

# Stormwater Report

FOR

## Lake Hills Main Blvd & Mass Grading

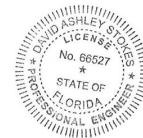


**MADDEN**  
**MOORHEAD & STOKES, LLC**  
**CIVIL ENGINEERS**

Prepared by:

Madden, Moorhead, & Stokes, LLC.  
431 E. Horatio Avenue, Suite 260  
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November, 2024



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Stokes

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David A. Stokes, P.E. #66527  
Certificate of Authorization No. EB-0007723

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## **Introduction**

The proposed project, Lake Hills Mass Infrastructure, is in Howey-In-The-Hills, Florida. The project is located northwest of the CR48 and SR19 intersection. The development consists of a spine road to future development. The analysis provided in this report supports that the proposed project follows the stormwater management requirements of the SJRWMD and Howey-In-The-Hills, FL.

## **Existing Conditions**

The undeveloped site is +/- 210 acres with grazing grassland of good condition. The site has a combination soils. There are 6 pre-development basins. Basin Pre-1 is the north side of the site adjacent to Lake Harris. Basin Pre-2 is the western corner that goes to an onsite wetland W-3. Basin Pre-3 is a portion of CR48 that goes to an onsite wetland W-4. Basin Pre-4 is along the southern property boundary and goes to onsite wetland W-4. Basin Pre-5 goes to the onsite wetlands W-5/6. Basin Pre-6 goes to an onsite depression. Please see Appendices B through F for the predevelopment stormwater analysis.

## **Proposed Conditions**

The proposed development consists of ten drainage basins. Pond 1 is a 100yr/24hr retention pond that will service a portion of our onsite drainage and offsite area. Pond 2 and Pond 3 are interconnected wet ponds that outfall into Pond 10. Pond 4 and Pond 10 are interconnected wet ponds and outfall into Lake Harris. Pond 5 is a dry pond that has an outfall to Pond 10. Pond 7 is a wet pond that outfalls to Lake Harris. Pond 8 is a wet pond that outfalls to Lake Harris. Pond 9 is a wet pond that outfalls to Lake Harris. Pond 12 is a wet pond that outfalls to Lake Harris. All ponds are designed in accordance with the town of Howey-In-The-Hills and SJRWMD standards. Refer to Appendices G through K for the post development stormwater analysis. A summary of post stormwater analysis is presented in Appendix A.

## **Stormwater Management Criteria**

Attenuation:

SJRWMD:

The post development maximum rate of discharge cannot exceed the predevelopment maximum rate for the 25yr/24hr storm event and Mean/24hr storm event.

Pollution Abatement Volume:

Dry Pond:

In accordance with SJRWMD design criteria, the pollution abatement volume criteria is 1.25 inches times impervious area in addition to 0.5 inches over the total area.

Wet Pond:

In accordance with SJRWMD design criteria, the pollution abatement volume criteria is 2.5" over the impervious areas or 1" over the entire area, whichever is greater.

Wet Pond Drawdown:

SJRWMD:

No more than half the treatment volume should be discharged in the first 24-30 hours after the storm event.

Permanent Pool Volume:

SJRWMD:

The permanent pool shall be sized to provide at least a 14-day average residence time

during the wet season (June - October). As an option to maintaining a littoral zone an additional 50% of the appropriate permanent pool volume is required.

### **Nutrient Analysis**

The ultimate receiving water body for this project is Lake Harris. Lake Harris is impaired for nutrients. Please see Appendix M for Pre/Post Nutrient Analysis.

### **100-Year Floodplain**

Flood plain information was obtained from the Flood Insurance Rate Map (FIRM); map #12069C0485E effective date December 18, 2012. The property lies within Flood Zone 'X' – and is not located within the 100 year flood hazard area with a portion of the property lying within Flood Zone 'A' & 'AE' and is in a special flood hazard area subject to inundation by the 1% annual chance flood.

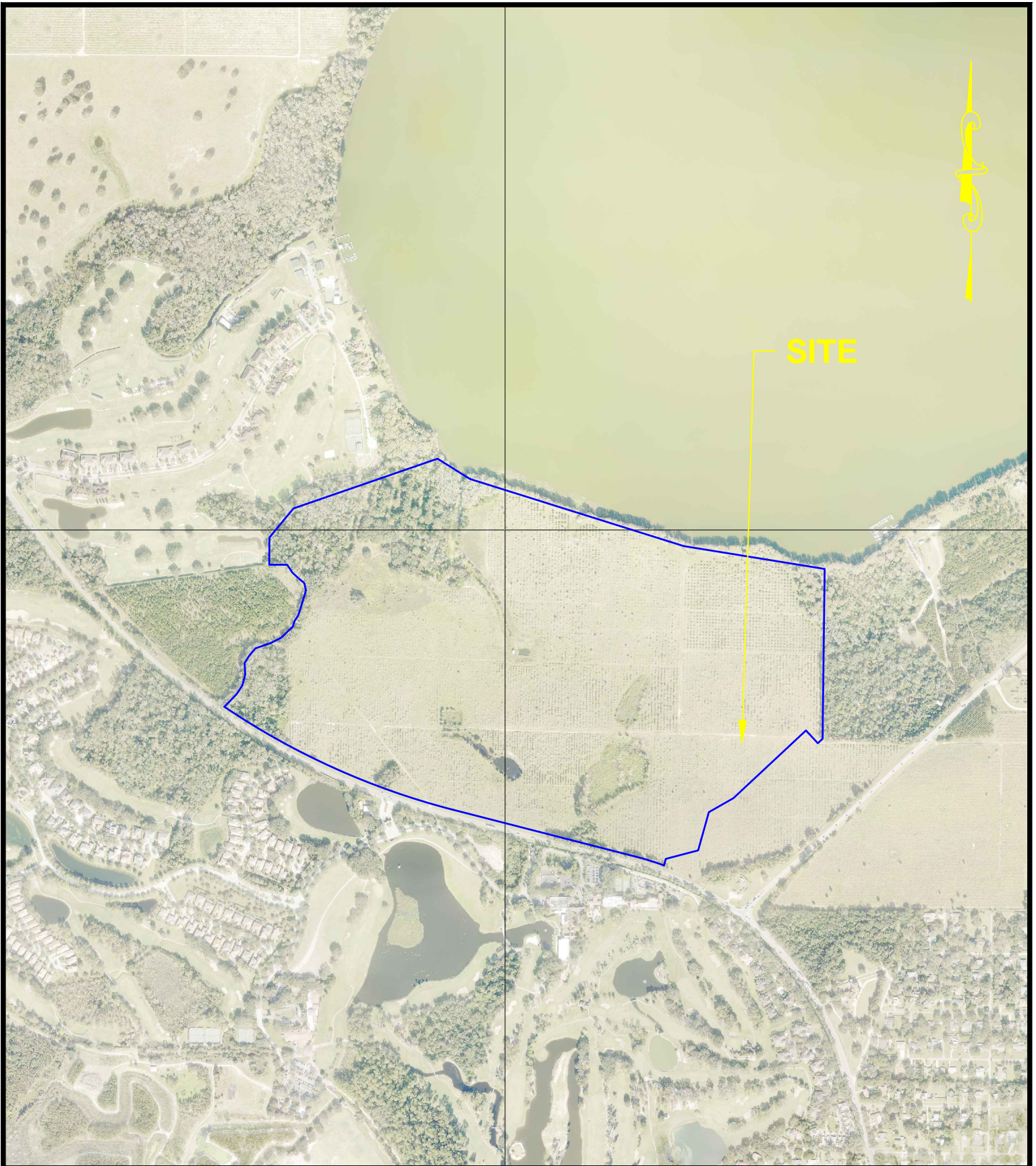
### **Tailwater Discussion**

The tailwater is Lake Harris along the north property boundary. The tailwater elevation used for this analysis was 63.32, which is near the existing wetland line.

### **Secondary Drainage System**

The secondary drainage system was modeled with the Storm Sewers program. The secondary drainage calculations are in Appendix N.

# **EXHIBITS**



**SITE**



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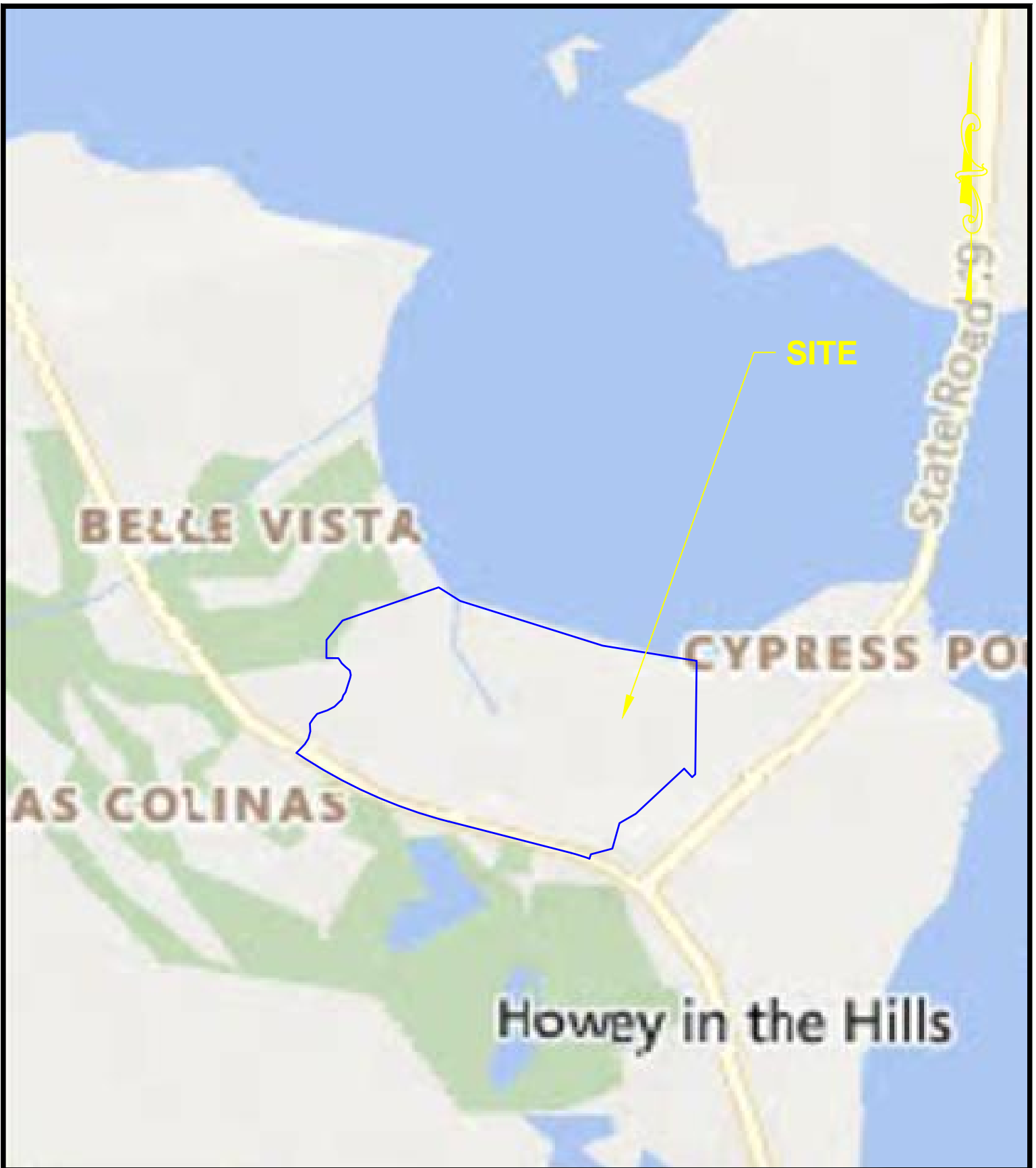
431 E. HORATIO AVE., STE. 260, MAITLAND, FL 32751 \* (407) 629-8330

JOB NO.	23019
SEC. 22, TWP. 20, RANGE 25	
DRAWN BY:	KAC
APPROVED BY:	DAS
DATE:	11/06/2024
Scale:	1" = 1000'

**LAKE HILLS**

AERIAL MAP

GOOGLE MAPS



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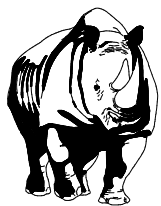
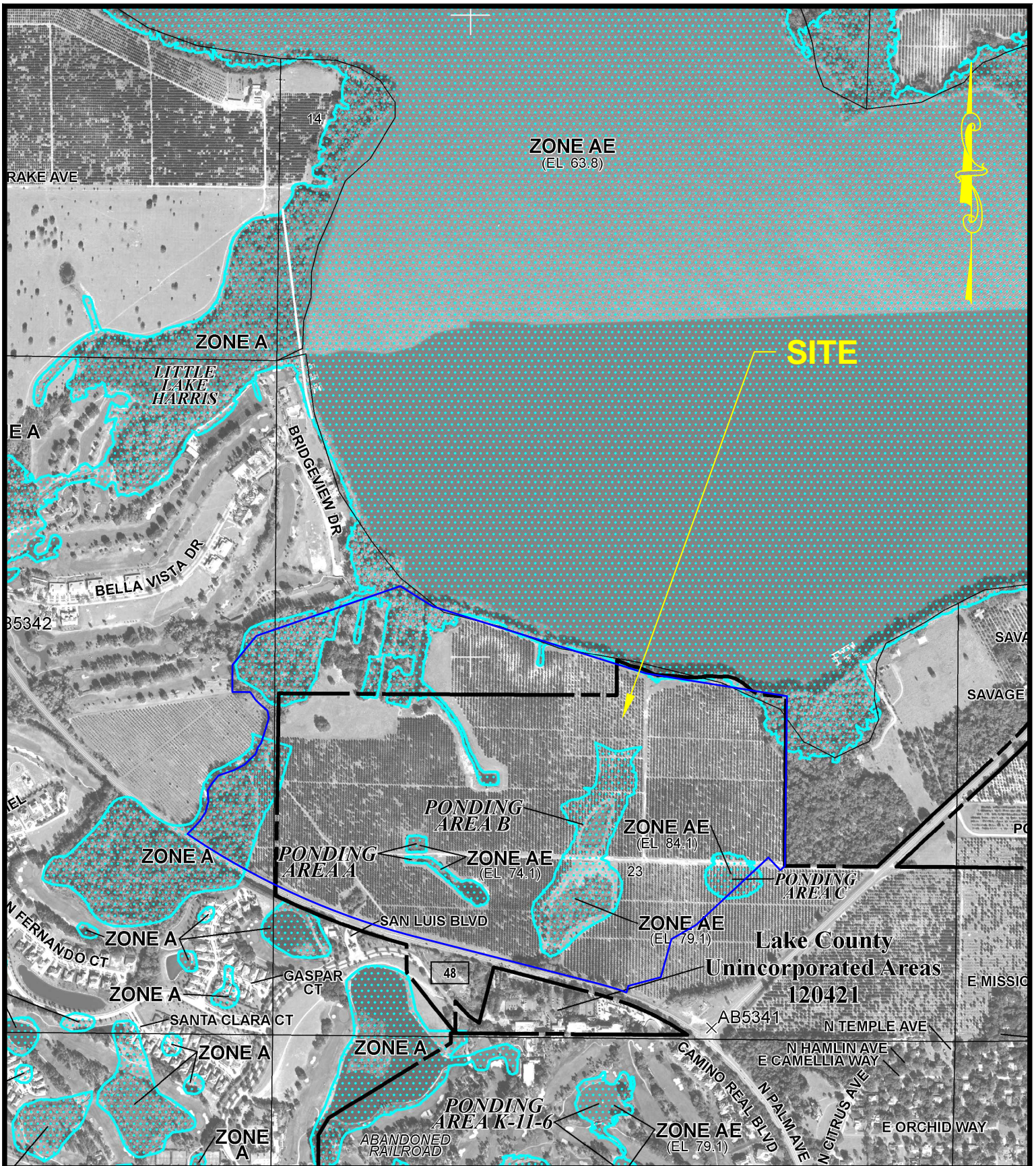
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LAKE HILLS

LOCATION MAP

GOOGLE MAPS



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DRAWN BY:	KAC
APPROVED BY:	DAS
DATE:	11/06/2024
Scale:	1" = 1000'

**LAKE HILLS**  
 FLOOD INSURANCE RATE MAP  
 LAKE COUNTY, FLORIDA  
 MAP #12069C0485E  
 EFFECTIVE DATE DEC. 18, 2012



## Summary Sheet

### Pre vs. Post Development Discharge

Node	Storm Event	Pre-Development Discharge (cfs)	Post-Development Discharge (cfs)	Pre/Post Difference (cfs)
Lake Harris	25yr/24hr	333.54	235.04	- 98.5
Lake Harris	Mean/24hr	93.63	9.72	- 83.91

### Post-Development Pond Stages

Pond	Mean Annual Stage (ft)	10yr/24hr Stage(ft)	25yr/24hr Stage (ft)	100yr/24hr Stage(ft)	Top of Pond (ft)
PD1	91.14	82.52	83.84	86.17	90.00
PD2	75.70	76.01	76.56	77.91	78.00
PD3	75.70	75.99	76.42	77.59	78.00
PD4	67.48	67.73	68.17	68.94	69.00
PD5	80.21	80.53	80.94	81.87	83.00
PD7	67.29	67.66	68.32	69.9	70.00
PD8	67.14	67.44	67.78	68.14	69.00
PD9	67.24	67.70	68.13	69.04	71.00
PD10	67.47	67.72	68.12	68.69	69.00
PD12	66.53	66.87	67.34	68.52	70.00

**Appendix B**  
**Predevelopment Basin Map**

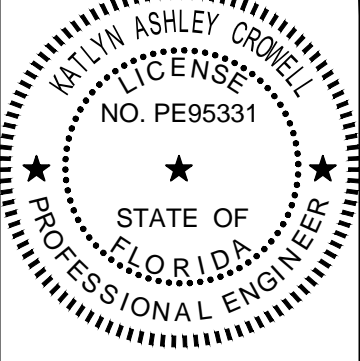


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 CA# 0007723

**SITE PLAN**  
 FOR  
**23019-LAKE HILLS - STREET A**  
 LAKE COUNTY  
 FLORIDA

**READER & PARTNERS, LLC**  
 6860 TB LEE BOULEVARD, SUITE 200  
 ORLANDO, FL 32822  
 (407) 866-4899

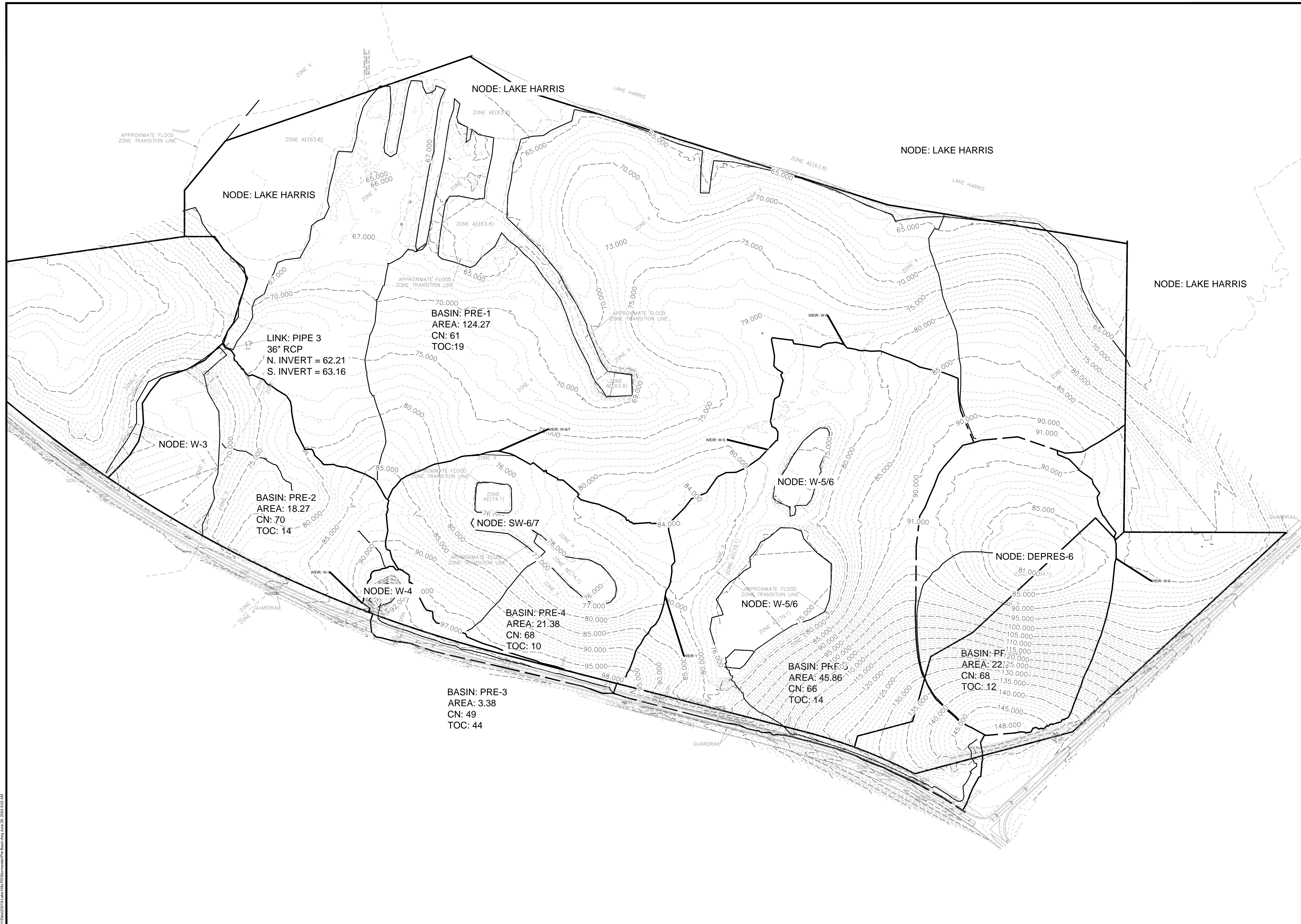
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 DATUM: NAVD 88  
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 APPROVED BY: XXXX

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**Appendix C**  
**Predevelopment Hydrology Calculations**

Basin PRE-1	103.42 Ac.
Basin PRE-2	12.76 Ac.
Basin PRE-3	3.19 Ac.
Basin PRE-4	21.38 Ac.
Basin PRE-5	45.86 Ac.
Basin PRE-6	22.88 Ac.
Total Basin Area:	209.49 Ac.

**CURVE NUMBER CALCULATION:**

**Basin PRE-1**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Pasture, grassland, or range	A	49	60.09	2944.4
Woods	A/D	79	14.16	1118.6
Woods-grass combination	B	58	17.33	1005.1
Pasture, grassland, or range	B/D	80	11.84	947.2
<b>TOTAL AREA</b>			<b>103.42</b>	<b>6015.4</b>
			<b>CN =</b>	<b>58</b>

**Basin PRE-2**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Pasture, grassland, or range	A	49	5.46	267.54
Pasture, grassland, or range	A/D	80	7.13	570.4
Woods	A/D	79	0.17	13.43
<b>TOTAL AREA</b>			<b>12.76</b>	<b>851.4</b>
			<b>CN =</b>	<b>67</b>

**Basin PRE-3**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Pasture, grassland, or range	A	49	3.19	156.31
<b>TOTAL AREA</b>			<b>3.19</b>	<b>156.3</b>
			<b>CN =</b>	<b>49</b>

**Basin PRE-4**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Pasture, grassland, or range	A	68	14.05	955.4
Pasture, grassland, or range	B	61	5.2	317.2
<b>TOTAL AREA</b>			<b>19.25</b>	<b>1272.6</b>
			<b>CN =</b>	<b>66</b>

**Basin PRE-5**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Pasture, grassland, or range	A	68	34.53	2348.04
Pasture, grassland, or range	B	61	5.44	331.84
<b>TOTAL AREA</b>			<b>39.97</b>	<b>2679.9</b>
			<b>CN =</b>	<b>67</b>

**Basin PRE-6**

**Total**

Land Use/Vegetation	Hydric Group	CN	Area (Ac.)	CN * Area
Pasture, grassland, or range	A	68	22.88	1555.84
<b>TOTAL AREA</b>			22.88	1555.8
			<b>CN =</b>	<b>68</b>

Segment	PRE-1	PRE-2	PRE-3	PRE-4	PRE-5	PRE-6
Total flow length, ft.	1276	1021	1255	651	1890	1270
Sheet Flow						
Manning's n	0.13	0.13	0.13	0.13	0.13	0.13
Flow length, ft.	100	100	100	100	100	100
2 yr/24 hour rainfall, in.	4.5	4.5	4.5	4.5	4.5	4.5
Start elevation, ft.	87	92	96	96.05	148	148
End elevation, ft.	86	90.4	95.96	93.15	134.5	145.7
Slope, ft/ft	0.01000	0.01600	0.00040	0.02900	0.13500	0.02300
T <sub>b</sub> , hour	0.16	0.13	0.59	0.11	0.06	0.12
Shallow Concentrated Flow						
Flow length, ft.	1176	921	1155	551	1790	1170
Start elevation, ft.	86	90.4	95.96	93.15	134.5	145.7
End elevation, ft.	65	68	74	75	75	81
Slope, ft/ft	0.01786	0.02432	0.01901	0.03294	0.03324	0.05530
Average velocity, ft/s	2.2	2.45	2.2	2.9	2.9	3.8
T <sub>b</sub> , hour	0.148	0.104	0.146	0.053	0.171	0.086
Time of concentration, hr.	0.31	0.24	0.73	0.16	0.23	0.20
Time of concentration, min.	18.6	14.3	44.0	9.5	13.7	12.1
<b>Time of Concentration For</b>						
<b>    Calculations (min.):</b>	<b>19</b>	<b>14</b>	<b>44</b>	<b>10</b>	<b>14</b>	<b>12</b>

Basin Lake Harris	18.80 Ac.
Basin W-3	5.50 Ac.
Basin W-4	0.19 Ac.
Basin S/W 6-7	2.13 Ac.
Basin W-5/6	5.89 Ac.
Total Basin Area:	32.51 Ac.

**CURVE NUMBER CALCULATION:**

**Basin Lake Harris**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Wetlands	N/A	98	18.80	1842.4
TOTAL AREA			18.80	1842.4
			<b>CN =</b>	<b>98</b>

**Basin W-3**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Wetlands	N/A	98	5.5	539
TOTAL AREA			5.50	539.0
			<b>CN =</b>	<b>98</b>

**Basin W-4**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Wetlands	N/A	98	0.19	18.62
TOTAL AREA			0.19	18.6
			<b>CN =</b>	<b>98</b>

**Basin S/W 6-7**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Wetlands	N/A	98	2.13	208.74
TOTAL AREA			2.13	208.7
			<b>CN =</b>	<b>98</b>

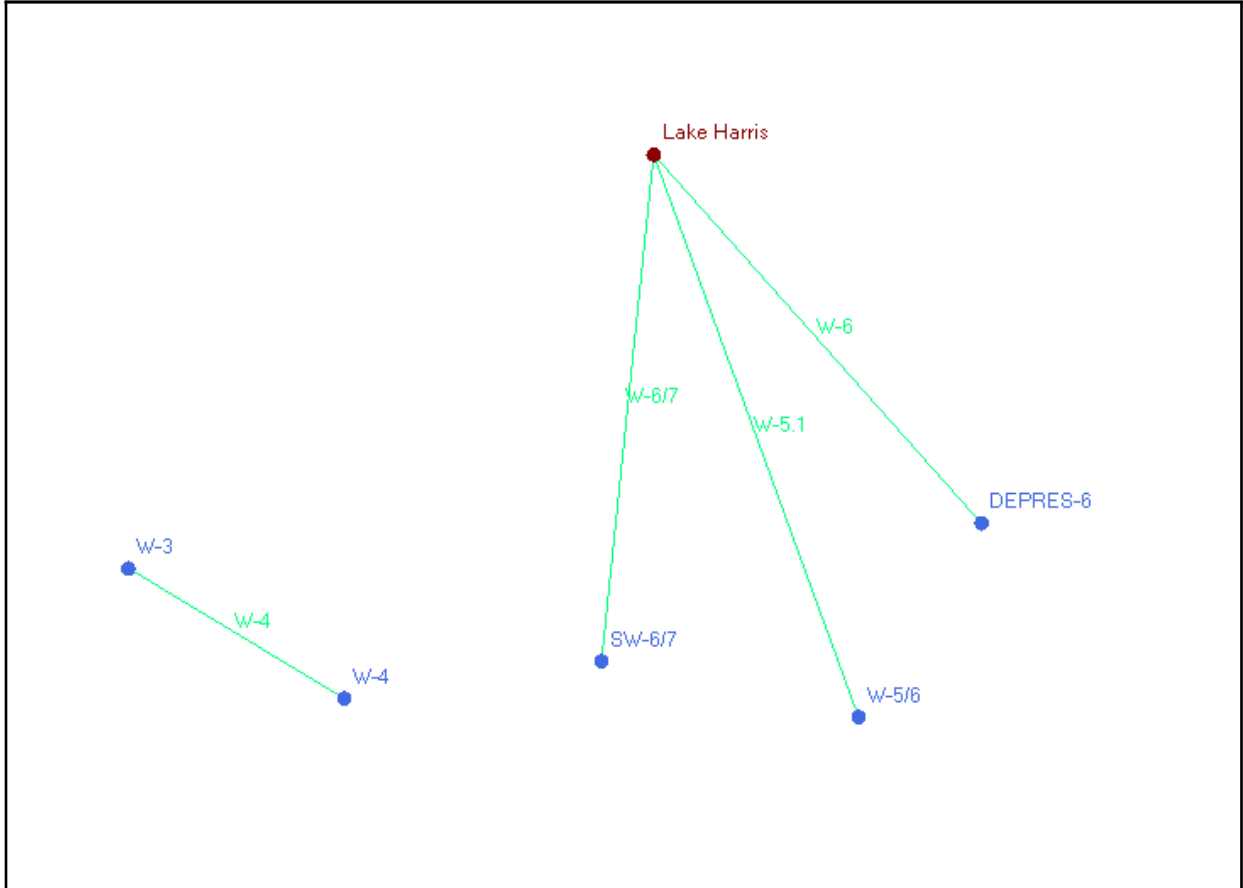
**Basin W-5/6**

Land Use/Vegetation	Hydric Group	CN	Total Area (Ac.)	CN * Area
Wetlands	N/A	98	5.89	577.22
TOTAL AREA			5.89	577.2
			<b>CN =</b>	<b>98</b>

**Appendix D**  
**Predevelopment ICPR Node Diagram**



Background Image: PRE NODE



**Appendix E**  
**Predevelopment ICPR Input Data**

## Simple Basin: Pre-1

Scenario: PREDEVELOPMENT  
Node: Lake Harris  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 19.0000 min  
Max Allowable Q: 99999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 124.2700 ac  
Curve Number: 61.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Pre-2

Scenario: PREDEVELOPMENT  
Node: W-3  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 14.0000 min  
Max Allowable Q: 99999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 18.2700 ac  
Curve Number: 70.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Pre-3

Scenario: PREDEVELOPMENT  
Node: W-4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 44.0000 min  
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 3.3800 ac  
Curve Number: 49.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

#### Simple Basin: Pre-4

Scenario: PREDEVELOPMENT  
Node: SW-6/7  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 21.3800 ac  
Curve Number: 68.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

#### Simple Basin: Pre-5

Scenario: PREDEVELOPMENT  
Node: W-5/6  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 14.0000 min  
Max Allowable Q: 99999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 45.8600 ac  
Curve Number: 66.0  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
 Rainfall Name:

Comment:

Simple Basin: Pre-6

Scenario: PREDEVELOPMENT  
 Node: DEPRES-6  
 Hydrograph Method: NRCS Unit Hydrograph  
 Infiltration Method: Curve Number  
 Time of Concentration: 12.0000 min  
 Max Allowable Q: 99999.00 cfs  
 Time Shift: 0.0000 hr  
 Unit Hydrograph: UH484  
 Peaking Factor: 484.0  
 Area: 22.8800 ac  
 Curve Number: 68.0  
 % Impervious: 0.00  
 % DCIA: 0.00  
 % Direct: 0.00  
 Rainfall Name:

Comment:

Node: DEPRES-6

Scenario: PREDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 81.00 ft  
 Warning Stage: 85.00 ft

Stage [ft]	Area [ac]	Area [ft2]
81.00	0.4300	18731
82.00	1.0200	44431
83.00	1.6600	72310
84.00	2.6900	117176
85.00	3.7600	163786

Comment:

Node: Lake Harris

Scenario: PREDEVELOPMENT

Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 63.80 ft  
 Warning Stage: 64.80 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	63.80
0	0	0	12.0000	63.80
0	0	0	24.0000	63.80
0	0	0	36.0000	63.80

Comment:

Node: SW-6/7

Scenario: PREDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 75.00 ft  
 Warning Stage: 77.00 ft

Stage [ft]	Area [ac]	Area [ft2]
75.00	0.5300	23087
76.00	2.1800	94961
77.00	4.3800	190793

Comment:

Node: W-3

Scenario: PREDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 66.00 ft  
 Warning Stage: 71.00 ft

Stage [ft]	Area [ac]	Area [ft2]
66.00	0.0100	436
67.00	0.0300	1307
68.00	0.7600	33106
69.00	2.3200	101059
70.00	4.0300	175547
71.00	5.7700	251341

Comment:

## Node: W-4

Scenario: PREDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 75.00 ft  
 Warning Stage: 90.00 ft

Stage [ft]	Area [ac]	Area [ft2]
75.00	0.0200	871
76.00	0.0700	3049
77.00	0.1000	4356
78.00	0.1300	5663
79.00	0.1600	6970
80.00	0.1900	8276
81.00	0.2500	10890
82.00	0.2600	11326
85.00	0.3400	14810
87.00	0.3900	16988
88.00	0.4200	18295
89.00	0.4500	19602
90.00	0.4900	21344

Comment:

## Node: W-5/6

Scenario: PREDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 75.00 ft  
 Warning Stage: 79.00 ft

Stage [ft]	Area [ac]	Area [ft2]
75.00	5.1700	225205
76.00	6.7400	293594
77.00	7.8500	341946
78.00	10.3000	448668
79.00	14.2300	619859

Comment:

## Weir Link: W-4

Scenario: PREDEVELOPMENT  
 From Node: W-4  
 To Node: W-3  
 Link Count: 1

Bottom Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:

Flow Direction:	Both	
Damping:	0.0000 ft	Top Clip
Weir Type:	Broad Crested Vertical	Default: 0.00 ft
Geometry Type:	Trapezoidal	Op Table:
Invert:	90.00 ft	Ref Node:
Control Elevation:	90.00 ft	Discharge Coefficients
Max Depth:	9999.00 ft	Weir Default: 2.800
Extrapolation Method:	Normal Projection	Weir Table:
Bottom Width:	55.23 ft	Orifice Default: 0.600
Left Slope:	5.000 (h:v)	Orifice Table:
Right Slope:	5.000 (h:v)	
Comment:		

Weir Link: W-5		
Scenario:	PREDEVELOPMENT	Bottom Clip
From Node:	W-5/6	Default: 0.00 ft
To Node:	Lake Harris	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	78.10 ft	Discharge Coefficients
Control Elevation:	78.10 ft	Weir Default: 2.800
Cross Section:	W-5	Weir Table:
		Orifice Default: 0.600
		Orifice Table:
Comment:		

Weir Link: W-5.1		
Scenario:	PREDEVELOPMENT	Bottom Clip
From Node:	W-5/6	Default: 0.00 ft
To Node:	Lake Harris	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	78.00 ft	Discharge Coefficients
Control Elevation:	78.00 ft	Weir Default: 2.800
Cross Section:	W-5.1	Weir Table:
		Orifice Default: 0.600
		Orifice Table:
Comment:		



Weir Link: W-6	
Scenario:	PREDEVELOPMENT
From Node:	DEPRES-6
To Node:	Lake Harris
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	85.00 ft
Control Elevation:	85.00 ft
Cross Section:	W-6
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 2.800
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Comment:	

Weir Link: W-6/7	
Scenario:	PREDEVELOPMENT
From Node:	SW-6/7
To Node:	Lake Harris
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	76.10 ft
Control Elevation:	76.10 ft
Cross Section:	W-6/7
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 2.800
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Comment:	

Simulation: 100YR-24HR	
Scenario:	PREDEVELOPMENT
Run Date/Time:	6/28/2024 8:44:44 AM
Program Version:	ICPR4 4.07.08

General				
Run Mode:	Normal			
	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000
	Hydrology [sec]		Surface Hydraulics	

		[sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:  
  
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set:  
  
Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	
Over-Relax Weight 0.5 dec	
Fact:	
dZ Tolerance: 0.0010 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 1.0000 ft	Rainfall Name: ~SCSII-24
Link Optimizer Tol: 0.0001 ft	Rainfall Amount: 10.40 in
	Storm Duration: 24.0000 hr
Edge Length Option: Automatic	
	Dflt Damping (1D): 0.0050 ft
	Min Node Srf Area 100 ft2
	(1D):
	Energy Switch (1D): Energy

Comment:

Simulation: 10YR-24HR

Scenario: PREDEVELOPMENT  
 Run Date/Time: 6/28/2024 8:45:35 AM  
 Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:  
  
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:

Tolerances & Options

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight: 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr  
  
 Smp/Man Basin Rain: Global

Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0001 ft  
 Edge Length Option: Automatic

Opt:  
 Rainfall Name: ~SCSII-24  
 Rainfall Amount: 6.03 in  
 Storm Duration: 24.0000 hr  
 Dflt Damping (1D): 0.0050 ft  
 Min Node Srf Area (1D): 100 ft2  
 Energy Switch (1D): Energy

Comment:

Simulation: 25YR-24HR

Scenario: PREDEVELOPMENT  
 Run Date/Time: 6/28/2024 8:46:22 AM  
 Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

**Resources**

Rainfall Folder:  
  
Unit Hydrograph Folder:

**Lookup Tables**

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set:  
  
Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:

**Tolerances & Options**

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft  
  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft  
  
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr  
  
Smp/Man Basin Rain Opt: Global  
  
Rainfall Name: ~SCSII-24  
Rainfall Amount: 7.54 in  
Storm Duration: 24.0000 hr  
  
Dflt Damping (1D): 0.0050 ft  
Min Node Srf Area (1D): 100 ft2  
Energy Switch (1D): Energy

Comment:

**Simulation: 25YR-96HR**

Scenario: PREDEVELOPMENT  
Run Date/Time: 6/28/2024 8:47:10 AM  
Program Version: ICPR4 4.07.08

**General**

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	100.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

**Output Time Increments**

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:  
  
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set:  
  
Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:

Tolerances & Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight Fact: 0.5 dec  
dZ Tolerance: 0.0010 ft  
  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft  
  
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr  
  
Smp/Man Basin Rain Opt: Global  
  
Rainfall Name: ~SCSII-24  
Rainfall Amount: 10.60 in  
Storm Duration: 96.0000 hr  
  
Dflt Damping (1D): 0.0050 ft  
Min Node Srf Area (1D): 100 ft2  
Energy Switch (1D): Energy

Comment:

Simulation: MEAN

Scenario: PREDEVELOPMENT

Run Date/Time: 6/28/2024 8:49:42 AM  
 Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set:

Green-Ampt Set:

Vertical Layers Set:

Impervious Set:

Tolerances & Options

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight: 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft  
 Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr

Smp/Man Basin Rain Global  
 Opt:

Link Optimizer Tol: 0.0001 ft

Edge Length Option: Automatic

Rainfall Name: ~SCSII-24

Rainfall Amount: 4.18 in

Storm Duration: 24.0000 hr

Dfit Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft2

(1D):

Energy Switch (1D): Energy

Comment:

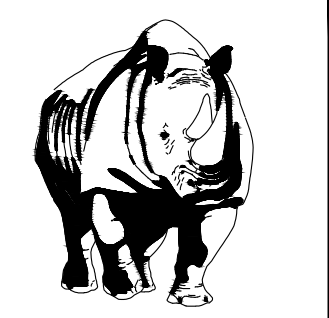


**Appendix F**  
**Predevelopment ICPR Node Min/Max Report**

## Node Max Conditions [PREDEVELOPMENT]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
DEPRES-6	100YR-24HR	85.00	85.20	0.0010	128.91	9.11	163786
Lake Harris	100YR-24HR	64.80	63.80	0.0000	595.17	0.00	0
SW-6/7	100YR-24HR	77.00	76.49	0.0006	132.31	115.04	141493
W-3	100YR-24HR	71.00	71.23	0.0010	110.43	0.00	251341
W-4	100YR-24HR	90.00	82.40	0.0010	4.69	0.00	11791
W-5/6	100YR-24HR	79.00	78.07	0.0008	250.68	6.12	461043
DEPRES-6	10YR-24HR	85.00	84.28	0.0010	53.46	0.00	130256
Lake Harris	10YR-24HR	64.80	63.80	0.0000	190.80	0.00	0
SW-6/7	10YR-24HR	77.00	76.25	0.0006	56.52	26.16	119140
W-3	10YR-24HR	71.00	70.08	0.0010	52.63	0.00	181889
W-4	10YR-24HR	90.00	78.96	0.0010	1.25	0.00	6920
W-5/6	10YR-24HR	79.00	76.77	0.0006	109.75	0.00	330687
DEPRES-6	25YR-24HR	85.00	84.97	0.0010	78.65	0.00	162207
Lake Harris	25YR-24HR	64.80	63.80	0.0000	333.54	0.00	0
SW-6/7	25YR-24HR	77.00	76.35	0.0006	81.78	56.35	128195
W-3	25YR-24HR	71.00	70.51	0.0010	72.08	0.00	214469
W-4	25YR-24HR	90.00	80.27	0.0010	2.26	0.00	8979
W-5/6	25YR-24HR	79.00	77.35	0.0006	156.76	0.00	379364
DEPRES-6	MEAN	85.00	83.25	0.0010	25.46	0.00	83605
Lake Harris	MEAN	64.80	63.80	0.0000	93.63	0.00	0
SW-6/7	MEAN	77.00	76.14	0.0007	28.34	2.44	108000
W-3	MEAN	71.00	69.47	0.0010	30.38	0.00	136435
W-4	MEAN	90.00	77.28	0.0010	0.67	0.00	4728
W-5/6	MEAN	79.00	76.04	0.0005	56.99	0.00	295582

**Appendix G**  
**Postdevelopment Basin Map**

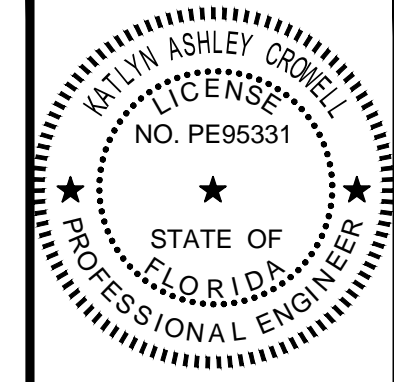


**MADDEN**  
 MOORHEAD & STOKES, LLC  
 CIVIL ENGINEERS  
 431 E. Horatio Avenue  
 Suite 260  
 Maitland, Florida 32751  
 (407) 629-8330  
 CA# 0007723

POSTDEVELOPMENT BASIN MAP  
 FOR  
**LAKE HILLS MASS INFRASTRUCTURE**  
 LAKE COUNTY FLORIDA

**READERS & PARTNERS, LLC**  
 5850 TB LEE BOULEVARD, SUITE 200  
 ORLANDO, FL 32822  
 (407) 856-4899

NO.	DATE	REVISIONS
1		
2		
3		
4		
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8		
9		
10		
11		



This item has been digitally signed and sealed by Kadijn Ashley Crowell, PE on the date adjacent to the seal.  
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.  
 ENGINEER OF RECORD

JOB # 23019  
 DATE 10/15/24  
 DATUM NAVD 88  
 DESIGNED BY: KAC  
 DRAWN BY: JSK  
 APPROVED BY: KAC

POST-1

H:\Data\2024\10\15\100\_Lake Hills (Stormwater)\POST Basin.dwg October 15, 2024 2:11 PM

**Appendix H**  
**Postdevelopment Hydrology Calculations**

<b>Project:</b>	<b>Lake Hills</b>
<b>Basin:</b>	<b>Post-1</b>
<b>Pond:</b>	<b>Pond-1</b>
<b>Basin Area:</b>	<b>27.25 ac</b>

<b>Land Use Table:</b>		
<i>Area (ac)</i>	<i>Land Use</i>	<i>CN</i>
7.93	Proposed Pavement/Sidewalk (Commercial)	98
2.81	Proposed Pavement/Sidewalk (Residential)	98
0.92	Impervious Lot (Residential)	98
6.38	Outparcels (80% Impervious)	98
1.41	Impervious Lot (Commercial)	98
5.85	Pervious/Landscape (HSG-A)	39
1.94	Pond Surface Area	100
Composite CN		85

<b>SJRWMD Water Quality Presumptive Criteria:</b>		
1" over the basin area:		2.271 AF
1.25" over impervious area + 0.5" over basin area		3.162 AF
	Design WQ	3.162 AF
100Y/24H Volume		21.950 AF
Controlling Volume:		21.950 AF
Stage at Control Elevation:		86.56 FT
Proposed Weir Elevation:		N/A

<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
90.00	3.81	3.724	34.030
89.00	3.64	3.553	30.306
88.00	3.47	3.384	26.753
87.00	3.30	3.217	23.369
86.00	3.13	3.054	20.152
85.00	2.97	2.893	17.098
84.00	2.81	2.736	14.205
83.00	2.66	2.583	11.469
82.00	2.51	2.435	8.886
81.00	2.36	2.290	6.451
80.00	2.22	2.149	4.161
79.00	2.08	2.012	2.012
78.00	1.94	0.000	0.000

<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-2</b>		
<b>Pond:</b>	<b>Pond-2</b>		
<b>Basin Area:</b>	<b>20.50 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
1.85	Proposed Pavement/Sidewalk		98
6.65	Impervious Lot		98
10.78	Pervious/Landscape (HSG-A)		39
1.23	Wet Pond Water Surface		100
Composite CN			67
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			1.708 AF
2.5" over impervious			1.769 AF
	Design WQ		1.769 AF
Treatment Volume Elevation			75.35 FT
Proposed Weir Elevation:	See Pond 2 and Pond 3 Calcs		
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
78.00	1.69	1.631	5.819
77.00	1.57	1.512	4.189
76.00	1.45	1.395	2.677
75.00	1.34	1.282	1.282
74.00	1.23	0.000	0.000
<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
74.00	1.23	1.171	5.036
73.00	1.12	1.063	3.865
72.00	1.01	0.985	2.802
71.00	0.96	1.817	1.817
69.00	0.86	0.000	0.000
		0.000	0.000
			0.000
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.53
Wet Season Rainfall			32.00 IN
PPV Required			2.65 AF
PPV Provided			5.04 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			4.1 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			28 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.			

<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-3</b>		
<b>Pond:</b>	<b>Pond-3</b>		
<b>Basin Area:</b>	<b>13.23 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
1.55	Proposed Pavement/Sidewalk		98
5.99	Impervious Lot		98
4.98	Pervious/Landscape (HSG-A)		39
0.71	Wet Pond Water Surface		100
Composite CN			76
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			1.103 AF
2.5" over impervious			1.571 AF
	Design WQ		1.571 AF
Treatment Volume Elevation:			75.93 FT
Proposed Weir Elevation:	See Pond 2 and Pond 3 Calcs		
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
78.00	1.15	1.089	3.692
77.00	1.03	0.975	2.603
76.00	0.92	0.866	1.628
75.00	0.81	0.762	0.762
74.00	0.71	0.000	0.000
<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
74.00	0.71	0.663	2.601
73.00	0.61	0.569	1.938
72.00	0.52	0.500	1.369
71.00	0.48	0.869	0.869
69.00	0.39	0.000	0.000
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.65
Wet Season Rainfall			32.00 IN
PPV Required			2.10 AF
PPV Provided			2.60 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			3.7 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			18 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.			



**Project:** Lake Hills  
**Pond:** Pond-2 and Pond-3  
**Basin Area:** 33.73 ac

**SJRWMD Water Quality Presumptive Criteria:**  
1" over the basin area: 2.811 AF  
2.5" over impervious 3.340 AF  
Design WQ 3.340 AF  
Treatment Volume Elevation: 75.57 FT  
Proposed Weir Elevation: 75.60 FT

**Pond 2 Stage/Storage Table:**

<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
78.00	1.69	1.631	5.819
77.00	1.57	1.512	4.189
76.00	1.45	1.395	2.677
75.00	1.34	1.282	1.282
74.00	1.23	0.000	0.000

**Pond 3 Stage/Storage Table:**

<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
78.00	1.15	1.089	3.692
77.00	1.03	0.975	2.603
76.00	0.92	0.866	1.628
75.00	0.81	0.762	0.762
74.00	0.71	0.000	0.000

**Pond 2/3 Stage/Storage Table:**

<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
78.00	2.84	2.720	9.511
77.00	2.60	2.486	6.791
76.00	2.37	2.261	4.305
75.00	2.15	2.044	2.044
74.00	1.94	0.000	0.000

<b>Project:</b>	<b>Lake Hills</b>
<b>Basin:</b>	<b>Post-4</b>
<b>Pond:</b>	<b>Pond-4</b>
<b>Basin Area:</b>	<b>9.49 ac</b>

<b>Land Use Table:</b>		
<i>Area (ac)</i>	<i>Land Use</i>	<i>CN</i>
1.19	Proposed Pavement/Sidewalk	98
4.09	Impervious Lot	98
3.92	Pervious/Landscape (HSG-A)	39
0.29	Wet Pond Water Surface	100
Composite CN		74

<b>SJRWMD Water Quality Presumptive Criteria:</b>		
1" over the basin area:		0.790 AF
2.5" over impervious		1.099 AF
	Design WQ	1.099 AF
Treatment Volume Elevation:		67.55 FT
Proposed Weir Elevation:	<b>See Pond 4 and Pond 10 Calcs</b>	

<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
69.00	0.56	0.520	1.668
68.00	0.48	0.448	1.148
67.00	0.41	0.381	0.700
66.00	0.35	0.319	0.319
65.00	0.29	0.000	0.000

<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
65.00	0.29	0.261	1.145
64.00	0.23	0.209	0.884
63.00	0.18	0.173	0.675
62.00	0.16	0.502	0.502
58.00	0.09	0.000	0.000

<b>Permanent Pool Volume Calculation</b>	
Compound C Value*	0.62
Wet Season Rainfall	32.00 IN
PPV Required	1.43 AF
PPV Provided	<b>See Pond 4 and Pond 10 Calcs</b>

<b>Mean Depth Calculation</b>	
Mean Depth (between 2-8 feet, ok)	<b>See Pond 4 and Pond 10 Calcs</b>

<b>Residence Time Calculation</b>	
Required Residence Time	14.0 DAYS
Provided Residence Time	<b>See Pond 4 and Pond 10 Calcs</b>

\*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.

<b>Project:</b>	<b>Lake Hills</b>
<b>Basin:</b>	<b>Post-10</b>
<b>Pond:</b>	<b>Pond-10</b>
<b>Basin Area:</b>	<b>11.84 ac</b>

<b>Land Use Table:</b>		
<i>Area (ac)</i>	<i>Land Use</i>	<i>CN</i>
4.45	Proposed Pavement/Sidewalk	98
2.70	Impervious Lot	98
4.03	Pervious/Landscape (HSG-A)	39
0.65	Wet Pond Water Surface	100
Composite CN		78

<b>SJRWMD Water Quality Presumptive Criteria:</b>		
1" over the basin area:		0.986 AF
2.5" over impervious		1.490 AF
	Design WQ	1.490 AF
Treatment Volume Elevation:		67.55 FT
Proposed Weir Elevation:	<b>See Pond 4 and Pond 10 Calcs</b>	

<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
69.00	0.93	0.896	3.152
68.00	0.86	0.822	2.256
67.00	0.79	0.751	1.434
66.00	0.72	0.683	0.683
65.00	0.65	0.000	0.000

<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
65.00	0.65	0.619	3.476
64.00	0.59	0.558	2.857
63.00	0.53	0.514	2.299
62.00	0.50	1.785	1.785
58.00	0.39	0.000	0.000

<b>Permanent Pool Volume Calculation</b>	
Compound C Value*	0.68
Wet Season Rainfall	32.00 IN
PPV Required	1.96 AF
PPV Provided	<b>See Pond 4 and Pond 10 Calcs</b>

<b>Mean Depth Calculation</b>	
Mean Depth (between 2-8 feet, ok)	<b>See Pond 4 and Pond 10 Calcs</b>

<b>Residence Time Calculation</b>	
Required Residence Time	14.0 DAYS
Provided Residence Time	<b>See Pond 4 and Pond 10 Calcs</b>

\*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.

<b>Project:</b>	<b>Lake Hills</b>		
<b>Pond:</b>	<b>Pond 4 &amp; Pond-10</b>		
<b>Basin Area:</b>	<b>21.32 ac</b>		
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			1.777 AF
2.5" over impervious			2.589 AF
	Design WQ		2.589 AF
Treatment Volume Elevation:			67.36 FT
Proposed Weir Elevation:			67.40 FT
<b>Pond 4 Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
69.00	0.56	0.520	1.668
68.00	0.48	0.448	1.148
67.00	0.41	0.381	0.700
66.00	0.35	0.319	0.319
65.0 NWL	0.29	0.261	1.145
64.00	0.23	0.209	0.884
63.00	0.18	0.173	0.675
62.00	0.16	0.502	0.502
58.00	0.09	0.000	0.000
<b>Pond 10 Stage/Storage Table:</b>			
Stage (FT)	Area (AC)	Δ Vol. (AF)	Σ Vol. (AF)
69.00	0.93	0.896	3.152
68.00	0.86	0.822	2.256
67.00	0.79	0.751	1.434
66.00	0.72	0.683	0.683
65.0 NWL	0.65	0.619	3.476
64.00	0.59	0.558	2.857
63.00	0.53	0.514	2.299
62.00	0.50	1.785	1.785
58.00	0.39	0.000	0.000
<b>Pond 10 Stage/Storage Table:</b>			
Stage (FT)	Area (AC)	Δ Vol. (AF)	Σ Vol. (AF)
69.00	1.49	1.42	4.82
68.00	1.34	1.27	3.40
67.00	1.20	1.13	2.13
66.00	1.06	1.00	1.00
65.0 NWL	0.94	0.88	4.62
64.00	0.82	0.77	3.74
63.00	0.71	0.69	2.97
62.00	0.66	2.29	2.29
58.00	0.48	0.000	0.00
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.65
Wet Season Rainfall			32.00 IN
PPV Required			3.39 AF
PPV Provided			4.62 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			4.9 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			20 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area			

<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-5</b>		
<b>Pond:</b>	<b>Pond-5</b>		
<b>Basin Area:</b>	<b>33.01 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
3.41	Proposed Pavement/Sidewalk		98
12.54	Impervious Lot		98
13.26	Pervious/Landscape (HSG-A)		39
3.80	Pond Surface Area		100
Composite CN			75
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			2.750 AF
1.25" over impervious area + 0.5" over basin area			3.037 AF
	Design WQ		3.037 AF
Stage at Control Elevation:			79.78 FT
Proposed Weir Elevation:			80.00 FT
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
83.00	4.58	4.477	16.730
82.00	4.38	4.279	12.253
81.00	4.18	4.084	7.974
80.00	3.99	3.891	3.891
79.00	3.80	0.000	0.000

<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-7</b>		
<b>Pond:</b>	<b>Pond-7</b>		
<b>Basin Area:</b>	<b>35.50 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
4.43	Proposed Pavement/Sidewalk		98
13.50	Impervious Lot		98
16.03	Pervious/Landscape (HSG-A)		39
1.55	Wet Pond Water Surface		100
Composite CN			71
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			2.958 AF
2.5" over impervious			3.735 AF
	Design WQ		3.735 AF
Treatment Volume Elevation:			67.22 FT
Proposed Weir Elevation:			68.00 FT
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
70.00	2.26	2.187	9.470
69.00	2.11	2.036	7.283
68.00	1.96	1.888	5.247
67.00	1.81	1.746	3.359
66.00	1.68	1.612	1.612
65.00	1.55	0.000	0.000
<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
65.00	1.55	1.483	6.478
64.00	1.42	1.359	4.995
63.00	1.30	1.269	3.636
62.00	1.24	2.367	2.367
60.00	1.13	0.000	0.000
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.59
Wet Season Rainfall			32.00 IN
PPV Required			5.10 AF
PPV Provided			6.48 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			4.2 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			19 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.			

<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-8</b>		
<b>Pond:</b>	<b>Pond-8</b>		
<b>Basin Area:</b>	<b>16.24 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
1.86	Proposed Pavement/Sidewalk		98
7.78	Impervious Lot		98
6.09	Pervious/Landscape (HSG-A)		39
0.51	Wet Pond Water Surface		100
Composite CN			76
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			1.354 AF
2.5" over impervious			2.008 AF
	Design WQ		2.008 AF
Treatment Volume Elevation:			67.10 FT
Proposed Weir Elevation:			67.10 FT
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
69.00	0.97	0.918	3.662
68.00	0.87	0.822	2.744
67.00	0.77	0.728	1.923
66.00	0.68	0.639	1.194
65.00	0.60	0.555	0.555
64.00	0.51	0.000	0.000
<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
64.00	0.51	0.476	2.664
63.00	0.44	0.402	2.188
62.00	0.37	0.349	1.786
61.00	0.33	1.437	1.437
55.00	0.15	0.000	0.000
		0.000	0.000
			0.000
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.65
Wet Season Rainfall			32.00 IN
PPV Required			2.58 AF
PPV Provided			2.66 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			5.2 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			15 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.			

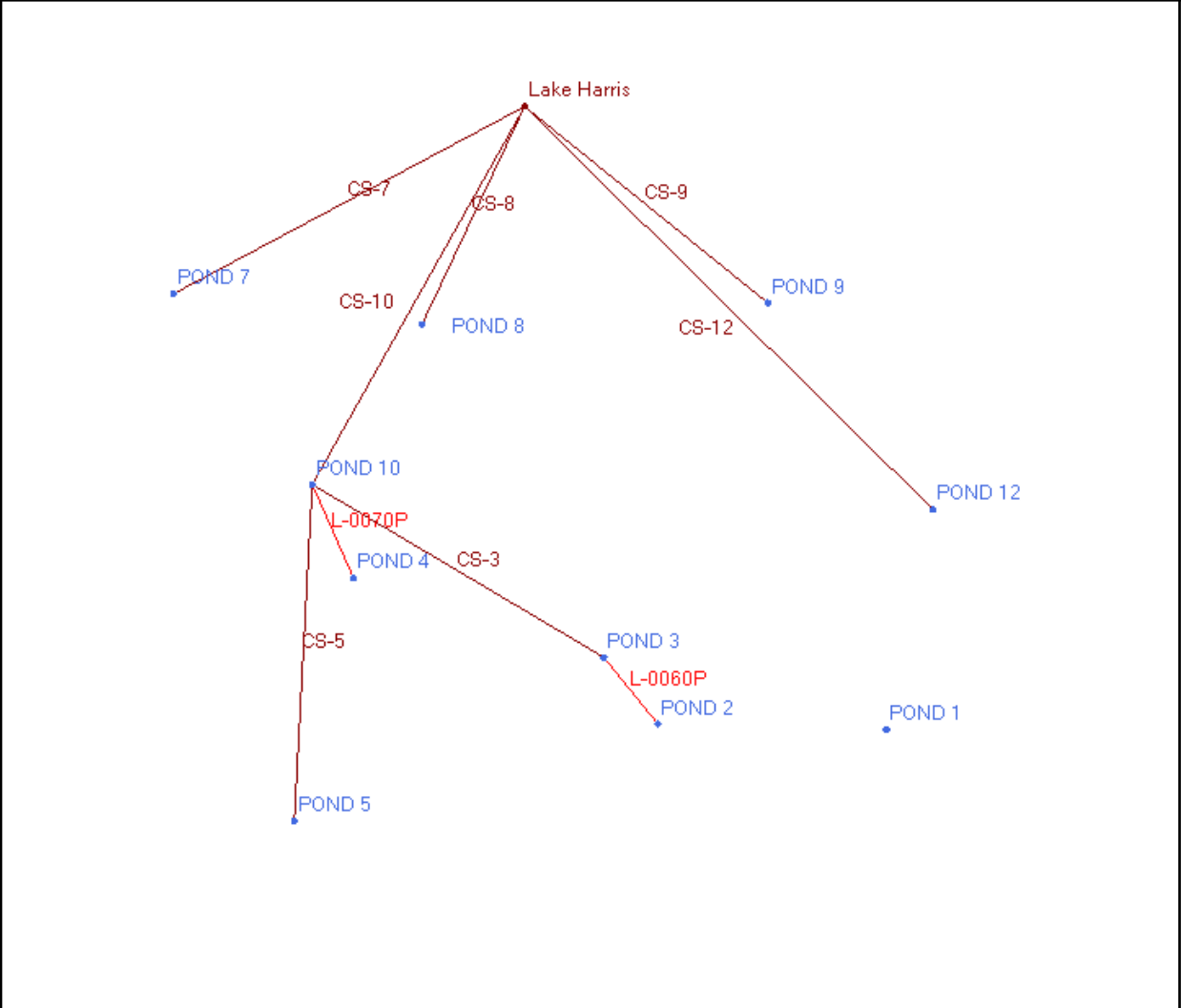
<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-9</b>		
<b>Pond:</b>	<b>Pond-9</b>		
<b>Basin Area:</b>	<b>9.58 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
4.30	Future Community Recreation Park		98
0.30	Proposed Pavement/Sidewalk		98
0.78	Impervious Lot		98
3.64	Pervious/Landscape (HSG-A)		39
0.56	Wet Pond Water Surface		100
Composite CN			76
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			0.799 AF
2.5" over impervious			0.897 AF
	Design WQ		0.897 AF
Treatment Volume Elevation:			66.96 FT
Proposed Weir Elevation:			67.00 FT
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
71.00	0.98	0.935	4.191
70.00	0.89	0.855	3.256
69.00	0.82	0.778	2.401
68.00	0.74	0.703	1.623
67.00	0.67	0.631	0.920
66.00	0.60	0.289	0.289
65.50	0.56	0.000	0.000
<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
65.50	0.56	0.529	2.334
64.50	0.50	0.465	1.805
63.50	0.43	0.213	1.341
63.00	0.42	1.127	1.127
60.00	0.33	0.000	0.000
		0.000	0.000
			0.000
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.54
Wet Season Rainfall			32.00 IN
PPV Required			1.26 AF
PPV Provided			2.33 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			4.2 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			28 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.			



<b>Project:</b>	<b>Lake Hills</b>		
<b>Basin:</b>	<b>Post-12</b>		
<b>Pond:</b>	<b>Pond-12</b>		
<b>Basin Area:</b>	<b>15.36 ac</b>		
<b>Land Use Table:</b>			
<i>Area (ac)</i>	<i>Land Use</i>		<i>CN</i>
2.16	Proposed Pavement/Sidewalk		98
6.94	Impervious Lot		98
5.38	Pervious/Landscape (HSG-A)		39
0.88	Wet Pond Water Surface		100
Composite CN			77
<b>SJRWMD Water Quality Presumptive Criteria:</b>			
1" over the basin area:			1.280 AF
2.5" over impervious			1.896 AF
	Design WQ		1.896 AF
Treatment Volume Elevation:			66.42 FT
Proposed Weir Elevation:			66.45 FT
<b>Stage/Storage Table:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
70.00	1.57	1.496	6.619
69.00	1.43	1.358	5.123
68.00	1.29	1.226	3.765
67.00	1.16	1.102	2.539
66.00	1.04	0.986	1.437
65.00	0.93	0.451	0.451
64.50	0.88	0.000	0.000
<b>Permanent Pool Volume:</b>			
<i>Stage (FT)</i>	<i>Area (AC)</i>	<i>Δ Vol. (AF)</i>	<i>Σ Vol. (AF)</i>
64.50	0.88	0.825	3.666
63.50	0.77	0.727	2.841
62.50	0.68	0.970	2.113
61.00	0.61	1.143	1.143
59.00	0.53	0.000	0.000
		0.000	0.000
			0.000
<b>Permanent Pool Volume Calculation</b>			
Compound C Value*			0.67
Wet Season Rainfall			32.00 IN
PPV Required			2.51 AF
PPV Provided			3.67 AF
<b>Mean Depth Calculation</b>			
Mean Depth (between 2-8 feet, ok)			4.2 FT
<b>Residence Time Calculation</b>			
Required Residence Time			14.0 DAYS
Provided Residence Time			22 DAYS
*C value is 0.95 times impervious plus 0.15 times pervious over the entire area.			

**Appendix I**  
**Postdevelopment ICPR Node Diagram**

Background Image: POST NODE



**Appendix J**  
**Postdevelopment ICPR Input Data**

## Simple Basin: Post 1

Scenario: POSTDEVELOPMENT  
Node: POND 1  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 27.2500 ac  
Curve Number: 85.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Post 10

Scenario: POSTDEVELOPMENT  
Node: POND 10  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 11.8700 ac  
Curve Number: 78.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Post 12

Scenario: POSTDEVELOPMENT  
Node: POND 12  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 15.3600 ac  
Curve Number: 77.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

#### Simple Basin: Post 2

Scenario: POSTDEVELOPMENT  
Node: POND 2  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 20.5000 ac  
Curve Number: 67.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

#### Simple Basin: Post 3

Scenario: POSTDEVELOPMENT  
Node: POND 3  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 13.2300 ac  
Curve Number: 76.0  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name:

Comment:

Simple Basin: Post 4

Scenario: POSTDEVELOPMENT  
Node: POND 4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 9.4900 ac  
Curve Number: 74.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

Simple Basin: Post 5

Scenario: POSTDEVELOPMENT  
Node: POND 5  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 33.0100 ac  
Curve Number: 75.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Post 7

Scenario: POSTDEVELOPMENT  
Node: POND 7  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 35.5000 ac  
Curve Number: 71.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Post 8

Scenario: POSTDEVELOPMENT  
Node: POND 8  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: UH484  
Peaking Factor: 484.0  
Area: 16.2400 ac  
Curve Number: 76.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name:

Comment:

## Simple Basin: Post 9

Scenario: POSTDEVELOPMENT  
Node: POND 9  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.0000 min  
Max Allowable Q: 9999.00 cfs



Time Shift: 0.0000 hr  
 Unit Hydrograph: UH484  
 Peaking Factor: 484.0  
 Area: 9.5800 ac  
 Curve Number: 76.0  
 % Impervious: 0.00  
 % DCIA: 0.00  
 % Direct: 0.00  
 Rainfall Name:

Comment:

#### Simple Basin: Public Park

Scenario: POSTDEVELOPMENT  
 Node: POND 1  
 Hydrograph Method: NRCS Unit Hydrograph  
 Infiltration Method: Curve Number  
 Time of Concentration: 15.0000 min  
 Max Allowable Q: 99999.00 cfs  
 Time Shift: 0.0000 hr  
 Unit Hydrograph: UH484  
 Peaking Factor: 484.0  
 Area: 4.0000 ac  
 Curve Number: 49.0  
 % Impervious: 0.00  
 % DCIA: 0.00  
 % Direct: 0.00  
 Rainfall Name:

Comment:

#### Node: Lake Harris

Scenario: POSTDEVELOPMENT  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 63.32 ft  
 Warning Stage: 64.32 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	63.32
0	0	0	12.0000	63.32
0	0	0	24.0000	63.32
0	0	0	36.0000	63.32

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 Comment:
 

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 Node: POND 1
 

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Scenario: POSTDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 78.00 ft  
 Warning Stage: 90.00 ft

Stage [ft]	Area [ac]	Area [ft2]
90.00	3.8100	165964
89.00	3.6400	158558
88.00	3.4700	151153
87.00	3.3000	143748
86.00	3.1300	136343
85.00	2.9700	129373
84.00	2.8100	122404
83.00	2.6600	115870
82.00	2.5100	109336
81.00	2.3600	102802
80.00	2.2200	96703
79.00	2.0800	90605
78.00	1.9400	84506

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 Comment:
 

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 Node: POND 10
 

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Scenario: POSTDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.00 ft  
 Warning Stage: 69.00 ft

Stage [ft]	Area [ac]	Area [ft2]
69.00	0.9300	40511
68.00	0.8600	37462
67.00	0.7900	34412
66.00	0.7200	31363
65.00	0.6500	28314

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 Comment:
 

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## Node: POND 12

Scenario: POSTDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 64.50 ft  
 Warning Stage: 70.00 ft

Stage [ft]	Area [ac]	Area [ft2]
70.00	1.5700	68389
69.00	1.4300	62291
68.00	1.2900	56192
67.00	1.1600	50530
66.00	1.0400	45302
65.00	0.9300	40511
64.50	0.8800	38333

Comment:

## Node: POND 2

Scenario: POSTDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 74.00 ft  
 Warning Stage: 78.00 ft

Stage [ft]	Area [ac]	Area [ft2]
78.00	1.6900	73616
77.00	1.5700	68389
76.00	1.4500	63162
75.00	1.3400	58370
74.00	1.2300	53579

Comment:

## Node: POND 3

Scenario: POSTDEVELOPMENT  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 74.00 ft  
 Warning Stage: 78.00 ft

Stage [ft]	Area [ac]	Area [ft2]
78.00	1.1500	50094
77.00	1.0300	44867
76.00	0.9200	40075

Stage [ft]	Area [ac]	Area [ft2]
75.00	0.8100	35284
74.00	0.7100	30928

Comment:

Node: POND 4

Scenario: POSTDEVELOPMENT  
Type: Stage/Area  
Base Flow: 0.00 cfs  
Initial Stage: 65.00 ft  
Warning Stage: 69.00 ft

Stage [ft]	Area [ac]	Area [ft2]
69.00	0.5600	24394
68.00	0.4800	20909
67.00	0.4100	17860
66.00	0.3500	15246
65.00	0.2900	12632

Comment:

Node: POND 5

Scenario: POSTDEVELOPMENT  
Type: Stage/Area  
Base Flow: 0.00 cfs  
Initial Stage: 79.00 ft  
Warning Stage: 83.00 ft

Stage [ft]	Area [ac]	Area [ft2]
83.00	4.5800	199505
82.00	4.3800	190793
81.00	4.1800	182081
80.00	3.9900	173804
79.00	3.8000	165528

Comment:

Node: POND 7

Scenario: POSTDEVELOPMENT  
Type: Stage/Area  
Base Flow: 0.00 cfs

Initial Stage: 65.00 ft  
Warning Stage: 70.00 ft

Stage [ft]	Area [ac]	Area [ft2]
70.00	2.2600	98446
69.00	2.1100	91912
68.00	1.9600	85378
67.00	1.8100	78844
66.00	1.6800	73181
65.00	1.5500	67518

Comment:

Node: POND 8

Scenario: POSTDEVELOPMENT  
Type: Stage/Area  
Base Flow: 0.00 cfs  
Initial Stage: 64.00 ft  
Warning Stage: 69.00 ft

Stage [ft]	Area [ac]	Area [ft2]
69.00	0.9700	42253
68.00	0.8700	37897
67.00	0.7700	33541
66.00	0.6800	29621
65.00	0.6000	26136
64.00	0.5100	22216

Comment:

Node: POND 9

Scenario: POSTDEVELOPMENT  
Type: Stage/Area  
Base Flow: 0.00 cfs  
Initial Stage: 65.50 ft  
Warning Stage: 71.00 ft

Stage [ft]	Area [ac]	Area [ft2]
71.00	0.9800	42689
70.00	0.8900	38768
69.00	0.8200	35719
68.00	0.7400	32234
67.00	0.6700	29185
66.00	0.6000	26136
65.50	0.5600	24394

Comment:

Drop Structure Link: CS-10		Upstream Pipe	Downstream Pipe
Scenario:	POSTDEVELOPMEN	Invert: 63.50 ft	Invert: 63.30 ft
	T	Manning's N: 0.0120	Manning's N: 0.0120
From Node:	POND 10	Geometry: Circular	Geometry: Circular
To Node:	Lake Harris	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Link Count:	2	Bottom Clip	
Flow Direction:	Both	Default: 0.00 ft	Default: 0.00 ft
Solution:	Combine	Op Table:	Op Table:
Increments:	0	Ref Node:	Ref Node:
Pipe Count:	2	Manning's N: 0.0000	Manning's N: 0.0000
Damping:	0.0000 ft	Top Clip	
Length:	62.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code:	0	Op Table:	Op Table:
Entr Loss Coef:	0.00	Ref Node:	Ref Node:
Exit Loss Coef:	0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		
Weir:	1	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Broad Crested Vertical	Top Clip
Geometry Type:	Circular	Default: 0.00 ft
Invert:	64.50 ft	Op Table:
Control Elevation:	65.00 ft	Ref Node:
Max Depth:	0.33 ft	Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment: 1-4" Orifice

Weir Component		
Weir:	2	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Horizontal	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	67.40 ft	Op Table:

Control Elevation: 67.40 ft  
 Max Depth: 3.38 ft  
 Max Width: 8.69 ft  
 Fillet: 0.00 ft

Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment: Type H Inlet

Drop Structure Comment:

Drop Structure Link: CS-12		Upstream Pipe	Downstream Pipe
Scenario:	POSTDEVELOPMEN	Invert: 64.05 ft	Invert: 63.91 ft
	T	Manning's N: 0.0120	Manning's N: 0.0120
From Node:	POND 12	Geometry: Circular	Geometry: Circular
To Node:	Lake Harris	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Link Count:	1	Bottom Clip	
Flow Direction:	Both	Default: 0.00 ft	Default: 0.00 ft
Solution:	Combine	Op Table:	Op Table:
Increments:	0	Ref Node:	Ref Node:
Pipe Count:	1	Manning's N: 0.0000	Manning's N: 0.0000
Damping:	0.0000 ft	Top Clip	
Length:	59.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code:	0	Op Table:	Op Table:
Entr Loss Coef:	0.00	Ref Node:	Ref Node:
Exit Loss Coef:	0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		
Weir:	1	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Broad Crested Vertical	Top Clip
Geometry Type:	Circular	Default: 0.00 ft
Invert:	64.00 ft	Op Table:
Control Elevation:	64.50 ft	Ref Node:
Max Depth:	0.31 ft	Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment: 1- 3.75" Orifice

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 66.45 ft	Op Table:
Control Elevation: 66.45 ft	Ref Node:
Max Depth: 2.33 ft	Discharge Coefficients
Max Width: 3.01 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Type C Inlet

Drop Structure Comment:

Drop Structure Link: CS-3		
	Upstream Pipe	Downstream Pipe
Scenario: POSTDEVELOPMEN T	Invert: 71.00 ft	Invert: 61.00 ft
	Manning's N: 0.0120	Manning's N: 0.0120
From Node: POND 3	Geometry: Circular	Geometry: Circular
To Node: POND 10	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Link Count: 1	Bottom Clip	
Flow Direction: Both	Default: 0.00 ft	Default: 0.00 ft
Solution: Combine	Op Table:	Op Table:
Increments: 0	Ref Node:	Ref Node:
Pipe Count: 1	Manning's N: 0.0000	Manning's N: 0.0000
Damping: 0.0000 ft	Top Clip	
Length: 1463.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.00	Ref Node:	Ref Node:
Exit Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 73.50 ft	Op Table:
Control Elevation: 74.00 ft	Ref Node:



Max Depth: 0.42 ft

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment: 1- 5" orifice

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	75.60 ft
Control Elevation:	75.60 ft
Max Depth:	3.33 ft
Max Width:	4.44 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment: Type E Inlet

Drop Structure Comment:

Drop Structure Link: CS-5		
Scenario:	POSTDEVELOPME T	
From Node:	POND 5	
To Node:	POND 10	
Link Count:	1	
Flow Direction:	Both	
Solution:	Combine	
Increments:	0	
Pipe Count:	1	
Damping:	0.0000 ft	
Length:	1000.00 ft	
FHWA Code:	0	
Entr Loss Coef:	0.00	
Exit Loss Coef:	0.00	
Bend Loss Coef:	0.00	
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Upstream Pipe	Downstream Pipe
Invert: 77.00 ft	Invert: 61.00 ft
Manning's N: 0.0130	Manning's N: 0.0130
Geometry: Circular	Geometry: Circular
Max Depth: 2.00 ft	Max Depth: 2.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	0.0000
Weir Table:	
Orifice Default:	0.0000
Orifice Table:	

Pipe Comment:

Weir Component

Weir: 1	
Weir Count: 1	Bottom Clip
Weir Flow Direction: Both	Default: 0.00 ft
Damping: 0.0000 ft	Op Table:
Weir Type: Horizontal	Ref Node:
Geometry Type: Rectangular	Top Clip
Invert: 81.50 ft	Default: 0.00 ft
Control Elevation: 81.50 ft	Op Table:
Max Depth: 2.33 ft	Ref Node:
Max Width: 3.01 ft	Discharge Coefficients
Fillet: 0.00 ft	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Type C Inlet

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 80.00 ft	Op Table:
Control Elevation: 80.00 ft	Ref Node:
Max Depth: 1.50 ft	Discharge Coefficients
Max Width: 4.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: 18" x 54" Weir

Drop Structure Comment:

Drop Structure Link: CS-7	Upstream Pipe	Downstream Pipe
Scenario: POSTDEVELOPME T	Invert: 65.80 ft	Invert: 65.00 ft
	Manning's N: 0.0120	Manning's N: 0.0120
From Node: POND 7	Geometry: Circular	Geometry: Circular
To Node: Lake Harris	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Link Count: 1	Bottom Clip	
Flow Direction: Both	Default: 0.00 ft	Default: 0.00 ft
Solution: Combine	Op Table:	Op Table:
Increments: 0	Ref Node:	Ref Node:
Pipe Count: 2	Manning's N: 0.0000	Manning's N: 0.0000
Damping: 0.0000 ft	Top Clip	
Length: 347.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:



Fillet: 0.00 ft

Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: CS-8		Upstream Pipe	Downstream Pipe
Scenario:	POSTDEVELOPMEN	Invert: 64.15 ft	Invert: 64.00 ft
	T	Manning's N: 0.0120	Manning's N: 0.0120
From Node:	POND 8	Geometry: Circular	Geometry: Circular
To Node:	Lake Harris	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Link Count:	2	Bottom Clip	
Flow Direction:	Both	Default: 0.00 ft	Default: 0.00 ft
Solution:	Combine	Op Table:	Op Table:
Increments:	0	Ref Node:	Ref Node:
Pipe Count:	2	Manning's N: 0.0000	Manning's N: 0.0000
Damping:	0.0000 ft	Top Clip	
Length:	57.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code:	0	Op Table:	Op Table:
Entr Loss Coef:	0.00	Ref Node:	Ref Node:
Exit Loss Coef:	0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		Bottom Clip
Weir:	1	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Broad Crested Vertical	Default: 0.00 ft
Geometry Type:	Circular	Op Table:
Invert:	63.50 ft	Ref Node:
Control Elevation:	64.00 ft	Discharge Coefficients
Max Depth:	0.23 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment: 1- 2.75" Orifice

Weir Component		Bottom Clip
Weir:	2	Default: 0.00 ft
Weir Count:	1	

Weir Flow Direction: Both Damping: 0.0000 ft Weir Type: Horizontal Geometry Type: Rectangular Invert: 67.50 ft Control Elevation: 67.50 ft Max Depth: 3.38 ft Max Width: 8.69 ft Fillet: 0.00 ft	Op Table: Ref Node: Top Clip Default: 0.00 ft Op Table: Ref Node: Discharge Coefficients Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
--	--

Weir Comment: Type H Inlet

Weir Component	
Weir: 3 Weir Count: 1 Weir Flow Direction: Both Damping: 0.0000 ft Weir Type: Broad Crested Vertical Geometry Type: Rectangular Invert: 67.10 ft Control Elevation: 67.10 ft Max Depth: 0.40 ft Max Width: 14.00 ft Fillet: 0.00 ft	Bottom Clip Default: 0.00 ft Op Table: Ref Node: Top Clip Default: 0.00 ft Op Table: Ref Node: Discharge Coefficients Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment: 4.8" x 14" Weir

Drop Structure Comment:

Drop Structure Link: CS-9		
Scenario: POSTDEVELOPME T From Node: POND 9 To Node: Lake Harris Link Count: 1 Flow Direction: Both Solution: Combine Increments: 0 Pipe Count: 1 Damping: 0.0000 ft Length: 57.00 ft FHWA Code: 0 Entr Loss Coef: 0.00 Exit Loss Coef: 0.00	Upstream Pipe Invert: 65.40 ft Manning's N: 0.0120 Geometry: Circular Max Depth: 2.00 ft Bottom Clip Default: 0.00 ft Op Table: Ref Node: Manning's N: 0.0000 Top Clip Default: 0.00 ft Op Table: Ref Node: Manning's N: 0.0000	Downstream Pipe Invert: 65.25 ft Manning's N: 0.0120 Geometry: Circular Max Depth: 2.00 ft Bottom Clip Default: 0.00 ft Op Table: Ref Node: Manning's N: 0.0000 Top Clip Default: 0.00 ft Op Table: Ref Node: Manning's N: 0.0000

Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 65.00 ft	Op Table:
Control Elevation: 65.50 ft	Ref Node:
Max Depth: 0.23 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: 1- 2.75" orifice

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 67.55 ft	Op Table:
Control Elevation: 67.55 ft	Ref Node:
Max Depth: 2.33 ft	Discharge Coefficients
Max Width: 3.01 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment: Type C Inlet

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Broad Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 67.00 ft	Op Table:
Control Elevation: 67.00 ft	Ref Node:
Max Depth: 0.50 ft	Discharge Coefficients
Max Width: 2.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600

Orifice Table:

Weir Comment: 6"x30" Weir

Drop Structure Comment:

Pipe Link: L-0060P	Upstream	Downstream
Scenario: POSTDEVELOPMEN T	Invert: 71.00 ft Manning's N: 0.0120	Invert: 71.00 ft Manning's N: 0.0120
From Node: POND 2	Geometry: Circular	Geometry: Circular
To Node: POND 3	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Link Count: 1	Bottom Clip	
Flow Direction: Both	Default: 0.00 ft	Default: 0.00 ft
Damping: 0.0000 ft	Op Table:	Op Table:
Length: 200.00 ft	Ref Node:	Ref Node:
FHWA Code: 0	Manning's N: 0.0000	Manning's N: 0.0000
Entr Loss Coef: 0.00	Top Clip	
Exit Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Loss Coef: 0.00	Op Table:	Op Table:
Bend Location: 0.00 dec	Ref Node:	Ref Node:
Energy Switch: Energy	Manning's N: 0.0000	Manning's N: 0.0000

Comment:

Pipe Link: L-0070P	Upstream	Downstream
Scenario: POSTDEVELOPMEN T	Invert: 60.00 ft Manning's N: 0.0120	Invert: 60.00 ft Manning's N: 0.0120
From Node: POND 4	Geometry: Circular	Geometry: Circular
To Node: POND 10	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Link Count: 1	Bottom Clip	
Flow Direction: Both	Default: 0.00 ft	Default: 0.00 ft
Damping: 0.0000 ft	Op Table:	Op Table:
Length: 194.00 ft	Ref Node:	Ref Node:
FHWA Code: 0	Manning's N: 0.0000	Manning's N: 0.0000
Entr Loss Coef: 0.00	Top Clip	
Exit Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Loss Coef: 0.00	Op Table:	Op Table:
Bend Location: 0.00 dec	Ref Node:	Ref Node:
Energy Switch: Energy	Manning's N: 0.0000	Manning's N: 0.0000

Comment:

Simulation: 100YR-24HR

Scenario: POSTDEVELOPMENT

Run Date/Time: 11/6/2024 11:20:45 AM  
 Program Version: ICPR4 4.07.08

### General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

### Output Time Increments

#### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

#### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

#### Restart File

Save Restart: False

### Resources & Lookup Tables

#### Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

#### Lookup Tables

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:

Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:

### Tolerances & Options

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight: 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft  
 Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr  
 Smp/Man Basin Rain: Global  
 Opt:



Link Optimizer Tol: 0.0001 ft  
 Edge Length Option: Automatic

Rainfall Name: ~SCSII-24  
 Rainfall Amount: 10.40 in  
 Storm Duration: 24.0000 hr  
 Dfit Damping (1D): 0.0050 ft  
 Min Node Srf Area (1D): 100 ft2  
 Energy Switch (1D): Energy

Comment:

Simulation: 10YR-24HR  
 Scenario: POSTDEVELOPMENT  
 Run Date/Time: 11/6/2024 11:23:14 AM  
 Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Lookup Tables

Boundary Stage Set:

Unit Hydrograph  
Folder:

Extern Hydrograph Set:  
Curve Number Set:

Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	
Over-Relax Weight 0.5 dec	
Fact:	
dZ Tolerance: 0.0010 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 1.0000 ft	Rainfall Name: ~SCSII-24
Link Optimizer Tol: 0.0001 ft	Rainfall Amount: 6.03 in
	Storm Duration: 24.0000 hr
Edge Length Option: Automatic	
	Dflt Damping (1D): 0.0050 ft
	Min Node Srf Area 100 ft2
	(1D):
	Energy Switch (1D): Energy

Comment:

Simulation: 25YR-24HR

Scenario: POSTDEVELOPMENT  
Run Date/Time: 11/6/2024 11:24:47 AM  
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set:

Green-Ampt Set:

Vertical Layers Set:

Impervious Set:

## Tolerances &amp; Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	
Over-Relax Weight 0.5 dec	
Fact:	
dZ Tolerance: 0.0010 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 1.0000 ft	Rainfall Name: ~SCSII-24
Link Optimizer Tol: 0.0001 ft	Rainfall Amount: 7.54 in
	Storm Duration: 24.0000 hr
Edge Length Option: Automatic	
	Dflt Damping (1D): 0.0050 ft
	Min Node Srf Area 100 ft2
	(1D):
	Energy Switch (1D): Energy

Comment:

Simulation: MEAN

Scenario: POSTDEVELOPMENT

Run Date/Time: 11/6/2024 11:26:06 AM

Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		60.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set:Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:

## Tolerances &amp; Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight Fact: 0.5 dec  
dZ Tolerance: 0.0010 ft  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ftIA Recovery Time: 24.0000 hr  
  
Smp/Man Basin Rain Global  
Opt:  
Rainfall Name: ~SCSII-24  
Rainfall Amount: 4.50 in

Edge Length Option: Automatic

Storm Duration: 24.0000 hr

Dflt Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft2

(1D):

Energy Switch (1D): Energy

Comment:

## Simulation: RECOVERY

Scenario: POSTDEVELOPMENT

Run Date/Time: 11/6/2024 11:03:50 AM

Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	120.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set:

Folder:

Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:

## Tolerances &amp; Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight	0.5 dec		
Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	1.0000 ft	Rainfall Name:	~SCSII-24
Link Optimizer Tol:	0.0001 ft	Rainfall Amount:	7.54 in
		Storm Duration:	24.0000 hr
Edge Length Option:	Automatic		
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area	100 ft2
		(1D):	
		Energy Switch (1D):	Energy

Comment:

**Appendix K**  
**Postdevelopment ICPR Node Min/Max Report**

## Node Max Conditions [POSTDEVELOPMENT]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Lake Harris	100YR-24HR	64.32	63.32	0.0000	461.75	0.00	0
POND 1	100YR-24HR	90.00	86.17	0.0010	278.24	0.00	137600
POND 10	100YR-24HR	69.00	68.69	0.0008	221.43	203.92	39587
POND 12	100YR-24HR	70.00	68.52	-0.0010	134.24	38.40	59380
POND 2	100YR-24HR	78.00	77.90	-0.0010	151.53	32.74	73074
POND 3	100YR-24HR	78.00	77.58	-0.0009	128.25	55.65	47900
POND 4	100YR-24HR	69.00	68.94	-0.0010	79.40	55.73	24198
POND 5	100YR-24HR	83.00	81.87	-0.0010	280.40	26.19	189659
POND 7	100YR-24HR	70.00	69.90	-0.0010	282.80	74.98	97765
POND 8	100YR-24HR	69.00	68.14	0.0010	139.97	129.85	38524
POND 9	100YR-24HR	71.00	69.04	-0.0010	82.57	34.72	35856
Lake Harris	10YR-24HR	64.32	63.32	0.0000	73.99	0.00	0
POND 1	10YR-24HR	90.00	82.52	0.0010	141.66	0.00	112749
POND 10	10YR-24HR	69.00	67.73	-0.0008	58.83	30.16	36635
POND 12	10YR-24HR	70.00	66.87	0.0008	64.49	9.62	49830
POND 2	10YR-24HR	78.00	76.01	0.0008	72.09	7.24	63198
POND 3	10YR-24HR	78.00	75.99	-0.0007	54.07	12.87	40014
POND 4	10YR-24HR	69.00	67.73	-0.0010	36.64	8.69	20097
POND 5	10YR-24HR	83.00	80.53	-0.0006	131.19	5.49	178158
POND 7	10YR-24HR	70.00	67.66	0.0010	124.92	14.79	83153
POND 8	10YR-24HR	69.00	67.44	0.0010	66.37	18.13	35444
POND 9	10YR-24HR	71.00	67.70	-0.0009	39.15	6.23	31317
Lake Harris	25YR-24HR	64.32	63.32	0.0000	235.74	0.00	0
POND 1	25YR-24HR	90.00	83.84	0.0010	188.57	0.00	121356
POND 10	25YR-24HR	69.00	68.13	0.0008	104.43	96.80	37853
POND 12	25YR-24HR	70.00	67.34	-0.0008	88.44	28.22	52446
POND 2	25YR-24HR	78.00	76.55	-0.0008	101.95	20.19	66036
POND 3	25YR-24HR	78.00	76.41	-0.0008	74.61	37.41	42054
POND 4	25YR-24HR	69.00	68.17	-0.0009	51.22	25.61	21523
POND 5	25YR-24HR	83.00	80.94	-0.0008	182.19	13.04	181551
POND 7	25YR-24HR	70.00	68.32	-0.0010	178.31	42.00	87482
POND 8	25YR-24HR	69.00	67.78	0.0010	91.58	61.19	36949
POND 9	25YR-24HR	71.00	68.13	-0.0010	54.03	19.97	32671
Lake Harris	MEAN	64.32	63.32	0.0000	9.49	0.00	0
POND 1	MEAN	90.00	81.14	0.0010	95.05	0.00	103688
POND 10	MEAN	69.00	67.48	0.0009	37.73	4.49	35870
POND 12	MEAN	70.00	66.53	0.0007	40.88	1.28	48070
POND 2	MEAN	78.00	75.68	0.0007	43.08	1.11	61632
POND 3	MEAN	78.00	75.68	0.0007	33.91	8.29	38534
POND 4	MEAN	69.00	67.48	0.0009	22.49	4.46	19321
POND 5	MEAN	83.00	80.21	0.0005	81.39	1.40	175556
POND 7	MEAN	70.00	67.28	0.0009	74.14	1.93	80650
POND 8	MEAN	69.00	67.14	0.0010	41.63	1.37	34149
POND 9	MEAN	71.00	67.24	-0.0007	24.56	1.16	29908
Lake Harris	RECOVERY	64.32	63.32	0.0000	235.74	0.00	0
POND 1	RECOVERY	90.00	83.84	0.0010	188.57	0.00	121356



Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
POND 10	RECOVERY	69.00	68.13	0.0008	104.43	96.80	37853
POND 12	RECOVERY	70.00	67.34	-0.0008	88.44	28.22	52446
POND 2	RECOVERY	78.00	76.55	-0.0009	101.95	20.19	66036
POND 3	RECOVERY	78.00	76.41	0.0007	74.61	37.41	42054
POND 4	RECOVERY	69.00	68.17	0.0008	51.22	25.61	21523
POND 5	RECOVERY	83.00	80.94	0.0006	182.19	13.04	181551
POND 7	RECOVERY	70.00	68.32	-0.0010	178.31	41.99	87482
POND 8	RECOVERY	69.00	67.78	0.0010	91.58	61.19	36949
POND 9	RECOVERY	71.00	68.13	-0.0008	54.03	19.97	32671

**Appendix L**  
**Postdevelopment ICPR 25yr/24hr Node Time Series Report**

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	0.0000	74.00
RECOVERY	POND 3	0.2511	74.00
RECOVERY	POND 3	0.5050	74.00
RECOVERY	POND 3	0.7527	74.00
RECOVERY	POND 3	1.0027	74.00
RECOVERY	POND 3	1.2527	74.00
RECOVERY	POND 3	1.5027	74.00
RECOVERY	POND 3	1.7527	74.00
RECOVERY	POND 3	2.0027	74.00
RECOVERY	POND 3	2.2527	74.00
RECOVERY	POND 3	2.5027	74.00
RECOVERY	POND 3	2.7527	74.00
RECOVERY	POND 3	3.0027	74.00
RECOVERY	POND 3	3.2527	74.00
RECOVERY	POND 3	3.5027	74.00
RECOVERY	POND 3	3.7527	74.00
RECOVERY	POND 3	4.0027	74.00
RECOVERY	POND 3	4.2527	74.00
RECOVERY	POND 3	4.5027	74.00
RECOVERY	POND 3	4.7527	74.00
RECOVERY	POND 3	5.0027	74.00
RECOVERY	POND 3	5.2527	74.00
RECOVERY	POND 3	5.5027	74.00
RECOVERY	POND 3	5.7527	74.00
RECOVERY	POND 3	6.0027	74.00
RECOVERY	POND 3	6.2527	74.00
RECOVERY	POND 3	6.5027	74.00
RECOVERY	POND 3	6.7527	74.00
RECOVERY	POND 3	7.0027	74.00
RECOVERY	POND 3	7.2527	74.00
RECOVERY	POND 3	7.5027	74.00
RECOVERY	POND 3	7.7527	74.01
RECOVERY	POND 3	8.0027	74.01
RECOVERY	POND 3	8.2527	74.01
RECOVERY	POND 3	8.5027	74.02
RECOVERY	POND 3	8.7527	74.02
RECOVERY	POND 3	9.0027	74.03
RECOVERY	POND 3	9.2530	74.04
RECOVERY	POND 3	9.5031	74.05
RECOVERY	POND 3	9.7520	74.06
RECOVERY	POND 3	10.0029	74.08
RECOVERY	POND 3	10.2516	74.09

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	10.5014	74.12
RECOVERY	POND 3	10.7521	74.15
RECOVERY	POND 3	11.0016	74.20
RECOVERY	POND 3	11.2513	74.26
RECOVERY	POND 3	11.5006	74.34
RECOVERY	POND 3	11.7503	74.55
RECOVERY	POND 3	12.0000	75.34
RECOVERY	POND 3	12.2500	76.36
RECOVERY	POND 3	12.5007	76.39
RECOVERY	POND 3	12.7509	76.31
RECOVERY	POND 3	13.0001	76.24
RECOVERY	POND 3	13.2509	76.17
RECOVERY	POND 3	13.5016	76.11
RECOVERY	POND 3	13.7509	76.06
RECOVERY	POND 3	14.0002	76.01
RECOVERY	POND 3	14.2533	75.97
RECOVERY	POND 3	14.5013	75.94
RECOVERY	POND 3	14.7535	75.91
RECOVERY	POND 3	15.0007	75.88
RECOVERY	POND 3	15.2537	75.87
RECOVERY	POND 3	15.5014	75.85
RECOVERY	POND 3	15.7550	75.84
RECOVERY	POND 3	16.0034	75.82
RECOVERY	POND 3	16.2509	75.82
RECOVERY	POND 3	16.5035	75.81
RECOVERY	POND 3	16.7526	75.80
RECOVERY	POND 3	17.0034	75.80
RECOVERY	POND 3	17.2540	75.79
RECOVERY	POND 3	17.5042	75.78
RECOVERY	POND 3	17.7529	75.78
RECOVERY	POND 3	18.0046	75.77
RECOVERY	POND 3	18.2504	75.77
RECOVERY	POND 3	18.5004	75.76
RECOVERY	POND 3	18.7504	75.75
RECOVERY	POND 3	19.0004	75.75
RECOVERY	POND 3	19.2504	75.75
RECOVERY	POND 3	19.5004	75.75
RECOVERY	POND 3	19.7504	75.74
RECOVERY	POND 3	20.0004	75.74
RECOVERY	POND 3	20.2504	75.73
RECOVERY	POND 3	20.5004	75.73
RECOVERY	POND 3	20.7504	75.72

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	21.0004	75.72
RECOVERY	POND 3	21.2504	75.72
RECOVERY	POND 3	21.5004	75.72
RECOVERY	POND 3	21.7504	75.71
RECOVERY	POND 3	22.0004	75.71
RECOVERY	POND 3	22.2504	75.71
RECOVERY	POND 3	22.5004	75.71
RECOVERY	POND 3	22.7504	75.71
RECOVERY	POND 3	23.0004	75.71
RECOVERY	POND 3	23.2504	75.71
RECOVERY	POND 3	23.5004	75.71
RECOVERY	POND 3	23.7504	75.71
RECOVERY	POND 3	24.0004	75.71
RECOVERY	POND 3	24.2504	75.70
RECOVERY	POND 3	24.5004	75.68
RECOVERY	POND 3	24.7504	75.66
RECOVERY	POND 3	25.0004	75.65
RECOVERY	POND 3	25.2504	75.64
RECOVERY	POND 3	25.5004	75.63
RECOVERY	POND 3	25.7504	75.62
RECOVERY	POND 3	26.0004	75.61
RECOVERY	POND 3	26.2504	75.60
RECOVERY	POND 3	26.5004	75.59
RECOVERY	POND 3	26.7504	75.59
RECOVERY	POND 3	27.0004	75.58
RECOVERY	POND 3	27.2504	75.57
RECOVERY	POND 3	27.5004	75.56
RECOVERY	POND 3	27.7504	75.56
RECOVERY	POND 3	28.0004	75.55
RECOVERY	POND 3	28.2504	75.54
RECOVERY	POND 3	28.5004	75.53
RECOVERY	POND 3	28.7504	75.53
RECOVERY	POND 3	29.0004	75.52
RECOVERY	POND 3	29.2504	75.51
RECOVERY	POND 3	29.5004	75.50
RECOVERY	POND 3	29.7504	75.50
RECOVERY	POND 3	30.0004	75.49
RECOVERY	POND 3	30.2504	75.48
RECOVERY	POND 3	30.5004	75.47
RECOVERY	POND 3	30.7504	75.47
RECOVERY	POND 3	31.0004	75.46
RECOVERY	POND 3	31.2504	75.45

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	31.5004	75.44
RECOVERY	POND 3	31.7504	75.44
RECOVERY	POND 3	32.0004	75.43
RECOVERY	POND 3	32.2504	75.42
RECOVERY	POND 3	32.5004	75.41
RECOVERY	POND 3	32.7504	75.41
RECOVERY	POND 3	33.0004	75.40
RECOVERY	POND 3	33.2504	75.39
RECOVERY	POND 3	33.5004	75.39
RECOVERY	POND 3	33.7504	75.38
RECOVERY	POND 3	34.0004	75.37
RECOVERY	POND 3	34.2504	75.36
RECOVERY	POND 3	34.5004	75.36
RECOVERY	POND 3	34.7504	75.35
RECOVERY	POND 3	35.0004	75.34
RECOVERY	POND 3	35.2504	75.34
RECOVERY	POND 3	35.5004	75.33
RECOVERY	POND 3	35.7504	75.32
RECOVERY	POND 3	36.0004	75.31
RECOVERY	POND 3	36.2504	75.31
RECOVERY	POND 3	36.5004	75.30
RECOVERY	POND 3	36.7504	75.29
RECOVERY	POND 3	37.0004	75.29
RECOVERY	POND 3	37.2504	75.28
RECOVERY	POND 3	37.5004	75.27
RECOVERY	POND 3	37.7504	75.26
RECOVERY	POND 3	38.0004	75.26
RECOVERY	POND 3	38.2504	75.25
RECOVERY	POND 3	38.5004	75.24
RECOVERY	POND 3	38.7504	75.24
RECOVERY	POND 3	39.0004	75.23
RECOVERY	POND 3	39.2504	75.22
RECOVERY	POND 3	39.5004	75.22
RECOVERY	POND 3	39.7504	75.21
RECOVERY	POND 3	40.0004	75.20
RECOVERY	POND 3	40.2504	75.20
RECOVERY	POND 3	40.5004	75.19
RECOVERY	POND 3	40.7504	75.18
RECOVERY	POND 3	41.0004	75.17
RECOVERY	POND 3	41.2504	75.17
RECOVERY	POND 3	41.5004	75.16
RECOVERY	POND 3	41.7504	75.15

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	42.0004	75.15
RECOVERY	POND 3	42.2504	75.14
RECOVERY	POND 3	42.5004	75.13
RECOVERY	POND 3	42.7504	75.13
RECOVERY	POND 3	43.0004	75.12
RECOVERY	POND 3	43.2504	75.11
RECOVERY	POND 3	43.5004	75.11
RECOVERY	POND 3	43.7504	75.10
RECOVERY	POND 3	44.0004	75.09
RECOVERY	POND 3	44.2504	75.09
RECOVERY	POND 3	44.5004	75.08
RECOVERY	POND 3	44.7504	75.07
RECOVERY	POND 3	45.0004	75.07
RECOVERY	POND 3	45.2504	75.06
RECOVERY	POND 3	45.5004	75.05
RECOVERY	POND 3	45.7504	75.05
RECOVERY	POND 3	46.0004	75.04
RECOVERY	POND 3	46.2504	75.03
RECOVERY	POND 3	46.5004	75.03
RECOVERY	POND 3	46.7504	75.02
RECOVERY	POND 3	47.0004	75.02
RECOVERY	POND 3	47.2504	75.01
RECOVERY	POND 3	47.5004	75.00
RECOVERY	POND 3	47.7504	75.00
RECOVERY	POND 3	48.0004	74.99
RECOVERY	POND 3	48.2504	74.98
RECOVERY	POND 3	48.5004	74.98
RECOVERY	POND 3	48.7504	74.97
RECOVERY	POND 3	49.0004	74.96
RECOVERY	POND 3	49.2504	74.96
RECOVERY	POND 3	49.5004	74.95
RECOVERY	POND 3	49.7504	74.95
RECOVERY	POND 3	50.0004	74.94
RECOVERY	POND 3	50.2504	74.93
RECOVERY	POND 3	50.5004	74.93
RECOVERY	POND 3	50.7504	74.92
RECOVERY	POND 3	51.0004	74.91
RECOVERY	POND 3	51.2504	74.91
RECOVERY	POND 3	51.5004	74.90
RECOVERY	POND 3	51.7504	74.90
RECOVERY	POND 3	52.0004	74.89
RECOVERY	POND 3	52.2504	74.88

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	52.5004	74.88
RECOVERY	POND 3	52.7504	74.87
RECOVERY	POND 3	53.0004	74.87
RECOVERY	POND 3	53.2504	74.86
RECOVERY	POND 3	53.5004	74.85
RECOVERY	POND 3	53.7504	74.85
RECOVERY	POND 3	54.0004	74.84
RECOVERY	POND 3	54.2504	74.84
RECOVERY	POND 3	54.5004	74.83
RECOVERY	POND 3	54.7504	74.82
RECOVERY	POND 3	55.0004	74.82
RECOVERY	POND 3	55.2504	74.81
RECOVERY	POND 3	55.5004	74.81
RECOVERY	POND 3	55.7504	74.80
RECOVERY	POND 3	56.0004	74.79
RECOVERY	POND 3	56.2504	74.79
RECOVERY	POND 3	56.5004	74.78
RECOVERY	POND 3	56.7504	74.78
RECOVERY	POND 3	57.0004	74.77
RECOVERY	POND 3	57.2504	74.77
RECOVERY	POND 3	57.5004	74.76
RECOVERY	POND 3	57.7504	74.75
RECOVERY	POND 3	58.0004	74.75
RECOVERY	POND 3	58.2504	74.74
RECOVERY	POND 3	58.5004	74.74
RECOVERY	POND 3	58.7504	74.73
RECOVERY	POND 3	59.0004	74.73
RECOVERY	POND 3	59.2504	74.72
RECOVERY	POND 3	59.5004	74.71
RECOVERY	POND 3	59.7504	74.71
RECOVERY	POND 3	60.0004	74.70
RECOVERY	POND 3	60.2504	74.70
RECOVERY	POND 3	60.5004	74.69
RECOVERY	POND 3	60.7504	74.69
RECOVERY	POND 3	61.0004	74.68
RECOVERY	POND 3	61.2504	74.68
RECOVERY	POND 3	61.5004	74.67
RECOVERY	POND 3	61.7504	74.67
RECOVERY	POND 3	62.0004	74.66
RECOVERY	POND 3	62.2504	74.65
RECOVERY	POND 3	62.5004	74.65
RECOVERY	POND 3	62.7504	74.64

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 3	63.0004	74.64
RECOVERY	POND 3	63.2504	74.63
RECOVERY	POND 3	63.5004	74.63
RECOVERY	POND 3	63.7504	74.62
RECOVERY	POND 3	64.0004	74.62
RECOVERY	POND 3	64.2504	74.61
RECOVERY	POND 3	64.5004	74.61
RECOVERY	POND 3	64.7504	74.60
RECOVERY	POND 3	65.0004	74.60
RECOVERY	POND 3	65.2504	74.59
RECOVERY	POND 3	65.5004	74.59
RECOVERY	POND 3	65.7504	74.58
RECOVERY	POND 3	66.0004	74.58
RECOVERY	POND 3	66.2504	74.57
RECOVERY	POND 3	66.5004	74.57
RECOVERY	POND 3	66.7504	74.56
RECOVERY	POND 3	67.0004	74.56
RECOVERY	POND 3	67.2504	74.55
RECOVERY	POND 3	67.5004	74.55
RECOVERY	POND 3	67.7504	74.54
RECOVERY	POND 3	68.0004	74.54
RECOVERY	POND 3	68.2504	74.53
RECOVERY	POND 3	68.5004	74.53
RECOVERY	POND 3	68.7504	74.52
RECOVERY	POND 3	69.0004	74.52
RECOVERY	POND 3	69.2504	74.51
RECOVERY	POND 3	69.5004	74.51
RECOVERY	POND 3	69.7504	74.50
RECOVERY	POND 3	70.0004	74.50
RECOVERY	POND 3	70.2504	74.49
RECOVERY	POND 3	70.5004	74.49
RECOVERY	POND 3	70.7504	74.48
RECOVERY	POND 3	71.0004	74.48
RECOVERY	POND 3	71.2504	74.47
RECOVERY	POND 3	71.5004	74.47
RECOVERY	POND 3	71.7504	74.46
RECOVERY	POND 3	72.0004	74.46
RECOVERY	POND 3	72.2504	74.46
RECOVERY	POND 3	72.5004	74.45
RECOVERY	POND 3	72.7504	74.45
RECOVERY	POND 3	73.0004	74.44
RECOVERY	POND 3	73.2504	74.44

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	0.0000	65.00
RECOVERY	POND 7	0.2511	65.00
RECOVERY	POND 7	0.5050	65.00
RECOVERY	POND 7	0.7527	65.00
RECOVERY	POND 7	1.0027	65.00
RECOVERY	POND 7	1.2527	65.00
RECOVERY	POND 7	1.5027	65.00
RECOVERY	POND 7	1.7527	65.00
RECOVERY	POND 7	2.0027	65.00
RECOVERY	POND 7	2.2527	65.00
RECOVERY	POND 7	2.5027	65.00
RECOVERY	POND 7	2.7527	65.00
RECOVERY	POND 7	3.0027	65.00
RECOVERY	POND 7	3.2527	65.00
RECOVERY	POND 7	3.5027	65.00
RECOVERY	POND 7	3.7527	65.00
RECOVERY	POND 7	4.0027	65.00
RECOVERY	POND 7	4.2527	65.00
RECOVERY	POND 7	4.5027	65.00
RECOVERY	POND 7	4.7527	65.00
RECOVERY	POND 7	5.0027	65.00
RECOVERY	POND 7	5.2527	65.00
RECOVERY	POND 7	5.5027	65.00
RECOVERY	POND 7	5.7527	65.00
RECOVERY	POND 7	6.0027	65.00
RECOVERY	POND 7	6.2527	65.00
RECOVERY	POND 7	6.5027	65.00
RECOVERY	POND 7	6.7527	65.00
RECOVERY	POND 7	7.0027	65.00
RECOVERY	POND 7	7.2527	65.00
RECOVERY	POND 7	7.5027	65.00
RECOVERY	POND 7	7.7527	65.00
RECOVERY	POND 7	8.0027	65.00
RECOVERY	POND 7	8.2527	65.00
RECOVERY	POND 7	8.5027	65.01
RECOVERY	POND 7	8.7527	65.02
RECOVERY	POND 7	9.0027	65.03
RECOVERY	POND 7	9.2530	65.04
RECOVERY	POND 7	9.5031	65.06
RECOVERY	POND 7	9.7520	65.08
RECOVERY	POND 7	10.0029	65.10
RECOVERY	POND 7	10.2516	65.13

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	10.5014	65.17
RECOVERY	POND 7	10.7521	65.21
RECOVERY	POND 7	11.0016	65.28
RECOVERY	POND 7	11.2513	65.37
RECOVERY	POND 7	11.5006	65.48
RECOVERY	POND 7	11.7503	65.77
RECOVERY	POND 7	12.0000	66.80
RECOVERY	POND 7	12.2500	68.21
RECOVERY	POND 7	12.5007	68.30
RECOVERY	POND 7	12.7509	68.15
RECOVERY	POND 7	13.0001	68.00
RECOVERY	POND 7	13.2509	67.87
RECOVERY	POND 7	13.5016	67.77
RECOVERY	POND 7	13.7509	67.69
RECOVERY	POND 7	14.0002	67.64
RECOVERY	POND 7	14.2533	67.59
RECOVERY	POND 7	14.5013	67.55
RECOVERY	POND 7	14.7535	67.52
RECOVERY	POND 7	15.0007	67.50
RECOVERY	POND 7	15.2537	67.48
RECOVERY	POND 7	15.5014	67.47
RECOVERY	POND 7	15.7550	67.45
RECOVERY	POND 7	16.0034	67.44
RECOVERY	POND 7	16.2509	67.43
RECOVERY	POND 7	16.5035	67.43
RECOVERY	POND 7	16.7526	67.42
RECOVERY	POND 7	17.0034	67.41
RECOVERY	POND 7	17.2540	67.41
RECOVERY	POND 7	17.5042	67.40
RECOVERY	POND 7	17.7529	67.40
RECOVERY	POND 7	18.0046	67.39
RECOVERY	POND 7	18.2504	67.38
RECOVERY	POND 7	18.5004	67.37
RECOVERY	POND 7	18.7504	67.37
RECOVERY	POND 7	19.0004	67.36
RECOVERY	POND 7	19.2504	67.36
RECOVERY	POND 7	19.5004	67.36
RECOVERY	POND 7	19.7504	67.36
RECOVERY	POND 7	20.0004	67.35
RECOVERY	POND 7	20.2504	67.35
RECOVERY	POND 7	20.5004	67.34
RECOVERY	POND 7	20.7504	67.33

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	21.0004	67.33
RECOVERY	POND 7	21.2504	67.33
RECOVERY	POND 7	21.5004	67.33
RECOVERY	POND 7	21.7504	67.32
RECOVERY	POND 7	22.0004	67.32
RECOVERY	POND 7	22.2504	67.32
RECOVERY	POND 7	22.5004	67.32
RECOVERY	POND 7	22.7504	67.32
RECOVERY	POND 7	23.0004	67.32
RECOVERY	POND 7	23.2504	67.32
RECOVERY	POND 7	23.5004	67.32
RECOVERY	POND 7	23.7504	67.32
RECOVERY	POND 7	24.0004	67.31
RECOVERY	POND 7	24.2504	67.30
RECOVERY	POND 7	24.5004	67.28
RECOVERY	POND 7	24.7504	67.26
RECOVERY	POND 7	25.0004	67.24
RECOVERY	POND 7	25.2504	67.23
RECOVERY	POND 7	25.5004	67.22
RECOVERY	POND 7	25.7504	67.20
RECOVERY	POND 7	26.0004	67.19
RECOVERY	POND 7	26.2504	67.18
RECOVERY	POND 7	26.5004	67.17
RECOVERY	POND 7	26.7504	67.16
RECOVERY	POND 7	27.0004	67.15
RECOVERY	POND 7	27.2504	67.14
RECOVERY	POND 7	27.5004	67.13
RECOVERY	POND 7	27.7504	67.12
RECOVERY	POND 7	28.0004	67.10
RECOVERY	POND 7	28.2504	67.09
RECOVERY	POND 7	28.5004	67.08
RECOVERY	POND 7	28.7504	67.07
RECOVERY	POND 7	29.0004	67.06
RECOVERY	POND 7	29.2504	67.05
RECOVERY	POND 7	29.5004	67.04
RECOVERY	POND 7	29.7504	67.03
RECOVERY	POND 7	30.0004	67.02
RECOVERY	POND 7	30.2504	67.01
RECOVERY	POND 7	30.5004	67.00
RECOVERY	POND 7	30.7504	66.99
RECOVERY	POND 7	31.0004	66.98
RECOVERY	POND 7	31.2504	66.97

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	31.5004	66.96
RECOVERY	POND 7	31.7504	66.95
RECOVERY	POND 7	32.0004	66.94
RECOVERY	POND 7	32.2504	66.93
RECOVERY	POND 7	32.5004	66.92
RECOVERY	POND 7	32.7504	66.91
RECOVERY	POND 7	33.0004	66.90
RECOVERY	POND 7	33.2504	66.89
RECOVERY	POND 7	33.5004	66.88
RECOVERY	POND 7	33.7504	66.87
RECOVERY	POND 7	34.0004	66.86
RECOVERY	POND 7	34.2504	66.85
RECOVERY	POND 7	34.5004	66.84
RECOVERY	POND 7	34.7504	66.83
RECOVERY	POND 7	35.0004	66.82
RECOVERY	POND 7	35.2504	66.81
RECOVERY	POND 7	35.5004	66.80
RECOVERY	POND 7	35.7504	66.79
RECOVERY	POND 7	36.0004	66.78
RECOVERY	POND 7	36.2504	66.77
RECOVERY	POND 7	36.5004	66.76
RECOVERY	POND 7	36.7504	66.75
RECOVERY	POND 7	37.0004	66.75
RECOVERY	POND 7	37.2504	66.74
RECOVERY	POND 7	37.5004	66.73
RECOVERY	POND 7	37.7504	66.72
RECOVERY	POND 7	38.0004	66.71
RECOVERY	POND 7	38.2504	66.70
RECOVERY	POND 7	38.5004	66.69
RECOVERY	POND 7	38.7504	66.68
RECOVERY	POND 7	39.0004	66.67
RECOVERY	POND 7	39.2504	66.67
RECOVERY	POND 7	39.5004	66.66
RECOVERY	POND 7	39.7504	66.65
RECOVERY	POND 7	40.0004	66.64
RECOVERY	POND 7	40.2504	66.63
RECOVERY	POND 7	40.5004	66.62
RECOVERY	POND 7	40.7504	66.61
RECOVERY	POND 7	41.0004	66.61
RECOVERY	POND 7	41.2504	66.60
RECOVERY	POND 7	41.5004	66.59
RECOVERY	POND 7	41.7504	66.58

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	42.0004	66.57
RECOVERY	POND 7	42.2504	66.56
RECOVERY	POND 7	42.5004	66.56
RECOVERY	POND 7	42.7504	66.55
RECOVERY	POND 7	43.0004	66.54
RECOVERY	POND 7	43.2504	66.53
RECOVERY	POND 7	43.5004	66.53
RECOVERY	POND 7	43.7504	66.52
RECOVERY	POND 7	44.0004	66.51
RECOVERY	POND 7	44.2504	66.50
RECOVERY	POND 7	44.5004	66.49
RECOVERY	POND 7	44.7504	66.49
RECOVERY	POND 7	45.0004	66.48
RECOVERY	POND 7	45.2504	66.47
RECOVERY	POND 7	45.5004	66.46
RECOVERY	POND 7	45.7504	66.46
RECOVERY	POND 7	46.0004	66.45
RECOVERY	POND 7	46.2504	66.44
RECOVERY	POND 7	46.5004	66.44
RECOVERY	POND 7	46.7504	66.43
RECOVERY	POND 7	47.0004	66.42
RECOVERY	POND 7	47.2504	66.41
RECOVERY	POND 7	47.5004	66.41
RECOVERY	POND 7	47.7504	66.40
RECOVERY	POND 7	48.0004	66.39
RECOVERY	POND 7	48.2504	66.39
RECOVERY	POND 7	48.5004	66.38
RECOVERY	POND 7	48.7504	66.37
RECOVERY	POND 7	49.0004	66.37
RECOVERY	POND 7	49.2504	66.36
RECOVERY	POND 7	49.5004	66.35
RECOVERY	POND 7	49.7504	66.35
RECOVERY	POND 7	50.0004	66.34
RECOVERY	POND 7	50.2504	66.33
RECOVERY	POND 7	50.5004	66.33
RECOVERY	POND 7	50.7504	66.32
RECOVERY	POND 7	51.0004	66.31
RECOVERY	POND 7	51.2504	66.31
RECOVERY	POND 7	51.5004	66.30
RECOVERY	POND 7	51.7504	66.30
RECOVERY	POND 7	52.0004	66.29
RECOVERY	POND 7	52.2504	66.28

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	52.5004	66.28
RECOVERY	POND 7	52.7504	66.27
RECOVERY	POND 7	53.0004	66.27
RECOVERY	POND 7	53.2504	66.26
RECOVERY	POND 7	53.5004	66.25
RECOVERY	POND 7	53.7504	66.25
RECOVERY	POND 7	54.0004	66.24
RECOVERY	POND 7	54.2504	66.24
RECOVERY	POND 7	54.5004	66.23
RECOVERY	POND 7	54.7504	66.23
RECOVERY	POND 7	55.0004	66.22
RECOVERY	POND 7	55.2504	66.22
RECOVERY	POND 7	55.5004	66.21
RECOVERY	POND 7	55.7504	66.20
RECOVERY	POND 7	56.0004	66.20
RECOVERY	POND 7	56.2504	66.19
RECOVERY	POND 7	56.5004	66.19
RECOVERY	POND 7	56.7504	66.18
RECOVERY	POND 7	57.0004	66.18
RECOVERY	POND 7	57.2504	66.17
RECOVERY	POND 7	57.5004	66.17
RECOVERY	POND 7	57.7504	66.16
RECOVERY	POND 7	58.0004	66.16
RECOVERY	POND 7	58.2504	66.16
RECOVERY	POND 7	58.5004	66.15
RECOVERY	POND 7	58.7504	66.15
RECOVERY	POND 7	59.0004	66.14
RECOVERY	POND 7	59.2504	66.14
RECOVERY	POND 7	59.5004	66.13
RECOVERY	POND 7	59.7504	66.13
RECOVERY	POND 7	60.0004	66.12
RECOVERY	POND 7	60.2504	66.12
RECOVERY	POND 7	60.5004	66.11
RECOVERY	POND 7	60.7504	66.11
RECOVERY	POND 7	61.0004	66.11
RECOVERY	POND 7	61.2504	66.10
RECOVERY	POND 7	61.5004	66.10
RECOVERY	POND 7	61.7504	66.09
RECOVERY	POND 7	62.0004	66.09
RECOVERY	POND 7	62.2504	66.09
RECOVERY	POND 7	62.5004	66.08
RECOVERY	POND 7	62.7504	66.08

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 7	63.0004	66.07
RECOVERY	POND 7	63.2504	66.07
RECOVERY	POND 7	63.5004	66.07
RECOVERY	POND 7	63.7504	66.06
RECOVERY	POND 7	64.0004	66.06
RECOVERY	POND 7	64.2504	66.06
RECOVERY	POND 7	64.5004	66.05
RECOVERY	POND 7	64.7504	66.05
RECOVERY	POND 7	65.0004	66.05
RECOVERY	POND 7	65.2504	66.04
RECOVERY	POND 7	65.5004	66.04
RECOVERY	POND 7	65.7504	66.04
RECOVERY	POND 7	66.0004	66.03
RECOVERY	POND 7	66.2504	66.03
RECOVERY	POND 7	66.5004	66.03
RECOVERY	POND 7	66.7504	66.02
RECOVERY	POND 7	67.0004	66.02
RECOVERY	POND 7	67.2504	66.02
RECOVERY	POND 7	67.5004	66.01
RECOVERY	POND 7	67.7504	66.01
RECOVERY	POND 7	68.0004	66.01
RECOVERY	POND 7	68.2504	66.01
RECOVERY	POND 7	68.5004	66.00
RECOVERY	POND 7	68.7504	66.00
RECOVERY	POND 7	69.0004	66.00
RECOVERY	POND 7	69.2504	65.99
RECOVERY	POND 7	69.5004	65.99
RECOVERY	POND 7	69.7504	65.99
RECOVERY	POND 7	70.0004	65.99
RECOVERY	POND 7	70.2504	65.98
RECOVERY	POND 7	70.5004	65.98
RECOVERY	POND 7	70.7504	65.98
RECOVERY	POND 7	71.0004	65.98
RECOVERY	POND 7	71.2504	65.97
RECOVERY	POND 7	71.5004	65.97
RECOVERY	POND 7	71.7504	65.97
RECOVERY	POND 7	72.0004	65.97
RECOVERY	POND 7	72.2504	65.97
RECOVERY	POND 7	72.5004	65.96
RECOVERY	POND 7	72.7504	65.96
RECOVERY	POND 7	73.0004	65.96
RECOVERY	POND 7	73.2504	65.96



Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 8	0.0000	64.00
RECOVERY	POND 8	0.2511	64.00
RECOVERY	POND 8	0.5050	64.00
RECOVERY	POND 8	0.7527	64.00
RECOVERY	POND 8	1.0027	64.00
RECOVERY	POND 8	1.2527	64.00
RECOVERY	POND 8	1.5027	64.00
RECOVERY	POND 8	1.7527	64.00
RECOVERY	POND 8	2.0027	64.00
RECOVERY	POND 8	2.2527	64.00
RECOVERY	POND 8	2.5027	64.00
RECOVERY	POND 8	2.7527	64.00
RECOVERY	POND 8	3.0027	64.00
RECOVERY	POND 8	3.2527	64.00
RECOVERY	POND 8	3.5027	64.00
RECOVERY	POND 8	3.7527	64.00
RECOVERY	POND 8	4.0027	64.00
RECOVERY	POND 8	4.2527	64.00
RECOVERY	POND 8	4.5027	64.00
RECOVERY	POND 8	4.7527	64.00
RECOVERY	POND 8	5.0027	64.00
RECOVERY	POND 8	5.2527	64.00
RECOVERY	POND 8	5.5027	64.00
RECOVERY	POND 8	5.7527	64.00
RECOVERY	POND 8	6.0027	64.00
RECOVERY	POND 8	6.2527	64.00
RECOVERY	POND 8	6.5027	64.00
RECOVERY	POND 8	6.7527	64.00
RECOVERY	POND 8	7.0027	64.01
RECOVERY	POND 8	7.2527	64.01
RECOVERY	POND 8	7.5027	64.02
RECOVERY	POND 8	7.7527	64.03
RECOVERY	POND 8	8.0027	64.05
RECOVERY	POND 8	8.2527	64.06
RECOVERY	POND 8	8.5027	64.08
RECOVERY	POND 8	8.7527	64.11
RECOVERY	POND 8	9.0027	64.14
RECOVERY	POND 8	9.2530	64.17
RECOVERY	POND 8	9.5031	64.21
RECOVERY	POND 8	9.7520	64.25
RECOVERY	POND 8	10.0029	64.30
RECOVERY	POND 8	10.2516	64.36

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 8	10.5014	64.42
RECOVERY	POND 8	10.7521	64.50
RECOVERY	POND 8	11.0016	64.62
RECOVERY	POND 8	11.2513	64.76
RECOVERY	POND 8	11.5006	64.93
RECOVERY	POND 8	11.7503	65.36
RECOVERY	POND 8	12.0000	66.74
RECOVERY	POND 8	12.2500	67.74
RECOVERY	POND 8	12.5007	67.48
RECOVERY	POND 8	12.7509	67.37
RECOVERY	POND 8	13.0001	67.32
RECOVERY	POND 8	13.2509	67.28
RECOVERY	POND 8	13.5016	67.26
RECOVERY	POND 8	13.7509	67.24
RECOVERY	POND 8	14.0002	67.23
RECOVERY	POND 8	14.2533	67.22
RECOVERY	POND 8	14.5013	67.21
RECOVERY	POND 8	14.7535	67.20
RECOVERY	POND 8	15.0007	67.19
RECOVERY	POND 8	15.2537	67.19
RECOVERY	POND 8	15.5014	67.19
RECOVERY	POND 8	15.7550	67.18
RECOVERY	POND 8	16.0034	67.18
RECOVERY	POND 8	16.2509	67.18
RECOVERY	POND 8	16.5035	67.18
RECOVERY	POND 8	16.7526	67.18
RECOVERY	POND 8	17.0034	67.17
RECOVERY	POND 8	17.2540	67.17
RECOVERY	POND 8	17.5042	67.17
RECOVERY	POND 8	17.7529	67.17
RECOVERY	POND 8	18.0046	67.16
RECOVERY	POND 8	18.2504	67.16
RECOVERY	POND 8	18.5004	67.16
RECOVERY	POND 8	18.7504	67.15
RECOVERY	POND 8	19.0004	67.15
RECOVERY	POND 8	19.2504	67.15
RECOVERY	POND 8	19.5004	67.15
RECOVERY	POND 8	19.7504	67.15
RECOVERY	POND 8	20.0004	67.15
RECOVERY	POND 8	20.2504	67.15
RECOVERY	POND 8	20.5004	67.14
RECOVERY	POND 8	20.7504	67.14

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 8	21.0004	67.14
RECOVERY	POND 8	21.2504	67.14
RECOVERY	POND 8	21.5004	67.14
RECOVERY	POND 8	21.7504	67.14
RECOVERY	POND 8	22.0004	67.14
RECOVERY	POND 8	22.2504	67.14
RECOVERY	POND 8	22.5004	67.14
RECOVERY	POND 8	22.7504	67.14
RECOVERY	POND 8	23.0004	67.14
RECOVERY	POND 8	23.2504	67.14
RECOVERY	POND 8	23.5004	67.14
RECOVERY	POND 8	23.7504	67.14
RECOVERY	POND 8	24.0004	67.14
RECOVERY	POND 8	24.2504	67.12
RECOVERY	POND 8	24.5004	67.10
RECOVERY	POND 8	24.7504	67.09
RECOVERY	POND 8	25.0004	67.07
RECOVERY	POND 8	25.2504	67.05
RECOVERY	POND 8	25.5004	67.03
RECOVERY	POND 8	25.7504	67.02
RECOVERY	POND 8	26.0004	67.00
RECOVERY	POND 8	26.2504	66.98
RECOVERY	POND 8	26.5004	66.96
RECOVERY	POND 8	26.7504	66.95
RECOVERY	POND 8	27.0004	66.93
RECOVERY	POND 8	27.2504	66.91
RECOVERY	POND 8	27.5004	66.89
RECOVERY	POND 8	27.7504	66.88
RECOVERY	POND 8	28.0004	66.86
RECOVERY	POND 8	28.2504	66.84
RECOVERY	POND 8	28.5004	66.82
RECOVERY	POND 8	28.7504	66.81
RECOVERY	POND 8	29.0004	66.79
RECOVERY	POND 8	29.2504	66.77
RECOVERY	POND 8	29.5004	66.75
RECOVERY	POND 8	29.7504	66.74
RECOVERY	POND 8	30.0004	66.72
RECOVERY	POND 8	30.2504	66.70
RECOVERY	POND 8	30.5004	66.69
RECOVERY	POND 8	30.7504	66.67
RECOVERY	POND 8	31.0004	66.65
RECOVERY	POND 8	31.2504	66.63

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 8	31.5004	66.62
RECOVERY	POND 8	31.7504	66.60
RECOVERY	POND 8	32.0004	66.58
RECOVERY	POND 8	32.2504	66.57
RECOVERY	POND 8	32.5004	66.55
RECOVERY	POND 8	32.7504	66.53
RECOVERY	POND 8	33.0004	66.52
RECOVERY	POND 8	33.2504	66.50
RECOVERY	POND 8	33.5004	66.48
RECOVERY	POND 8	33.7504	66.46
RECOVERY	POND 8	34.0004	66.45
RECOVERY	POND 8	34.2504	66.43
RECOVERY	POND 8	34.5004	66.41
RECOVERY	POND 8	34.7504	66.40
RECOVERY	POND 8	35.0004	66.38
RECOVERY	POND 8	35.2504	66.36
RECOVERY	POND 8	35.5004	66.35
RECOVERY	POND 8	35.7504	66.33
RECOVERY	POND 8	36.0004	66.31
RECOVERY	POND 8	36.2504	66.30
RECOVERY	POND 8	36.5004	66.28
RECOVERY	POND 8	36.7504	66.26
RECOVERY	POND 8	37.0004	66.25
RECOVERY	POND 8	37.2504	66.23
RECOVERY	POND 8	37.5004	66.22
RECOVERY	POND 8	37.7504	66.20
RECOVERY	POND 8	38.0004	66.18
RECOVERY	POND 8	38.2504	66.17
RECOVERY	POND 8	38.5004	66.15
RECOVERY	POND 8	38.7504	66.13
RECOVERY	POND 8	39.0004	66.12
RECOVERY	POND 8	39.2504	66.10
RECOVERY	POND 8	39.5004	66.09
RECOVERY	POND 8	39.7504	66.07
RECOVERY	POND 8	40.0004	66.05
RECOVERY	POND 8	40.2504	66.04
RECOVERY	POND 8	40.5004	66.02
RECOVERY	POND 8	40.7504	66.01
RECOVERY	POND 8	41.0004	65.99
RECOVERY	POND 8	41.2504	65.97
RECOVERY	POND 8	41.5004	65.96
RECOVERY	POND 8	41.7504	65.94

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 8	42.0004	65.93
RECOVERY	POND 8	42.2504	65.91
RECOVERY	POND 8	42.5004	65.90
RECOVERY	POND 8	42.7504	65.88
RECOVERY	POND 8	43.0004	65.86
RECOVERY	POND 8	43.2504	65.85
RECOVERY	POND 8	43.5004	65.83
RECOVERY	POND 8	43.7504	65.82
RECOVERY	POND 8	44.0004	65.80
RECOVERY	POND 8	44.2504	65.79
RECOVERY	POND 8	44.5004	65.77
RECOVERY	POND 8	44.7504	65.76
RECOVERY	POND 8	45.0004	65.74
RECOVERY	POND 8	45.2504	65.73
RECOVERY	POND 8	45.5004	65.71
RECOVERY	POND 8	45.7504	65.70
RECOVERY	POND 8	46.0004	65.68
RECOVERY	POND 8	46.2504	65.67
RECOVERY	POND 8	46.5004	65.65
RECOVERY	POND 8	46.7504	65.64
RECOVERY	POND 8	47.0004	65.62
RECOVERY	POND 8	47.2504	65.61
RECOVERY	POND 8	47.5004	65.59
RECOVERY	POND 8	47.7504	65.58
RECOVERY	POND 8	48.0004	65.56
RECOVERY	POND 8	48.2504	65.55
RECOVERY	POND 8	48.5004	65.54
RECOVERY	POND 8	48.7504	65.52
RECOVERY	POND 8	49.0004	65.51
RECOVERY	POND 8	49.2504	65.49
RECOVERY	POND 8	49.5004	65.48
RECOVERY	POND 8	49.7504	65.46
RECOVERY	POND 8	50.0004	65.45
RECOVERY	POND 8	50.2504	65.44
RECOVERY	POND 8	50.5004	65.42
RECOVERY	POND 8	50.7504	65.41
RECOVERY	POND 8	51.0004	65.40
RECOVERY	POND 8	51.2504	65.38
RECOVERY	POND 8	51.5004	65.37
RECOVERY	POND 8	51.7504	65.35
RECOVERY	POND 8	52.0004	65.34
RECOVERY	POND 8	52.2504	65.33

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 8	52.5004	65.31
RECOVERY	POND 8	52.7504	65.30
RECOVERY	POND 8	53.0004	65.29
RECOVERY	POND 8	53.2504	65.27
RECOVERY	POND 8	53.5004	65.26
RECOVERY	POND 8	53.7504	65.25
RECOVERY	POND 8	54.0004	65.23
RECOVERY	POND 8	54.2504	65.22
RECOVERY	POND 8	54.5004	65.21
RECOVERY	POND 8	54.7504	65.19
RECOVERY	POND 8	55.0004	65.18
RECOVERY	POND 8	55.2504	65.17
RECOVERY	POND 8	55.5004	65.16
RECOVERY	POND 8	55.7504	65.14
RECOVERY	POND 8	56.0004	65.13
RECOVERY	POND 8	56.2504	65.12
RECOVERY	POND 8	56.5004	65.11
RECOVERY	POND 8	56.7504	65.09
RECOVERY	POND 8	57.0004	65.08
RECOVERY	POND 8	57.2504	65.07
RECOVERY	POND 8	57.5004	65.06
RECOVERY	POND 8	57.7504	65.05
RECOVERY	POND 8	58.0004	65.03
RECOVERY	POND 8	58.2504	65.02
RECOVERY	POND 8	58.5004	65.01
RECOVERY	POND 8	58.7504	65.00
RECOVERY	POND 8	59.0004	64.99
RECOVERY	POND 8	59.2504	64.97
RECOVERY	POND 8	59.5004	64.96
RECOVERY	POND 8	59.7504	64.95
RECOVERY	POND 8	60.0004	64.94
RECOVERY	POND 8	60.2504	64.93
RECOVERY	POND 8	60.5004	64.92
RECOVERY	POND 8	60.7504	64.91
RECOVERY	POND 8	61.0004	64.89
RECOVERY	POND 8	61.2504	64.88
RECOVERY	POND 8	61.5004	64.87
RECOVERY	POND 8	61.7504	64.86
RECOVERY	POND 8	62.0004	64.85
RECOVERY	POND 8	62.2504	64.84
RECOVERY	POND 8	62.5004	64.83
RECOVERY	POND 8	62.7504	64.82

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	0.0000	65.50
RECOVERY	POND 9	0.2511	65.50
RECOVERY	POND 9	0.5050	65.50
RECOVERY	POND 9	0.7527	65.50
RECOVERY	POND 9	1.0027	65.50
RECOVERY	POND 9	1.2527	65.50
RECOVERY	POND 9	1.5027	65.50
RECOVERY	POND 9	1.7527	65.50
RECOVERY	POND 9	2.0027	65.50
RECOVERY	POND 9	2.2527	65.50
RECOVERY	POND 9	2.5027	65.50
RECOVERY	POND 9	2.7527	65.50
RECOVERY	POND 9	3.0027	65.50
RECOVERY	POND 9	3.2527	65.50
RECOVERY	POND 9	3.5027	65.50
RECOVERY	POND 9	3.7527	65.50
RECOVERY	POND 9	4.0027	65.50
RECOVERY	POND 9	4.2527	65.50
RECOVERY	POND 9	4.5027	65.50
RECOVERY	POND 9	4.7527	65.50
RECOVERY	POND 9	5.0027	65.50
RECOVERY	POND 9	5.2527	65.50
RECOVERY	POND 9	5.5027	65.50
RECOVERY	POND 9	5.7527	65.50
RECOVERY	POND 9	6.0027	65.50
RECOVERY	POND 9	6.2527	65.50
RECOVERY	POND 9	6.5027	65.50
RECOVERY	POND 9	6.7527	65.50
RECOVERY	POND 9	7.0027	65.50
RECOVERY	POND 9	7.2527	65.51
RECOVERY	POND 9	7.5027	65.51
RECOVERY	POND 9	7.7527	65.52
RECOVERY	POND 9	8.0027	65.52
RECOVERY	POND 9	8.2527	65.53
RECOVERY	POND 9	8.5027	65.54
RECOVERY	POND 9	8.7527	65.55
RECOVERY	POND 9	9.0027	65.57
RECOVERY	POND 9	9.2530	65.58
RECOVERY	POND 9	9.5031	65.60
RECOVERY	POND 9	9.7520	65.62
RECOVERY	POND 9	10.0029	65.65
RECOVERY	POND 9	10.2516	65.68

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	10.5014	65.72
RECOVERY	POND 9	10.7521	65.76
RECOVERY	POND 9	11.0016	65.83
RECOVERY	POND 9	11.2513	65.91
RECOVERY	POND 9	11.5006	66.01
RECOVERY	POND 9	11.7503	66.27
RECOVERY	POND 9	12.0000	67.13
RECOVERY	POND 9	12.2500	68.11
RECOVERY	POND 9	12.5007	68.01
RECOVERY	POND 9	12.7509	67.85
RECOVERY	POND 9	13.0001	67.75
RECOVERY	POND 9	13.2509	67.69
RECOVERY	POND 9	13.5016	67.64
RECOVERY	POND 9	13.7509	67.60
RECOVERY	POND 9	14.0002	67.57
RECOVERY	POND 9	14.2533	67.54
RECOVERY	POND 9	14.5013	67.51
RECOVERY	POND 9	14.7535	67.48
RECOVERY	POND 9	15.0007	67.45
RECOVERY	POND 9	15.2537	67.43
RECOVERY	POND 9	15.5014	67.41
RECOVERY	POND 9	15.7550	67.39
RECOVERY	POND 9	16.0034	67.37
RECOVERY	POND 9	16.2509	67.36
RECOVERY	POND 9	16.5035	67.35
RECOVERY	POND 9	16.7526	67.34
RECOVERY	POND 9	17.0034	67.32
RECOVERY	POND 9	17.2540	67.31
RECOVERY	POND 9	17.5042	67.30
RECOVERY	POND 9	17.7529	67.30
RECOVERY	POND 9	18.0046	67.29
RECOVERY	POND 9	18.2504	67.28
RECOVERY	POND 9	18.5004	67.27
RECOVERY	POND 9	18.7504	67.26
RECOVERY	POND 9	19.0004	67.25
RECOVERY	POND 9	19.2504	67.25
RECOVERY	POND 9	19.5004	67.24
RECOVERY	POND 9	19.7504	67.24
RECOVERY	POND 9	20.0004	67.23
RECOVERY	POND 9	20.2504	67.22
RECOVERY	POND 9	20.5004	67.21
RECOVERY	POND 9	20.7504	67.21



Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	21.0004	67.20
RECOVERY	POND 9	21.2504	67.20
RECOVERY	POND 9	21.5004	67.19
RECOVERY	POND 9	21.7504	67.19
RECOVERY	POND 9	22.0004	67.19
RECOVERY	POND 9	22.2504	67.18
RECOVERY	POND 9	22.5004	67.18
RECOVERY	POND 9	22.7504	67.18
RECOVERY	POND 9	23.0004	67.18
RECOVERY	POND 9	23.2504	67.18
RECOVERY	POND 9	23.5004	67.18
RECOVERY	POND 9	23.7504	67.17
RECOVERY	POND 9	24.0004	67.17
RECOVERY	POND 9	24.2504	67.16
RECOVERY	POND 9	24.5004	67.14
RECOVERY	POND 9	24.7504	67.12
RECOVERY	POND 9	25.0004	67.10
RECOVERY	POND 9	25.2504	67.09
RECOVERY	POND 9	25.5004	67.08
RECOVERY	POND 9	25.7504	67.07
RECOVERY	POND 9	26.0004	67.05
RECOVERY	POND 9	26.2504	67.04
RECOVERY	POND 9	26.5004	67.04
RECOVERY	POND 9	26.7504	67.03
RECOVERY	POND 9	27.0004	67.02
RECOVERY	POND 9	27.2504	67.01
RECOVERY	POND 9	27.5004	67.00
RECOVERY	POND 9	27.7504	67.00
RECOVERY	POND 9	28.0004	66.99
RECOVERY	POND 9	28.2504	66.98
RECOVERY	POND 9	28.5004	66.97
RECOVERY	POND 9	28.7504	66.97
RECOVERY	POND 9	29.0004	66.96
RECOVERY	POND 9	29.2504	66.95
RECOVERY	POND 9	29.5004	66.95
RECOVERY	POND 9	29.7504	66.94
RECOVERY	POND 9	30.0004	66.93
RECOVERY	POND 9	30.2504	66.92
RECOVERY	POND 9	30.5004	66.92
RECOVERY	POND 9	30.7504	66.91
RECOVERY	POND 9	31.0004	66.90
RECOVERY	POND 9	31.2504	66.90

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	31.5004	66.89
RECOVERY	POND 9	31.7504	66.88
RECOVERY	POND 9	32.0004	66.87
RECOVERY	POND 9	32.2504	66.87
RECOVERY	POND 9	32.5004	66.86
RECOVERY	POND 9	32.7504	66.85
RECOVERY	POND 9	33.0004	66.85
RECOVERY	POND 9	33.2504	66.84
RECOVERY	POND 9	33.5004	66.83
RECOVERY	POND 9	33.7504	66.82
RECOVERY	POND 9	34.0004	66.82
RECOVERY	POND 9	34.2504	66.81
RECOVERY	POND 9	34.5004	66.80
RECOVERY	POND 9	34.7504	66.80
RECOVERY	POND 9	35.0004	66.79
RECOVERY	POND 9	35.2504	66.78
RECOVERY	POND 9	35.5004	66.78
RECOVERY	POND 9	35.7504	66.77
RECOVERY	POND 9	36.0004	66.76
RECOVERY	POND 9	36.2504	66.76
RECOVERY	POND 9	36.5004	66.75
RECOVERY	POND 9	36.7504	66.74
RECOVERY	POND 9	37.0004	66.74
RECOVERY	POND 9	37.2504	66.73
RECOVERY	POND 9	37.5004	66.72
RECOVERY	POND 9	37.7504	66.72
RECOVERY	POND 9	38.0004	66.71
RECOVERY	POND 9	38.2504	66.70
RECOVERY	POND 9	38.5004	66.70
RECOVERY	POND 9	38.7504	66.69
RECOVERY	POND 9	39.0004	66.68
RECOVERY	POND 9	39.2504	66.68
RECOVERY	POND 9	39.5004	66.67
RECOVERY	POND 9	39.7504	66.66
RECOVERY	POND 9	40.0004	66.66
RECOVERY	POND 9	40.2504	66.65
RECOVERY	POND 9	40.5004	66.64
RECOVERY	POND 9	40.7504	66.64
RECOVERY	POND 9	41.0004	66.63
RECOVERY	POND 9	41.2504	66.62
RECOVERY	POND 9	41.5004	66.62
RECOVERY	POND 9	41.7504	66.61

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	42.0004	66.60
RECOVERY	POND 9	42.2504	66.60
RECOVERY	POND 9	42.5004	66.59
RECOVERY	POND 9	42.7504	66.58
RECOVERY	POND 9	43.0004	66.58
RECOVERY	POND 9	43.2504	66.57
RECOVERY	POND 9	43.5004	66.56
RECOVERY	POND 9	43.7504	66.56
RECOVERY	POND 9	44.0004	66.55
RECOVERY	POND 9	44.2504	66.55
RECOVERY	POND 9	44.5004	66.54
RECOVERY	POND 9	44.7504	66.53
RECOVERY	POND 9	45.0004	66.53
RECOVERY	POND 9	45.2504	66.52
RECOVERY	POND 9	45.5004	66.51
RECOVERY	POND 9	45.7504	66.51
RECOVERY	POND 9	46.0004	66.50
RECOVERY	POND 9	46.2504	66.50
RECOVERY	POND 9	46.5004	66.49
RECOVERY	POND 9	46.7504	66.48
RECOVERY	POND 9	47.0004	66.48
RECOVERY	POND 9	47.2504	66.47
RECOVERY	POND 9	47.5004	66.46
RECOVERY	POND 9	47.7504	66.46
RECOVERY	POND 9	48.0004	66.45
RECOVERY	POND 9	48.2504	66.45
RECOVERY	POND 9	48.5004	66.44
RECOVERY	POND 9	48.7504	66.43
RECOVERY	POND 9	49.0004	66.43
RECOVERY	POND 9	49.2504	66.42
RECOVERY	POND 9	49.5004	66.42
RECOVERY	POND 9	49.7504	66.41
RECOVERY	POND 9	50.0004	66.40
RECOVERY	POND 9	50.2504	66.40
RECOVERY	POND 9	50.5004	66.39
RECOVERY	POND 9	50.7504	66.39
RECOVERY	POND 9	51.0004	66.38
RECOVERY	POND 9	51.2504	66.37
RECOVERY	POND 9	51.5004	66.37
RECOVERY	POND 9	51.7504	66.36
RECOVERY	POND 9	52.0004	66.36
RECOVERY	POND 9	52.2504	66.35

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	52.5004	66.34
RECOVERY	POND 9	52.7504	66.34
RECOVERY	POND 9	53.0004	66.33
RECOVERY	POND 9	53.2504	66.33
RECOVERY	POND 9	53.5004	66.32
RECOVERY	POND 9	53.7504	66.32
RECOVERY	POND 9	54.0004	66.31
RECOVERY	POND 9	54.2504	66.30
RECOVERY	POND 9	54.5004	66.30
RECOVERY	POND 9	54.7504	66.29
RECOVERY	POND 9	55.0004	66.29
RECOVERY	POND 9	55.2504	66.28
RECOVERY	POND 9	55.5004	66.28
RECOVERY	POND 9	55.7504	66.27
RECOVERY	POND 9	56.0004	66.27
RECOVERY	POND 9	56.2504	66.26
RECOVERY	POND 9	56.5004	66.25
RECOVERY	POND 9	56.7504	66.25
RECOVERY	POND 9	57.0004	66.24
RECOVERY	POND 9	57.2504	66.24
RECOVERY	POND 9	57.5004	66.23
RECOVERY	POND 9	57.7504	66.23
RECOVERY	POND 9	58.0004	66.22
RECOVERY	POND 9	58.2504	66.22
RECOVERY	POND 9	58.5004	66.21
RECOVERY	POND 9	58.7504	66.21
RECOVERY	POND 9	59.0004	66.20
RECOVERY	POND 9	59.2504	66.19
RECOVERY	POND 9	59.5004	66.19
RECOVERY	POND 9	59.7504	66.18
RECOVERY	POND 9	60.0004	66.18
RECOVERY	POND 9	60.2504	66.17
RECOVERY	POND 9	60.5004	66.17
RECOVERY	POND 9	60.7504	66.16
RECOVERY	POND 9	61.0004	66.16
RECOVERY	POND 9	61.2504	66.15
RECOVERY	POND 9	61.5004	66.15
RECOVERY	POND 9	61.7504	66.14
RECOVERY	POND 9	62.0004	66.14
RECOVERY	POND 9	62.2504	66.13
RECOVERY	POND 9	62.5004	66.13
RECOVERY	POND 9	62.7504	66.12

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 9	63.0004	66.12
RECOVERY	POND 9	63.2504	66.11
RECOVERY	POND 9	63.5004	66.11
RECOVERY	POND 9	63.7504	66.10
RECOVERY	POND 9	64.0004	66.10
RECOVERY	POND 9	64.2504	66.09
RECOVERY	POND 9	64.5004	66.09
RECOVERY	POND 9	64.7504	66.08
RECOVERY	POND 9	65.0004	66.08
RECOVERY	POND 9	65.2504	66.07
RECOVERY	POND 9	65.5004	66.07
RECOVERY	POND 9	65.7504	66.06
RECOVERY	POND 9	66.0004	66.06
RECOVERY	POND 9	66.2504	66.05
RECOVERY	POND 9	66.5004	66.05
RECOVERY	POND 9	66.7504	66.04
RECOVERY	POND 9	67.0004	66.04
RECOVERY	POND 9	67.2504	66.03
RECOVERY	POND 9	67.5004	66.03
RECOVERY	POND 9	67.7504	66.02
RECOVERY	POND 9	68.0004	66.02
RECOVERY	POND 9	68.2504	66.01
RECOVERY	POND 9	68.5004	66.01
RECOVERY	POND 9	68.7504	66.01
RECOVERY	POND 9	69.0004	66.00
RECOVERY	POND 9	69.2504	66.00
RECOVERY	POND 9	69.5004	65.99
RECOVERY	POND 9	69.7504	65.99
RECOVERY	POND 9	70.0004	65.98
RECOVERY	POND 9	70.2504	65.98
RECOVERY	POND 9	70.5004	65.97
RECOVERY	POND 9	70.7504	65.97
RECOVERY	POND 9	71.0004	65.96
RECOVERY	POND 9	71.2504	65.96
RECOVERY	POND 9	71.5004	65.96
RECOVERY	POND 9	71.7504	65.95
RECOVERY	POND 9	72.0004	65.95
RECOVERY	POND 9	72.2504	65.94
RECOVERY	POND 9	72.5004	65.94
RECOVERY	POND 9	72.7504	65.93
RECOVERY	POND 9	73.0004	65.93
RECOVERY	POND 9	73.2504	65.93

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	0.0000	65.00
RECOVERY	POND 10	0.2511	65.00
RECOVERY	POND 10	0.5050	65.00
RECOVERY	POND 10	0.7527	65.00
RECOVERY	POND 10	1.0027	65.00
RECOVERY	POND 10	1.2527	65.00
RECOVERY	POND 10	1.5027	65.00
RECOVERY	POND 10	1.7527	65.00
RECOVERY	POND 10	2.0027	65.00
RECOVERY	POND 10	2.2527	65.00
RECOVERY	POND 10	2.5027	65.00
RECOVERY	POND 10	2.7527	65.00
RECOVERY	POND 10	3.0027	65.00
RECOVERY	POND 10	3.2527	65.00
RECOVERY	POND 10	3.5027	65.00
RECOVERY	POND 10	3.7527	65.00
RECOVERY	POND 10	4.0027	65.00
RECOVERY	POND 10	4.2527	65.00
RECOVERY	POND 10	4.5027	65.00
RECOVERY	POND 10	4.7527	65.00
RECOVERY	POND 10	5.0027	65.00
RECOVERY	POND 10	5.2527	65.00
RECOVERY	POND 10	5.5027	65.00
RECOVERY	POND 10	5.7527	65.00
RECOVERY	POND 10	6.0027	65.00
RECOVERY	POND 10	6.2527	65.00
RECOVERY	POND 10	6.5027	65.00
RECOVERY	POND 10	6.7527	65.00
RECOVERY	POND 10	7.0027	65.01
RECOVERY	POND 10	7.2527	65.01
RECOVERY	POND 10	7.5027	65.02
RECOVERY	POND 10	7.7527	65.02
RECOVERY	POND 10	8.0027	65.03
RECOVERY	POND 10	8.2527	65.04
RECOVERY	POND 10	8.5027	65.05
RECOVERY	POND 10	8.7527	65.07
RECOVERY	POND 10	9.0027	65.09
RECOVERY	POND 10	9.2530	65.11
RECOVERY	POND 10	9.5031	65.13
RECOVERY	POND 10	9.7520	65.16
RECOVERY	POND 10	10.0029	65.20
RECOVERY	POND 10	10.2516	65.23

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	10.5014	65.28
RECOVERY	POND 10	10.7521	65.34
RECOVERY	POND 10	11.0016	65.43
RECOVERY	POND 10	11.2513	65.53
RECOVERY	POND 10	11.5006	65.67
RECOVERY	POND 10	11.7503	66.00
RECOVERY	POND 10	12.0000	67.09
RECOVERY	POND 10	12.2500	68.12
RECOVERY	POND 10	12.5007	68.01
RECOVERY	POND 10	12.7509	67.93
RECOVERY	POND 10	13.0001	67.88
RECOVERY	POND 10	13.2509	67.84
RECOVERY	POND 10	13.5016	67.81
RECOVERY	POND 10	13.7509	67.78
RECOVERY	POND 10	14.0002	67.75
RECOVERY	POND 10	14.2533	67.73
RECOVERY	POND 10	14.5013	67.71
RECOVERY	POND 10	14.7535	67.69
RECOVERY	POND 10	15.0007	67.68
RECOVERY	POND 10	15.2537	67.67
RECOVERY	POND 10	15.5014	67.66
RECOVERY	POND 10	15.7550	67.65
RECOVERY	POND 10	16.0034	67.64
RECOVERY	POND 10	16.2509	67.63
RECOVERY	POND 10	16.5035	67.63
RECOVERY	POND 10	16.7526	67.62
RECOVERY	POND 10	17.0034	67.61
RECOVERY	POND 10	17.2540	67.61
RECOVERY	POND 10	17.5042	67.60
RECOVERY	POND 10	17.7529	67.60
RECOVERY	POND 10	18.0046	67.59
RECOVERY	POND 10	18.2504	67.58
RECOVERY	POND 10	18.5004	67.58
RECOVERY	POND 10	18.7504	67.57
RECOVERY	POND 10	19.0004	67.57
RECOVERY	POND 10	19.2504	67.57
RECOVERY	POND 10	19.5004	67.56
RECOVERY	POND 10	19.7504	67.56
RECOVERY	POND 10	20.0004	67.56
RECOVERY	POND 10	20.2504	67.55
RECOVERY	POND 10	20.5004	67.55
RECOVERY	POND 10	20.7504	67.54

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	21.0004	67.54
RECOVERY	POND 10	21.2504	67.54
RECOVERY	POND 10	21.5004	67.54
RECOVERY	POND 10	21.7504	67.53
RECOVERY	POND 10	22.0004	67.53
RECOVERY	POND 10	22.2504	67.53
RECOVERY	POND 10	22.5004	67.53
RECOVERY	POND 10	22.7504	67.53
RECOVERY	POND 10	23.0004	67.53
RECOVERY	POND 10	23.2504	67.53
RECOVERY	POND 10	23.5004	67.52
RECOVERY	POND 10	23.7504	67.52
RECOVERY	POND 10	24.0004	67.52
RECOVERY	POND 10	24.2504	67.51
RECOVERY	POND 10	24.5004	67.50
RECOVERY	POND 10	24.7504	67.48
RECOVERY	POND 10	25.0004	67.48
RECOVERY	POND 10	25.2504	67.47
RECOVERY	POND 10	25.5004	67.46
RECOVERY	POND 10	25.7504	67.46
RECOVERY	POND 10	26.0004	67.45
RECOVERY	POND 10	26.2504	67.45
RECOVERY	POND 10	26.5004	67.45
RECOVERY	POND 10	26.7504	67.44
RECOVERY	POND 10	27.0004	67.44
RECOVERY	POND 10	27.2504	67.44
RECOVERY	POND 10	27.5004	67.43
RECOVERY	POND 10	27.7504	67.43
RECOVERY	POND 10	28.0004	67.43
RECOVERY	POND 10	28.2504	67.43
RECOVERY	POND 10	28.5004	67.42
RECOVERY	POND 10	28.7504	67.42
RECOVERY	POND 10	29.0004	67.42
RECOVERY	POND 10	29.2504	67.42
RECOVERY	POND 10	29.5004	67.42
RECOVERY	POND 10	29.7504	67.42
RECOVERY	POND 10	30.0004	67.41
RECOVERY	POND 10	30.2504	67.41
RECOVERY	POND 10	30.5004	67.41
RECOVERY	POND 10	30.7504	67.41
RECOVERY	POND 10	31.0004	67.41
RECOVERY	POND 10	31.2504	67.41



Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	31.5004	67.41
RECOVERY	POND 10	31.7504	67.40
RECOVERY	POND 10	32.0004	67.40
RECOVERY	POND 10	32.2504	67.40
RECOVERY	POND 10	32.5004	67.40
RECOVERY	POND 10	32.7504	67.40
RECOVERY	POND 10	33.0004	67.39
RECOVERY	POND 10	33.2504	67.39
RECOVERY	POND 10	33.5004	67.39
RECOVERY	POND 10	33.7504	67.38
RECOVERY	POND 10	34.0004	67.38
RECOVERY	POND 10	34.2504	67.37
RECOVERY	POND 10	34.5004	67.37
RECOVERY	POND 10	34.7504	67.36
RECOVERY	POND 10	35.0004	67.36
RECOVERY	POND 10	35.2504	67.35
RECOVERY	POND 10	35.5004	67.35
RECOVERY	POND 10	35.7504	67.34
RECOVERY	POND 10	36.0004	67.33
RECOVERY	POND 10	36.2504	67.33
RECOVERY	POND 10	36.5004	67.32
RECOVERY	POND 10	36.7504	67.31
RECOVERY	POND 10	37.0004	67.31
RECOVERY	POND 10	37.2504	67.30
RECOVERY	POND 10	37.5004	67.29
RECOVERY	POND 10	37.7504	67.28
RECOVERY	POND 10	38.0004	67.28
RECOVERY	POND 10	38.2504	67.27
RECOVERY	POND 10	38.5004	67.26
RECOVERY	POND 10	38.7504	67.25
RECOVERY	POND 10	39.0004	67.25
RECOVERY	POND 10	39.2504	67.24
RECOVERY	POND 10	39.5004	67.23
RECOVERY	POND 10	39.7504	67.22
RECOVERY	POND 10	40.0004	67.21
RECOVERY	POND 10	40.2504	67.20
RECOVERY	POND 10	40.5004	67.19
RECOVERY	POND 10	40.7504	67.19
RECOVERY	POND 10	41.0004	67.18
RECOVERY	POND 10	41.2504	67.17
RECOVERY	POND 10	41.5004	67.16
RECOVERY	POND 10	41.7504	67.15

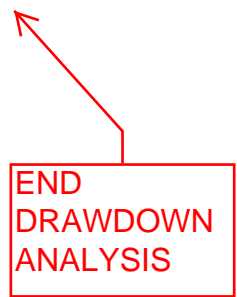
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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	42.0004	67.14
RECOVERY	POND 10	42.2504	67.13
RECOVERY	POND 10	42.5004	67.12
RECOVERY	POND 10	42.7504	67.11
RECOVERY	POND 10	43.0004	67.10
RECOVERY	POND 10	43.2504	67.09
RECOVERY	POND 10	43.5004	67.08
RECOVERY	POND 10	43.7504	67.07
RECOVERY	POND 10	44.0004	67.07
RECOVERY	POND 10	44.2504	67.06
RECOVERY	POND 10	44.5004	67.05
RECOVERY	POND 10	44.7504	67.04
RECOVERY	POND 10	45.0004	67.03
RECOVERY	POND 10	45.2504	67.02
RECOVERY	POND 10	45.5004	67.01
RECOVERY	POND 10	45.7504	67.00
RECOVERY	POND 10	46.0004	66.99
RECOVERY	POND 10	46.2504	66.98
RECOVERY	POND 10	46.5004	66.97
RECOVERY	POND 10	46.7504	66.96
RECOVERY	POND 10	47.0004	66.95
RECOVERY	POND 10	47.2504	66.94
RECOVERY	POND 10	47.5004	66.93
RECOVERY	POND 10	47.7504	66.92
RECOVERY	POND 10	48.0004	66.91
RECOVERY	POND 10	48.2504	66.90
RECOVERY	POND 10	48.5004	66.89
RECOVERY	POND 10	48.7504	66.88
RECOVERY	POND 10	49.0004	66.87
RECOVERY	POND 10	49.2504	66.86
RECOVERY	POND 10	49.5004	66.85
RECOVERY	POND 10	49.7504	66.84
RECOVERY	POND 10	50.0004	66.83
RECOVERY	POND 10	50.2504	66.82
RECOVERY	POND 10	50.5004	66.81
RECOVERY	POND 10	50.7504	66.80
RECOVERY	POND 10	51.0004	66.79
RECOVERY	POND 10	51.2504	66.78
RECOVERY	POND 10	51.5004	66.77
RECOVERY	POND 10	51.7504	66.76
RECOVERY	POND 10	52.0004	66.75
RECOVERY	POND 10	52.2504	66.74

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	52.5004	66.73
RECOVERY	POND 10	52.7504	66.72
RECOVERY	POND 10	53.0004	66.71
RECOVERY	POND 10	53.2504	66.70
RECOVERY	POND 10	53.5004	66.69
RECOVERY	POND 10	53.7504	66.68
RECOVERY	POND 10	54.0004	66.67
RECOVERY	POND 10	54.2504	66.66
RECOVERY	POND 10	54.5004	66.65
RECOVERY	POND 10	54.7504	66.64
RECOVERY	POND 10	55.0004	66.63
RECOVERY	POND 10	55.2504	66.62
RECOVERY	POND 10	55.5004	66.61
RECOVERY	POND 10	55.7504	66.60
RECOVERY	POND 10	56.0004	66.59
RECOVERY	POND 10	56.2504	66.58
RECOVERY	POND 10	56.5004	66.57
RECOVERY	POND 10	56.7504	66.56
RECOVERY	POND 10	57.0004	66.55
RECOVERY	POND 10	57.2504	66.54
RECOVERY	POND 10	57.5004	66.53
RECOVERY	POND 10	57.7504	66.52
RECOVERY	POND 10	58.0004	66.51
RECOVERY	POND 10	58.2504	66.50
RECOVERY	POND 10	58.5004	66.49
RECOVERY	POND 10	58.7504	66.48
RECOVERY	POND 10	59.0004	66.47
RECOVERY	POND 10	59.2504	66.46
RECOVERY	POND 10	59.5004	66.45
RECOVERY	POND 10	59.7504	66.44
RECOVERY	POND 10	60.0004	66.43
RECOVERY	POND 10	60.2504	66.42
RECOVERY	POND 10	60.5004	66.41
RECOVERY	POND 10	60.7504	66.40
RECOVERY	POND 10	61.0004	66.39
RECOVERY	POND 10	61.2504	66.38
RECOVERY	POND 10	61.5004	66.37
RECOVERY	POND 10	61.7504	66.36
RECOVERY	POND 10	62.0004	66.35
RECOVERY	POND 10	62.2504	66.34
RECOVERY	POND 10	62.5004	66.34
RECOVERY	POND 10	62.7504	66.33

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	63.0004	66.32
RECOVERY	POND 10	63.2504	66.31
RECOVERY	POND 10	63.5004	66.30
RECOVERY	POND 10	63.7504	66.29
RECOVERY	POND 10	64.0004	66.28
RECOVERY	POND 10	64.2504	66.27
RECOVERY	POND 10	64.5004	66.26
RECOVERY	POND 10	64.7504	66.25
RECOVERY	POND 10	65.0004	66.24
RECOVERY	POND 10	65.2504	66.23
RECOVERY	POND 10	65.5004	66.23
RECOVERY	POND 10	65.7504	66.22
RECOVERY	POND 10	66.0004	66.21
RECOVERY	POND 10	66.2504	66.20
RECOVERY	POND 10	66.5004	66.19
RECOVERY	POND 10	66.7504	66.18
RECOVERY	POND 10	67.0004	66.17
RECOVERY	POND 10	67.2504	66.16
RECOVERY	POND 10	67.5004	66.15
RECOVERY	POND 10	67.7504	66.15
RECOVERY	POND 10	68.0004	66.14
RECOVERY	POND 10	68.2504	66.13
RECOVERY	POND 10	68.5004	66.12
RECOVERY	POND 10	68.7504	66.11
RECOVERY	POND 10	69.0004	66.10
RECOVERY	POND 10	69.2504	66.09
RECOVERY	POND 10	69.5004	66.08
RECOVERY	POND 10	69.7504	66.08
RECOVERY	POND 10	70.0004	66.07
RECOVERY	POND 10	70.2504	66.06
RECOVERY	POND 10	70.5004	66.05
RECOVERY	POND 10	70.7504	66.04
RECOVERY	POND 10	71.0004	66.03
RECOVERY	POND 10	71.2504	66.03
RECOVERY	POND 10	71.5004	66.02
RECOVERY	POND 10	71.7504	66.01
RECOVERY	POND 10	72.0004	66.00
RECOVERY	POND 10	72.2504	65.99
RECOVERY	POND 10	72.5004	65.98
RECOVERY	POND 10	72.7504	65.98
RECOVERY	POND 10	73.0004	65.97
RECOVERY	POND 10	73.2504	65.96

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 10	73.5004	65.95
RECOVERY	POND 10	73.7504	65.94
RECOVERY	POND 10	74.0004	65.94
RECOVERY	POND 10	74.2504	65.93
RECOVERY	POND 10	74.5004	65.92
RECOVERY	POND 10	74.7504	65.91
RECOVERY	POND 10	75.0004	65.91
RECOVERY	POND 10	75.2504	65.90
RECOVERY	POND 10	75.5004	65.89
RECOVERY	POND 10	75.7504	65.88
RECOVERY	POND 10	76.0004	65.87
RECOVERY	POND 10	76.2504	65.87
RECOVERY	POND 10	76.5004	65.86
RECOVERY	POND 10	76.7504	65.85
RECOVERY	POND 10	77.0004	65.84
RECOVERY	POND 10	77.2504	65.84
RECOVERY	POND 10	77.5004	65.83
RECOVERY	POND 10	77.7504	65.82
RECOVERY	POND 10	78.0004	65.82
RECOVERY	POND 10	78.2504	65.81
RECOVERY	POND 10	78.5004	65.80
RECOVERY	POND 10	78.7504	65.79
RECOVERY	POND 10	79.0004	65.79
RECOVERY	POND 10	79.2504	65.78
RECOVERY	POND 10	79.5004	65.77
RECOVERY	POND 10	79.7504	65.77
RECOVERY	POND 10	80.0004	65.76
RECOVERY	POND 10	80.2504	65.75
RECOVERY	POND 10	80.5004	65.74
RECOVERY	POND 10	80.7504	65.74
RECOVERY	POND 10	81.0004	65.73
RECOVERY	POND 10	81.2504	65.72
RECOVERY	POND 10	81.5004	65.72
RECOVERY	POND 10	81.7504	65.71
RECOVERY	POND 10	82.0004	65.70
RECOVERY	POND 10	82.2504	65.70
RECOVERY	POND 10	82.5004	65.69
RECOVERY	POND 10	82.7504	65.68
RECOVERY	POND 10	83.0004	65.68
RECOVERY	POND 10	83.2504	65.67
RECOVERY	POND 10	83.5004	65.66
RECOVERY	POND 10	83.7504	65.66

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 12	0.0000	64.50
RECOVERY	POND 12	0.2511	64.50
RECOVERY	POND 12	0.5050	64.50
RECOVERY	POND 12	0.7527	64.50
RECOVERY	POND 12	1.0027	64.50
RECOVERY	POND 12	1.2527	64.50
RECOVERY	POND 12	1.5027	64.50
RECOVERY	POND 12	1.7527	64.50
RECOVERY	POND 12	2.0027	64.50
RECOVERY	POND 12	2.2527	64.50
RECOVERY	POND 12	2.5027	64.50
RECOVERY	POND 12	2.7527	64.50
RECOVERY	POND 12	3.0027	64.50
RECOVERY	POND 12	3.2527	64.50
RECOVERY	POND 12	3.5027	64.50
RECOVERY	POND 12	3.7527	64.50
RECOVERY	POND 12	4.0027	64.50
RECOVERY	POND 12	4.2527	64.50
RECOVERY	POND 12	4.5027	64.50
RECOVERY	POND 12	4.7527	64.50
RECOVERY	POND 12	5.0027	64.50
RECOVERY	POND 12	5.2527	64.50
RECOVERY	POND 12	5.5027	64.50
RECOVERY	POND 12	5.7527	64.50
RECOVERY	POND 12	6.0027	64.50
RECOVERY	POND 12	6.2527	64.50
RECOVERY	POND 12	6.5027	64.50
RECOVERY	POND 12	6.7527	64.50
RECOVERY	POND 12	7.0027	64.51
RECOVERY	POND 12	7.2527	64.51
RECOVERY	POND 12	7.5027	64.52
RECOVERY	POND 12	7.7527	64.52
RECOVERY	POND 12	8.0027	64.53
RECOVERY	POND 12	8.2527	64.54
RECOVERY	POND 12	8.5027	64.55
RECOVERY	POND 12	8.7527	64.56
RECOVERY	POND 12	9.0027	64.58
RECOVERY	POND 12	9.2530	64.60
RECOVERY	POND 12	9.5031	64.62
RECOVERY	POND 12	9.7520	64.64
RECOVERY	POND 12	10.0029	64.67
RECOVERY	POND 12	10.2516	64.71

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 12	10.5014	64.74
RECOVERY	POND 12	10.7521	64.79
RECOVERY	POND 12	11.0016	64.86
RECOVERY	POND 12	11.2513	64.95
RECOVERY	POND 12	11.5006	65.06
RECOVERY	POND 12	11.7503	65.33
RECOVERY	POND 12	12.0000	66.24
RECOVERY	POND 12	12.2500	67.31
RECOVERY	POND 12	12.5007	67.25
RECOVERY	POND 12	12.7509	67.09
RECOVERY	POND 12	13.0001	66.97
RECOVERY	POND 12	13.2509	66.89
RECOVERY	POND 12	13.5016	66.83
RECOVERY	POND 12	13.7509	66.78
RECOVERY	POND 12	14.0002	66.75
RECOVERY	POND 12	14.2533	66.72
RECOVERY	POND 12	14.5013	66.69
RECOVERY	POND 12	14.7535	66.67
RECOVERY	POND 12	15.0007	66.66
RECOVERY	POND 12	15.2537	66.65
RECOVERY	POND 12	15.5014	66.64
RECOVERY	POND 12	15.7550	66.62
RECOVERY	POND 12	16.0034	66.62
RECOVERY	POND 12	16.2509	66.61
RECOVERY	POND 12	16.5035	66.61
RECOVERY	POND 12	16.7526	66.60
RECOVERY	POND 12	17.0034	66.60
RECOVERY	POND 12	17.2540	66.59
RECOVERY	POND 12	17.5042	66.59
RECOVERY	POND 12	17.7529	66.59
RECOVERY	POND 12	18.0046	66.58
RECOVERY	POND 12	18.2504	66.58
RECOVERY	POND 12	18.5004	66.57
RECOVERY	POND 12	18.7504	66.57
RECOVERY	POND 12	19.0004	66.56
RECOVERY	POND 12	19.2504	66.56
RECOVERY	POND 12	19.5004	66.56
RECOVERY	POND 12	19.7504	66.56
RECOVERY	POND 12	20.0004	66.56
RECOVERY	POND 12	20.2504	66.55
RECOVERY	POND 12	20.5004	66.54
RECOVERY	POND 12	20.7504	66.54

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 12	21.0004	66.54
RECOVERY	POND 12	21.2504	66.54
RECOVERY	POND 12	21.5004	66.53
RECOVERY	POND 12	21.7504	66.53
RECOVERY	POND 12	22.0004	66.53
RECOVERY	POND 12	22.2504	66.53
RECOVERY	POND 12	22.5004	66.53
RECOVERY	POND 12	22.7504	66.53
RECOVERY	POND 12	23.0004	66.53
RECOVERY	POND 12	23.2504	66.53
RECOVERY	POND 12	23.5004	66.53
RECOVERY	POND 12	23.7504	66.53
RECOVERY	POND 12	24.0004	66.53
RECOVERY	POND 12	24.2504	66.52
RECOVERY	POND 12	24.5004	66.50
RECOVERY	POND 12	24.7504	66.48
RECOVERY	POND 12	25.0004	66.47
RECOVERY	POND 12	25.2504	66.46
RECOVERY	POND 12	25.5004	66.45
RECOVERY	POND 12	25.7504	66.44
RECOVERY	POND 12	26.0004	66.43
RECOVERY	POND 12	26.2504	66.42
RECOVERY	POND 12	26.5004	66.41
RECOVERY	POND 12	26.7504	66.40
RECOVERY	POND 12	27.0004	66.39
RECOVERY	POND 12	27.2504	66.38
RECOVERY	POND 12	27.5004	66.38
RECOVERY	POND 12	27.7504	66.37
RECOVERY	POND 12	28.0004	66.36
RECOVERY	POND 12	28.2504	66.35
RECOVERY	POND 12	28.5004	66.34
RECOVERY	POND 12	28.7504	66.33
RECOVERY	POND 12	29.0004	66.32
RECOVERY	POND 12	29.2504	66.31
RECOVERY	POND 12	29.5004	66.30
RECOVERY	POND 12	29.7504	66.29
RECOVERY	POND 12	30.0004	66.28
RECOVERY	POND 12	30.2504	66.27
RECOVERY	POND 12	30.5004	66.26
RECOVERY	POND 12	30.7504	66.25
RECOVERY	POND 12	31.0004	66.24
RECOVERY	POND 12	31.2504	66.23

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Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 12	31.5004	66.23
RECOVERY	POND 12	31.7504	66.22
RECOVERY	POND 12	32.0004	66.21
RECOVERY	POND 12	32.2504	66.20
RECOVERY	POND 12	32.5004	66.19
RECOVERY	POND 12	32.7504	66.18
RECOVERY	POND 12	33.0004	66.17
RECOVERY	POND 12	33.2504	66.16
RECOVERY	POND 12	33.5004	66.15
RECOVERY	POND 12	33.7504	66.14
RECOVERY	POND 12	34.0004	66.13
RECOVERY	POND 12	34.2504	66.12
RECOVERY	POND 12	34.5004	66.12
RECOVERY	POND 12	34.7504	66.11
RECOVERY	POND 12	35.0004	66.10
RECOVERY	POND 12	35.2504	66.09
RECOVERY	POND 12	35.5004	66.08
RECOVERY	POND 12	35.7504	66.07
RECOVERY	POND 12	36.0004	66.06
RECOVERY	POND 12	36.2504	66.05
RECOVERY	POND 12	36.5004	66.04
RECOVERY	POND 12	36.7504	66.03
RECOVERY	POND 12	37.0004	66.03
RECOVERY	POND 12	37.2504	66.02
RECOVERY	POND 12	37.5004	66.01
RECOVERY	POND 12	37.7504	66.00
RECOVERY	POND 12	38.0004	65.99
RECOVERY	POND 12	38.2504	65.98
RECOVERY	POND 12	38.5004	65.97
RECOVERY	POND 12	38.7504	65.96
RECOVERY	POND 12	39.0004	65.96
RECOVERY	POND 12	39.2504	65.95
RECOVERY	POND 12	39.5004	65.94
RECOVERY	POND 12	39.7504	65.93
RECOVERY	POND 12	40.0004	65.92
RECOVERY	POND 12	40.2504	65.91
RECOVERY	POND 12	40.5004	65.90
RECOVERY	POND 12	40.7504	65.89
RECOVERY	POND 12	41.0004	65.89
RECOVERY	POND 12	41.2504	65.88
RECOVERY	POND 12	41.5004	65.87
RECOVERY	POND 12	41.7504	65.86

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 12	42.0004	65.85
RECOVERY	POND 12	42.2504	65.84
RECOVERY	POND 12	42.5004	65.83
RECOVERY	POND 12	42.7504	65.83
RECOVERY	POND 12	43.0004	65.82
RECOVERY	POND 12	43.2504	65.81
RECOVERY	POND 12	43.5004	65.80
RECOVERY	POND 12	43.7504	65.79
RECOVERY	POND 12	44.0004	65.78
RECOVERY	POND 12	44.2504	65.78
RECOVERY	POND 12	44.5004	65.77
RECOVERY	POND 12	44.7504	65.76
RECOVERY	POND 12	45.0004	65.75
RECOVERY	POND 12	45.2504	65.74
RECOVERY	POND 12	45.5004	65.73
RECOVERY	POND 12	45.7504	65.73
RECOVERY	POND 12	46.0004	65.72
RECOVERY	POND 12	46.2504	65.71
RECOVERY	POND 12	46.5004	65.70
RECOVERY	POND 12	46.7504	65.69
RECOVERY	POND 12	47.0004	65.69
RECOVERY	POND 12	47.2504	65.68
RECOVERY	POND 12	47.5004	65.67
RECOVERY	POND 12	47.7504	65.66
RECOVERY	POND 12	48.0004	65.65
RECOVERY	POND 12	48.2504	65.64
RECOVERY	POND 12	48.5004	65.64
RECOVERY	POND 12	48.7504	65.63
RECOVERY	POND 12	49.0004	65.62
RECOVERY	POND 12	49.2504	65.61
RECOVERY	POND 12	49.5004	65.61
RECOVERY	POND 12	49.7504	65.60
RECOVERY	POND 12	50.0004	65.59
RECOVERY	POND 12	50.2504	65.58
RECOVERY	POND 12	50.5004	65.57
RECOVERY	POND 12	50.7504	65.57
RECOVERY	POND 12	51.0004	65.56
RECOVERY	POND 12	51.2504	65.55
RECOVERY	POND 12	51.5004	65.54
RECOVERY	POND 12	51.7504	65.53
RECOVERY	POND 12	52.0004	65.53
RECOVERY	POND 12	52.2504	65.52

END  
DRAWDOWN  
ANALYSIS

Sim	Node Name	Relative Time [hrs]	Stage [ft]
RECOVERY	POND 12	52.5004	65.51
RECOVERY	POND 12	52.7504	65.50
RECOVERY	POND 12	53.0004	65.50
RECOVERY	POND 12	53.2504	65.49
RECOVERY	POND 12	53.5004	65.48
RECOVERY	POND 12	53.7504	65.47
RECOVERY	POND 12	54.0004	65.47
RECOVERY	POND 12	54.2504	65.46
RECOVERY	POND 12	54.5004	65.45
RECOVERY	POND 12	54.7504	65.44
RECOVERY	POND 12	55.0004	65.44
RECOVERY	POND 12	55.2504	65.43
RECOVERY	POND 12	55.5004	65.42
RECOVERY	POND 12	55.7504	65.41
RECOVERY	POND 12	56.0004	65.41
RECOVERY	POND 12	56.2504	65.40
RECOVERY	POND 12	56.5004	65.39
RECOVERY	POND 12	56.7504	65.38
RECOVERY	POND 12	57.0004	65.38
RECOVERY	POND 12	57.2504	65.37
RECOVERY	POND 12	57.5004	65.36
RECOVERY	POND 12	57.7504	65.36
RECOVERY	POND 12	58.0004	65.35
RECOVERY	POND 12	58.2504	65.34
RECOVERY	POND 12	58.5004	65.33
RECOVERY	POND 12	58.7504	65.33
RECOVERY	POND 12	59.0004	65.32
RECOVERY	POND 12	59.2504	65.31
RECOVERY	POND 12	59.5004	65.31
RECOVERY	POND 12	59.7504	65.30
RECOVERY	POND 12	60.0004	65.29
RECOVERY	POND 12	60.2504	65.29
RECOVERY	POND 12	60.5004	65.28
RECOVERY	POND 12	60.7504	65.27
RECOVERY	POND 12	61.0004	65.26
RECOVERY	POND 12	61.2504	65.26
RECOVERY	POND 12	61.5004	65.25
RECOVERY	POND 12	61.7504	65.24
RECOVERY	POND 12	62.0004	65.24
RECOVERY	POND 12	62.2504	65.23
RECOVERY	POND 12	62.5004	65.22
RECOVERY	POND 12	62.7504	65.22

**Appendix M**  
**Pre/Post Nutrient Analysis**

<b>NUTRIENT REMOVAL COMPARISSON</b>		
	<b>NITROGEN</b>	<b>PHOSPHORUS</b>
	<b>KG/YR</b>	<b>KG/YR</b>
<b>PRE</b>	146.4	19.827
<b>POST</b>	0	0
<b>NET REDUCTION</b>	-146.4	-19.827



Phosphorus EMC (mg/l)	0.487	0.487	0.487	0.487	0.487	0.487	0.021
Runoff Volume (ac-ft/yr)	12.011	2.654	0.194	3.754	8.314	5.056	24.063
Groundwater N (kg/yr)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Groundwater P (kg/yr)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nitrogen Loading (kg/yr)	41.465	9.163	0.668	12.959	28.702	17.457	35.990
Phosphorus Loading (kg/yr)	7.212	1.594	0.116	2.254	4.992	3.036	0.623

# Summary Treatment Report Version: 4.3.5

Project: Lake Hills

**Analysis Type:** Net Improvement

Date: 11/6/2024

**BMP Types:**

	<b>Routing Summary</b>
Catchment 1 - (Pre-1) None	Catchment 1 Routed to Outlet
Catchment 2 - (Pre-2) None	Catchment 2 Routed to Outlet
Catchment 3 - (Pre-3) None	Catchment 3 Routed to Catchment 2
Catchment 4 - (Pre-4) None	Catchment 4 Routed to Catchment 1
Catchment 5 - (Pre-5) None	Catchment 5 Routed to Catchment 1
Catchment 6 - (Pre-6) None	Catchment 6 Routed to Catchment 1
Catchment 7 - (Impacted	Catchment 7 Routed to Outlet

Wetlands) None

Based on % removal values to the nearest percent

Total nitrogen target removal met? **Yes**

Total phosphorus target removal met? **Yes**

## Summary Report

### Nitrogen

**Surface Water Discharge**

Total N pre load	146.4 kg/yr	
Total N post load	kg/yr	
Target N load reduction	%	
Target N discharge load	146.4 kg/yr	
Percent N load reduction	%	
Provided N discharge load	kg/yr	lb/yr
Provided N load removed	kg/yr	lb/yr

### Phosphorus

**Surface Water Discharge**

Total P pre load	19.827 kg/yr
Total P post load	kg/yr
Target P load reduction	%
Target P discharge load	19.827 kg/yr
Percent P load reduction	%



Provided P discharge load	kg/yr	lb/yr
Provided P load removed	kg/yr	lb/yr

# Complete Report (not including cost) Ver 4.3.5

Project: Lake Hills-Post  
 Date: 11/6/2024 10:14:12 AM

## Site and Catchment Information

Analysis: Net Improvement

Catchment Name	Post 1	Post 2	Post 3	Post 4	Post 5	Post 6	Post 7	Post 8	Post 9	Post 10	Post 12
Rainfall Zone 1	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2	Florida Zone 2
Annual Mean Rainfall	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00

## Post-Condition Landuse Information

Landuse	Low-Intensity Commercial: TN=1.13	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645	Low-Density Residential: TN=1.645
Area (acres)	27.25	20.50	13.23	7.92	33.01	0.00	35.50	16.24	9.58	11.84	15.36
Rational Coefficient (0-1)	0.58	0.19	0.26	0.25	0.22	0.00	0.23	0.26	0.15	0.40	0.27

Non DCIA Curve Number	54.00	60.00	68.00	65.00	67.00	29.90	63.00	68.00	69.00	70.00	69.00
DCIA Percent (0-100)	71.00	20.00	27.00	27.00	23.00	0.00	25.00	28.00	13.00	45.00	29.00
Wet Pond Area (ac)	1.94	1.23	0.00	0.29	3.80	0.00	1.55	0.51	0.56	0.65	0.88
Nitrogen EMC (mg/l)	1.130	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645	1.645
Phosphorus EMC (mg/l)	0.188	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270
Runoff Volume (ac-ft/yr)	63.678	15.532	14.665	8.239	28.242	0.000	33.896	17.954	5.961	19.202	17.142
Groundwater N (kg/yr)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Groundwater P (kg/yr)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nitrogen Loading (kg/yr)	88.722	31.503	29.745	16.712	57.282	0.000	68.750	36.416	12.092	38.947	34.770
Phosphorus Loading (kg/yr)	14.761	5.171	4.882	2.743	9.402	0.000	11.284	5.977	1.985	6.393	5.707

# Summary Treatment Report Version: 4.3.5

Project: Lake Hills-Post

**Analysis Type:** Net

Improvement

**BMP Types:**

Catchment 1 - (Post 1)

Retention

Catchment 2 - (Post 2) Wet

Detention

Catchment 3 - (Post 3) Wet

Date: 11/6/2024

Detention

Catchment 4 - (Post 4) Wet

Detention

Catchment 5 - (Post 5)

Retention

Catchment 6 - (Post 6) Wet

Detention

Catchment 7 - (Post 7) Wet

Detention

Catchment 8 - (Post 8) Wet

Detention

Catchment 9 - (Post 9) Wet

Detention

Catchment 10 - (Post 10)

Wet Detention

Catchment 11 - (Post 12)

Wet Detention

Based on % removal values to the nearest percent

Total nitrogen target removal met? **No**

Total phosphorus target removal met? **No**

## Routing Summary

Catchment 1 Routed to Outlet

Catchment 2 Routed to Catchment 3

Catchment 3 Routed to Catchment 10

Catchment 4 Routed to Catchment 10

Catchment 5 Routed to Outlet

Catchment 6 Routed to Outlet

Catchment 7 Routed to Outlet

Catchment 8 Routed to Outlet

Catchment 9 Routed to Outlet

Catchment 10 Routed to Outlet

Catchment 11 Routed to Outlet

## Summary Report

Nitrogen

**Surface Water Discharge**

Total N pre load	kg/yr	
Total N post load	414.94 kg/yr	
Target N load reduction	100 %	
Target N discharge load	kg/yr	
Percent N load reduction	99+ %	
Provided N discharge load	kg/yr	lb/yr
Provided N load removed	414.94 kg/yr	914.94 lb/yr

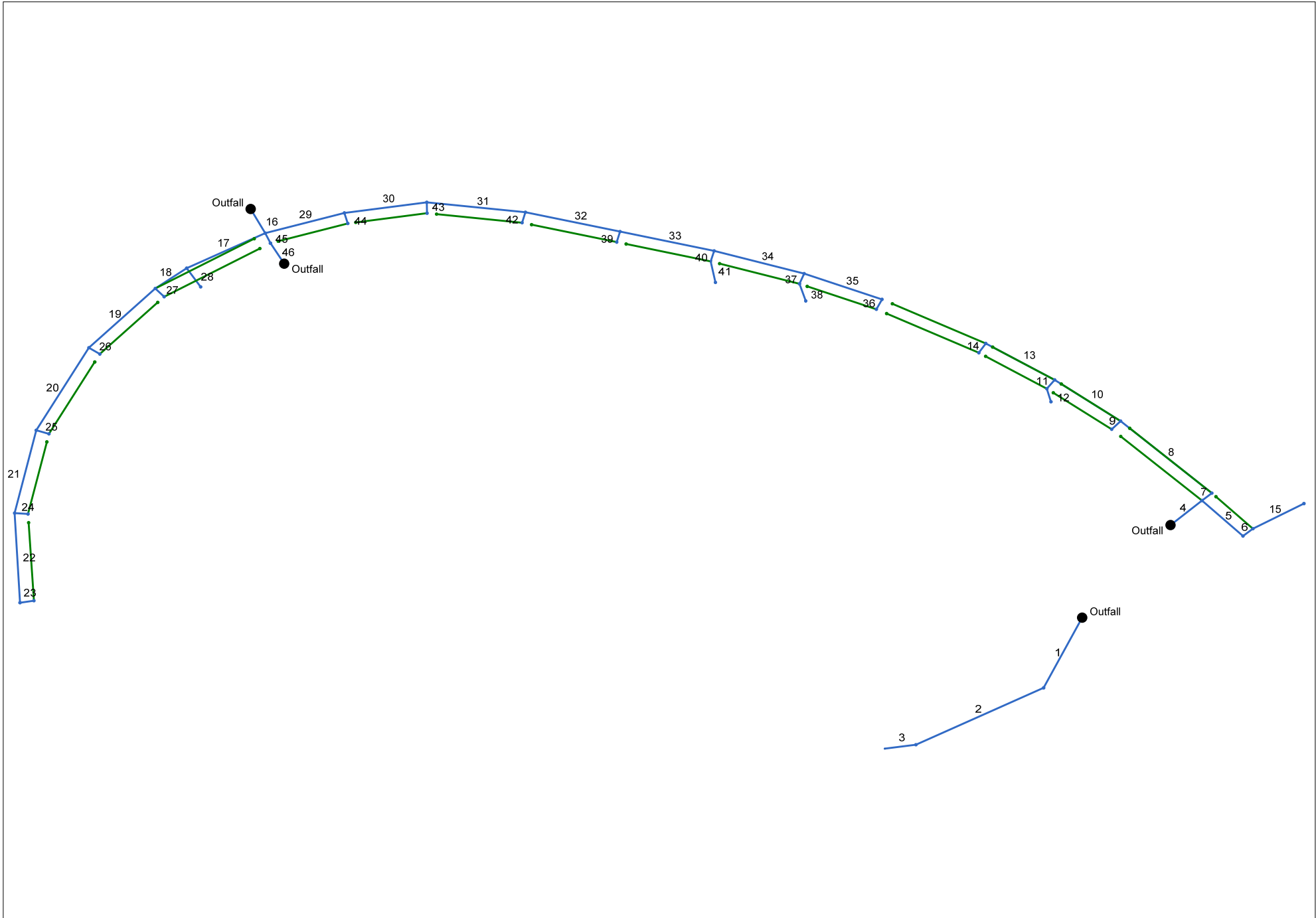
**Phosphorus**

**Surface Water Discharge**

Total P pre load	kg/yr	
Total P post load	68.304 kg/yr	
Target P load reduction	100 %	
Target P discharge load	kg/yr	
Percent P load reduction	99+ %	
Provided P discharge load	kg/yr	lb/yr
Provided P load removed	68.304 kg/yr	150.61 lb/yr

**Appendix N**  
**Secondary Drainage System Calculations (StormSewer)**

# Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: STREET A STORM SEWER.stm

Number of lines: 46

Date: 11/6/2024

# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	243.587	0.01	2.59	0.60	0.01	0.78	15.0	19.8	5.7	4.48	54.22	2.82	24	5.75	70.50	84.50	80.81	85.24	73.25	102.00	P-48
2	1	373.504	0.01	2.58	0.60	0.01	0.78	15.0	15.9	6.3	4.87	18.13	4.61	24	0.64	89.00	91.40	89.71	92.18	102.00	99.66	P-47
3	2	81.062	2.57	2.57	0.30	0.77	0.77	15.0	15.0	6.4	4.94	13.76	4.03	24	0.37	91.40	91.70	92.23	92.53	99.66	97.00	P-46
4	End	112.058	0.09	12.26	0.80	0.07	7.80	15.0	21.1	5.6	43.46	59.15	5.44	42	0.29	78.00	78.33	80.81	80.95	73.63	92.03	P-36
5	4	153.916	4.51	8.63	0.80	3.61	5.30	15.0	16.0	6.3	33.18	48.70	6.76	30	1.41	78.33	80.50	82.06	82.98	92.03	95.88	Pipe - (55)
6	5	34.510	0.12	4.12	0.80	0.10	1.70	15.0	15.8	6.3	10.65	12.18	3.39	24	0.29	80.50	80.60	84.05	84.13	95.88	95.88	Pipe - (54)
7	4	34.514	0.12	3.54	0.80	0.10	2.42	15.0	20.9	5.6	13.55	22.69	2.76	30	0.26	78.23	78.32	82.06	82.09	92.03	92.22	P-34
8	7	326.877	0.33	3.42	0.80	0.26	2.33	15.0	19.0	5.8	13.55	22.12	2.76	30	0.25	78.32	79.13	82.27	82.57	92.22	88.17	P-35
9	8	34.620	0.28	0.28	0.80	0.22	0.22	15.0	15.0	6.4	1.44	4.90	1.17	15	0.49	79.13	79.30	82.76	82.78	88.17	87.80	P-30
10	8	213.472	0.21	2.81	0.80	0.17	1.84	15.0	18.0	6.0	10.95	12.32	3.48	24	0.25	79.13	79.67	82.76	83.19	88.17	86.65	P-31
11	10	34.495	0.18	2.22	0.80	0.14	1.37	15.0	15.3	6.4	8.69	15.04	2.77	24	0.38	79.67	79.80	83.51	83.55	86.65	86.65	P-29
12	11	42.695	2.04	2.04	0.60	1.22	1.22	15.0	15.0	6.4	7.83	15.48	2.49	24	0.47	81.00	81.20	83.69	83.74	86.65	86.79	Pipe - (53)
13	10	210.910	0.21	0.38	0.80	0.17	0.30	15.0	15.8	6.3	1.91	3.51	1.56	15	0.25	79.67	80.20	83.51	83.66	86.65	85.56	P-37
14	13	34.482	0.17	0.17	0.80	0.14	0.14	15.0	15.0	6.4	0.87	3.37	0.71	15	0.23	80.20	80.28	83.72	83.73	85.56	85.56	P-28
15	6	153.000	4.00	4.00	0.40	1.60	1.60	15.0	15.0	6.4	10.25	11.56	3.26	24	0.26	80.60	81.00	84.22	84.53	95.88	86.00	P-33
16	End	85.400	0.54	24.62	0.80	0.43	16.13	15.0	22.2	5.5	94.98	92.23	7.56	48	0.35	61.00	61.30	66.65	66.97	185.15	70.71	
17	16	229.732	0.01	10.92	0.80	0.01	7.07	15.0	21.6	5.5	46.01	47.67	6.51	36	0.44	64.00	65.00	68.95	69.88	70.71	73.81	P-12 (1)
18	17	103.048	0.25	2.59	0.80	0.20	2.07	15.0	21.3	5.5	18.50	29.86	6.49	24	1.48	68.21	69.74	70.54	71.29	73.81	75.24	P-12
19	18	253.541	0.30	2.13	0.80	0.24	1.70	15.0	20.5	5.6	16.61	27.09	6.55	24	1.22	69.74	72.84	71.29	74.31	75.24	78.34	P-09
20	19	294.469	0.27	1.59	0.80	0.22	1.27	15.0	18.5	5.9	7.50	21.28	3.99	24	0.75	72.84	75.06	74.31	76.03	78.34	82.16	P-08
21	20	268.384	0.29	1.10	0.80	0.23	0.88	15.0	17.5	6.0	5.31	9.02	6.52	15	1.66	77.66	82.12	78.35	83.05	82.16	86.62	P-04
22	21	284.463	0.30	0.58	0.80	0.24	0.46	15.0	15.5	6.3	2.93	8.06	3.61	15	1.33	82.12	85.90	83.05	86.59	86.62	90.56	P-03
23	22	36.272	0.28	0.28	0.80	0.22	0.22	15.0	15.0	6.4	1.44	4.93	2.72	15	0.50	85.90	86.08	86.59	86.55	90.56	90.58	P-05

Project File: STREET A STORM SEWER.stm

Number of lines: 46

Run Date: 11/6/2024

NOTES: Intensity = 12.4956 + -1.6712(X) + -0.3490(X)^2 + 0.0502(X)^3 -- X = Ln(Tc)(min); Return period = Yrs. 10 ; c = cir e = ellip b = box



# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
24	21	34.498	0.23	0.23	0.80	0.18	0.18	15.0	15.0	6.4	1.18	4.29	1.30	15	0.38	82.12	82.25	83.05	83.06	86.62	86.62	P-06
25	20	34.497	0.22	0.22	0.80	0.18	0.18	15.0	15.0	6.4	1.13	4.46	3.02	15	0.41	77.66	77.80	78.09	78.23	82.16	82.16	P-07
26	19	34.504	0.24	0.24	0.80	0.19	0.19	15.0	15.0	6.4	1.23	4.76	2.21	15	0.46	73.34	73.50	74.31	73.94	78.34	78.34	P-10
27	18	34.639	0.21	0.21	0.80	0.17	0.17	15.0	15.0	6.4	1.08	4.75	2.04	15	0.46	70.24	70.40	71.29	70.81	75.24	75.24	P-11
28	17	69.354	8.32	8.32	0.60	4.99	4.99	15.0	15.0	6.4	31.97	31.15	6.51	30	0.58	65.00	65.40	70.54	70.96	73.81	73.51	Pipe - (56)
29	16	212.535	0.21	12.72	0.80	0.17	8.28	15.0	20.7	5.6	46.54	70.93	4.84	42	0.42	63.50	64.40	68.95	69.34	70.71	71.45	P-14
30	29	213.684	0.26	12.26	0.80	0.21	7.91	15.0	20.1	5.7	45.01	59.52	6.37	36	0.68	64.80	66.25	69.88	70.71	71.45	72.85	P-17
31	30	254.569	0.25	11.79	0.80	0.20	7.54	15.0	19.4	5.8	43.52	63.24	6.16	36	0.77	66.75	68.70	71.66	72.58	72.85	74.77	P-16
32	31	250.003	0.25	11.33	0.80	0.20	7.17	15.0	18.7	5.9	42.04	57.80	5.95	36	0.64	68.70	70.30	73.47	74.31	74.77	76.68	P-15
33	32	248.636	0.24	10.87	0.80	0.19	6.80	15.0	18.0	6.0	40.52	62.32	5.73	36	0.74	70.30	72.15	75.14	75.92	76.68	78.28	P-24
34	33	241.497	0.22	5.69	0.80	0.18	3.60	15.0	17.1	6.1	21.92	36.72	4.47	30	0.68	72.30	73.95	76.69	77.27	78.28	79.55	P-23
35	34	215.445	0.30	0.55	0.80	0.24	0.44	15.0	15.6	6.3	2.78	6.82	2.50	15	0.95	75.05	77.10	77.74	78.06	79.55	81.73	P-22
36	35	34.491	0.25	0.25	0.80	0.20	0.20	15.0	15.0	6.4	1.28	4.13	1.14	15	0.35	77.10	77.22	78.24	78.25	81.73	81.72	P-27
37	34	34.506	0.18	4.92	0.80	0.14	2.99	15.0	15.2	6.4	19.06	29.29	3.88	30	0.43	73.85	74.00	77.74	77.80	79.55	79.55	P-26
38	37	56.456	4.74	4.74	0.60	2.84	2.84	15.0	15.0	6.4	18.22	24.64	5.80	24	1.19	74.00	74.67	78.03	78.40	79.55	80.17	Pipe - (52)
39	32	34.500	0.21	0.21	0.80	0.17	0.17	15.0	15.0	6.4	1.08	4.29	0.88	15	0.38	71.55	71.68	75.14	75.15	76.68	76.68	P-21
40	33	34.492	0.20	4.94	0.80	0.16	3.00	15.0	15.2	6.4	19.15	29.30	3.90	30	0.43	70.45	70.60	76.69	76.75	78.28	78.28	P-25
41	40	67.843	4.74	4.74	0.60	2.84	2.84	15.0	15.0	6.4	18.22	18.81	5.80	24	0.59	70.60	71.00	76.92	77.30	78.28	75.60	P-32
42	31	34.500	0.21	0.21	0.80	0.17	0.17	15.0	15.0	6.4	1.08	4.91	0.88	15	0.49	70.10	70.27	73.47	73.47	74.77	74.77	P-20
43	30	34.487	0.21	0.21	0.80	0.17	0.17	15.0	15.0	6.4	1.08	4.61	0.88	15	0.43	67.85	68.00	71.66	71.67	72.85	72.85	P-19
44	29	34.500	0.25	0.25	0.80	0.20	0.20	15.0	15.0	6.4	1.28	4.61	1.04	15	0.43	67.00	67.15	69.88	69.89	71.45	71.45	P-18
45	16	34.499	0.44	0.44	0.80	0.35	0.35	15.0	15.0	6.4	2.26	102.6	0.18	48	0.43	61.30	61.45	68.95	68.95	70.71	70.71	P-13

Project File: STREET A STORM SEWER.stm

Number of lines: 46

Run Date: 11/6/2024

NOTES: Intensity = 12.4956 + -1.6712(X) + -0.3490(X)^2 + 0.0502(X)^3 -- X = Ln(Tc)(min); Return period = Yrs. 10 ; c = cir e = ellip b = box

# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
46	End	73.813	0.44	0.44	0.80	0.35	0.35	15.0	15.0	6.4	2.25	91.58	0.18	48	0.41	61.00	61.30	66.65	66.65	244.82	70.71	Pipe - (51)

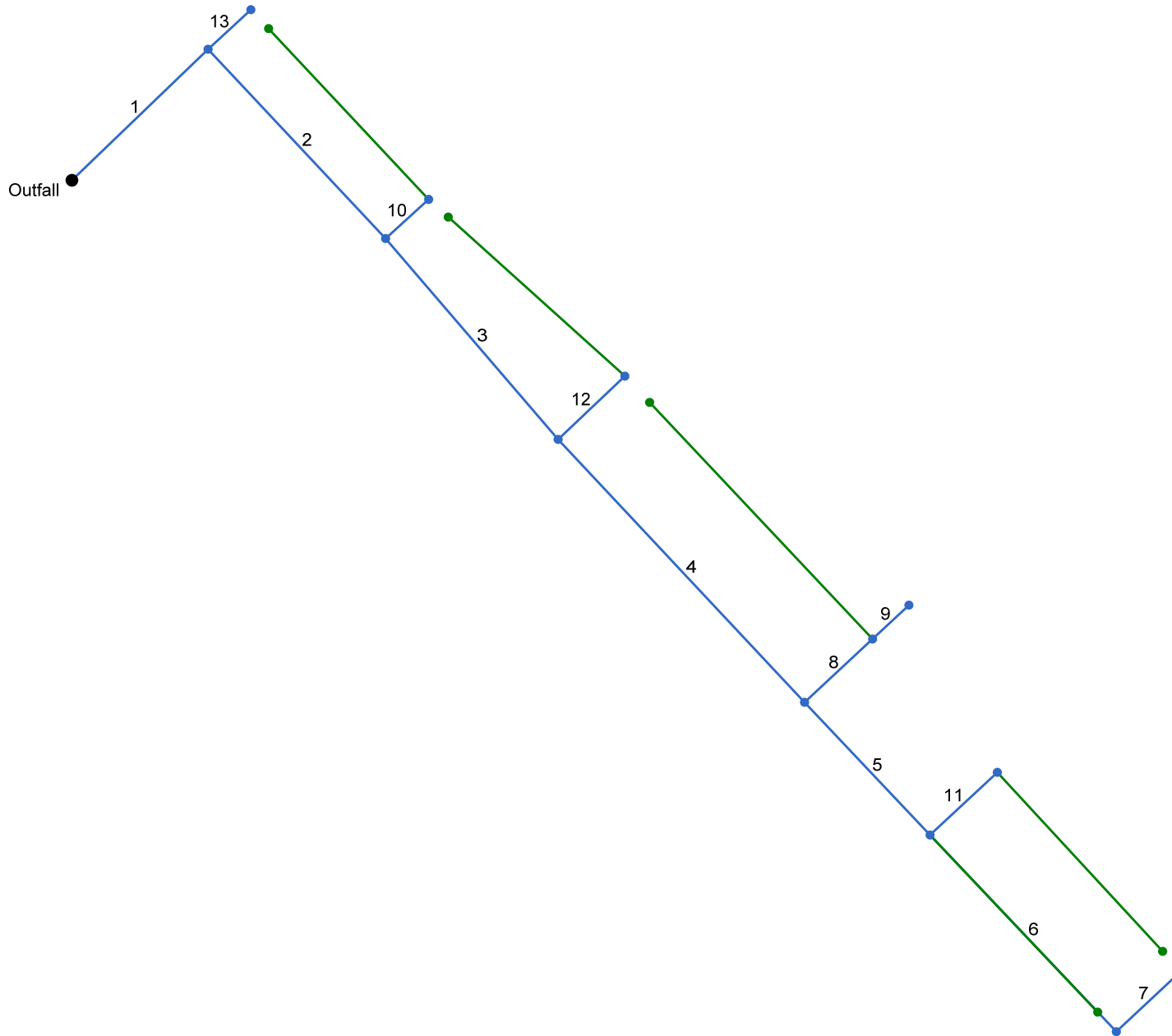
Project File: STREET A STORM SEWER.stm

Number of lines: 46

Run Date: 11/6/2024

NOTES: Intensity =  $12.4956 + -1.6712(X) + -0.3490(X)^2 + 0.0502(X)^3$  -- X = Ln(Tc)(min); Return period = Yrs. 10 ; c = cir e = ellip b = box

# Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: STREET A STORM SEWER-SR19.stm

Number of lines: 13

Date: 11/6/2024

# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	112.058	0.09	0.00	0.80	0.07	0.00	15.0	0.0	0.0	0.00	0.00	3.24	36	1.99	72.00	74.23	76.46	76.49	73.63	92.03	P-36
2	1	153.916	0.10	0.00	0.80	0.08	0.00	15.0	0.0	0.0	0.00	0.00	10.03	30	3.92	78.23	84.27	79.07	85.78	92.03	95.03	P-54
3	2	157.001	0.15	0.00	0.80	0.12	0.00	15.0	0.0	0.0	0.00	0.00	6.24	30	2.84	84.27	88.73	85.78	90.21	95.03	99.91	DP63
4	3	213.731	0.04	0.00	0.80	0.03	0.00	15.0	0.0	0.0	0.00	0.00	5.42	30	0.35	88.73	89.48	90.34	91.09	99.91	104.74	DP59
5	4	108.377	0.04	0.00	0.80	0.03	0.00	15.0	0.0	0.0	0.00	0.00	3.74	18	0.62	97.68	98.35	98.19	98.89	104.74	104.72	DP56
6	5	160.641	0.13	0.00	0.80	0.10	0.00	15.0	0.0	0.0	0.00	0.00	2.92	18	0.30	98.35	98.83	98.95	99.43	104.72	104.19	Pipe - (58)
7	6	52.503	0.25	0.00	0.80	0.20	0.00	15.0	0.0	0.0	0.00	0.00	1.76	15	0.32	98.83	99.00	99.62	99.66	104.19	104.19	DP52
8	4	55.087	0.04	0.00	0.80	0.03	0.00	15.0	0.0	0.0	0.00	0.00	4.10	30	0.36	89.55	89.75	91.77	91.85	104.74	104.72	DP58
9	8	29.506	3.58	0.00	0.80	2.86	0.00	15.0	0.0	0.0	0.00	0.00	3.99	30	0.34	89.75	89.85	91.99	92.03	104.72	107.54	DP57
10	2	34.510	0.12	0.00	0.80	0.10	0.00	15.0	0.0	0.0	0.00	0.00	2.69	15	0.58	88.80	89.00	89.10	89.31	95.03	94.71	P-53
11	5	54.507	0.04	0.00	0.80	0.03	0.00	15.0	0.0	0.0	0.00	0.00	1.98	15	0.59	99.58	99.90	99.75	100.07	104.72	104.72	DP55
12	3	54.503	0.15	0.00	0.80	0.12	0.00	15.0	0.0	0.0	0.00	0.00	2.91	18	0.73	93.93	94.33	94.23	94.66	99.91	99.63	DP60
13	1	34.514	0.12	0.00	0.80	0.10	0.00	15.0	0.0	0.0	0.00	0.00	2.00	30	0.26	78.23	78.32	78.51	78.60	92.03	92.22	P-34

Project File: STREET A STORM SEWER-SR19.stm

Number of lines: 13

Run Date: 11/6/2024

NOTES: Intensity = 12.4956 + -1.6712(X) + -0.3490(X)^2 + 0.0502(X)^3 -- X = Ln(Tc)(min); Return period = Yrs. 10 ; c = cir e = ellip b = box

# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	112.058	0.09	4.85	0.80	0.07	3.88	15.0	42.7	4.0	15.35	32.74	2.29	36	0.21	78.00	78.23	80.81	80.85	73.63	92.03	P-36
2	1	153.916	0.10	4.64	0.80	0.08	3.71	15.0	42.1	4.0	14.80	48.36	4.39	30	1.39	78.33	80.47	80.98	81.77	92.03	95.03	P-54
3	2	157.001	0.15	4.42	0.80	0.12	3.53	15.0	41.5	4.0	14.21	69.12	8.38	30	2.84	84.27	88.73	85.04	90.00	95.03	99.91	DP63
4	3	213.731	0.04	4.12	0.80	0.03	3.29	15.0	40.6	4.1	13.39	24.29	5.07	30	0.35	88.73	89.48	90.06	90.80	99.91	104.74	DP59
5	4	108.377	0.04	0.46	0.80	0.03	0.37	15.0	36.8	4.3	1.58	29.75	3.12	30	0.53	92.78	93.35	93.17	93.76	104.74	104.72	DP56
6	5	160.641	0.13	0.38	0.80	0.10	0.30	15.0	15.8	6.3	1.91	5.74	2.92	18	0.30	98.35	98.83	98.95	99.43	104.72	104.19	Pipe - (58)
7	6	52.503	0.25	0.25	0.80	0.20	0.20	15.0	15.0	6.4	1.28	3.67	1.76	15	0.32	98.83	99.00	99.62	99.66	104.19	104.19	DP52
8	4	55.087	0.04	3.62	0.80	0.03	2.89	15.0	15.1	6.4	18.48	24.71	4.87	30	0.36	89.55	89.75	91.40	91.51	104.74	104.72	DP58
9	8	29.506	3.58	3.58	0.80	2.86	2.86	15.0	15.0	6.4	18.34	58.48	8.38	30	2.03	93.45	94.05	94.41	95.50	104.72	107.54	DP57
10	2	34.510	0.12	0.12	0.80	0.10	0.10	15.0	15.0	6.4	0.62	16.34	1.36	24	0.52	80.47	80.65	81.77	80.92	95.03	94.71	P-53
11	5	54.507	0.04	0.04	0.80	0.03	0.03	15.0	15.0	6.4	0.21	24.83	0.67	30	0.37	93.35	93.55	93.76	93.77	104.72	104.72	DP55
12	3	54.503	0.15	0.15	0.80	0.12	0.12	15.0	15.0	6.4	0.77	9.00	2.91	18	0.73	93.93	94.33	94.23	94.66	99.91	99.63	DP60
13	1	34.514	0.12	0.12	0.80	0.10	0.10	15.0	15.0	6.4	0.62	22.69	0.13	30	0.26	78.23	78.32	80.98	80.98	92.03	92.22	P-34

Project File: STREET A STORM SEWER-SR19.stm

Number of lines: 13

Run Date: 11/6/2024

NOTES: Intensity = 12.4956 + -1.6712(X) + -0.3490(X)^2 + 0.0502(X)^3 -- X = Ln(Tc)(min); Return period = Yrs. 10 ; c = cir e = ellip b = box