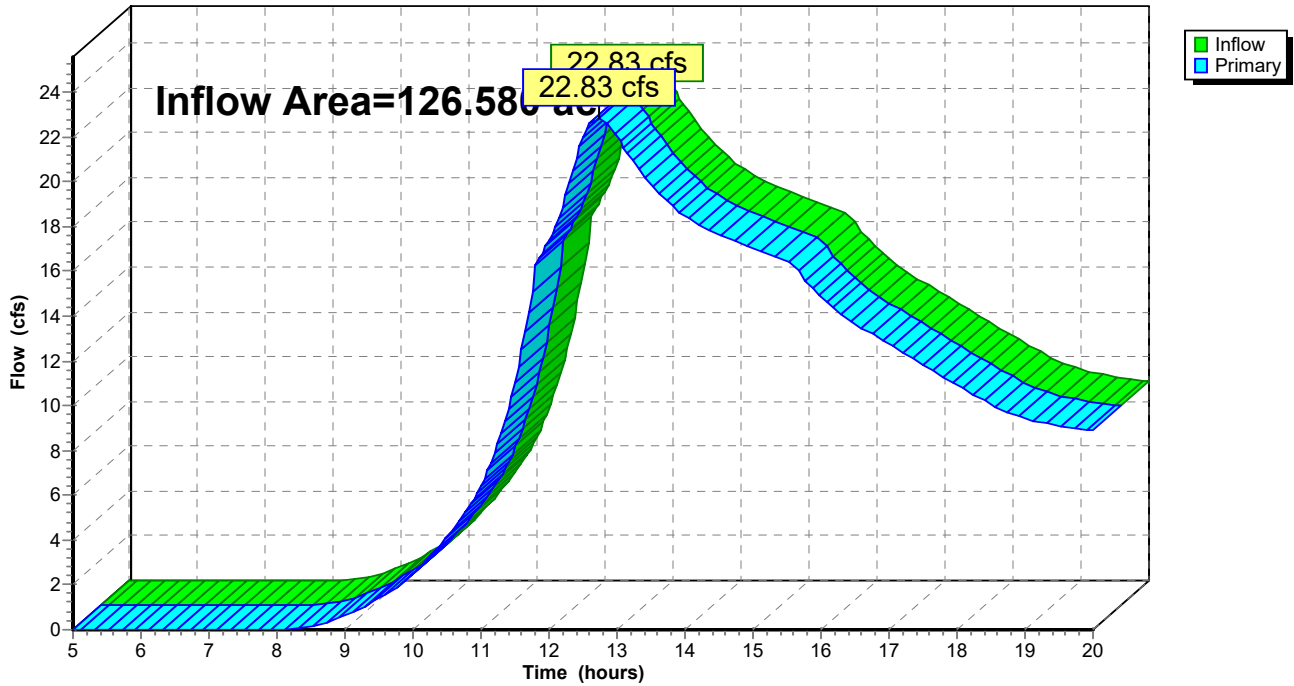
### Summary for Link 3L: Outlet

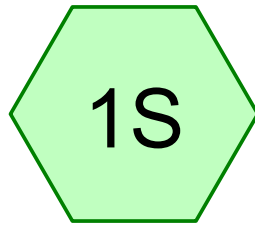
Inflow Area = 126.580 ac, 0.00% Impervious, Inflow Depth > 1.08"  
Inflow = 22.83 cfs @ 12.73 hrs, Volume= 11.356 af  
Primary = 22.83 cfs @ 12.73 hrs, Volume= 11.356 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

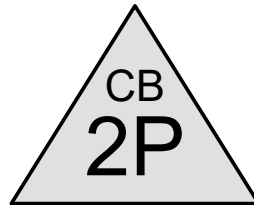
### Link 3L: Outlet

Hydrograph

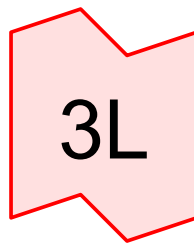




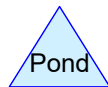
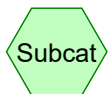
Subarea



Ex Culvert



Outlet



**Routing Diagram for Lost\_Clove**

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## Lost\_Clove

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### Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	87.95	87.41	26.6	0.0203	0.012	75.0	0.0	0.0

**Lost\_Clove**

NRCC 24-hr D Rainfall=3.26"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=921.430 ac 0.00% Impervious Runoff Depth>0.90"  
Tc=61.1 min CN=74 Runoff=357.21 cfs 69.425 af

**Pond 2P: Ex Culvert**

Peak Elev=95.46' Inflow=357.21 cfs 69.425 af  
Primary=291.95 cfs 66.583 af Secondary=65.26 cfs 2.842 af Outflow=357.21 cfs 69.425 af

**Link 3L: Outlet**

Inflow=357.21 cfs 69.425 af  
Primary=357.21 cfs 69.425 af

**Total Runoff Area = 921.430 ac Runoff Volume = 69.425 af Average Runoff Depth = 0.90"**  
**100.00% Pervious = 921.430 ac 0.00% Impervious = 0.000 ac**

# Lost\_Clove

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NRCC 24-hr D Rainfall=3.26"

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## Summary for Subcatchment 1S: Subarea

Runoff = 357.21 cfs @ 12.86 hrs, Volume= 69.425 af, Depth> 0.90"

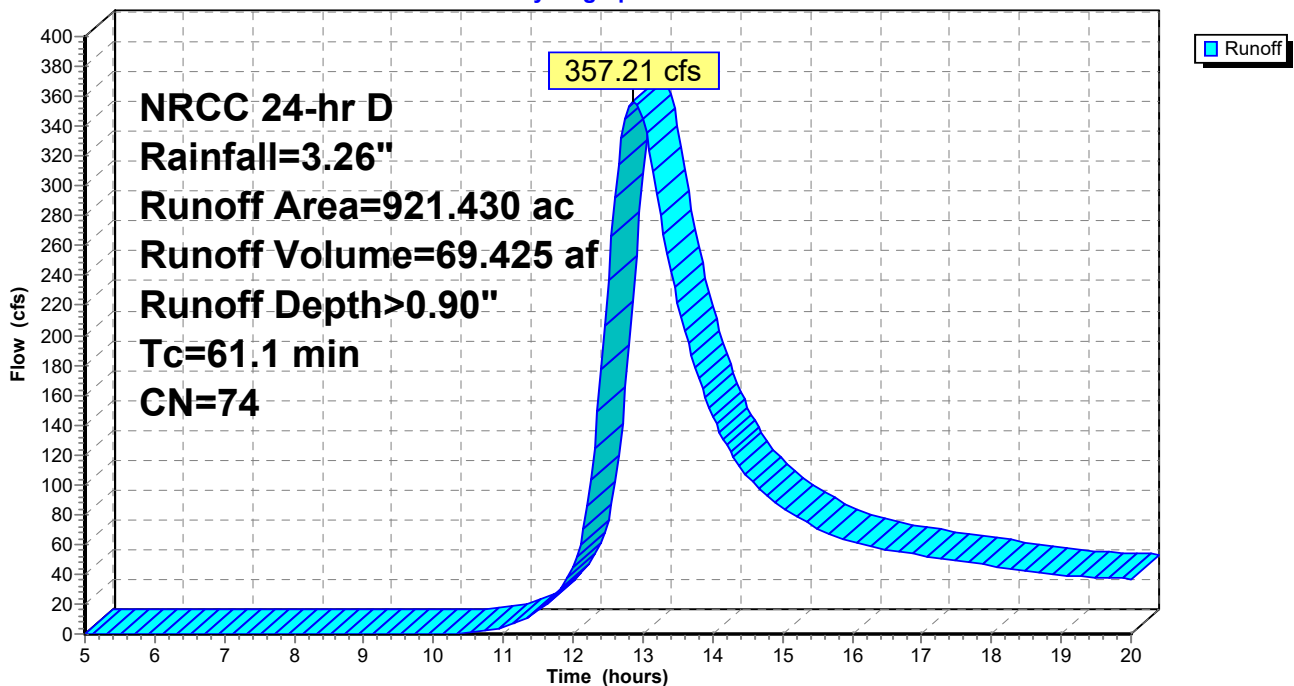
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=3.26"

Area (ac)	CN	Description
* 921.430	74	From TR-55 Input
921.430		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
61.1					Direct Entry, From TR-55 Input

## Subcatchment 1S: Subarea

Hydrograph



# Lost\_Clove

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NRCC 24-hr D Rainfall=3.26"

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## Summary for Pond 2P: Ex Culvert

[57] Hint: Peaked at 95.46' (Flood elevation advised)

Inflow Area = 921.430 ac, 0.00% Impervious, Inflow Depth > 0.90"  
 Inflow = 357.21 cfs @ 12.86 hrs, Volume= 69.425 af  
 Outflow = 357.21 cfs @ 12.86 hrs, Volume= 69.425 af, Atten= 0%, Lag= 0.0 min  
 Primary = 291.95 cfs @ 12.86 hrs, Volume= 66.583 af  
 Secondary = 65.26 cfs @ 12.86 hrs, Volume= 2.842 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 95.46' @ 12.86 hrs

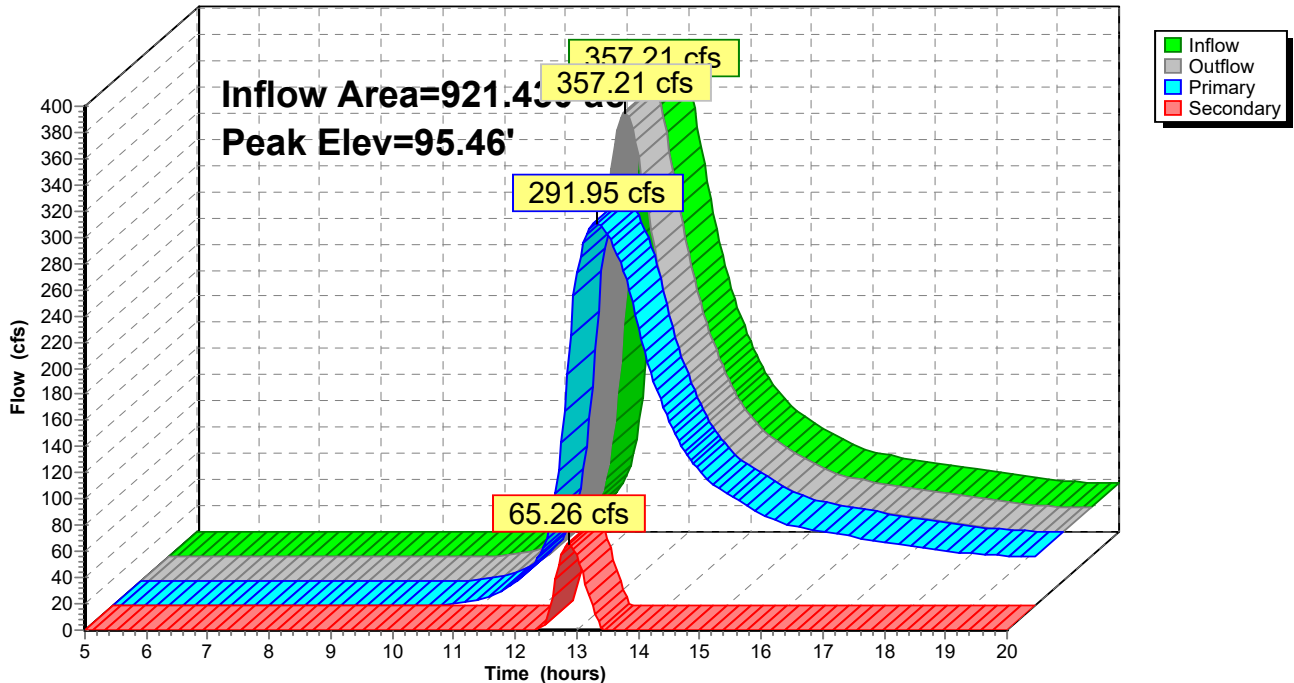
Device	Routing	Invert	Outlet Devices
#1	Primary	87.95'	<b>75.0" Round Culvert</b> L= 26.6' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 87.95' / 87.41' S= 0.0203 ' / Cc= 0.900 n= 0.012, Flow Area= 30.68 sf
#2	Secondary	94.31'	<b>20.0' long x 20.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=291.77 cfs @ 12.86 hrs HW=95.46' (Free Discharge)  
 ↳1=Culvert (Barrel Controls 291.77 cfs @ 10.02 fps)

**Secondary OutFlow** Max=64.90 cfs @ 12.86 hrs HW=95.46' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 64.90 cfs @ 2.83 fps)

### Pond 2P: Ex Culvert

Hydrograph



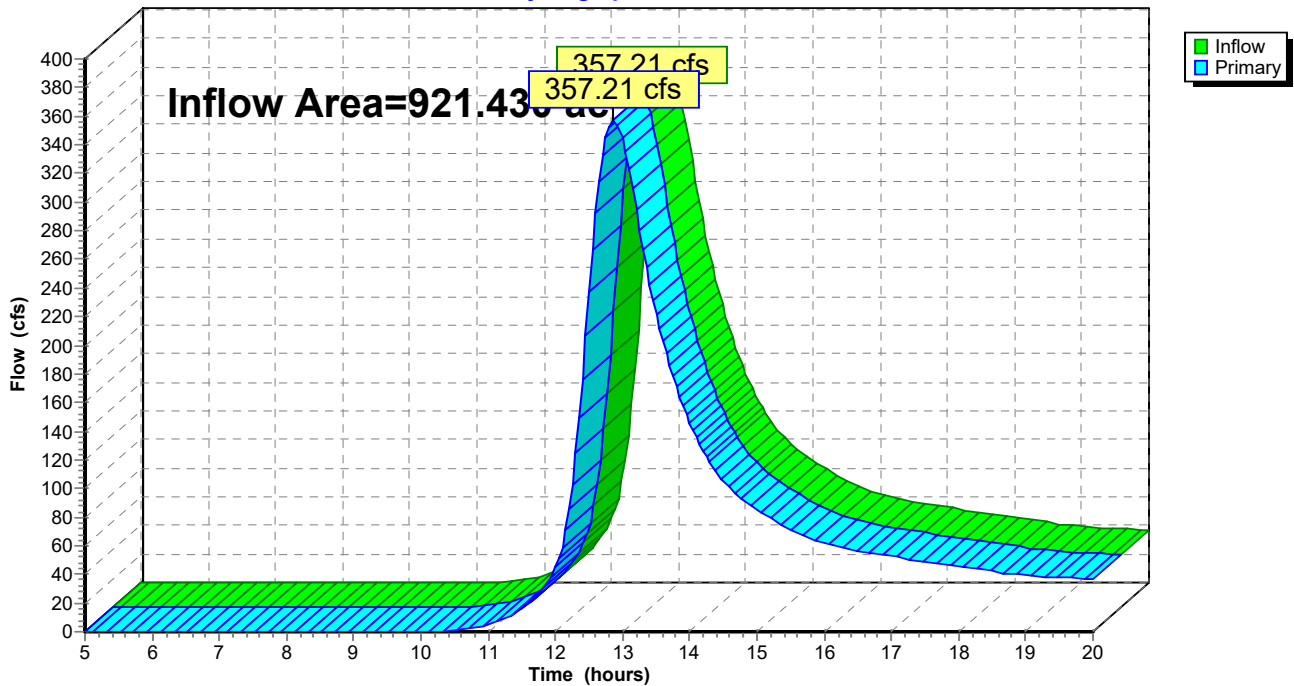
### Summary for Link 3L: Outlet

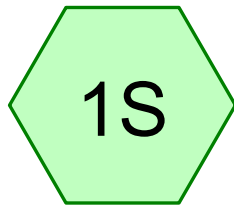
Inflow Area = 921.430 ac, 0.00% Impervious, Inflow Depth > 0.90"  
Inflow = 357.21 cfs @ 12.86 hrs, Volume= 69.425 af  
Primary = 357.21 cfs @ 12.86 hrs, Volume= 69.425 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

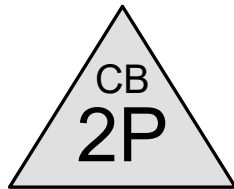
### Link 3L: Outlet

Hydrograph

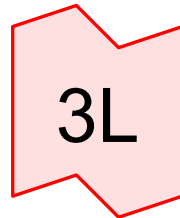
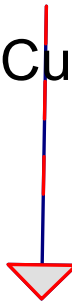




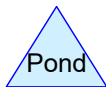
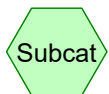
Subarea



Ex Culvert



Outlet



**Routing Diagram for Ohayo**

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# Ohayo

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## Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	90.03	88.02	37.0	0.0543	0.012	36.0	0.0	0.0

**Ohayo**

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NRCC 24-hr D Rainfall=4.78"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=126.680 ac 0.00% Impervious Runoff Depth>2.13"  
Tc=51.4 min CN=77 Runoff=130.97 cfs 22.509 af

**Pond 2P: Ex Culvert**

Peak Elev=96.43' Inflow=130.97 cfs 22.509 af  
Primary=75.32 cfs 19.804 af Secondary=55.65 cfs 2.705 af Outflow=130.97 cfs 22.509 af

**Link 3L: Outlet**

Inflow=130.97 cfs 22.509 af  
Primary=130.97 cfs 22.509 af

**Total Runoff Area = 126.680 ac Runoff Volume = 22.509 af Average Runoff Depth = 2.13"**  
**100.00% Pervious = 126.680 ac 0.00% Impervious = 0.000 ac**

**Summary for Subcatchment 1S: Subarea**

Runoff = 130.97 cfs @ 12.70 hrs, Volume= 22.509 af, Depth> 2.13"

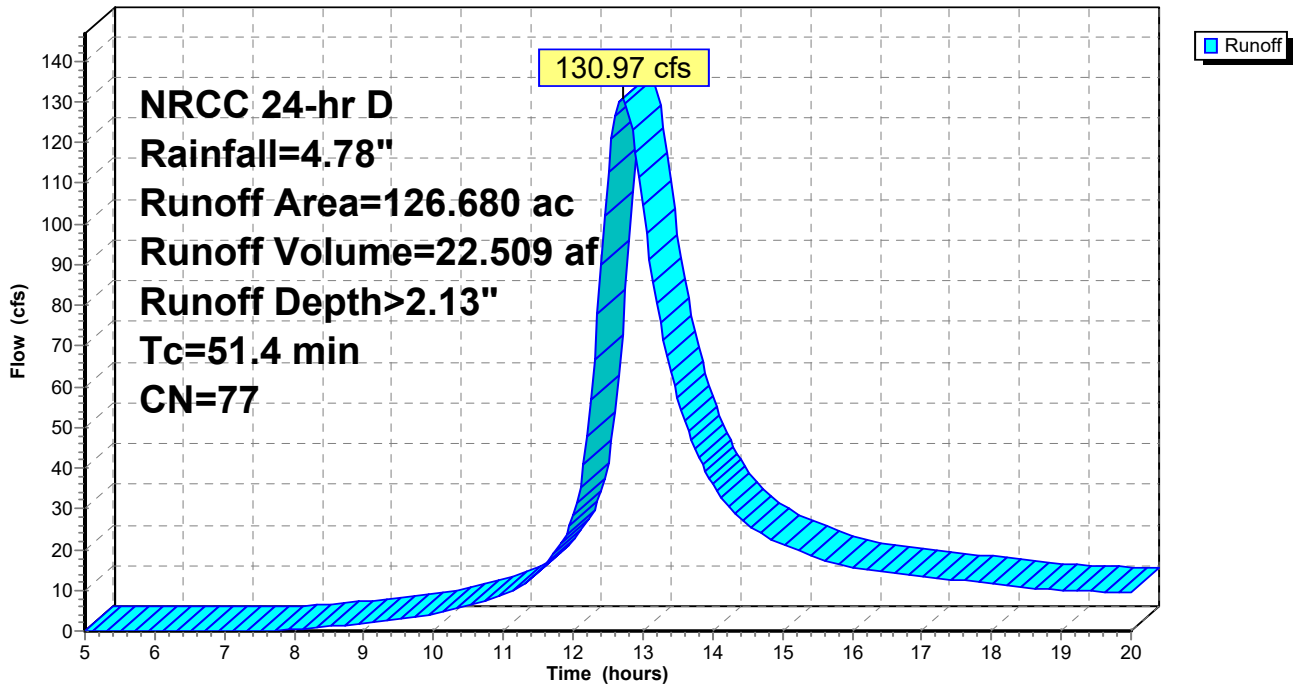
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=4.78"

Area (ac)	CN	Description
* 126.680	77	From TR-55 Input
126.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.4					Direct Entry, From TR-55 Input

**Subcatchment 1S: Subarea**

Hydrograph



### Summary for Pond 2P: Ex Culvert

[57] Hint: Peaked at 96.43' (Flood elevation advised)

Inflow Area = 126.680 ac, 0.00% Impervious, Inflow Depth > 2.13"  
 Inflow = 130.97 cfs @ 12.70 hrs, Volume= 22.509 af  
 Outflow = 130.97 cfs @ 12.70 hrs, Volume= 22.509 af, Atten= 0%, Lag= 0.0 min  
 Primary = 75.32 cfs @ 12.70 hrs, Volume= 19.804 af  
 Secondary = 55.65 cfs @ 12.70 hrs, Volume= 2.705 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.43' @ 12.70 hrs

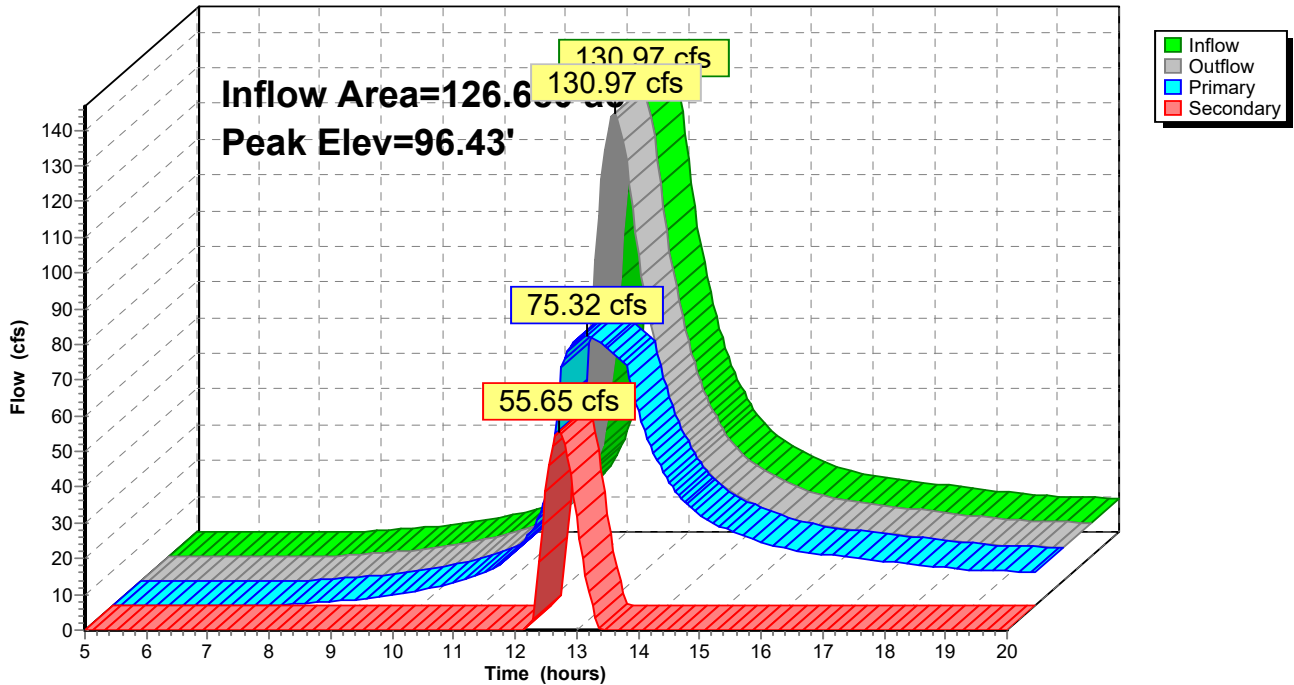
Device	Routing	Invert	Outlet Devices
#1	Primary	90.03'	<b>36.0" Round Culvert</b> L= 37.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 90.03' / 88.02' S= 0.0543 ' / Cc= 0.900 n= 0.012, Flow Area= 7.07 sf
#2	Secondary	95.39'	<b>20.0' long x 30.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=75.32 cfs @ 12.70 hrs HW=96.43' (Free Discharge)  
 ↳1=Culvert (Inlet Controls 75.32 cfs @ 10.66 fps)

**Secondary OutFlow** Max=55.58 cfs @ 12.70 hrs HW=96.43' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 55.58 cfs @ 2.68 fps)

### Pond 2P: Ex Culvert

Hydrograph



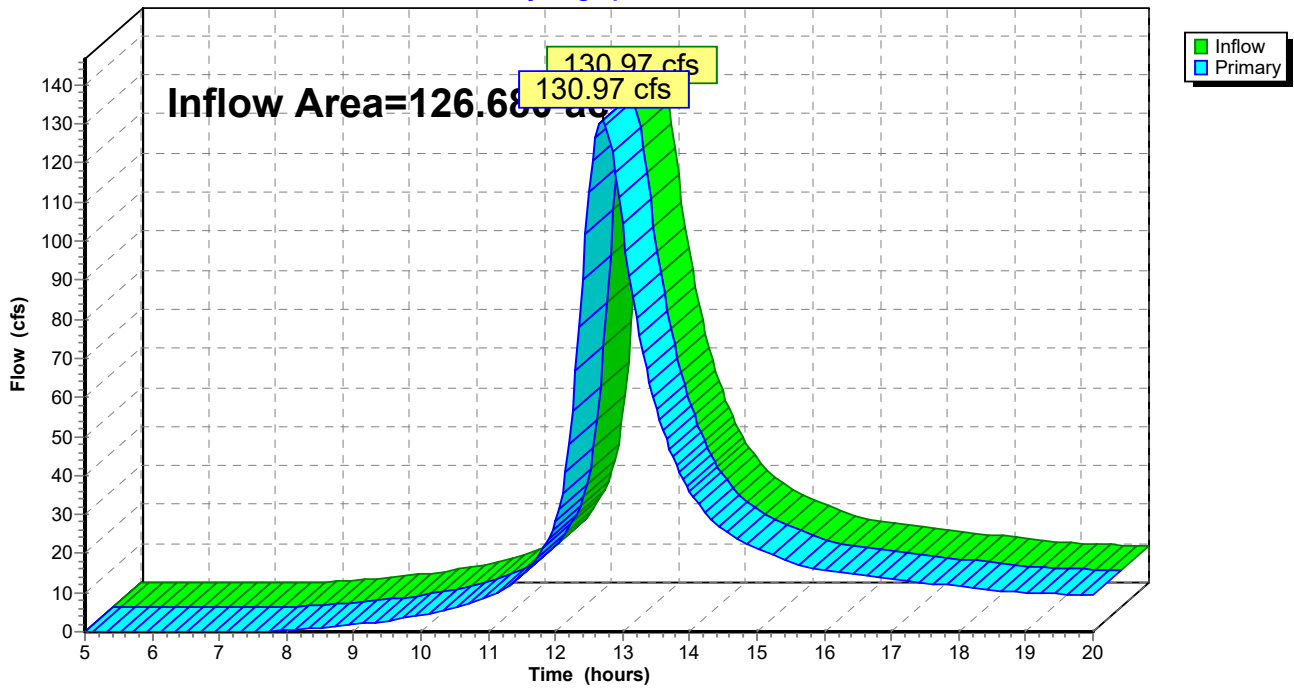
### Summary for Link 3L: Outlet

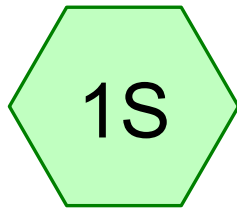
Inflow Area = 126.680 ac, 0.00% Impervious, Inflow Depth > 2.13"  
Inflow = 130.97 cfs @ 12.70 hrs, Volume= 22.509 af  
Primary = 130.97 cfs @ 12.70 hrs, Volume= 22.509 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

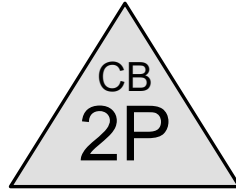
### Link 3L: Outlet

Hydrograph

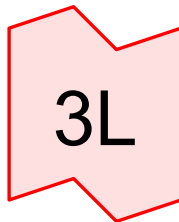
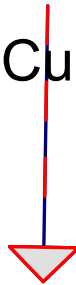




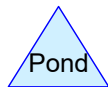
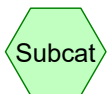
Subarea



Ex Culvert



Outlet



**Routing Diagram for Plank**

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# Plank

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## Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	88.45	87.02	56.5	0.0253	0.012	36.0	0.0	0.0
2	2P	88.45	87.02	56.5	0.0253	0.012	36.0	0.0	0.0

**Plank**

NRCC 24-hr D Rainfall=3.26"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=417.750 ac 0.00% Impervious Runoff Depth>0.96"  
Tc=63.2 min CN=75 Runoff=168.79 cfs 33.253 af

**Pond 2P: Ex Culvert**

Peak Elev=95.09' Inflow=168.79 cfs 33.253 af  
Primary=154.38 cfs 32.868 af Secondary=14.40 cfs 0.385 af Outflow=168.79 cfs 33.253 af

**Link 3L: Outlet**

Inflow=168.79 cfs 33.253 af  
Primary=168.79 cfs 33.253 af

**Total Runoff Area = 417.750 ac Runoff Volume = 33.253 af Average Runoff Depth = 0.96"**  
**100.00% Pervious = 417.750 ac 0.00% Impervious = 0.000 ac**

**Plank**

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NRCC 24-hr D Rainfall=3.26"

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**Summary for Subcatchment 1S: Subarea**

Runoff = 168.79 cfs @ 12.89 hrs, Volume= 33.253 af, Depth> 0.96"

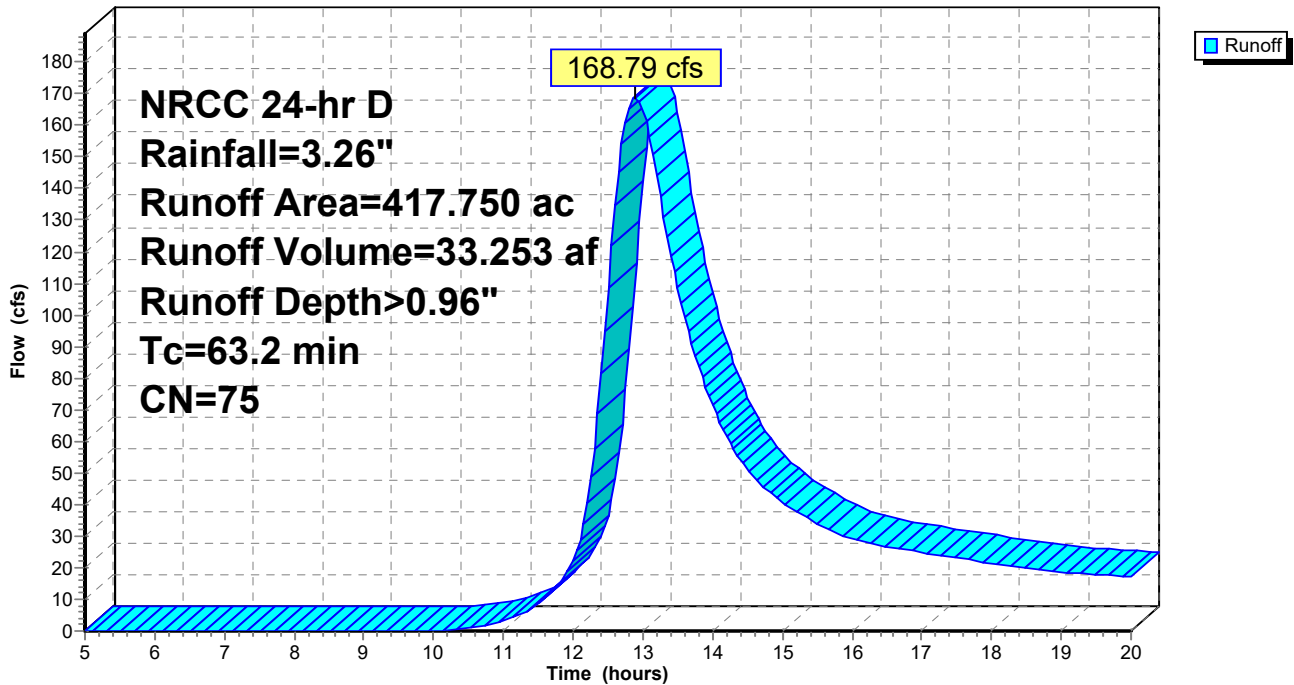
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=3.26"

Area (ac)	CN	Description
* 417.750	75	From TR-55 Input
417.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
63.2					Direct Entry, From TR-55 Input

**Subcatchment 1S: Subarea**

Hydrograph



**Plank**

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NRCC 24-hr D Rainfall=3.26"

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**Summary for Pond 2P: Ex Culvert**

[57] Hint: Peaked at 95.09' (Flood elevation advised)

Inflow Area = 417.750 ac, 0.00% Impervious, Inflow Depth > 0.96"  
 Inflow = 168.79 cfs @ 12.89 hrs, Volume= 33.253 af  
 Outflow = 168.79 cfs @ 12.89 hrs, Volume= 33.253 af, Atten= 0%, Lag= 0.0 min  
 Primary = 154.38 cfs @ 12.89 hrs, Volume= 32.868 af  
 Secondary = 14.40 cfs @ 12.89 hrs, Volume= 0.385 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 95.09' @ 12.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	88.45'	<b>36.0" Round Culvert</b> L= 56.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 88.45' / 87.02' S= 0.0253 '/ Cc= 0.900 n= 0.012, Flow Area= 7.07 sf
#2	Primary	88.45'	<b>36.0" Round Culvert</b> L= 56.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 88.45' / 87.02' S= 0.0253 '/ Cc= 0.900 n= 0.012, Flow Area= 7.07 sf
#3	Secondary	94.68'	<b>20.0' long x 40.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=154.35 cfs @ 12.89 hrs HW=95.09' (Free Discharge)

↑1=Culvert (Inlet Controls 77.18 cfs @ 10.92 fps)

└2=Culvert (Inlet Controls 77.18 cfs @ 10.92 fps)

**Secondary OutFlow** Max=14.27 cfs @ 12.89 hrs HW=95.09' (Free Discharge)

↑3=Broad-Crested Rectangular Weir (Weir Controls 14.27 cfs @ 1.73 fps)

**Plank**

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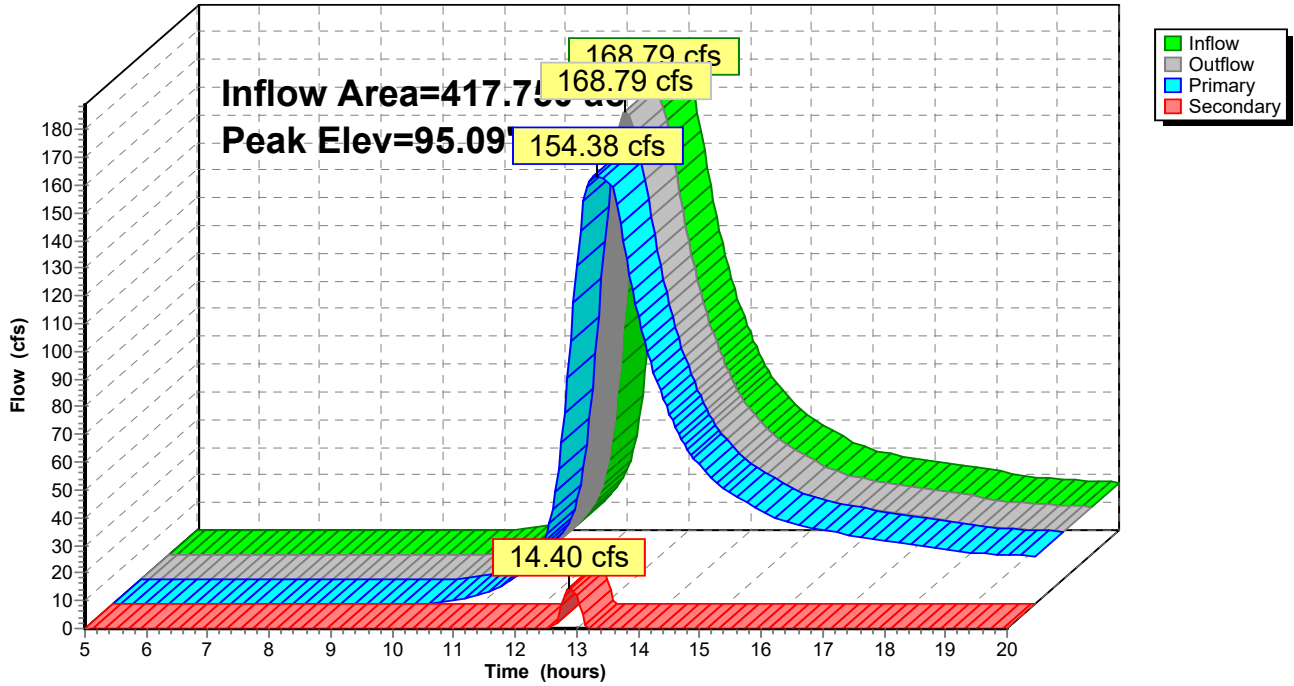
NRCC 24-hr D Rainfall=3.26"

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**Pond 2P: Ex Culvert**

Hydrograph



**Plank**

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**Summary for Link 3L: Outlet**

Inflow Area = 417.750 ac, 0.00% Impervious, Inflow Depth > 0.96"

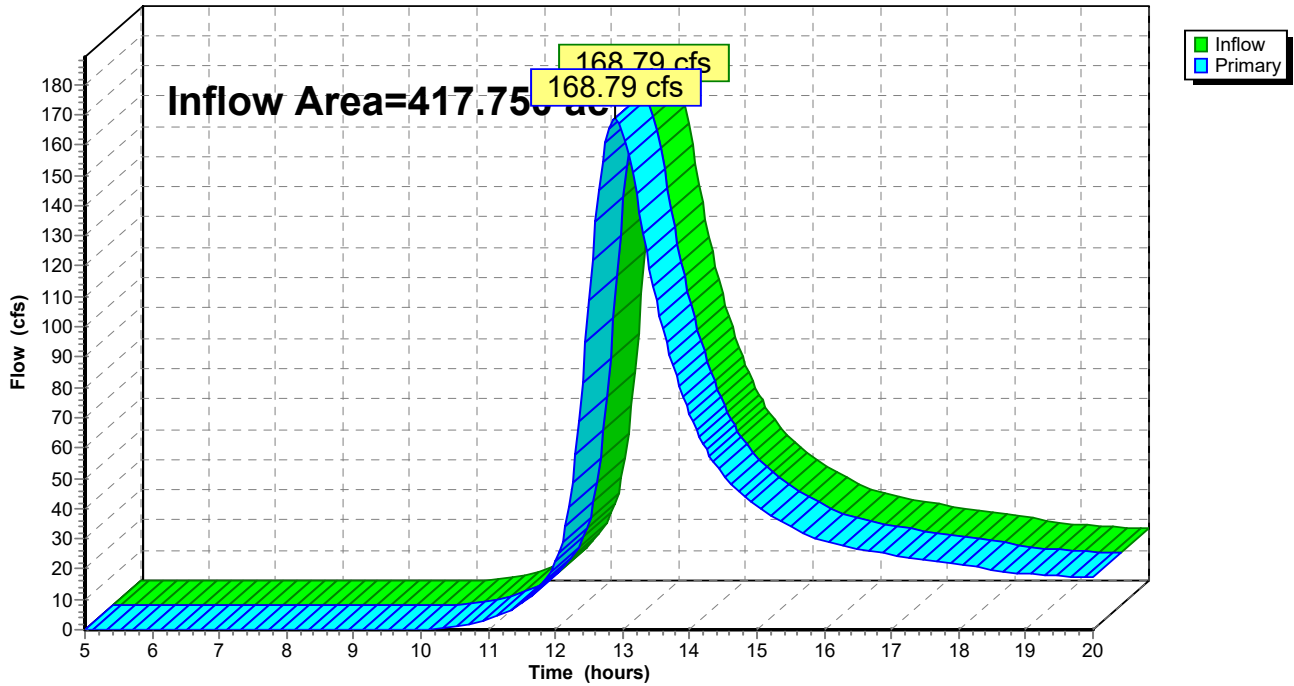
Inflow = 168.79 cfs @ 12.89 hrs, Volume= 33.253 af

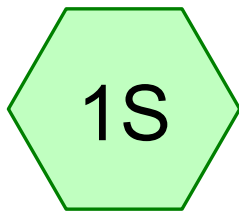
Primary = 168.79 cfs @ 12.89 hrs, Volume= 33.253 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

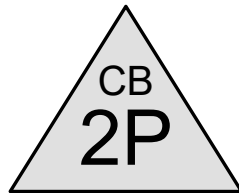
**Link 3L: Outlet**

Hydrograph

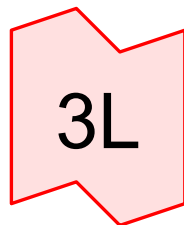
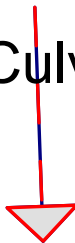




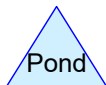
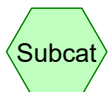
Subarea



Ex Culvert



Outlet



**Routing Diagram for Sickler**

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**Sickler**

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**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	88.43	88.22	26.0	0.0081	0.012	84.0	0.0	0.0

**Sickler**

NRCC 24-hr D Rainfall=4.78"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=833.380 ac 0.00% Impervious Runoff Depth>1.28"  
Tc=112.0 min CN=66 Runoff=326.12 cfs 88.704 af

**Pond 2P: Ex Culvert**

Peak Elev=96.22' Inflow=326.12 cfs 88.704 af  
Primary=325.97 cfs 88.703 af Secondary=0.15 cfs 0.001 af Outflow=326.12 cfs 88.704 af

**Link 3L: Outlet**

Inflow=326.12 cfs 88.704 af  
Primary=326.12 cfs 88.704 af

**Total Runoff Area = 833.380 ac Runoff Volume = 88.704 af Average Runoff Depth = 1.28"**  
**100.00% Pervious = 833.380 ac 0.00% Impervious = 0.000 ac**

**Summary for Subcatchment 1S: Subarea**

Runoff = 326.12 cfs @ 13.59 hrs, Volume= 88.704 af, Depth> 1.28"

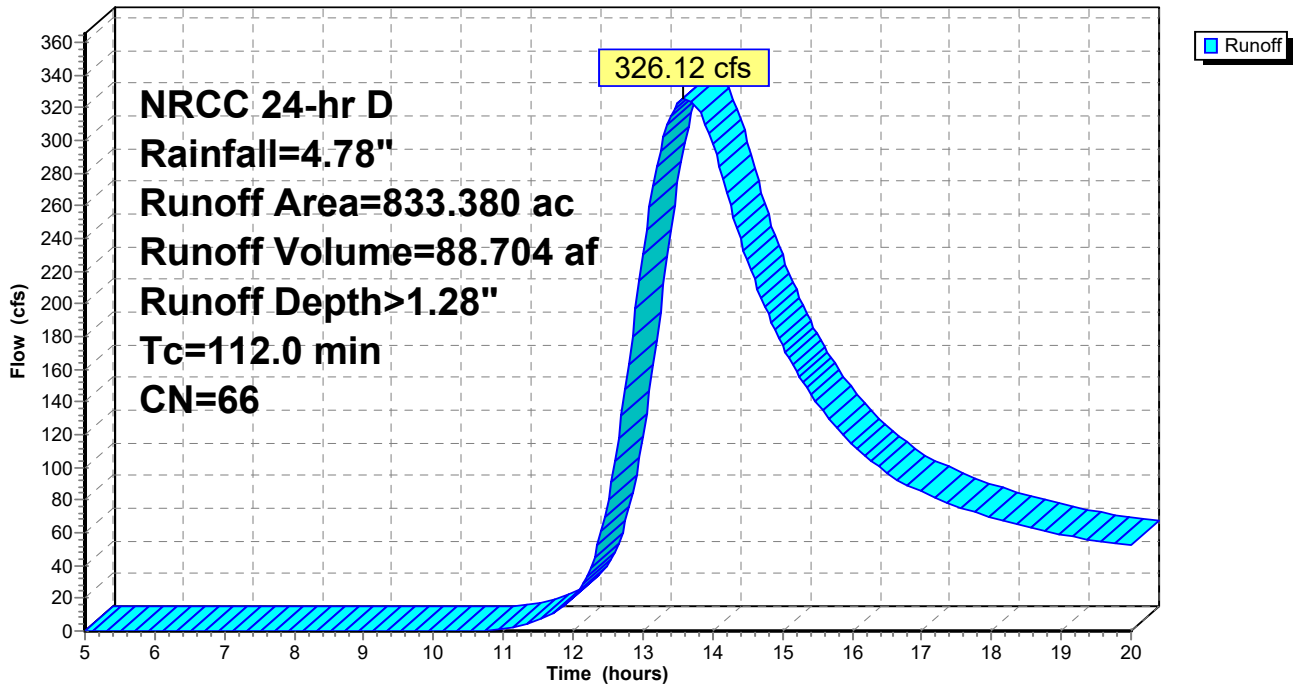
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 NRCC 24-hr D Rainfall=4.78"

Area (ac)	CN	Description
* 833.380	66	From TR-55 Input
833.380		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
112.0					Direct Entry, From TR-55 Input

**Subcatchment 1S: Subarea**

Hydrograph



**Summary for Pond 2P: Ex Culvert**

[57] Hint: Peaked at 96.22' (Flood elevation advised)

Inflow Area = 833.380 ac, 0.00% Impervious, Inflow Depth > 1.28"  
 Inflow = 326.12 cfs @ 13.59 hrs, Volume= 88.704 af  
 Outflow = 326.12 cfs @ 13.59 hrs, Volume= 88.704 af, Atten= 0%, Lag= 0.0 min  
 Primary = 325.97 cfs @ 13.59 hrs, Volume= 88.703 af  
 Secondary = 0.15 cfs @ 13.59 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.22' @ 13.59 hrs

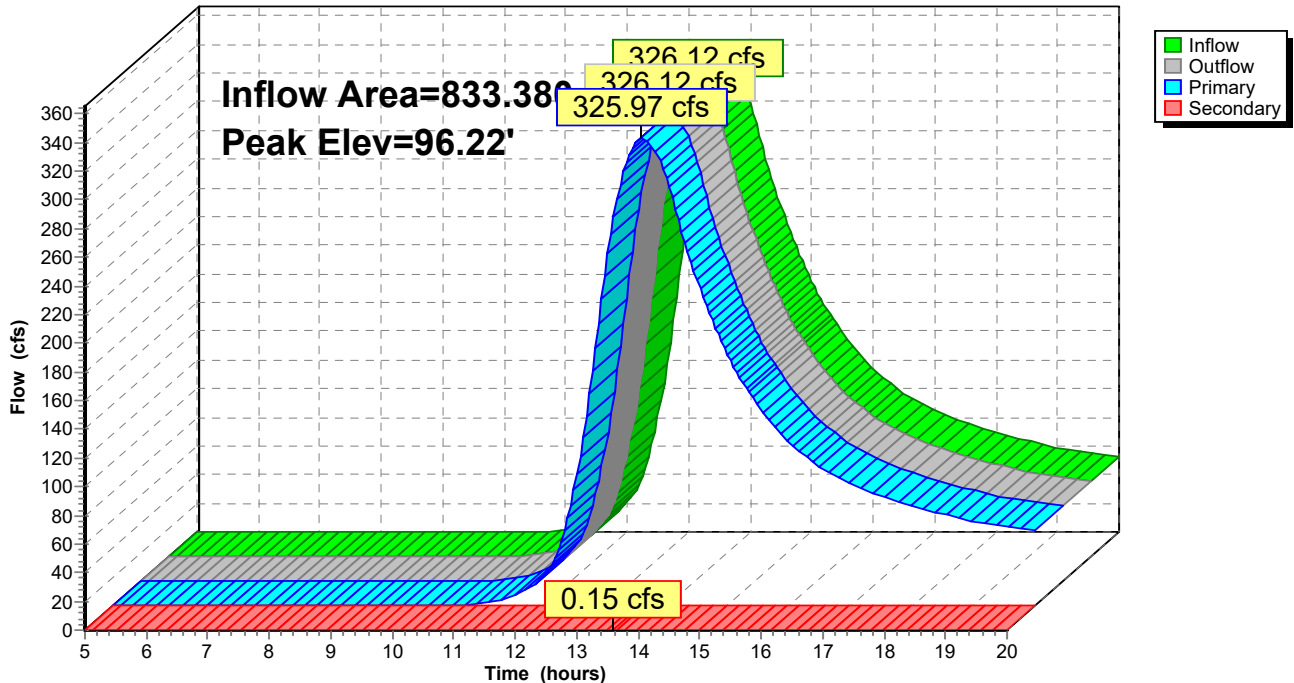
Device	Routing	Invert	Outlet Devices
#1	Primary	88.43'	<b>84.0" Round Culvert</b> L= 26.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 88.43' / 88.22' S= 0.0081 ' / Cc= 0.900 n= 0.012, Flow Area= 38.48 sf
#2	Secondary	96.21'	<b>20.0' long x 20.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=325.87 cfs @ 13.59 hrs HW=96.22' (Free Discharge)  
 ↳1=Culvert (Barrel Controls 325.87 cfs @ 9.50 fps)

**Secondary OutFlow** Max=0.05 cfs @ 13.59 hrs HW=96.22' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 0.05 cfs @ 0.25 fps)

**Pond 2P: Ex Culvert**

Hydrograph



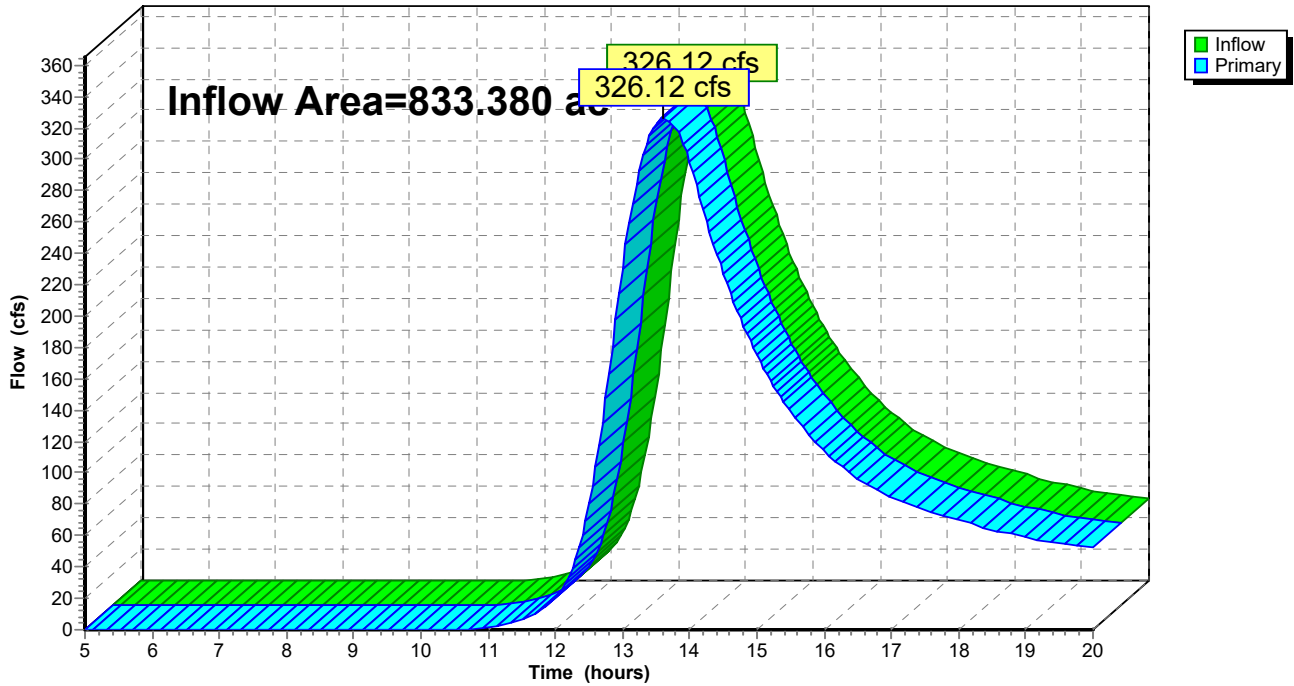
### Summary for Link 3L: Outlet

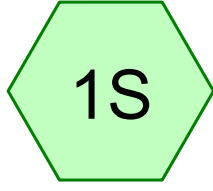
Inflow Area = 833.380 ac, 0.00% Impervious, Inflow Depth > 1.28"  
Inflow = 326.12 cfs @ 13.59 hrs, Volume= 88.704 af  
Primary = 326.12 cfs @ 13.59 hrs, Volume= 88.704 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

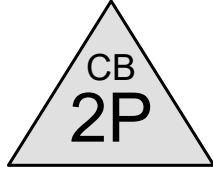
### Link 3L: Outlet

Hydrograph

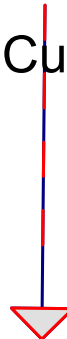




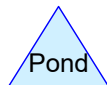
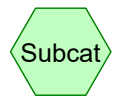
Subarea



Ex Culvert



(new Link)



## Silver\_Hollow

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### Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	88.10	86.54	41.0	0.0380	0.012	60.0	0.0	0.0

**Silver\_Hollow**

NRCC 24-hr D Rainfall=8.32"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=217.590 ac 0.00% Impervious Runoff Depth>2.45"  
Tc=54.3 min CN=54 Runoff=245.69 cfs 44.405 af

**Pond 2P: Ex Culvert**

Peak Elev=96.63' Inflow=245.69 cfs 44.405 af  
Primary=232.12 cfs 44.151 af Secondary=13.57 cfs 0.254 af Outflow=245.69 cfs 44.405 af

**Link 3L: (new Link)**

Inflow=245.69 cfs 44.405 af  
Primary=245.69 cfs 44.405 af

**Total Runoff Area = 217.590 ac Runoff Volume = 44.405 af Average Runoff Depth = 2.45"**  
**100.00% Pervious = 217.590 ac 0.00% Impervious = 0.000 ac**

# Silver\_Hollow

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NRCC 24-hr D Rainfall=8.32"

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## Summary for Subcatchment 1S: Subarea

Runoff = 245.69 cfs @ 12.77 hrs, Volume= 44.405 af, Depth> 2.45"

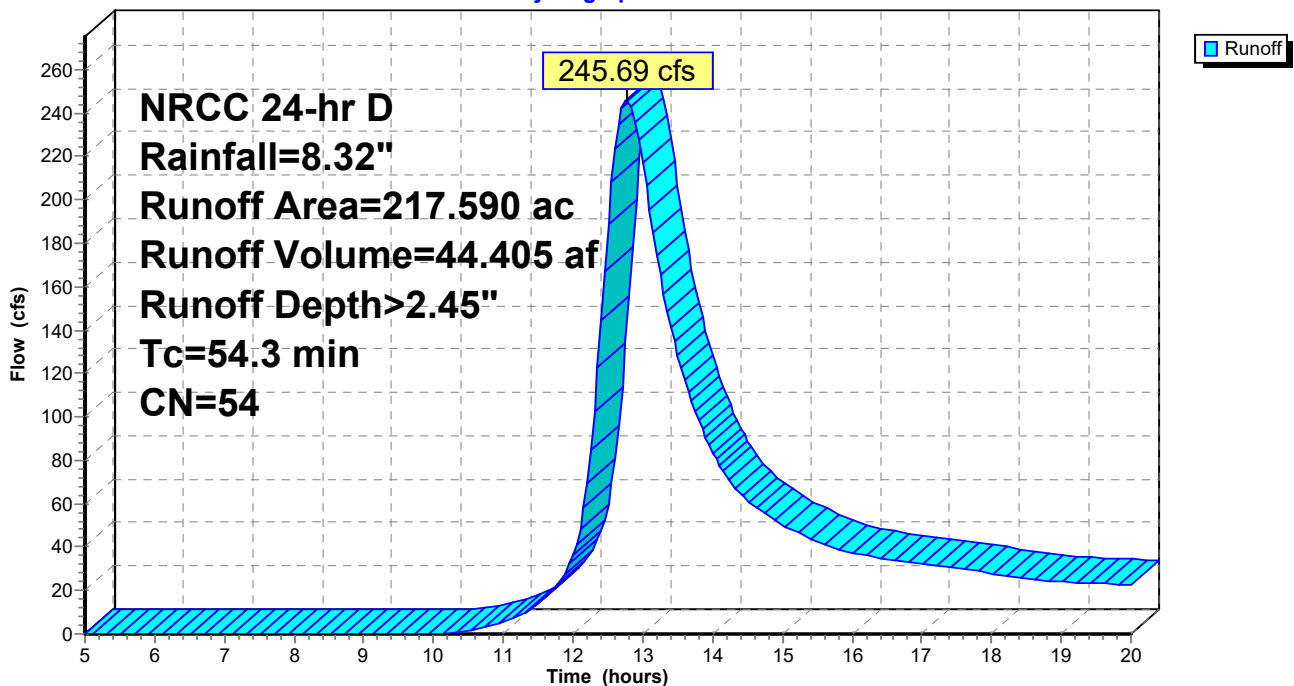
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=8.32"

Area (ac)	CN	Description
* 217.590	54	From TR-55 Input
217.590		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.3					Direct Entry, From TR-55 Input

## Subcatchment 1S: Subarea

Hydrograph



### Summary for Pond 2P: Ex Culvert

[57] Hint: Peaked at 96.63' (Flood elevation advised)

Inflow Area = 217.590 ac, 0.00% Impervious, Inflow Depth > 2.45"  
 Inflow = 245.69 cfs @ 12.77 hrs, Volume= 44.405 af  
 Outflow = 245.69 cfs @ 12.77 hrs, Volume= 44.405 af, Atten= 0%, Lag= 0.0 min  
 Primary = 232.12 cfs @ 12.77 hrs, Volume= 44.151 af  
 Secondary = 13.57 cfs @ 12.77 hrs, Volume= 0.254 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.63' @ 12.77 hrs

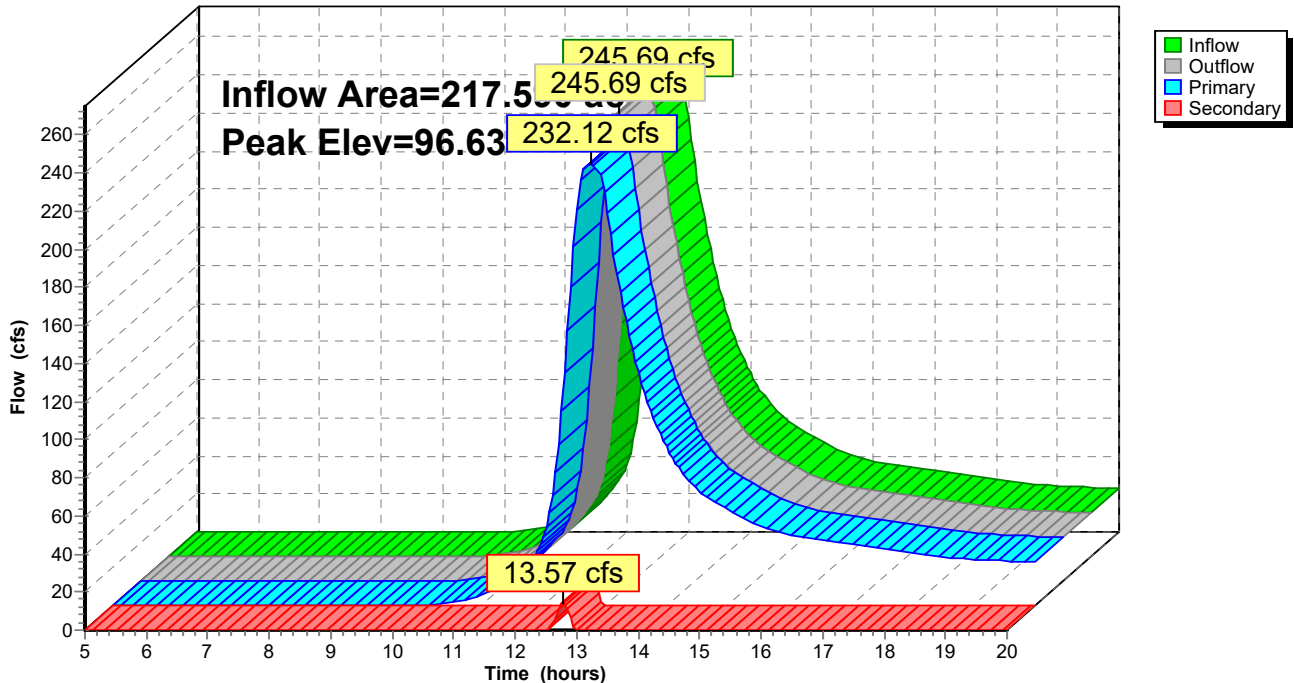
Device	Routing	Invert	Outlet Devices
#1	Primary	88.10'	<b>60.0" Round Culvert</b> L= 41.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 88.10' / 86.54' S= 0.0380 '/ Cc= 0.900 n= 0.012, Flow Area= 19.63 sf
#2	Secondary	96.23'	<b>20.0' long x 30.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=231.99 cfs @ 12.77 hrs HW=96.62' (Free Discharge)  
 ↳1=Culvert (Inlet Controls 231.99 cfs @ 11.81 fps)

**Secondary OutFlow** Max=13.20 cfs @ 12.77 hrs HW=96.62' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 13.20 cfs @ 1.69 fps)

### Pond 2P: Ex Culvert

Hydrograph



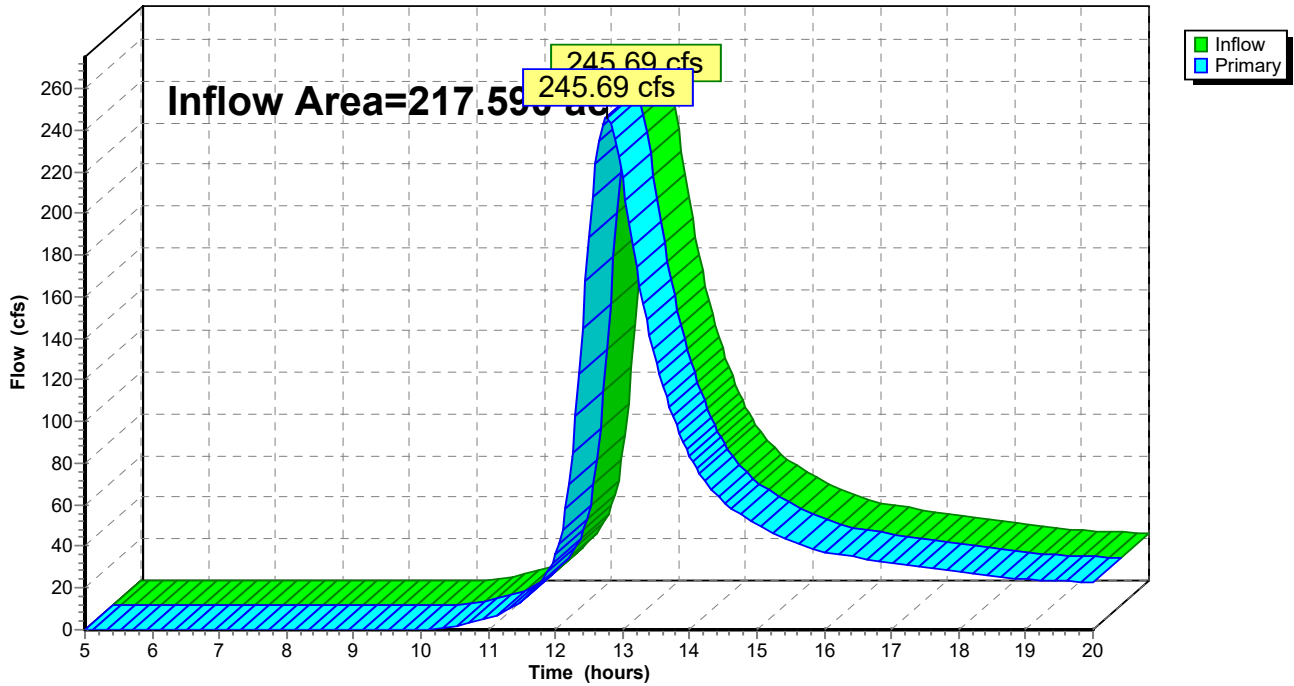
Summary for Link 3L: (new Link)

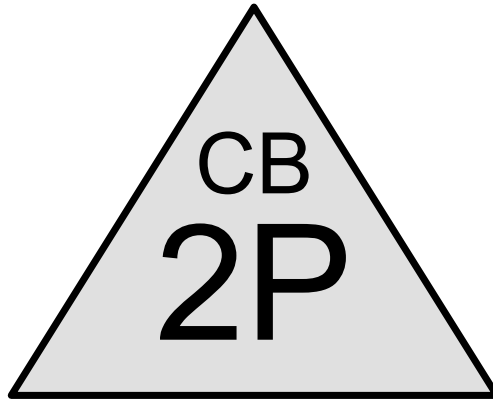
Inflow Area = 217.590 ac, 0.00% Impervious, Inflow Depth > 2.45"  
Inflow = 245.69 cfs @ 12.77 hrs, Volume= 44.405 af  
Primary = 245.69 cfs @ 12.77 hrs, Volume= 44.405 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

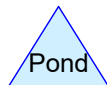
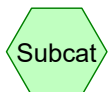
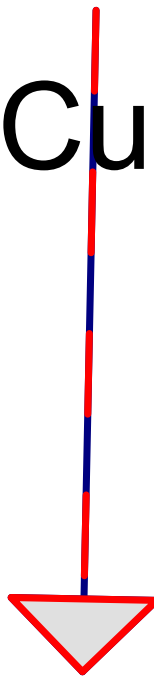
Link 3L: (new Link)

Hydrograph





Ex Culvert



# Stony\_Clove

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## Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	89.45	88.70	44.5	0.0169	0.013	120.0	44.4	0.0

**Stony\_Clove**

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*NRCC 24-hr D Rainfall=5.61"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Pond 2P: Ex Culvert**

Peak Elev=96.40' Inflow=445.15 cfs 84.570 af  
Primary=428.54 cfs 84.264 af Secondary=16.61 cfs 0.306 af Outflow=445.15 cfs 84.570 af

**Summary for Pond 2P: Ex Culvert**

[57] Hint: Peaked at 96.40' (Flood elevation advised)

Inflow Area = 490.710 ac, 0.00% Impervious, Inflow Depth > 2.07"  
 Inflow = 445.15 cfs @ 12.84 hrs, Volume= 84.570 af  
 Outflow = 445.15 cfs @ 12.84 hrs, Volume= 84.570 af, Atten= 0%, Lag= 0.0 min  
 Primary = 428.54 cfs @ 12.84 hrs, Volume= 84.264 af  
 Secondary = 16.61 cfs @ 12.84 hrs, Volume= 0.306 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.40' @ 12.84 hrs

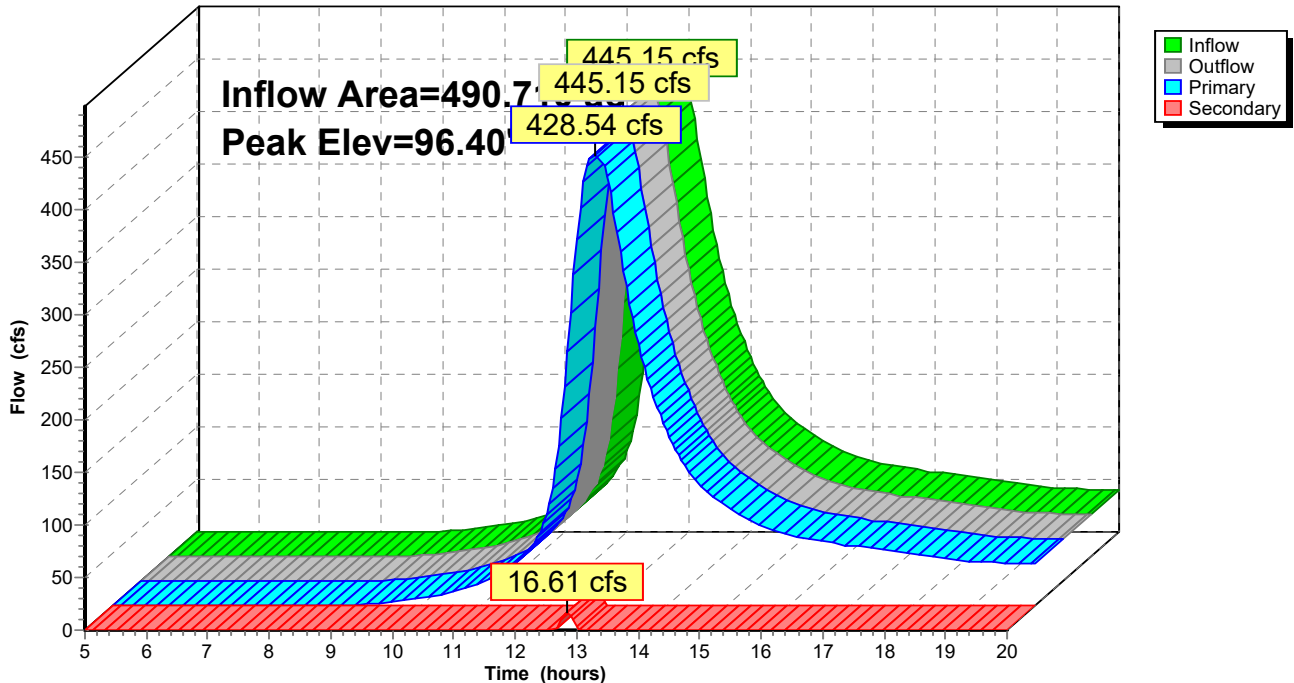
Device	Routing	Invert	Outlet Devices
#1	Primary	89.45'	<b>120.0' W x 44.4" H Box Culvert</b> L= 44.5' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 89.45' / 88.70' S= 0.0169 ' / Cc= 0.900 n= 0.013, Flow Area= 37.00 sf
#2	Secondary	96.05'	<b>30.0' long x 30.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

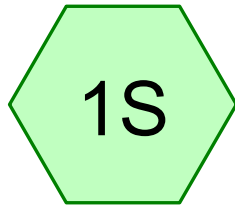
**Primary OutFlow** Max=428.40 cfs @ 12.84 hrs HW=96.39' (Free Discharge)  
 ↳1=Culvert (Inlet Controls 428.40 cfs @ 11.58 fps)

**Secondary OutFlow** Max=16.36 cfs @ 12.84 hrs HW=96.39' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 16.36 cfs @ 1.58 fps)

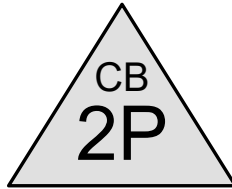
**Pond 2P: Ex Culvert**

Hydrograph

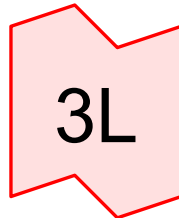
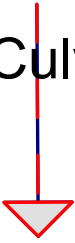




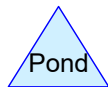
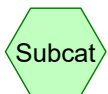
Subarea



Ex Culvert



Outlet



**Routing Diagram for Woodland**

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# Woodland

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## Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	92.84	91.39	40.5	0.0358	0.012	18.0	0.0	0.0

**Woodland**

NRCC 24-hr D Rainfall=3.26"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Subarea**

Runoff Area=105.510 ac 0.00% Impervious Runoff Depth>1.09"  
Tc=20.2 min CN=77 Runoff=90.35 cfs 9.617 af

**Pond 2P: Ex Culvert**

Peak Elev=96.76' Inflow=90.35 cfs 9.617 af  
Primary=11.96 cfs 5.655 af Secondary=78.39 cfs 3.961 af Outflow=90.35 cfs 9.617 af

**Link 3L: Outlet**

Inflow=90.35 cfs 9.617 af  
Primary=90.35 cfs 9.617 af

**Total Runoff Area = 105.510 ac Runoff Volume = 9.617 af Average Runoff Depth = 1.09"**  
**100.00% Pervious = 105.510 ac 0.00% Impervious = 0.000 ac**

**Woodland**

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NRCC 24-hr D Rainfall=3.26"

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**Summary for Subcatchment 1S: Subarea**

Runoff = 90.35 cfs @ 12.31 hrs, Volume= 9.617 af, Depth> 1.09"

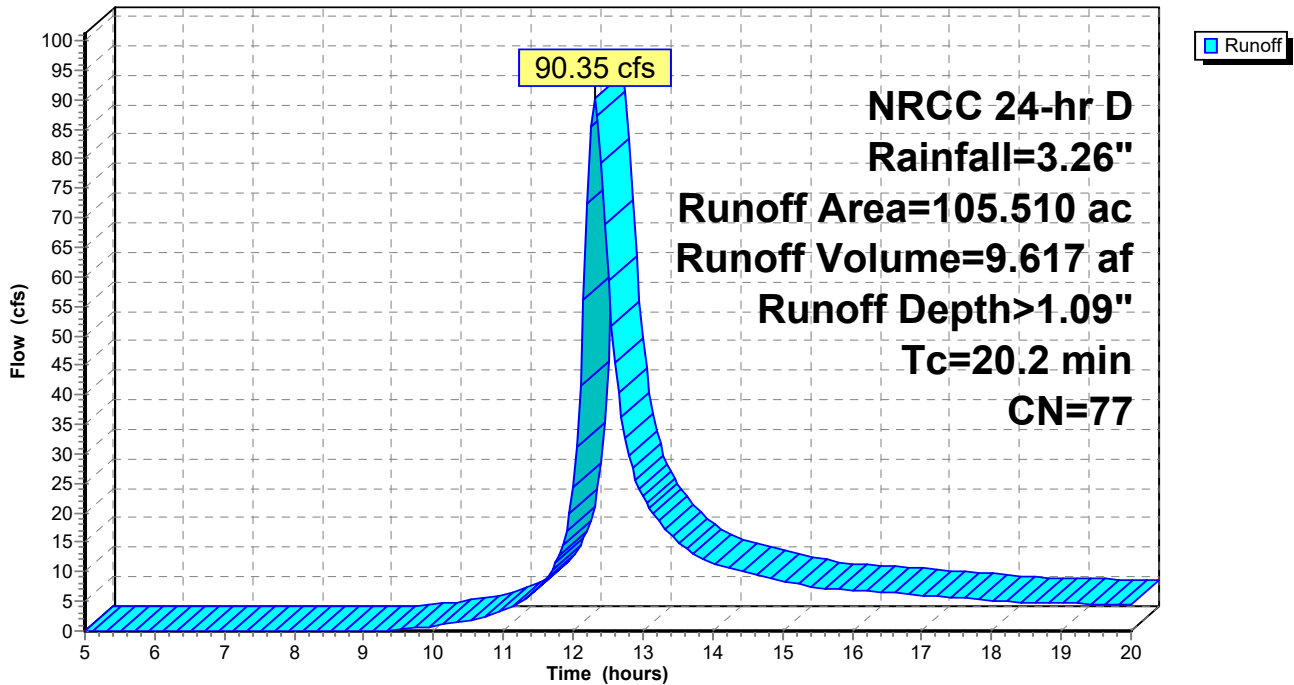
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D Rainfall=3.26"

Area (ac)	CN	Description
* 105.510	77	From TR-55 Input
105.510		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.2					Direct Entry, From TR-55 Input

**Subcatchment 1S: Subarea**

Hydrograph



### Summary for Pond 2P: Ex Culvert

[57] Hint: Peaked at 96.76' (Flood elevation advised)

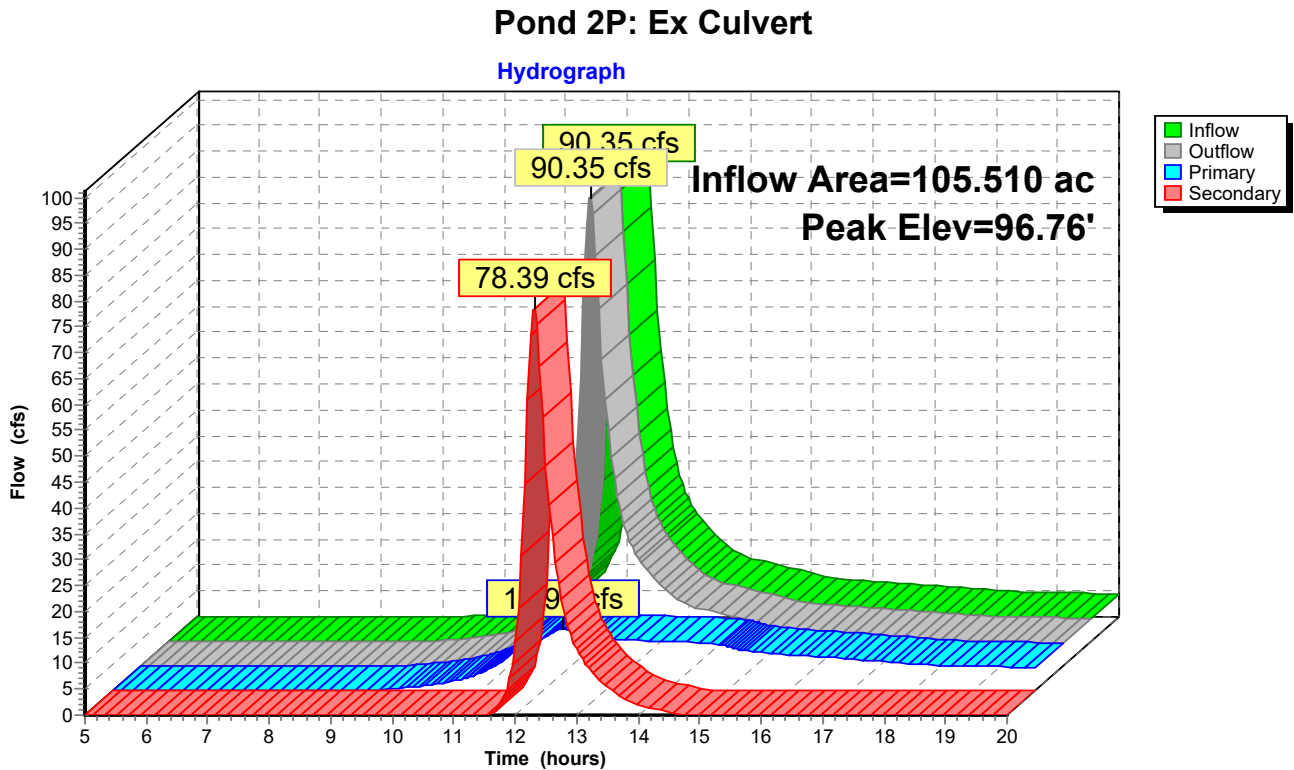
Inflow Area = 105.510 ac, 0.00% Impervious, Inflow Depth > 1.09"  
 Inflow = 90.35 cfs @ 12.31 hrs, Volume= 9.617 af  
 Outflow = 90.35 cfs @ 12.31 hrs, Volume= 9.617 af, Atten= 0%, Lag= 0.0 min  
 Primary = 11.96 cfs @ 12.31 hrs, Volume= 5.655 af  
 Secondary = 78.39 cfs @ 12.31 hrs, Volume= 3.961 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 96.76' @ 12.31 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	92.84'	<b>18.0" Round Culvert</b> L= 40.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 92.84' / 91.39' S= 0.0358 '/ Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Secondary	95.46'	<b>20.0' long x 30.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

**Primary OutFlow** Max=11.95 cfs @ 12.31 hrs HW=96.76' (Free Discharge)  
 ↳1=Culvert (Inlet Controls 11.95 cfs @ 6.76 fps)

**Secondary OutFlow** Max=77.95 cfs @ 12.31 hrs HW=96.76' (Free Discharge)  
 ↳2=Broad-Crested Rectangular Weir (Weir Controls 77.95 cfs @ 3.01 fps)



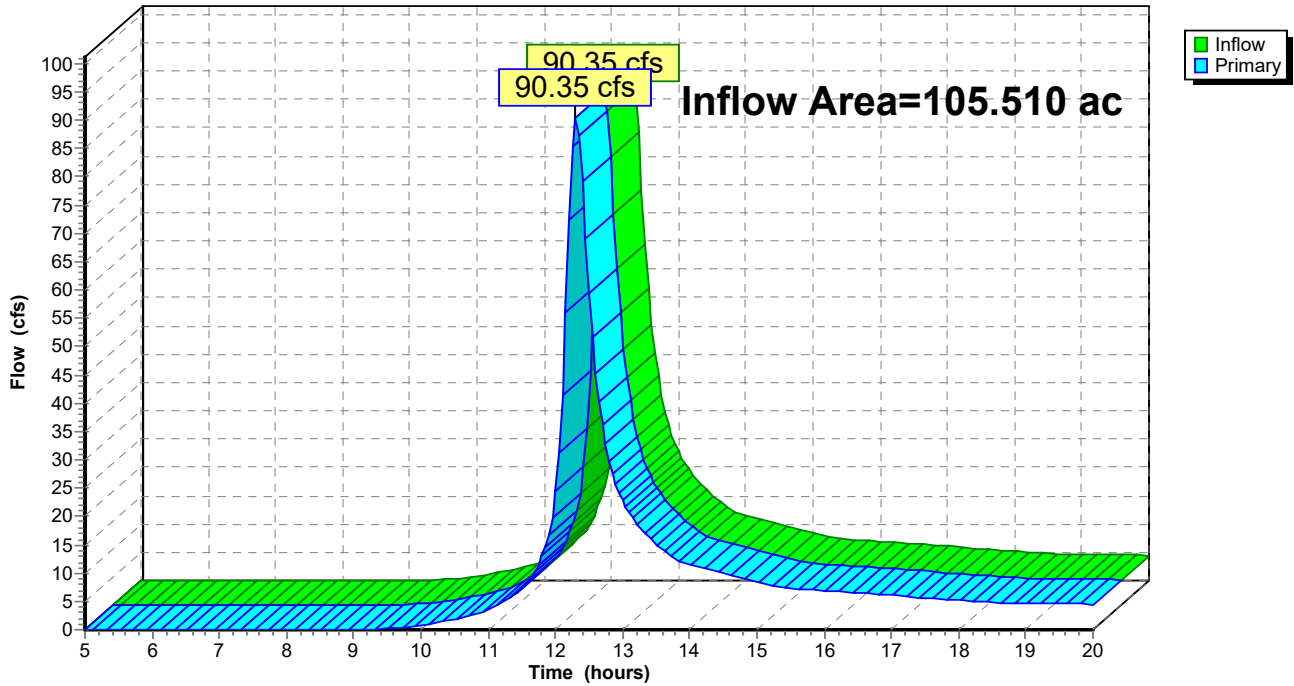
Summary for Link 3L: Outlet

Inflow Area = 105.510 ac, 0.00% Impervious, Inflow Depth > 1.09"  
Inflow = 90.35 cfs @ 12.31 hrs, Volume= 9.617 af  
Primary = 90.35 cfs @ 12.31 hrs, Volume= 9.617 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 3L: Outlet

Hydrograph



Mannings N Equation for Culvert Capacity														
Site	Culvert Dimensions				Mannings N	Uptream Invert	Downstream Invert	Culvert Length	Slope	Wetted Perimeter	Hydraulic Radius	Velocity	Area	Flow
	Diameter or Horizontal (feet)	Vertical (feet)	Shape	# of Barrels	unitless	Elev. Feet	Elev. Feet	feet	ft/ft	feet	feet	ft/sec	sqft	cfs
Baker	6.0	4.5	Elipse	1	0.024	89.57	89.45	29.5	0.0041	16.66	1.27	4.65	21.21	98.6
Bostock	5.5	N/A	Circular	1	0.024	90.14	89.70	30.0	0.0147	17.28	1.38	9.30	23.76	220.9
Ford	2.0	N/A	Circular	1	0.012	92.09	91.03	35.5	0.0299	6.28	0.50	13.52	3.14	42.5
Lost Clove	6.3	N/A	Circular	1	0.012	87.95	87.41	26.6	0.0203	19.63	1.56	23.82	30.68	730.8
Ohayo	3.0	N/A	Circular	1	0.012	90.03	88.02	37.0	0.0543	9.42	0.75	23.89	7.07	168.9
Plank/RT212	3.0	N/A	Circular	2	0.012	88.45	87.02	56.5	0.0253	9.42	0.75	16.31	7.07	230.5
Sickler	7.0	N/A	Circular	1	0.012	88.43	88.22	26.0	0.0081	21.99	1.75	16.21	38.48	623.6
Silver Hollow	5.0	N/A	Circular	1	0.012	88.10	86.54	41.0	0.0380	15.71	1.25	28.10	19.63	551.8
Stony Clove	10.0	3.7	Box	1	0.013	89.45	88.70	44.5	0.0169	27.40	1.35	18.18	37.00	672.6
Woodland	1.5	N/A	Circular	1	0.012	92.84	91.39	40.5	0.0358	4.71	0.38	12.22	1.77	21.6

## **Appendix D Peak Flow Graphical Comparisons**

## Appendix D Peak Flow Graphical Comparisons

