

THE BLUFFS AT YOUNGS CREEK

SECTIONS 1, 2 & 3

DRAINAGE REPORT

PROJECT NUMBER: 83540

PREPARED FOR:

WINDSTAR HOMES, LLC

Contact Person: Mark Alt

5374 Cayman Drive

Carmel, Indiana 46033

Contact Phone Number: (317) 223-4257

PREPARED BY:

Stoeppelwerth & Associates, Inc.

*Contact Person: **Brian M Brown, PE, CFM***

7965 East 106th Street

Fishers, Indiana 46038

Contact Phone Number: (317) 570-4704

Contact Email Address: bbrown@stoeppelwerth.com

DATE PREPARED:

May 8, 2019

DRAINAGE REPORT

BLUFFS AT YOUNGS CREEK

83540

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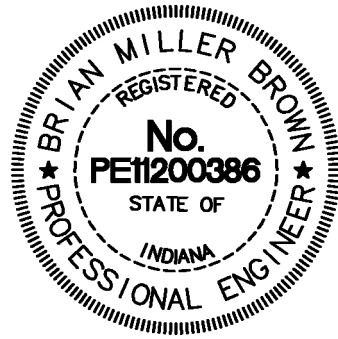
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ENGINEERING CERTIFICATION

BLUFFS AT YOUNGS CREEK

DRAINAGE REPORT AND ANALYSIS



A handwritten signature in brown ink, appearing to read "B. M. B.", written over a horizontal line.

Brian M Brown, PE, CFM
Indiana Registration No. 11200386

I, Brian M Brown, certify that this drainage report and supporting calculations are in compliance with the requirements set forth by the City of Franklin Subdivision Control Ordinance.



STOEAND-01

KEADAMS

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/31/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Conner Insurance Inc. 8445 Keystone Crossing Suite 200 Indianapolis, IN 46240	CONTACT NAME: PHONE (A/C, No, Ext): (317) 808-7711 FAX (A/C, No): E-MAIL ADDRESS: <table style="width: 100%;"> <tr> <td style="text-align: center;">INSURER(S) AFFORDING COVERAGE</td> <td style="text-align: center;">NAIC #</td> </tr> <tr> <td>INSURER A : Continental Casualty Company</td> <td>20443</td> </tr> <tr> <td>INSURER B : National Fire Insurance Company of Hartford</td> <td>20478</td> </tr> <tr> <td>INSURER C :</td> <td></td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Continental Casualty Company	20443	INSURER B : National Fire Insurance Company of Hartford	20478	INSURER C :		INSURER D :		INSURER E :		INSURER F :	
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INSURER E :															
INSURER F :															
INSURED Stoeppelwerth and Associates, Inc. and Sand Key Properties 7965 East 106th Street Fishers, IN 46038															

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS														
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR </div> <div> <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER: </div> </div>			C6042982417	8/1/2018	8/1/2019	<table style="width: 100%;"> <tr><td>EACH OCCURRENCE</td><td style="text-align: right;">\$ 1,000,000</td></tr> <tr><td>DAMAGE TO RENTED PREMISES (Ea occurrence)</td><td style="text-align: right;">\$ 300,000</td></tr> <tr><td>MED EXP (Any one person)</td><td style="text-align: right;">\$ 10,000</td></tr> <tr><td>PERSONAL & ADV INJURY</td><td style="text-align: right;">\$ 1,000,000</td></tr> <tr><td>GENERAL AGGREGATE</td><td style="text-align: right;">\$ 2,000,000</td></tr> <tr><td>PRODUCTS - COMP/OP AGG</td><td style="text-align: right;">\$ 2,000,000</td></tr> <tr><td>EPLI</td><td style="text-align: right;">\$ 100,000</td></tr> </table>	EACH OCCURRENCE	\$ 1,000,000	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000	MED EXP (Any one person)	\$ 10,000	PERSONAL & ADV INJURY	\$ 1,000,000	GENERAL AGGREGATE	\$ 2,000,000	PRODUCTS - COMP/OP AGG	\$ 2,000,000	EPLI	\$ 100,000
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A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N <div style="text-align: center;"><input checked="" type="checkbox"/> N</div> If yes, describe under DESCRIPTION OF OPERATIONS below		N / A	WC643009438	8/1/2018	8/1/2019	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER </div> <div> <table style="width: 100%;"> <tr><td>E.L. EACH ACCIDENT</td><td style="text-align: right;">\$ 1,000,000</td></tr> <tr><td>E.L. DISEASE - EA EMPLOYEE</td><td style="text-align: right;">\$ 1,000,000</td></tr> <tr><td>E.L. DISEASE - POLICY LIMIT</td><td style="text-align: right;">\$ 1,000,000</td></tr> </table> </div> </div>	E.L. EACH ACCIDENT	\$ 1,000,000	E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000	E.L. DISEASE - POLICY LIMIT	\$ 1,000,000								
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E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000																				
E.L. DISEASE - POLICY LIMIT	\$ 1,000,000																				
A	Commercial Property			C6042982417	8/1/2018	8/1/2019	Buildings 2,230,268														
A	ERRORS & OMISSIONS			AEH008216301	1/28/2019	1/28/2020	DED-\$35,000 2,000,000														

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

TO WHOM IT MAY CONCERN	<p>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</p> <p>AUTHORIZED REPRESENTATIVE</p> <p style="text-align: center;"><i>Tom A. Heford</i></p>
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DRAINAGE NARRATIVE

THE BLUFFS AT YOUNGS CREEK, SECTIONS 1, 2 & 3 WINDSTAR HOMES, LLC.

INTRODUCTION

Windstar Homes, LLC is planning a residential development in the City of Franklins, Johnson County called The Bluffs at Youngs Creek. The site is located on the west side of Nineveh Road and is the remaining 166 acre parcel of the Windstar Subdivision. The site is more specifically located in a part of the Southeast and part of the East Half of the Southwest Quarter of Section 22, also, a part of the Southwest Quarter of Section 23, all in Township 12 North, Range 4 East, Franklin Township, Johnson County, Indiana.

EXISTING SITE CONDITIONS

The Bluffs at Youngs Creek development is approximately 166 acres, the majority of which is located in the Youngs Creek Drainage Area. The site generally drains south to north toward Youngs Creek, which is approximately 500' north of this site. This site was originally platted as future sections of the Windstar Subdivision. Some of the existing storm infrastructure (pipes and retention ponds) for Windstar will be used for portions of the proposed development. Per the Effective Flood Insurance Rate Maps (FIRM), Panel 18081C0229D with the effective date of 8/2/2007 there is no portion of Sections 1-3 that are impacted by a regulatory floodplain. The delineated floodplain is shown in the Exhibits following the narrative.

Sections 1-3 drain to the existing infrastructure of Windstar Subdivision and towards Nineveh Road. In discussions with City staff it was relayed that there are existing drainage issues within the Windstar neighborhood. Based on that information a detailed detention analysis was performed on the infrastructure receiving the runoff from the new development. The details of the analysis are below, however, the analysis showed that the current ponds and infrastructure are not designed to handle current flows using current drainage analysis methods. Specifically, the pond at the end of Stardust Ct overflows its bank by more than 2 feet during the 100 year 24 hour event. Appendix A provides the full details, but, a detailed summary is below.

The soils of the onsite basins are made up of type B, Brookston / Miami / Fox / Ockley, and type C soils, Crosby and Whitaker. The soil map and summary are presented in the exhibits.

Figure 1 and the Existing Conditions basin maps show the drainage areas for Sections 1-3 prior to development. For this analysis we have included the offsite area upstream of the site and the off site area downstream of the site that was analyzed to determine our release rates and the impact of the project off site. We have identified Pond A as the pond at the end of Scorpio Ct and Pond B as the pond at the end of Stardust Ct. The drainage area of Pond A is 14.32 acres and encompasses the existing residential areas of Windstar and only a minor portion of the area surrounding the pond. The outlet of the pond is a 12" pipe that flows to the southeast to 2 curb inlets that were intended for a future road. They then continue to a 30" storm sewer system that runs northeast towards Virgo Dr. There are 2 inlets along this storm sewer that take the drainage from the farm field to the south and other onsite undeveloped land. At the existing structure 316 this 30" system begins to take residential drainage and ultimately discharges into Pond B. This system is identified as Outlet #3 on the map. Analysis of this system shows that there is flow from Pond B to Pond A during high flow conditions and creates a reduced flow for the 100 year event during existing conditions over the 10 year event. Pond B exceeds its banks for the 100 year event by 1.2 feet during the 24hr storm. Pond A is 0.2' feet shy of reaching its banks during a 100 year event. In addition, the proximity of Pond A to the residence at 893 Scorpio Ct is approximately 15 feet from the nearest corner of their house to the current edge of pond.

Figure 1 - Existing Conditions Basin Layout



Outlet 2 is a 30" RCP that runs between 894 and 898 Windstar Boulevard and discharges behind 895 Windstar Boulevard into a ditch that flows into Pond B. This pipe currently takes drainage from the existing onsite field that is 8.51 acres. This pipe has excess capacity at the inlet, but, it also flows into Pond B that appears to be undersized to handle existing drainage.

Outlet 1 is an elliptical pipe under Nineveh Road. This pipe takes drainage from the onsite basin and an upstream offsite basin to the south as well as the drainage from Capricorn Dr. There is a depressed area upstream of the pipe that acts as a small dry detention basin. Table 1 provides a summary of the existing conditions flows for the critical event for each outlet. Detailed results for the existing conditions can be found in Appendix A.

Table 1 – Existing Site Conditions – Basin Flow (cfs)				
STORM	DRAINAGE AREA (acres)	2-YEAR	10-YEAR	100-YEAR
Outlet 1	10.04	7.74 (24hr)	15.27 (24hr)	31.09 (12hr)
Outlet 2	8.51	8.24 (24hr)	13.31 (12hr)	24.57 (6hr)
Outlet 3	24.59	20.23 (24hr)	24.99 (12hr)	26.98 (1hr)*
Nineveh Rd	16.36	15.59 (24hr)	30.00 (12hr)	56.46 (6hr)

* Longer storms impacted by backwater flow from Pond B, reducing flows for longer time durations

The Nineveh Road flows are provided to show the mix of Windstar Subdivision and flows from the farm field that are going to that location under existing conditions.

Existing peak discharges are based on TR-55 methodology. A basin analysis was performed using the 2, 10 and 100-year storm events and their corresponding 1, 2, 3, 6, 12 and 24-hour rainfall depths. The NRCS Type II rainfall distribution was used to generate the hydrographs.

Based on Table 1, the allowable release rates for each of those outlets is provided in Table 2 in accordance with the City of Franklin Subdivision Control Ordinance, Article 6.19.C.3, and identified as controlling the 10 year post construction flows to the predeveloped 2 year flows and the post developed 100 year flows to the pre developed 10 year flows.

Table 2 – Allowable Release Rates (cfs)		
STORM	10-YEAR	100-YEAR
Outlet 1	7.74	15.27
Outlet 2	8.24	13.31
Outlet 3	20.23	24.99

PROPOSED SITE CONDITIONS

Windstar Homes, LLC is proposing a multi section residential development that will be 166 acres. This report is for Sections 1-3 which will be for 91 lots and encompass approximately 38 acres. These sections are primarily discharging to the existing stormwater system in Windstar and to Nineveh Road. The remaining sections will discharge to Youngs Creek.

The primary storage area for Sections 1-3 is Lake 1. It receives the drainage from 17.37 acres of proposed developed area. There is 0.32 acres of right of way that will drain to Capricorn Dr to the north and enter the existing system. There is also 2.63 acres of developed area that will drain towards Nineveh Road and combine with the detained flows and offsite flows from the south. These flows merge with the flow from the existing subdivision before flowing under Nineveh Rd. The onsite flows meet the discharge release rates shown in Table 2. With the combined offsite flows, it is above the release rates, however, are below the existing conditions flows by 11% for the 2-yr, 14% for the 10 yr, and 17% for the 100 yr.

Outlet 2 is a 30" RCP that currently takes 8.51 acres of crop land and will be reduced to 3.95 acres of back yard drainage. The runoff from this area meets the release rate for the 10 yr event, but for the 100 yr, 12 hr critical event, it is slightly above the allowable release rate by 1.42 cfs. Even though we are above the 100 yr release rate, we are 40% less than the existing conditions flow into the existing system.

Outlet 3 is a 30" RCP storm sewer system that takes a combined flow of Pond A, existing Windstar Subdivision and proposed Bluffs at Youngs Creek subdivision. It is impractical to create detention in this area for the proposed development. Therefore, the off-site farm fields are being redirected to the west and will be incorporated into future sections drainage and be discharged into Youngs Creek, instead of routing through Windstar, then being discharged to Youngs Creek. This reduces the drainage area to Outlet 3 by almost 14 acres. This allows the developed area to meet the release rates of the existing conditions and also reduce the flows going into the existing system. This allows the existing Pond B 100 yr elevations to be reduced by almost a foot and take the stress off of the existing drainage system, thereby, improving the downstream conditions.

Table 3 – Proposed Site Conditions – Basin Flow (cfs)				
STORM	DRAINAGE AREA (acres)	2-YEAR	10-YEAR	100-YEAR
Outlet 1	23.01	Onsite: 3.17 (24hr) Offsite: 2.08 (24hr) Total: 5.23 (24hr)	7.50 (24hr) 4.10 (24hr) 11.60 (24hr)	11.48 (12hr) 8.34 (12hr) 19.82 (12hr)
Outlet 2	3.95	3.29 (24hr)	6.94 (12hr)	14.73 (6hr)
Outlet 3	10.93	12.64 (12hr)	20.04 (6hr)	24.12 (1hr)*
Nineveh Rd	29.68	13.84 (12hr)	25.66 (12hr)	46.67 (6hr)

* Longer storms impacted by backwater flow from Pond B, reducing flows for longer time durations

Lake 1 is land locked by the surrounding properties, therefore, it is difficult to provide a emergency spillway. Therefore, it has been designed to handle back to back 100 year storm events. This was accomplished by setting the pond starting elevations at the 24hr pond elevation and rerunning the 100 year 24 hour event. That elevation is 748.22

Table 4 – Lake 1 Data		
STORM	Discharge (cfs)	Elevation (ft)
2 Year (24hr)	2.84	745.12
10 Year (24hr)	6.83	746.22
100 Year (12hr)	14.84	747.81
100 Year B2B (2hr)	31.95	748.22

The proposed peak discharges are based on TR-55 methodology. A detention analysis was performed using the 2, 10 and 100-year storm events and their corresponding 24-hour rainfall depths. The NRCS Type II rainfall distribution was used to generate the hydrographs. Appendix B provides the detailed information to support the summarized information provided above.

STORM SEWER DESIGN

The use of Manning's equation was used for determination of storm drain pipe sizes for non-submerged conditions. The storm drain system is capable of passing the 10-year storm event with free water surface elevations below the crown of pipe. Minimum storm drain flowing velocity for full pipe flow shall be 2.5 fps and maximum storm drain flowing velocity for full pipe flow is 15 fps. The pipe system for Sections 1-3 meet that criteria.

The inlet grate castings are designed such that the 10-year storm event shall be sufficiently conveyed into the storm sewer system at 50% efficiency.

The inlets are spaced to allow one lane of traffic to remain open during the 10-year storm event. Given the site constraints, there are several locations where multiples of double curb inlets were needed to capture the street flow and maintain the clear lane width during a 50% clogged situation. Appendix C provides the detailed information to support the pipe and gutter designs.

WATER QUALITY

The City of Franklin requires that all paved area be detained in a pond and the water quality volume of 20% of the larger of 1/2" direct runoff or runoff from the 1 1/4" 24 hr rainfall event. For the drainage area draining to Lake 1, that is approximately 31,000 ft³ of water for the 1/2" of direct runoff and 26,300 ft³ of water for the runoff from the 1 1/4" event. Therefore, the 1/2" of direct runoff controls. That volume must be maintained for 24 hours past the peak runoff through the pond. Given the pond design, that volume must be maintained above elevation 742.8 for more than 24 hrs after the peak. Table 5 provides the summary of those water quality volumes and times. For areas that are not being routed through the lake, 2.5 foot sumped manholes are being provided at structures 408 and 409 to capture the TSS before entering the existing systems. Appendix D provides the necessary backup information to support the summarized information in this report.

Table 5 – Water Quality Summary			
Peak of Lake Discharge			
	2 yr	10 yr	100 yr
Time (hr)	13.40	12.97	6.90
Elev (ft)	745.12	746.22	747.81
Time to WQv			
	2 yr	10 yr	100 yr
Time (hr)	40.13	41.89	33.20
	>24 hr	>24 hr	>24 hr
Elev (ft)	742.80	742.80	742.80

CONCLUSION

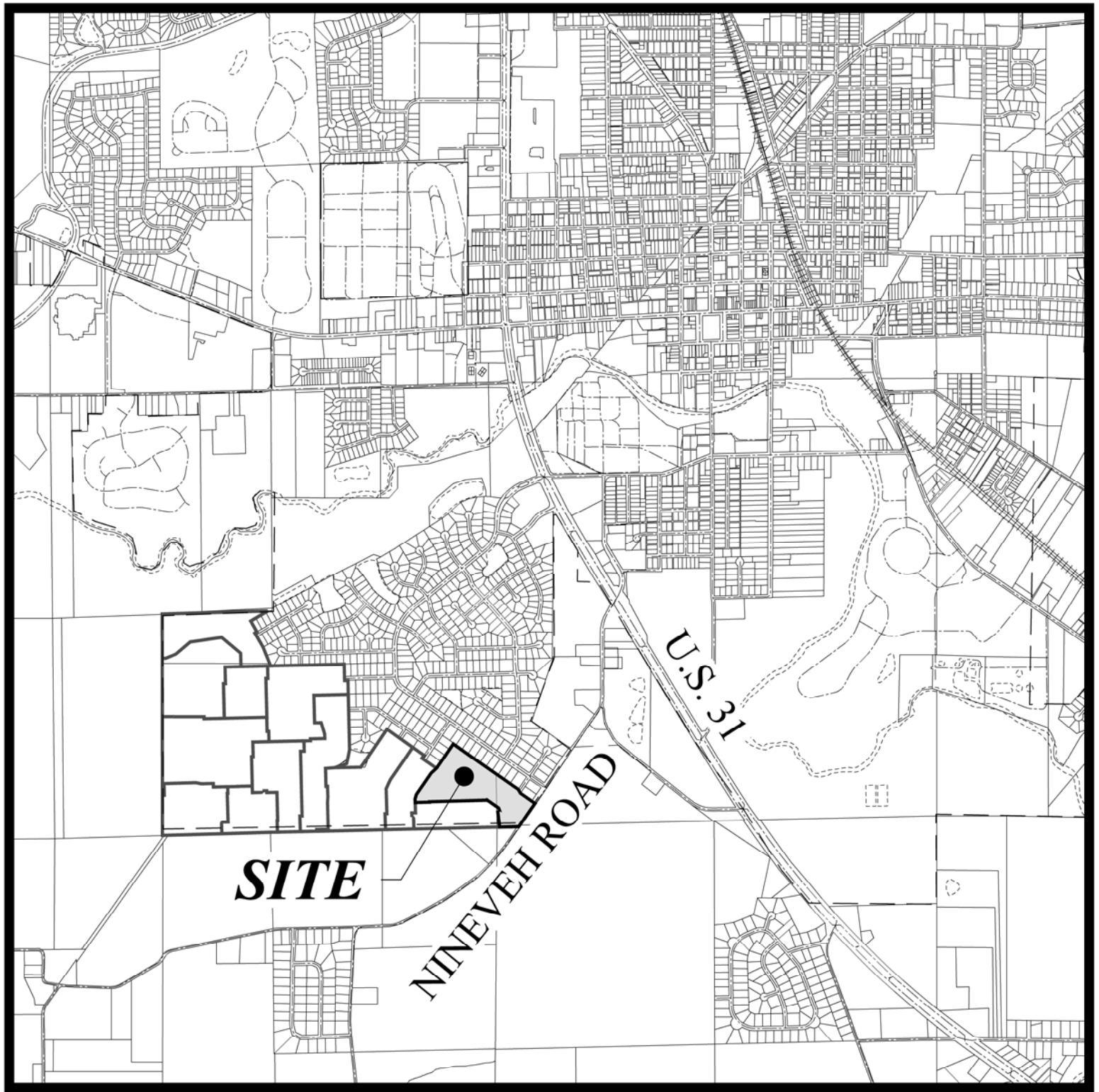
The Bluffs at Youngs Creek is a multi section subdivision planned for the City of Franklin and located off of Nineveh Road. Based on the results provided in this report, Sections 1-3 will not have a negative impact on the surrounding community, and will actually improve the off site conditions with regards to drainage runoff entering those systems.

REFERENCES

Design and data methods are based on the following references:

1. City of Franklin Subdivision Control Ordinance
2. HEPICC Stormwater Drainage Manual
3. USDA – Urban Hydrology for Small Watersheds
4. USDA – Soil Conservation Service

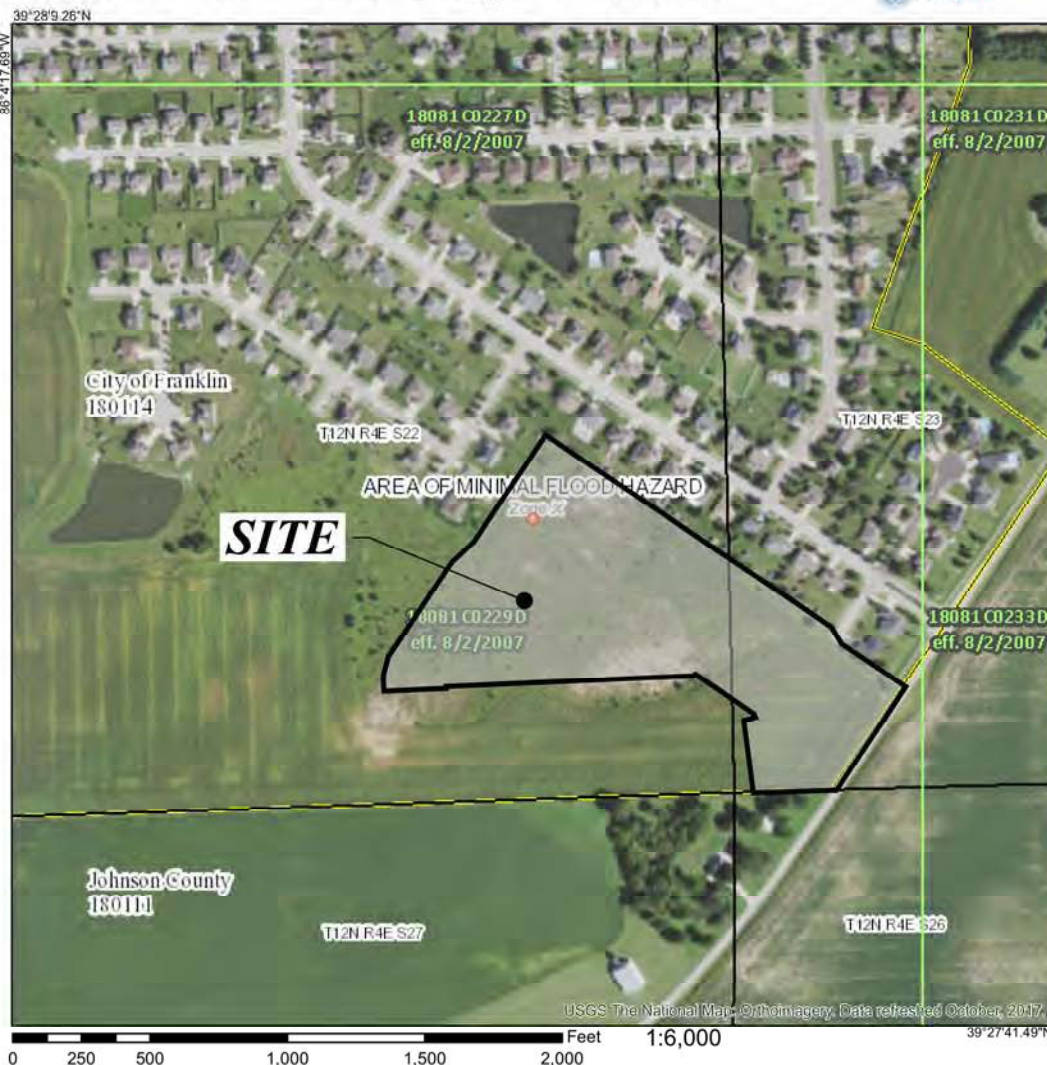
EXHIBITS



LOCATION MAP

SCALE: 1" = 2,400'

National Flood Hazard Layer FIRMeTte



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, AP
	With BFE or Depth Zone AE, AO, AH, VE, AP
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes. Zone X
	Area with Flood Risk due to Levee Zone D
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
MAP PANELS	Jurisdiction Boundary
	Coastal Transect Baseline
OTHER FEATURES	Profile Baseline
	Hydrographic Feature
MAP PANELS	Digital Data Available
	No Digital Data Available
	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/23/2019 at 8:25:15 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

FLOOD MAP

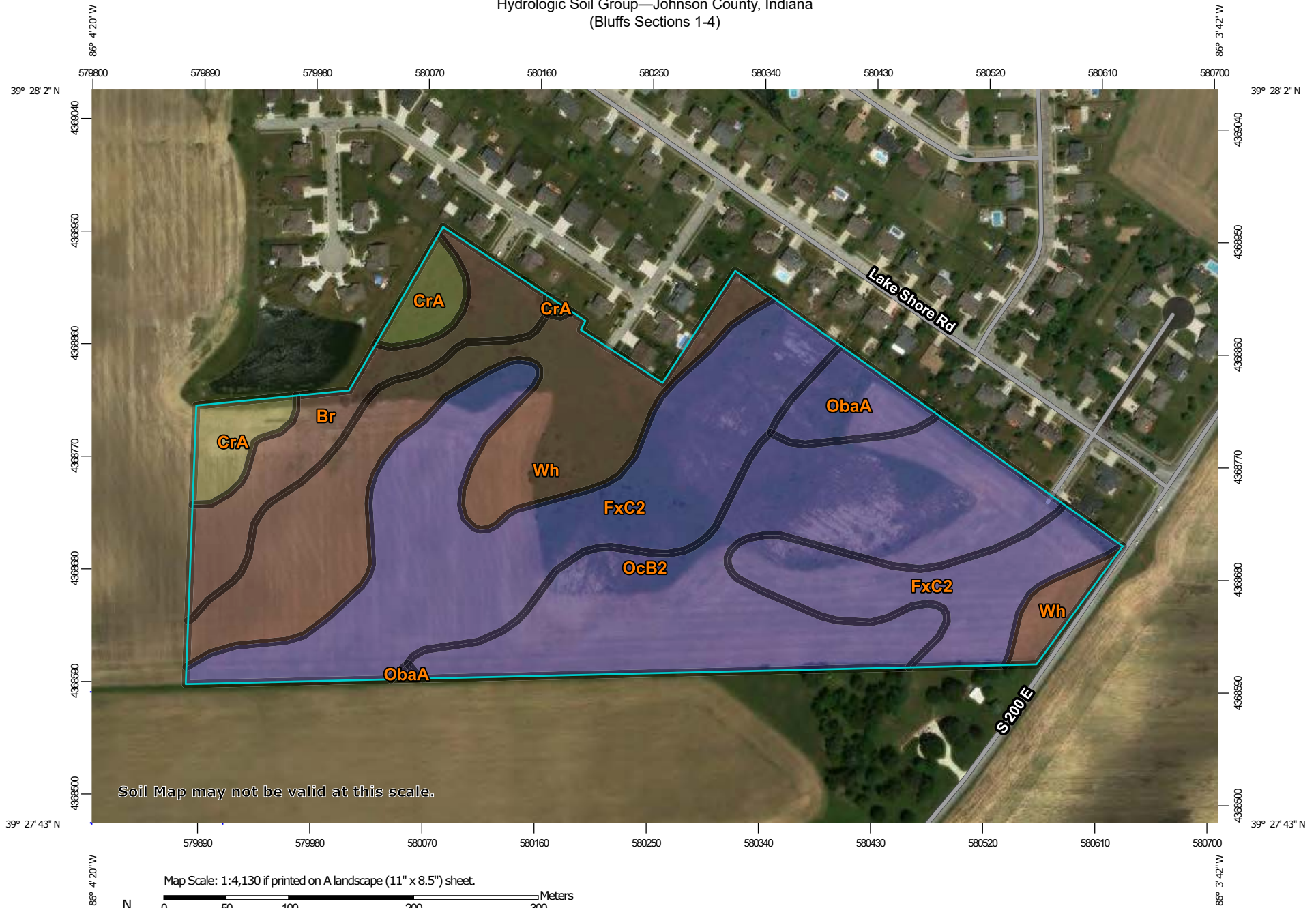
NOT-TO-SCALE

Panel 18081C0229D
Effective August 2, 2007

FLOOD STATEMENT

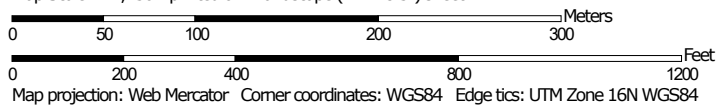
THIS IS TO CERTIFY THAT THE SUBJECT PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE "A" AS SAID TRACT PLOTS BY SCALE ON COMMUNITY PANEL 18081C0229D OF THE FLOOD INSURANCE RATE MAPS DATED AUGUST 2, 2007.

Hydrologic Soil Group—Johnson County, Indiana (Bluffs Sections 1-4)



Soil Map may not be valid at this scale.

Map Scale: 1:4,130 if printed on A landscape (11" x 8.5") sheet.



**Natural Resources
Conservation Service**

Web Soil Survey
National Hydrologic Soil Survey
Page 4 of 24

4/11/2019
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





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

Soil Rating Lines


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

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Johnson County, Indiana
 Survey Area Data: Version 26, Sep 7, 2018

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

Date(s) aerial images were photographed: Sep 24, 2014—Mar 20, 2017

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Br	Brookston silty clay loam, 0 to 2 percent slopes	B/D	3.6	8.0%
CrA	Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	C/D	2.0	4.4%
FxC2	Fox complex, 6 to 12 percent slopes, eroded	B	16.2	36.1%
ObaA	Ockley loam, 0 to 2 percent slopes	B	1.5	3.3%
OcB2	Ockley loam, 2 to 6 percent slopes, eroded	B	11.9	26.6%
Wh	Whitaker silt loam, 0 to 2 percent slopes	B/D	9.7	21.6%
Totals for Area of Interest			44.8	100.0%

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

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

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.373 (0.333-0.421)	0.444 (0.396-0.501)	0.532 (0.472-0.600)	0.601 (0.532-0.677)	0.692 (0.609-0.781)	0.763 (0.666-0.862)	0.833 (0.720-0.943)	0.905 (0.775-1.03)	1.00 (0.844-1.15)	1.08 (0.892-1.24)
10-min	0.579 (0.517-0.654)	0.693 (0.618-0.782)	0.827 (0.734-0.932)	0.928 (0.822-1.05)	1.06 (0.931-1.19)	1.16 (1.01-1.31)	1.25 (1.08-1.42)	1.35 (1.16-1.54)	1.47 (1.24-1.69)	1.57 (1.30-1.81)
15-min	0.710 (0.634-0.802)	0.847 (0.755-0.956)	1.01 (0.902-1.15)	1.14 (1.01-1.29)	1.31 (1.15-1.48)	1.43 (1.25-1.62)	1.56 (1.35-1.76)	1.68 (1.44-1.91)	1.84 (1.55-2.11)	1.96 (1.62-2.26)
30-min	0.939 (0.839-1.06)	1.13 (1.01-1.28)	1.39 (1.24-1.57)	1.59 (1.40-1.79)	1.85 (1.62-2.08)	2.05 (1.79-2.31)	2.25 (1.94-2.55)	2.45 (2.10-2.79)	2.73 (2.30-3.12)	2.93 (2.43-3.39)
60-min	1.15 (1.02-1.30)	1.39 (1.24-1.57)	1.74 (1.55-1.97)	2.02 (1.79-2.27)	2.40 (2.11-2.70)	2.70 (2.35-3.05)	3.01 (2.60-3.41)	3.33 (2.85-3.79)	3.77 (3.17-4.32)	4.12 (3.42-4.76)
2-hr	1.34 (1.20-1.52)	1.62 (1.45-1.84)	2.04 (1.82-2.31)	2.38 (2.10-2.69)	2.85 (2.50-3.22)	3.24 (2.82-3.65)	3.65 (3.14-4.12)	4.08 (3.46-4.62)	4.69 (3.90-5.35)	5.18 (4.24-5.95)
3-hr	1.42 (1.27-1.62)	1.72 (1.53-1.95)	2.17 (1.93-2.46)	2.53 (2.24-2.87)	3.05 (2.67-3.45)	3.48 (3.02-3.94)	3.94 (3.37-4.47)	4.43 (3.73-5.03)	5.13 (4.22-5.87)	5.69 (4.60-6.56)
6-hr	1.70 (1.51-1.95)	2.06 (1.83-2.36)	2.60 (2.30-2.97)	3.04 (2.68-3.46)	3.68 (3.21-4.18)	4.21 (3.64-4.78)	4.79 (4.07-5.44)	5.40 (4.52-6.16)	6.29 (5.15-7.20)	7.03 (5.63-8.09)
12-hr	2.04 (1.82-2.31)	2.45 (2.20-2.78)	3.05 (2.72-3.45)	3.54 (3.15-4.00)	4.22 (3.72-4.75)	4.79 (4.19-5.39)	5.38 (4.65-6.06)	6.01 (5.11-6.79)	6.90 (5.75-7.84)	7.61 (6.24-8.71)
24-hr	2.44 (2.25-2.66)	2.93 (2.70-3.19)	3.59 (3.30-3.91)	4.11 (3.77-4.47)	4.81 (4.40-5.24)	5.37 (4.89-5.85)	5.93 (5.38-6.48)	6.51 (5.87-7.12)	7.30 (6.52-8.00)	7.91 (7.01-8.80)
2-day	2.86 (2.65-3.10)	3.43 (3.17-3.71)	4.18 (3.86-4.53)	4.77 (4.39-5.17)	5.55 (5.09-6.02)	6.17 (5.64-6.70)	6.80 (6.18-7.39)	7.44 (6.72-8.10)	8.29 (7.43-9.06)	8.96 (7.97-9.82)
3-day	3.07 (2.86-3.30)	3.67 (3.42-3.94)	4.45 (4.14-4.79)	5.06 (4.69-5.44)	5.88 (5.44-6.31)	6.52 (6.01-7.00)	7.17 (6.58-7.71)	7.82 (7.15-8.43)	8.71 (7.90-9.40)	9.39 (8.47-10.2)
4-day	3.28 (3.07-3.50)	3.91 (3.67-4.18)	4.72 (4.42-5.04)	5.35 (5.00-5.71)	6.20 (5.78-6.61)	6.86 (6.38-7.31)	7.53 (6.98-8.03)	8.21 (7.58-8.76)	9.12 (8.37-9.74)	9.82 (8.97-10.5)
7-day	3.89 (3.63-4.16)	4.62 (4.32-4.95)	5.55 (5.18-5.94)	6.28 (5.86-6.72)	7.28 (6.77-7.78)	8.06 (7.48-8.61)	8.86 (8.19-9.47)	9.67 (8.91-10.3)	10.8 (9.87-11.5)	11.6 (10.6-12.5)
10-day	4.43 (4.16-4.74)	5.27 (4.94-5.63)	6.30 (5.91-6.73)	7.12 (6.67-7.60)	8.23 (7.68-8.77)	9.10 (8.48-9.69)	9.98 (9.27-10.6)	10.9 (10.1-11.6)	12.1 (11.1-12.9)	13.0 (11.9-13.9)
20-day	6.08 (5.73-6.47)	7.20 (6.78-7.65)	8.49 (7.99-9.02)	9.49 (8.92-10.1)	10.8 (10.1-11.5)	11.8 (11.1-12.6)	12.9 (12.0-13.7)	13.9 (12.9-14.7)	15.2 (14.1-16.1)	16.2 (14.9-17.2)
30-day	7.49 (7.07-7.93)	8.82 (8.32-9.34)	10.3 (9.68-10.9)	11.4 (10.7-12.0)	12.8 (12.1-13.6)	14.0 (13.1-14.8)	15.0 (14.1-15.9)	16.1 (15.0-17.1)	17.5 (16.2-18.6)	18.5 (17.1-19.7)
45-day	9.49 (8.95-10.0)	11.1 (10.5-11.8)	12.9 (12.1-13.6)	14.2 (13.3-15.0)	15.8 (14.9-16.7)	17.1 (16.0-18.1)	18.3 (17.1-19.4)	19.5 (18.2-20.6)	20.9 (19.5-22.2)	22.0 (20.4-23.4)
60-day	11.3 (10.7-12.0)	13.3 (12.5-14.1)	15.2 (14.4-16.1)	16.7 (15.8-17.7)	18.6 (17.5-19.7)	20.1 (18.9-21.2)	21.4 (20.1-22.7)	22.8 (21.3-24.1)	24.4 (22.8-25.9)	25.6 (23.9-27.2)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

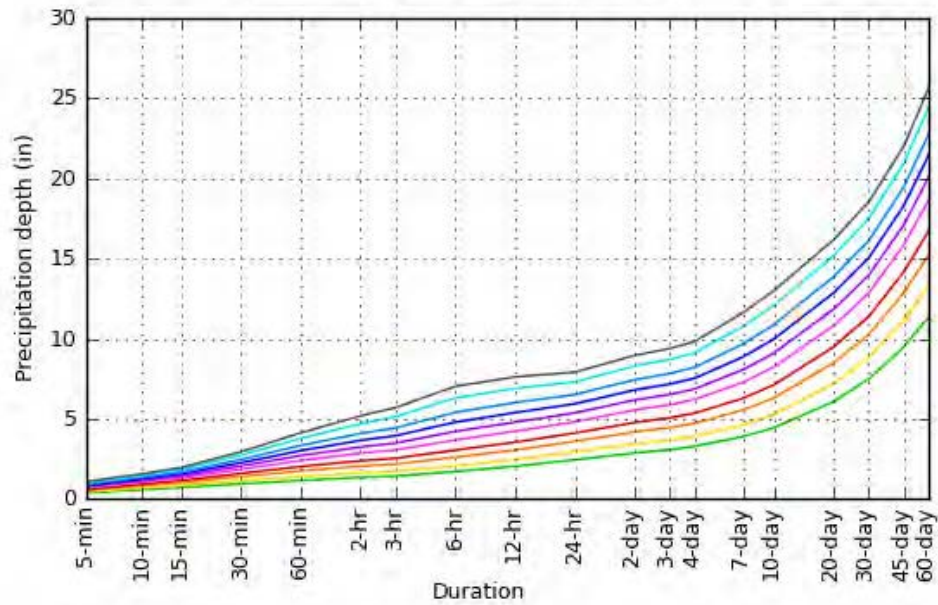
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

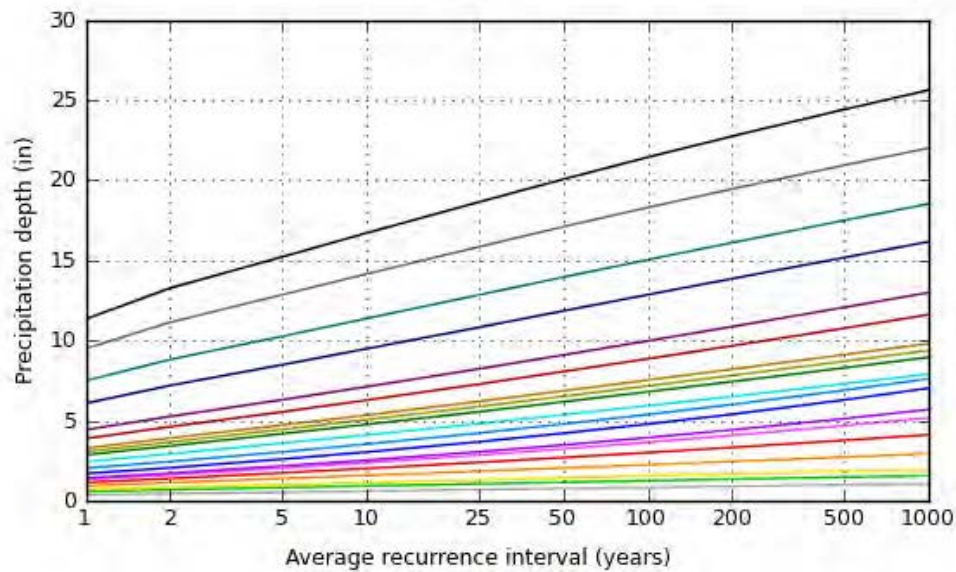
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PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 39.4661°, Longitude: -86.0719°



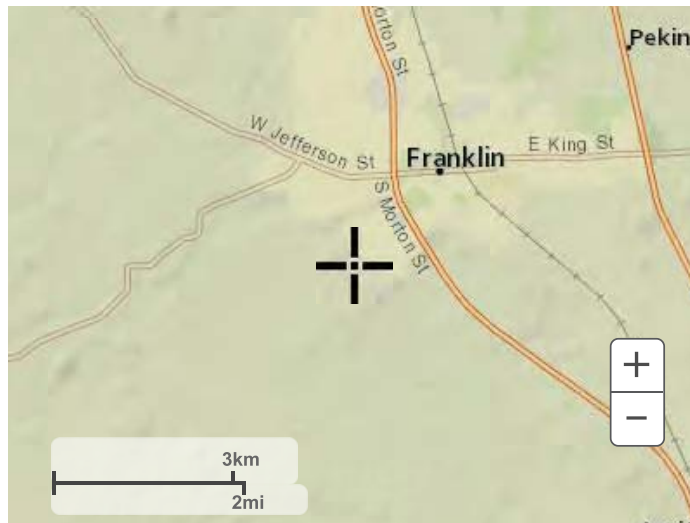
Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000



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

Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

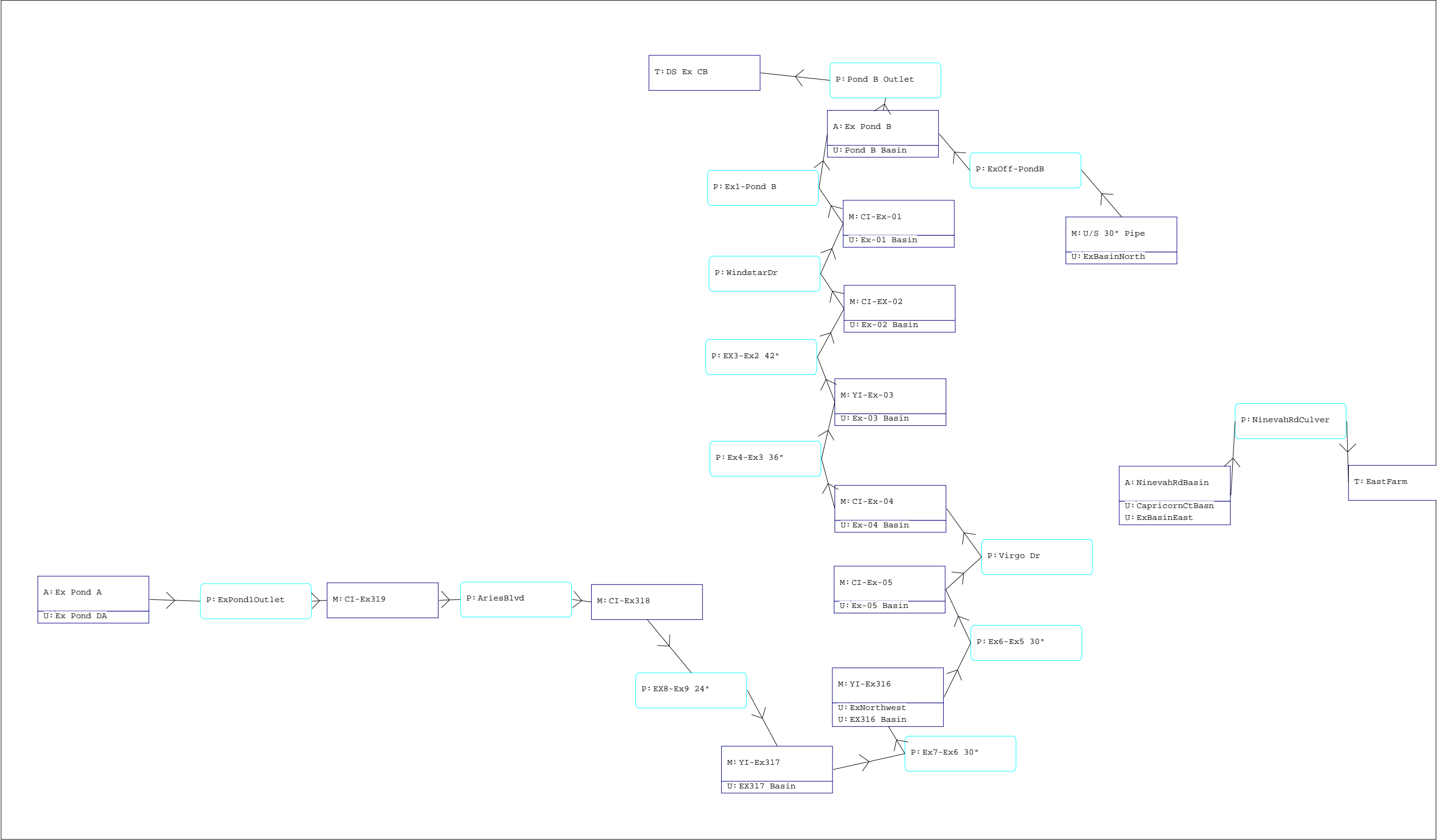


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[US Department of Commerce](#)
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[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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APPENDIX A
EXISTING SITE CONDITIONS
CALCULATIONS



Nodes		Basins		Links	
A	Stage/Area	O	Overland Flow	P	Pipe
V	Stage/Volume	U	SCS Unit Hydro CN	W	Weir
T	Time/Stage	S	Santa Barbara CNZ	C	Channel
M	Manhole	Y	SCS Unit Hydro GA	D	Drop Structure
		Z	Santa Barbara GA	B	Bridge
				R	Rating Curve
				H	Breach
				E	Percolation Link
				F	Filter
				X	Exfiltration Trench

=====
===== Basins =====
=====

Name: CapricornCtBasn Node: NinevahRdBasin Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 25.00
Area(ac): 6.330 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Ex Pond DA Node: Ex Pond A Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 20.00
Area(ac): 14.320 Time Shift(hrs): 0.00
Curve Number: 82.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Ex-01 Basin Node: CI-Ex-01 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 8.00
Area(ac): 0.680 Time Shift(hrs): 0.00
Curve Number: 82.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Ex-02 Basin Node: CI-EX-02 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 13.00
Area(ac): 1.270 Time Shift(hrs): 0.00
Curve Number: 82.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Ex-03 Basin Node: YI-Ex-03 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 16.00
Area(ac): 1.810 Time Shift(hrs): 0.00
Curve Number: 82.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Ex-04 Basin Node: CI-Ex-04 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00

The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Input Data

Rainfall Amount(in): 0.000	Time of Conc(min): 8.00
Area(ac): 1.330	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Ex-05 Basin	Node: CI-Ex-05	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 8.00
Area(ac): 1.380	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: EX316 Basin	Node: YI-Ex316	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 17.20
Area(ac): 2.680	Time Shift(hrs): 0.00
Curve Number: 76.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: EX317 Basin	Node: YI-Ex317	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 25.10
Area(ac): 3.710	Time Shift(hrs): 0.00
Curve Number: 76.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: ExBasinEast	Node: NinevahRdBasin	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 28.70
Area(ac): 10.030	Time Shift(hrs): 0.00
Curve Number: 76.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: ExBasinNorth	Node: U/S 30" Pipe	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 24.20
Area(ac): 8.510	Time Shift(hrs): 0.00
Curve Number: 76.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: ExNorthwest	Node: YI-Ex316	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: Uh484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 29.40
Area(ac): 27.130	Time Shift(hrs): 0.00
Curve Number: 76.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Pond B Basin	Node: Ex Pond B	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 36.00
Area(ac): 16.450	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

=====
==== Nodes =====
=====

Name: CI-Ex-01	Base Flow(cfs): 0.000	Init Stage(ft): 732.950
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 738.950
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
732.950	0.0003
738.950	0.0003
739.950	0.5000

Name: CI-EX-02	Base Flow(cfs): 0.000	Init Stage(ft): 732.910
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 739.810
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
732.910	0.0003
739.810	0.0003
740.810	0.5000

Name: CI-Ex-04	Base Flow(cfs): 0.000	Init Stage(ft): 733.370
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 739.370
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
733.370	0.0002
739.370	0.0002
740.370	0.5000

Name: CI-Ex-05	Base Flow(cfs): 0.000	Init Stage(ft): 733.400
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 739.300
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
733.400	0.0002

739.300	0.0002
740.300	0.5000

Name: CI-Ex318	Base Flow(cfs): 0.000	Init Stage(ft): 734.470
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 738.900
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
734.000	0.0002
738.900	0.0002
739.900	0.5000

Name: CI-Ex319	Base Flow(cfs): 0.000	Init Stage(ft): 734.000
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 739.000
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
734.000	0.0002
739.000	0.0002
740.000	0.5000

Name: DS Ex CB	Base Flow(cfs): 0.000	Init Stage(ft): 730.910
Group: BASE		Warn Stage(ft): 738.910
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	730.910
12.00	733.910
30.00	730.910

Name: EastFarm	Base Flow(cfs): 0.000	Init Stage(ft): 736.800
Group: BASE		Warn Stage(ft): 739.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	736.800
12.00	738.800
30.00	736.800

Name: Ex Pond A	Base Flow(cfs): 0.000	Init Stage(ft): 735.000
Group: BASE		Warn Stage(ft): 738.000
Type: Stage/Area		

Stage(ft)	Area(ac)
734.550	1.3820
735.000	1.4310
736.000	1.5660
738.000	1.8940
739.000	2.1140

Name: Ex Pond B	Base Flow(cfs): 0.000	Init Stage(ft): 732.500
Group: BASE		Warn Stage(ft): 737.000
Type: Stage/Area		

Stage(ft)	Area(ac)
732.500	0.8706
735.000	1.0650
737.000	1.2700

Name: NinevahRdBasin	Base Flow(cfs): 0.000	Init Stage(ft): 738.300
Group: BASE		Warn Stage(ft): 742.000
Type: Stage/Area		

Stage(ft)	Area(ac)
738.300	0.0000
741.000	0.0050
742.000	0.0530
743.000	0.1033

Name: U/S 30" Pipe	Base Flow(cfs): 0.000	Init Stage(ft): 736.000
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 738.000
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
736.000	0.0000
737.000	0.0030
738.000	0.0200
739.000	0.1000

Name: YI-Ex-03	Base Flow(cfs): 0.000	Init Stage(ft): 733.340
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 737.840
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
733.340	0.0003
737.840	0.0003
738.840	0.5000

Name: YI-Ex316	Base Flow(cfs): 0.000	Init Stage(ft): 733.550
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 737.550
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
733.550	0.0002
737.550	0.0002
738.550	0.5000

Name: YI-Ex317	Base Flow(cfs): 0.000	Init Stage(ft): 734.010
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 738.380
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
734.000	0.0002
738.380	0.0002
739.380	0.5000

=====
===== Pipes =====
=====

Name: AriesBlvd	From Node: CI-Ex319	Length(ft): 29.00
Group: BASE	To Node: CI-Ex318	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
		Flow: Both
UPSTREAM	DOWNSTREAM	Entrance Loss Coef: 0.50
Geometry: Circular	Circular	Exit Loss Coef: 1.00
Span(in): 24.00	24.00	Bend Loss Coef: 0.00
Rise(in): 24.00	24.00	Outlet Ctrl Spec: Use dc or tw
Invert(ft): 734.500	734.470	Inlet Ctrl Spec: Use dc
Manning's N: 0.013000	0.013000	Stabilizer Option: None
Top Clip(in): 0.000	0.000	
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex1-Pond B	From Node: CI-Ex-01	Length(ft): 189.00
Group: BASE	To Node: Ex Pond B	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
		Flow: Both
UPSTREAM	DOWNSTREAM	Entrance Loss Coef: 0.50
Geometry: Circular	Circular	Exit Loss Coef: 1.00
Span(in): 42.00	42.00	Bend Loss Coef: 0.00
Rise(in): 42.00	42.00	Outlet Ctrl Spec: Use dc or tw
Invert(ft): 732.950	732.750	Inlet Ctrl Spec: Use dc
Manning's N: 0.013000	0.013000	Stabilizer Option: None
Top Clip(in): 0.000	0.000	
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular: Smooth tapered inlet throat

Name: EX3-Ex2 42"	From Node: YI-Ex-03	Length(ft): 184.00
Group: BASE	To Node: CI-EX-02	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
		Flow: Both
UPSTREAM	DOWNSTREAM	Entrance Loss Coef: 0.50
Geometry: Circular	Circular	Exit Loss Coef: 1.00
Span(in): 42.00	42.00	Bend Loss Coef: 0.00
Rise(in): 42.00	42.00	Outlet Ctrl Spec: Use dc or tw
Invert(ft): 733.340	732.910	Inlet Ctrl Spec: Use dc
Manning's N: 0.013000	0.013000	Stabilizer Option: None
Top Clip(in): 0.000	0.000	
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex4-Ex3 36"	From Node: CI-Ex-04	Length(ft): 185.00
Group: BASE	To Node: YI-Ex-03	Count: 1

	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
			Solution Algorithm: Automatic
Geometry:	Circular	Circular	Flow: Both
Span(in):	36.00	36.00	Entrance Loss Coef: 0.50
Rise(in):	36.00	36.00	Exit Loss Coef: 1.00
Invert(ft):	733.370	733.340	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex6-Ex5 30"		From Node: YI-Ex316	Length(ft): 135.00
Group: BASE		To Node: CI-Ex-05	Count: 1
	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
			Solution Algorithm: Automatic
Geometry:	Circular	Circular	Flow: Both
Span(in):	30.00	30.00	Entrance Loss Coef: 0.50
Rise(in):	30.00	30.00	Exit Loss Coef: 1.00
Invert(ft):	733.550	733.400	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex7-Ex6 30"		From Node: YI-Ex317	Length(ft): 333.00
Group: BASE		To Node: YI-Ex316	Count: 1
	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
			Solution Algorithm: Automatic
Geometry:	Circular	Circular	Flow: Both
Span(in):	30.00	30.00	Entrance Loss Coef: 0.50
Rise(in):	30.00	30.00	Exit Loss Coef: 1.00
Invert(ft):	734.010	733.550	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: EX8-Ex9 24"		From Node: CI-Ex318	Length(ft): 175.00
Group: BASE		To Node: YI-Ex317	Count: 1
	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
			Solution Algorithm: Automatic
Geometry:	Circular	Circular	Flow: Both
Span(in):	24.00	24.00	Entrance Loss Coef: 0.50
Rise(in):	24.00	24.00	Exit Loss Coef: 1.00
Invert(ft):	734.470	734.010	Bend Loss Coef: 0.00

The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Input Data

Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: ExOff-PondB		From Node: U/S 30" Pipe	Length(ft): 413.00
Group: BASE		To Node: Ex Pond B	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic	
Geometry: Circular	Circular	Solution Algorithm: Automatic	
Span(in): 30.00	30.00	Flow: Both	
Rise(in): 30.00	30.00	Entrance Loss Coef: 0.50	
Invert(ft): 736.000	732.500	Exit Loss Coef: 1.00	
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00	
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw	
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc	
		Stabilizer Option: None	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: ExPond1Outlet		From Node: Ex Pond A	Length(ft): 167.00
Group: BASE		To Node: CI-Ex319	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic	
Geometry: Circular	Circular	Solution Algorithm: Automatic	
Span(in): 12.00	12.00	Flow: Both	
Rise(in): 12.00	12.00	Entrance Loss Coef: 0.50	
Invert(ft): 734.600	734.500	Exit Loss Coef: 1.00	
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00	
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw	
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc	
		Stabilizer Option: None	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: NinevahRdCulver		From Node: NinevahRdBasin	Length(ft): 78.00
Group: BASE		To Node: EastFarm	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic	
Geometry: Horz Ellipse	Horz Ellipse	Solution Algorithm: Most Restrictive	
Span(in): 42.00	42.00	Flow: Both	
Rise(in): 29.00	29.00	Entrance Loss Coef: 0.00	
Invert(ft): 738.300	736.800	Exit Loss Coef: 1.00	
Manning's N: 0.025000	0.025000	Bend Loss Coef: 0.00	
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw	
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc	
		Stabilizer Option: None	

Upstream FHWA Inlet Edge Description:
Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description:
Horizontal Ellipse Concrete: Square edge with headwall

```

-----
      Name: Pond B Outlet      From Node: Ex Pond B      Length(ft): 167.00
      Group: BASE              To Node: DS Ex CB          Count: 1
                                Friction Equation: Automatic
                                Solution Algorithm: Automatic
                                Flow: Both
      UPSTREAM      DOWNSTREAM
      Geometry: Circular      Circular
      Span(in): 24.00      24.00
      Rise(in): 24.00      24.00
      Invert(ft): 732.770    730.910
      Manning's N: 0.013000  0.013000
      Top Clip(in): 0.000    0.000
      Bot Clip(in): 0.000    0.000
                                Entrance Loss Coef: 0.50
                                Exit Loss Coef: 1.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dc
                                Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
      Name: Virgo Dr          From Node: CI-Ex-05      Length(ft): 29.00
      Group: BASE              To Node: CI-Ex-04          Count: 1
                                Friction Equation: Automatic
                                Solution Algorithm: Automatic
                                Flow: Both
      UPSTREAM      DOWNSTREAM
      Geometry: Circular      Circular
      Span(in): 30.00      30.00
      Rise(in): 30.00      30.00
      Invert(ft): 733.400    733.370
      Manning's N: 0.013000  0.013000
      Top Clip(in): 0.000    0.000
      Bot Clip(in): 0.000    0.000
                                Entrance Loss Coef: 0.50
                                Exit Loss Coef: 1.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dc
                                Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
      Name: WindstarDr        From Node: CI-EX-02      Length(ft): 36.00
      Group: BASE              To Node: CI-Ex-01          Count: 1
                                Friction Equation: Automatic
                                Solution Algorithm: Automatic
                                Flow: Both
      UPSTREAM      DOWNSTREAM
      Geometry: Circular      Circular
      Span(in): 42.00      42.00
      Rise(in): 42.00      42.00
      Invert(ft): 732.910    732.950
      Manning's N: 0.013000  0.013000
      Top Clip(in): 0.000    0.000
      Bot Clip(in): 0.000    0.000
                                Entrance Loss Coef: 0.50
                                Exit Loss Coef: 1.00
                                Bend Loss Coef: 0.00
                                Outlet Ctrl Spec: Use dc or tw
                                Inlet Ctrl Spec: Use dc
                                Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

=====
==== Drop Structures =====
=====

Name:	From Node:	Length(ft): 0.00
Group: BASE	To Node:	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 0.00	0.00	Flow: Both
Rise(in): 0.00	0.00	Entrance Loss Coef: 0.000
Invert(ft): 0.000	0.000	Exit Loss Coef: 1.000
Manning's N: 0.000000	0.000000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

=====
==== Hydrology Simulations =====
=====

Name: 002YR01HR
Filename: S:\83540\DRAINAGE\ICPR\EX002YR01hr.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Scsii-24
Rainfall Amount(in): 1.39

Time(hrs)	Print Inc(min)
-----	-----
1.000	0.60

Name: 002YR02Hr
Filename: S:\83540\DRAINAGE\ICPR\EX002YR02Hr.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Scsii-24
Rainfall Amount(in): 1.62

Time(hrs)	Print Inc(min)
-----	-----
2.000	1.20

Name: 002YR03Hr
Filename: S:\83540\DRAINAGE\ICPR\EX002YR03Hr.R32

Override Defaults: Yes
Storm Duration(hrs): 3.00
Rainfall File: Scsii-24
Rainfall Amount(in): 1.72

Time(hrs)	Print Inc(min)
-----	-----
3.000	1.90

Name: 002YR06Hr
Filename: S:\83540\DRAINAGE\ICPR\EX002YR06Hr.R32

Override Defaults: Yes
Storm Duration(hrs): 6.00

Rainfall File: Scsii-24
Rainfall Amount(in): 2.06

Time(hrs)	Print Inc(min)
6.000	3.70

Name: 002YR12hr
Filename: S:\83540\DRAINAGE\ICPR\EX002YR12hr.R32

Override Defaults: Yes
Storm Duration(hrs): 12.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.45

Time(hrs)	Print Inc(min)
12.000	7.50

Name: 002YR24hr
Filename: S:\83540\DRAINAGE\ICPR\EX002YR24hr.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.90

Time(hrs)	Print Inc(min)
24.000	15.00

Name: 010YR01hr
Filename: S:\83540\DRAINAGE\ICPR\EX010YR01hr.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.02

Time(hrs)	Print Inc(min)
1.000	0.60

Name: 010YR02hr
Filename: S:\83540\DRAINAGE\ICPR\EX010YR02hr.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.38

Time(hrs)	Print Inc(min)
2.000	1.20

Name: 010YR03hr
Filename: S:\83540\DRAINAGE\ICPR\EX010YR03hr.R32

Override Defaults: Yes
Storm Duration(hrs): 3.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.53

Time(hrs)	Print Inc(min)
3.000	1.90

Name: 010YR06hr
Filename: S:\83540\DRAINAGE\ICPR\EX010YR06hr.R32

Override Defaults: Yes
Storm Duration(hrs): 6.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.04

Time(hrs)	Print Inc(min)
6.000	3.70

Name: 010YR12hr
Filename: S:\83540\DRAINAGE\ICPR\EX010YR12hr.R32

Override Defaults: Yes
Storm Duration(hrs): 12.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.54

Time(hrs)	Print Inc(min)
12.000	7.50

Name: 010YR24hr
Filename: S:\83540\DRAINAGE\ICPR\EX010YR24hr.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 4.06

Time(hrs)	Print Inc(min)
24.000	15.00

Name: 100YR01hr
Filename: S:\83540\DRAINAGE\ICPR\EX100YR01hr.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.01

Time(hrs)	Print Inc(min)
1.000	0.60

Name: 100YR02hr
Filename: S:\83540\DRAINAGE\ICPR\EX100YR02hr.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.65

Time(hrs)	Print Inc(min)
2.000	1.20

Name: 100YR03hr
Filename: S:\83540\DRAINAGE\ICPR\EX100YR03hr.R32

Override Defaults: Yes
Storm Duration(hrs): 3.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.94

Time(hrs)	Print Inc(min)
3.000	1.90

```
-----
Name: 100YR06hr
Filename: S:\83540\DRAINAGE\ICPR\EX100YR06hr.R32

Override Defaults: Yes
Storm Duration(hrs): 6.00
Rainfall File: Scsii-24
Rainfall Amount(in): 4.79

Time(hrs)      Print Inc(min)
-----
6.000          3.70
-----
```

```
-----
Name: 100YR12hr
Filename: S:\83540\DRAINAGE\ICPR\EX100YR12hr.R32

Override Defaults: Yes
Storm Duration(hrs): 12.00
Rainfall File: Scsii-24
Rainfall Amount(in): 5.38

Time(hrs)      Print Inc(min)
-----
12.000         7.50
-----
```

```
-----
Name: 100YR24hr
Filename: S:\83540\DRAINAGE\ICPR\EX100YR24hr.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 5.83

Time(hrs)      Print Inc(min)
-----
24.000         15.00
-----
```

```
=====
==== Routing Simulations =====
=====
```

```
Name: 002YR01HR      Hydrology Sim: 002YR01HR
Filename: S:\83540\Drainage\ICPR\EX002YR01HR.I32

Execute: Yes      Restart: No      Patch: No
Alternative: No

Max Delta Z(ft): 1.00      Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000      End Time(hrs): 3.00
Min Calc Time(sec): 0.5000   Max Calc Time(sec): 10.0000
Boundary Stages:      Boundary Flows:

Time(hrs)      Print Inc(min)
-----
3.000          1.000

Group          Run
-----
BASE          Yes
-----
```

```
-----
Name: 002YR02HR      Hydrology Sim: 002YR02Hr
Filename: S:\83540\Drainage\ICPR\EX002YR02HR.I32

Execute: Yes      Restart: No      Patch: No
Alternative: No

Max Delta Z(ft): 1.00      Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
-----
```


The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Input Data

Start Time(hrs): 0.000	End Time(hrs): 6.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
6.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 002YR03HR	Hydrology Sim: 002YR03Hr
Filename: S:\83540\Drainage\ICPR\EX002YR03HR.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 9.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
9.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 002YR06HR	Hydrology Sim: 002YR06Hr
Filename: S:\83540\Drainage\ICPR\EX002YR06HR.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 12.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
12.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 002YR12HR	Hydrology Sim: 002YR12hr
Filename: S:\83540\Drainage\ICPR\EX002YR12HR.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 24.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
24.000	1.000

Group	Run
BASE	Yes

Name: 002YR24HR Hydrology Sim: 002YR24hr
Filename: S:\83540\Drainage\ICPR\EX002YR24HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 36.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
36.000	1.000

Group	Run
BASE	Yes

Name: 010YR01Hr Hydrology Sim: 010YR01hr
Filename: S:\83540\Drainage\ICPR\EX010YR01Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 3.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
3.000	1.000

Group	Run
BASE	Yes

Name: 010YR02Hr Hydrology Sim: 010YR02hr
Filename: S:\83540\Drainage\ICPR\EX010YR02Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 6.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
6.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR03Hr Hydrology Sim: 010YR03hr
Filename: S:\83540\Drainage\ICPR\EX010YR03Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 9.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
9.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR06Hr Hydrology Sim: 010YR06hr
Filename: S:\83540\Drainage\ICPR\EX010YR06Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 12.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
12.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR12Hr Hydrology Sim: 010YR12hr
Filename: S:\83540\Drainage\ICPR\EX010YR12Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 24.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
24.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 010YR24Hr Hydrology Sim: 010YR24hr
Filename: S:\83540\Drainage\ICPR\EX010YR24Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 36.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
36.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 100YR01hr Hydrology Sim: 100YR01hr
Filename: S:\83540\Drainage\ICPR\EX100YR01hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 3.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
3.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 100YR02hr Hydrology Sim: 100YR02hr
Filename: S:\83540\Drainage\ICPR\EX100YR02hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 6.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
6.000	1.000

Group	Run
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BASE Yes

Name: 100YR03hr Hydrology Sim: 100YR03hr
Filename: S:\83540\Drainage\ICPR\EX100YR03hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 9.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

9.000 1.000

Group Run

BASE Yes

Name: 100YR06hr Hydrology Sim: 100YR06hr
Filename: S:\83540\Drainage\ICPR\EX100YR06hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

12.000 1.000

Group Run

BASE Yes

Name: 100YR12hr Hydrology Sim: 100YR12hr
Filename: S:\83540\Drainage\ICPR\EX100YR12hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

24.000 1.000

Group Run

BASE Yes

Name: 100YR24hr Hydrology Sim: 100YR24hr
Filename: S:\83540\Drainage\ICPR\EX100YR24hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 36.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
36.000	1.000
Group	Run
BASE	Yes

The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Output

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CI-Ex-01	BASE	002YR01HR	0.95	734.449	738.950	0.0081	494	0.94	9.047	0.95	9.047
CI-Ex-01	BASE	002YR02HR	1.44	734.628	738.950	0.0086	499	1.43	11.113	1.44	11.110
CI-Ex-01	BASE	002YR03HR	1.90	734.671	738.950	0.0089	499	1.89	11.655	1.90	11.642
CI-Ex-01	BASE	002YR06HR	3.37	735.019	738.950	0.0088	497	3.36	16.196	3.37	16.182
CI-Ex-01	BASE	002YR12HR	6.29	735.366	738.950	-0.0093	480	6.28	21.211	6.29	21.191
CI-Ex-01	BASE	002YR24HR	12.20	735.513	738.950	0.0098	468	12.24	23.885	12.25	24.089
CI-Ex-01	BASE	010YR01Hr	0.82	735.612	738.950	0.0091	458	0.81	24.957	0.82	24.939
CI-Ex-01	BASE	010YR02Hr	1.25	735.765	738.950	0.0098	439	1.24	27.381	1.25	27.339
CI-Ex-01	BASE	010YR03Hr	1.72	735.830	738.950	-0.0099	430	1.71	28.401	1.72	28.361
CI-Ex-01	BASE	010YR06Hr	3.16	736.022	738.950	-0.0100	394	3.15	31.376	3.16	31.330
CI-Ex-01	BASE	010YR12Hr	7.02	736.223	738.950	-0.0100	303	6.13	32.721	6.14	32.659
CI-Ex-01	BASE	010YR24Hr	13.12	736.835	738.950	0.0338	133	12.01	32.939	12.08	33.154
CI-Ex-01	BASE	100YR01hr	0.65	736.478	738.950	0.0100	211	0.65	37.695	0.65	37.670
CI-Ex-01	BASE	100YR02hr	2.00	737.007	738.950	-0.0103	133	1.13	41.134	1.14	41.108
CI-Ex-01	BASE	100YR03hr	3.01	737.385	738.950	-0.0123	133	1.62	42.371	1.63	42.336
CI-Ex-01	BASE	100YR06hr	4.63	737.893	738.950	0.0120	133	3.09	45.250	3.10	45.212
CI-Ex-01	BASE	100YR12hr	7.56	738.109	738.950	0.0465	133	6.13	43.346	6.15	43.418
CI-Ex-01	BASE	100YR24hr	13.41	738.356	738.950	0.0384	133	12.01	42.828	12.01	42.822
CI-EX-02	BASE	002YR01HR	0.95	734.592	739.810	0.0099	496	0.94	8.930	0.95	8.893
CI-EX-02	BASE	002YR02HR	1.44	734.786	739.810	0.0096	497	1.43	10.978	1.43	10.944
CI-EX-02	BASE	002YR03HR	1.90	734.834	739.810	0.0100	496	1.88	11.487	1.89	11.481
CI-EX-02	BASE	002YR06HR	3.36	735.222	739.810	0.0095	481	3.35	16.013	3.36	15.973
CI-EX-02	BASE	002YR12HR	6.29	735.607	739.810	0.0094	443	6.28	20.991	6.29	20.936
CI-EX-02	BASE	002YR24HR	12.21	735.772	739.810	-0.0090	417	12.27	23.505	12.27	23.613
CI-EX-02	BASE	010YR01Hr	0.82	735.878	739.810	0.0100	398	0.80	24.542	0.82	24.493
CI-EX-02	BASE	010YR02Hr	1.25	736.045	739.810	0.0100	359	1.23	26.775	1.24	26.670
CI-EX-02	BASE	010YR03Hr	1.72	736.115	739.810	-0.0100	339	1.70	27.624	1.72	27.535
CI-EX-02	BASE	010YR06Hr	3.16	736.322	739.810	0.0096	252	3.14	30.053	3.16	29.994
CI-EX-02	BASE	010YR12Hr	6.13	736.422	739.810	0.0098	160	6.13	31.331	6.13	31.281
CI-EX-02	BASE	010YR24Hr	12.97	736.941	739.810	-0.0258	132	12.09	31.103	12.09	31.243
CI-EX-02	BASE	100YR01hr	0.66	736.819	739.810	0.0100	132	0.67	35.007	0.67	35.048
CI-EX-02	BASE	100YR02hr	2.00	737.199	739.810	0.0107	132	1.16	37.808	1.16	37.854
CI-EX-02	BASE	100YR03hr	3.00	737.531	739.810	0.0126	132	1.65	38.832	1.65	38.870
CI-EX-02	BASE	100YR06hr	4.56	738.036	739.810	-0.0253	132	3.14	41.238	3.14	41.294
CI-EX-02	BASE	100YR12hr	7.38	738.245	739.810	0.0379	132	6.13	40.769	6.13	40.718
CI-EX-02	BASE	100YR24hr	13.36	738.473	739.810	0.0666	132	12.01	39.345	12.01	39.339
CI-Ex-04	BASE	002YR01HR	0.95	734.999	739.370	0.0100	424	0.94	8.086	0.95	7.886
CI-Ex-04	BASE	002YR02HR	1.43	735.227	739.370	0.0099	415	1.43	10.033	1.43	9.837
CI-Ex-04	BASE	002YR03HR	1.90	735.277	739.370	0.0100	412	1.86	10.168	1.90	10.256
CI-Ex-04	BASE	002YR06HR	3.36	735.740	739.370	0.0099	359	3.34	14.453	3.35	14.343
CI-Ex-04	BASE	002YR12HR	6.28	736.243	739.370	0.0092	250	6.27	18.785	6.28	18.700
CI-Ex-04	BASE	002YR24HR	12.23	736.504	739.370	0.0086	167	12.28	21.328	12.28	21.354
CI-Ex-04	BASE	010YR01Hr	0.86	736.605	739.370	0.0100	159	0.92	21.527	0.92	21.548
CI-Ex-04	BASE	010YR02Hr	1.41	736.795	739.370	0.0100	147	1.46	23.348	1.46	23.451
CI-Ex-04	BASE	010YR03Hr	1.73	736.855	739.370	0.0100	129	1.97	23.555	1.97	23.573
CI-Ex-04	BASE	010YR06Hr	3.19	737.090	739.370	0.0098	129	3.54	25.575	3.53	25.597
CI-Ex-04	BASE	010YR12Hr	6.16	737.269	739.370	0.0097	129	6.45	26.195	6.45	26.194
CI-Ex-04	BASE	010YR24Hr	12.74	737.571	739.370	0.0085	129	12.19	25.339	12.19	25.354
CI-Ex-04	BASE	100YR01hr	0.68	737.622	739.370	0.0099	129	1.00	27.549	1.00	27.557

The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Output

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CI-Ex-04	BASE	100YR02hr	2.00	738.088	739.370	0.0099	129	1.50	28.522	1.50	28.493
CI-Ex-04	BASE	100YR03hr	2.74	738.239	739.370	0.0101	129	1.56	28.900	1.96	28.554
CI-Ex-04	BASE	100YR06hr	4.16	738.722	739.370	0.0099	129	3.39	28.819	3.38	28.773
CI-Ex-04	BASE	100YR12hr	7.08	738.900	739.370	0.0350	129	6.30	27.639	6.30	27.540
CI-Ex-04	BASE	100YR24hr	13.15	738.994	739.370	0.0455	129	12.08	27.373	12.08	27.361
CI-Ex-05	BASE	002YR01HR	0.94	735.139	739.300	0.0087	302	1.00	7.510	0.94	7.785
CI-Ex-05	BASE	002YR02HR	1.43	735.389	739.300	0.0097	279	1.41	9.444	1.43	9.702
CI-Ex-05	BASE	002YR03HR	1.90	735.437	739.300	0.0099	272	1.86	10.142	1.88	9.810
CI-Ex-05	BASE	002YR06HR	3.35	735.975	739.300	0.0099	127	3.34	13.825	3.35	13.997
CI-Ex-05	BASE	002YR12HR	6.28	736.630	739.300	0.0098	123	6.26	18.173	6.27	18.227
CI-Ex-05	BASE	002YR24HR	12.27	737.006	739.300	0.0094	123	12.28	20.814	12.28	20.831
CI-Ex-05	BASE	010YR01Hr	0.88	737.107	739.300	-0.0155	123	0.92	20.907	0.93	20.925
CI-Ex-05	BASE	010YR02Hr	1.46	737.404	739.300	0.0099	123	1.46	22.752	1.46	22.751
CI-Ex-05	BASE	010YR03Hr	1.93	737.456	739.300	0.0099	123	1.98	23.015	1.99	23.031
CI-Ex-05	BASE	010YR06Hr	3.44	737.776	739.300	0.0100	123	3.56	25.040	3.56	25.060
CI-Ex-05	BASE	010YR12Hr	6.55	737.898	739.300	0.0099	123	6.46	25.593	6.47	25.589
CI-Ex-05	BASE	010YR24Hr	12.62	738.135	739.300	0.0093	123	12.30	24.545	12.30	24.499
CI-Ex-05	BASE	100YR01hr	1.00	738.232	739.300	-0.0148	123	1.03	26.985	1.03	27.092
CI-Ex-05	BASE	100YR02hr	1.98	738.757	739.300	-0.0109	123	1.50	27.542	1.50	27.507
CI-Ex-05	BASE	100YR03hr	2.40	738.865	739.300	0.0108	123	1.97	27.635	1.97	27.596
CI-Ex-05	BASE	100YR06hr	3.85	739.355	739.300	0.0100	1215	3.40	27.586	3.40	27.510
CI-Ex-05	BASE	100YR12hr	6.86	739.481	739.300	0.0106	3953	9.66	26.682	9.66	26.468
CI-Ex-05	BASE	100YR24hr	12.80	739.469	739.300	0.0139	3688	15.62	27.119	15.62	26.945
CI-Ex318	BASE	002YR01HR	0.95	735.261	738.900	-0.0094	312	1.04	0.717	1.02	1.160
CI-Ex318	BASE	002YR02HR	1.44	735.525	738.900	-0.0090	310	2.02	0.893	2.02	1.135
CI-Ex318	BASE	002YR03HR	1.90	735.584	738.900	-0.0065	308	3.03	0.866	3.03	0.925
CI-Ex318	BASE	002YR06HR	3.35	736.238	738.900	-0.0074	218	5.22	1.053	6.06	1.060
CI-Ex318	BASE	002YR12HR	6.28	737.071	738.900	0.0099	123	7.86	1.215	6.90	1.369
CI-Ex318	BASE	002YR24HR	12.27	737.599	738.900	-0.0094	123	13.97	1.356	13.91	1.380
CI-Ex318	BASE	010YR01Hr	0.91	737.690	738.900	-0.0145	123	1.10	1.290	1.01	4.316
CI-Ex318	BASE	010YR02Hr	1.47	738.091	738.900	0.0099	123	2.06	1.706	2.01	2.276
CI-Ex318	BASE	010YR03Hr	1.95	738.163	738.900	0.0095	123	3.05	1.788	3.02	2.177
CI-Ex318	BASE	010YR06Hr	3.51	738.598	738.900	0.0096	123	6.07	2.108	6.06	2.337
CI-Ex318	BASE	010YR12Hr	6.51	738.793	738.900	-0.0096	123	9.28	2.239	9.26	2.262
CI-Ex318	BASE	010YR24Hr	12.49	738.855	738.900	0.0097	123	16.02	2.423	15.95	2.441
CI-Ex318	BASE	100YR01hr	1.05	739.057	738.900	-0.0146	3431	1.60	1.973	1.39	4.474
CI-Ex318	BASE	100YR02hr	2.04	739.453	738.900	0.0162	12058	4.18	2.612	2.76	3.204
CI-Ex318	BASE	100YR03hr	2.62	739.521	738.900	0.0164	13544	5.52	2.798	5.53	2.811
CI-Ex318	BASE	100YR06hr	4.40	739.772	738.900	0.0109	19003	8.00	3.285	7.90	3.326
CI-Ex318	BASE	100YR12hr	7.43	739.814	738.900	0.0574	19926	9.66	26.468	9.66	26.468
CI-Ex318	BASE	100YR24hr	13.33	739.750	738.900	0.0585	18531	15.62	26.945	15.62	26.945
CI-Ex319	BASE	002YR01HR	0.96	735.255	739.000	0.0074	216	1.10	0.559	1.04	0.717
CI-Ex319	BASE	002YR02HR	1.43	735.514	739.000	0.0074	166	2.05	0.804	2.02	0.893
CI-Ex319	BASE	002YR03HR	1.90	735.568	739.000	-0.0084	166	3.01	0.864	3.03	0.866
CI-Ex319	BASE	002YR06HR	3.35	736.226	739.000	0.0074	156	5.21	1.053	5.22	1.053
CI-Ex319	BASE	002YR12HR	6.28	737.049	739.000	0.0100	136	7.94	1.213	7.86	1.215
CI-Ex319	BASE	002YR24HR	12.28	737.567	739.000	-0.0086	135	14.04	1.348	13.97	1.356
CI-Ex319	BASE	010YR01Hr	0.91	737.656	739.000	-0.0145	135	1.15	1.137	1.10	1.290

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CI-Ex319	BASE	010YR02Hr	1.47	738.046	739.000	-0.0099	128	2.11	1.596	2.06	1.706
CI-Ex319	BASE	010YR03Hr	1.95	738.117	739.000	0.0099	127	3.11	1.704	3.05	1.788
CI-Ex319	BASE	010YR06Hr	3.54	738.551	739.000	-0.0099	119	6.09	2.036	6.07	2.108
CI-Ex319	BASE	010YR12Hr	6.54	738.744	739.000	0.0097	119	9.32	2.233	9.28	2.239
CI-Ex319	BASE	010YR24Hr	12.50	738.806	739.000	0.0098	119	16.03	2.419	16.02	2.423
CI-Ex319	BASE	100YR01hr	1.05	739.004	739.000	-0.0145	119	1.64	1.952	1.60	1.973
CI-Ex319	BASE	100YR02hr	2.09	739.399	739.000	0.0153	8697	4.21	2.606	4.18	2.612
CI-Ex319	BASE	100YR03hr	2.70	739.470	739.000	0.0150	10242	5.52	2.796	5.52	2.798
CI-Ex319	BASE	100YR06hr	4.52	739.721	739.000	0.0101	15707	8.08	3.277	8.00	3.285
CI-Ex319	BASE	100YR12hr	7.55	739.764	739.000	-0.0533	16653	12.69	3.415	9.66	26.468
CI-Ex319	BASE	100YR24hr	13.44	739.702	739.000	-0.0540	15302	18.83	3.387	15.62	26.945
DS Ex CB	BASE	002YR01HR	3.00	731.660	738.910	0.0007	110	1.50	0.646	0.00	0.000
DS Ex CB	BASE	002YR02HR	6.00	732.410	738.910	0.0007	126	2.08	4.136	0.00	0.000
DS Ex CB	BASE	002YR03HR	9.00	733.160	738.910	0.0007	41	3.01	5.527	0.00	0.000
DS Ex CB	BASE	002YR06HR	12.00	733.910	738.910	0.0007	48	4.50	7.679	0.00	0.000
DS Ex CB	BASE	002YR12HR	12.00	733.910	738.910	0.0007	48	7.23	10.358	0.00	0.000
DS Ex CB	BASE	002YR24HR	12.00	733.910	738.910	0.0007	48	13.00	15.417	0.00	0.000
DS Ex CB	BASE	010YR01Hr	3.00	731.660	738.910	0.0007	146	1.15	5.729	0.00	0.000
DS Ex CB	BASE	010YR02Hr	6.00	732.410	738.910	0.0007	144	2.00	14.846	0.00	0.000
DS Ex CB	BASE	010YR03Hr	9.00	733.160	738.910	0.0007	135	2.74	15.758	0.00	0.000
DS Ex CB	BASE	010YR06Hr	12.00	733.910	738.910	0.0007	48	4.05	19.385	0.00	0.000
DS Ex CB	BASE	010YR12Hr	12.00	733.910	738.910	0.0007	45	7.33	23.915	0.00	0.000
DS Ex CB	BASE	010YR24Hr	12.00	733.910	738.910	0.0007	41	13.23	23.033	0.00	0.000
DS Ex CB	BASE	100YR01hr	3.00	731.660	738.910	0.0007	160	1.41	16.920	0.00	0.000
DS Ex CB	BASE	100YR02hr	6.00	732.410	738.910	0.0007	159	2.01	25.456	0.00	0.000
DS Ex CB	BASE	100YR03hr	9.00	733.160	738.910	0.0007	48	3.01	27.555	0.00	0.000
DS Ex CB	BASE	100YR06hr	12.00	733.910	738.910	0.0007	48	4.73	29.648	0.00	0.000
DS Ex CB	BASE	100YR12hr	12.00	733.910	738.910	0.0007	8	7.60	30.395	0.00	0.000
DS Ex CB	BASE	100YR24hr	12.00	733.910	738.910	0.0007	8	13.81	28.432	0.00	0.000
EastFarm	BASE	002YR01HR	3.00	737.300	739.000	0.0005	87	0.83	7.481	0.00	0.000
EastFarm	BASE	002YR02HR	6.00	737.800	739.000	0.0005	101	1.29	9.160	0.00	0.000
EastFarm	BASE	002YR03HR	9.00	738.300	739.000	0.0005	100	1.80	9.611	0.00	0.000
EastFarm	BASE	002YR06HR	12.00	738.800	739.000	0.0005	112	3.27	12.392	0.00	0.000
EastFarm	BASE	002YR12HR	12.00	738.800	739.000	0.0005	112	6.25	14.982	0.00	0.000
EastFarm	BASE	002YR24HR	12.00	738.800	739.000	0.0005	117	12.25	15.586	0.00	0.000
EastFarm	BASE	010YR01Hr	3.00	737.300	739.000	0.0005	87	0.83	18.145	0.00	0.000
EastFarm	BASE	010YR02Hr	6.00	737.800	739.000	0.0005	101	1.29	22.042	0.00	0.000
EastFarm	BASE	010YR03Hr	9.00	738.300	739.000	0.0005	100	1.78	22.755	0.00	0.000
EastFarm	BASE	010YR06Hr	12.00	738.800	739.000	0.0005	112	3.27	27.640	0.00	0.000
EastFarm	BASE	010YR12Hr	12.00	738.800	739.000	0.0005	112	6.25	29.997	0.00	0.000
EastFarm	BASE	010YR24Hr	12.00	738.800	739.000	0.0005	133	12.25	27.662	0.00	0.000
EastFarm	BASE	100YR01hr	3.00	737.300	739.000	0.0005	87	0.80	39.839	0.00	0.000
EastFarm	BASE	100YR02hr	6.00	737.800	739.000	0.0005	101	1.32	48.073	0.00	0.000
EastFarm	BASE	100YR03hr	9.00	738.300	739.000	0.0005	100	1.82	49.909	0.00	0.000
EastFarm	BASE	100YR06hr	12.00	738.800	739.000	0.0005	112	3.31	56.458	0.00	0.000
EastFarm	BASE	100YR12hr	12.00	738.800	739.000	0.0005	113	6.28	55.177	0.00	0.000
EastFarm	BASE	100YR24hr	12.00	738.800	739.000	0.0005	100	12.26	46.275	0.00	0.000
Ex Pond A	BASE	002YR01HR	1.01	735.170	738.000	0.0014	63416	0.76	9.502	1.10	0.559

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Ex Pond A	BASE	002YR02HR	2.00	735.299	738.000	0.0014	64172	1.24	11.647	2.05	0.804
Ex Pond A	BASE	002YR03HR	3.01	735.327	738.000	0.0014	64334	1.74	12.039	3.01	0.864
Ex Pond A	BASE	002YR06HR	5.21	735.423	738.000	0.0009	64890	3.21	15.520	5.21	1.053
Ex Pond A	BASE	002YR12HR	7.94	735.510	738.000	0.0010	65391	6.13	18.113	7.94	1.213
Ex Pond A	BASE	002YR24HR	13.94	735.622	738.000	0.0008	66014	12.00	15.140	14.04	1.348
Ex Pond A	BASE	010YR01Hr	1.05	735.473	738.000	0.0010	65166	0.75	23.047	1.15	1.137
Ex Pond A	BASE	010YR02Hr	2.00	735.791	738.000	0.0012	66991	1.24	27.555	2.11	1.596
Ex Pond A	BASE	010YR03Hr	3.01	735.863	738.000	0.0011	67415	1.71	28.237	3.11	1.704
Ex Pond A	BASE	010YR06Hr	5.28	736.097	738.000	0.0020	68915	3.21	33.443	6.09	2.036
Ex Pond A	BASE	010YR12Hr	8.35	736.258	738.000	0.0023	70065	6.13	35.593	9.32	2.233
Ex Pond A	BASE	010YR24Hr	14.48	736.455	738.000	0.0023	71467	12.00	27.315	16.03	2.419
Ex Pond A	BASE	100YR01hr	1.41	736.047	738.000	0.0025	68558	0.72	49.876	1.64	1.952
Ex Pond A	BASE	100YR02hr	2.77	736.710	738.000	0.0029	73293	1.20	60.401	4.21	2.606
Ex Pond A	BASE	100YR03hr	3.69	736.978	738.000	0.0030	75204	1.71	61.799	5.52	2.796
Ex Pond A	BASE	100YR06hr	6.34	737.652	738.000	0.0026	80018	3.21	69.372	8.08	3.277
Ex Pond A	BASE	100YR12hr	10.06	737.837	738.000	0.0026	81339	6.13	67.708	12.69	3.415
Ex Pond A	BASE	100YR24hr	15.87	737.804	738.000	0.0031	81108	12.00	47.143	18.83	3.387
Ex Pond B	BASE	002YR01HR	1.54	733.130	737.000	0.0045	40736	0.96	18.376	1.50	0.646
Ex Pond B	BASE	002YR02HR	2.09	733.752	737.000	0.0044	42843	1.43	22.366	2.08	4.136
Ex Pond B	BASE	002YR03HR	3.01	733.932	737.000	0.0046	43558	1.89	23.398	3.01	5.527
Ex Pond B	BASE	002YR06HR	4.52	734.189	737.000	0.0030	44441	3.36	31.601	4.50	7.679
Ex Pond B	BASE	002YR12HR	7.23	734.492	737.000	0.0022	45469	6.28	40.270	7.23	10.358
Ex Pond B	BASE	002YR24HR	12.87	735.092	737.000	0.0024	47497	12.25	46.213	13.00	15.417
Ex Pond B	BASE	010YR01Hr	1.15	733.957	737.000	0.0035	43532	0.88	48.259	1.15	5.729
Ex Pond B	BASE	010YR02Hr	2.00	734.999	737.000	0.0051	47150	1.36	54.706	2.00	14.846
Ex Pond B	BASE	010YR03Hr	2.74	735.104	737.000	0.0049	47588	1.84	56.096	2.74	15.758
Ex Pond B	BASE	010YR06Hr	4.05	735.614	737.000	0.0061	49834	3.33	64.391	4.05	19.385
Ex Pond B	BASE	010YR12Hr	7.13	736.067	737.000	0.0061	51745	6.25	69.747	7.33	23.915
Ex Pond B	BASE	010YR24Hr	13.20	736.692	737.000	0.0060	54108	12.25	69.045	13.23	23.033
Ex Pond B	BASE	100YR01hr	1.41	735.253	737.000	0.0062	47916	0.88	85.230	1.41	16.920
Ex Pond B	BASE	100YR02hr	2.01	736.712	737.000	0.0061	54221	1.39	111.618	2.01	25.456
Ex Pond B	BASE	100YR03hr	3.01	737.161	737.000	0.0062	56212	1.86	114.422	3.01	27.555
Ex Pond B	BASE	100YR06hr	4.73	737.690	737.000	0.0057	58586	3.27	123.075	4.73	29.648
Ex Pond B	BASE	100YR12hr	7.49	737.907	737.000	0.0062	59542	6.21	117.459	7.60	30.395
Ex Pond B	BASE	100YR24hr	13.45	738.190	737.000	0.0065	60762	12.09	103.145	13.81	28.432
NinevahRdBasin	BASE	002YR01HR	0.83	739.291	742.000	-0.0115	245	0.83	7.490	0.83	7.481
NinevahRdBasin	BASE	002YR02HR	1.29	739.414	742.000	0.0099	247	1.28	9.172	1.29	9.160
NinevahRdBasin	BASE	002YR03HR	1.80	739.445	742.000	0.0096	247	1.80	9.611	1.80	9.611
NinevahRdBasin	BASE	002YR06HR	3.27	739.632	742.000	-0.0093	248	3.27	12.422	3.27	12.392
NinevahRdBasin	BASE	002YR12HR	6.25	739.796	742.000	0.0081	254	6.25	15.042	6.25	14.982
NinevahRdBasin	BASE	002YR24HR	12.25	739.833	742.000	-0.0099	257	12.25	15.643	12.25	15.586
NinevahRdBasin	BASE	010YR01Hr	0.83	739.988	742.000	-0.0253	266	0.83	18.146	0.83	18.145
NinevahRdBasin	BASE	010YR02Hr	1.29	740.217	742.000	-0.0102	276	1.28	22.090	1.29	22.042
NinevahRdBasin	BASE	010YR03Hr	1.78	740.259	742.000	-0.0095	277	1.77	22.792	1.78	22.755
NinevahRdBasin	BASE	010YR06Hr	3.27	740.540	742.000	-0.0092	272	3.27	27.699	3.27	27.640
NinevahRdBasin	BASE	010YR12Hr	6.25	740.675	742.000	-0.0089	253	6.25	30.087	6.25	29.997
NinevahRdBasin	BASE	010YR24Hr	12.25	740.541	742.000	0.0098	272	12.25	27.748	12.25	27.662
NinevahRdBasin	BASE	100YR01hr	0.80	741.249	742.000	-0.0468	776	0.78	39.990	0.80	39.839
NinevahRdBasin	BASE	100YR02hr	1.32	741.852	742.000	-0.0190	2031	1.28	49.270	1.32	48.073

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
NinevahRdBasin	BASE	100YR03hr	1.82	742.004	742.000	-0.0108	2348	1.77	51.297	1.82	49.909
NinevahRdBasin	BASE	100YR06hr	3.31	742.593	742.000	-0.0099	3615	3.27	59.601	3.31	56.458
NinevahRdBasin	BASE	100YR12hr	6.28	742.472	742.000	-0.0091	3350	6.25	58.262	6.28	55.177
NinevahRdBasin	BASE	100YR24hr	12.26	741.708	742.000	0.0096	1732	12.25	47.426	12.26	46.275
U/S 30" Pipe	BASE	002YR01HR	0.87	736.671	738.000	0.0040	553	0.86	2.330	0.87	2.312
U/S 30" Pipe	BASE	002YR02HR	1.34	736.768	738.000	0.0037	572	1.30	3.001	1.34	2.980
U/S 30" Pipe	BASE	002YR03HR	1.82	736.795	738.000	0.0040	576	1.77	3.160	1.82	3.135
U/S 30" Pipe	BASE	002YR06HR	3.29	736.964	738.000	0.0041	612	3.27	4.541	3.28	4.475
U/S 30" Pipe	BASE	002YR12HR	6.26	737.119	738.000	0.0050	718	6.25	5.987	6.26	5.868
U/S 30" Pipe	BASE	002YR24HR	12.26	737.167	738.000	0.0054	756	12.25	6.451	12.26	6.328
U/S 30" Pipe	BASE	010YR01Hr	0.83	737.256	738.000	-0.0039	825	0.81	7.296	0.83	7.205
U/S 30" Pipe	BASE	010YR02Hr	1.31	737.421	738.000	0.0049	947	1.28	9.020	1.31	8.933
U/S 30" Pipe	BASE	010YR03Hr	1.79	737.453	738.000	0.0050	971	1.77	9.445	1.79	9.286
U/S 30" Pipe	BASE	010YR06Hr	3.28	737.685	738.000	0.0054	1127	3.27	12.045	3.28	11.896
U/S 30" Pipe	BASE	010YR12Hr	6.26	737.799	738.000	0.0050	1197	6.25	13.453	6.26	13.231
U/S 30" Pipe	BASE	010YR24Hr	12.26	737.701	738.000	0.0051	1137	12.25	12.305	12.26	12.081
U/S 30" Pipe	BASE	100YR01hr	0.83	738.199	738.000	-0.0061	1944	0.80	18.374	0.83	17.917
U/S 30" Pipe	BASE	100YR02hr	1.32	738.536	738.000	-0.0099	2888	1.28	22.974	1.39	34.313
U/S 30" Pipe	BASE	100YR03hr	1.81	738.623	738.000	-0.0100	3190	1.77	24.239	1.86	34.480
U/S 30" Pipe	BASE	100YR06hr	3.25	738.885	738.000	0.0077	4100	3.21	28.911	3.26	35.543
U/S 30" Pipe	BASE	100YR12hr	6.13	738.533	738.000	-0.0070	2876	6.25	27.992	6.14	34.502
U/S 30" Pipe	BASE	100YR24hr	13.41	738.209	738.000	-0.0086	1853	12.25	22.082	12.04	30.192
YI-Ex-03	BASE	002YR01HR	0.94	734.745	737.840	0.0064	707	0.93	8.527	0.94	8.549
YI-Ex-03	BASE	002YR02HR	1.43	734.960	737.840	0.0081	709	1.41	10.556	1.43	10.561
YI-Ex-03	BASE	002YR03HR	1.90	735.009	737.840	0.0083	708	1.86	11.089	1.90	11.000
YI-Ex-03	BASE	002YR06HR	3.36	735.428	737.840	0.0084	674	3.34	15.446	3.36	15.392
YI-Ex-03	BASE	002YR12HR	6.29	735.854	737.840	0.0091	579	6.27	20.234	6.28	20.138
YI-Ex-03	BASE	002YR24HR	12.22	736.045	737.840	0.0077	505	12.27	22.668	12.28	22.767
YI-Ex-03	BASE	010YR01Hr	0.82	736.152	737.840	0.0078	467	0.79	23.290	0.84	23.237
YI-Ex-03	BASE	010YR02Hr	1.25	736.326	737.840	0.0092	356	1.22	24.819	1.36	24.766
YI-Ex-03	BASE	010YR03Hr	1.72	736.400	737.840	0.0094	332	1.68	25.338	1.76	25.197
YI-Ex-03	BASE	010YR06Hr	3.16	736.625	737.840	0.0096	268	3.12	26.879	3.29	26.929
YI-Ex-03	BASE	010YR12Hr	6.14	736.764	737.840	0.0096	201	6.16	27.760	6.18	27.830
YI-Ex-03	BASE	010YR24Hr	12.92	737.122	737.840	0.0090	143	12.13	28.550	12.12	28.575
YI-Ex-03	BASE	100YR01hr	0.66	737.188	737.840	0.0092	143	0.61	30.324	0.75	29.823
YI-Ex-03	BASE	100YR02hr	2.00	737.502	737.840	0.0104	143	1.09	31.965	1.22	31.336
YI-Ex-03	BASE	100YR03hr	2.93	737.753	737.840	0.0108	143	1.57	32.328	1.71	32.124
YI-Ex-03	BASE	100YR06hr	4.45	738.248	737.840	-0.0100	8917	3.29	33.506	3.28	33.680
YI-Ex-03	BASE	100YR12hr	7.34	738.446	737.840	0.0461	13241	6.18	34.427	6.18	34.646
YI-Ex-03	BASE	100YR24hr	13.34	738.634	737.840	0.0474	17324	12.03	33.816	12.04	33.834
YI-Ex316	BASE	002YR01HR	0.94	735.266	737.550	0.0071	663	0.92	8.586	1.00	7.221
YI-Ex316	BASE	002YR02HR	1.43	735.540	737.550	0.0099	602	1.43	10.836	1.43	9.088
YI-Ex316	BASE	002YR03HR	1.90	735.605	737.550	0.0097	582	1.80	9.115	1.86	9.746
YI-Ex316	BASE	002YR06HR	3.35	736.257	737.550	0.0099	199	3.31	15.111	3.34	13.347
YI-Ex316	BASE	002YR12HR	6.28	737.116	737.550	0.0100	142	6.26	19.814	6.26	17.577
YI-Ex316	BASE	002YR24HR	12.27	737.665	737.550	0.0100	2542	12.24	22.221	12.28	20.298
YI-Ex316	BASE	010YR01Hr	0.91	737.760	737.550	-0.0494	4603	0.83	22.740	0.93	20.292
YI-Ex316	BASE	010YR02Hr	1.47	738.185	737.550	-0.0126	13871	1.32	28.529	1.51	22.150

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
YI-Ex316	BASE	010YR03Hr	1.95	738.259	737.550	-0.0144	15472	1.81	29.551	2.00	22.483
YI-Ex316	BASE	010YR06Hr	3.50	738.700	737.550	-0.0210	25066	3.27	37.878	3.57	24.525
YI-Ex316	BASE	010YR12Hr	6.49	738.898	737.550	-0.0206	29382	6.25	40.461	6.48	24.989
YI-Ex316	BASE	010YR24Hr	12.47	738.960	737.550	-0.0131	30727	12.25	39.323	12.32	23.753
YI-Ex316	BASE	100YR01hr	1.00	739.287	737.550	-0.0516	37848	0.79	49.848	1.03	26.985
YI-Ex316	BASE	100YR02hr	1.66	739.743	737.550	-0.0319	47773	1.30	62.236	1.51	26.500
YI-Ex316	BASE	100YR03hr	2.14	739.844	737.550	-0.0250	49985	1.77	65.298	1.99	26.637
YI-Ex316	BASE	100YR06hr	3.67	740.284	737.550	-0.0146	59561	3.27	79.558	3.41	26.271
YI-Ex316	BASE	100YR12hr	6.64	740.336	737.550	0.0099	60695	6.25	78.952	9.66	26.468
YI-Ex316	BASE	100YR24hr	12.60	740.194	737.550	0.0100	57599	12.25	66.128	15.62	26.945
YI-Ex317	BASE	002YR01HR	0.94	735.277	738.380	-0.0074	691	1.02	1.160	1.01	2.907
YI-Ex317	BASE	002YR02HR	1.43	735.547	738.380	-0.0067	655	1.71	1.433	2.01	2.292
YI-Ex317	BASE	002YR03HR	1.90	735.596	738.380	0.0069	643	2.19	1.454	3.02	1.525
YI-Ex317	BASE	002YR06HR	3.35	736.262	738.380	-0.0098	339	3.75	1.618	3.48	2.343
YI-Ex317	BASE	002YR12HR	6.28	737.121	738.380	0.0097	143	6.90	1.988	6.49	2.473
YI-Ex317	BASE	002YR24HR	12.28	737.666	738.380	0.0098	143	12.90	1.947	12.49	2.405
YI-Ex317	BASE	010YR01Hr	0.91	737.760	738.380	-0.0202	143	1.01	4.316	1.00	8.652
YI-Ex317	BASE	010YR02Hr	1.49	738.185	738.380	0.0098	143	2.01	2.276	2.01	4.618
YI-Ex317	BASE	010YR03Hr	1.95	738.259	738.380	0.0098	143	2.80	2.545	3.02	3.553
YI-Ex317	BASE	010YR06Hr	3.50	738.695	738.380	0.0099	6890	4.46	2.654	3.95	4.744
YI-Ex317	BASE	010YR12Hr	6.51	738.891	738.380	-0.0100	11172	9.07	2.601	7.11	4.386
YI-Ex317	BASE	010YR24Hr	12.49	738.951	738.380	0.0098	12480	15.92	2.707	13.22	2.868
YI-Ex317	BASE	100YR01hr	1.01	739.181	738.380	-0.0179	17468	1.39	4.474	1.39	8.847
YI-Ex317	BASE	100YR02hr	1.87	739.632	738.380	-0.0129	27292	1.28	5.196	2.38	7.837
YI-Ex317	BASE	100YR03hr	2.38	739.712	738.380	0.0130	29040	1.77	5.738	3.25	6.995
YI-Ex317	BASE	100YR06hr	4.01	740.023	738.380	0.0103	35807	3.21	7.582	5.33	4.907
YI-Ex317	BASE	100YR12hr	7.02	740.067	738.380	0.0413	36756	9.66	26.999	9.66	26.468
YI-Ex317	BASE	100YR24hr	12.94	739.972	738.380	0.0444	34705	15.62	27.404	15.62	26.945

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Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
002YR01HRCapricornCtBasn		BASE	0.78	5.268	0.420	9656.633
002YR02HrCapricornCtBasn		BASE	1.28	6.299	0.573	13156.780
002YR03HrCapricornCtBasn		BASE	1.78	6.535	0.642	14762.976
002YR06HrCapricornCtBasn		BASE	3.22	7.969	0.893	20530.390
002YR12hrCapricornCtBasn		BASE	6.22	9.028	1.201	27599.997
002YR24hrCapricornCtBasn		BASE	12.17	9.360	1.575	36190.800
010YR01hrCapricornCtBasn		BASE	0.78	11.240	0.863	19830.256
010YR02hrCapricornCtBasn		BASE	1.28	13.150	1.145	26301.772
010YR03hrCapricornCtBasn		BASE	1.78	13.390	1.266	29097.463
010YR06hrCapricornCtBasn		BASE	3.22	15.600	1.695	38936.854
010YR12hrCapricornCtBasn		BASE	6.17	16.147	2.131	48964.421
010YR24hrCapricornCtBasn		BASE	12.17	15.311	2.597	59679.157
100YR01hrCapricornCtBasn		BASE	0.78	22.211	1.669	38345.864
100YR02hrCapricornCtBasn		BASE	1.28	26.051	2.229	51209.672
100YR03hrCapricornCtBasn		BASE	1.72	26.811	2.489	57185.082
100YR06hrCapricornCtBasn		BASE	3.22	30.242	3.267	75071.778
100YR12hrCapricornCtBasn		BASE	6.17	28.861	3.818	87729.337
100YR24hrCapricornCtBasn		BASE	12.17	24.556	4.242	97481.424
002YR01HR	Ex Pond DA	BASE	0.76	9.540	0.283	14723.856
002YR02Hr	Ex Pond DA	BASE	1.24	11.690	0.413	21445.403
002YR03Hr	Ex Pond DA	BASE	1.73	12.170	0.470	24425.655
002YR06Hr	Ex Pond DA	BASE	3.20	15.641	0.688	35743.855
002YR12hr	Ex Pond DA	BASE	6.13	18.504	0.960	49911.714
002YR24hr	Ex Pond DA	BASE	12.09	19.568	1.299	67524.446
010YR01hr	Ex Pond DA	BASE	0.76	23.091	0.654	33989.526
010YR02hr	Ex Pond DA	BASE	1.24	27.564	0.910	47284.364
010YR03hr	Ex Pond DA	BASE	1.73	28.264	1.016	52811.166
010YR06hr	Ex Pond DA	BASE	3.20	33.809	1.409	73223.941
010YR12hr	Ex Pond DA	BASE	6.13	36.217	1.813	94256.100
010YR24hr	Ex Pond DA	BASE	12.09	34.196	2.251	117027.630
100YR01hr	Ex Pond DA	BASE	0.71	49.953	1.372	71334.490
100YR02hr	Ex Pond DA	BASE	1.20	60.408	1.905	99005.407
100YR03hr	Ex Pond DA	BASE	1.69	62.361	2.144	111446.268
100YR06hr	Ex Pond DA	BASE	3.20	70.267	2.888	150127.371
100YR12hr	Ex Pond DA	BASE	6.13	68.714	3.417	177596.253
100YR24hr	Ex Pond DA	BASE	12.09	57.640	3.826	198877.445
002YR01HR	Ex-01 Basin	BASE	0.60	0.843	0.286	707.035
002YR02Hr	Ex-01 Basin	BASE	1.08	1.081	0.412	1016.309
002YR03Hr	Ex-01 Basin	BASE	1.58	1.134	0.471	1161.387
002YR06Hr	Ex-01 Basin	BASE	3.06	1.432	0.687	1696.327
002YR12hr	Ex-01 Basin	BASE	6.04	1.509	0.960	2370.109
002YR24hr	Ex-01 Basin	BASE	12.02	1.283	1.299	3206.468
010YR01hr	Ex-01 Basin	BASE	0.59	2.190	0.660	1628.772
010YR02hr	Ex-01 Basin	BASE	1.08	2.634	0.908	2241.602
010YR03hr	Ex-01 Basin	BASE	1.56	2.670	1.017	2510.518
010YR06hr	Ex-01 Basin	BASE	3.06	3.070	1.408	3475.359
010YR12hr	Ex-01 Basin	BASE	6.03	2.867	1.813	4475.848
010YR24hr	Ex-01 Basin	BASE	12.02	2.184	2.251	5557.178
100YR01hr	Ex-01 Basin	BASE	0.59	4.863	1.383	3413.555
100YR02hr	Ex-01 Basin	BASE	1.08	5.714	1.902	4694.696
100YR03hr	Ex-01 Basin	BASE	1.56	5.868	2.146	5297.041
100YR06hr	Ex-01 Basin	BASE	3.06	6.332	2.887	7125.848
100YR12hr	Ex-01 Basin	BASE	6.03	5.364	3.417	8433.342
100YR24hr	Ex-01 Basin	BASE	12.02	3.606	3.826	9443.901
002YR01HR	Ex-02 Basin	BASE	0.66	1.148	0.284	1309.893
002YR02Hr	Ex-02 Basin	BASE	1.16	1.420	0.412	1899.062
002YR03Hr	Ex-02 Basin	BASE	1.65	1.477	0.470	2165.537
002YR06Hr	Ex-02 Basin	BASE	3.12	1.905	0.687	3165.791
002YR12hr	Ex-02 Basin	BASE	6.10	2.170	0.960	4425.008
002YR24hr	Ex-02 Basin	BASE	12.05	2.096	1.299	5986.628
010YR01hr	Ex-02 Basin	BASE	0.66	2.835	0.656	3022.087
010YR02hr	Ex-02 Basin	BASE	1.13	3.403	0.908	4188.269
010YR03hr	Ex-02 Basin	BASE	1.62	3.496	1.016	4682.400
010YR06hr	Ex-02 Basin	BASE	3.12	4.092	1.407	6486.648
010YR12hr	Ex-02 Basin	BASE	6.07	4.169	1.813	8356.805
010YR24hr	Ex-02 Basin	BASE	12.05	3.616	2.251	10375.879
100YR01hr	Ex-02 Basin	BASE	0.64	6.242	1.375	6340.036
100YR02hr	Ex-02 Basin	BASE	1.13	7.486	1.903	8771.153
100YR03hr	Ex-02 Basin	BASE	1.62	7.699	2.143	9881.565
100YR06hr	Ex-02 Basin	BASE	3.09	8.551	2.885	13301.321

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100YR12hr	Ex-02 Basin	BASE	6.07	7.872	3.416	15746.353
100YR24hr	Ex-02 Basin	BASE	12.05	6.035	3.825	17633.320
002YR01HR	Ex-03 Basin	BASE	0.71	1.368	0.286	1881.960
002YR02Hr	Ex-03 Basin	BASE	1.17	1.712	0.412	2705.175
002YR03Hr	Ex-03 Basin	BASE	1.67	1.805	0.471	3091.339
002YR06Hr	Ex-03 Basin	BASE	3.16	2.308	0.686	4509.866
002YR12hr	Ex-03 Basin	BASE	6.12	2.736	0.960	6305.208
002YR24hr	Ex-03 Basin	BASE	12.09	2.731	1.299	8534.864
010YR01hr	Ex-03 Basin	BASE	0.68	3.396	0.660	4335.409
010YR02hr	Ex-03 Basin	BASE	1.17	4.135	0.908	5966.616
010YR03hr	Ex-03 Basin	BASE	1.67	4.246	1.017	6682.408
010YR06hr	Ex-03 Basin	BASE	3.13	5.031	1.407	9241.247
010YR12hr	Ex-03 Basin	BASE	6.12	5.289	1.812	11907.955
010YR24hr	Ex-03 Basin	BASE	12.05	4.738	2.251	14791.900
100YR01hr	Ex-03 Basin	BASE	0.68	7.466	1.383	9086.080
100YR02hr	Ex-03 Basin	BASE	1.17	9.014	1.902	12496.175
100YR03hr	Ex-03 Basin	BASE	1.67	9.247	2.146	14099.475
100YR06hr	Ex-03 Basin	BASE	3.13	10.550	2.884	18950.803
100YR12hr	Ex-03 Basin	BASE	6.12	9.942	3.415	22438.102
100YR24hr	Ex-03 Basin	BASE	12.05	7.968	3.826	25137.442
002YR01HR	Ex-04 Basin	BASE	0.60	1.649	0.286	1382.877
002YR02Hr	Ex-04 Basin	BASE	1.08	2.114	0.412	1987.780
002YR03Hr	Ex-04 Basin	BASE	1.58	2.218	0.471	2271.536
002YR06Hr	Ex-04 Basin	BASE	3.06	2.802	0.687	3317.817
002YR12hr	Ex-04 Basin	BASE	6.04	2.952	0.960	4635.655
002YR24hr	Ex-04 Basin	BASE	12.02	2.510	1.299	6271.474
010YR01hr	Ex-04 Basin	BASE	0.59	4.283	0.660	3185.687
010YR02hr	Ex-04 Basin	BASE	1.08	5.151	0.908	4384.309
010YR03hr	Ex-04 Basin	BASE	1.56	5.222	1.017	4910.277
010YR06hr	Ex-04 Basin	BASE	3.06	6.004	1.408	6797.394
010YR12hr	Ex-04 Basin	BASE	6.03	5.608	1.813	8754.233
010YR24hr	Ex-04 Basin	BASE	12.02	4.271	2.251	10869.186
100YR01hr	Ex-04 Basin	BASE	0.59	9.511	1.383	6676.512
100YR02hr	Ex-04 Basin	BASE	1.08	11.176	1.902	9182.273
100YR03hr	Ex-04 Basin	BASE	1.56	11.477	2.146	10360.388
100YR06hr	Ex-04 Basin	BASE	3.06	12.384	2.887	13937.321
100YR12hr	Ex-04 Basin	BASE	6.03	10.491	3.417	16494.624
100YR24hr	Ex-04 Basin	BASE	12.02	7.053	3.826	18471.159
002YR01HR	Ex-05 Basin	BASE	0.60	1.711	0.286	1434.864
002YR02Hr	Ex-05 Basin	BASE	1.08	2.194	0.412	2062.509
002YR03Hr	Ex-05 Basin	BASE	1.58	2.301	0.471	2356.932
002YR06Hr	Ex-05 Basin	BASE	3.06	2.907	0.687	3442.546
002YR12hr	Ex-05 Basin	BASE	6.04	3.063	0.960	4809.928
002YR24hr	Ex-05 Basin	BASE	12.02	2.604	1.299	6507.244
010YR01hr	Ex-05 Basin	BASE	0.59	4.444	0.660	3305.450
010YR02hr	Ex-05 Basin	BASE	1.08	5.345	0.908	4549.133
010YR03hr	Ex-05 Basin	BASE	1.56	5.419	1.017	5094.874
010YR06hr	Ex-05 Basin	BASE	3.06	6.229	1.408	7052.935
010YR12hr	Ex-05 Basin	BASE	6.03	5.819	1.813	9083.339
010YR24hr	Ex-05 Basin	BASE	12.02	4.431	2.251	11277.802
100YR01hr	Ex-05 Basin	BASE	0.59	9.868	1.383	6927.509
100YR02hr	Ex-05 Basin	BASE	1.08	11.597	1.902	9527.471
100YR03hr	Ex-05 Basin	BASE	1.56	11.908	2.146	10749.876
100YR06hr	Ex-05 Basin	BASE	3.06	12.850	2.887	14461.280
100YR12hr	Ex-05 Basin	BASE	6.03	10.886	3.417	17114.723
100YR24hr	Ex-05 Basin	BASE	12.02	7.318	3.826	19165.564
002YR01HR	EX316 Basin	BASE	0.73	0.895	0.146	1421.047
002YR02Hr	EX316 Basin	BASE	1.22	1.197	0.234	2280.957
002YR03Hr	EX316 Basin	BASE	1.72	1.274	0.278	2701.151
002YR06Hr	EX316 Basin	BASE	3.17	1.847	0.443	4309.133
002YR12hr	EX316 Basin	BASE	6.15	2.448	0.663	6447.020
002YR24hr	EX316 Basin	BASE	12.08	2.799	0.946	9207.636
010YR01hr	EX316 Basin	BASE	0.73	2.860	0.422	4106.839
010YR02hr	EX316 Basin	BASE	1.18	3.644	0.621	6036.502
010YR03hr	EX316 Basin	BASE	1.68	3.847	0.710	6906.198
010YR06hr	EX316 Basin	BASE	3.17	4.974	1.038	10099.190
010YR12hr	EX316 Basin	BASE	6.12	5.615	1.391	13531.973
010YR24hr	EX316 Basin	BASE	12.08	5.439	1.781	17329.504
100YR01hr	EX316 Basin	BASE	0.69	7.386	1.018	9902.418

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100YR02hr	EX316 Basin	BASE	1.18	9.468	1.470	14298.868
100YR03hr	EX316 Basin	BASE	1.68	9.981	1.687	16409.149
100YR06hr	EX316 Basin	BASE	3.13	11.861	2.356	22915.691
100YR12hr	EX316 Basin	BASE	6.12	11.841	2.845	27680.023
100YR24hr	EX316 Basin	BASE	12.08	9.885	3.228	31404.712
002YR01HR	EX317 Basin	BASE	0.84	0.975	0.140	1885.037
002YR02Hr	EX317 Basin	BASE	1.34	1.260	0.231	3115.444
002YR03Hr	EX317 Basin	BASE	1.78	1.345	0.276	3718.547
002YR06Hr	EX317 Basin	BASE	3.29	1.941	0.443	5967.950
002YR12hr	EX317 Basin	BASE	6.25	2.587	0.663	8934.193
002YR24hr	EX317 Basin	BASE	12.16	3.137	0.947	12750.498
010YR01hr	EX317 Basin	BASE	0.84	2.973	0.409	5507.907
010YR02hr	EX317 Basin	BASE	1.28	3.791	0.614	8270.008
010YR03hr	EX317 Basin	BASE	1.78	4.009	0.707	9518.793
010YR06hr	EX317 Basin	BASE	3.24	5.179	1.038	13985.727
010YR12hr	EX317 Basin	BASE	6.19	5.923	1.392	18749.274
010YR24hr	EX317 Basin	BASE	12.16	6.146	1.782	23996.420
100YR01hr	EX317 Basin	BASE	0.78	7.588	0.992	13362.978
100YR02hr	EX317 Basin	BASE	1.28	9.694	1.457	19626.905
100YR03hr	EX317 Basin	BASE	1.78	10.277	1.681	22634.618
100YR06hr	EX317 Basin	BASE	3.24	12.543	2.356	31732.544
100YR12hr	EX317 Basin	BASE	6.19	12.597	2.847	38347.293
100YR24hr	EX317 Basin	BASE	12.16	11.232	3.229	43485.137
002YR01HR	ExBasinEast	BASE	0.89	2.437	0.141	5140.240
002YR02Hr	ExBasinEast	BASE	1.34	3.136	0.234	8508.147
002YR03Hr	ExBasinEast	BASE	1.85	3.415	0.278	10139.364
002YR06Hr	ExBasinEast	BASE	3.32	4.752	0.444	16169.666
002YR12hr	ExBasinEast	BASE	6.25	6.368	0.663	24151.854
002YR24hr	ExBasinEast	BASE	12.18	7.737	0.947	34468.699
010YR01hr	ExBasinEast	BASE	0.83	7.352	0.412	14985.923
010YR02hr	ExBasinEast	BASE	1.34	9.390	0.619	22533.553
010YR03hr	ExBasinEast	BASE	1.85	9.924	0.712	25907.357
010YR06hr	ExBasinEast	BASE	3.32	12.652	1.040	37877.633
010YR12hr	ExBasinEast	BASE	6.25	14.692	1.392	50685.612
010YR24hr	ExBasinEast	BASE	12.18	15.267	1.782	64870.629
100YR01hr	ExBasinEast	BASE	0.83	18.620	0.997	36312.657
100YR02hr	ExBasinEast	BASE	1.34	23.760	1.467	53401.286
100YR03hr	ExBasinEast	BASE	1.79	25.223	1.690	61529.799
100YR06hr	ExBasinEast	BASE	3.25	30.520	2.360	85916.058
100YR12hr	ExBasinEast	BASE	6.25	31.085	2.847	103666.583
100YR24hr	ExBasinEast	BASE	12.18	28.041	3.229	117556.187
002YR01HR	ExBasinNorth	BASE	0.86	2.331	0.143	4407.567
002YR02Hr	ExBasinNorth	BASE	1.29	3.006	0.235	7247.549
002YR03Hr	ExBasinNorth	BASE	1.77	3.166	0.276	8532.947
002YR06Hr	ExBasinNorth	BASE	3.28	4.563	0.443	13690.524
002YR12hr	ExBasinNorth	BASE	6.24	6.089	0.663	20493.424
002YR24hr	ExBasinNorth	BASE	12.15	7.355	0.947	29247.319
010YR01hr	ExBasinNorth	BASE	0.81	7.312	0.415	12814.923
010YR02hr	ExBasinNorth	BASE	1.29	9.091	0.621	19177.697
010YR03hr	ExBasinNorth	BASE	1.77	9.455	0.707	21840.931
010YR06hr	ExBasinNorth	BASE	3.23	12.219	1.039	32082.823
010YR12hr	ExBasinNorth	BASE	6.18	13.968	1.392	43007.391
010YR24hr	ExBasinNorth	BASE	12.15	14.379	1.782	55043.358
100YR01hr	ExBasinNorth	BASE	0.81	18.423	1.004	31004.573
100YR02hr	ExBasinNorth	BASE	1.29	23.024	1.470	45422.715
100YR03hr	ExBasinNorth	BASE	1.77	24.248	1.681	51932.372
100YR06hr	ExBasinNorth	BASE	3.23	29.570	2.356	72792.579
100YR12hr	ExBasinNorth	BASE	6.18	29.664	2.847	87961.559
100YR24hr	ExBasinNorth	BASE	12.15	26.242	3.229	99746.802
002YR01HR	ExNorthwest	BASE	0.91	6.528	0.144	14219.472
002YR02Hr	ExNorthwest	BASE	1.37	8.603	0.232	22858.046
002YR03Hr	ExNorthwest	BASE	1.89	8.786	0.275	27081.449
002YR06Hr	ExNorthwest	BASE	3.33	12.672	0.442	43560.446
002YR12hr	ExNorthwest	BASE	6.27	17.010	0.663	65245.931
002YR24hr	ExNorthwest	BASE	12.22	20.744	0.947	93228.991
010YR01hr	ExNorthwest	BASE	0.85	19.798	0.419	41216.703
010YR02hr	ExNorthwest	BASE	1.37	25.270	0.616	60631.560
010YR03hr	ExNorthwest	BASE	1.83	25.901	0.705	69384.533
010YR06hr	ExNorthwest	BASE	3.33	33.606	1.037	102118.410

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010YR12hr	ExNorthwest	BASE	6.27	39.031	1.391136954.031	
010YR24hr	ExNorthwest	BASE	12.22	40.644	1.782175459.642	
100YR01hr	ExNorthwest	BASE	0.85	49.905	1.011 99548.672	
100YR02hr	ExNorthwest	BASE	1.31	63.139	1.460143826.644	
100YR03hr	ExNorthwest	BASE	1.83	66.463	1.676165084.959	
100YR06hr	ExNorthwest	BASE	3.27	81.443	2.353231757.238	
100YR12hr	ExNorthwest	BASE	6.27	82.314	2.845280152.603	
100YR24hr	ExNorthwest	BASE	12.22	74.297	3.229317963.267	
002YR01HR	Pond B Basin	BASE	0.96	7.251	0.280 16698.976	
002YR02Hr	Pond B Basin	BASE	1.44	8.662	0.413 24635.256	
002YR03Hr	Pond B Basin	BASE	1.92	8.960	0.468 27970.782	
002YR06Hr	Pond B Basin	BASE	3.36	11.488	0.688 41060.504	
002YR12hr	Pond B Basin	BASE	6.32	14.031	0.960 57335.733	
002YR24hr	Pond B Basin	BASE	12.24	15.878	1.299 77568.236	
010YR01hr	Pond B Basin	BASE	0.96	17.094	0.647 38641.284	
010YR02hr	Pond B Basin	BASE	1.44	20.107	0.910 54317.583	
010YR03hr	Pond B Basin	BASE	1.92	20.639	1.013 60507.516	
010YR06hr	Pond B Basin	BASE	3.36	25.052	1.409 84115.491	
010YR12hr	Pond B Basin	BASE	6.32	27.492	1.813108276.037	
010YR24hr	Pond B Basin	BASE	12.24	27.975	2.251134434.673	
100YR01hr	Pond B Basin	BASE	0.96	36.185	1.360 81227.519	
100YR02hr	Pond B Basin	BASE	1.36	43.208	1.905113731.770	
100YR03hr	Pond B Basin	BASE	1.84	44.833	2.139127737.307	
100YR06hr	Pond B Basin	BASE	3.36	52.557	2.888172457.770	
100YR12hr	Pond B Basin	BASE	6.32	52.244	3.417204012.455	
100YR24hr	Pond B Basin	BASE	12.24	47.463	3.826228459.076	

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Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
AriesBlvd	002YR01HR	0.717	-1.143	735.255	735.261
Ex1-Pond B	002YR01HR	9.047	0.048	734.449	733.658
EX3-Ex2 42"	002YR01HR	8.549	-0.041	734.745	734.592
Ex4-Ex3 36"	002YR01HR	7.886	0.039	734.999	734.745
Ex6-Ex5 30"	002YR01HR	7.221	0.264	735.266	735.139
Ex7-Ex6 30"	002YR01HR	2.907	-0.817	735.277	735.266
EX8-Ex9 24"	002YR01HR	1.160	0.314	735.261	735.277
ExOff-PondB	002YR01HR	2.312	0.019	736.671	733.130
ExPondlOutlet	002YR01HR	0.559	0.263	735.170	735.255
NinevahRdCulver	002YR01HR	7.481	-0.134	739.291	737.463
Pond B Outlet	002YR01HR	0.646	0.011	733.130	731.136
Virgo Dr	002YR01HR	7.785	-0.174	735.139	734.999
WindstarDr	002YR01HR	8.893	0.043	734.592	734.449
AriesBlvd	002YR02HR	0.893	-1.141	735.514	735.525
Ex1-Pond B	002YR02HR	11.110	0.064	734.628	733.760
EX3-Ex2 42"	002YR02HR	10.561	0.173	734.960	734.786
Ex4-Ex3 36"	002YR02HR	9.837	0.051	735.227	734.960
Ex6-Ex5 30"	002YR02HR	9.088	0.190	735.540	735.389
Ex7-Ex6 30"	002YR02HR	2.292	0.697	735.547	735.540
EX8-Ex9 24"	002YR02HR	1.135	0.407	735.525	735.547
ExOff-PondB	002YR02HR	2.980	0.020	736.768	733.691
ExPondlOutlet	002YR02HR	0.804	0.263	735.299	735.514
NinevahRdCulver	002YR02HR	9.160	-0.080	739.414	737.800
Pond B Outlet	002YR02HR	4.136	0.019	733.752	731.473
Virgo Dr	002YR02HR	9.702	-0.167	735.389	735.227
WindstarDr	002YR02HR	10.944	0.065	734.786	734.628
AriesBlvd	002YR03HR	0.866	-0.413	735.568	735.584
Ex1-Pond B	002YR03HR	11.642	-0.528	734.671	733.932
EX3-Ex2 42"	002YR03HR	11.000	-0.255	735.009	734.834
Ex4-Ex3 36"	002YR03HR	10.256	0.067	735.277	735.009
Ex6-Ex5 30"	002YR03HR	9.746	-0.254	735.605	735.437
Ex7-Ex6 30"	002YR03HR	1.525	1.370	735.596	735.605
EX8-Ex9 24"	002YR03HR	0.925	-0.897	735.584	735.596
ExOff-PondB	002YR03HR	3.135	0.032	736.795	733.827
ExPondlOutlet	002YR03HR	0.864	0.263	735.327	735.568
NinevahRdCulver	002YR03HR	9.611	-0.062	739.445	738.300
Pond B Outlet	002YR03HR	5.527	0.067	733.932	733.160
Virgo Dr	002YR03HR	9.810	0.224	735.437	735.277
WindstarDr	002YR03HR	11.481	0.823	734.834	734.671
AriesBlvd	002YR06HR	1.053	-0.499	736.226	736.238
Ex1-Pond B	002YR06HR	16.182	1.178	735.019	734.189
EX3-Ex2 42"	002YR06HR	15.392	-0.280	735.428	735.222
Ex4-Ex3 36"	002YR06HR	14.343	0.125	735.740	735.428
Ex6-Ex5 30"	002YR06HR	13.347	0.316	736.257	735.975
Ex7-Ex6 30"	002YR06HR	2.343	-1.690	736.262	736.257
EX8-Ex9 24"	002YR06HR	1.060	-0.826	736.238	736.262
ExOff-PondB	002YR06HR	4.475	0.032	736.964	733.897
ExPondlOutlet	002YR06HR	1.053	0.263	735.423	736.226
NinevahRdCulver	002YR06HR	12.392	0.413	739.632	738.800
Pond B Outlet	002YR06HR	7.679	0.229	734.189	733.910
Virgo Dr	002YR06HR	13.997	-0.221	735.975	735.740
WindstarDr	002YR06HR	15.973	3.290	735.222	735.019
AriesBlvd	002YR12HR	1.215	0.880	737.049	737.071
Ex1-Pond B	002YR12HR	21.191	1.060	735.366	734.492
EX3-Ex2 42"	002YR12HR	20.138	0.497	735.854	735.607
Ex4-Ex3 36"	002YR12HR	18.700	-0.127	736.243	735.854
Ex6-Ex5 30"	002YR12HR	17.577	0.208	737.116	736.630
Ex7-Ex6 30"	002YR12HR	2.473	-2.390	737.121	737.116
EX8-Ex9 24"	002YR12HR	1.369	-0.944	737.071	737.121
ExOff-PondB	002YR12HR	5.868	0.036	737.119	733.897
ExPondlOutlet	002YR12HR	1.213	0.263	735.510	737.049
NinevahRdCulver	002YR12HR	14.982	-0.465	739.796	738.800
Pond B Outlet	002YR12HR	10.358	-0.092	734.492	733.910
Virgo Dr	002YR12HR	18.227	-0.224	736.630	736.243
WindstarDr	002YR12HR	20.936	2.271	735.607	735.366
AriesBlvd	002YR24HR	1.356	-2.108	737.567	737.599
Ex1-Pond B	002YR24HR	24.089	1.895	735.513	735.092
EX3-Ex2 42"	002YR24HR	22.767	1.288	736.045	735.772
Ex4-Ex3 36"	002YR24HR	21.354	0.158	736.504	736.045
Ex6-Ex5 30"	002YR24HR	20.298	0.242	737.665	737.006
Ex7-Ex6 30"	002YR24HR	2.405	-2.480	737.666	737.665
EX8-Ex9 24"	002YR24HR	1.380	-1.213	737.599	737.666

The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Output Data

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
ExOff-PondB	002YR24HR	6.328	0.036	737.167	733.494
ExPondlOutlet	002YR24HR	1.348	0.263	735.622	737.567
NinevahRdCulver	002YR24HR	15.586	-0.803	739.833	738.800
Pond B Outlet	002YR24HR	15.417	-2.652	735.092	733.910
Virgo Dr	002YR24HR	20.831	-0.241	737.006	736.504
WindstarDr	002YR24HR	23.613	-2.176	735.772	735.513
AriesBlvd	010YR01Hr	1.290	0.653	737.656	737.690
Exl-Pond B	010YR01Hr	24.939	0.083	735.612	734.287
EX3-Ex2 42"	010YR01Hr	23.237	0.384	736.152	735.878
Ex4-Ex3 36"	010YR01Hr	21.548	-0.149	736.605	736.152
Ex6-Ex5 30"	010YR01Hr	20.292	-0.758	737.760	737.107
Ex7-Ex6 30"	010YR01Hr	8.652	2.206	737.760	737.760
EX8-Ex9 24"	010YR01Hr	4.316	1.697	737.690	737.760
ExOff-PondB	010YR01Hr	7.205	-0.036	737.256	733.886
ExPondlOutlet	010YR01Hr	1.137	0.263	735.473	737.656
NinevahRdCulver	010YR01Hr	18.145	-0.388	739.988	737.854
Pond B Outlet	010YR01Hr	5.729	0.025	733.957	731.577
Virgo Dr	010YR01Hr	20.925	-0.243	737.107	736.605
WindstarDr	010YR01Hr	24.493	0.323	735.878	735.612
AriesBlvd	010YR02Hr	1.706	1.107	738.046	738.091
Exl-Pond B	010YR02Hr	27.339	3.474	735.765	734.999
EX3-Ex2 42"	010YR02Hr	24.766	3.633	736.326	736.045
Ex4-Ex3 36"	010YR02Hr	23.451	-0.281	736.795	736.326
Ex6-Ex5 30"	010YR02Hr	22.150	0.260	738.185	737.404
Ex7-Ex6 30"	010YR02Hr	4.618	-2.410	738.185	738.185
EX8-Ex9 24"	010YR02Hr	2.276	-1.696	738.091	738.185
ExOff-PondB	010YR02Hr	8.933	0.038	737.421	734.771
ExPondlOutlet	010YR02Hr	1.596	0.263	735.791	738.046
NinevahRdCulver	010YR02Hr	22.042	-0.115	740.217	737.976
Pond B Outlet	010YR02Hr	14.846	0.043	734.999	732.052
Virgo Dr	010YR02Hr	22.751	-0.330	737.404	736.795
WindstarDr	010YR02Hr	26.670	-6.024	736.045	735.765
AriesBlvd	010YR03Hr	1.788	1.587	738.117	738.163
Exl-Pond B	010YR03Hr	28.361	3.660	735.830	735.104
EX3-Ex2 42"	010YR03Hr	25.197	3.542	736.400	736.115
Ex4-Ex3 36"	010YR03Hr	23.573	-0.280	736.855	736.400
Ex6-Ex5 30"	010YR03Hr	22.483	-0.201	738.259	737.456
Ex7-Ex6 30"	010YR03Hr	3.553	1.892	738.259	738.259
EX8-Ex9 24"	010YR03Hr	2.177	-1.511	738.163	738.259
ExOff-PondB	010YR03Hr	9.286	0.038	737.453	734.840
ExPondlOutlet	010YR03Hr	1.704	0.263	735.863	738.117
NinevahRdCulver	010YR03Hr	22.755	-0.085	740.259	738.300
Pond B Outlet	010YR03Hr	15.758	0.196	735.104	733.089
Virgo Dr	010YR03Hr	23.031	-0.328	737.456	736.855
WindstarDr	010YR03Hr	27.535	-6.941	736.115	735.830
AriesBlvd	010YR06Hr	2.108	-2.564	738.551	738.598
Exl-Pond B	010YR06Hr	31.330	2.383	736.022	735.614
EX3-Ex2 42"	010YR06Hr	26.929	1.744	736.625	736.322
Ex4-Ex3 36"	010YR06Hr	25.597	0.180	737.090	736.625
Ex6-Ex5 30"	010YR06Hr	24.525	-0.319	738.700	737.776
Ex7-Ex6 30"	010YR06Hr	4.744	1.550	738.695	738.700
EX8-Ex9 24"	010YR06Hr	2.337	-1.812	738.598	738.695
ExOff-PondB	010YR06Hr	11.896	-0.042	737.685	734.643
ExPondlOutlet	010YR06Hr	2.036	0.263	736.097	738.551
NinevahRdCulver	010YR06Hr	27.640	-0.092	740.540	738.800
Pond B Outlet	010YR06Hr	19.385	0.345	735.614	733.910
Virgo Dr	010YR06Hr	25.060	0.301	737.776	737.090
WindstarDr	010YR06Hr	29.994	-5.014	736.322	736.022
AriesBlvd	010YR12Hr	2.239	-2.942	738.744	738.793
Exl-Pond B	010YR12Hr	32.659	2.668	736.223	736.067
EX3-Ex2 42"	010YR12Hr	27.830	1.926	736.764	736.422
Ex4-Ex3 36"	010YR12Hr	26.194	0.501	737.269	736.764
Ex6-Ex5 30"	010YR12Hr	24.989	-0.374	738.898	737.898
Ex7-Ex6 30"	010YR12Hr	4.386	1.629	738.891	738.898
EX8-Ex9 24"	010YR12Hr	2.262	-2.061	738.793	738.891
ExOff-PondB	010YR12Hr	13.231	-0.047	737.799	734.066
ExPondlOutlet	010YR12Hr	2.233	0.263	736.258	738.744
NinevahRdCulver	010YR12Hr	29.997	-0.265	740.675	738.800
Pond B Outlet	010YR12Hr	23.915	-4.605	736.067	733.910
Virgo Dr	010YR12Hr	25.589	0.719	737.898	737.269
WindstarDr	010YR12Hr	31.281	-12.277	736.422	736.223
AriesBlvd	010YR24Hr	2.423	-2.668	738.806	738.855

The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Output Data

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
Ex1-Pond B	010YR24Hr	33.154	11.389	736.835	736.692
EX3-Ex2 42"	010YR24Hr	28.575	8.658	737.122	736.941
Ex4-Ex3 36"	010YR24Hr	25.354	0.764	737.571	737.122
Ex6-Ex5 30"	010YR24Hr	23.753	0.366	738.960	738.135
Ex7-Ex6 30"	010YR24Hr	2.868	-2.086	738.951	738.960
EX8-Ex9 24"	010YR24Hr	2.441	1.885	738.855	738.951
ExOff-PondB	010YR24Hr	12.081	-0.049	737.701	736.692
ExPondlOutlet	010YR24Hr	2.419	0.263	736.455	738.806
NinevahRdCulver	010YR24Hr	27.662	-0.798	740.541	738.783
Pond B Outlet	010YR24Hr	23.033	-4.740	736.692	733.910
Virgo Dr	010YR24Hr	24.499	-0.388	738.135	737.571
WindstarDr	010YR24Hr	31.243	-21.449	736.941	736.835
AriesBlvd	100YR01hr	1.973	-0.484	739.004	739.057
Ex1-Pond B	100YR01hr	37.670	4.460	736.478	735.253
EX3-Ex2 42"	100YR01hr	29.823	4.358	737.188	736.819
Ex4-Ex3 36"	100YR01hr	27.557	-0.494	737.622	737.188
Ex6-Ex5 30"	100YR01hr	26.985	-0.675	739.287	738.232
Ex7-Ex6 30"	100YR01hr	8.847	1.687	739.181	739.287
EX8-Ex9 24"	100YR01hr	4.474	0.667	739.057	739.181
ExOff-PondB	100YR01hr	17.917	-0.063	738.199	735.253
ExPondlOutlet	100YR01hr	1.952	0.263	736.047	739.004
NinevahRdCulver	100YR01hr	39.839	-0.812	741.249	738.503
Pond B Outlet	100YR01hr	16.920	0.056	735.253	732.153
Virgo Dr	100YR01hr	27.092	-0.237	738.232	737.622
WindstarDr	100YR01hr	35.048	7.712	736.819	736.478
AriesBlvd	100YR02hr	2.612	-0.502	739.399	739.453
Ex1-Pond B	100YR02hr	41.108	6.764	737.007	736.712
EX3-Ex2 42"	100YR02hr	31.336	6.694	737.502	737.199
Ex4-Ex3 36"	100YR02hr	28.493	5.456	738.088	737.502
Ex6-Ex5 30"	100YR02hr	26.500	2.775	739.743	738.757
Ex7-Ex6 30"	100YR02hr	7.837	1.513	739.632	739.743
EX8-Ex9 24"	100YR02hr	3.204	-1.255	739.453	739.632
ExOff-PondB	100YR02hr	34.313	-15.731	738.536	736.712
ExPondlOutlet	100YR02hr	2.606	0.263	736.710	739.399
NinevahRdCulver	100YR02hr	48.073	-0.268	741.852	738.788
Pond B Outlet	100YR02hr	25.456	0.053	736.712	732.713
Virgo Dr	100YR02hr	27.507	3.810	738.757	738.088
WindstarDr	100YR02hr	37.854	11.522	737.199	737.007
AriesBlvd	100YR03hr	2.798	-0.441	739.470	739.521
Ex1-Pond B	100YR03hr	42.336	6.928	737.385	737.161
EX3-Ex2 42"	100YR03hr	32.124	6.905	737.753	737.531
Ex4-Ex3 36"	100YR03hr	28.554	4.118	738.239	737.753
Ex6-Ex5 30"	100YR03hr	26.637	-2.374	739.844	738.865
Ex7-Ex6 30"	100YR03hr	6.995	1.015	739.712	739.844
EX8-Ex9 24"	100YR03hr	2.811	-0.956	739.521	739.712
ExOff-PondB	100YR03hr	34.480	-15.667	738.623	737.161
ExPondlOutlet	100YR03hr	2.796	0.263	736.978	739.470
NinevahRdCulver	100YR03hr	49.909	-0.138	742.004	738.876
Pond B Outlet	100YR03hr	27.555	0.055	737.161	733.160
Virgo Dr	100YR03hr	27.596	-2.478	738.865	738.239
WindstarDr	100YR03hr	38.870	11.778	737.531	737.385
AriesBlvd	100YR06hr	3.285	-3.006	739.721	739.772
Ex1-Pond B	100YR06hr	45.212	16.665	737.893	737.690
EX3-Ex2 42"	100YR06hr	33.680	11.793	738.248	738.036
Ex4-Ex3 36"	100YR06hr	28.773	-2.313	738.722	738.248
Ex6-Ex5 30"	100YR06hr	26.271	-0.439	740.284	739.355
Ex7-Ex6 30"	100YR06hr	4.907	1.639	740.023	740.284
EX8-Ex9 24"	100YR06hr	3.326	2.314	739.772	740.023
ExOff-PondB	100YR06hr	35.543	-11.697	738.885	737.690
ExPondlOutlet	100YR06hr	3.277	0.263	737.652	739.721
NinevahRdCulver	100YR06hr	56.458	-0.159	742.593	739.217
Pond B Outlet	100YR06hr	29.648	-6.071	737.690	733.910
Virgo Dr	100YR06hr	27.510	3.617	739.355	738.722
WindstarDr	100YR06hr	41.294	13.179	738.036	737.893
AriesBlvd	100YR12hr	26.468	-31.550	739.764	739.814
Ex1-Pond B	100YR12hr	43.418	19.200	738.109	737.907
EX3-Ex2 42"	100YR12hr	34.646	-24.127	738.446	738.245
Ex4-Ex3 36"	100YR12hr	27.540	-22.752	738.900	738.446
Ex6-Ex5 30"	100YR12hr	26.468	20.399	740.336	739.481
Ex7-Ex6 30"	100YR12hr	26.468	-25.921	740.067	740.336
EX8-Ex9 24"	100YR12hr	26.468	-27.621	739.814	740.067
ExOff-PondB	100YR12hr	34.502	-15.268	738.533	737.907

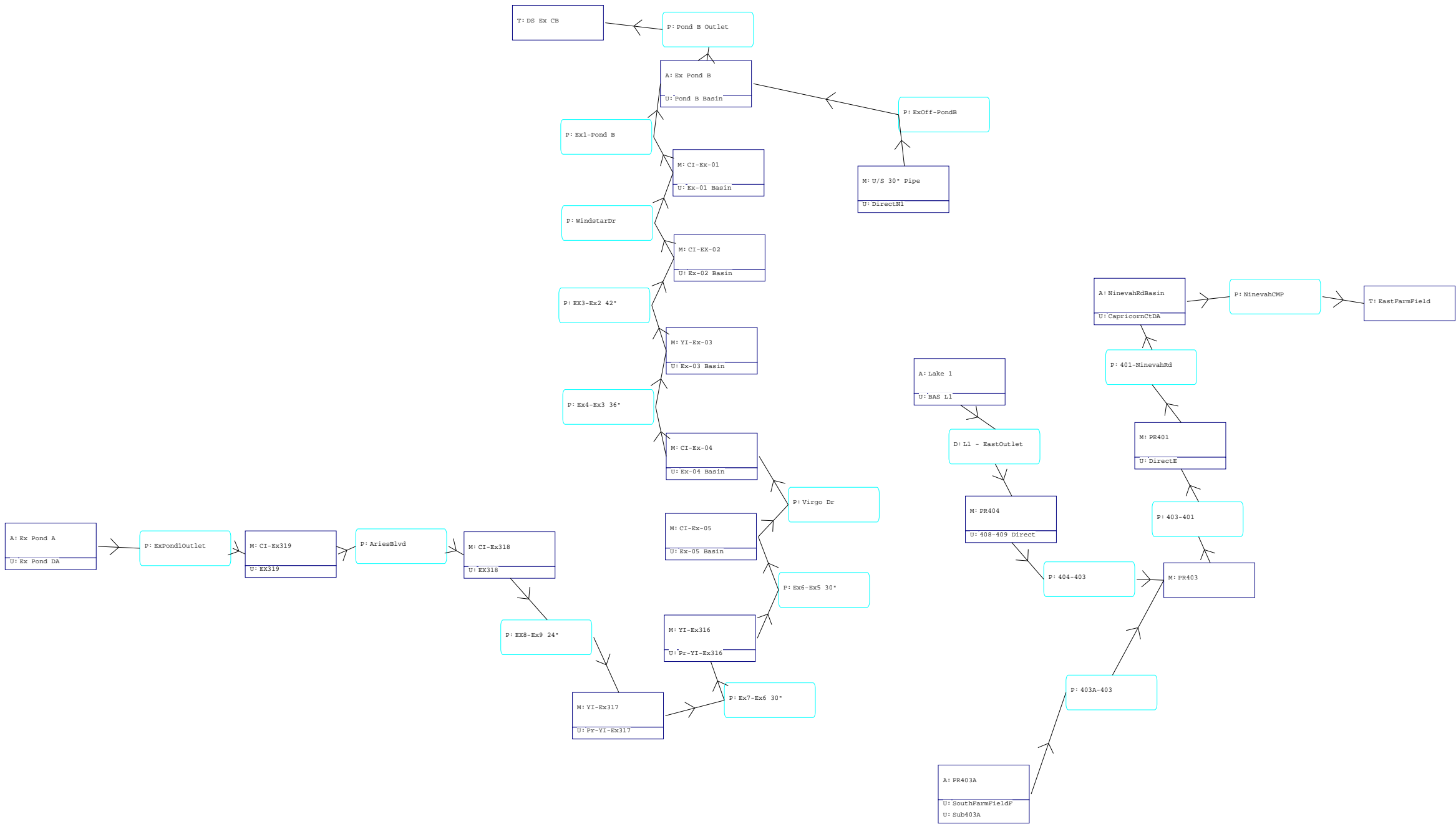
The Bluffs at Youngs Creek
Existing Conditions Drainage Model 05-07-2019
ICPR Basin Output Data

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
ExPond1Outlet	100YR12hr	3.415	0.263	737.837	739.764
NinevahRdCulver	100YR12hr	55.177	0.241	742.472	739.217
Pond B Outlet	100YR12hr	30.395	-1.564	737.907	733.910
Virgo Dr	100YR12hr	26.468	-20.588	739.481	738.900
WindstarDr	100YR12hr	40.718	20.286	738.245	738.109
AriesBlvd	100YR24hr	26.945	-32.123	739.702	739.750
Ex1-Pond B	100YR24hr	42.822	-27.153	738.356	738.190
EX3-Ex2 42"	100YR24hr	33.834	-31.814	738.634	738.473
Ex4-Ex3 36"	100YR24hr	27.361	-27.377	738.994	738.634
Ex6-Ex5 30"	100YR24hr	26.945	21.737	740.194	739.469
Ex7-Ex6 30"	100YR24hr	26.945	-26.293	739.972	740.194
EX8-Ex9 24"	100YR24hr	26.945	-28.100	739.750	739.972
ExOff-PondB	100YR24hr	30.192	-12.284	738.209	738.190
ExPond1Outlet	100YR24hr	3.387	0.263	737.804	739.702
NinevahRdCulver	100YR24hr	46.275	-0.698	741.708	738.764
Pond B Outlet	100YR24hr	28.432	-7.218	738.190	733.910
Virgo Dr	100YR24hr	26.945	-24.847	739.469	738.994
WindstarDr	100YR24hr	39.339	32.924	738.473	738.356

APPENDIX B

PROPOSED SITE CONDITIONS

CALCULATIONS



Nodes		Basins		Links	
A	Stage/Area	O	Overland Flow	P	Pipe
V	Stage/Volume	U	SCS Unit Hydro CN	W	Weir
T	Time/Stage	S	Santa Barbara CNZ	C	Channel
M	Manhole	Y	SCS Unit Hydro GA	D	Drop Structure
		Z	Santa Barbara GA	B	Bridge
				R	Rating Curve
				H	Breach
				E	Percolation Link
				F	Filter
				X	Exfiltration Trench

=====
===== Basins =====
=====

Name: 408-409 Direct Node: PR404 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 17.10
Area(ac): 0.510 Time Shift(hrs): 0.00
Curve Number: 90.80 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: BAS L1 Node: Lake 1 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 27.40
Area(ac): 17.610 Time Shift(hrs): 0.00
Curve Number: 88.10 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: CapricornCtDA Node: NinevahRdBasin Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 25.00
Area(ac): 6.670 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

+0.34 Ac of Direct Runoff from proposed site to existing catch basins

Name: DirectE Node: PR401 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.70
Area(ac): 1.520 Time Shift(hrs): 0.00
Curve Number: 76.70 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: DirectN1 Node: U/S 30" Pipe Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 22.00
Area(ac): 3.730 Time Shift(hrs): 0.00
Curve Number: 78.70 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Ex Pond DA Node: Ex Pond A Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00

The Bluffs at Youngs Creek
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ICPR Basin Input Data

Rainfall Amount(in): 0.000	Time of Conc(min): 20.00
Area(ac): 14.320	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Ex-01 Basin	Node: CI-Ex-01	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 8.00
Area(ac): 0.680	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Ex-02 Basin	Node: CI-EX-02	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 13.00
Area(ac): 1.270	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Ex-03 Basin	Node: YI-Ex-03	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 16.00
Area(ac): 1.810	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Ex-04 Basin	Node: CI-Ex-04	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 8.00
Area(ac): 1.330	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Ex-05 Basin	Node: CI-Ex-05	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 8.00
Area(ac): 1.380	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: EX318	Node: CI-Ex318	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 12.00
Area(ac): 1.440	Time Shift(hrs): 0.00
Curve Number: 89.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: EX319	Node: CI-Ex319	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 12.00
Area(ac): 1.200	Time Shift(hrs): 0.00
Curve Number: 89.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Pond B Basin	Node: Ex Pond B	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 36.00
Area(ac): 16.450	Time Shift(hrs): 0.00
Curve Number: 82.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Pr-YI-Ex316	Node: YI-Ex316	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 22.00
Area(ac): 3.700	Time Shift(hrs): 0.00
Curve Number: 86.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

Name: Pr-YI-Ex317	Node: YI-Ex317	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 20.00
Area(ac): 2.890	Time Shift(hrs): 0.00
Curve Number: 86.40	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

437, 438, 444, EX317
ToC = 18.9 + 1.1 min pipe flow = 20

Name: SouthFarmFieldF	Node: PR403A	Status: Onsite
Group: BASE	Type: SCS Unit Hydrograph CN	

Unit Hydrograph: UH484	Peaking Factor: 484.0
Rainfall File:	Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000	Time of Conc(min): 28.70
Area(ac): 2.690	Time Shift(hrs): 0.00
Curve Number: 76.00	Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00	

```

-----
Name: Sub403A      Node: PR403A      Status: Onsite
Group: BASE        Type: SCS Unit Hydrograph CN

Unit Hydrograph: UH484      Peaking Factor: 484.0
Rainfall File:             Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000  Time of Conc(min): 14.60
                          Area(ac): 0.890      Time Shift(hrs): 0.00
                          Curve Number: 78.40   Max Allowable Q(cfs): 999999.000
                          DCIA(%): 0.00

```

=====
Nodes
=====

```

Name: CI-Ex-01      Base Flow(cfs): 0.000      Init Stage(ft): 732.950
Group: BASE          Plunge Factor: 1.00      Warn Stage(ft): 738.950
Type: Manhole, Flat Floor

```

Stage(ft)	Area(ac)
732.950	0.0003
738.950	0.0003
739.950	0.5000

```

-----
Name: CI-EX-02      Base Flow(cfs): 0.000      Init Stage(ft): 732.910
Group: BASE          Plunge Factor: 1.00      Warn Stage(ft): 739.810
Type: Manhole, Flat Floor

```

Stage(ft)	Area(ac)
732.910	0.0003
739.810	0.0003
740.810	0.5000

```

-----
Name: CI-Ex-04      Base Flow(cfs): 0.000      Init Stage(ft): 733.370
Group: BASE          Plunge Factor: 1.00      Warn Stage(ft): 739.370
Type: Manhole, Flat Floor

```

Stage(ft)	Area(ac)
733.370	0.0002
739.370	0.0002
740.370	0.5000

```

-----
Name: CI-Ex-05      Base Flow(cfs): 0.000      Init Stage(ft): 733.400
Group: BASE          Plunge Factor: 1.00      Warn Stage(ft): 739.300
Type: Manhole, Flat Floor

```

Stage(ft)	Area(ac)
733.400	0.0002
739.300	0.0002
740.300	0.5000

```

-----
Name: CI-Ex318      Base Flow(cfs): 0.000      Init Stage(ft): 734.470
Group: BASE          Plunge Factor: 1.00      Warn Stage(ft): 738.900
Type: Manhole, Flat Floor

```

Stage(ft)	Area(ac)
734.000	0.0002
738.900	0.0002
739.900	0.5000

Name: CI-Ex319	Base Flow(cfs): 0.000	Init Stage(ft): 734.000
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 739.000
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
734.000	0.0002
739.000	0.0002
740.000	0.5000

Name: DS Ex CB	Base Flow(cfs): 0.000	Init Stage(ft): 730.910
Group: BASE		Warn Stage(ft): 738.910
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	730.910
12.00	733.910
30.00	730.910

Name: EastFarmField	Base Flow(cfs): 0.000	Init Stage(ft): 736.800
Group: BASE		Warn Stage(ft): 743.000
Type: Time/Stage		

Time(hrs)	Stage(ft)
0.00	736.800
12.00	738.800
30.00	736.800

Name: Ex Pond A	Base Flow(cfs): 0.000	Init Stage(ft): 735.000
Group: BASE		Warn Stage(ft): 738.000
Type: Stage/Area		

Stage(ft)	Area(ac)
734.550	1.3820
735.000	1.4310
736.000	1.5660
738.000	1.8940
739.000	2.1140

Name: Ex Pond B	Base Flow(cfs): 0.000	Init Stage(ft): 732.500
Group: BASE		Warn Stage(ft): 737.000
Type: Stage/Area		

Stage(ft)	Area(ac)
732.500	0.8706
735.000	1.0650
737.000	1.2700

Name: Lake 1	Base Flow(cfs): 0.000	Init Stage(ft): 742.500
Group: BASE		Warn Stage(ft): 747.850
Type: Stage/Area		

For back to back storms use Elevation 747.7 as initial stage.

Stage(ft)	Area(ac)
741.000	0.3100
742.000	0.4500
743.000	0.5100
746.000	0.7000
747.000	0.8900
748.000	0.9800
749.700	1.3860
750.000	1.4790

Name: NinevahRdBasin	Base Flow(cfs): 0.000	Init Stage(ft): 738.300
Group: BASE		Warn Stage(ft): 742.000
Type: Stage/Area		

Stage(ft)	Area(ac)
738.300	0.0000
741.000	0.0050
742.000	0.0530
743.000	0.1033

Name: PR401	Base Flow(cfs): 0.000	Init Stage(ft): 740.080
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 746.340
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
740.080	0.0003
746.340	0.0003

Name: PR403	Base Flow(cfs): 0.000	Init Stage(ft): 741.100
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 748.890
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
741.100	0.0003
748.890	0.0003

Name: PR403A	Base Flow(cfs): 0.000	Init Stage(ft): 747.000
Group: BASE		Warn Stage(ft): 752.000
Type: Stage/Area		

Stage(ft)	Area(ac)
747.000	0.0000
748.000	0.0029
749.000	0.0080
750.000	0.0240
751.000	0.0347
752.000	0.0511

Name: PR404	Base Flow(cfs): 0.000	Init Stage(ft): 741.970
Group: BASE	Plunge Factor: 1.00	Warn Stage(ft): 760.220
Type: Manhole, Flat Floor		

Stage(ft)	Area(ac)
741.970	0.0003
760.220	0.0003

Name: U/S 30" Pipe Base Flow(cfs): 0.000 Init Stage(ft): 736.000
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 738.000
Type: Manhole, Flat Floor

Stage(ft)	Area(ac)
736.000	0.0000
737.000	0.0030
738.000	0.0200
739.000	0.1000

Name: YI-Ex-03 Base Flow(cfs): 0.000 Init Stage(ft): 733.340
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 737.840
Type: Manhole, Flat Floor

Stage(ft)	Area(ac)
733.340	0.0003
737.840	0.0003
738.840	0.5000

Name: YI-Ex316 Base Flow(cfs): 0.000 Init Stage(ft): 733.550
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 737.550
Type: Manhole, Flat Floor

Stage(ft)	Area(ac)
733.550	0.0002
737.550	0.0002
738.550	0.5000

Name: YI-Ex317 Base Flow(cfs): 0.000 Init Stage(ft): 734.010
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 738.380
Type: Manhole, Flat Floor

Stage(ft)	Area(ac)
734.000	0.0002
738.380	0.0002
739.380	0.5000

=====
=== Cross Sections ===
=====

Name: LakeFldRte Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	750.700	0.025000
15.000	749.700	0.025000

30.000 750.700 0.025000

=====
=== Pipes =====
=====

Name:	From Node:	Length(ft): 0.00
Group: BASE	To Node:	Count: 1
		Friction Equation: Automatic
UPSTREAM	DOWNSTREAM	Solution Algorithm: Automatic
Geometry: Circular	Circular	Flow: Both
Span(in): 0.00	0.00	Entrance Loss Coef: 0.50
Rise(in): 0.00	0.00	Exit Loss Coef: 1.00
Invert(ft): 0.000	0.000	Bend Loss Coef: 0.00
Manning's N: 0.000000	0.000000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: 401-NinevahRd	From Node: PR401	Length(ft): 20.00
Group: BASE	To Node: NinevahRdBasin	Count: 1
		Friction Equation: Automatic
UPSTREAM	DOWNSTREAM	Solution Algorithm: Most Restrictive
Geometry: Circular	Circular	Flow: Both
Span(in): 24.00	24.00	Entrance Loss Coef: 0.00
Rise(in): 24.00	24.00	Exit Loss Coef: 1.00
Invert(ft): 740.090	740.030	Bend Loss Coef: 0.00
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: 403-401	From Node: PR403	Length(ft): 414.00
Group: BASE	To Node: PR401	Count: 1
		Friction Equation: Automatic
UPSTREAM	DOWNSTREAM	Solution Algorithm: Most Restrictive
Geometry: Circular	Circular	Flow: Both
Span(in): 24.00	24.00	Entrance Loss Coef: 0.00
Rise(in): 24.00	24.00	Exit Loss Coef: 1.00
Invert(ft): 741.110	740.130	Bend Loss Coef: 0.00
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: 403A-403	From Node: PR403A	Length(ft): 52.00
Group: BASE	To Node: PR403	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Most Restrictive
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.50
Span(in): 12.00	12.00	Exit Loss Coef: 0.50
Rise(in): 12.00	12.00	Bend Loss Coef: 0.00
Invert(ft): 747.120	744.540	Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.013000	0.013000	Inlet Ctrl Spec: Use dc
Top Clip(in): 0.000	0.000	Stabilizer Option: None
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: 404-403	From Node: PR404	Length(ft): 225.00
Group: BASE	To Node: PR403	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Most Restrictive
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.00
Span(in): 24.00	24.00	Exit Loss Coef: 1.00
Rise(in): 24.00	24.00	Bend Loss Coef: 0.00
Invert(ft): 741.630	741.110	Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.013000	0.013000	Inlet Ctrl Spec: Use dc
Top Clip(in): 0.000	0.000	Stabilizer Option: None
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: AriesBlvd	From Node: CI-Ex319	Length(ft): 29.00
Group: BASE	To Node: CI-Ex318	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.50
Span(in): 24.00	24.00	Exit Loss Coef: 1.00
Rise(in): 24.00	24.00	Bend Loss Coef: 0.00
Invert(ft): 734.500	734.470	Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.013000	0.013000	Inlet Ctrl Spec: Use dc
Top Clip(in): 0.000	0.000	Stabilizer Option: None
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex1-Pond B	From Node: CI-Ex-01	Length(ft): 189.00
Group: BASE	To Node: Ex Pond B	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.50
Span(in): 42.00	42.00	

Rise(in): 42.00	42.00	Exit Loss Coef: 1.00
Invert(ft): 732.950	732.750	Bend Loss Coef: 0.00
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular: Smooth tapered inlet throat

Name: EX3-Ex2 42"		From Node: YI-Ex-03	Length(ft): 184.00
Group: BASE		To Node: CI-Ex-02	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic	
Geometry: Circular	Circular	Solution Algorithm: Automatic	
Span(in): 42.00	42.00	Flow: Both	
Rise(in): 42.00	42.00	Entrance Loss Coef: 0.50	
Invert(ft): 733.340	732.910	Exit Loss Coef: 1.00	
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00	
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw	
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc	
		Stabilizer Option: None	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex4-Ex3 36"		From Node: CI-Ex-04	Length(ft): 185.00
Group: BASE		To Node: YI-Ex-03	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic	
Geometry: Circular	Circular	Solution Algorithm: Automatic	
Span(in): 36.00	36.00	Flow: Both	
Rise(in): 36.00	36.00	Entrance Loss Coef: 0.50	
Invert(ft): 733.370	733.340	Exit Loss Coef: 1.00	
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00	
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw	
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc	
		Stabilizer Option: None	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: Ex6-Ex5 30"		From Node: YI-Ex316	Length(ft): 135.00
Group: BASE		To Node: CI-Ex-05	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic	
Geometry: Circular	Circular	Solution Algorithm: Automatic	
Span(in): 30.00	30.00	Flow: Both	
Rise(in): 30.00	30.00	Entrance Loss Coef: 0.50	
Invert(ft): 733.550	733.400	Exit Loss Coef: 1.00	
Manning's N: 0.013000	0.013000	Bend Loss Coef: 0.00	
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw	
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc	
		Stabilizer Option: None	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
Name: Ex7-Ex6 30"      From Node: YI-Ex317      Length(ft): 333.00
Group: BASE            To Node: YI-Ex316      Count: 1
                        Friction Equation: Automatic
                        Solution Algorithm: Automatic
                        Flow: Both
                        Entrance Loss Coef: 0.50
                        Exit Loss Coef: 1.00
                        Bend Loss Coef: 0.00
                        Outlet Ctrl Spec: Use dc or tw
                        Inlet Ctrl Spec: Use dc
                        Stabilizer Option: None

                        UPSTREAM      DOWNSTREAM
Geometry: Circular      Circular
Span(in): 30.00         30.00
Rise(in): 30.00         30.00
Invert(ft): 734.010    733.550
Manning's N: 0.013000  0.013000
Top Clip(in): 0.000    0.000
Bot Clip(in): 0.000    0.000

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
Name: EX8-Ex9 24"      From Node: CI-Ex318      Length(ft): 175.00
Group: BASE            To Node: YI-Ex317      Count: 1
                        Friction Equation: Automatic
                        Solution Algorithm: Automatic
                        Flow: Both
                        Entrance Loss Coef: 0.50
                        Exit Loss Coef: 1.00
                        Bend Loss Coef: 0.00
                        Outlet Ctrl Spec: Use dc or tw
                        Inlet Ctrl Spec: Use dc
                        Stabilizer Option: None

                        UPSTREAM      DOWNSTREAM
Geometry: Circular      Circular
Span(in): 24.00         24.00
Rise(in): 24.00         24.00
Invert(ft): 734.470    734.010
Manning's N: 0.013000  0.013000
Top Clip(in): 0.000    0.000
Bot Clip(in): 0.000    0.000

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
Name: ExOff-PondB      From Node: U/S 30" Pipe      Length(ft): 413.00
Group: BASE            To Node: Ex Pond B      Count: 1
                        Friction Equation: Automatic
                        Solution Algorithm: Automatic
                        Flow: Both
                        Entrance Loss Coef: 0.50
                        Exit Loss Coef: 1.00
                        Bend Loss Coef: 0.00
                        Outlet Ctrl Spec: Use dc or tw
                        Inlet Ctrl Spec: Use dc
                        Stabilizer Option: None

                        UPSTREAM      DOWNSTREAM
Geometry: Circular      Circular
Span(in): 30.00         30.00
Rise(in): 30.00         30.00
Invert(ft): 736.000    732.500
Manning's N: 0.013000  0.013000
Top Clip(in): 0.000    0.000
Bot Clip(in): 0.000    0.000

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:

Circular Concrete: Square edge w/ headwall

```

-----
Name: ExPond1Outlet      From Node: Ex Pond A      Length(ft): 167.00
Group: BASE              To Node: CI-Ex319      Count: 1
                          Friction Equation: Automatic
                          Solution Algorithm: Automatic
                          Flow: Both
      UPSTREAM            DOWNSTREAM
Geometry: Circular       Circular
Span(in): 12.00          12.00
Rise(in): 12.00          12.00
Invert(ft): 734.600      734.500
Manning's N: 0.013000    0.013000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
Name: NinevahCMP         From Node: NinevahRdBasin  Length(ft): 78.00
Group: BASE              To Node: EastFarmField  Count: 1
                          Friction Equation: Automatic
                          Solution Algorithm: Most Restrictive
                          Flow: Both
      UPSTREAM            DOWNSTREAM
Geometry: Horz Ellipse   Horz Ellipse
Span(in): 42.00          42.00
Rise(in): 29.00          29.00
Invert(ft): 738.300      736.800
Manning's N: 0.025000    0.025000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:
Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description:
Horizontal Ellipse Concrete: Square edge with headwall

```

-----
Name: Pond B Outlet      From Node: Ex Pond B      Length(ft): 167.00
Group: BASE              To Node: DS Ex CB      Count: 1
                          Friction Equation: Automatic
                          Solution Algorithm: Automatic
                          Flow: Both
      UPSTREAM            DOWNSTREAM
Geometry: Circular       Circular
Span(in): 24.00          24.00
Rise(in): 24.00          24.00
Invert(ft): 732.770      730.910
Manning's N: 0.013000    0.013000
Top Clip(in): 0.000      0.000
Bot Clip(in): 0.000      0.000
Entrance Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
Name: Virgo Dr           From Node: CI-Ex-05      Length(ft): 29.00

```

Group: BASE	To Node: CI-Ex-04	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.50
Span(in): 30.00	30.00	Exit Loss Coef: 1.00
Rise(in): 30.00	30.00	Bend Loss Coef: 0.00
Invert(ft): 733.400	733.370	Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.013000	0.013000	Inlet Ctrl Spec: Use dc
Top Clip(in): 0.000	0.000	Stabilizer Option: None
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: WindstarDr	From Node: CI-EX-02	Length(ft): 36.00
Group: BASE	To Node: CI-Ex-01	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Automatic
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.50
Span(in): 42.00	42.00	Exit Loss Coef: 1.00
Rise(in): 42.00	42.00	Bend Loss Coef: 0.00
Invert(ft): 732.910	732.950	Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.013000	0.013000	Inlet Ctrl Spec: Use dc
Top Clip(in): 0.000	0.000	Stabilizer Option: None
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

=====
Drop Structures
=====

Name: L1 - EastOutlet	From Node: Lake 1	Length(ft): 357.00
Group: BASE	To Node: PR404	Count: 1
		Friction Equation: Automatic
		Solution Algorithm: Most Restrictive
UPSTREAM	DOWNSTREAM	Flow: Both
Geometry: Circular	Circular	Entrance Loss Coef: 0.000
Span(in): 36.00	36.00	Exit Loss Coef: 1.000
Rise(in): 36.00	36.00	Outlet Ctrl Spec: Use dc or tw
Invert(ft): 742.500	741.970	Inlet Ctrl Spec: Use dc
Manning's N: 0.013000	0.013000	Solution Incs: 10
Top Clip(in): 0.000	0.000	
Bot Clip(in): 0.000	0.000	

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 4 for Drop Structure L1 - EastOutlet ***

TABLE

Count: 1	Bottom Clip(in): 0.000
Type: Vertical: Mavis	Top Clip(in): 0.000
Flow: Both	Weir Disc Coef: 3.200
Geometry: Circular	Orifice Disc Coef: 0.600

Span(in): 6.00 Invert(ft): 742.500
Rise(in): 6.00 Control Elev(ft): 742.500

*** Weir 2 of 4 for Drop Structure L1 - EastOutlet ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Vertical: Mavis Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600
Span(in): 12.00 Invert(ft): 744.500
Rise(in): 12.00 Control Elev(ft): 744.500

*** Weir 3 of 4 for Drop Structure L1 - EastOutlet ***

TABLE

Count: 2 Bottom Clip(in): 0.000
Type: Vertical: Mavis Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600
Span(in): 40.00 Invert(ft): 746.250
Rise(in): 8.50 Control Elev(ft): 746.250

*** Weir 4 of 4 for Drop Structure L1 - EastOutlet ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Horizontal Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600
Span(in): 76.00 Invert(ft): 747.850
Rise(in): 48.00 Control Elev(ft): 747.850

=====
=== Hydrology Simulations ===
=====

Name: 002YR01Hr
Filename: S:\83540\DRAINAGE\ICPR\PR002YR01hr.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Scsii-24
Rainfall Amount(in): 1.39

Time(hrs)	Print Inc(min)
1.000	0.60

Name: 002YR02Hr
Filename: S:\83540\DRAINAGE\ICPR\PR002YR02Hr.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Scsii-24
Rainfall Amount(in): 1.62

Time(hrs)	Print Inc(min)
2.000	1.20

Name: 002YR03Hr
Filename: S:\83540\DRAINAGE\ICPR\PR002YR03Hr.R32

Override Defaults: Yes
Storm Duration(hrs): 3.00
Rainfall File: Scsii-24
Rainfall Amount(in): 1.72

Time(hrs)	Print Inc(min)
3.000	1.90

Name: 002YR06Hr
Filename: S:\83540\DRAINAGE\ICPR\PR002YR06Hr.R32

Override Defaults: Yes
Storm Duration(hrs): 6.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.06

Time(hrs)	Print Inc(min)
6.000	3.70

Name: 002YR12hr
Filename: S:\83540\DRAINAGE\ICPR\PR002YR12hr.R32

Override Defaults: Yes
Storm Duration(hrs): 12.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.45

Time(hrs)	Print Inc(min)
12.000	7.50

Name: 002YR24hr
Filename: S:\83540\DRAINAGE\ICPR\PR002YR24hr.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.90

Time(hrs)	Print Inc(min)
24.000	15.00

Name: 010YR01hr
Filename: S:\83540\DRAINAGE\ICPR\PR010YR01hr.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.02

Time(hrs)	Print Inc(min)
1.000	0.60

Name: 010YR02hr
Filename: S:\83540\DRAINAGE\ICPR\PR010YR02hr.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.38

Time(hrs)	Print Inc(min)
2.000	1.20

Name: 010YR03hr
Filename: S:\83540\DRAINAGE\ICPR\PR010YR03hr.R32

Override Defaults: Yes
Storm Duration(hrs): 3.00
Rainfall File: Scsii-24
Rainfall Amount(in): 2.53

Time(hrs)	Print Inc(min)
3.000	1.90

Name: 010YR06hr
Filename: S:\83540\DRAINAGE\ICPR\PR010YR06hr.R32

Override Defaults: Yes
Storm Duration(hrs): 6.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.04

Time(hrs)	Print Inc(min)
6.000	3.70

Name: 010YR12hr
Filename: S:\83540\DRAINAGE\ICPR\PR010YR12hr.R32

Override Defaults: Yes
Storm Duration(hrs): 12.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.54

Time(hrs)	Print Inc(min)
12.000	7.50

Name: 010YR24hr
Filename: S:\83540\DRAINAGE\ICPR\PR010YR24hr.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 4.06

Time(hrs)	Print Inc(min)
24.000	15.00

Name: 100YR01hr
Filename: S:\83540\DRAINAGE\ICPR\PR100YR01hr.R32

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.01

Time(hrs)	Print Inc(min)
1.000	0.60

Name: 100YR02hr
Filename: S:\83540\DRAINAGE\ICPR\PR100YR02hr.R32

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Scsii-24
Rainfall Amount(in): 3.65

Time(hrs)	Print Inc(min)
2.000	1.20

Name: 100YR03hr
Filename: S:\83540\DRAINAGE\ICPR\PR100YR03hr.R32

Override Defaults: Yes
Storm Duration(hrs): 3.00

Rainfall File: Scsii-24
Rainfall Amount(in): 3.94

Time(hrs)	Print Inc(min)
3.000	1.90

Name: 100YR06hr
Filename: S:\83540\DRAINAGE\ICPR\PR100YR06hr.R32

Override Defaults: Yes
Storm Duration(hrs): 6.00
Rainfall File: Scsii-24
Rainfall Amount(in): 4.79

Time(hrs)	Print Inc(min)
6.000	3.70

Name: 100YR12hr
Filename: S:\83540\DRAINAGE\ICPR\PR100YR12hr.R32

Override Defaults: Yes
Storm Duration(hrs): 12.00
Rainfall File: Scsii-24
Rainfall Amount(in): 5.38

Time(hrs)	Print Inc(min)
12.000	7.50

Name: 100YR24hr
Filename: S:\83540\DRAINAGE\ICPR\PR100YR24hr.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 5.83

Time(hrs)	Print Inc(min)
24.000	15.00

==== Routing Simulations =====

Name: 002YR01HR Hydrology Sim: 002YR01HR
Filename: S:\83540\Drainage\ICPR\PR002YR01HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 3.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
3.000	1.000

Group	Run
BASE	Yes

Name: 002YR02HR Hydrology Sim: 002YR02Hr

Filename: S:\83540\Drainage\ICPR\PR002YR02HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 6.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

6.000 1.000

Group Run

BASE Yes

Name: 002YR03HR Hydrology Sim: 002YR03Hr
Filename: S:\83540\Drainage\ICPR\PR002YR03HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 9.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

9.000 1.000

Group Run

BASE Yes

Name: 002YR06HR Hydrology Sim: 002YR06Hr
Filename: S:\83540\Drainage\ICPR\PR002YR06HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

12.000 1.000

Group Run

BASE Yes

Name: 002YR12HR Hydrology Sim: 002YR12hr
Filename: S:\83540\Drainage\ICPR\PR002YR12HR.I32

Execute: Yes Restart: No Patch: No

Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 24.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
24.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 002YR24HR Hydrology Sim: 002YR24hr
Filename: S:\83540\Drainage\ICPR\PR002YR24HR.I32

Execute: Yes	Restart: No	Patch: No
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Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 48.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
48.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 010YR01Hr Hydrology Sim: 010YR01hr
Filename: S:\83540\Drainage\ICPR\PR010YR01Hr.I32

Execute: Yes	Restart: No	Patch: No
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Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 3.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
3.000	1.000

Group	Run
-----	-----
BASE	Yes

Name: 010YR02Hr Hydrology Sim: 010YR02hr
Filename: S:\83540\Drainage\ICPR\PR010YR02Hr.I32

Execute: Yes	Restart: No	Patch: No
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Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
-----------------------	-------------------------

Time Step Optimizer: 10.000	End Time(hrs): 6.00
Start Time(hrs): 0.000	Max Calc Time(sec): 10.0000
Min Calc Time(sec): 0.5000	Boundary Flows:
Boundary Stages:	

Time(hrs)	Print Inc(min)
-----	-----
6.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR03Hr	Hydrology Sim: 010YR03hr
Filename: S:\83540\Drainage\ICPR\PR010YR03Hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	End Time(hrs): 9.00
Start Time(hrs): 0.000	Max Calc Time(sec): 10.0000
Min Calc Time(sec): 0.5000	Boundary Flows:
Boundary Stages:	

Time(hrs)	Print Inc(min)
-----	-----
9.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR06Hr	Hydrology Sim: 010YR06hr
Filename: S:\83540\Drainage\ICPR\PR010YR06Hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	End Time(hrs): 12.00
Start Time(hrs): 0.000	Max Calc Time(sec): 10.0000
Min Calc Time(sec): 0.5000	Boundary Flows:
Boundary Stages:	

Time(hrs)	Print Inc(min)
-----	-----
12.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR12Hr	Hydrology Sim: 010YR12hr
Filename: S:\83540\Drainage\ICPR\PR010YR12Hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	End Time(hrs): 24.00
Start Time(hrs): 0.000	Max Calc Time(sec): 10.0000
Min Calc Time(sec): 0.5000	

Boundary Stages:

Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
24.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 010YR24Hr	Hydrology Sim: 010YR24hr
Filename: S:\83540\Drainage\ICPR\PR010YR24Hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 48.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
48.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 100YR01hr	Hydrology Sim: 100YR01hr
Filename: S:\83540\Drainage\ICPR\PR100YR01hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 3.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
3.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 100YR02hr	Hydrology Sim: 100YR02hr
Filename: S:\83540\Drainage\ICPR\PR100YR02hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 6.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
6.000	1.000
Group	Run
BASE	Yes

Name: 100YR03hr Hydrology Sim: 100YR03hr
Filename: S:\83540\Drainage\ICPR\PR100YR03hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 9.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
9.000	1.000
Group	Run
BASE	Yes

Name: 100YR06hr Hydrology Sim: 100YR06hr
Filename: S:\83540\Drainage\ICPR\PR100YR06hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 12.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	1.000
Group	Run
BASE	Yes

Name: 100YR12hr Hydrology Sim: 100YR12hr
Filename: S:\83540\Drainage\ICPR\PR100YR12hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 48.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)

48.000	1.000
Group	Run
-----	-----
BASE	Yes

Name: 100YR24hr	Hydrology Sim: 100YR24hr
Filename: S:\83540\Drainage\ICPR\PR100YR24hr.I32	

Execute: Yes	Restart: No	Patch: No
Alternative: No		

Max Delta Z(ft): 1.00	Delta Z Factor: 0.01000
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 48.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 10.0000
Boundary Stages:	Boundary Flows:

Time(hrs)	Print Inc(min)
-----	-----
48.000	1.000
Group	Run
-----	-----
BASE	Yes

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CI-Ex-01	BASE	002YR01HR	0.79	734.638	738.950	0.0093	499	0.78	11.263	0.79	11.241
CI-Ex-01	BASE	002YR02HR	1.26	734.816	738.950	0.0082	500	1.25	13.510	1.26	13.481
CI-Ex-01	BASE	002YR03HR	1.75	734.855	738.950	0.0084	500	1.74	14.009	1.75	13.980
CI-Ex-01	BASE	002YR06HR	3.22	735.081	738.950	0.0090	495	3.20	17.107	3.22	17.077
CI-Ex-01	BASE	002YR12HR	6.18	735.243	738.950	0.0090	488	6.17	19.450	6.18	19.403
CI-Ex-01	BASE	002YR24HR	12.08	735.241	738.950	-0.0095	488	12.07	19.415	12.08	19.385
CI-Ex-01	BASE	010YR01Hr	0.73	735.663	738.950	0.0090	453	0.72	25.815	0.73	25.763
CI-Ex-01	BASE	010YR02Hr	1.19	735.882	738.950	0.0097	421	1.18	29.270	1.19	29.216
CI-Ex-01	BASE	010YR03Hr	1.67	735.908	738.950	0.0099	417	1.67	29.681	1.67	29.630
CI-Ex-01	BASE	010YR06Hr	3.13	736.067	738.950	0.0098	384	3.12	32.094	3.13	32.024
CI-Ex-01	BASE	010YR12Hr	6.13	736.052	738.950	-0.0098	387	6.13	31.837	6.13	31.792
CI-Ex-01	BASE	010YR24Hr	12.03	736.024	738.950	-0.0100	394	12.02	31.409	12.03	31.378
CI-Ex-01	BASE	100YR01hr	0.64	736.497	738.950	-0.0099	211	0.64	37.998	0.64	37.962
CI-Ex-01	BASE	100YR02hr	1.13	736.713	738.950	0.0112	210	1.12	41.354	1.12	41.327
CI-Ex-01	BASE	100YR03hr	1.62	736.754	738.950	0.0123	210	1.62	42.006	1.62	41.952
CI-Ex-01	BASE	100YR06hr	4.02	737.045	738.950	0.0357	133	3.09	44.390	3.10	44.311
CI-Ex-01	BASE	100YR12hr	6.99	737.259	738.950	-0.0361	133	6.12	41.171	6.13	41.145
CI-Ex-01	BASE	100YR24hr	12.79	737.424	738.950	0.0367	133	12.01	40.231	12.02	40.384
CI-EX-02	BASE	002YR01HR	0.79	734.794	739.810	0.0100	497	0.76	11.054	0.78	10.991
CI-EX-02	BASE	002YR02HR	1.26	734.988	739.810	0.0092	493	1.24	13.256	1.26	13.184
CI-EX-02	BASE	002YR03HR	1.75	735.030	739.810	0.0093	491	1.73	13.736	1.74	13.661
CI-EX-02	BASE	002YR06HR	3.21	735.284	739.810	0.0100	477	3.20	16.728	3.21	16.660
CI-EX-02	BASE	002YR12HR	6.18	735.460	739.810	0.0096	461	6.16	18.951	6.17	18.835
CI-EX-02	BASE	002YR24HR	12.08	735.450	739.810	0.0090	462	12.07	18.505	12.08	18.446
CI-EX-02	BASE	010YR01Hr	0.73	735.928	739.810	0.0100	388	0.71	25.159	0.72	25.045
CI-EX-02	BASE	010YR02Hr	1.19	736.168	739.810	0.0100	322	1.18	28.191	1.19	28.114
CI-EX-02	BASE	010YR03Hr	1.68	736.196	739.810	0.0096	312	1.66	28.488	1.68	28.444
CI-EX-02	BASE	010YR06Hr	3.13	736.364	739.810	0.0089	222	3.14	30.300	3.14	30.341
CI-EX-02	BASE	010YR12Hr	6.13	736.354	739.810	0.0095	230	6.12	30.439	6.13	30.389
CI-EX-02	BASE	010YR24Hr	12.03	736.312	739.810	0.0095	258	12.01	29.434	12.03	29.405
CI-EX-02	BASE	100YR01hr	0.64	736.837	739.810	0.0100	132	0.66	34.881	0.66	34.939
CI-EX-02	BASE	100YR02hr	1.13	737.100	739.810	-0.0111	132	1.14	37.520	1.15	37.582
CI-EX-02	BASE	100YR03hr	1.62	737.151	739.810	0.0114	132	1.65	38.016	1.65	38.093
CI-EX-02	BASE	100YR06hr	3.10	737.335	739.810	-0.0361	132	3.15	40.351	3.14	40.371
CI-EX-02	BASE	100YR12hr	6.89	737.327	739.810	-0.0292	132	6.12	38.567	6.13	38.538
CI-EX-02	BASE	100YR24hr	12.81	737.478	739.810	-0.0284	132	12.00	36.739	12.02	36.811
CI-Ex-04	BASE	002YR01HR	0.78	735.191	739.370	0.0100	417	0.74	9.336	0.76	9.235
CI-Ex-04	BASE	002YR02HR	1.25	735.403	739.370	0.0100	403	1.22	11.046	1.24	10.924
CI-Ex-04	BASE	002YR03HR	1.74	735.447	739.370	0.0099	399	1.71	11.384	1.73	11.265
CI-Ex-04	BASE	002YR06HR	3.21	735.725	739.370	0.0098	360	3.18	13.603	3.19	13.434
CI-Ex-04	BASE	002YR12HR	6.17	735.935	739.370	0.0097	319	6.15	15.289	6.16	15.106
CI-Ex-04	BASE	002YR24HR	12.07	735.911	739.370	0.0091	323	12.04	15.042	12.06	14.902
CI-Ex-04	BASE	010YR01Hr	0.72	736.564	739.370	0.0100	156	0.70	19.928	0.72	19.792
CI-Ex-04	BASE	010YR02Hr	1.19	736.880	739.370	0.0100	129	1.15	22.356	1.15	21.749
CI-Ex-04	BASE	010YR03Hr	1.68	736.912	739.370	0.0100	129	1.63	22.657	1.63	21.999
CI-Ex-04	BASE	010YR06Hr	3.13	737.113	739.370	0.0099	129	3.09	24.451	3.09	23.325
CI-Ex-04	BASE	010YR12Hr	6.14	737.110	739.370	0.0096	129	6.04	22.785	6.04	22.301
CI-Ex-04	BASE	010YR24Hr	12.04	737.083	739.370	0.0091	129	12.11	22.615	12.11	22.703
CI-Ex-04	BASE	100YR01hr	0.65	737.619	739.370	0.0103	129	0.59	29.593	0.59	27.348

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CI-Ex-04	BASE	100YR02hr	1.13	737.903	739.370	0.0119	129	1.07	30.802	1.07	28.120
CI-Ex-04	BASE	100YR03hr	1.63	737.962	739.370	0.0108	129	1.55	30.474	1.55	27.775
CI-Ex-04	BASE	100YR06hr	3.16	738.219	739.370	0.0114	129	3.01	28.616	3.01	26.595
CI-Ex-04	BASE	100YR12hr	6.13	738.000	739.370	0.0097	129	5.95	25.566	6.24	24.490
CI-Ex-04	BASE	100YR24hr	12.59	737.804	739.370	0.0108	129	12.08	24.832	12.08	24.878
CI-Ex-05	BASE	002YR01HR	0.77	735.327	739.300	0.0097	286	0.74	8.796	0.76	8.723
CI-Ex-05	BASE	002YR02HR	1.25	735.555	739.300	0.0097	255	1.22	10.384	1.24	10.299
CI-Ex-05	BASE	002YR03HR	1.74	735.601	739.300	0.0100	246	1.71	10.667	1.73	10.595
CI-Ex-05	BASE	002YR06HR	3.21	735.914	739.300	0.0099	127	3.19	12.578	3.20	12.539
CI-Ex-05	BASE	002YR12HR	6.17	736.155	739.300	0.0100	123	6.15	14.033	6.15	13.940
CI-Ex-05	BASE	002YR24HR	12.07	736.099	739.300	0.0097	123	12.05	13.022	12.06	12.972
CI-Ex-05	BASE	010YR01Hr	0.72	736.948	739.300	0.0093	123	0.71	18.347	0.72	18.280
CI-Ex-05	BASE	010YR02Hr	1.21	737.297	739.300	0.0100	123	1.29	20.048	1.29	20.114
CI-Ex-05	BASE	010YR03Hr	1.70	737.327	739.300	0.0100	123	1.78	20.163	1.78	20.231
CI-Ex-05	BASE	010YR06Hr	3.17	737.499	739.300	0.0099	123	3.30	21.021	3.31	21.103
CI-Ex-05	BASE	010YR12Hr	6.16	737.522	739.300	0.0100	123	6.27	21.010	6.27	21.070
CI-Ex-05	BASE	010YR24Hr	12.06	737.470	739.300	0.0096	123	12.17	20.162	12.17	20.259
CI-Ex-05	BASE	100YR01hr	0.68	737.892	739.300	-0.0152	123	1.03	24.122	1.03	24.205
CI-Ex-05	BASE	100YR02hr	1.17	738.133	739.300	0.0119	123	1.48	24.216	1.48	24.238
CI-Ex-05	BASE	100YR03hr	1.66	738.183	739.300	0.0110	123	1.96	24.246	1.96	24.266
CI-Ex-05	BASE	100YR06hr	3.15	738.542	739.300	-0.0424	123	3.38	23.890	3.38	23.899
CI-Ex-05	BASE	100YR12hr	6.14	738.299	739.300	0.0103	123	6.30	22.763	6.30	22.753
CI-Ex-05	BASE	100YR24hr	12.44	738.144	739.300	0.0074	123	12.20	20.852	12.21	20.882
CI-Ex318	BASE	002YR01HR	0.75	735.571	738.900	0.0090	309	0.64	4.286	0.63	4.059
CI-Ex318	BASE	002YR02HR	1.24	735.826	738.900	0.0098	290	1.12	4.947	1.12	4.503
CI-Ex318	BASE	002YR03HR	1.73	735.871	738.900	0.0084	284	1.62	4.876	1.62	4.370
CI-Ex318	BASE	002YR06HR	3.20	736.270	738.900	0.0073	212	3.15	5.534	3.09	4.579
CI-Ex318	BASE	002YR12HR	6.16	736.610	738.900	0.0099	123	6.08	5.462	6.01	3.464
CI-Ex318	BASE	002YR24HR	12.07	736.450	738.900	-0.0100	148	12.01	5.562	11.97	3.201
CI-Ex318	BASE	010YR01Hr	0.72	737.726	738.900	-0.0098	123	0.61	8.015	0.61	6.835
CI-Ex318	BASE	010YR02Hr	1.18	738.333	738.900	-0.0097	123	1.10	8.196	1.09	6.617
CI-Ex318	BASE	010YR03Hr	1.67	738.372	738.900	-0.0096	123	1.58	7.895	1.58	6.205
CI-Ex318	BASE	010YR06Hr	3.15	738.646	738.900	0.0099	123	3.10	8.900	3.11	6.796
CI-Ex318	BASE	010YR12Hr	6.13	738.592	738.900	0.0099	123	5.98	5.462	6.13	5.479
CI-Ex318	BASE	010YR24Hr	12.03	738.262	738.900	-0.0098	123	11.86	5.032	12.01	4.985
CI-Ex318	BASE	100YR01hr	0.71	739.182	738.900	-0.0149	6163	0.61	14.022	0.61	10.059
CI-Ex318	BASE	100YR02hr	1.23	739.284	738.900	0.0140	8381	1.10	14.331	1.09	9.966
CI-Ex318	BASE	100YR03hr	1.72	739.292	738.900	0.0133	8544	1.58	14.046	1.58	9.836
CI-Ex318	BASE	100YR06hr	3.23	739.346	738.900	0.0358	9726	4.25	16.827	4.25	16.234
CI-Ex318	BASE	100YR12hr	6.21	739.275	738.900	0.0361	8182	7.30	16.858	7.31	16.366
CI-Ex318	BASE	100YR24hr	12.10	739.102	738.900	0.0094	4415	12.00	9.515	11.96	7.899
CI-Ex319	BASE	002YR01HR	0.74	735.582	739.000	0.0074	166	0.62	1.530	0.63	1.394
CI-Ex319	BASE	002YR02HR	1.23	735.821	739.000	0.0090	164	1.12	1.826	1.12	1.599
CI-Ex319	BASE	002YR03HR	1.73	735.880	739.000	0.0074	164	1.62	1.786	1.70	1.842
CI-Ex319	BASE	002YR06HR	3.20	736.278	739.000	0.0074	155	3.08	1.984	3.16	2.418
CI-Ex319	BASE	002YR12HR	6.16	736.600	739.000	0.0098	138	6.00	1.464	6.08	2.363
CI-Ex319	BASE	002YR24HR	12.07	736.441	739.000	0.0097	145	13.23	1.425	12.01	2.391
CI-Ex319	BASE	010YR01Hr	0.72	737.714	739.000	-0.0091	134	0.61	3.088	0.60	2.477

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CI-Ex319	BASE	010YR02Hr	1.18	738.326	739.000	0.0092	132	1.10	3.224	1.08	2.363
CI-Ex319	BASE	010YR03Hr	1.67	738.365	739.000	0.0093	132	1.58	3.147	1.57	2.156
CI-Ex319	BASE	010YR06Hr	3.15	738.659	739.000	0.0098	131	3.05	2.633	3.11	2.442
CI-Ex319	BASE	010YR12Hr	6.13	738.582	739.000	-0.0098	132	7.77	2.149	6.55	2.280
CI-Ex319	BASE	010YR24Hr	12.03	738.251	739.000	0.0100	133	14.50	2.256	12.59	2.655
CI-Ex319	BASE	100YR01hr	0.70	739.186	739.000	-0.0149	4073	0.57	4.677	0.61	3.679
CI-Ex319	BASE	100YR02hr	1.22	739.285	739.000	0.0144	6240	1.12	5.245	1.08	3.776
CI-Ex319	BASE	100YR03hr	1.72	739.293	739.000	0.0133	6383	1.61	5.104	1.57	3.562
CI-Ex319	BASE	100YR06hr	3.23	739.346	739.000	-0.0342	7546	3.08	5.591	4.25	16.235
CI-Ex319	BASE	100YR12hr	6.21	739.275	739.000	-0.0348	6000	9.98	3.221	7.30	16.367
CI-Ex319	BASE	100YR24hr	12.10	739.103	739.000	0.0095	2246	16.24	3.197	16.24	3.200
DS Ex CB	BASE	002YR01HR	3.00	731.660	738.910	0.0007	111	1.48	0.698	0.00	0.000
DS Ex CB	BASE	002YR02HR	6.00	732.410	738.910	0.0007	124	2.05	3.227	0.00	0.000
DS Ex CB	BASE	002YR03HR	9.00	733.160	738.910	0.0007	40	3.01	4.118	0.00	0.000
DS Ex CB	BASE	002YR06HR	12.00	733.910	738.910	0.0007	48	4.41	5.625	0.00	0.000
DS Ex CB	BASE	002YR12HR	12.00	733.910	738.910	0.0007	48	7.12	7.621	0.00	0.000
DS Ex CB	BASE	002YR24HR	12.00	733.910	738.910	0.0007	48	12.88	13.111	0.00	0.000
DS Ex CB	BASE	010YR01Hr	3.00	731.660	738.910	0.0007	142	1.14	4.419	0.00	0.000
DS Ex CB	BASE	010YR02Hr	6.00	732.410	738.910	0.0007	140	2.00	10.771	0.00	0.000
DS Ex CB	BASE	010YR03Hr	9.00	733.160	738.910	0.0007	132	2.68	11.344	0.00	0.000
DS Ex CB	BASE	010YR06Hr	12.00	733.910	738.910	0.0007	48	4.01	14.206	0.00	0.000
DS Ex CB	BASE	010YR12Hr	12.00	733.910	738.910	0.0007	47	7.33	20.487	0.00	0.000
DS Ex CB	BASE	010YR24Hr	12.00	733.910	738.910	0.0007	42	12.87	18.682	0.00	0.000
DS Ex CB	BASE	100YR01hr	3.00	731.660	738.910	0.0007	159	1.16	13.629	0.00	0.000
DS Ex CB	BASE	100YR02hr	6.00	732.410	738.910	0.0007	154	2.00	22.589	0.00	0.000
DS Ex CB	BASE	100YR03hr	9.00	733.160	738.910	0.0007	47	2.51	23.372	0.00	0.000
DS Ex CB	BASE	100YR06hr	12.00	733.910	738.910	0.0007	48	4.08	26.520	0.00	0.000
DS Ex CB	BASE	100YR12hr	12.00	733.910	738.910	0.0007	41	7.04	27.532	0.00	0.000
DS Ex CB	BASE	100YR24hr	12.00	733.910	738.910	0.0007	8	12.92	25.299	0.00	0.000
EastFarmField	BASE	002YR01HR	3.00	737.300	743.000	0.0005	83	0.83	7.483	0.00	0.000
EastFarmField	BASE	002YR02HR	6.00	737.800	743.000	0.0005	88	1.31	9.011	0.00	0.000
EastFarmField	BASE	002YR03HR	9.00	738.300	743.000	0.0005	87	1.80	9.386	0.00	0.000
EastFarmField	BASE	002YR06HR	12.00	738.800	743.000	0.0005	112	3.27	11.878	0.00	0.000
EastFarmField	BASE	002YR12HR	12.00	738.800	743.000	0.0005	113	6.25	13.841	0.00	0.000
EastFarmField	BASE	002YR24HR	12.00	738.800	743.000	0.0005	117	12.25	13.670	0.00	0.000
EastFarmField	BASE	010YR01Hr	3.00	737.300	743.000	0.0005	93	0.81	17.105	0.00	0.000
EastFarmField	BASE	010YR02Hr	6.00	737.800	743.000	0.0005	96	1.29	20.324	0.00	0.000
EastFarmField	BASE	010YR03Hr	9.00	738.300	743.000	0.0005	94	1.78	20.845	0.00	0.000
EastFarmField	BASE	010YR06Hr	12.00	738.800	743.000	0.0005	112	3.27	24.558	0.00	0.000
EastFarmField	BASE	010YR12Hr	12.00	738.800	743.000	0.0005	113	6.25	25.664	0.00	0.000
EastFarmField	BASE	010YR24Hr	12.00	738.800	743.000	0.0005	134	12.25	24.036	0.00	0.000
EastFarmField	BASE	100YR01hr	3.00	737.300	743.000	0.0005	106	0.78	34.289	0.00	0.000
EastFarmField	BASE	100YR02hr	6.00	737.800	743.000	0.0005	102	1.28	40.080	0.00	0.000
EastFarmField	BASE	100YR03hr	9.00	738.300	743.000	0.0005	96	1.78	41.291	0.00	0.000
EastFarmField	BASE	100YR06hr	12.00	738.800	743.000	0.0005	112	3.29	46.668	0.00	0.000
EastFarmField	BASE	100YR12hr	12.00	738.800	743.000	0.0005	116	6.26	45.689	0.00	0.000
EastFarmField	BASE	100YR24hr	12.00	738.800	743.000	0.0005	103	12.26	40.652	0.00	0.000
Ex Pond A	BASE	002YR01HR	1.00	735.188	738.000	0.0007	63521	0.76	9.501	1.08	0.592

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Ex Pond A	BASE	002YR02HR	2.00	735.299	738.000	0.0008	64173	1.24	11.652	2.02	0.807
Ex Pond A	BASE	002YR03HR	3.01	735.326	738.000	0.0007	64326	1.74	12.039	3.02	0.860
Ex Pond A	BASE	002YR06HR	5.25	735.406	738.000	0.0008	64793	3.21	15.517	5.26	1.019
Ex Pond A	BASE	002YR12HR	8.32	735.472	738.000	0.0008	65170	6.12	18.119	8.39	1.143
Ex Pond A	BASE	002YR24HR	14.07	735.542	738.000	0.0008	65571	12.00	15.140	14.12	1.263
Ex Pond A	BASE	010YR01Hr	1.01	735.472	738.000	0.0006	65157	0.75	23.046	1.11	1.134
Ex Pond A	BASE	010YR02Hr	2.00	735.712	738.000	0.0011	66540	1.24	27.555	2.03	1.485
Ex Pond A	BASE	010YR03Hr	3.01	735.765	738.000	0.0011	66851	1.71	28.240	3.02	1.569
Ex Pond A	BASE	010YR06Hr	5.24	735.928	738.000	0.0013	67808	3.21	33.447	5.24	1.816
Ex Pond A	BASE	010YR12Hr	8.10	736.029	738.000	0.0014	68439	6.12	35.594	8.32	1.962
Ex Pond A	BASE	010YR24Hr	14.07	736.145	738.000	0.0011	69257	12.00	27.317	14.57	2.106
Ex Pond A	BASE	100YR01hr	1.14	736.008	738.000	0.0020	68273	0.72	49.877	1.25	1.918
Ex Pond A	BASE	100YR02hr	2.00	736.550	738.000	0.0019	72149	1.20	60.403	3.11	2.471
Ex Pond A	BASE	100YR03hr	3.01	736.727	738.000	0.0019	73415	1.71	61.802	4.19	2.636
Ex Pond A	BASE	100YR06hr	6.04	737.158	738.000	0.0021	76490	3.21	69.369	6.75	2.983
Ex Pond A	BASE	100YR12hr	8.93	737.236	738.000	0.0022	77049	6.12	67.723	10.39	3.057
Ex Pond A	BASE	100YR24hr	14.65	737.235	738.000	0.0023	77042	12.00	47.139	16.60	3.037
Ex Pond B	BASE	002YR01HR	1.50	733.145	737.000	0.0032	40795	0.86	18.754	1.48	0.698
Ex Pond B	BASE	002YR02HR	2.05	733.624	737.000	0.0041	42406	1.31	22.426	2.05	3.227
Ex Pond B	BASE	002YR03HR	3.01	733.750	737.000	0.0040	42880	1.81	23.360	3.01	4.118
Ex Pond B	BASE	002YR06HR	4.45	733.944	737.000	0.0041	43565	3.27	29.002	4.41	5.625
Ex Pond B	BASE	002YR12HR	7.14	734.182	737.000	0.0036	44393	6.23	34.093	7.12	7.621
Ex Pond B	BASE	002YR24HR	12.73	734.708	737.000	0.0026	46110	12.19	34.580	12.88	13.111
Ex Pond B	BASE	010YR01Hr	1.15	733.790	737.000	0.0020	42946	0.80	41.892	1.14	4.419
Ex Pond B	BASE	010YR02Hr	2.00	734.539	737.000	0.0038	45623	1.31	49.280	2.00	10.771
Ex Pond B	BASE	010YR03Hr	2.68	734.603	737.000	0.0038	45813	1.81	50.587	2.68	11.344
Ex Pond B	BASE	010YR06Hr	4.02	734.926	737.000	0.0035	46849	3.27	57.519	4.01	14.206
Ex Pond B	BASE	010YR12Hr	6.91	735.217	737.000	0.0033	48067	6.25	61.540	7.33	20.487
Ex Pond B	BASE	010YR24Hr	12.76	735.739	737.000	0.0026	50307	12.21	58.635	12.87	18.682
Ex Pond B	BASE	100YR01hr	1.16	734.860	737.000	0.0046	46484	0.88	74.563	1.16	13.629
Ex Pond B	BASE	100YR02hr	2.00	736.157	737.000	0.0058	52108	1.36	85.405	2.00	22.589
Ex Pond B	BASE	100YR03hr	2.51	736.302	737.000	0.0057	52672	1.84	88.481	2.51	23.372
Ex Pond B	BASE	100YR06hr	4.08	736.935	737.000	0.0057	55201	3.28	99.610	4.08	26.520
Ex Pond B	BASE	100YR12hr	7.04	737.156	737.000	0.0048	56189	6.25	98.914	7.04	27.532
Ex Pond B	BASE	100YR24hr	12.90	737.359	737.000	0.0044	57097	12.25	85.712	12.92	25.299
Lake 1	BASE	002YR01HR	1.00	743.413	747.850	0.0044	23356	0.85	17.290	1.00	0.687
Lake 1	BASE	002YR02HR	2.00	744.072	747.850	0.0050	25173	1.32	19.839	2.00	0.996
Lake 1	BASE	002YR03HR	3.01	744.255	747.850	0.0048	25677	1.77	20.280	3.01	1.070
Lake 1	BASE	002YR06HR	6.03	744.649	747.850	0.0048	26764	3.27	23.724	6.03	1.384
Lake 1	BASE	002YR12HR	7.87	744.872	747.850	0.0045	27380	6.25	26.067	7.87	1.971
Lake 1	BASE	002YR24HR	13.40	745.119	747.850	0.0037	28061	12.25	24.978	13.40	2.841
Lake 1	BASE	010YR01Hr	1.00	744.254	747.850	0.0029	25674	0.80	34.205	1.01	1.089
Lake 1	BASE	010YR02Hr	2.00	745.279	747.850	0.0048	28504	1.28	39.122	2.00	3.521
Lake 1	BASE	010YR03Hr	2.94	745.400	747.850	0.0049	28838	1.77	39.457	2.94	4.072
Lake 1	BASE	010YR06Hr	4.19	745.712	747.850	0.0045	29698	3.27	43.914	4.19	5.459
Lake 1	BASE	010YR12Hr	7.09	745.998	747.850	0.0043	30486	6.25	44.725	7.09	6.272
Lake 1	BASE	010YR24Hr	12.97	746.218	747.850	0.0029	32295	12.25	39.463	12.97	6.826
Lake 1	BASE	100YR01hr	1.00	745.596	747.850	0.0061	29377	0.79	64.514	1.06	4.803
Lake 1	BASE	100YR02hr	1.98	746.869	747.850	0.0062	37687	1.28	74.464	2.03	13.639

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Lake 1	BASE	100YR03hr	2.46	746.995	747.850	0.0062	38726	1.77	75.522	2.70	13.484
Lake 1	BASE	100YR06hr	3.93	747.616	747.850	0.0061	41185	3.27	81.621	4.39	14.514
Lake 1	BASE	100YR12hr	6.90	747.812	747.850	0.0057	41952	6.25	76.878	7.39	14.843
Lake 1	BASE	100YR24hr	12.79	747.727	747.850	0.0055	41617	12.25	61.641	13.27	14.703
NinevahRdBasin	BASE	002YR01HR	0.83	739.291	742.000	-0.0094	263	0.83	7.494	0.83	7.483
NinevahRdBasin	BASE	002YR02HR	1.31	739.403	742.000	-0.0091	266	1.31	9.014	1.31	9.011
NinevahRdBasin	BASE	002YR03HR	1.81	739.430	742.000	-0.0097	266	1.80	9.389	1.80	9.386
NinevahRdBasin	BASE	002YR06HR	3.27	739.599	742.000	-0.0094	267	3.27	11.904	3.27	11.878
NinevahRdBasin	BASE	002YR12HR	6.25	739.725	742.000	-0.0074	269	6.25	13.877	6.25	13.841
NinevahRdBasin	BASE	002YR24HR	12.25	739.715	742.000	0.0082	263	12.25	13.697	12.25	13.670
NinevahRdBasin	BASE	010YR01Hr	0.81	739.926	742.000	-0.0130	282	0.80	17.110	0.81	17.105
NinevahRdBasin	BASE	010YR02Hr	1.29	740.117	742.000	0.0099	292	1.28	20.360	1.29	20.324
NinevahRdBasin	BASE	010YR03Hr	1.78	740.148	742.000	-0.0084	293	1.77	20.881	1.78	20.845
NinevahRdBasin	BASE	010YR06Hr	3.27	740.363	742.000	-0.0095	297	3.27	24.580	3.27	24.558
NinevahRdBasin	BASE	010YR12Hr	6.25	740.426	742.000	-0.0095	295	6.25	25.707	6.25	25.664
NinevahRdBasin	BASE	010YR24Hr	12.25	740.333	742.000	0.0094	293	12.25	24.099	12.25	24.036
NinevahRdBasin	BASE	100YR01hr	0.78	740.923	742.000	-0.0219	265	0.78	34.341	0.78	34.289
NinevahRdBasin	BASE	100YR02hr	1.28	741.264	742.000	0.0096	821	1.28	40.219	1.28	40.080
NinevahRdBasin	BASE	100YR03hr	1.78	741.339	742.000	-0.0083	977	1.77	41.484	1.78	41.291
NinevahRdBasin	BASE	100YR06hr	3.29	741.739	742.000	0.0055	1798	3.27	47.339	3.29	46.668
NinevahRdBasin	BASE	100YR12hr	6.26	741.662	742.000	-0.0091	1638	6.25	46.413	6.26	45.689
NinevahRdBasin	BASE	100YR24hr	12.26	741.298	742.000	0.0092	879	12.25	41.000	12.26	40.652
PR401	BASE	002YR01HR	0.96	740.920	746.340	0.0057	513	0.93	2.272	0.96	2.263
PR401	BASE	002YR02HR	1.40	741.017	746.340	0.0053	523	1.37	2.783	1.40	2.768
PR401	BASE	002YR03HR	1.89	741.045	746.340	0.0088	525	1.86	2.929	1.89	2.914
PR401	BASE	002YR06HR	3.34	741.206	746.340	0.0088	533	3.31	3.875	3.34	3.856
PR401	BASE	002YR12HR	6.29	741.357	746.340	0.0096	534	6.27	4.848	6.29	4.829
PR401	BASE	002YR24HR	12.30	741.424	746.340	0.0099	533	12.28	5.265	12.30	5.247
PR401	BASE	010YR01Hr	0.86	741.489	746.340	-0.0060	530	0.82	5.726	0.86	5.699
PR401	BASE	010YR02Hr	1.33	741.645	746.340	-0.0056	517	1.31	6.856	1.34	6.828
PR401	BASE	010YR03Hr	1.83	741.675	746.340	0.0092	513	1.81	7.077	1.83	7.060
PR401	BASE	010YR06Hr	3.30	741.878	746.340	0.0085	475	3.82	9.711	3.30	8.644
PR401	BASE	010YR12Hr	6.44	742.066	746.340	0.0081	236	6.74	11.163	6.44	10.119
PR401	BASE	010YR24Hr	12.38	742.249	746.340	0.0085	139	12.38	11.601	12.38	11.597
PR401	BASE	100YR01hr	1.00	742.422	746.340	-0.0082	139	1.00	13.219	1.00	13.177
PR401	BASE	100YR02hr	1.71	742.915	746.340	0.0087	135	1.70	17.761	1.71	17.496
PR401	BASE	100YR03hr	2.22	743.000	746.340	0.0082	135	2.21	18.281	2.22	17.978
PR401	BASE	100YR06hr	3.53	743.232	746.340	0.0059	135	3.48	19.419	3.49	19.410
PR401	BASE	100YR12hr	6.44	743.307	746.340	0.0059	135	6.42	19.836	6.43	19.824
PR401	BASE	100YR24hr	12.38	743.276	746.340	0.0061	135	12.61	19.690	12.37	19.629
PR403	BASE	002YR01HR	0.90	742.001	748.890	0.0093	754	0.87	1.877	1.04	2.136
PR403	BASE	002YR02HR	1.35	742.114	748.890	0.0093	762	1.32	2.301	1.36	2.288
PR403	BASE	002YR03HR	1.84	742.147	748.890	0.0093	763	1.80	2.439	1.86	2.413
PR403	BASE	002YR06HR	3.29	742.325	748.890	0.0093	758	3.24	3.196	3.30	3.157
PR403	BASE	002YR12HR	6.26	742.491	748.890	0.0093	734	6.21	3.923	6.28	3.907
PR403	BASE	002YR24HR	12.27	742.544	748.890	0.0093	723	12.26	4.162	12.89	4.658
PR403	BASE	010YR01Hr	0.81	742.632	748.890	0.0093	701	0.77	4.677	1.03	4.974
PR403	BASE	010YR02Hr	1.30	742.799	748.890	0.0093	638	1.26	5.537	2.00	6.386

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
PR403	BASE	010YR03Hr	1.80	742.831	748.890	0.0093	623	1.76	5.691	2.48	6.617
PR403	BASE	010YR06Hr	3.27	743.039	748.890	0.0093	463	3.83	6.966	3.82	9.041
PR403	BASE	010YR12Hr	6.43	743.292	748.890	0.0093	229	6.47	8.434	6.74	10.350
PR403	BASE	010YR24Hr	12.38	743.781	748.890	0.0093	165	12.38	9.865	12.65	10.634
PR403	BASE	100YR01hr	1.00	744.253	748.890	0.0093	164	1.00	10.977	1.00	11.266
PR403	BASE	100YR02hr	1.70	745.532	748.890	0.0093	164	1.72	15.738	1.70	16.083
PR403	BASE	100YR03hr	2.17	745.829	748.890	0.0093	164	2.23	16.262	2.21	16.663
PR403	BASE	100YR06hr	3.64	746.566	748.890	0.0093	162	3.79	17.394	3.78	17.867
PR403	BASE	100YR12hr	6.60	746.729	748.890	0.0093	162	6.76	17.677	6.74	18.151
PR403	BASE	100YR24hr	12.48	746.593	748.890	0.0093	163	12.62	17.493	12.61	17.909
PR403A	BASE	002YR01HR	0.84	747.665	752.000	0.0053	138	0.83	0.933	0.83	0.930
PR403A	BASE	002YR02HR	1.29	747.758	752.000	0.0055	137	1.28	1.204	1.28	1.201
PR403A	BASE	002YR03HR	1.78	747.784	752.000	-0.0083	137	1.77	1.282	1.78	1.279
PR403A	BASE	002YR06HR	3.23	747.949	752.000	0.0073	141	3.21	1.801	3.23	1.790
PR403A	BASE	002YR12HR	6.25	748.115	752.000	-0.0088	160	6.25	2.313	6.25	2.312
PR403A	BASE	002YR24HR	12.25	748.185	752.000	0.0077	175	12.25	2.553	12.25	2.532
PR403A	BASE	010YR01Hr	0.77	748.274	752.000	-0.0068	194	0.76	2.815	0.77	2.804
PR403A	BASE	010YR02Hr	1.28	748.536	752.000	0.0075	253	1.22	3.484	1.28	3.455
PR403A	BASE	010YR03Hr	1.78	748.601	752.000	0.0085	267	1.74	3.635	1.78	3.599
PR403A	BASE	010YR06Hr	3.27	749.100	752.000	-0.0081	426	3.21	4.737	3.27	4.549
PR403A	BASE	010YR12Hr	6.26	749.394	752.000	-0.0096	630	6.13	5.323	6.26	5.024
PR403A	BASE	010YR24Hr	12.26	749.208	752.000	-0.0085	501	12.25	4.858	12.26	4.729
PR403A	BASE	100YR01hr	0.88	750.170	752.000	-0.0096	1132	0.72	7.018	0.88	6.106
PR403A	BASE	100YR02hr	1.41	750.949	752.000	0.0098	1494	1.22	8.769	1.41	7.024
PR403A	BASE	100YR03hr	1.91	751.159	752.000	-0.0082	1632	1.71	9.191	1.91	7.253
PR403A	BASE	100YR06hr	3.41	751.936	752.000	-0.0079	2186	3.21	11.285	3.41	8.040
PR403A	BASE	100YR12hr	6.38	751.932	752.000	-0.0087	2183	6.12	11.286	6.38	8.036
PR403A	BASE	100YR24hr	12.32	751.303	752.000	-0.0085	1734	12.25	8.706	12.32	7.404
PR404	BASE	002YR01HR	1.00	742.160	760.220	-0.0097	307	0.72	0.997	0.65	0.981
PR404	BASE	002YR02HR	1.37	742.214	760.220	-0.0097	323	1.22	1.171	1.33	1.114
PR404	BASE	002YR03HR	1.85	742.237	760.220	-0.0097	324	1.71	1.213	1.80	1.162
PR404	BASE	002YR06HR	3.29	742.382	760.220	-0.0097	331	3.22	1.524	5.93	1.428
PR404	BASE	002YR12HR	6.26	742.532	760.220	-0.0097	333	7.77	2.030	7.78	2.030
PR404	BASE	002YR24HR	12.28	742.583	760.220	-0.0097	332	13.34	2.921	13.35	2.921
PR404	BASE	010YR01Hr	0.80	742.668	760.220	-0.0097	330	0.74	2.034	0.77	1.873
PR404	BASE	010YR02Hr	1.29	742.831	760.220	-0.0097	319	2.00	3.686	2.01	3.766
PR404	BASE	010YR03Hr	1.79	742.862	760.220	-0.0097	316	2.93	4.186	2.91	4.186
PR404	BASE	010YR06Hr	3.26	743.069	760.220	-0.0097	285	4.16	5.598	3.83	5.652
PR404	BASE	010YR12Hr	6.46	743.421	760.220	-0.0097	219	7.04	6.424	6.75	6.690
PR404	BASE	010YR24Hr	12.39	743.998	760.220	-0.0097	124	12.92	6.988	12.66	7.437
PR404	BASE	100YR01hr	1.00	744.422	760.220	-0.0097	124	1.00	5.374	1.06	6.777
PR404	BASE	100YR02hr	1.94	746.298	760.220	-0.0097	124	2.03	13.639	2.03	13.885
PR404	BASE	100YR03hr	2.27	746.558	760.220	0.0099	124	2.68	13.699	2.69	13.729
PR404	BASE	100YR06hr	3.78	747.273	760.220	0.0100	124	4.34	14.721	4.34	14.741
PR404	BASE	100YR12hr	6.74	747.461	760.220	0.0099	124	7.37	15.019	7.37	15.043
PR404	BASE	100YR24hr	12.61	747.356	760.220	0.0100	124	13.26	14.889	13.26	14.913
U/S 30" Pipe	BASE	002YR01HR	0.83	736.542	738.000	-0.0031	521	0.79	1.563	0.83	1.540
U/S 30" Pipe	BASE	002YR02HR	1.30	736.613	738.000	0.0027	539	1.28	1.975	1.30	1.945

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
U/S 30" Pipe	BASE	002YR03HR	1.79	736.628	738.000	-0.0032	543	1.77	2.068	1.79	2.041
U/S 30" Pipe	BASE	002YR06HR	3.27	736.734	738.000	0.0032	565	3.21	2.754	3.27	2.731
U/S 30" Pipe	BASE	002YR12HR	6.25	736.816	738.000	0.0042	579	6.25	3.298	6.25	3.289
U/S 30" Pipe	BASE	002YR24HR	12.25	736.802	738.000	0.0047	577	12.25	3.211	12.25	3.180
U/S 30" Pipe	BASE	010YR01Hr	0.79	736.940	738.000	-0.0038	606	0.78	4.326	0.79	4.274
U/S 30" Pipe	BASE	010YR02Hr	1.28	737.050	738.000	-0.0032	662	1.26	5.273	1.28	5.226
U/S 30" Pipe	BASE	010YR03Hr	1.77	737.069	738.000	0.0039	677	1.74	5.455	1.76	5.400
U/S 30" Pipe	BASE	010YR06Hr	3.24	737.196	738.000	0.0043	779	3.21	6.744	3.23	6.604
U/S 30" Pipe	BASE	010YR12Hr	6.18	737.229	738.000	-0.0039	805	6.13	7.070	6.18	6.936
U/S 30" Pipe	BASE	010YR24Hr	12.25	737.108	738.000	0.0038	709	12.25	5.784	12.25	5.762
U/S 30" Pipe	BASE	100YR01hr	0.79	737.517	738.000	-0.0042	1015	0.78	10.096	0.79	9.989
U/S 30" Pipe	BASE	100YR02hr	1.27	737.717	738.000	0.0042	1147	1.24	12.449	1.27	12.268
U/S 30" Pipe	BASE	100YR03hr	1.76	737.763	738.000	0.0047	1175	1.71	13.038	1.76	12.796
U/S 30" Pipe	BASE	100YR06hr	3.24	737.933	738.000	0.0036	1274	3.21	15.204	3.23	14.727
U/S 30" Pipe	BASE	100YR12hr	6.18	737.858	738.000	-0.0039	1232	6.12	14.413	6.18	13.923
U/S 30" Pipe	BASE	100YR24hr	12.12	737.519	738.000	-0.0034	1016	12.00	10.040	12.10	10.006
YI-Ex-03	BASE	002YR01HR	0.78	734.956	737.840	0.0078	709	0.75	10.461	0.78	10.308
YI-Ex-03	BASE	002YR02HR	1.26	735.161	737.840	0.0086	702	1.23	12.479	1.25	12.310
YI-Ex-03	BASE	002YR03HR	1.75	735.205	737.840	0.0087	699	1.72	12.911	1.74	12.745
YI-Ex-03	BASE	002YR06HR	3.21	735.473	737.840	0.0094	669	3.19	15.585	3.21	15.413
YI-Ex-03	BASE	002YR12HR	6.17	735.660	737.840	0.0097	636	6.15	17.555	6.17	17.288
YI-Ex-03	BASE	002YR24HR	12.08	735.644	737.840	0.0089	640	12.05	17.060	12.07	16.889
YI-Ex-03	BASE	010YR01Hr	0.73	736.182	737.840	0.0090	453	0.71	23.104	0.72	22.904
YI-Ex-03	BASE	010YR02Hr	1.19	736.447	737.840	0.0096	320	1.15	25.747	1.20	25.152
YI-Ex-03	BASE	010YR03Hr	1.68	736.478	737.840	0.0099	312	1.63	26.004	1.69	25.372
YI-Ex-03	BASE	010YR06Hr	3.13	736.668	737.840	0.0093	249	3.09	27.604	3.16	26.512
YI-Ex-03	BASE	010YR12Hr	6.13	736.661	737.840	0.0094	253	6.12	26.736	6.14	26.678
YI-Ex-03	BASE	010YR24Hr	12.03	736.614	737.840	0.0089	272	12.00	26.368	12.09	26.406
YI-Ex-03	BASE	100YR01hr	0.64	737.201	737.840	0.0096	143	0.59	32.475	0.71	29.047
YI-Ex-03	BASE	100YR02hr	1.14	737.496	737.840	0.0097	143	1.07	33.222	1.20	30.427
YI-Ex-03	BASE	100YR03hr	1.63	737.553	737.840	0.0093	143	1.56	32.818	1.67	30.769
YI-Ex-03	BASE	100YR06hr	3.13	737.772	737.840	0.0369	143	3.16	32.865	3.16	32.830
YI-Ex-03	BASE	100YR12hr	6.13	737.559	737.840	0.0237	143	6.12	31.585	6.19	31.840
YI-Ex-03	BASE	100YR24hr	12.70	737.570	737.840	-0.0181	143	12.03	31.264	12.03	31.352
YI-Ex316	BASE	002YR01HR	0.77	735.465	737.550	0.0099	621	0.72	8.431	0.75	8.153
YI-Ex316	BASE	002YR02HR	1.25	735.711	737.550	0.0100	536	1.21	9.822	1.24	9.619
YI-Ex316	BASE	002YR03HR	1.74	735.761	737.550	0.0098	512	1.70	10.102	1.73	9.856
YI-Ex316	BASE	002YR06HR	3.21	736.136	737.550	0.0098	201	3.20	11.647	3.21	11.607
YI-Ex316	BASE	002YR12HR	6.16	736.417	737.550	0.0099	142	6.15	12.715	6.16	12.636
YI-Ex316	BASE	002YR24HR	12.07	736.293	737.550	0.0099	179	12.06	10.947	12.08	10.966
YI-Ex316	BASE	010YR01Hr	0.72	737.410	737.550	0.0099	142	0.71	16.762	0.73	16.735
YI-Ex316	BASE	010YR02Hr	1.24	737.829	737.550	-0.0108	6102	1.18	20.254	1.30	18.971
YI-Ex316	BASE	010YR03Hr	1.74	737.859	737.550	-0.0125	6757	1.68	20.495	1.79	19.075
YI-Ex316	BASE	010YR06Hr	3.24	738.063	737.550	-0.0217	11196	3.15	22.667	3.32	20.044
YI-Ex316	BASE	010YR12Hr	6.21	738.067	737.550	-0.0224	11286	6.12	23.026	6.29	20.015
YI-Ex316	BASE	010YR24Hr	12.10	737.887	737.550	0.0100	7373	12.01	18.620	12.20	18.332
YI-Ex316	BASE	100YR01hr	0.90	738.540	737.550	-0.0524	21581	0.74	28.254	1.03	24.122
YI-Ex316	BASE	100YR02hr	1.41	738.719	737.550	-0.0260	25499	1.22	30.064	1.50	23.147
YI-Ex316	BASE	100YR03hr	1.90	738.751	737.550	-0.0246	26192	1.71	30.233	1.97	23.210

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Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
YI-Ex316	BASE	100YR06hr	3.40	738.872	737.550	-0.0132	28822	3.21	31.285	3.40	22.532
YI-Ex316	BASE	100YR12hr	6.37	738.825	737.550	0.0098	27794	6.12	29.794	6.37	21.200
YI-Ex316	BASE	100YR24hr	12.35	738.657	737.550	0.0076	24133	12.00	24.816	12.25	19.193
YI-Ex317	BASE	002YR01HR	0.76	735.550	738.380	0.0078	659	0.66	6.346	0.68	5.332
YI-Ex317	BASE	002YR02HR	1.24	735.800	738.380	0.0078	587	1.14	7.242	1.17	6.056
YI-Ex317	BASE	002YR03HR	1.73	735.851	738.380	0.0078	566	1.63	7.237	1.67	6.131
YI-Ex317	BASE	002YR06HR	3.20	736.248	738.380	0.0087	342	3.13	7.724	3.16	6.890
YI-Ex317	BASE	002YR12HR	6.16	736.564	738.380	0.0090	143	6.13	7.985	6.15	7.337
YI-Ex317	BASE	002YR24HR	12.07	736.405	738.380	0.0088	259	12.01	7.090	12.06	6.503
YI-Ex317	BASE	010YR01Hr	0.72	737.663	738.380	0.0095	143	0.67	10.837	0.68	10.041
YI-Ex317	BASE	010YR02Hr	1.19	738.185	738.380	0.0100	143	1.17	12.805	1.17	12.496
YI-Ex317	BASE	010YR03Hr	1.68	738.220	738.380	0.0100	143	1.65	12.983	1.66	12.676
YI-Ex317	BASE	010YR06Hr	3.17	738.470	738.380	0.0100	1998	3.14	14.354	3.12	13.848
YI-Ex317	BASE	010YR12Hr	6.15	738.458	738.380	0.0099	1740	6.13	14.126	6.12	13.182
YI-Ex317	BASE	010YR24Hr	12.05	738.157	738.380	0.0099	143	12.00	11.499	12.01	11.173
YI-Ex317	BASE	100YR01hr	0.83	738.989	738.380	0.0194	13295	0.69	20.746	0.60	14.991
YI-Ex317	BASE	100YR02hr	1.36	739.150	738.380	0.0190	16810	1.20	22.659	1.08	14.649
YI-Ex317	BASE	100YR03hr	1.85	739.173	738.380	0.0162	17305	1.68	22.788	1.56	14.530
YI-Ex317	BASE	100YR06hr	3.35	739.268	738.380	0.0131	19374	3.15	23.871	4.25	16.234
YI-Ex317	BASE	100YR12hr	6.32	739.203	738.380	-0.0100	17951	6.12	22.330	7.31	16.366
YI-Ex317	BASE	100YR24hr	12.22	738.980	738.380	0.0080	13106	12.00	18.357	11.91	13.364

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Back to Back 100yr Storm Data

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CI-Ex-01	BASE	100YR24hr	12.80	737.426	738.950	0.0357	133	12.01	40.231	12.02	40.383
CI-EX-02	BASE	100YR24hr	12.77	737.479	739.810	-0.0357	132	12.00	36.739	12.02	36.811
CI-Ex-04	BASE	100YR24hr	12.59	737.805	739.370	0.0181	129	12.08	24.834	12.08	24.878
CI-Ex-05	BASE	100YR24hr	12.45	738.145	739.300	0.0108	123	12.20	20.857	12.21	20.882
CI-Ex318	BASE	100YR24hr	12.10	739.102	738.900	0.0358	4415	13.44	17.051	13.44	16.616
CI-Ex319	BASE	100YR24hr	12.10	739.103	739.000	-0.0348	2247	16.24	3.197	13.44	16.616
DS Ex CB	BASE	100YR24hr	12.00	733.910	738.910	0.0007	8	12.92	25.299	0.00	0.000
EastFarmField	BASE	100YR24hr	12.00	738.800	743.000	0.0005	101	12.26	41.983	0.00	0.000
Ex Pond A	BASE	100YR24hr	14.65	737.235	738.000	0.0026	77042	12.00	47.127	16.60	3.037
Ex Pond B	BASE	100YR24hr	12.90	737.359	737.000	0.0053	57098	12.25	85.656	12.92	25.299
Lake 1	BASE	100YR24hr	12.76	748.219	747.850	0.0054	44971	12.25	61.634	0.01	31.946
NinevahRdBasin	BASE	100YR24hr	12.26	741.387	742.000	0.0109	1065	12.25	42.323	12.26	41.983
PR401	BASE	100YR24hr	12.59	743.431	746.340	0.0217	135	12.58	20.660	12.33	20.436
PR403	BASE	100YR24hr	12.48	747.037	748.890	0.0283	163	0.02	23.293	12.58	18.773
PR403A	BASE	100YR24hr	12.32	751.303	752.000	-0.0085	1734	12.25	8.706	12.32	7.404
PR404	BASE	100YR24hr	12.67	747.962	760.220	0.0650	124	0.01	31.946	0.02	23.293
U/S 30" Pipe	BASE	100YR24hr	12.11	737.519	738.000	0.0041	1016	12.00	10.040	12.11	10.008
YI-Ex-03	BASE	100YR24hr	12.71	737.570	737.840	0.0320	143	12.04	31.262	12.03	31.361
YI-Ex316	BASE	100YR24hr	12.35	738.657	737.550	0.0099	24135	12.00	24.814	12.25	19.194
YI-Ex317	BASE	100YR24hr	12.22	738.980	738.380	0.0088	13107	12.00	18.357	13.44	16.616

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3	
002YR01Hr	408-409	Direct	BASE	0.68	0.927	0.637	1179.310
002YR02Hr	408-409	Direct	BASE	1.18	1.050	0.822	1521.777
002YR03Hr	408-409	Direct	BASE	1.67	1.056	0.905	1675.304
002YR06Hr	408-409	Direct	BASE	3.15	1.177	1.198	2218.090
002YR12hr	408-409	Direct	BASE	6.12	1.226	1.546	2861.779
002YR24hr	408-409	Direct	BASE	12.08	1.116	1.958	3624.293
010YR01hr	408-409	Direct	BASE	0.68	1.725	1.161	2148.967
010YR02hr	408-409	Direct	BASE	1.18	1.913	1.478	2737.103
010YR03hr	408-409	Direct	BASE	1.67	1.898	1.613	2986.975
010YR06hr	408-409	Direct	BASE	3.15	2.041	2.085	3859.513
010YR12hr	408-409	Direct	BASE	6.12	2.000	2.555	4730.111
010YR24hr	408-409	Direct	BASE	12.08	1.702	3.050	5646.704
100YR01hr	408-409	Direct	BASE	0.68	3.069	2.053	3800.670
100YR02hr	408-409	Direct	BASE	1.18	3.420	2.652	4909.519
100YR03hr	408-409	Direct	BASE	1.67	3.415	2.927	5418.295
100YR06hr	408-409	Direct	BASE	3.15	3.604	3.747	6937.165
100YR12hr	408-409	Direct	BASE	6.12	3.308	4.322	8000.544
100YR24hr	408-409	Direct	BASE	12.08	2.588	4.761	8814.651
002YR01Hr	BAS L1	BASE	0.85	17.300	0.501	32004.743	
002YR02Hr	BAS L1	BASE	1.34	19.849	0.666	42573.927	
002YR03Hr	BAS L1	BASE	1.77	20.280	0.748	47823.894	
002YR06Hr	BAS L1	BASE	3.29	23.846	1.017	65001.589	
002YR12hr	BAS L1	BASE	6.21	26.521	1.344	85908.690	
002YR24hr	BAS L1	BASE	12.18	27.247	1.7351	10904.305	
010YR01hr	BAS L1	BASE	0.79	34.232	0.976	62372.212	
010YR02hr	BAS L1	BASE	1.28	39.140	1.272	81289.969	
010YR03hr	BAS L1	BASE	1.77	39.543	1.410	90143.466	
010YR06hr	BAS L1	BASE	3.29	43.938	1.8561	18671.092	
010YR12hr	BAS L1	BASE	6.21	45.775	2.3111	147704.896	
010YR24hr	BAS L1	BASE	12.18	43.340	2.7901	178348.472	
100YR01hr	BAS L1	BASE	0.79	64.670	1.8151	16051.932	
100YR02hr	BAS L1	BASE	1.28	74.522	2.3901	52781.156	
100YR03hr	BAS L1	BASE	1.77	75.819	2.6751	70993.239	
100YR06hr	BAS L1	BASE	3.23	82.137	3.4702	21835.697	
100YR12hr	BAS L1	BASE	6.21	79.066	4.0362	57979.558	
100YR24hr	BAS L1	BASE	12.18	68.056	4.4672	85530.755	
002YR01Hr	CapricornCtDA	BASE	0.78	5.551	0.420	10175.315	
002YR02Hr	CapricornCtDA	BASE	1.28	6.637	0.573	13863.463	
002YR03Hr	CapricornCtDA	BASE	1.78	6.886	0.642	15555.932	
002YR06Hr	CapricornCtDA	BASE	3.22	8.397	0.893	21633.128	
002YR12hr	CapricornCtDA	BASE	6.22	9.513	1.201	29082.461	
002YR24hr	CapricornCtDA	BASE	12.17	9.863	1.575	38134.697	
010YR01hr	CapricornCtDA	BASE	0.78	11.844	0.863	20895.388	
010YR02hr	CapricornCtDA	BASE	1.28	13.856	1.145	27714.505	
010YR03hr	CapricornCtDA	BASE	1.78	14.110	1.266	30660.360	
010YR06hr	CapricornCtDA	BASE	3.22	16.438	1.695	41028.249	
010YR12hr	CapricornCtDA	BASE	6.17	17.014	2.131	51594.422	
010YR24hr	CapricornCtDA	BASE	12.17	16.133	2.597	62884.673	
100YR01hr	CapricornCtDA	BASE	0.78	23.404	1.669	40405.515	
100YR02hr	CapricornCtDA	BASE	1.28	27.450	2.229	53960.270	
100YR03hr	CapricornCtDA	BASE	1.72	28.251	2.489	60256.634	
100YR06hr	CapricornCtDA	BASE	3.22	31.867	3.267	79104.070	
100YR12hr	CapricornCtDA	BASE	6.17	30.411	3.818	92441.498	
100YR24hr	CapricornCtDA	BASE	12.17	25.875	4.2421	102717.393	
002YR01Hr	DirectE	BASE	0.96	0.396	0.154	849.853	
002YR02Hr	DirectE	BASE	1.36	0.496	0.251	1385.876	
002YR03Hr	DirectE	BASE	1.84	0.518	0.294	1619.562	
002YR06Hr	DirectE	BASE	3.34	0.736	0.467	2575.149	
002YR12hr	DirectE	BASE	6.28	0.977	0.693	3824.344	
002YR24hr	DirectE	BASE	12.21	1.184	0.984	5427.853	
010YR01hr	DirectE	BASE	0.89	1.170	0.435	2399.927	
010YR02hr	DirectE	BASE	1.36	1.430	0.649	3581.235	
010YR03hr	DirectE	BASE	1.84	1.479	0.736	4059.028	
010YR06hr	DirectE	BASE	3.34	1.901	1.076	5934.351	
010YR12hr	DirectE	BASE	6.28	2.200	1.436	7921.875	
010YR24hr	DirectE	BASE	12.21	2.296	1.833	10111.652	
100YR01hr	DirectE	BASE	0.89	2.861	1.035	5710.871	
100YR02hr	DirectE	BASE	1.36	3.536	1.514	8355.235	
100YR03hr	DirectE	BASE	1.84	3.716	1.725	9516.279	
100YR06hr	DirectE	BASE	3.27	4.521	2.411	13301.771	

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
100YR12hr	DirectE	BASE	6.28	4.587	2.908	16043.243
100YR24hr	DirectE	BASE	12.21	4.169	3.295	18181.284
002YR01Hr	DirectN1	BASE	0.78	1.567	0.199	2697.262
002YR02Hr	DirectN1	BASE	1.27	1.988	0.303	4099.369
002YR03Hr	DirectN1	BASE	1.76	2.088	0.356	4821.198
002YR06Hr	DirectN1	BASE	3.23	2.822	0.544	7361.857
002YR12hr	DirectN1	BASE	6.21	3.547	0.788	10665.817
002YR24hr	DirectN1	BASE	12.12	4.018	1.096	14841.646
010YR01hr	DirectN1	BASE	0.78	4.332	0.515	6979.332
010YR02hr	DirectN1	BASE	1.27	5.295	0.735	9946.515
010YR03hr	DirectN1	BASE	1.76	5.488	0.839	11362.874
010YR06hr	DirectN1	BASE	3.23	6.815	1.195	16183.592
010YR12hr	DirectN1	BASE	6.16	7.550	1.573	21298.634
010YR24hr	DirectN1	BASE	12.12	7.433	1.985	26877.036
100YR01hr	DirectN1	BASE	0.78	10.098	1.164	15765.213
100YR02hr	DirectN1	BASE	1.22	12.488	1.644	22263.978
100YR03hr	DirectN1	BASE	1.71	13.068	1.886	25532.917
100YR06hr	DirectN1	BASE	3.23	15.234	2.587	35029.363
100YR12hr	DirectN1	BASE	6.16	15.183	3.097	41935.322
100YR24hr	DirectN1	BASE	12.12	13.059	3.492	47278.916
002YR01Hr	Ex Pond DA	BASE	0.76	9.540	0.283	14723.856
002YR02Hr	Ex Pond DA	BASE	1.24	11.690	0.413	21445.403
002YR03Hr	Ex Pond DA	BASE	1.73	12.170	0.470	24425.655
002YR06Hr	Ex Pond DA	BASE	3.20	15.641	0.688	35743.855
002YR12hr	Ex Pond DA	BASE	6.13	18.504	0.960	49911.714
002YR24hr	Ex Pond DA	BASE	12.09	19.568	1.299	67524.446
010YR01hr	Ex Pond DA	BASE	0.76	23.091	0.654	33989.526
010YR02hr	Ex Pond DA	BASE	1.24	27.564	0.910	47284.364
010YR03hr	Ex Pond DA	BASE	1.73	28.264	1.016	52811.166
010YR06hr	Ex Pond DA	BASE	3.20	33.809	1.409	73223.941
010YR12hr	Ex Pond DA	BASE	6.13	36.217	1.813	94256.100
010YR24hr	Ex Pond DA	BASE	12.09	34.196	2.251	117027.630
100YR01hr	Ex Pond DA	BASE	0.71	49.953	1.372	71334.490
100YR02hr	Ex Pond DA	BASE	1.20	60.408	1.905	99005.407
100YR03hr	Ex Pond DA	BASE	1.69	62.361	2.144	111446.268
100YR06hr	Ex Pond DA	BASE	3.20	70.267	2.888	150127.371
100YR12hr	Ex Pond DA	BASE	6.13	68.714	3.417	177596.253
100YR24hr	Ex Pond DA	BASE	12.09	57.640	3.826	198877.445
002YR01Hr	Ex-01 Basin	BASE	0.60	0.843	0.286	707.035
002YR02Hr	Ex-01 Basin	BASE	1.08	1.081	0.412	1016.309
002YR03Hr	Ex-01 Basin	BASE	1.58	1.134	0.471	1161.387
002YR06Hr	Ex-01 Basin	BASE	3.06	1.432	0.687	1696.327
002YR12hr	Ex-01 Basin	BASE	6.04	1.509	0.960	2370.109
002YR24hr	Ex-01 Basin	BASE	12.02	1.283	1.299	3206.468
010YR01hr	Ex-01 Basin	BASE	0.59	2.190	0.660	1628.772
010YR02hr	Ex-01 Basin	BASE	1.08	2.634	0.908	2241.602
010YR03hr	Ex-01 Basin	BASE	1.56	2.670	1.017	2510.518
010YR06hr	Ex-01 Basin	BASE	3.06	3.070	1.408	3475.359
010YR12hr	Ex-01 Basin	BASE	6.03	2.867	1.813	4475.848
010YR24hr	Ex-01 Basin	BASE	12.02	2.184	2.251	5557.178
100YR01hr	Ex-01 Basin	BASE	0.59	4.863	1.383	3413.555
100YR02hr	Ex-01 Basin	BASE	1.08	5.714	1.902	4694.696
100YR03hr	Ex-01 Basin	BASE	1.56	5.868	2.146	5297.041
100YR06hr	Ex-01 Basin	BASE	3.06	6.332	2.887	7125.848
100YR12hr	Ex-01 Basin	BASE	6.03	5.364	3.417	8433.342
100YR24hr	Ex-01 Basin	BASE	12.02	3.606	3.826	9443.901
002YR01Hr	Ex-02 Basin	BASE	0.66	1.148	0.284	1309.893
002YR02Hr	Ex-02 Basin	BASE	1.16	1.420	0.412	1899.062
002YR03Hr	Ex-02 Basin	BASE	1.65	1.477	0.470	2165.537
002YR06Hr	Ex-02 Basin	BASE	3.12	1.905	0.687	3165.791
002YR12hr	Ex-02 Basin	BASE	6.10	2.170	0.960	4425.008
002YR24hr	Ex-02 Basin	BASE	12.05	2.096	1.299	5986.628
010YR01hr	Ex-02 Basin	BASE	0.66	2.835	0.656	3022.087
010YR02hr	Ex-02 Basin	BASE	1.13	3.403	0.908	4188.269
010YR03hr	Ex-02 Basin	BASE	1.62	3.496	1.016	4682.400
010YR06hr	Ex-02 Basin	BASE	3.12	4.092	1.407	6486.648
010YR12hr	Ex-02 Basin	BASE	6.07	4.169	1.813	8356.805
010YR24hr	Ex-02 Basin	BASE	12.05	3.616	2.251	10375.879
100YR01hr	Ex-02 Basin	BASE	0.64	6.242	1.375	6340.036

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
100YR02hr	Ex-02 Basin	BASE	1.13	7.486	1.903	8771.153
100YR03hr	Ex-02 Basin	BASE	1.62	7.699	2.143	9881.565
100YR06hr	Ex-02 Basin	BASE	3.09	8.551	2.885	13301.321
100YR12hr	Ex-02 Basin	BASE	6.07	7.872	3.416	15746.353
100YR24hr	Ex-02 Basin	BASE	12.05	6.035	3.825	17633.320
002YR01Hr	Ex-03 Basin	BASE	0.71	1.368	0.286	1881.960
002YR02Hr	Ex-03 Basin	BASE	1.17	1.712	0.412	2705.175
002YR03Hr	Ex-03 Basin	BASE	1.67	1.805	0.471	3091.339
002YR06Hr	Ex-03 Basin	BASE	3.16	2.308	0.686	4509.866
002YR12hr	Ex-03 Basin	BASE	6.12	2.736	0.960	6305.208
002YR24hr	Ex-03 Basin	BASE	12.09	2.731	1.299	8534.864
010YR01hr	Ex-03 Basin	BASE	0.68	3.396	0.660	4335.409
010YR02hr	Ex-03 Basin	BASE	1.17	4.135	0.908	5966.616
010YR03hr	Ex-03 Basin	BASE	1.67	4.246	1.017	6682.408
010YR06hr	Ex-03 Basin	BASE	3.13	5.031	1.407	9241.247
010YR12hr	Ex-03 Basin	BASE	6.12	5.289	1.812	11907.955
010YR24hr	Ex-03 Basin	BASE	12.05	4.738	2.251	14791.900
100YR01hr	Ex-03 Basin	BASE	0.68	7.466	1.383	9086.080
100YR02hr	Ex-03 Basin	BASE	1.17	9.014	1.902	12496.175
100YR03hr	Ex-03 Basin	BASE	1.67	9.247	2.146	14099.475
100YR06hr	Ex-03 Basin	BASE	3.13	10.550	2.884	18950.803
100YR12hr	Ex-03 Basin	BASE	6.12	9.942	3.415	22438.102
100YR24hr	Ex-03 Basin	BASE	12.05	7.968	3.826	25137.442
002YR01Hr	Ex-04 Basin	BASE	0.60	1.649	0.286	1382.877
002YR02Hr	Ex-04 Basin	BASE	1.08	2.114	0.412	1987.780
002YR03Hr	Ex-04 Basin	BASE	1.58	2.218	0.471	2271.536
002YR06Hr	Ex-04 Basin	BASE	3.06	2.802	0.687	3317.817
002YR12hr	Ex-04 Basin	BASE	6.04	2.952	0.960	4635.655
002YR24hr	Ex-04 Basin	BASE	12.02	2.510	1.299	6271.474
010YR01hr	Ex-04 Basin	BASE	0.59	4.283	0.660	3185.687
010YR02hr	Ex-04 Basin	BASE	1.08	5.151	0.908	4384.309
010YR03hr	Ex-04 Basin	BASE	1.56	5.222	1.017	4910.277
010YR06hr	Ex-04 Basin	BASE	3.06	6.004	1.408	6797.394
010YR12hr	Ex-04 Basin	BASE	6.03	5.608	1.813	8754.233
010YR24hr	Ex-04 Basin	BASE	12.02	4.271	2.251	10869.186
100YR01hr	Ex-04 Basin	BASE	0.59	9.511	1.383	6676.512
100YR02hr	Ex-04 Basin	BASE	1.08	11.176	1.902	9182.273
100YR03hr	Ex-04 Basin	BASE	1.56	11.477	2.146	10360.388
100YR06hr	Ex-04 Basin	BASE	3.06	12.384	2.887	13937.321
100YR12hr	Ex-04 Basin	BASE	6.03	10.491	3.417	16494.624
100YR24hr	Ex-04 Basin	BASE	12.02	7.053	3.826	18471.159
002YR01Hr	Ex-05 Basin	BASE	0.60	1.711	0.286	1434.864
002YR02Hr	Ex-05 Basin	BASE	1.08	2.194	0.412	2062.509
002YR03Hr	Ex-05 Basin	BASE	1.58	2.301	0.471	2356.932
002YR06Hr	Ex-05 Basin	BASE	3.06	2.907	0.687	3442.546
002YR12hr	Ex-05 Basin	BASE	6.04	3.063	0.960	4809.928
002YR24hr	Ex-05 Basin	BASE	12.02	2.604	1.299	6507.244
010YR01hr	Ex-05 Basin	BASE	0.59	4.444	0.660	3305.450
010YR02hr	Ex-05 Basin	BASE	1.08	5.345	0.908	4549.133
010YR03hr	Ex-05 Basin	BASE	1.56	5.419	1.017	5094.874
010YR06hr	Ex-05 Basin	BASE	3.06	6.229	1.408	7052.935
010YR12hr	Ex-05 Basin	BASE	6.03	5.819	1.813	9083.339
010YR24hr	Ex-05 Basin	BASE	12.02	4.431	2.251	11277.802
100YR01hr	Ex-05 Basin	BASE	0.59	9.868	1.383	6927.509
100YR02hr	Ex-05 Basin	BASE	1.08	11.597	1.902	9527.471
100YR03hr	Ex-05 Basin	BASE	1.56	11.908	2.146	10749.876
100YR06hr	Ex-05 Basin	BASE	3.06	12.850	2.887	14461.280
100YR12hr	Ex-05 Basin	BASE	6.03	10.886	3.417	17114.723
100YR24hr	Ex-05 Basin	BASE	12.02	7.318	3.826	19165.564
002YR01Hr	EX318	BASE	0.64	2.909	0.545	2850.640
002YR02Hr	EX318	BASE	1.12	3.351	0.721	3771.146
002YR03Hr	EX318	BASE	1.63	3.357	0.799	4174.003
002YR06Hr	EX318	BASE	3.09	3.814	1.076	5626.891
002YR12hr	EX318	BASE	6.08	3.882	1.409	7366.136
002YR24hr	EX318	BASE	12.03	3.339	1.807	9446.892
010YR01hr	EX318	BASE	0.64	5.693	1.038	5427.351
010YR02hr	EX318	BASE	1.12	6.425	1.349	7048.906
010YR03hr	EX318	BASE	1.60	6.329	1.477	7720.742
010YR06hr	EX318	BASE	3.09	6.883	1.933	10106.465

The Bluffs at Youngs Creek
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Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
010YR12hr	EX318	BASE	6.05	6.506	2.391	12498.046
010YR24hr	EX318	BASE	12.03	5.207	2.876	15031.207
100YR01hr	EX318	BASE	0.61	10.600	1.898	9923.349
100YR02hr	EX318	BASE	1.12	11.916	2.493	13030.517
100YR03hr	EX318	BASE	1.60	11.872	2.760	14426.104
100YR06hr	EX318	BASE	3.09	12.528	3.566	18642.448
100YR12hr	EX318	BASE	6.05	11.032	4.131	21594.545
100YR24hr	EX318	BASE	12.03	8.052	4.565	23861.015
002YR01Hr	EX319	BASE	0.64	2.424	0.545	2375.533
002YR02Hr	EX319	BASE	1.12	2.792	0.721	3142.622
002YR03Hr	EX319	BASE	1.63	2.797	0.799	3478.336
002YR06Hr	EX319	BASE	3.09	3.179	1.076	4689.076
002YR12hr	EX319	BASE	6.08	3.235	1.409	6138.447
002YR24hr	EX319	BASE	12.03	2.783	1.807	7872.410
010YR01hr	EX319	BASE	0.64	4.744	1.038	4522.792
010YR02hr	EX319	BASE	1.12	5.354	1.349	5874.089
010YR03hr	EX319	BASE	1.60	5.274	1.477	6433.952
010YR06hr	EX319	BASE	3.09	5.736	1.933	8422.054
010YR12hr	EX319	BASE	6.05	5.421	2.391	10415.039
010YR24hr	EX319	BASE	12.03	4.339	2.876	12526.006
100YR01hr	EX319	BASE	0.61	8.834	1.898	8269.458
100YR02hr	EX319	BASE	1.12	9.930	2.493	10858.764
100YR03hr	EX319	BASE	1.60	9.893	2.760	12021.753
100YR06hr	EX319	BASE	3.09	10.440	3.566	15535.373
100YR12hr	EX319	BASE	6.05	9.194	4.131	17995.454
100YR24hr	EX319	BASE	12.03	6.710	4.565	19884.179
002YR01Hr	Pond B Basin	BASE	0.96	7.251	0.280	16698.976
002YR02Hr	Pond B Basin	BASE	1.44	8.662	0.413	24635.256
002YR03Hr	Pond B Basin	BASE	1.92	8.960	0.468	27970.782
002YR06Hr	Pond B Basin	BASE	3.36	11.488	0.688	41060.504
002YR12hr	Pond B Basin	BASE	6.32	14.031	0.960	57335.733
002YR24hr	Pond B Basin	BASE	12.24	15.878	1.299	77568.236
010YR01hr	Pond B Basin	BASE	0.96	17.094	0.647	38641.284
010YR02hr	Pond B Basin	BASE	1.44	20.107	0.910	54317.583
010YR03hr	Pond B Basin	BASE	1.92	20.639	1.013	60507.516
010YR06hr	Pond B Basin	BASE	3.36	25.052	1.409	84115.491
010YR12hr	Pond B Basin	BASE	6.32	27.492	1.813	108276.037
010YR24hr	Pond B Basin	BASE	12.24	27.975	2.251	134434.673
100YR01hr	Pond B Basin	BASE	0.96	36.185	1.360	81227.519
100YR02hr	Pond B Basin	BASE	1.36	43.208	1.905	113731.770
100YR03hr	Pond B Basin	BASE	1.84	44.833	2.139	127737.307
100YR06hr	Pond B Basin	BASE	3.36	52.557	2.888	172457.770
100YR12hr	Pond B Basin	BASE	6.32	52.244	3.417	204012.455
100YR24hr	Pond B Basin	BASE	12.24	47.463	3.826	228459.076
002YR01Hr	Pr-YI-Ex316	BASE	0.78	3.511	0.416	5581.075
002YR02Hr	Pr-YI-Ex316	BASE	1.27	4.123	0.567	7610.023
002YR03Hr	Pr-YI-Ex316	BASE	1.76	4.239	0.641	8609.823
002YR06Hr	Pr-YI-Ex316	BASE	3.23	5.112	0.892	11975.321
002YR12hr	Pr-YI-Ex316	BASE	6.16	5.779	1.200	16122.820
002YR24hr	Pr-YI-Ex316	BASE	12.12	5.856	1.574	21141.936
010YR01hr	Pr-YI-Ex316	BASE	0.73	7.399	0.855	11480.715
010YR02hr	Pr-YI-Ex316	BASE	1.22	8.612	1.134	15236.082
010YR03hr	Pr-YI-Ex316	BASE	1.71	8.739	1.264	16975.040
010YR06hr	Pr-YI-Ex316	BASE	3.23	9.890	1.691	22717.770
010YR12hr	Pr-YI-Ex316	BASE	6.16	10.364	2.130	28604.996
010YR24hr	Pr-YI-Ex316	BASE	12.12	9.585	2.596	34865.242
100YR01hr	Pr-YI-Ex316	BASE	0.73	14.692	1.655	22228.095
100YR02hr	Pr-YI-Ex316	BASE	1.22	17.167	2.211	29698.644
100YR03hr	Pr-YI-Ex316	BASE	1.71	17.521	2.484	33369.131
100YR06hr	Pr-YI-Ex316	BASE	3.18	19.192	3.262	43810.115
100YR12hr	Pr-YI-Ex316	BASE	6.16	18.430	3.816	51254.252
100YR24hr	Pr-YI-Ex316	BASE	12.12	15.379	4.240	56952.211
002YR01Hr	Pr-YI-Ex317	BASE	0.76	3.060	0.431	4521.055
002YR02Hr	Pr-YI-Ex317	BASE	1.24	3.591	0.591	6198.497
002YR03Hr	Pr-YI-Ex317	BASE	1.73	3.683	0.660	6924.317
002YR06Hr	Pr-YI-Ex317	BASE	3.20	4.419	0.916	9613.138
002YR12hr	Pr-YI-Ex317	BASE	6.13	4.938	1.227	12876.785
002YR24hr	Pr-YI-Ex317	BASE	12.09	4.919	1.605	16834.144
010YR01hr	Pr-YI-Ex317	BASE	0.71	6.408	0.877	9202.106

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Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
010YR02hr	Pr-YI-Ex317	BASE	1.20	7.438	1.170	12278.024
010YR03hr	Pr-YI-Ex317	BASE	1.69	7.520	1.290	13534.687
010YR06hr	Pr-YI-Ex317	BASE	3.20	8.466	1.725	18097.649
010YR12hr	Pr-YI-Ex317	BASE	6.13	8.790	2.164	22706.961
010YR24hr	Pr-YI-Ex317	BASE	12.09	8.016	2.633	27626.092
100YR01hr	Pr-YI-Ex317	BASE	0.71	12.623	1.685	17679.568
100YR02hr	Pr-YI-Ex317	BASE	1.20	14.691	2.263	23738.205
100YR03hr	Pr-YI-Ex317	BASE	1.69	14.940	2.519	26425.980
100YR06hr	Pr-YI-Ex317	BASE	3.16	16.234	3.306	34685.181
100YR12hr	Pr-YI-Ex317	BASE	6.13	15.539	3.859	40485.103
100YR24hr	Pr-YI-Ex317	BASE	12.09	12.817	4.285	44951.440
002YR01HrSouthFarmFieldF		BASE	0.89	0.654	0.141	1378.589
002YR02HrSouthFarmFieldF		BASE	1.34	0.841	0.234	2281.846
002YR03HrSouthFarmFieldF		BASE	1.85	0.916	0.278	2719.331
002YR06HrSouthFarmFieldF		BASE	3.32	1.274	0.444	4336.630
002YR12hrSouthFarmFieldF		BASE	6.25	1.708	0.663	6477.416
002YR24hrSouthFarmFieldF		BASE	12.18	2.075	0.947	9244.347
010YR01hrSouthFarmFieldF		BASE	0.83	1.972	0.412	4019.156
010YR02hrSouthFarmFieldF		BASE	1.34	2.518	0.619	6043.396
010YR03hrSouthFarmFieldF		BASE	1.85	2.661	0.712	6948.234
010YR06hrSouthFarmFieldF		BASE	3.32	3.393	1.040	10158.607
010YR12hrSouthFarmFieldF		BASE	6.25	3.940	1.392	13593.649
010YR24hrSouthFarmFieldF		BASE	12.18	4.095	1.782	17398.005
100YR01hrSouthFarmFieldF		BASE	0.83	4.994	0.997	9738.888
100YR02hrSouthFarmFieldF		BASE	1.34	6.372	1.467	14321.980
100YR03hrSouthFarmFieldF		BASE	1.79	6.765	1.690	16502.010
100YR06hrSouthFarmFieldF		BASE	3.25	8.185	2.360	23042.293
100YR12hrSouthFarmFieldF		BASE	6.25	8.337	2.847	27802.902
100YR24hrSouthFarmFieldF		BASE	12.18	7.520	3.229	31528.030
002YR01Hr	Sub403A	BASE	0.68	0.464	0.192	619.521
002YR02Hr	Sub403A	BASE	1.17	0.600	0.297	958.776
002YR03Hr	Sub403A	BASE	1.65	0.635	0.347	1120.709
002YR06Hr	Sub403A	BASE	3.15	0.882	0.532	1718.983
002YR12hr	Sub403A	BASE	6.10	1.112	0.773	2497.497
002YR24hr	Sub403A	BASE	12.07	1.161	1.079	3486.534
010YR01hr	Sub403A	BASE	0.68	1.356	0.502	1623.175
010YR02hr	Sub403A	BASE	1.17	1.675	0.726	2343.992
010YR03hr	Sub403A	BASE	1.65	1.744	0.824	2663.644
010YR06hr	Sub403A	BASE	3.11	2.145	1.178	3804.282
010YR12hr	Sub403A	BASE	6.10	2.348	1.552	5014.013
010YR24hr	Sub403A	BASE	12.07	2.129	1.962	6339.834
100YR01hr	Sub403A	BASE	0.68	3.256	1.144	3694.667
100YR02hr	Sub403A	BASE	1.17	4.005	1.632	5273.449
100YR03hr	Sub403A	BASE	1.65	4.192	1.864	6020.870
100YR06hr	Sub403A	BASE	3.11	4.883	2.562	8275.956
100YR12hr	Sub403A	BASE	6.10	4.693	3.068	9913.243
100YR24hr	Sub403A	BASE	12.07	3.716	3.463	11188.022

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Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
401-NinevahRd	002YR01HR	2.263	-0.045	740.920	740.553
403-401	002YR01HR	2.136	0.375	742.001	740.727
403A-403	002YR01HR	0.930	-0.011	747.665	744.771
404-403	002YR01HR	0.981	0.519	742.160	742.001
AriesBlvd	002YR01HR	1.394	0.669	735.582	735.571
Ex1-Pond B	002YR01HR	11.241	0.060	734.638	733.766
EX3-Ex2 42"	002YR01HR	10.308	0.184	734.956	734.794
Ex4-Ex3 36"	002YR01HR	9.235	0.041	735.191	734.956
Ex6-Ex5 30"	002YR01HR	8.153	0.046	735.465	735.327
Ex7-Ex6 30"	002YR01HR	5.332	0.035	735.550	735.465
EX8-Ex9 24"	002YR01HR	4.059	-0.217	735.571	735.550
ExOff-PondB	002YR01HR	1.540	-0.010	736.542	733.145
ExPond1Outlet	002YR01HR	0.592	0.263	735.188	735.582
L1 - EastOutlet	002YR01HR	0.687	0.005	743.413	742.160
NinevahCMP	002YR01HR	7.483	-0.115	739.291	737.463
Pond B Outlet	002YR01HR	0.698	0.009	733.145	731.145
Virgo Dr	002YR01HR	8.723	0.044	735.327	735.191
WindstarDr	002YR01HR	10.991	-0.384	734.794	734.638
401-NinevahRd	002YR02HR	2.768	-0.053	741.017	740.610
403-401	002YR02HR	2.288	0.541	742.114	740.749
403A-403	002YR02HR	1.201	-0.011	747.758	744.803
404-403	002YR02HR	1.114	-0.535	742.214	742.114
AriesBlvd	002YR02HR	1.599	2.080	735.821	735.826
Ex1-Pond B	002YR02HR	13.481	0.073	734.816	733.866
EX3-Ex2 42"	002YR02HR	12.310	0.201	735.161	734.988
Ex4-Ex3 36"	002YR02HR	10.924	0.063	735.403	735.161
Ex6-Ex5 30"	002YR02HR	9.619	0.067	735.711	735.555
Ex7-Ex6 30"	002YR02HR	6.056	0.069	735.800	735.711
EX8-Ex9 24"	002YR02HR	4.503	-0.538	735.826	735.800
ExOff-PondB	002YR02HR	1.945	0.011	736.613	733.577
ExPond1Outlet	002YR02HR	0.807	0.263	735.299	735.821
L1 - EastOutlet	002YR02HR	0.996	0.004	744.072	742.214
NinevahCMP	002YR02HR	9.011	-0.084	739.403	737.528
Pond B Outlet	002YR02HR	3.227	0.017	733.624	731.407
Virgo Dr	002YR02HR	10.299	0.063	735.555	735.403
WindstarDr	002YR02HR	13.184	0.074	734.988	734.816
401-NinevahRd	002YR03HR	2.914	0.045	741.045	740.625
403-401	002YR03HR	2.413	0.563	742.147	740.766
403A-403	002YR03HR	1.279	-0.015	747.784	744.811
404-403	002YR03HR	1.162	-0.545	742.237	742.147
AriesBlvd	002YR03HR	1.842	-0.658	735.880	735.871
Ex1-Pond B	002YR03HR	13.980	0.077	734.855	733.887
EX3-Ex2 42"	002YR03HR	12.745	0.274	735.205	735.030
Ex4-Ex3 36"	002YR03HR	11.265	0.066	735.447	735.205
Ex6-Ex5 30"	002YR03HR	9.856	0.065	735.761	735.601
Ex7-Ex6 30"	002YR03HR	6.131	-0.039	735.851	735.761
EX8-Ex9 24"	002YR03HR	4.370	0.361	735.871	735.851
ExOff-PondB	002YR03HR	2.041	0.011	736.628	733.675
ExPond1Outlet	002YR03HR	0.860	0.263	735.326	735.880
L1 - EastOutlet	002YR03HR	1.070	0.004	744.255	742.237
NinevahCMP	002YR03HR	9.386	-0.081	739.430	737.544
Pond B Outlet	002YR03HR	4.118	0.058	733.750	733.160
Virgo Dr	002YR03HR	10.595	0.061	735.601	735.447
WindstarDr	002YR03HR	13.661	0.077	735.030	734.855
401-NinevahRd	002YR06HR	3.856	-0.071	741.206	740.718
403-401	002YR06HR	3.157	0.668	742.325	740.863
403A-403	002YR06HR	1.790	-0.010	747.949	744.863
404-403	002YR06HR	1.428	0.519	742.382	742.325
AriesBlvd	002YR06HR	2.418	-1.338	736.278	736.270
Ex1-Pond B	002YR06HR	17.077	1.069	735.081	734.012
EX3-Ex2 42"	002YR06HR	15.413	0.222	735.473	735.284
Ex4-Ex3 36"	002YR06HR	13.434	0.072	735.725	735.473
Ex6-Ex5 30"	002YR06HR	11.607	0.168	736.136	735.914
Ex7-Ex6 30"	002YR06HR	6.890	0.046	736.248	736.136
EX8-Ex9 24"	002YR06HR	4.579	0.483	736.270	736.248
ExOff-PondB	002YR06HR	2.731	0.012	736.734	733.787
ExPond1Outlet	002YR06HR	1.019	0.263	735.406	736.278
L1 - EastOutlet	002YR06HR	1.384	0.003	744.649	742.382
NinevahCMP	002YR06HR	11.878	-0.075	739.599	738.800
Pond B Outlet	002YR06HR	5.625	0.192	733.944	733.910
Virgo Dr	002YR06HR	12.539	0.273	735.914	735.725
WindstarDr	002YR06HR	16.660	-2.849	735.284	735.081

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Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
401-NinevahRd	002YR12HR	4.829	0.054	741.357	740.804
403-401	002YR12HR	3.907	0.879	742.491	740.953
403A-403	002YR12HR	2.312	0.011	748.115	744.910
404-403	002YR12HR	2.030	-0.597	742.532	742.491
AriesBlvd	002YR12HR	2.363	-1.656	736.600	736.610
Ex1-Pond B	002YR12HR	19.403	1.049	735.243	734.182
EX3-Ex2 42"	002YR12HR	17.288	0.280	735.660	735.460
Ex4-Ex3 36"	002YR12HR	15.106	0.170	735.935	735.660
Ex6-Ex5 30"	002YR12HR	12.636	-0.149	736.417	736.155
Ex7-Ex6 30"	002YR12HR	7.337	-0.109	736.564	736.417
EX8-Ex9 24"	002YR12HR	3.464	0.788	736.610	736.564
ExOff-PondB	002YR12HR	3.289	0.044	736.816	733.895
ExPondlOutlet	002YR12HR	1.143	0.263	735.472	736.600
L1 - EastOutlet	002YR12HR	1.971	0.004	744.872	742.532
NinevahCMP	002YR12HR	13.841	0.197	739.725	738.800
Pond B Outlet	002YR12HR	7.621	0.343	734.182	733.910
Virgo Dr	002YR12HR	13.940	0.277	736.155	735.935
WindstarDr	002YR12HR	18.835	-2.272	735.460	735.243
401-NinevahRd	002YR24HR	5.247	-0.087	741.424	740.838
403-401	002YR24HR	4.658	1.269	742.544	741.038
403A-403	002YR24HR	2.532	0.017	748.185	744.928
404-403	002YR24HR	2.921	-0.760	742.583	742.544
AriesBlvd	002YR24HR	2.391	2.665	736.441	736.450
Ex1-Pond B	002YR24HR	19.385	1.952	735.241	734.708
EX3-Ex2 42"	002YR24HR	16.889	1.012	735.644	735.450
Ex4-Ex3 36"	002YR24HR	14.902	0.166	735.911	735.644
Ex6-Ex5 30"	002YR24HR	10.966	0.047	736.293	736.099
Ex7-Ex6 30"	002YR24HR	6.503	0.089	736.405	736.293
EX8-Ex9 24"	002YR24HR	3.201	0.799	736.450	736.405
ExOff-PondB	002YR24HR	3.180	0.042	736.802	733.396
ExPondlOutlet	002YR24HR	1.263	0.263	735.542	736.441
L1 - EastOutlet	002YR24HR	2.841	0.010	745.119	742.583
NinevahCMP	002YR24HR	13.670	-0.825	739.715	738.800
Pond B Outlet	002YR24HR	13.111	-1.550	734.708	733.910
Virgo Dr	002YR24HR	12.972	-0.183	736.099	735.911
WindstarDr	002YR24HR	18.446	-5.839	735.450	735.241
401-NinevahRd	010YR01Hr	5.699	-0.081	741.489	740.874
403-401	010YR01Hr	4.974	0.832	742.632	741.073
403A-403	010YR01Hr	2.804	-0.022	748.274	744.950
404-403	010YR01Hr	1.873	-0.778	742.668	742.632
AriesBlvd	010YR01Hr	2.477	-2.058	737.714	737.726
Ex1-Pond B	010YR01Hr	25.763	0.084	735.663	734.314
EX3-Ex2 42"	010YR01Hr	22.904	0.295	736.182	735.928
Ex4-Ex3 36"	010YR01Hr	19.792	0.166	736.564	736.182
Ex6-Ex5 30"	010YR01Hr	16.735	0.157	737.410	736.948
Ex7-Ex6 30"	010YR01Hr	10.041	0.095	737.663	737.410
EX8-Ex9 24"	010YR01Hr	6.835	0.968	737.726	737.663
ExOff-PondB	010YR01Hr	4.274	0.036	736.940	733.739
ExPondlOutlet	010YR01Hr	1.134	0.263	735.472	737.714
L1 - EastOutlet	010YR01Hr	1.089	0.003	744.254	742.668
NinevahCMP	010YR01Hr	17.105	-0.196	739.926	737.821
Pond B Outlet	010YR01Hr	4.419	0.014	733.790	731.493
Virgo Dr	010YR01Hr	18.280	-0.213	736.948	736.564
WindstarDr	010YR01Hr	25.045	0.328	735.928	735.663
401-NinevahRd	010YR02Hr	6.828	-0.141	741.645	740.957
403-401	010YR02Hr	6.386	1.731	742.799	741.224
403A-403	010YR02Hr	3.455	-0.020	748.536	745.002
404-403	010YR02Hr	3.766	0.519	742.831	742.799
AriesBlvd	010YR02Hr	2.363	-2.569	738.326	738.333
Ex1-Pond B	010YR02Hr	29.216	2.516	735.882	734.539
EX3-Ex2 42"	010YR02Hr	25.152	1.730	736.447	736.168
Ex4-Ex3 36"	010YR02Hr	21.749	0.159	736.880	736.447
Ex6-Ex5 30"	010YR02Hr	18.971	0.155	737.829	737.297
Ex7-Ex6 30"	010YR02Hr	12.496	-0.225	738.185	737.829
EX8-Ex9 24"	010YR02Hr	6.617	1.333	738.333	738.185
ExOff-PondB	010YR02Hr	5.226	0.048	737.050	734.351
ExPondlOutlet	010YR02Hr	1.485	0.285	735.712	738.326
L1 - EastOutlet	010YR02Hr	3.521	0.016	745.279	742.831
NinevahCMP	010YR02Hr	20.324	-0.124	740.117	737.923
Pond B Outlet	010YR02Hr	10.771	0.033	734.539	731.852
Virgo Dr	010YR02Hr	20.114	0.273	737.297	736.880
WindstarDr	010YR02Hr	28.114	4.281	736.168	735.882

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
401-NinevahRd	010YR03Hr	7.060	-0.133	741.675	740.973
403-401	010YR03Hr	6.617	1.789	742.831	741.248
403A-403	010YR03Hr	3.599	-0.016	748.601	745.012
404-403	010YR03Hr	4.186	0.519	742.862	742.831
AriesBlvd	010YR03Hr	2.156	-1.755	738.365	738.372
Ex1-Pond B	010YR03Hr	29.630	2.010	735.908	734.603
EX3-Ex2 42"	010YR03Hr	25.372	0.920	736.478	736.196
Ex4-Ex3 36"	010YR03Hr	21.999	0.157	736.912	736.478
Ex6-Ex5 30"	010YR03Hr	19.075	-0.191	737.859	737.327
Ex7-Ex6 30"	010YR03Hr	12.676	0.250	738.220	737.859
EX8-Ex9 24"	010YR03Hr	6.205	1.463	738.372	738.220
ExOff-PondB	010YR03Hr	5.400	0.038	737.069	734.382
ExPondlOutlet	010YR03Hr	1.569	0.263	735.765	738.365
L1 - EastOutlet	010YR03Hr	4.072	0.017	745.400	742.862
NinevahCMP	010YR03Hr	20.845	-0.103	740.148	737.939
Pond B Outlet	010YR03Hr	11.344	0.162	734.603	733.055
Virgo Dr	010YR03Hr	20.231	-0.238	737.327	736.912
WindstarDr	010YR03Hr	28.444	4.575	736.196	735.908
401-NinevahRd	010YR06Hr	8.644	-0.236	741.878	741.078
403-401	010YR06Hr	9.041	2.354	743.039	741.510
403A-403	010YR06Hr	4.549	-0.016	749.100	745.083
404-403	010YR06Hr	5.652	-0.684	743.069	743.039
AriesBlvd	010YR06Hr	2.442	-2.244	738.659	738.646
Ex1-Pond B	010YR06Hr	32.024	2.030	736.067	734.926
EX3-Ex2 42"	010YR06Hr	26.512	1.414	736.668	736.364
Ex4-Ex3 36"	010YR06Hr	23.325	0.193	737.113	736.668
Ex6-Ex5 30"	010YR06Hr	20.044	-0.350	738.063	737.499
Ex7-Ex6 30"	010YR06Hr	13.848	0.534	738.470	738.063
EX8-Ex9 24"	010YR06Hr	6.796	1.919	738.646	738.470
ExOff-PondB	010YR06Hr	6.604	-0.035	737.196	734.212
ExPondlOutlet	010YR06Hr	1.816	0.263	735.928	738.659
L1 - EastOutlet	010YR06Hr	5.459	0.021	745.712	743.069
NinevahCMP	010YR06Hr	24.558	-0.111	740.363	738.800
Pond B Outlet	010YR06Hr	14.206	0.319	734.926	733.910
Virgo Dr	010YR06Hr	21.103	0.199	737.499	737.113
WindstarDr	010YR06Hr	30.341	-6.928	736.364	736.067
401-NinevahRd	010YR12Hr	10.119	-0.250	742.066	741.169
403-401	010YR12Hr	10.350	2.357	743.292	742.066
403A-403	010YR12Hr	5.024	0.017	749.394	745.117
404-403	010YR12Hr	6.690	-0.774	743.421	743.292
AriesBlvd	010YR12Hr	2.280	-2.494	738.582	738.592
Ex1-Pond B	010YR12Hr	31.792	2.608	736.052	735.217
EX3-Ex2 42"	010YR12Hr	26.678	1.906	736.661	736.354
Ex4-Ex3 36"	010YR12Hr	22.301	0.312	737.110	736.661
Ex6-Ex5 30"	010YR12Hr	20.015	-0.361	738.067	737.522
Ex7-Ex6 30"	010YR12Hr	13.182	0.546	738.458	738.067
EX8-Ex9 24"	010YR12Hr	5.479	-0.937	738.592	738.458
ExOff-PondB	010YR12Hr	6.936	-0.035	737.229	733.932
ExPondlOutlet	010YR12Hr	1.962	0.263	736.029	738.582
L1 - EastOutlet	010YR12Hr	6.272	0.014	745.998	743.421
NinevahCMP	010YR12Hr	25.664	0.612	740.426	738.800
Pond B Outlet	010YR12Hr	20.487	-6.481	735.217	733.910
Virgo Dr	010YR12Hr	21.070	0.195	737.522	737.110
WindstarDr	010YR12Hr	30.389	-9.584	736.354	736.052
401-NinevahRd	010YR24Hr	11.597	0.228	742.249	741.253
403-401	010YR24Hr	10.634	-1.869	743.781	742.249
403A-403	010YR24Hr	4.729	0.020	749.208	745.096
404-403	010YR24Hr	7.437	-0.838	743.998	743.781
AriesBlvd	010YR24Hr	2.655	-2.769	738.251	738.262
Ex1-Pond B	010YR24Hr	31.378	5.199	736.024	735.739
EX3-Ex2 42"	010YR24Hr	26.406	4.851	736.614	736.312
Ex4-Ex3 36"	010YR24Hr	22.703	-0.351	737.083	736.614
Ex6-Ex5 30"	010YR24Hr	18.332	-0.141	737.887	737.470
Ex7-Ex6 30"	010YR24Hr	11.173	-0.252	738.157	737.887
EX8-Ex9 24"	010YR24Hr	4.985	1.814	738.262	738.157
ExOff-PondB	010YR24Hr	5.762	0.035	737.108	733.576
ExPondlOutlet	010YR24Hr	2.106	0.263	736.145	738.251
L1 - EastOutlet	010YR24Hr	6.826	0.009	746.218	743.998
NinevahCMP	010YR24Hr	24.036	-0.815	740.333	738.789
Pond B Outlet	010YR24Hr	18.682	-3.409	735.739	733.910
Virgo Dr	010YR24Hr	20.259	-0.263	737.470	737.083
WindstarDr	010YR24Hr	29.405	-8.541	736.312	736.024

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
401-NinevahRd	100YR01hr	13.177	-0.169	742.422	741.337
403-401	100YR01hr	11.266	1.554	744.253	742.422
403A-403	100YR01hr	6.106	-0.023	750.170	745.198
404-403	100YR01hr	6.777	-0.906	744.422	744.253
AriesBlvd	100YR01hr	3.679	0.691	739.186	739.182
Ex1-Pond B	100YR01hr	37.962	3.269	736.497	734.860
EX3-Ex2 42"	100YR01hr	29.047	2.880	737.201	736.837
Ex4-Ex3 36"	100YR01hr	27.348	-0.179	737.619	737.201
Ex6-Ex5 30"	100YR01hr	24.122	-0.803	738.540	737.892
Ex7-Ex6 30"	100YR01hr	14.991	-2.417	738.989	738.540
EX8-Ex9 24"	100YR01hr	10.059	-1.742	739.182	738.989
ExOff-PondB	100YR01hr	9.989	-0.037	737.517	734.762
ExPondlOutlet	100YR01hr	1.918	0.263	736.008	739.186
L1 - EastOutlet	100YR01hr	4.803	0.060	745.596	744.422
NinevahCMP	100YR01hr	34.289	-0.381	740.923	738.337
Pond B Outlet	100YR01hr	13.629	0.041	734.860	731.993
Virgo Dr	100YR01hr	24.205	-0.325	737.892	737.619
WindstarDr	100YR01hr	34.939	5.138	736.837	736.497
401-NinevahRd	100YR02hr	17.496	-0.103	742.915	742.030
403-401	100YR02hr	16.083	0.563	745.532	742.915
403A-403	100YR02hr	7.024	-0.026	750.949	745.272
404-403	100YR02hr	13.885	-0.598	746.298	745.532
AriesBlvd	100YR02hr	3.776	2.680	739.285	739.284
Ex1-Pond B	100YR02hr	41.327	6.728	736.713	736.157
EX3-Ex2 42"	100YR02hr	30.427	6.854	737.496	737.100
Ex4-Ex3 36"	100YR02hr	28.120	3.666	737.903	737.496
Ex6-Ex5 30"	100YR02hr	23.147	-16.024	738.719	738.133
Ex7-Ex6 30"	100YR02hr	14.649	-0.741	739.150	738.719
EX8-Ex9 24"	100YR02hr	9.966	0.959	739.284	739.150
ExOff-PondB	100YR02hr	12.268	0.038	737.717	736.131
ExPondlOutlet	100YR02hr	2.471	0.263	736.550	739.285
L1 - EastOutlet	100YR02hr	13.639	0.038	746.869	746.298
NinevahCMP	100YR02hr	40.080	-0.153	741.264	738.510
Pond B Outlet	100YR02hr	22.589	0.046	736.157	732.460
Virgo Dr	100YR02hr	24.238	-15.168	738.133	737.903
WindstarDr	100YR02hr	37.582	10.727	737.100	736.713
401-NinevahRd	100YR03hr	17.978	-0.079	743.000	742.030
403-401	100YR03hr	16.663	0.555	745.829	743.000
403A-403	100YR03hr	7.253	-0.022	751.159	745.291
404-403	100YR03hr	13.729	-0.623	746.558	745.829
AriesBlvd	100YR03hr	3.562	-2.302	739.293	739.292
Ex1-Pond B	100YR03hr	41.952	6.613	736.754	736.302
EX3-Ex2 42"	100YR03hr	30.769	6.453	737.553	737.151
Ex4-Ex3 36"	100YR03hr	27.775	2.982	737.962	737.553
Ex6-Ex5 30"	100YR03hr	23.210	0.919	738.751	738.183
Ex7-Ex6 30"	100YR03hr	14.530	0.786	739.173	738.751
EX8-Ex9 24"	100YR03hr	9.836	1.284	739.292	739.173
ExOff-PondB	100YR03hr	12.796	0.048	737.763	736.117
ExPondlOutlet	100YR03hr	2.636	0.263	736.727	739.293
L1 - EastOutlet	100YR03hr	13.484	0.045	746.995	746.558
NinevahCMP	100YR03hr	41.291	-0.135	741.339	738.548
Pond B Outlet	100YR03hr	23.372	0.044	736.302	733.160
Virgo Dr	100YR03hr	24.266	-14.188	738.183	737.962
WindstarDr	100YR03hr	38.093	11.065	737.151	736.754
401-NinevahRd	100YR06hr	19.410	-0.080	743.232	742.030
403-401	100YR06hr	17.867	0.613	746.566	743.232
403A-403	100YR06hr	8.040	0.020	751.936	745.372
404-403	100YR06hr	14.741	-0.773	747.273	746.566
AriesBlvd	100YR06hr	16.235	-19.982	739.346	739.346
Ex1-Pond B	100YR06hr	44.311	14.891	737.045	736.935
EX3-Ex2 42"	100YR06hr	32.830	-21.036	737.772	737.335
Ex4-Ex3 36"	100YR06hr	26.595	-15.880	738.219	737.772
Ex6-Ex5 30"	100YR06hr	22.532	15.748	738.872	738.542
Ex7-Ex6 30"	100YR06hr	16.234	14.795	739.268	738.872
EX8-Ex9 24"	100YR06hr	16.234	-17.205	739.346	739.268
ExOff-PondB	100YR06hr	14.727	0.074	737.933	736.935
ExPondlOutlet	100YR06hr	2.983	0.496	737.158	739.346
L1 - EastOutlet	100YR06hr	14.514	0.425	747.616	747.273
NinevahCMP	100YR06hr	46.668	-0.160	741.739	738.800
Pond B Outlet	100YR06hr	26.520	0.160	736.935	733.910
Virgo Dr	100YR06hr	23.899	12.086	738.542	738.219
WindstarDr	100YR06hr	40.371	-21.845	737.335	737.045

The Bluffs at Youngs Creek
Proposed Section 1-3 Drainage Model 05-7-2019
ICPR Basin Output Data

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
401-NinevahRd	100YR12hr	19.824	-0.085	743.307	742.030
403-401	100YR12hr	18.151	0.623	746.729	743.307
403A-403	100YR12hr	8.036	0.020	751.932	745.371
404-403	100YR12hr	15.043	-0.840	747.461	746.729
AriesBlvd	100YR12hr	16.367	-20.124	739.275	739.275
Ex1-Pond B	100YR12hr	41.145	16.643	737.259	737.156
EX3-Ex2 42"	100YR12hr	31.840	-21.671	737.559	737.327
Ex4-Ex3 36"	100YR12hr	24.490	-11.960	738.000	737.559
Ex6-Ex5 30"	100YR12hr	21.200	13.349	738.825	738.299
Ex7-Ex6 30"	100YR12hr	16.366	15.225	739.203	738.825
EX8-Ex9 24"	100YR12hr	16.366	-17.391	739.275	739.203
ExOff-PondB	100YR12hr	13.923	0.055	737.858	737.156
ExPondlOutlet	100YR12hr	3.057	0.415	737.236	739.275
L1 - EastOutlet	100YR12hr	14.843	0.599	747.812	747.461
NinevahCMP	100YR12hr	45.689	0.979	741.662	738.800
Pond B Outlet	100YR12hr	27.532	-2.779	737.156	733.910
Virgo Dr	100YR12hr	22.753	12.600	738.299	738.000
WindstarDr	100YR12hr	38.538	-21.101	737.327	737.259
401-NinevahRd	100YR24hr	19.629	0.105	743.276	742.030
403-401	100YR24hr	17.909	0.600	746.593	743.276
403A-403	100YR24hr	7.404	-0.013	751.303	745.305
404-403	100YR24hr	14.913	-0.891	747.356	746.593
AriesBlvd	100YR24hr	3.200	-1.641	739.103	739.102
Ex1-Pond B	100YR24hr	40.384	16.937	737.424	737.359
EX3-Ex2 42"	100YR24hr	31.352	-12.293	737.570	737.478
Ex4-Ex3 36"	100YR24hr	24.878	6.471	737.804	737.570
Ex6-Ex5 30"	100YR24hr	19.193	1.839	738.657	738.144
Ex7-Ex6 30"	100YR24hr	13.364	1.863	738.980	738.657
EX8-Ex9 24"	100YR24hr	7.899	-1.188	739.102	738.980
ExOff-PondB	100YR24hr	10.006	0.072	737.519	737.359
ExPondlOutlet	100YR24hr	3.037	0.263	737.235	739.103
L1 - EastOutlet	100YR24hr	14.703	0.377	747.727	747.356
NinevahCMP	100YR24hr	40.652	-0.637	741.298	738.768
Pond B Outlet	100YR24hr	25.299	-5.143	737.359	733.910
Virgo Dr	100YR24hr	20.882	4.193	738.144	737.804
WindstarDr	100YR24hr	36.811	-22.346	737.478	737.424

APPENDIX C

STORM SEWER DESIGN

CALCULATIONS

Bluffs at Youngs Creek Sections 1, 2 & 3

Runoff Coefficients

Job # 85360

STMC

Post Developed Site

$$C_w = \frac{0.9A_{imp} + 0.2A_{per}}{\text{Total Drainage Area}}$$

Structure #	Total Drainage Area	Total Impervious Area A_{imp}	Total Pervious Area A_{per}	Weighted C-Factor
	(ac)	(ac)	(ac)	C_w
400	1.80	0.21	1.59	0.28
403A	0.35	0.07	0.28	0.34
408	0.15	0.06	0.09	0.47
409	0.33	0.25	0.08	0.73
412	0.69	0.46	0.23	0.67
413	0.74	0.41	0.33	0.59
414	0.89	0.14	0.75	0.31
417	0.52	0.35	0.17	0.67
418	0.49	0.29	0.20	0.62
420	1.03	0.63	0.40	0.63
421	1.41	0.98	0.43	0.69
423	1.45	0.95	0.50	0.66
424	1.64	1.13	0.51	0.68
425	1.20	0.28	0.92	0.36
426	0.62	0.14	0.48	0.36
427	0.01	0.01	0.00	0.77
428	0.01	0.01	0.00	0.77
431	0.17	0.07	0.10	0.47
432	0.15	0.07	0.08	0.51
434	0.50	0.14	0.36	0.39
437	0.35	0.19	0.16	0.58
438	0.53	0.36	0.17	0.68
439	0.32	0.24	0.08	0.73
440	0.43	0.24	0.19	0.59
442	0.31	0.20	0.11	0.66
443	0.42	0.20	0.22	0.54
444	1.15	0.21	0.94	0.33
445	0.91	0.61	0.30	0.67
446	0.94	0.55	0.39	0.61
447	1.28	0.34	0.94	0.39
EX317	0.73	0.14	0.59	0.33
EX316	0.68	0.14	0.54	0.34
Lake 1	4.39	0.86	3.53	0.34
DirCapCt	0.32	0.17	0.15	0.58
Dir30RCP	3.95	0.76	3.19	0.33
OffSouth1	2.69	0.00	2.69	0.20

Impervious Areas in Sq. Ft.	
Structure #	Area
400	9000
403A	3000
408	2512
409	10850
412	20103
413	17924
414	6000
417	15263
418	12687
420	27635
421	42635
423	41511
424	49011
425	12000
426	6000
427	285
428	285
431	2850
432	2850
434	6000
437	8200
438	15700
439	8800
440	11650
442	8800
443	8800
444	9000
445	26506
446	24006
447	15000
EX317	6000
EX316	6000
Lake 1	37500
DirCapCt	7470
Dir30RCP	33000
OffSouth1	0

Bluffs at Youngs Creek Sections 1, 2 & 3

Time of Concentrations

Job # 83540

StormCAD

Post-Developed Site

Basin	Sheet Flow						Manual (L/V)						
	Description	n =	L =	P ₂ =	s =	T ₁ = .007(nL) ^{0.8} /(P ₂ ^{0.5} s ^{0.4})	Description	s =	V =	L =	T _t = L/V	T _c (total)	T _c (total)
			(ft)	(in)	(ft/ft)	(hrs)	Paved/Unpaved	(ft/ft)	(ft/s)	(ft)	(hrs)	(hrs)	(min)
401	Grass	0.24	33	2.93	0.0121	0.1252	Unpaved	0.0029	0.868869	1191	0.3808	0.5059	30.4
403A	Grass	0.24	100	2.93	0.024	0.2311	Unpaved	0.0565	3.835127	177	0.0128	0.2439	14.6
408	Grass	0.24	56	2.93	0.025	0.1430	Paved	0.015	2.489686	46	0.0051	0.1481	8.9
409	Grass	0.24	72	2.93	0.0097	0.2553	Paved	0.015	2.489686	160	0.0179	0.2731	16.4
412	Grass	0.24	73	2.93	0.0041	0.3642	Paved	0.006	1.574616	335	0.0591	0.4233	25.4
413	Grass	0.24	93	2.93	0.0032	0.4882	Paved	0.006	1.574616	383	0.0676	0.5557	33.3
414	Grass	0.24	67	2.93	0.0194	0.1826	Paved	0.01	2.03282	349	0.0477	0.2303	13.8
417	Grass	0.24	73	2.93	0.0151	0.2162	Paved	0.035	3.803058	270	0.0197	0.2359	14.2
418	Grass	0.24	73	2.93	0.0247	0.1776	Paved	0.035	3.803058	245	0.0179	0.1955	11.7
420	Grass	0.24	51	2.93	0.019	0.1480	Paved	0.006	1.574616	340	0.0600	0.2080	12.5
421	Grass	0.24	75	2.93	0.0133	0.2325	Paved	0.0282	3.413685	310	0.0252	0.2577	15.5
423	Grass	0.24	56	2.93	0.0304	0.1322	Paved	0.015	2.489686	420	0.0469	0.1791	10.7
424	Grass	0.24	43	2.93	0.014	0.1459	Paved	0.015	2.489686	470	0.0524	0.1984	11.9
425	Grass	0.24	100	2.93	0.012	0.3049	Unpaved	0.0135	1.874659	267	0.0396	0.3445	20.7
426	Grass	0.24	44	2.93	0.01	0.1701	Unpaved	0.0113	1.715121	203	0.0329	0.2029	12.2
427	Pavement	0.011	14	2.93	0.02	0.0044	Paved	0.02	2.874842	0	0.0000	0.0044	5.0
428	Pavement	0.011	14	2.93	0.02	0.0044	Paved	0.02	2.874842	0	0.0000	0.0044	5.0
431	Grass	0.24	44	2.93	0.01	0.1701	Paved	0.006	1.574616	120	0.0212	0.1912	11.5
432	Grass	0.24	46	2.93	0.01	0.1762	Paved	0.006	1.574616	70	0.0123	0.1886	11.3
435	Grass	0.24	35	2.93	0.04	0.0813	Unpaved	0.0344	2.992504	154	0.0143	0.0956	5.7
437	Grass	0.24	43	2.93	0.02	0.1265	Paved	0.0338	3.737294	205	0.0152	0.1418	8.5
438	Grass	0.24	73	2.93	0.007	0.2941	Paved	0.0269	3.334073	250	0.0208	0.3149	18.9
439	Grass	0.24	73	2.93	0.01	0.2550	Paved	0.006	1.574616	70	0.0123	0.2673	16.0
440	Grass	0.24	58	2.93	0.01	0.2121	Paved	0.006	1.574616	90	0.0159	0.2280	13.7
442	Grass	0.24	73	2.93	0.01	0.2550	Paved	0.006	1.574616	63	0.0111	0.2661	16.0
443	Grass	0.24	73	2.93	0.01	0.2550	Paved	0.006	1.574616	80	0.0141	0.2691	16.1
444	Grass	0.24	72	2.93	0.02	0.1911	Unpaved	0.01	1.61345	190	0.0327	0.2238	13.4
445	Grass	0.24	73	2.93	0.02	0.1932	Paved	0.0338	3.737294	345	0.0256	0.2189	13.1
446	Grass	0.24	52	2.93	0.02	0.1473	Paved	0.0338	3.737294	345	0.0256	0.1729	10.4
447	Grass	0.24	71	2.93	0.0423	0.1401	Unpaved	0.0274	2.670735	328	0.0341	0.1742	10.5
EX317	Grass	0.24	67	2.93	0.0224	0.1724	Unpaved	0.044	3.384401	120	0.0098	0.1823	10.9
EX316	Grass	0.24	82	2.93	0.0171	0.2258	Unpaved	0.02	2.281763	86	0.0105	0.2362	14.2
Lake 1	Grass	0.24	74	2.93	0.027	0.1732	Unpaved	0.0625	4.033625	240	0.0165	0.1898	11.4
DirCapCt	Grass	0.24	72	2.93	0.0081	0.2744	Paved	0.006	1.574616	130	0.0229	0.2973	17.8
Dir30RCP	Grass	0.24	100	2.93	0.062	0.1581	Unpaved	0.0179	2.158649	726	0.0934	0.2515	15.1
	Grass			2.93	0.01	0.0000			0		#DIV/0!	#DIV/0!	#DIV/0!

Project Description

File Name -df.SPF

Project Options

Flow Units CFS
Elevation Type Elevation
Hydrology Method Rational
Time of Concentration (TOC) Method User-Defined
Link Routing Method Hydrodynamic
Enable Overflow Ponding at Nodes YES
Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 12, 2019 00:00:00
End Analysis On Apr 13, 2019 00:00:00
Start Reporting On Apr 12, 2019 00:00:00
Antecedent Dry Days 0 days
Runoff (Dry Weather) Time Step 0 01:00:00 days hh:mm:ss
Runoff (Wet Weather) Time Step 0 00:05:00 days hh:mm:ss
Reporting Time Step 0 00:05:00 days hh:mm:ss
Routing Time Step 30 seconds

Number of Elements

	Qty
Rain Gages	0
Subbasins.....	36
Nodes.....	51
<i>Junctions</i>	45
<i>Outfalls</i>	4
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	2
Links.....	48
<i>Channels</i>	0
<i>Pipes</i>	47
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	1
Pollutants	0
Land Uses	0

Rainfall Details

Return Period..... 10 year(s)

Subbasin Summary

SN	Subbasin ID	Area	Weighted Runoff Coefficient	Total Rainfall	Total Runoff	Total Runoff Volume	Peak Runoff	Time of Concentration
		(ac)		(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	Sub316	0.68	0.3400	1.14	0.39	0.26	1.06	0 00:14:48
2	Sub317	0.73	0.3300	0.97	0.32	0.23	1.23	0 00:11:24
3	Sub401	1.52	0.7200	1.60	1.15	1.75	3.42	0 00:30:42
4	Sub403A	0.56	0.3300	1.16	0.38	0.21	0.84	0 00:15:18
5	Sub408	0.15	0.4700	0.87	0.41	0.06	0.39	0 00:09:18
6	Sub409	0.36	0.6800	1.22	0.83	0.30	1.04	0 00:17:06
7	Sub412	0.69	0.6700	1.50	1.00	0.69	1.57	0 00:26:30
8	Sub413	0.74	0.5900	1.14	0.67	0.50	2.01	0 00:14:48
9	Sub414	0.89	0.3100	1.11	0.34	0.31	1.28	0 00:14:24
10	Sub417	0.52	0.6700	1.14	0.76	0.40	1.60	0 00:14:48
11	Sub418	0.49	0.6200	1.02	0.63	0.31	1.51	0 00:12:18
12	Sub420	1.03	0.6300	1.04	0.66	0.68	3.16	0 00:12:54
13	Sub421	1.41	0.6900	1.18	0.82	1.15	4.27	0 00:16:12
14	Sub423	1.46	0.6600	0.96	0.64	0.93	4.99	0 00:11:06
15	Sub424	1.65	0.6800	1.02	0.69	1.15	5.57	0 00:12:18
16	Sub425	1.20	0.3600	1.36	0.49	0.59	1.63	0 00:21:36
17	Sub426	0.62	0.3600	1.03	0.37	0.23	1.09	0 00:12:42
18	Sub427	0.01	0.7700	0.60	0.46	0.00	0.06	0 00:05:00
19	Sub428	0.01	0.7700	0.60	0.46	0.00	0.06	0 00:05:00
20	Sub431	0.17	0.4700	1.00	0.47	0.08	0.40	0 00:12:00
21	Sub432	0.15	0.5100	1.00	0.51	0.08	0.39	0 00:11:48
22	Sub435	0.71	0.3700	0.67	0.25	0.18	1.76	0 00:06:00
23	Sub437	0.35	0.5800	0.84	0.49	0.17	1.15	0 00:08:54
24	Sub438	0.53	0.6800	1.31	0.89	0.47	1.42	0 00:19:48
25	Sub439	0.32	0.7300	1.21	0.88	0.28	1.01	0 00:16:48
26	Sub440	0.43	0.5900	1.11	0.66	0.28	1.18	0 00:14:18
27	Sub442	0.31	0.6600	1.20	0.79	0.25	0.88	0 00:16:42
28	Sub443	0.42	0.5400	1.20	0.65	0.27	0.97	0 00:16:53
29	Sub444	1.15	0.3300	1.10	0.36	0.42	1.79	0 00:14:00
30	Sub446	0.95	0.6100	0.95	0.58	0.55	3.04	0 00:10:48
31	Sub447	1.28	0.3900	0.94	0.37	0.47	2.61	0 00:10:54
32	Sub455	0.93	0.6600	1.08	0.71	0.66	2.91	0 00:13:42
33	SubDir30RCP	3.73	0.3400	1.17	0.40	1.48	5.68	0 00:15:36
34	SubDirCapCt	0.34	0.5500	1.27	0.70	0.24	0.76	0 00:18:42
35	SubLake1	4.38	0.3400	0.99	0.34	1.48	7.49	0 00:11:54
36	SubOffSouth1	2.69	0.2000	1.55	0.31	0.83	1.75	0 00:28:42

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft²)	(cfs)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
1	316	Junction	733.55	737.55	733.55	737.55	0.00	11.58	735.16	0.00	2.39	0 00:00	0.00	0.00
2	317	Junction	734.01	738.38	734.01	738.38	0.00	5.49	735.45	0.00	2.93	0 00:00	0.00	0.00
3	318	Junction	734.47	738.90	734.47	738.90	0.00	1.21	735.46	0.00	3.44	0 00:00	0.00	0.00
4	319	Junction	734.50	739.00	734.50	739.00	0.00	0.81	735.46	0.00	3.54	0 00:00	0.00	0.00
5	319A	Junction	734.61	735.86	734.61	735.86	0.00	0.57	735.51	0.00	0.35	0 00:00	0.00	0.00
6	401	Junction	740.13	749.77	740.13	749.77	0.00	6.68	741.16	0.00	8.61	0 00:00	0.00	0.00
7	402	Junction	740.96	750.82	740.96	750.82	0.00	3.61	741.61	0.00	9.21	0 00:00	0.00	0.00
8	403	Junction	741.11	748.89	741.11	748.89	0.00	3.63	741.86	0.00	7.03	0 00:00	0.00	0.00
9	404	Junction	741.63	760.16	741.63	760.16	0.00	1.88	742.10	0.00	18.07	0 00:00	0.00	0.00
10	405	Junction	742.13	756.00	742.13	756.00	0.00	1.08	742.51	0.00	13.49	0 00:00	0.00	0.00
11	406	Junction	742.50	747.70	742.50	747.70	0.00	1.08	742.88	0.00	4.82	0 00:00	0.00	0.00
12	407	Junction	751.70	760.42	751.70	760.42	0.00	1.10	752.12	0.00	8.30	0 00:00	0.00	0.00
13	408	Junction	752.13	759.80	752.13	759.80	0.00	1.10	752.52	0.00	7.28	0 00:00	0.00	0.00
14	409	Junction	754.97	759.80	754.97	759.80	0.00	1.04	755.48	0.00	4.32	0 00:00	0.00	0.00
15	411	Junction	743.40	753.00	743.40	753.00	0.00	4.07	744.33	0.00	8.67	0 00:00	0.00	0.00
16	412	Junction	749.49	757.16	749.49	757.16	0.00	4.07	750.21	0.00	6.95	0 00:00	0.00	0.00
17	413	Junction	752.29	756.89	752.29	756.89	0.00	3.19	753.46	0.00	3.43	0 00:00	0.00	0.00
18	414	Junction	752.79	756.47	752.79	756.47	0.00	1.28	753.61	0.00	2.87	0 00:00	0.00	0.00
19	416	Junction	744.27	748.53	744.27	748.53	0.00	2.83	744.80	0.00	3.73	0 00:00	0.00	0.00
20	417	Junction	745.39	750.13	745.39	750.13	0.00	2.84	746.20	0.00	3.94	0 00:00	0.00	0.00
21	418	Junction	745.63	750.13	745.63	750.13	0.00	1.51	746.34	0.00	3.79	0 00:00	0.00	0.00
22	420	Junction	743.14	747.88	743.14	747.88	0.00	6.59	744.69	0.00	3.19	0 00:00	0.00	0.00
23	421	Junction	743.38	747.88	743.38	747.88	0.00	4.27	744.71	0.00	3.17	0 00:00	0.00	0.00
24	423	Junction	743.79	752.69	743.79	752.69	0.00	11.64	745.25	0.00	7.44	0 00:00	0.00	0.00
25	424	Junction	744.03	752.69	744.03	752.69	0.00	7.26	745.42	0.00	7.27	0 00:00	0.00	0.00
26	425	Junction	744.54	751.88	744.54	751.88	0.00	2.08	745.50	0.00	6.38	0 00:00	0.00	0.00
27	426	Junction	749.64	754.14	749.64	754.14	0.00	1.10	749.92	0.00	4.22	0 00:00	0.00	0.00
28	427	Junction	755.72	760.46	755.72	760.46	0.00	0.11	755.81	0.00	4.65	0 00:00	0.00	0.00
29	428	Junction	755.96	760.46	755.96	760.46	0.00	0.06	756.06	0.00	4.40	0 00:00	0.00	0.00
30	430	Junction	744.25	752.06	744.25	752.06	0.00	4.09	744.80	0.00	7.26	0 00:00	0.00	0.00
31	431	Junction	746.19	754.48	746.19	754.48	0.00	4.10	747.18	0.00	7.30	0 00:00	0.00	0.00
32	432	Junction	746.45	754.88	746.45	754.88	0.00	3.90	747.45	0.00	7.44	0 00:00	0.00	0.00
33	433	Junction	746.86	754.04	746.86	754.04	0.00	3.72	747.84	0.00	6.20	0 00:00	0.00	0.00
34	434	Junction	747.20	752.36	747.20	752.36	0.00	2.25	747.94	0.00	4.42	0 00:00	0.00	0.00
35	437	Junction	745.44	749.94	745.44	749.94	0.00	1.15	745.98	0.00	3.96	0 00:00	0.00	0.00
36	438	Junction	743.92	749.94	743.92	749.94	0.00	1.79	744.31	0.00	5.63	0 00:00	0.00	0.00
37	439	Junction	748.36	756.07	748.36	756.07	0.00	2.05	748.87	0.00	7.20	0 00:00	0.00	0.00
38	440	Junction	751.57	756.07	751.57	756.07	0.00	1.18	752.12	0.00	3.95	0 00:00	0.00	0.00
39	441	Junction	747.55	753.16	747.55	753.16	0.00	1.83	748.35	0.00	4.81	0 00:00	0.00	0.00
40	442	Junction	748.34	756.07	748.34	756.07	0.00	1.84	748.99	0.00	7.08	0 00:00	0.00	0.00
41	443	Junction	751.57	756.07	751.57	756.07	0.00	0.97	752.06	0.00	4.01	0 00:00	0.00	0.00
42	444	Junction	733.74	739.12	733.74	739.12	0.00	11.17	735.44	0.00	3.68	0 00:00	0.00	0.00
43	445	Junction	736.15	739.64	736.15	739.64	0.00	5.35	736.82	0.00	2.82	0 00:00	0.00	0.00
44	446	Junction	736.34	739.64	736.34	739.64	0.00	3.03	737.51	0.00	2.13	0 00:00	0.00	0.00
45	447	Junction	737.31	744.56	737.31	744.56	0.00	4.32	737.89	0.00	6.67	0 00:00	0.00	0.00
46	Out-1305-316	Outfall	733.40					11.51	734.54					
47	Out-1400-401	Outfall	740.03					6.66	740.84					
48	OutCapCt	Outfall	0.00					0.76	0.00					
49	OutDir30RCP	Outfall	0.00					5.67	0.00					
50	403A	Storage Node	747.00	752.00	747.12		0.00	1.86	747.54				0.00	0.00
51	Lake1	Storage Node	742.50	749.20	742.50		0.00	34.69	744.00				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	305-316	Pipe	316	Out-1305-316	135.17	733.55	733.40	0.1100	30.000	0.0120	11.51	19.87	0.58	4.17	1.37	0.55	0.00	Calculated
2	316-444	Pipe	444	316	137.44	733.74	733.55	0.1400	30.000	0.0120	10.54	19.87	0.53	3.06	1.66	0.66	0.00	Calculated
3	317-318	Pipe	318	317	174.81	734.47	734.01	0.2600	24.000	0.0120	1.21	12.57	0.10	0.97	1.21	0.60	0.00	Calculated
4	317-444	Pipe	317	444	195.27	734.01	733.74	0.1400	30.000	0.0120	2.12	19.87	0.11	1.06	1.57	0.63	0.00	Calculated
5	317-447	Pipe	447	317	165.11	737.31	734.01	2.0000	15.000	0.0120	4.30	9.90	0.43	5.82	0.91	0.73	0.00	Calculated
6	318-319	Pipe	319	318	28.76	734.50	734.47	0.1000	24.000	0.0120	0.81	10.96	0.07	1.44	0.97	0.49	0.00	Calculated
7	319-319A	Pipe	319A	319	167.43	734.61	734.50	0.0700	12.000	0.0120	0.57	1.73	0.33	1.31	0.93	0.93	0.00	Calculated
8	400-401	Pipe	401	Out-1400-401	42.26	740.13	740.03	0.2400	36.000	0.0120	6.66	35.15	0.19	3.63	0.92	0.31	0.00	Calculated
9	401-402	Pipe	402	401	349.15	740.96	740.13	0.2400	36.000	0.0120	3.61	35.15	0.10	2.41	0.82	0.27	0.00	Calculated
10	402-403	Pipe	403	402	64.85	741.11	740.96	0.2400	36.000	0.0120	3.61	35.14	0.10	2.90	0.70	0.23	0.00	Calculated
11	403-403A	Pipe	403A	403	103.39	747.12	744.54	2.5000	12.000	0.0120	1.85	6.10	0.30	6.44	0.39	0.39	0.00	Calculated
12	403-404	Pipe	404	403	220.03	741.63	741.11	0.2400	36.000	0.0120	1.84	35.13	0.05	2.05	0.61	0.20	0.00	Calculated
13	404-405	Pipe	405	404	210.28	742.13	741.63	0.2400	36.000	0.0120	1.08	35.15	0.03	2.17	0.40	0.13	0.00	Calculated
14	404-407	Pipe	407	404	10.00	751.70	751.50	2.0000	12.000	0.0120	1.09	5.46	0.20	4.27	0.36	0.36	0.00	Calculated
15	405-406	Pipe	406	405	157.40	742.50	742.13	0.2400	36.000	0.0120	1.08	35.12	0.03	2.14	0.38	0.13	0.00	Calculated
16	407-408	Pipe	408	407	16.29	752.13	751.80	2.0000	12.000	0.0120	1.10	5.46	0.20	4.35	0.36	0.36	0.00	Calculated
17	408-409	Pipe	409	408	28.00	754.97	754.83	0.5000	12.000	0.0120	1.04	2.73	0.38	2.86	0.47	0.47	0.00	Calculated
18	410-411	Pipe	411	Lake1	44.83	743.40	742.50	2.0000	12.000	0.0120	4.06	5.46	0.74	7.04	0.97	0.97	0.00	Calculated
19	411-412	Pipe	412	411	141.00	749.49	746.67	2.0000	12.000	0.0120	4.07	5.46	0.74	7.09	0.69	0.69	0.00	Calculated
20	412-413	Pipe	413	412	29.94	752.29	752.14	0.5000	12.000	0.0120	3.19	2.73	1.17	4.34	0.88	0.88	0.00	> CAPACITY
21	413-414	Pipe	414	413	134.33	752.79	752.39	0.3000	12.000	0.0120	1.23	2.11	0.58	1.80	0.91	0.91	0.00	Calculated
22	415-416	Pipe	416	Lake1	70.61	744.27	742.50	2.5000	12.000	0.0120	2.83	6.10	0.46	7.67	0.72	0.72	0.00	Calculated
23	416-417	Pipe	417	416	136.00	745.39	744.37	0.7600	12.000	0.0120	2.83	3.36	0.84	4.47	0.75	0.75	0.00	Calculated
24	417-418	Pipe	418	417	28.00	745.63	745.49	0.5000	12.000	0.0120	1.49	2.73	0.55	2.60	0.70	0.70	0.00	Calculated
25	419-420	Pipe	420	Lake1	183.00	743.14	742.50	0.3500	18.000	0.0120	6.54	6.74	0.97	6.05	1.19	0.79	0.00	Calculated
26	420-421	Pipe	421	420	28.00	743.38	743.24	0.5000	18.000	0.0120	4.26	8.05	0.53	2.73	1.39	0.93	0.00	Calculated
27	422-423	Pipe	423	Lake1	183.00	743.79	742.50	0.7000	24.000	0.0120	11.71	20.57	0.57	8.36	1.01	0.50	0.00	Calculated
28	423-424	Pipe	424	423	28.38	744.03	743.89	0.5000	21.000	0.0120	7.29	12.14	0.60	4.14	1.34	0.77	0.00	Calculated
29	424-425	Pipe	425	424	137.72	744.54	744.13	0.3000	18.000	0.0120	2.34	6.23	0.38	3.03	1.12	0.74	0.00	Calculated
30	425-426	Pipe	426	425	280.00	749.64	744.64	1.7900	15.000	0.0120	1.07	9.35	0.11	2.99	0.57	0.46	0.00	Calculated
31	426-427	Pipe	427	426	298.73	755.72	749.74	2.0000	12.000	0.0120	0.09	5.46	0.02	2.52	0.11	0.11	0.00	Calculated
32	427-428	Pipe	428	427	28.00	755.96	755.82	0.5000	12.000	0.0120	0.05	2.73	0.02	1.35	0.10	0.10	0.00	Calculated
33	429-430	Pipe	430	Lake1	87.72	744.25	742.50	2.0000	21.000	0.0120	4.11	24.28	0.17	8.29	0.89	0.51	0.00	Calculated
34	430-431	Pipe	431	430	156.66	746.19	745.72	0.3000	18.000	0.0120	4.09	6.23	0.66	3.78	0.88	0.59	0.00	Calculated
35	431-432	Pipe	432	431	32.11	746.45	746.29	0.5000	18.000	0.0120	3.89	8.05	0.48	3.46	0.95	0.63	0.00	Calculated
36	432-433	Pipe	433	432	106.00	746.86	746.55	0.3000	18.000	0.0120	3.70	6.23	0.59	3.19	0.94	0.63	0.00	Calculated
37	433-434	Pipe	434	433	80.00	747.20	746.96	0.3000	18.000	0.0120	2.17	6.23	0.35	2.76	0.81	0.54	0.00	Calculated
38	433-439	Pipe	439	433	136.00	748.36	746.97	1.0200	12.000	0.0120	2.04	3.90	0.52	3.69	0.69	0.69	0.00	Calculated
39	434-441	Pipe	441	434	80.00	747.55	747.31	0.3000	12.000	0.0120	1.81	2.11	0.86	2.99	0.72	0.72	0.00	Calculated
40	438-437	Pipe	437	438	28.00	745.44	745.30	0.5000	12.000	0.0120	1.14	2.73	0.42	2.93	0.50	0.50	0.00	Calculated
41	439-440	Pipe	440	439	28.07	751.57	751.43	0.5000	12.000	0.0120	1.17	2.73	0.43	2.95	0.51	0.51	0.00	Calculated
42	441-442	Pipe	442	441	136.00	748.34	747.65	0.5100	12.000	0.0120	1.83	2.75	0.67	3.25	0.68	0.68	0.00	Calculated
43	442-443	Pipe	443	442	28.07	751.57	751.43	0.5000	12.000	0.0120	0.97	2.73	0.35	2.81	0.45	0.45	0.00	Calculated
44	444-317	Pipe	317	444	195.27	734.01	733.74	0.1400	30.000	0.0120	2.12	19.87	0.11	1.06	1.57	0.63	0.00	Calculated
45	444-445	Pipe	445	444	184.78	736.15	733.75	1.3000	18.000	0.0120	5.33	12.99	0.41	4.21	1.08	0.72	0.00	Calculated
46	445-446	Pipe	446	445	28.00	736.34	736.25	0.3000	12.000	0.0120	3.04	2.11	1.44	4.17	0.87	0.87	0.00	> CAPACITY
47	447-438	Pipe	438	447	169.99	743.92	739.67	2.5000	12.000	0.0120	1.77	6.10	0.29	6.50	0.38	0.38	0.00	Calculated
48	Outlet-01	Outlet	Lake1	406		742.50	742.50				1.08							

Junction Input

SN	Element ID	Invert Elevation	Ground/Rim (Max) Elevation	Ground/Rim (Max) Offset	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Surcharge Depth	Ponded Area	Minimum Pipe Cover
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft²)	(in)
1	316	733.55	737.55	4.00	733.55	0.00	737.55	0.00	0.00	18.00
2	317	734.01	738.38	4.37	734.01	0.00	738.38	0.00	0.00	22.44
3	318	734.47	738.90	4.43	734.47	0.00	738.90	0.00	0.00	29.16
4	319	734.50	739.00	4.50	734.50	0.00	739.00	0.00	0.00	30.00
5	319A	734.61	735.86	1.25	734.61	0.00	735.86	0.00	0.00	3.00
6	401	740.13	749.77	9.64	740.13	0.00	749.77	0.00	0.00	79.69
7	402	740.96	750.82	9.86	740.96	0.00	750.82	0.00	0.00	82.31
8	403	741.11	748.89	7.78	741.11	0.00	748.89	0.00	0.00	40.18
9	404	741.63	760.16	18.53	741.63	0.00	760.16	0.00	0.00	91.90
10	405	742.13	756.00	13.87	742.13	0.00	756.00	0.00	0.00	130.46
11	406	742.50	747.70	5.20	742.50	0.00	747.70	0.00	0.00	0.00
12	407	751.70	760.42	8.72	751.70	0.00	760.42	0.00	0.00	91.41
13	408	752.13	759.80	7.67	752.13	0.00	759.80	0.00	0.00	47.68
14	409	754.97	759.80	4.83	754.97	0.00	759.80	0.00	0.00	46.00
15	411	743.40	753.00	9.60	743.40	0.00	753.00	0.00	0.00	64.02
16	412	749.49	757.16	7.67	749.49	0.00	757.16	0.00	0.00	48.24
17	413	752.29	756.89	4.60	752.29	0.00	756.89	0.00	0.00	42.00
18	414	752.79	756.47	3.68	752.79	0.00	756.47	0.00	0.00	32.21
19	416	744.27	748.53	4.26	744.27	0.00	748.53	0.00	0.00	37.92
20	417	745.39	750.13	4.74	745.39	0.00	750.13	0.00	0.00	43.68
21	418	745.63	750.13	4.50	745.63	0.00	750.13	0.00	0.00	42.00
22	420	743.14	747.88	4.74	743.14	0.00	747.88	0.00	0.00	37.68
23	421	743.38	747.88	4.50	743.38	0.00	747.88	0.00	0.00	36.00
24	423	743.79	752.69	8.91	743.79	0.00	752.69	0.00	0.00	82.86
25	424	744.03	752.69	8.66	744.03	0.00	752.69	0.00	0.00	82.96
26	425	744.54	751.88	7.34	744.54	0.00	751.88	0.00	0.00	70.02
27	426	749.64	754.14	4.50	749.64	0.00	754.14	0.00	0.00	39.06
28	427	755.72	760.46	4.74	755.72	0.00	760.46	0.00	0.00	43.68
29	428	755.96	760.46	4.50	755.96	0.00	760.46	0.00	0.00	42.00
30	430	744.25	752.06	7.80	744.25	0.00	752.06	0.00	0.00	58.07
31	431	746.19	754.48	8.29	746.19	0.00	754.48	0.00	0.00	80.30
32	432	746.45	754.88	8.44	746.45	0.00	754.88	0.00	0.00	82.04
33	433	746.86	754.04	7.18	746.86	0.00	754.04	0.00	0.00	66.91
34	434	747.20	752.36	5.16	747.20	0.00	752.36	0.00	0.00	0.00
35	437	745.44	749.94	4.50	745.44	0.00	749.94	0.00	0.00	42.00
36	438	743.92	749.94	6.02	743.92	0.00	749.94	0.00	0.00	43.68
37	439	748.36	756.07	7.71	748.36	0.00	756.07	0.00	0.00	43.67
38	440	751.57	756.07	4.50	751.57	0.00	756.07	0.00	0.00	42.00
39	441	747.55	753.16	5.62	747.55	0.00	753.16	0.00	0.00	54.22
40	442	748.34	756.07	7.73	748.34	0.00	756.07	0.00	0.00	43.67
41	443	751.57	756.07	4.50	751.57	0.00	756.07	0.00	0.00	42.00
42	444	733.74	739.12	5.38	733.74	0.00	739.12	0.00	0.00	34.62
43	445	736.15	739.64	3.49	736.15	0.00	739.64	0.00	0.00	23.83
44	446	736.34	739.64	3.30	736.34	0.00	739.64	0.00	0.00	27.62
45	447	737.31	744.56	7.25	737.31	0.00	744.56	0.00	0.00	46.71

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	316	11.58	1.06	735.16	1.61	0.00	2.39	733.58	0.03	0 00:15	0 00:00	0.00	0.00
2	317	5.49	1.23	735.45	1.44	0.00	2.93	734.03	0.02	0 00:14	0 00:00	0.00	0.00
3	318	1.21	0.00	735.46	0.99	0.00	3.44	734.48	0.01	0 00:15	0 00:00	0.00	0.00
4	319	0.81	0.00	735.46	0.96	0.00	3.54	734.51	0.01	0 00:15	0 00:00	0.00	0.00
5	319A	0.57	0.00	735.51	0.90	0.00	0.35	734.62	0.01	0 00:16	0 00:00	0.00	0.00
6		6.68	3.42	741.16	1.03	0.00	8.61	740.36	0.23	0 00:30	0 00:00	0.00	0.00
7	402	3.61	0.00	741.61	0.65	0.00	9.21	741.16	0.20	0 00:21	0 00:00	0.00	0.00
8	403	3.63	0.00	741.86	0.75	0.00	7.03	741.33	0.22	0 00:20	0 00:00	0.00	0.00
9	404	1.88	0.00	742.10	0.47	0.00	18.07	741.83	0.20	0 00:18	0 00:00	0.00	0.00
10	405	1.08	0.00	742.51	0.38	0.00	13.49	742.33	0.20	0 00:42	0 00:00	0.00	0.00
11	406	1.08	0.00	742.88	0.38	0.00	4.82	742.71	0.21	0 00:32	0 00:00	0.00	0.00
12	407	1.10	0.00	752.12	0.42	0.00	8.30	751.71	0.01	0 00:17	0 00:00	0.00	0.00
13		1.10	0.39	752.52	0.39	0.00	7.28	752.14	0.01	0 00:17	0 00:00	0.00	0.00
14		1.04	1.04	755.48	0.51	0.00	4.32	754.98	0.01	0 00:17	0 00:00	0.00	0.00
15	411	4.07	0.00	744.33	0.93	0.00	8.67	743.47	0.07	0 00:19	0 00:00	0.00	0.00
16		4.07	1.57	750.21	0.72	0.00	6.95	749.50	0.01	0 00:15	0 00:00	0.00	0.00
17		3.19	2.01	753.46	1.17	0.00	3.43	752.30	0.01	0 00:15	0 00:00	0.00	0.00
18		1.28	1.28	753.61	0.82	0.00	2.87	752.80	0.01	0 00:15	0 00:00	0.00	0.00
19	416	2.83	0.00	744.80	0.53	0.00	3.73	744.27	0.00	0 00:13	0 00:00	0.00	0.00
20		2.84	1.60	746.20	0.81	0.00	3.94	745.41	0.02	0 00:14	0 00:00	0.00	0.00
21		1.51	1.51	746.34	0.71	0.00	3.79	745.64	0.01	0 00:12	0 00:00	0.00	0.00
22		6.59	3.15	744.69	1.55	0.00	3.19	743.28	0.14	0 00:05	0 00:00	0.00	0.00
23		4.27	4.27	744.71	1.33	0.00	3.17	743.46	0.08	0 00:05	0 00:00	0.00	0.00
24		11.64	4.99	745.25	1.46	0.00	7.44	743.82	0.03	0 00:06	0 00:00	0.00	0.00
25		7.26	5.56	745.42	1.39	0.00	7.27	744.05	0.02	0 00:12	0 00:00	0.00	0.00
26		2.08	1.63	745.50	0.96	0.00	6.38	744.56	0.02	0 00:13	0 00:00	0.00	0.00
27		1.10	1.09	749.92	0.28	0.00	4.22	749.64	0.00	0 00:13	0 00:00	0.00	0.00
28		0.11	0.06	755.81	0.09	0.00	4.65	755.72	0.00	0 00:06	0 00:00	0.00	0.00
29		0.06	0.06	756.06	0.10	0.00	4.40	755.96	0.00	0 00:05	0 00:00	0.00	0.00
30	430	4.09	0.00	744.80	0.55	0.00	7.26	744.26	0.01	0 00:08	0 00:00	0.00	0.00
31		4.10	0.40	747.18	0.99	0.00	7.30	746.21	0.02	0 00:18	0 00:00	0.00	0.00
32		3.90	0.39	747.45	1.00	0.00	7.44	746.47	0.02	0 00:18	0 00:00	0.00	0.00
33	433	3.72	0.00	747.84	0.98	0.00	6.20	746.88	0.02	0 00:17	0 00:00	0.00	0.00
34		2.25	1.75	747.94	0.74	0.00	4.42	747.22	0.02	0 00:17	0 00:00	0.00	0.00
35		1.15	1.15	745.98	0.54	0.00	3.96	745.44	0.00	0 00:09	0 00:00	0.00	0.00
36		1.79	1.42	744.31	0.39	0.00	5.63	743.93	0.01	0 00:09	0 00:00	0.00	0.00
37		2.05	1.01	748.87	0.51	0.00	7.20	748.37	0.01	0 00:15	0 00:00	0.00	0.00
38		1.18	1.18	752.12	0.55	0.00	3.95	751.58	0.01	0 00:14	0 00:00	0.00	0.00
39	441	1.83	0.00	748.35	0.81	0.00	4.81	747.56	0.02	0 00:17	0 00:00	0.00	0.00
40		1.84	0.88	748.99	0.65	0.00	7.08	748.35	0.01	0 00:17	0 00:00	0.00	0.00
41		0.97	0.97	752.06	0.49	0.00	4.01	751.58	0.01	0 00:17	0 00:00	0.00	0.00
42		11.17	1.78	735.44	1.70	0.00	3.68	733.77	0.03	0 00:14	0 00:00	0.00	0.00
43		5.35	2.91	736.82	0.67	0.00	2.82	736.16	0.01	0 00:11	0 00:00	0.00	0.00
44		3.03	3.03	737.51	1.17	0.00	2.13	736.35	0.01	0 00:10	0 00:00	0.00	0.00
45		4.32	2.60	737.89	0.58	0.00	6.67	737.32	0.01	0 00:11	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Pipe Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow Gate	No. of Barrels
															(cfs)		
1	305-316	135.17	733.55	0.00	733.40	0.00	0.15	0.1100	CIRCULAR	30.000	30.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
2	316-444	137.44	733.74	0.00	733.55	0.00	0.19	0.1400	CIRCULAR	30.000	30.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
3	317-318	174.81	734.47	0.00	734.01	0.00	0.46	0.2600	CIRCULAR	24.000	24.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
4	317-444	195.27	734.01	0.00	733.74	0.00	0.27	0.1400	CIRCULAR	30.000	30.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
5	317-447	165.11	737.31	0.00	734.01	0.00	3.30	2.0000	CIRCULAR	15.000	15.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
6	318-319	28.76	734.50	0.00	734.47	0.00	0.03	0.1000	CIRCULAR	24.000	24.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
7	319-319A	167.43	734.61	0.00	734.50	0.00	0.11	0.0700	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
8	400-401	42.26	740.13	0.00	740.03	0.00	0.10	0.2400	CIRCULAR	36.000	36.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
9	401-402	349.15	740.96	0.00	740.13	0.00	0.83	0.2400	CIRCULAR	36.000	36.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
10	402-403	64.85	741.11	0.00	740.96	0.00	0.15	0.2400	CIRCULAR	36.000	36.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
11	403-403A	103.39	747.12	0.12	744.54	3.43	2.58	2.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
12	403-404	220.03	741.63	0.00	741.11	0.00	0.52	0.2400	CIRCULAR	36.000	36.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
13	404-405	210.28	742.13	0.00	741.63	0.00	0.50	0.2400	CIRCULAR	36.000	36.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
14	404-407	10.00	751.70	0.00	751.50	9.87	0.20	2.0000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
15	405-406	157.40	742.50	0.00	742.13	0.00	0.37	0.2400	CIRCULAR	36.000	36.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
16	407-408	16.29	752.13	0.00	751.80	0.10	0.33	2.0000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
17	408-409	28.00	754.97	0.00	754.83	2.70	0.14	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
18	410-411	44.83	743.40	0.00	742.50	0.00	0.90	2.0000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
19	411-412	141.00	749.49	0.00	746.67	3.27	2.82	2.0000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
20	412-413	29.94	752.29	0.00	752.14	2.65	0.15	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
21	413-414	134.33	752.79	0.00	752.39	0.10	0.40	0.3000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
22	415-416	70.61	744.27	0.00	742.50	0.00	1.77	2.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
23	416-417	136.00	745.39	0.00	744.37	0.10	1.03	0.7600	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
24	417-418	28.00	745.63	0.00	745.49	0.10	0.14	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
25	419-420	183.00	743.14	0.00	742.50	0.00	0.64	0.3500	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
26	420-421	28.00	743.38	0.00	743.24	0.10	0.14	0.5000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
27	422-423	183.00	743.79	0.00	742.50	0.00	1.29	0.7000	CIRCULAR	24.000	24.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
28	423-424	28.38	744.03	0.00	743.89	0.10	0.14	0.5000	CIRCULAR	21.000	21.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
29	424-425	137.72	744.54	0.00	744.13	0.10	0.41	0.3000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
30	425-426	280.00	749.64	0.00	744.64	0.10	5.00	1.7900	CIRCULAR	15.000	15.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
31	426-427	298.73	755.72	0.00	749.74	0.10	5.97	2.0000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
32	427-428	28.00	755.96	0.00	755.82	0.10	0.14	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
33	429-430	87.72	744.25	0.00	742.50	0.00	1.75	2.0000	CIRCULAR	21.000	21.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
34	430-431	156.66	746.19	0.00	745.72	1.46	0.47	0.3000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
35	431-432	32.11	746.45	0.00	746.29	0.10	0.16	0.5000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
36	432-433	106.00	746.86	0.00	746.55	0.10	0.32	0.3000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
37	433-434	80.00	747.20	0.00	746.96	0.10	0.24	0.3000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
38	433-439	136.00	748.36	0.00	746.97	0.10	1.39	1.0200	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
39	434-441	80.00	747.55	0.00	747.31	0.10	0.24	0.3000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
40	438-437	28.00	745.44	0.00	745.30	1.38	0.14	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
41	439-440	28.07	751.57	0.00	751.43	3.07	0.14	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
42	441-442	136.00	748.34	0.00	747.65	0.10	0.69	0.5100	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
43	442-443	28.07	751.57	0.00	751.43	3.09	0.14	0.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
44	444-317	195.27	734.01	0.00	733.74	0.00	0.27	0.1400	CIRCULAR	30.000	30.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
45	444-445	184.78	736.15	0.00	733.75	0.01	2.41	1.3000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
46	445-446	28.00	736.34	0.00	736.25	0.10	0.08	0.3000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1
47	447-438	169.99	743.92	0.00	739.67	2.36	4.25	2.5000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00 No	1

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 305-316	11.51	0 00:15	19.87	0.58	4.17	0.54	1.37	0.55	0.00		Calculated
2 316-444	10.54	0 00:14	19.87	0.53	3.06	0.75	1.66	0.66	0.00		Calculated
3 317-318	1.21	0 00:11	12.57	0.10	0.97	3.00	1.21	0.60	0.00		Calculated
4 317-444	2.12	0 00:14	19.87	0.11	1.06	3.07	1.57	0.63	0.00		Calculated
5 317-447	4.30	0 00:11	9.90	0.43	5.82	0.47	0.91	0.73	0.00		Calculated
6 318-319	0.81	0 00:11	10.96	0.07	1.44	0.33	0.97	0.49	0.00		Calculated
7 319-319A	0.57	0 00:11	1.73	0.33	1.31	2.13	0.93	0.93	0.00		Calculated
8 400-401	6.66	0 00:30	35.15	0.19	3.63	0.19	0.92	0.31	0.00		Calculated
9 401-402	3.61	0 00:21	35.15	0.10	2.41	2.41	0.82	0.27	0.00		Calculated
10 402-403	3.61	0 00:19	35.14	0.10	2.90	0.37	0.70	0.23	0.00		Calculated
11 403-403A	1.85	0 00:28	6.10	0.30	6.44	0.27	0.39	0.39	0.00		Calculated
12 403-404	1.84	0 00:18	35.13	0.05	2.05	1.79	0.61	0.20	0.00		Calculated
13 404-405	1.08	0 00:43	35.15	0.03	2.17	1.62	0.40	0.13	0.00		Calculated
14 404-407	1.09	0 00:17	5.46	0.20	4.27	0.04	0.36	0.36	0.00		Calculated
15 405-406	1.08	0 00:41	35.12	0.03	2.14	1.23	0.38	0.13	0.00		Calculated
16 407-408	1.10	0 00:17	5.46	0.20	4.35	0.06	0.36	0.36	0.00		Calculated
17 408-409	1.04	0 00:17	2.73	0.38	2.86	0.16	0.47	0.47	0.00		Calculated
18 410-411	4.06	0 00:15	5.46	0.74	7.04	0.11	0.97	0.97	0.00		Calculated
19 411-412	4.07	0 00:15	5.46	0.74	7.09	0.33	0.69	0.69	0.00		Calculated
20 412-413	3.19	0 00:15	2.73	1.17	4.34	0.11	0.88	0.88	0.00		> CAPACITY
21 413-414	1.23	0 00:15	2.11	0.58	1.80	1.24	0.91	0.91	0.00		Calculated
22 415-416	2.83	0 00:14	6.10	0.46	7.67	0.15	0.72	0.72	0.00		Calculated
23 416-417	2.83	0 00:14	3.36	0.84	4.47	0.51	0.75	0.75	0.00		Calculated
24 417-418	1.49	0 00:12	2.73	0.55	2.60	0.18	0.70	0.70	0.00		Calculated
25 419-420	6.54	0 00:14	6.74	0.97	6.05	0.50	1.19	0.79	0.00		Calculated
26 420-421	4.26	0 00:16	8.05	0.53	2.73	0.17	1.39	0.93	0.00		Calculated
27 422-423	11.71	0 00:12	20.57	0.57	8.36	0.36	1.01	0.50	0.00		Calculated
28 423-424	7.29	0 00:13	12.14	0.60	4.14	0.11	1.34	0.77	0.00		Calculated
29 424-425	2.34	0 00:15	6.23	0.38	3.03	0.76	1.12	0.74	0.00		Calculated
30 425-426	1.07	0 00:13	9.35	0.11	2.99	1.56	0.57	0.46	0.00		Calculated
31 426-427	0.09	0 00:06	5.46	0.02	2.52	1.98	0.11	0.11	0.00		Calculated
32 427-428	0.05	0 00:05	2.73	0.02	1.35	0.35	0.10	0.10	0.00		Calculated
33 429-430	4.11	0 00:17	24.28	0.17	8.29	0.18	0.89	0.51	0.00		Calculated
34 430-431	4.09	0 00:18	6.23	0.66	3.78	0.69	0.88	0.59	0.00		Calculated
35 431-432	3.89	0 00:17	8.05	0.48	3.46	0.15	0.95	0.63	0.00		Calculated
36 432-433	3.70	0 00:17	6.23	0.59	3.19	0.55	0.94	0.63	0.00		Calculated
37 433-434	2.17	0 00:06	6.23	0.35	2.76	0.48	0.81	0.54	0.00		Calculated
38 433-439	2.04	0 00:15	3.90	0.52	3.69	0.61	0.69	0.69	0.00		Calculated
39 434-441	1.81	0 00:17	2.11	0.86	2.99	0.45	0.72	0.72	0.00		Calculated
40 438-437	1.14	0 00:09	2.73	0.42	2.93	0.16	0.50	0.50	0.00		Calculated
41 439-440	1.17	0 00:14	2.73	0.43	2.95	0.16	0.51	0.51	0.00		Calculated
42 441-442	1.83	0 00:17	2.75	0.67	3.25	0.70	0.68	0.68	0.00		Calculated
43 442-443	0.97	0 00:17	2.73	0.35	2.81	0.17	0.45	0.45	0.00		Calculated
44 444-317	2.12	0 00:14	19.87	0.11	1.06	3.07	1.57	0.63	0.00		Calculated
45 444-445	5.33	0 00:11	12.99	0.41	4.21	0.73	1.08	0.72	0.00		Calculated
46 445-446	3.04	0 00:11	2.11	1.44	4.17	0.11	0.87	0.87	0.00		> CAPACITY
47 447-438	1.77	0 00:09	6.10	0.29	6.50	0.44	0.38	0.38	0.00		Calculated

Storage Nodes

Storage Node : 403A

Input Data

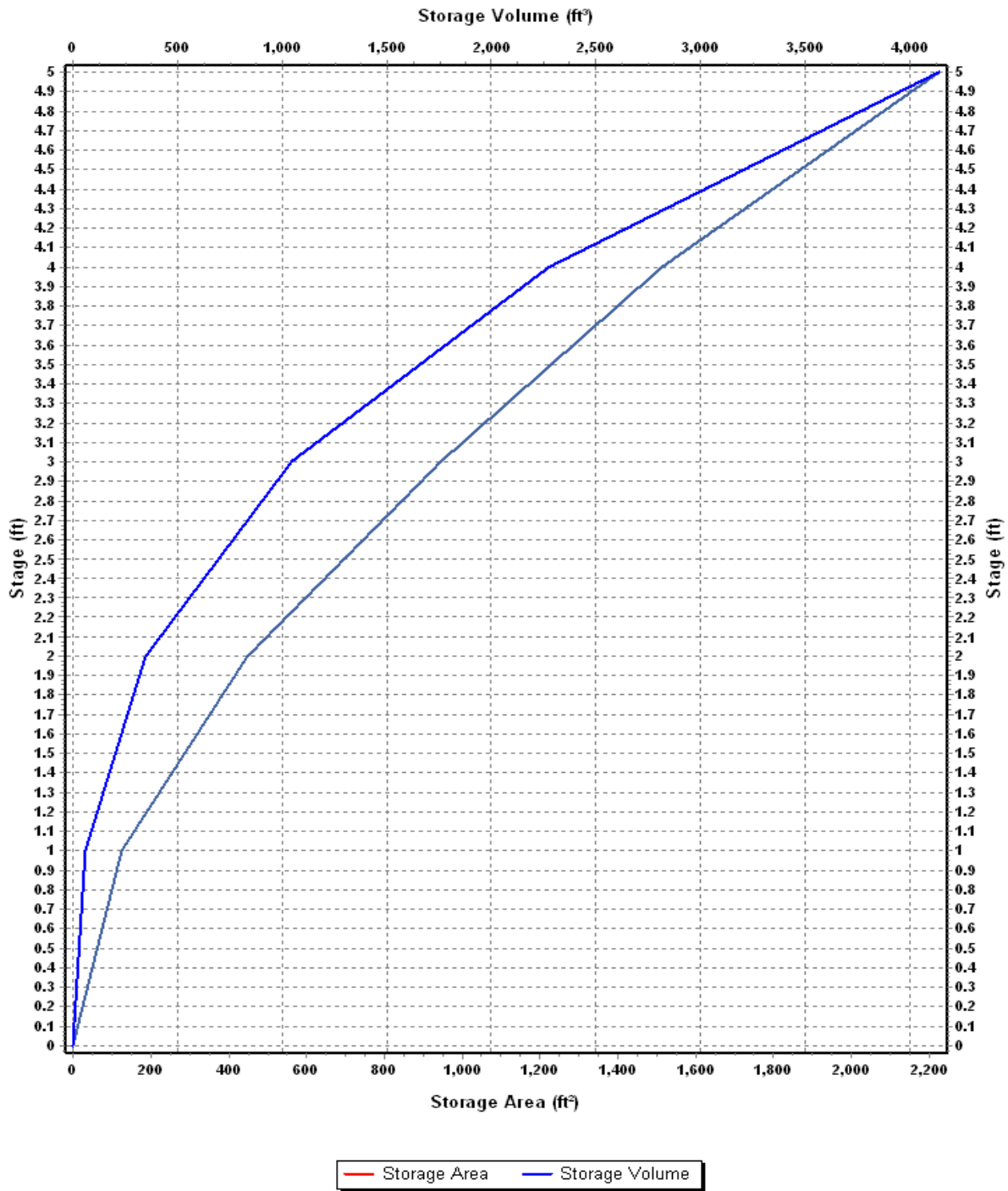
Invert Elevation (ft)	747.00
Max (Rim) Elevation (ft)	752.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	747.12
Initial Water Depth (ft)	0.12
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : 403ANode

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0.000
1	124.8	62.40
2	448.3	348.95
3	944.5	1045.35
4	1512.7	2273.95
5	2224.8	4142.70

Storage Area Volume Curves



Storage Node : 403A (continued)

Output Summary Results

Peak Inflow (cfs)	1.86
Peak Lateral Inflow (cfs)	1.86
Peak Outflow (cfs)	1.85
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	747.54
Max HGL Depth Attained (ft)	0.54
Average HGL Elevation Attained (ft)	747.14
Average HGL Depth Attained (ft)	0.14
Time of Max HGL Occurrence (days hh:mm)	0 00:28
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Lake1

Input Data

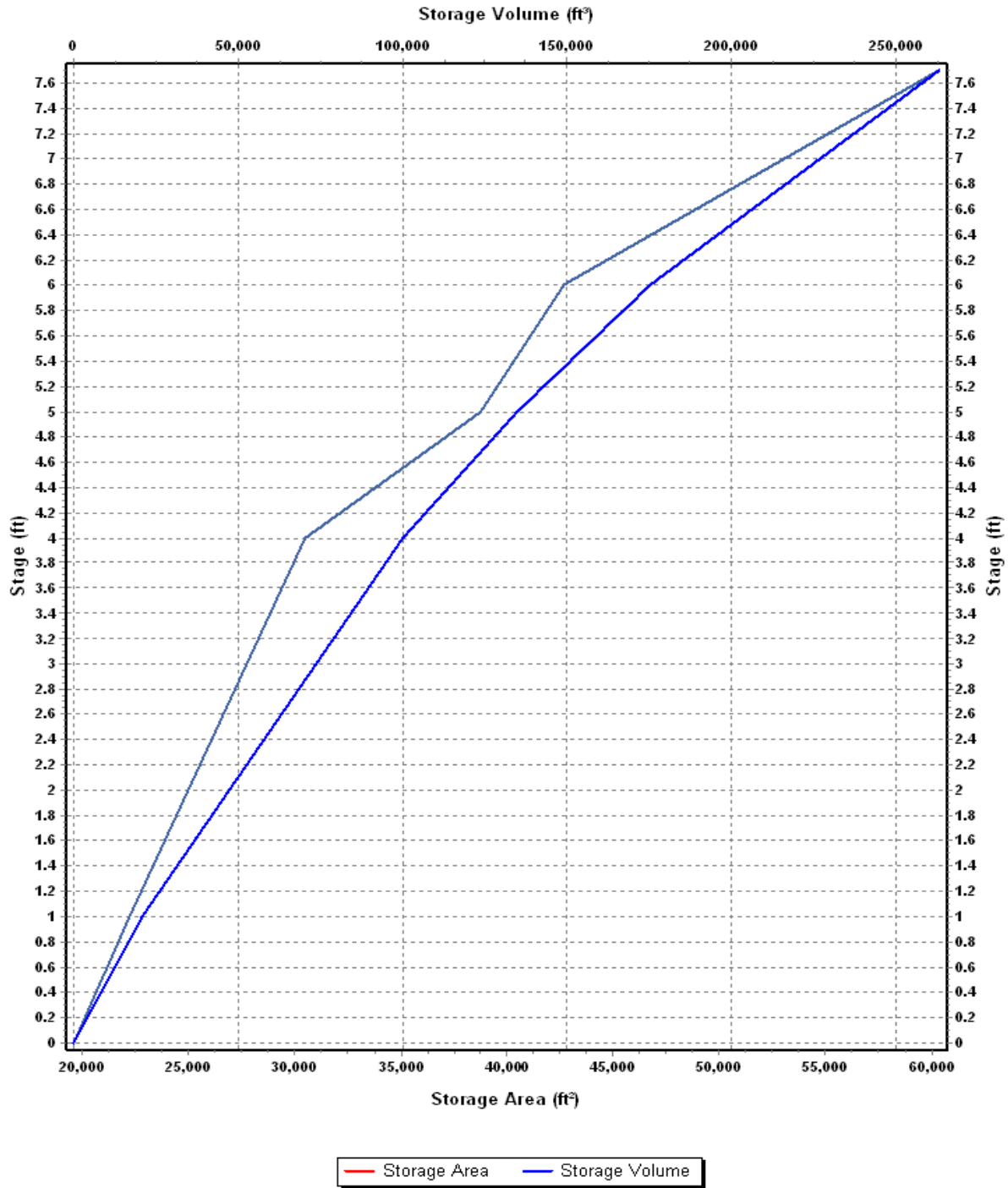
Invert Elevation (ft)	742.50
Max (Rim) Elevation (ft)	749.20
Max (Rim) Offset (ft)	6.70
Initial Water Elevation (ft)	742.50
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Lake 1

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	19602	0.000
1	22215.6	20908.80
4	30492	99970.20
5	38768.4	134600.40
6	42689	175329.10
7.7	60356	262917.35

Storage Area Volume Curves



Storage Node : Lake1 (continued)

Output Summary Results

Peak Inflow (cfs)	34.69
Peak Lateral Inflow (cfs)	7.49
Peak Outflow (cfs)	1.22
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	744.00
Max HGL Depth Attained (ft)	1.5
Average HGL Elevation Attained (ft)	742.97
Average HGL Depth Attained (ft)	0.47
Time of Max HGL Occurrence (days hh:mm)	0 00:41
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Bluffs at Youngs Creek Sections 1, 2 & 3

Curb Inlet Capacities

Job # 83540

Castings are depressed: 0.10'

Weir Equation: $Q_i = 3.0 P (d_w)^{1.5}$

Orifice Equation: $Q_i = 4.89 A_i (d_o)^{0.5}$

Neenah Inlet Type: R-3501-TL or TR

R-3501-R

	Perimeter	Area	Perimeter	Area
50% Clogged	2.3	0.7	2.75	1.3
Double Inlet	4.6	1.4	5.5	2.6

Street Width: 28 ft (Clear Lane Width formula subtracts 2 ft for curbing)
Min. Clear Lane Width: 12 ft

Inlet (#)	Rational Flow (cfs)	Grate Perimeter (ft)	Grate Area (ft ²)	Depth at Casting (Weir) (ft)	Depth at Casting (Orifice) (ft)	Cross-Sectional Slope (%)	Gutter Spread (Weir) (ft)	Gutter Spread (Orifice) (ft)	Clear Lane Width (ft)	Inlet Type
408	0.39	2.3	0.7	0.15	0.01	2.75%	1.67	0.00	17.7	Single
409	1.04	2.3	0.7	0.28	0.09	2.75%	6.60	0.00		Single
412	1.57	4.6	1.4	0.23	0.05	2.75%	4.84	0.00	14.8	Double
413	2.01	4.6	1.4	0.28	0.09	2.75%	6.37	0.00		Double
417	1.60	4.6	1.4	0.24	0.05	2.75%	4.95	0.00	16.4	Double
418	1.51	4.6	1.4	0.23	0.05	2.75%	4.62	0.00		Double
420	3.16	9.2	2.8	0.23	0.05	2.75%	4.88	0.00	12.1	Quad
421	4.27	6.9	2.1	0.35	0.17	2.75%	8.99	2.65		Triple
423	4.99	11	5.2	0.28	0.04	2.75%	6.62	0.00	12.0	QuadR
424	5.57	11	5.2	0.30	0.05	2.75%	7.40	0.00		QuadR
427	0.06	2.3	0.7	0.04	0.00	2.75%	0.00	0.00	26.0	Single
428	0.06	2.3	0.7	0.04	0.00	2.75%	0.00	0.00		Single
431	0.40	2.3	0.7	0.15	0.01	2.75%	1.76	0.00	22.6	Single
432	0.39	2.3	0.7	0.15	0.01	2.75%	1.67	0.00		Single
437	1.15	4.6	1.4	0.19	0.03	2.75%	3.24	0.00	13.8	Double
438	1.42	2.3	0.7	0.35	0.17	2.75%	8.97	2.62		Single
439	1.01	2.3	0.7	0.28	0.09	2.75%	6.40	0.00	12.1	Single
440	1.18	2.3	0.7	0.31	0.12	2.75%	7.50	0.68		Single
442	0.88	2.3	0.7	0.25	0.07	2.75%	5.51	0.00	14.4	Single
443	0.97	2.3	0.7	0.27	0.08	2.75%	6.13	0.00		Single
445	2.91	6.9	2.1	0.27	0.08	2.75%	6.13	0.00	13.4	Triple
446	3.04	6.9	2.1	0.28	0.09	2.75%	6.42	0.00		Triple

Bluffs at Youngs Creek Sections 1, 2 & 3

Gutter Spread Calculations

Job # 83540

Castings are depressed: 0.10'

$$T = \frac{d}{S_T}$$

Street Width: 28 ft

Minimum Clear Lane Width: 12 ft

Note: Shaded cells indicate the maximum gutter spread per pair of inlets

$$d = \left[1.49 Q_s n \frac{S_T}{S_L^{1/2}} \right]^{3/8}$$

(Clear Lane Width formula subtracts 2 ft for curbing)

Inlet	Rational Flow	Flow Direction	% of Flow	Divided Rational Flow	Longitudinal Slope	Cross-Sectional Slope	Manning's Coefficient	Depth at Casting	Gutter Spread	Clear Lane Width
(#)	(cfs)		(%)	(cfs)	(%)	(%)		(ft)	(ft)	(ft)
408	0.39	Left	100%	0.39	2.00%	2.75%	0.013	0.09	3.37	17.75
		Right	0%							
409	1.04	Left	0%							17.75
		Right	100%	1.04	2.00%	2.75%	0.013	0.13	4.87	
412	1.57	Left	0%							14.60
		Right	100%	1.57	2.55%	2.75%	0.013	0.15	5.44	
413	2.01	Left	100%	2.01	2.55%	2.75%	0.013	0.16	5.96	14.60
		Right	0%							
417	1.60	Left	0%							15.17
		Right	100%	1.60	2.55%	2.75%	0.013	0.15	5.47	
418	1.51	Left	100%	1.51	2.55%	2.75%	0.013	0.15	5.36	15.17
		Right	0%							
420	1.58	Left	50%	0.79	2.52%	2.75%	0.013	0.12	4.21	14.32
		Right	50%	0.79	0.60%	2.75%	0.013	0.15	5.51	
421	2.14	Left	50%	1.07	0.60%	2.75%	0.013	0.17	6.17	14.32
		Right	50%	1.07	2.52%	2.75%	0.013	0.13	4.71	
423	2.50	Left	50%	1.25	0.60%	2.75%	0.013	0.18	6.54	12.64
		Right	50%	1.25	0.60%	2.75%	0.013	0.18	6.54	
424	2.79	Left	50%	1.39	0.60%	2.75%	0.013	0.19	6.82	12.64
		Right	50%	1.39	0.60%	2.75%	0.013	0.19	6.82	
427	0.06	Left	100%	0.06	2.82%	2.75%	0.013	0.04	1.57	22.86
		Right	0%							
428	0.06	Left	0%							22.86
		Right	100%	0.06	2.82%	2.75%	0.013	0.04	1.57	
431	0.40	Left	100%	0.40	0.60%	2.75%	0.013	0.12	4.27	17.50
		Right	0%							
432	0.39	Left	0%							17.50
		Right	100%	0.39	0.60%	2.75%	0.013	0.12	4.23	
437	1.15	Left	100%	1.15	2.27%	2.75%	0.013	0.14	4.94	15.71
		Right	0%							
438	1.42	Left	0%							15.71
		Right	100%	1.42	2.27%	2.75%	0.013	0.15	5.35	
439	1.01	Left	60%	0.61	0.60%	2.75%	0.013	0.14	4.99	15.72
		Right	40%	0.40	0.60%	2.75%	0.013	0.12	4.29	
440	1.18	Left	40%	0.47	0.60%	2.75%	0.013	0.12	4.54	15.72
		Right	60%	0.71	0.60%	2.75%	0.013	0.15	5.29	
442	0.88	Left	50%	0.44	0.60%	2.75%	0.013	0.12	4.42	16.99
		Right	50%	0.44	0.60%	2.75%	0.013	0.12	4.42	
443	0.97	Left	50%	0.49	0.60%	2.75%	0.013	0.13	4.59	16.99
		Right	50%	0.49	0.60%	2.75%	0.013	0.13	4.59	
445	2.91	Left	30%	0.87	0.60%	2.75%	0.013	0.16	5.72	14.46
		Right	70%	2.04	3.26%	2.75%	0.013	0.16	5.72	
446	3.04	Left	70%	2.13	3.26%	2.75%	0.013	0.16	5.82	14.46
		Right	30%	0.91	0.60%	2.75%	0.013	0.16	5.82	

Bluffs at Youngs Creek Sections 1, 2 & 3

Yard Inlet Capacities

Job # 83540

Neenah Inlet Type: R-4342

	Perimeter	Area
Clogged	6.00	2.00
50%	3.00	1.00

For yard inlets located in rear yards
Ponding depth at casting can be no greater than 9
inches or 0.75 feet

Inlet	Rational Flow	Grate Perimeter	Grate Area	Depth at Casting (Weir)	Depth at Casting (Orifice)
(#)	(cfs)	(ft)	(ft ²)	(ft)	(ft)
401	3.42	3.00	1.00	0.52	0.49
414	1.28	3.00	1.00	0.27	0.07
425	1.63	3.00	1.00	0.32	0.11
426	1.09	3.00	1.00	0.24	0.05
434	1.75	3.00	1.00	0.33	0.13
444	1.79	3.00	1.00	0.34	0.13
447	2.61	3.00	1.00	0.44	0.28

APPENDIX D

WATER QUALITY ANALYSIS

Bluffs at Youngs Creek Sections 1, 2 & 3

Job # 83540

Water Quality Volume

Detention Pond	Total Drainage Area (ac)	1/2" Direct Runoff (ft ³)	1 1/4" 24hr Runoff (ft ³)	Water Quality Volume (WQv) (ft ³)
Lake #1	17.37	31526.55	26294.5	6305

WQv = 20% of the larger of 1/2" Direct runoff or runoff from the 1 1/4" 24 hr rainfall event

Lake Staging Above Normal Pool

Water Quality Volume (ft ³)	6305
Normal Pool Elevation	742.5
Water Quality Elevation	742.80
Water Quality Stage Height (ft)	0.30

	Peak of Lake Discharge		
	2 yr	10 yr	100 yr
Time (hr)	13.4	12.97	6.9
Elev (ft)	745.12	746.22	747.81

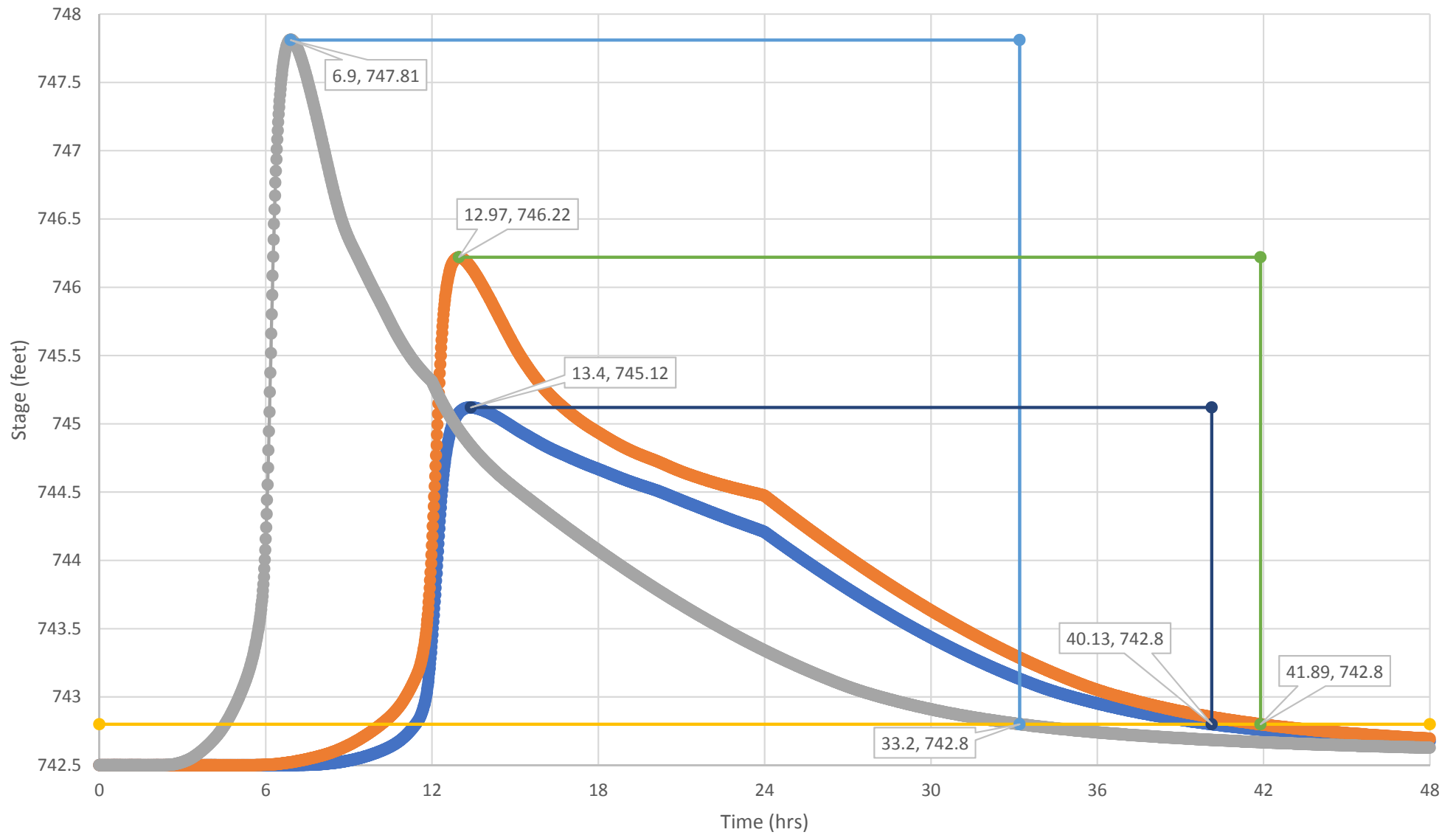
Elevation	Average Area (ft ²)	Volume (ft ³)	Cumulative Volume (ft ³)
742.5	19602	0	0
743	22216	10454	10454
746	30492	79061	89516
747	38768	34630	124146
748	42689	40729	164875
749.7	60356	133818	257964

Normal Pool

Top of bank

	Time to WQv		
	2 yr	10 yr	100 yr
Time (hr)	40.13	41.89	33.20
	>24 hr	>24 hr	>24 hr
Elev (ft)	742.80	742.80	742.80

Lake 1 Water Quality Volume

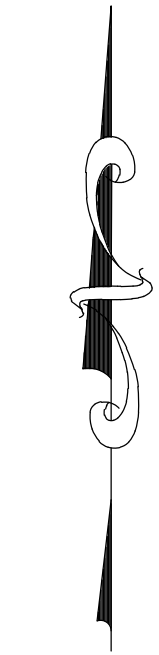
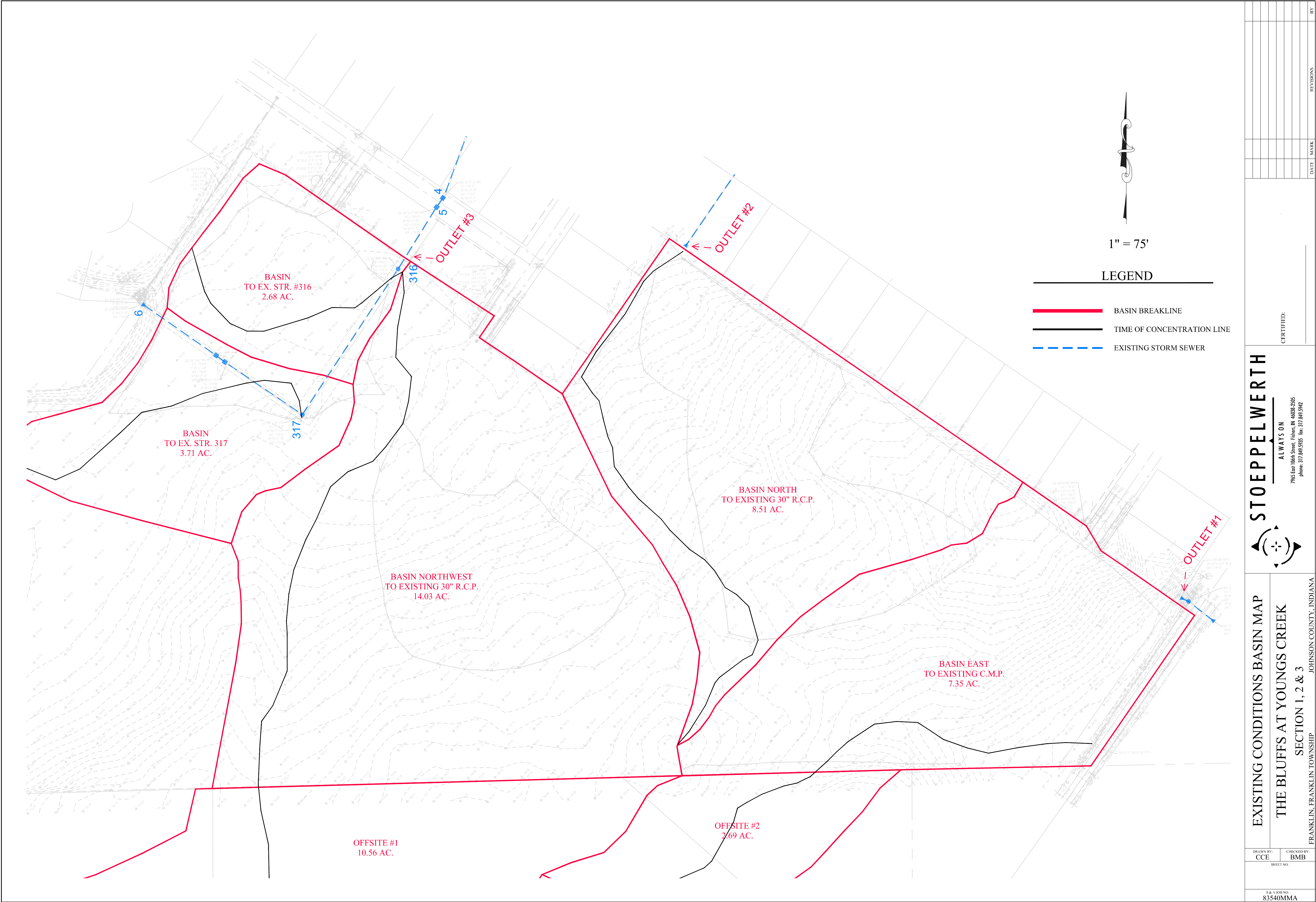


APPENDIX E

BASIN MAPS



STOEPPELWERTH		ALWAYS ON		CERTIFIED:		DATE:		MARK:		REVISIONS		BY:	
EXISTING CONDITIONS BASIN MAP		THE BLUFFS AT YOUNGS CREEK		ADJOINING AREA		JOHNSON COUNTY, INDIANA		FRANKLIN, FRANKLIN TOWNSHIP		S.A.A. JOB NO.		83540MMA	
DRAWN BY: CCE		CHECKED BY: BMB		SHEET NO.									



1" = 75'

LEGEND

- BASIN BREAKLINE
- TIME OF CONCENTRATION LINE
- EXISTING STORM SEWER

EXISTING CONDITIONS BASIN MAP

THE BLUFFS AT YOUNGS CREEK

SECTION 1, 2 & 3

FRANKLIN, FRANKLIN TOWNSHIP

STOEPPELWERTH

ALWAYS ON

7965 East 100th Street, Fisher, IN 46038-2505
phone: 317.849.5935 fax: 317.849.5942

DRAWN BY: CCE

CHECKED BY: BMB

SHEET NO.

S & A JOB NO.
83540MMA

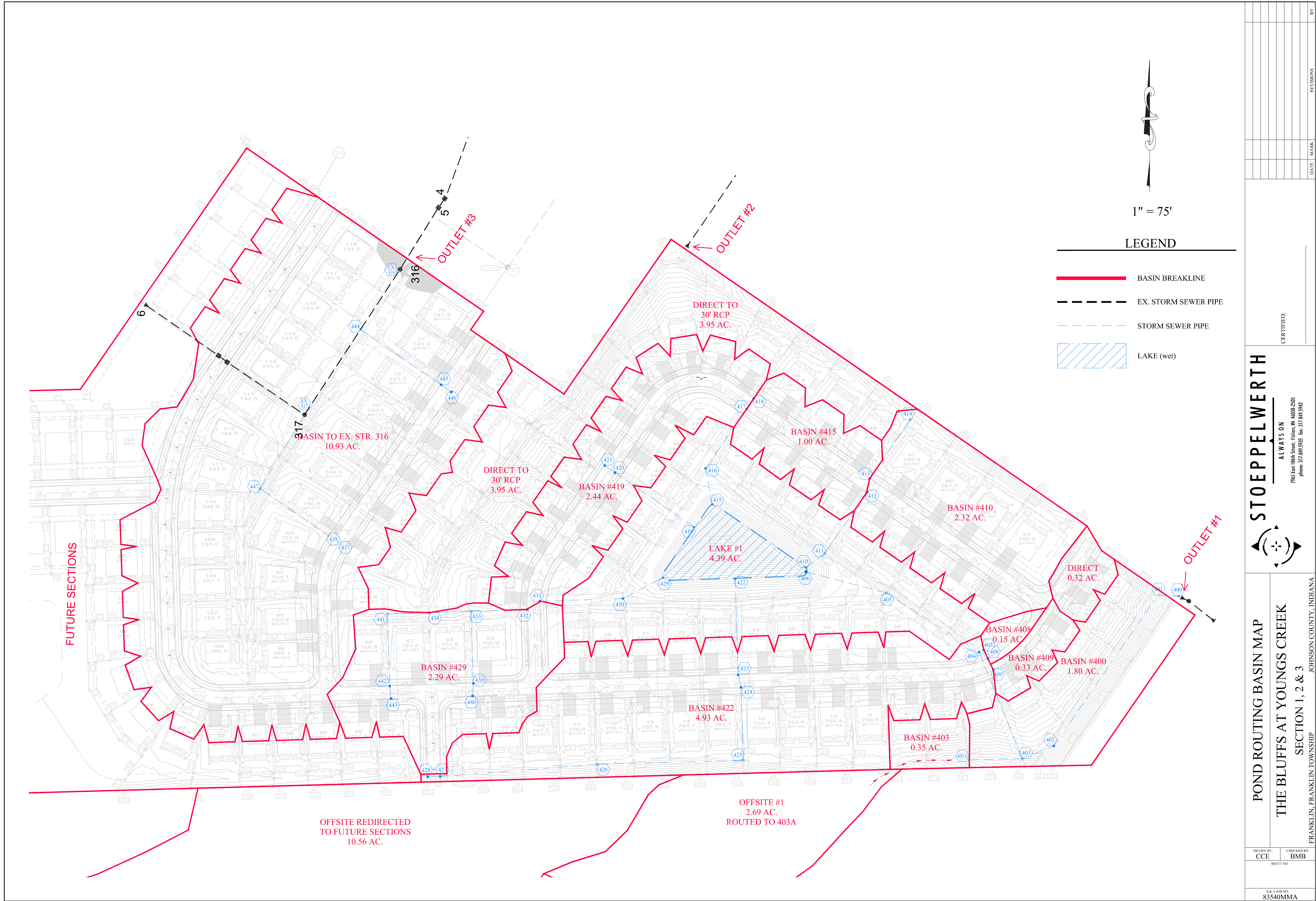
CERTIFIED:

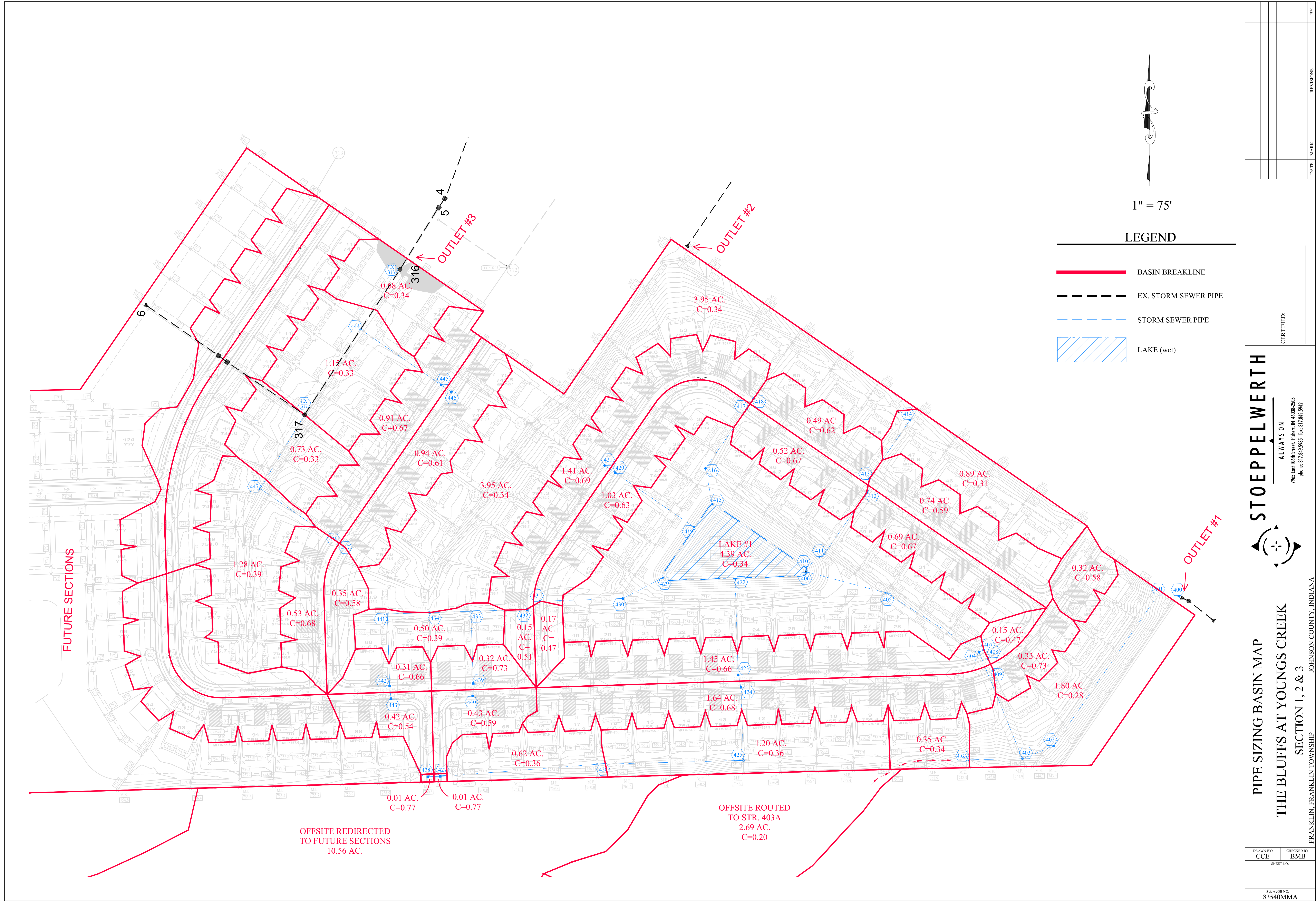
DATE

MARK

REVISIONS

BY





S&A JOB NO. 83540MMA		SHEET NO.		DRAWN BY: CCE		CHECKED BY: BMB	
FRANKLIN, FRANKLIN TOWNSHIP				JOHNSON COUNTY, INDIANA			
PIPE SIZING BASIN MAP				THE BLUFFS AT YOUNGS CREEK			
SECTION 1, 2 & 3				STOEPPELWERTH			
ALWAYS ON				CERTIFIED:			
7965 East 100th Street, Fisher, IN 46038-2505				phone: 317.849.5955 fax: 317.849.5942			
DATE		MARK		REVISIONS		BY	