September 10, 2012

Ms. Mary Hamilton
Interim Environmental Services Division Manager
Lake County Public Works
437 Ardice Avenue
Eustis, FL 32726

RE: Wekiva BMAP – Dirt Road and Dairy Closure Credits Development
AMEC Project No. 19248.6

Dear Mary:

Lake County Public Works (County) requested AMEC Environment & Infrastructure, Inc. (AMEC) to investigate available credits for activities that the County has already undertaken to address pollutant loading within the Wekiva watershed. Specifically, AMEC is to "document an estimated nutrient pollutant load reduction that should be pursued towards the Wekiva Basin Management Action Plan (BMAP) resulting from two key improvement projects implemented by Lake County:

1. The purchase of a former dairy and its conversion to the Ellis Acres Reserve (EAR)
2. Paving of 25 dirt roads to reduce the pollutant loading generated and discharged.

The work was divided into two separate Tasks: Literature Search and Pollutant Load Estimation.

TASK 1: LITERATURE SEARCH

The focus of the Literature Search was to review available published sources and documentation for other areas that had taken dairy properties out of service, converted them to a lower pollutant-generating land use and thus reduced the pollutant load discharged from the site. AMEC began the search and located various data but discovered that the actual property in question – the former Swiss Haven Dairy property on County Road 42 in Paisley - was outside of both the water and spring sheds for the Wekiva Basin. The property is within WBID 2930C, i.e. the Glenn Branch sub-basin within the Alexander Springs Creek watershed. As a result, the diary purchase and land use conversion cannot be presented as a source of pollutant load reduction for the Wekiva Basin. This was discussed immediately upon discovery on July 27 and as agreed, work was stopped on this portion of the project. The deliverable is shown as Attachment A – a location map showing the EAR property just outside of the northern basin boundaries.

AMEC Environment & Infrastructure
2000 E. Edgewood Drive, Suite 215
Lakeland, FL 33803
Tel (863) 667-2345
Fax (863) 667-2662
www.amec.com

MARION

LAKE

ORANGE

VOLUSIA

SEMINOLE

WBID =2930C
GLENN BRANCH
Alexander Springs Creek

Ellis Acres Reserve

CR 42

WBID =2967
ROCK SPRINGS RUN
Wekiva River

WBID =2956A
WEKIVA RIVER
Wekiva River

Notes:

1- Project No.:
2- Data Sources -
3- This map is intended to be used for planning purposes only. It is not a survey.

Date: July 2012
Prepared By: VG
Checked By:

- Wekiva BMAP Planning Area Surfacewater
- Wekiva BMAP Planning Area Groundwater
- Wekiva BMAP Planning Area
- Select Springs
- WBIDs
- Special Assessments
- Ellis Acres Reserve
- Stream/River
- Lake County Boundary

N W E S

0 15,000 30,000

1" = 15,000 Feet

amec

Wekiva BMAP - Dirt Road and Dairy Closure Credits Development

Attachment A - Ellis Acres Reserve Location Map

AMEC Environment & Infrastructure, Inc. - 2000 E. Edgewood Drive Ste #215 - Lakeland, FL 33803 - CA-5392 - (863) 667-2345

File Path: R:\MSJRB\MS\RB_LaVarnaeyMonroe_StdTemplate.mxd

TASK 2: POLLUTANT LOAD ESTIMATION

This task had components addressing both the EAR land use change as well as the 25 dirt roadway paving projects.

Ellis Acres Reserve:
Once the EAR was determined to be outside of the Wekiva Basin, no further efforts were made to quantify its potential pollutant load reductions.

Dirt Roadway Paving Projects:
Paving of dirt roadways has been documented to generally reduce the overall pollutant loading in stormwater generated and discharged by the roads. Additionally, many of the 25 roadways that were paved in Lake County also had roadside ditches either constructed or improved with ditch blocks to provide retention storage volume for additional water quality treatment. The State of Florida's FDEP and Water Management Districts' "Environmental Resource Permit Stormwater Quality Applicant's Handbook" (Draft, 2010) (Handbook) provides land-use based pollutant load methodologies whereby pollutant load reductions can be calculated to compare paved vs. unpaved roads, as well as treatment removal efficiencies based on varying levels of retention provided. These removal efficiencies were ultimately generated from previous work done – often based on limited data sets. It is therefore important to ascertain if these efficiencies are adequate or if calculating removal rates based on some other methodology will predict more accurate results. AMEC performed detailed stormwater quality runoff calculations based on actual long-term, historical rainfall records to compare the pollutant loadings that would hypothetically have been generated over a period of typical annual rainfall under different scenarios, i.e. paved or unpaved, ditch blocks or no ditch blocks. The analyses provide a unique calculation of pollutant load reduction and a means to compare the efficiencies predicted in the State of Florida's previously referenced Handbook. Those analyses are described in the following pages and the results are provided to verify that they predict slightly higher but comparable removal efficiencies to those presented in the Handbook.

Selection of Representative Site:
AMEC was tasked with choosing one representative road project for the detailed pollutant load removal analysis. The project selected was "Thornhill Drive Special Assessment – Project Number SA-98" which involved paving approximately 835 feet of an 18 ft-wide dirt road and the installation of ditch blocks to provide retention storage and treatment volume. This project was selected for several reasons:

1. Sufficient drainage design data from the Environmental Resource Permit (ERP) was available from the St. Johns River Water Management District (SJRWMD) to quantify the relevant parameters and thus reduce the amount of approximations required in the calculations. Several of the sites had no design data and others had only partial data.
2. The area is Hydrologic Soil Group (HSG) A – which was true of the majority – but not all of the sites.
3. The design included ditch blocks so retention could be analyzed.

4. Drainage areas to the roadside ditches were small enough to provide a noticeable difference in loadings resulting from the amount of paving and retention provided.

Rainfall Analysis:

Rainfall data from the Lisbon, Florida station (Latitude 28.88333 and Longitude -81.8) over the period of December 1, 1958 through July 1, 2011 were downloaded and manipulated into a useable format classifying all of the rainfall events into distinct categories based on their total rainfall volumes. Each of the categories was then represented by an average storm with that category's average rainfall total and duration. The resulting average storms were then applied to a drainage basin and routed though a stage/storage configuration representing the Thornhill Drive project utilizing the Interconnected Pond Routing Model (ICPR). This type of analysis accounts for the fact that the vast majority of rain events in the central Florida area are of short duration and limited depth of rainfall. Depending on the soil type and amount of retention volume provided, the vast majority of rain events are small enough that they do not discharge any significant storm water and thus produce zero pollutant loading from surface water discharge. Larger events clearly produce greater volumes and discharges but have much less frequent occurrences. The rainfall data reconfigured into the resulting categories are shown in the following table.

Table 1 – Historic Rainfall Reduced to Incremental Depths

Lisbon, Florida Rainfall Summary December 1, 1958 – July 1, 2011					
Total Depth of Rainfall (inch)	**No. of Events**	**Average Rainfall (inch)**	**Average Duration (hour)**	**Max Recorded Intensity (in/hr)**	**Total Rain Over All Events in Historic Record (inch)**
0.0-0.1	2119	0.09	1.2	0.1	188.87
0.1-0.2	805	0.19	2.07	0.2	151.87
0.2-0.3	439	0.29	2.78	0.3	126.64
0.3-0.4	366	0.39	2.96	0.4	143.06
0.4-0.5	262	0.49	3.22	0.5	128.35
0.5-0.6	216	0.59	3.45	0.6	127.86
0.6-0.7	63	0.67	3.3	0.7	42.42
0.7-0.8	196	0.75	3.67	0.8	146.26
0.8-0.9	80	0.85	4.49	0.9	67.72
0.9-1.0	150	0.95	4.58	1	142.72
1.0-1.5	289	1.24	5.42	1.5	357.44
1.5-2.0	139	1.74	6.5	1.9	241.58
2.0-3.0	99	2.42	8.52	3	239.65
3.0-4.0	24	3.55	9.46	3.4	85.22
4.0-5.0	15	4.34	16.2	3.7	65.08
5.0-6.0	4	5.63	21.25	1.4	22.5
6.0-7.0	1	6.45	28	2	6.45
7.0-8.0	0	N/A	N/A	0	0
> 8.0	2	9.05	43.5	1	18.1

Hydrologic Analysis:

The Thornhill Drive project included several ditch blocks that formed a series of 10 small retention areas in the roadside ditch. Rather than try to model each individual ditch section, the calculations permitted through the SJRWMD under the ERP permit aggregate the ditches into a single composite "pond" or storage node representing the total combined storage area. No changes were made to the stage/storage data, soil characteristics, or basin/land-use characteristics found in the calculations permitted by SJRWMD. Input and Output data summaries for all of the various ICPR runs are provided in **Appendix A** to this report. Excerpts from the SJRWMD File of Record for the Thornhill Drive paving project providing all of the relevant hydrologic and design data are provided in **Appendix B** for reference and comparison with the ICPR modeling data used under this current study.

Eighteen separate storm events – one for each of the separate rainfall depth classifications in the historic rainfall data (there were no recorded events in the 7-8 inch classification, so no storm event was modeled) – were routed through the representative ICPR model utilizing the "Perc Pack" groundwater infiltration module. The model was run for three different hydrologic soil group conditions" HSG-A, HSG-C and HSG-D as discussed later in this report. The results of each storm routing were distilled down to simply whether or not the ditch block storage system allowed a surface discharge or retained the runoff from the entire event. For those events producing a discharge, the total volume of discharge was tabulated for use in estimating pollutant load discharges. These results are provided in detail in **Appendix A**, and are summarized in Table 2 on the next page.

What the results in Table 2 verify is that for the Thornhill Drive project, with HSG A soils, the retention volume provided by the ditch blocks was sufficient that it would have provided 100% retention of stormwater runoff from the entire historical rainfall record. It follows then that the system also provides 100% retention of pollutants. Clearly, the combination of retention volume in the ditch block system and excellent infiltration in the HSG A soils result in an efficient elimination of surface discharge. But what about sites where the soils have higher groundwater tables or are less coarse and have lower infiltration rates? In order to expand the applicability of the results to other sites, AMEC re-ran the analysis with the same areas and volumes, but assuming that the soils were either HSG C or HSG D and thus had lower infiltration capacities. The results of those analyses are also detailed in **Appendix A** and summarized in Table 2. Not surprisingly, as the infiltration capacity of the soil decreases, the potential for greater discharges from the storage component, i.e. the ditch blocked areas is increased.

Table 2 – ICPR-Predicted Stormwater Volumes Discharged From Ditch Block System – Under Three Different Soil Type Assumptions

Storm Event - Total Rainfall Depth (Inches)	Single Event Volume Discharged from BMP - From ICPR Model - HSG A (acre-Feet)	Single Event Volume Discharged from BMP - From ICPR Model - HSG C (acre-Feet)	Single Event Volume Discharged from BMP - From ICPR Model - HSG D (acre-Feet)
0.0-0.1	0.000	0	0
0.1-0.2	0.000	0	0
0.2-0.3	0.000	0	0
0.3-0.4	0.000	0	0
0.4-0.5	0.000	0	0
0.5-0.6	0.000	0	0
0.6-0.7	0.000	0	0
0.7-0.8	0.000	0	0
0.8-0.9	0.000	0	0
0.9-1.0	0.000	0	0
1.0-1.5	0.000	0	0
1.5-2.0	0.000	0	0
2.0-3.0	0.000	0	0
3.0-4.0	0.000	0.0003	0.0612
4.0-5.0	0.000	0.0188	0.1089
5.0-6.0	0.000	0.1055	0.2069
6.0-7.0	0.000	0.1702	0.2616
7.0-8.0	0.000	0	0
> 8.0	0.000	0.2809	0.4383

By reducing the historical rainfall to its incremental depths, the analysis is able to predict more accurately, on a case by case basis, the effectiveness of the retention BMP. These effectiveness results are presented in detail in the spreadsheet tables provided in **Appendix C**. Each of the tables provides an account, for each rainfall increment, of the total runoff volume generated by the drainage basin before any paving or other improvements. Additionally, volume generated after paving and volume discharging to surface waters (i.e. leaving the BMP) is also tabulated. Finally an account of estimated annual stormwater volume and associated nutrient pollutant loading reductions from the "before any improvement" condition to the post-paving and ditch block condition is provided.

Statewide Stormwater Rule Methodology:

The State of Florida's FDEP and Water Management Districts' "Environmental Resource Permit Stormwater Quality Applicant's Handbook" (Draft, 2010) results of the methodologies for calculating pollutant removal efficiencies are summarized in Appendix F of the "Handbook."

The methodologies reduce to "look-up tables" that are functions of the percentage of directly connected impervious area (DCIA), the Curve Number of the non-DCIA area (NDCIA CN), and the depth of retention storage provided. In the case of the Thornhill Drive project, 5462 cubic feet of retention volume is provided for a drainage area of 42,500 square feet. That equates to retention of 1.54 inches, which has been approximated as 1.5 inches in our analysis. Likewise, the "post-improvement" Thornhill Drive basin has 57% DCIA comprised of 15,300 square feet of pavement, 1,696 square feet of concrete driveways, and 7,280 square feet of "pond" area for a total of 24,276 square feet out of the total 42,500 square feet. The NDCIA CN is 39 for the Thornhill Drive project with HSG A soils (74 for hypothetical HSG C soils, and 80 for HSG D soils) assigned to the grassed areas also contributing to the basin. Using these parameters to interpolate in the Handbook's Appendix F tables, the predicted pollutant removal efficiencies are shown to be approximately: 93.1% for HSG A soils; 90% for

HSG C soils; and 88.3% for HSG D soils. An annotated excerpt from that publication is provided in **Appendix C** along with the historical rainfall analysis spreadsheets.

SUMMARY & RECOMMENDATION

The following table provides a side-by-side comparison of the predicted nutrient removal efficiencies resulting from the two different methodologies. Note that in all cases, the use of the historic rainfall data analysis predicted better removal efficiencies than did the "simplified" method provided in the documentation for the new Statewide Stormwater Rule (SSR). The derivations of these results are provided in **Appendix C**.

Table 3- Estimated Pollutant Removal Efficiencies by Providing 1.5" of Retention Storage

Methodology Utilized (HSG A Soils)	Estimated TP Removed (Percentage)	Estimated TN Removed (Percentage)
Statewide Stormwater Rule	93.1	93.1
Historic Rainfall Analysis	100	100

Methodology Utilized (HSG C Soils)	Estimated TP Removed (Percentage)	Estimated TN Removed (Percentage)
Statewide Stormwater Rule	90.0	90.0
Historic Rainfall Analysis	97.5	97.5

Methodology Utilized (HSG D Soils)	Estimated TP Removed (Percentage)	Estimated TN Removed (Percentage)
Statewide Stormwater Rule	88.3	88.3
Historic Rainfall Analysis	92.1	92.1

The model results suggest that simply using the SSR methodology to quantify pollutant load reductions may not be the most appropriate approach. Instead, greater removal efficiencies are justified by performing historic rainfall analysis and hydrologic modeling. It is our

recommendation that Lake County utilize this approach for calculating the load reductions for other sites where retention may be provided in the future. In the interim, we have calculated the resulting pollutant load reductions for all of the road segments referenced in this study. All but Thoroughbred Trail have ditch blocks, and by making several simplifying assumptions, in light of the fact that the segments have varying degrees of design detail data available we can predict their load reductions. With the assumptions, we can base the pollutant loads and reductions on simply comparing comparable lengths of road improvements.

The assumptions are as follows:

1. The effective right of way drainage areas have similar 18 ft pavement widths and comparable right of way widths to those of Thornhill Drive – hence the basins are very similar. If the widths and characteristics are similar, then lengths can be the variable.

2. The roadside swales with ditch blocks have comparable designs, i.e. they provide approximately 1.5" of retention volume.

3. The soils for the first seven listed areas – all of which are in the Forest Hills area are marked with an *. This is because they all cross multiple soil types, and for this analysis, an average HSG-C was assumed.

Using this approach and the results presented in **Appendix C** for the representative road segment, the analyses demonstrate a net reduction for Thornhill Drive (a 0.158 mile long segment) of 4.5 lbs TN and 0.75 lbs TP (assuming HSG-A soils); 5.43 lbs TN and 0.91 lbs TP (assuming HSG-C soils); and 5.62 lbs TN and 0.94 lbs TP (assuming HSG-D soils). The loads increase due to higher runoff volumes generated by the soils with lower infiltration capacities. These results can be "normalized" to predict "per mile" removal rates, i.e. the expected reduction in pounds of nutrients per mile of paving and providing ditch block storage. The resulting estimated removal rates are as follows:

	HSG-A Soils	HSG-C Soils	HSG-D Soils
TN Reduction/mile	28.48 lbs	34.37 lbs	35.57 lbs
TP Reduction/mile	4.75 lbs	5.76 lbs	5.95 lbs

Applying these removal rates to the remaining sites with ditch blocks gives estimates of the total load reductions. The results are provided in Table 4 on the following page.

The Thoroughbred Trail segment is handled separately as it does not have ditch block storage. For this segment, the BMP that was enacted was to pave the previously dirt road surface. The approach deemed most appropriate for load reduction estimation for this road segment is the SSR analysis and simply comparing different land uses with differing pollutant loads. **Appendix C** includes spreadsheet summaries comparing the Thoroughbred Trail segment – before any paving was done, and after the road was paved. EMC values for the land uses were taken from industry standard single family residential land use EMC data which was most recently updated in

association with the "Handbook" discussed earlier. The reductions for Thoroughbred Trail are provided in Table 5 below.

Table 4 – Predicted Nutrient Load Reductions for Road Segments With Ditch Blocks Provided

Road Segment	HSG Soil Type	Segment Length (mi)	TN Reduction (lbs)	TP Reduction (lbs)
Hillside Drive	C*	0.495	17.01	2.85
West Hillside Drive	C*	0.313	10.76	1.80
Hill Drive	C*	0.134	4.61	0.77
Skyline Drive	C*	0.511	17.56	2.94
Sunset Trail (2 Segments)	C*	0.229	7.87	1.32
Pine Drive	C*	0.223	7.66	1.28
Holly Way	C*	0.22	7.56	1.27
Lakeside Drive	D	0.544	19.35	3.24
Forest Drive "Part"	D	1.145	40.73	6.81
Hillcrest Drive "Part"	D	0.336	11.95	2.00
Laurel Court (2 Segments)	D	0.227	8.07	1.35
Quaker Ridge Avenue	A	0.263	7.49	1.25
Thornhill Drive	A	0.158	4.50	0.75
Shetland Trail	A	0.609	17.34	2.89
Appaloosa Trail	A	0.334	9.51	1.59
Welsh Trail (2 Segments)	A	0.501	14.27	2.38
Gere Lane (2 Segments)	A	0.246	7.01	1.17
Totals		**6.488**	**213.25**	**35.66**

Table 5- Estimated Pollutant Loading Reductions for Paving Thoroughbred Trail

Condition of Road	Estimated TN Surface Discharge (Lbs)	Estimated TP Surface Discharge (Lbs)
Pre-Paving	39.31	16.33
Post-Paving	29.25	3.90
Net Pollutant Load Reduction	**10.06**	**12.43**

In summary, it is recommended that Lake County pursue nutrient reduction credits of 223 LB TN for its dirt road paving program the Wekiva River BMAP. The proposed load reduction credits are summarized in Table 6.

Table 6 – Proposed Nutrient Load Reduction Credits for Lake County Dirt Road Paving Program in the Wekiva Basin

Total Nitrogen Reduction	Total Phosphorus Reduction
223 Pounds/Year	48 Pounds/Year

We appreciate your continued support toward successful completion of this project. Please do not hesitate to contact Jeff PeQueen at 863-667-2345, ext. 233, or Tim Kelly at 863-667-2345, ext. 238 with any questions you may have regarding the information provided above.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Jeffrey D. PeQueen, P.E.
Project Engineer

Timothy J. Kelly, P.E.
Project Manager

JP: tjm

Appendix A

Input and Output Summaries for ICPR Model of Thornhill Drive System

"Existing" Pre-BMP Improvement Runoff Generation Totals

Pre-Improvement Conditions - Varying Soil Types: A, C and D

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
0-01	Existing A	BASE	0.00	0.00	0.000	0
01-02	Existing A	BASE	0.73	0.06	0.029	101
02-03	Existing A	BASE	0.67	0.11	0.061	214
03-04	Existing A	BASE	0.67	0.17	0.093	327
04-05	Existing A	BASE	0.84	0.15	0.125	439
05-06	Existing A	BASE	0.84	0.18	0.157	552
06-07	Existing A	BASE	0.84	0.21	0.182	642
07-08	Existing A	BASE	0.84	0.24	0.208	732
08-09	Existing A	BASE	0.84	0.27	0.240	845
09-1	Existing A	BASE	0.84	0.31	0.272	957
1-15	Existing A	BASE	0.84	0.40	0.365	1284
15-2	Existing A	BASE	2.02	0.27	0.525	1847
2-3	Existing A	BASE	2.02	0.38	0.742	2613
3-4	Existing A	BASE	2.02	0.55	1.124	3958
4-5	Existing A	BASE	4.00	0.57	1.448	5099
5-6	Existing A	BASE	4.02	0.84	2.054	7231
6-7	Existing A	BASE	4.02	1.06	2.514	8853
8	Existing A	BASE	12.00	0.41	4.122	14515
0-01	Existing C	BASE	0.00	0.00	0.000	0
01-02	Existing C	BASE	0.73	0.06	0.029	101
02-03	Existing C	BASE	0.67	0.11	0.061	214
03-04	Existing C	BASE	0.67	0.17	0.093	327
04-05	Existing C	BASE	0.84	0.15	0.125	439
05-06	Existing C	BASE	0.84	0.18	0.157	552
06-07	Existing C	BASE	0.84	0.21	0.182	642
07-08	Existing C	BASE	0.84	0.24	0.209	737
08-09	Existing C	BASE	0.84	0.27	0.246	868
09-1	Existing C	BASE	0.84	0.31	0.287	1011
1-15	Existing C	BASE	0.84	0.43	0.422	1485
15-2	Existing C	BASE	2.51	0.36	0.702	2473
2-3	Existing C	BASE	2.51	0.60	1.153	4060
3-4	Existing C	BASE	2.51	1.05	2.013	7087
4-5	Existing C	BASE	4.00	1.28	2.665	9385
5-6	Existing C	BASE	4.00	1.80	3.761	13242
6-7	Existing C	BASE	4.00	2.16	4.525	15934
8	Existing C	BASE	12.00	0.76	6.941	24438
0-01	Existing D	BASE	0.00	0.00	0.000	0
01-02	Existing D	BASE	0.73	0.06	0.029	101
02-03	Existing D	BASE	0.67	0.11	0.061	214
03-04	Existing D	BASE	0.67	0.17	0.093	327
04-05	Existing D	BASE	0.84	0.15	0.125	439
05-06	Existing D	BASE	0.84	0.18	0.159	559
06-07	Existing D	BASE	0.84	0.21	0.190	668
07-08	Existing D	BASE	0.84	0.24	0.223	787
08-09	Existing D	BASE	0.84	0.28	0.269	948
09-1	Existing D	BASE	0.84	0.33	0.319	1122
1-15	Existing D	BASE	0.87	0.50	0.480	1689
15-2	Existing D	BASE	2.51	0.42	0.804	2831
2-3	Existing D	BASE	2.51	0.69	1.309	4609
3-4	Existing D	BASE	2.07	1.18	2.243	7898
4-5	Existing D	BASE	4.00	1.41	2.937	10343
5-6	Existing D	BASE	4.00	1.94	4.086	14387
6-7	Existing D	BASE	4.00	2.30	4.879	17181
8	Existing D	BASE	12.00	0.80	7.360	25916

ICPR Model Input Summary – Assuming Hydrologic Soil Group A

==== Basins ====

Name: A | Node: Ditch Pond | Status: Onsite
Group: BASE | Type: SCS Unit Hydrograph CN

Unit Hydrograph:	Uh256	Peaking Factor:	256.0
Rainfall File:		Storm Duration(hrs):	0.00
Rainfall Amount(in):	0.000	Time of Conc(min):	10.00
Area(ac):	0.970	Time Shift(hrs):	0.00
Curve Number:	39.00	Max Allowable Q(cfs):	999999.000
DCIA(%):	57.00		

57% DCIA includes 15,300 sqft. road plus 1696 sqft driveway + 7280 sqft pond

==== Nodes ====

Name: Ditch Pond | Base Flow(cfs): 0.000 | Init Stage(ft): 102.500
Group: BASE | Warn Stage(ft): 104.000
Type: Stage/Area

Stage(ft)	Area(ac)
102.500	0.0510
104.000	0.1670

Name: GWT | Base Flow(cfs): 0.000 | Init Stage(ft): 0.000
Group: BASE | Warn Stage(ft): 0.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	0.000
9999.00	0.000

Name: SurfaceOutflow | Base Flow(cfs): 0.000 | Init Stage(ft): 0.000
Group: BASE | Warn Stage(ft): 103.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	100.000
100.00	100.000

==== Weirs ====

Name: DitchBlock | From Node: Ditch Pond
Group: BASE | To Node: SurfaceOutflow
Flow: Both | Count: 1
Type: Vertical: Mavis | Geometry: Rectangular

Span(in):	60.00
Rise(in):	12.00
Invert(ft):	103.750
Control Elevation(ft):	103.750
	TABLE
Bottom Clip(in):	0.000
Top Clip(in):	0.000
Weir Discharge Coef:	3.200
Orifice Discharge Coef:	0.600

==== Percolation Links ====

Name: PA | From Node: Ditch Pond | Flow: Both
Group: BASE | To Node: GWT | Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 96.400 | Perimeter 1(ft): 1146.000
Water Table Elev(ft): 97.000 | Perimeter 2(ft): 1546.000
**********0.000 | Perimeter 3(ft): 3146.000
Horiz Conductivity(ft/day): 25.400 | Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 17.000 | Distance 2 to 3(ft): 500.000
Effective Porosity(dec): 0.250 | Num Cells 1 to 2: 10
Suction Head(in): 1.950 | Num Cells 2 to 3: 50
Layer Thickness(ft): 5.500

==== Hydrology Simulations ====

Name: 001
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.09

Time(hrs)	Print Inc(min)
2.000	5.00

Name: 0102
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.19

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 0203
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.29

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 03-04
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.39

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 0405
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.49

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0506
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.59

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0607
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.67

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0708
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.75

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0809
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.85

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 091
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.95

Time(hrs)	Print Inc(min)
8.000	5.00

```
         Name: 1-15
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 1.24

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00
```

```
         Name: 15-2
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 1.74

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00
```

```
         Name: 2-3
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 2.42

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00
```

```
         Name: 3-4
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 3.55

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00
```

```
         Name: 4-5
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 4.34

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00
```

```
         Name: 5-6
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 5.63

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00
```

```
---------------------------------------------------------------------------------------------------------
         Name: 6-7
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 6.45

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00

---------------------------------------------------------------------------------------------------------
         Name: 8
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 9.05

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          5.00

=========================================================================================
==== Routing Simulations ================================================================
=========================================================================================

         Name: 001                 Hydrology Sim: 001
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

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

       Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
       Start Time(hrs): 0.000                    End Time(hrs): 4.00
    Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
       Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


---------------------------------------------------------------------------------------------------------
         Name: 0102                Hydrology Sim: 0102
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

       Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
   Time Step Optimizer: 10.000
       Start Time(hrs): 0.000                    End Time(hrs): 4.00
    Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
       Boundary Stages:                          Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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

Name: 0203 Hydrology Sim: 0203
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0304 Hydrology Sim: 03-04
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0405 Hydrology Sim: 0405
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0506 Hydrology Sim: 0506
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)        Print Inc(min)
---------------- ---------------
4.000            30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0607                Hydrology Sim: 0607
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)        Print Inc(min)
---------------- ---------------
4.000            30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0708                Hydrology Sim: 0708
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)        Print Inc(min)
---------------- ---------------
4.000            30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0809                Hydrology Sim: 0809
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
```

```
        Start Time(hrs): 0.000                  End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


-------------------------------------------------------------------------------------------------
         Name: 091                 Hydrology Sim: 091
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                  End Time(hrs): 8.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           30.000

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


-------------------------------------------------------------------------------------------------
         Name: 1-15                Hydrology Sim: 1-15
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                  End Time(hrs): 8.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           30.000

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


-------------------------------------------------------------------------------------------------
         Name: 15-2                Hydrology Sim: 15-2
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                  End Time(hrs): 12.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:
```

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 2-3 Hydrology Sim: 2-3
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 3-4 Hydrology Sim: 3-4
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 8.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	30.000

Group	Run
BASE	Yes

Name: 4-5 Hydrology Sim: 4-5
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 5-6 Hydrology Sim: 5-6
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 6-7 Hydrology Sim: 6-7
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 8 Hydrology Sim: 8
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	30.000

Group	Run
BASE	Yes

ICPR Model Input Summary – Assuming Hydrologic Soil Group C

(These data are identical to the Hydrologic Soil Group A data except for the SCS Curve numbers and the Green-Ampt Infiltration parameters – which have been modified to reflect the different soil type.)

==== Basins ====

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

Unit Hydrograph: Uh256
Rainfall File:
Rainfall Amount(in): 0.000
Area(ac): 0.970
Curve Number: 74.00
DCIA(%): 57.00
Peaking Factor: 256.0
Storm Duration(hrs): 0.00
Time of Conc(min): 10.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

==== Nodes ====

Name: Ditch Pond
Group: BASE
Type: Stage/Area
Base Flow(cfs): 0.000
Init Stage(ft): 102.500
Warn Stage(ft): 104.000

Stage(ft)	Area(ac)
102.500	0.0510
104.000	0.1670

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

Time(hrs)	Stage(ft)
0.00	0.000
9999.00	0.000

Name: SurfaceOutflow
Group: BASE
Type: Time/Stage
Base Flow(cfs): 0.000
Init Stage(ft): 0.000
Warn Stage(ft): 103.000

Time(hrs)	Stage(ft)
0.00	100.000
100.00	100.000

==== Weirs ====

Name: DitchBlock
Group: BASE
Flow: Both
Type: Vertical: Mavis
From Node: Ditch Pond
To Node: SurfaceOutflow
Count: 1
Geometry: Rectangular

Span(in): 60.00
Rise(in): 12.00
Invert(ft): 103.750
Control Elevation(ft): 103.750
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==== Percolation Links ====

Name: PA
Group: BASE
From Node: Ditch Pond
To Node: GWT
Flow: Both
Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 101.000
Water Table Elev(ft): 101.500
**********0.000
Horiz Conductivity(ft/day): 20.000
Vert Conductivity(ft/day): 13.000
Effective Porosity(dec): 0.250
Suction Head(in): 2.050
Layer Thickness(ft): 1.000

Perimeter 1(ft): 1146.000
Perimeter 2(ft): 1546.000
Perimeter 3(ft): 3146.000
Distance 1 to 2(ft): 50.000
Distance 2 to 3(ft): 500.000
Num Cells 1 to 2: 10
Num Cells 2 to 3: 50

==== Hydrology Simulations ====

Name: 001
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.09

Time(hrs)	Print Inc(min)
2.000	5.00

Name: 0102
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.19

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 0203
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.29

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 03-04
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.39

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 0405
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.49

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0506
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.59

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0607
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.67

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0708
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.75

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 0809
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.85

Time(hrs)	Print Inc(min)
8.000	5.00

Name: 091
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 2.00
Rainfall File: Fdot-2
Rainfall Amount(in): 0.95

Time(hrs)	Print Inc(min)
8.000	5.00

```
---------------------------------------------------------------------------------------------------
         Name: 1-15
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
   Rainfall Amount(in): 1.24

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 15-2
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
   Rainfall Amount(in): 1.74

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 2-3
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
   Rainfall Amount(in): 2.42

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 3-4
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
   Rainfall Amount(in): 3.55

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 4-5
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
   Rainfall Amount(in): 4.34

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00

---------------------------------------------------------------------------------------------------
         Name: 5-6
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
   Rainfall Amount(in): 5.63

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00
```

```
--------------------------------------------------------------------------------
         Name: 6-7
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 6.45

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00

--------------------------------------------------------------------------------
         Name: 8
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 9.05

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          5.00

================================================================================
==== Routing Simulations ======================================================
================================================================================

         Name: 001                 Hydrology Sim: 001
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


--------------------------------------------------------------------------------
         Name: 0102                Hydrology Sim: 0102
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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

Name: 0203 Hydrology Sim: 0203
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0304 Hydrology Sim: 03-04
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0405 Hydrology Sim: 0405
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0506 Hydrology Sim: 0506
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                   End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0607                Hydrology Sim: 0607
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                   End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0708                Hydrology Sim: 0708
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                   End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0809                Hydrology Sim: 0809
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
```

Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 091 Hydrology Sim: 091
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 8.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	30.000

Group	Run
BASE	Yes

Name: 1-15 Hydrology Sim: 1-15
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 8.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	30.000

Group	Run
BASE	Yes

Name: 15-2 Hydrology Sim: 15-2
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 2-3 Hydrology Sim: 2-3
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 3-4 Hydrology Sim: 3-4
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 8.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	30.000

Group	Run
BASE	Yes

Name: 4-5 Hydrology Sim: 4-5
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 5-6 Hydrology Sim: 5-6
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 6-7 Hydrology Sim: 6-7
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 8 Hydrology Sim: 8
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	30.000

Group	Run
BASE	Yes

ICPR Model Input Summary – Assuming Hydrologic Soil Group D

(These data are identical to the Hydrologic Soil Group A data except for the SCS Curve numbers and the Green-Ampt Infiltration parameters – which have been modified to reflect the different soil type.)

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

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

Unit Hydrograph: Uh256
Rainfall File:
Rainfall Amount(in): 0.000
Area(ac): 0.970
Curve Number: 80.00
DCIA(%): 57.00
Peaking Factor: 256.0
Storm Duration(hrs): 0.00
Time of Conc(min): 10.00
Time Shift(hrs): 0.00
Max Allowable Q(cfs): 999999.000

57% DCIA includes 15,300 sqft. road plus 1696 sqft driveway + 7280 sqft pond

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

Name: Ditch Pond
Group: BASE
Type: Stage/Area
Base Flow(cfs): 0.000
Init Stage(ft): 102.500
Warn Stage(ft): 104.000

Stage(ft)	Area(ac)
102.500	0.0510
104.000	0.1670

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

Time(hrs)	Stage(ft)
0.00	0.000
9999.00	0.000

Name: SurfaceOutflow
Group: BASE
Type: Time/Stage
Base Flow(cfs): 0.000
Init Stage(ft): 0.000
Warn Stage(ft): 103.000

Time(hrs)	Stage(ft)
0.00	100.000
100.00	100.000

==========
==== Weirs ==========
==========

Name: DitchBlock
Group: BASE
Flow: Both
Type: Vertical: Mavis
From Node: Ditch Pond
To Node: SurfaceOutflow
Count: 1
Geometry: Rectangular

Span(in): 60.00
Rise(in): 12.00
Invert(ft): 103.750
Control Elevation(ft): 103.750
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==== Percolation Links ====

Name: PA | From Node: Ditch Pond | Flow: Both
Group: BASE | To Node: GWT | Count: 1

Surface Area Option: Vary based on Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 101.500 | Perimeter 1(ft): 1146.000
Water Table Elev(ft): 102.500 | Perimeter 2(ft): 1546.000
**********0.000 | Perimeter 3(ft): 3146.000
Horiz Conductivity(ft/day): 10.000 | Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 6.500 | Distance 2 to 3(ft): 500.000
Effective Porosity(dec): 0.250 | Num Cells 1 to 2: 10
Suction Head(in): 2.050 | Num Cells 2 to 3: 50
Layer Thickness(ft): 0.000

==== Hydrology Simulations ====

Name: 001
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.09

Time(hrs)	Print Inc(min)
2.000	5.00

Name: 0102
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.19

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 0203
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.29

Time(hrs)	Print Inc(min)
4.000	5.00

Name: 03-04
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Fdot-1
Rainfall Amount(in): 0.39

Time(hrs)	Print Inc(min)
4.000	5.00

```
         Name: 0405
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 0.49

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

-------------------------------------------------------------------------------------------------
         Name: 0506
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 0.59

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

-------------------------------------------------------------------------------------------------
         Name: 0607
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 0.67

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

-------------------------------------------------------------------------------------------------
         Name: 0708
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 0.75

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

-------------------------------------------------------------------------------------------------
         Name: 0809
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 0.85

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

-------------------------------------------------------------------------------------------------
         Name: 091
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 0.95

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00
```

```
---------------------------------------------------------------------------------------------------
         Name: 1-15
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 2.00
          Rainfall File: Fdot-2
    Rainfall Amount(in): 1.24

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 15-2
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 1.74

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 2-3
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 2.42

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 3-4
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 4.00
          Rainfall File: Fdot-4
    Rainfall Amount(in): 3.55

Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           5.00

---------------------------------------------------------------------------------------------------
         Name: 4-5
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 4.34

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00

---------------------------------------------------------------------------------------------------
         Name: 5-6
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 5.63

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00
```

```
---------------------------------------------------------------------------------------------------
         Name: 6-7
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 8.00
          Rainfall File: Fdot-8
    Rainfall Amount(in): 6.45

Time(hrs)       Print Inc(min)
--------------- ---------------
12.000          5.00

---------------------------------------------------------------------------------------------------
         Name: 8
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Fdot-24
    Rainfall Amount(in): 9.05

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          5.00

===================================================================================================
==== Routing Simulations ==========================================================================
===================================================================================================

         Name: 001                 Hydrology Sim: 001
     Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

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

       Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
       Start Time(hrs): 0.000                     End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
       Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


---------------------------------------------------------------------------------------------------
         Name: 0102                Hydrology Sim: 0102
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

       Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
       Start Time(hrs): 0.000                     End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
       Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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

Name: 0203 Hydrology Sim: 0203
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0304 Hydrology Sim: 03-04
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0405 Hydrology Sim: 0405
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 4.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	30.000

Group	Run
BASE	Yes

Name: 0506 Hydrology Sim: 0506
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)        Print Inc(min)
---------------- ----------------
4.000            30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0607                Hydrology Sim: 0607
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)        Print Inc(min)
---------------- ----------------
4.000            30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0708                Hydrology Sim: 0708
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)        Print Inc(min)
---------------- ----------------
4.000            30.000

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


-------------------------------------------------------------------------------------------------
         Name: 0809                Hydrology Sim: 0809
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
```

```
        Start Time(hrs): 0.000                  End Time(hrs): 4.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
4.000           30.000

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


-------------------------------------------------------------------------------------------------------
         Name: 091                  Hydrology Sim: 091
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                  End Time(hrs): 8.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           30.000

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


-------------------------------------------------------------------------------------------------------
         Name: 1-15                 Hydrology Sim: 1-15
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                  End Time(hrs): 8.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
8.000           30.000

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


-------------------------------------------------------------------------------------------------------
         Name: 15-2                 Hydrology Sim: 15-2
     Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

        Max Delta Z(ft): 1.00                   Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                  End Time(hrs): 12.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                        Boundary Flows:
```

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 2-3 Hydrology Sim: 2-3
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 3-4 Hydrology Sim: 3-4
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 8.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	30.000

Group	Run
BASE	Yes

Name: 4-5 Hydrology Sim: 4-5
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 5-6 Hydrology Sim: 5-6
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 6-7 Hydrology Sim: 6-7
Filename: T:\1219248 LAKE COUNTY STORMWATER\19248.6_DIRT ROADS & CONSERVATION PROPERTIES FOR WEKIVA BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 12.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
12.000	30.000

Group	Run
BASE	Yes

Name: 8 Hydrology Sim: 8
Filename: T:\1219248 Lake County Stormwater\19248.6_Dirt Roads & Conservation Properties for Wekiva BMAP\IC

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

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	30.000

Group	Run
BASE	Yes

Post-Improvement Conditions - HSG A

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
001	A	BASE	0.00	0.00	0.000	0
0102	A	BASE	0.73	0.10	0.051	181
0203	A	BASE	0.67	0.20	0.108	381
03-04	A	BASE	0.67	0.29	0.165	582
0405	A	BASE	0.84	0.27	0.222	782
0506	A	BASE	0.84	0.33	0.279	983
0607	A	BASE	0.84	0.38	0.325	1144
0708	A	BASE	0.84	0.42	0.370	1304
0809	A	BASE	0.84	0.48	0.427	1505
091	A	BASE	0.84	0.54	0.484	1705
1-15	A	BASE	0.84	0.72	0.650	2287
15-2	A	BASE	2.02	0.48	0.934	3290
2-3	A	BASE	2.02	0.67	1.322	4655
3-4	A	BASE	2.02	0.99	1.971	6939
4-5	A	BASE	4.00	1.02	2.453	8639
5-6	A	BASE	4.00	1.36	3.299	11617
6-7	A	BASE	4.00	1.61	3.868	13621
8	A	BASE	12.00	0.57	5.799	20418

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Ditch Pond	BASE	001	0.00	102.50	104.00	0.0000	2222	0.00	0.00	0.00	0.00
Ditch Pond	BASE	0102	0.75	102.50	104.00	0.0001	2226	0.75	0.10	0.75	0.10
Ditch Pond	BASE	0203	0.67	102.50	104.00	0.0002	2231	0.67	0.20	0.67	0.20
Ditch Pond	BASE	0304	0.67	102.50	104.00	0.0003	2235	0.67	0.29	0.67	0.29
Ditch Pond	BASE	0405	0.83	102.50	104.00	0.0002	2233	0.83	0.27	0.83	0.26
Ditch Pond	BASE	0506	0.83	102.50	104.00	0.0002	2236	0.83	0.33	0.83	0.32
Ditch Pond	BASE	0607	0.83	102.50	104.00	0.0003	2238	0.83	0.37	0.83	0.37
Ditch Pond	BASE	0708	0.83	102.51	104.00	0.0004	2241	0.83	0.42	0.83	0.42
Ditch Pond	BASE	0809	0.90	102.51	104.00	-0.0017	2258	0.83	0.48	0.90	0.44
Ditch Pond	BASE	091	0.95	102.53	104.00	-0.0033	2316	0.83	0.54	0.95	0.46
Ditch Pond	BASE	1-15	1.04	102.60	104.00	0.0049	2565	0.83	0.71	1.04	0.50
Ditch Pond	BASE	15-2	2.20	102.52	104.00	-0.0015	2292	2.00	0.48	2.20	0.45
Ditch Pond	BASE	2-3	2.60	102.66	104.00	-0.0050	2777	2.00	0.67	2.60	0.55
Ditch Pond	BASE	3-4	2.68	102.92	104.00	-0.0050	3646	2.01	0.98	2.68	0.72
Ditch Pond	BASE	4-5	4.20	102.91	104.00	0.0050	3617	4.00	1.02	4.20	0.71
Ditch Pond	BASE	5-6	4.27	103.12	104.00	0.0050	4326	3.99	1.35	4.27	0.85
Ditch Pond	BASE	6-7	4.32	103.27	104.00	-0.0050	4816	4.00	1.61	4.32	0.95
Ditch Pond	BASE	8	12.17	102.60	104.00	0.0019	2569	12.00	0.57	12.17	0.51
GWT	BASE	001	0.00	0.00	0.00	0.0000	0	0.00	0.00	0.00	0.00
GWT	BASE	0102	0.00	0.00	0.00	0.0000	0	0.75	0.10	0.00	0.00
GWT	BASE	0203	0.00	0.00	0.00	0.0000	0	0.67	0.20	0.00	0.00
GWT	BASE	0304	0.00	0.00	0.00	0.0000	0	0.67	0.29	0.00	0.00
GWT	BASE	0405	0.00	0.00	0.00	0.0000	0	0.83	0.26	0.00	0.00
GWT	BASE	0506	0.00	0.00	0.00	0.0000	0	0.83	0.32	0.00	0.00
GWT	BASE	0607	0.00	0.00	0.00	0.0000	0	0.83	0.37	0.00	0.00
GWT	BASE	0708	0.00	0.00	0.00	0.0000	0	0.83	0.42	0.00	0.00
GWT	BASE	0809	0.00	0.00	0.00	0.0000	0	0.90	0.44	0.00	0.00
GWT	BASE	091	0.00	0.00	0.00	0.0000	0	0.95	0.46	0.00	0.00
GWT	BASE	1-15	0.00	0.00	0.00	0.0000	0	1.04	0.50	0.00	0.00
GWT	BASE	15-2	0.00	0.00	0.00	0.0000	0	2.20	0.45	0.00	0.00
GWT	BASE	2-3	0.00	0.00	0.00	0.0000	0	2.60	0.55	0.00	0.00
GWT	BASE	3-4	0.00	0.00	0.00	0.0000	0	2.68	0.72	0.00	0.00
GWT	BASE	4-5	0.00	0.00	0.00	0.0000	0	4.20	0.71	0.00	0.00
GWT	BASE	5-6	0.00	0.00	0.00	0.0000	0	4.27	0.85	0.00	0.00
GWT	BASE	6-7	0.00	0.00	0.00	0.0000	0	4.32	0.95	0.00	0.00
GWT	BASE	8	0.00	0.00	0.00	0.0000	0	12.17	0.51	0.00	0.00
SurfaceOutflow	BASE	001	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0102	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0203	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0304	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0405	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0506	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0607	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0708	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0809	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	091	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	1-15	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	15-2	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	2-3	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	3-4	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	4-5	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
SurfaceOutflow	BASE	5-6	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	6-7	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	8	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00

ICPR Output Data Summaries for Historical Average Events
Assuming Hydrologic Soil Group C

Post-Improvement Conditions - Reflecting New Paving and Ditch Blocks

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
001	A	BASE	0.00	0.00	0.000	0
0102	A	BASE	0.73	0.10	0.051	181
0203	A	BASE	0.67	0.20	0.108	381
03-04	A	BASE	0.67	0.29	0.165	582
0405	A	BASE	0.84	0.27	0.222	782
0506	A	BASE	0.84	0.33	0.279	983
0607	A	BASE	0.84	0.38	0.325	1144
0708	A	BASE	0.84	0.42	0.371	1305
0809	A	BASE	0.84	0.48	0.430	1514
091	A	BASE	0.84	0.54	0.491	1730
1-15	A	BASE	0.84	0.73	0.680	2395
15-2	A	BASE	2.04	0.51	1.036	3648
2-3	A	BASE	2.04	0.78	1.564	5508
3-4	A	BASE	2.04	1.27	2.514	8851
4-5	A	BASE	4.00	1.45	3.211	11307
5-6	A	BASE	4.00	1.98	4.387	15449
6-7	A	BASE	4.00	2.32	5.151	18139
8	A	BASE	12.00	0.80	7.625	26848

Post-Improvement Conditions - HSG C Assumed

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Ditch Pond	BASE	001	0.00	102.50	104.00	0.0000	2222	0.00	0.00	0.00	0.00
Ditch Pond	BASE	0102	0.75	102.50	104.00	0.0001	2226	0.75	0.10	0.75	0.10
Ditch Pond	BASE	0203	0.67	102.50	104.00	0.0002	2231	0.67	0.20	0.67	0.20
Ditch Pond	BASE	0304	0.67	102.50	104.00	0.0003	2235	0.67	0.29	0.67	0.29
Ditch Pond	BASE	0405	0.83	102.50	104.00	0.0002	2233	0.83	0.27	0.83	0.26
Ditch Pond	BASE	0506	1.30	102.51	104.00	0.0017	2268	0.83	0.33	0.83	0.32
Ditch Pond	BASE	0607	1.38	102.55	104.00	0.0036	2375	0.83	0.37	0.92	0.34
Ditch Pond	BASE	0708	1.43	102.58	104.00	0.0049	2500	0.83	0.42	0.93	0.35
Ditch Pond	BASE	0809	1.49	102.63	104.00	0.0045	2657	0.83	0.48	0.90	0.36
Ditch Pond	BASE	091	1.54	102.68	104.00	0.0046	2813	0.83	0.54	0.88	0.37
Ditch Pond	BASE	1-15	1.71	102.82	104.00	0.0050	3292	0.83	0.72	0.83	0.39
Ditch Pond	BASE	15-2	3.48	103.01	104.00	0.0050	3946	2.08	0.51	1.47	0.32
Ditch Pond	BASE	2-3	3.60	103.32	104.00	0.0050	4969	2.08	0.77	1.28	0.34
Ditch Pond	BASE	3-4	3.64	103.76	104.00	0.0050	6463	2.08	1.26	1.10	0.34
Ditch Pond	BASE	4-5	5.15	103.80	104.00	0.0049	6612	4.00	1.45	5.13	0.45
Ditch Pond	BASE	5-6	4.27	103.89	104.00	0.0050	6917	4.00	1.98	4.26	1.22
Ditch Pond	BASE	6-7	4.14	103.95	104.00	0.0050	7119	4.00	2.32	4.14	1.84
Ditch Pond	BASE	8	12.08	103.86	104.00	0.0043	6806	12.00	0.80	12.07	0.76
GWT	BASE	001	0.00	0.00	0.00	0.0000	0	0.00	0.00	0.00	0.00
GWT	BASE	0102	0.00	0.00	0.00	0.0000	0	0.75	0.10	0.00	0.00
GWT	BASE	0203	0.00	0.00	0.00	0.0000	0	0.67	0.20	0.00	0.00
GWT	BASE	0304	0.00	0.00	0.00	0.0000	0	0.67	0.29	0.00	0.00
GWT	BASE	0405	0.00	0.00	0.00	0.0000	0	0.83	0.26	0.00	0.00
GWT	BASE	0506	0.00	0.00	0.00	0.0000	0	0.83	0.32	0.00	0.00
GWT	BASE	0607	0.00	0.00	0.00	0.0000	0	0.92	0.34	0.00	0.00
GWT	BASE	0708	0.00	0.00	0.00	0.0000	0	0.93	0.35	0.00	0.00
GWT	BASE	0809	0.00	0.00	0.00	0.0000	0	0.90	0.36	0.00	0.00
GWT	BASE	091	0.00	0.00	0.00	0.0000	0	0.88	0.37	0.00	0.00
GWT	BASE	1-15	0.00	0.00	0.00	0.0000	0	0.83	0.39	0.00	0.00
GWT	BASE	15-2	0.00	0.00	0.00	0.0000	0	1.47	0.32	0.00	0.00
GWT	BASE	2-3	0.00	0.00	0.00	0.0000	0	1.28	0.34	0.00	0.00
GWT	BASE	3-4	0.00	0.00	0.00	0.0000	0	1.10	0.34	0.00	0.00
GWT	BASE	4-5	0.00	0.00	0.00	0.0000	0	4.21	0.31	0.00	0.00
GWT	BASE	5-6	0.00	0.00	0.00	0.0000	0	4.07	0.37	0.00	0.00
GWT	BASE	6-7	0.00	0.00	0.00	0.0000	0	3.94	0.39	0.00	0.00
GWT	BASE	8	0.00	0.00	0.00	0.0000	0	11.33	0.19	0.00	0.00
SurfaceOutflow	BASE	001	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0102	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0203	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0304	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0405	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0506	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0607	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0708	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0809	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	091	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	1-15	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	15-2	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	2-3	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	3-4	0.00	100.00	103.00	100.0000	0	3.64	0.01	0.00	0.00
SurfaceOutflow	BASE	4-5	0.00	100.00	103.00	100.0000	0	5.15	0.20	0.00	0.00

Post-Improvement Conditions - HSG C Assumed

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
SurfaceOutflow	BASE	5-6	0.00	100.00	103.00	100.0000	0	4.27	0.87	0.00	0.00
SurfaceOutflow	BASE	6-7	0.00	100.00	103.00	100.0000	0	4.14	1.47	0.00	0.00
SurfaceOutflow	BASE	8	0.00	100.00	103.00	100.0000	0	12.08	0.59	0.00	0.00

Post-Improvement Conditions - Using CN - HSG C Assumed

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
3-4	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
3-4	Ditch Pond	BASE	0.50	102.50	104.00	2224	0.06	0.06	0.0012	0.0011
3-4	Ditch Pond	BASE	1.02	102.51	104.00	2242	0.37	0.34	0.0102	0.0095
3-4	Ditch Pond	BASE	1.50	102.74	104.00	3032	0.72	0.20	0.0320	0.0203
3-4	Ditch Pond	BASE	2.00	103.13	104.00	4337	1.25	0.27	0.0728	0.0299
3-4	Ditch Pond	BASE	2.50	103.47	104.00	5477	1.20	0.32	0.1232	0.0419
3-4	Ditch Pond	BASE	3.01	103.68	104.00	6195	0.87	0.31	0.1665	0.0550
3-4	Ditch Pond	BASE	3.51	103.76	104.00	6451	0.37	0.28	0.1921	0.0672
3-4	Ditch Pond	BASE	4.01	103.75	104.00	6425	0.14	0.22	0.2026	0.0776
3-4	Ditch Pond	BASE	4.51	103.71	104.00	6295	0.02	0.18	0.2059	0.0859
3-4	Ditch Pond	BASE	5.01	103.66	104.00	6140	0.00	0.15	0.2063	0.0927
3-4	Ditch Pond	BASE	5.51	103.62	104.00	6001	0.00	0.13	0.2063	0.0984
3-4	Ditch Pond	BASE	6.01	103.59	104.00	5879	0.00	0.11	0.2063	0.1034
3-4	Ditch Pond	BASE	6.51	103.55	104.00	5767	0.00	0.10	0.2063	0.1078
3-4	Ditch Pond	BASE	7.01	103.52	104.00	5665	0.00	0.09	0.2063	0.1118
3-4	Ditch Pond	BASE	7.51	103.49	104.00	5571	0.00	0.08	0.2063	0.1154
3-4	Ditch Pond	BASE	8.01	103.47	104.00	5483	0.00	0.08	0.2063	0.1187
3-4	Ditch Pond	BASE	8.01	103.47	104.00	5483	0.00	0.08	0.2063	0.1188
3-4	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
3-4	GWT	BASE	0.50	0.00	0.00	0	0.06	0.00	0.0011	0.0000
3-4	GWT	BASE	1.02	0.00	0.00	0	0.34	0.00	0.0095	0.0000
3-4	GWT	BASE	1.50	0.00	0.00	0	0.20	0.00	0.0203	0.0000
3-4	GWT	BASE	2.00	0.00	0.00	0	0.27	0.00	0.0299	0.0000
3-4	GWT	BASE	2.50	0.00	0.00	0	0.32	0.00	0.0419	0.0000
3-4	GWT	BASE	3.01	0.00	0.00	0	0.31	0.00	0.0550	0.0000
3-4	GWT	BASE	3.51	0.00	0.00	0	0.27	0.00	0.0671	0.0000
3-4	GWT	BASE	4.01	0.00	0.00	0	0.22	0.00	0.0773	0.0000
3-4	GWT	BASE	4.51	0.00	0.00	0	0.18	0.00	0.0856	0.0000
3-4	GWT	BASE	5.01	0.00	0.00	0	0.15	0.00	0.0924	0.0000
3-4	GWT	BASE	5.51	0.00	0.00	0	0.13	0.00	0.0981	0.0000
3-4	GWT	BASE	6.01	0.00	0.00	0	0.11	0.00	0.1031	0.0000
3-4	GWT	BASE	6.51	0.00	0.00	0	0.10	0.00	0.1075	0.0000
3-4	GWT	BASE	7.01	0.00	0.00	0	0.09	0.00	0.1115	0.0000
3-4	GWT	BASE	7.51	0.00	0.00	0	0.08	0.00	0.1151	0.0000
3-4	GWT	BASE	8.01	0.00	0.00	0	0.08	0.00	0.1184	0.0000
3-4	GWT	BASE	8.01	0.00	0.00	0	0.08	0.00	0.1185	0.0000
3-4	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	1.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	2.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	2.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	3.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	3.51	100.00	103.00	0	0.01	0.00	0.0001	0.0000
3-4	SurfaceOutflow	BASE	4.01	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	4.51	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	5.01	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	5.51	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	6.01	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	6.51	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	7.01	100.00	103.00	0	0.00	0.00	0.0003	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
3-4	SurfaceOutflow	BASE	7.51	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.00	0.00	0.0003	0.0000
3-4	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.00	0.00	0.0003	0.0000
4-5	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
4-5	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
4-5	Ditch Pond	BASE	1.02	102.50	104.00	2222	0.00	0.00	0.0001	0.0001
4-5	Ditch Pond	BASE	1.52	102.50	104.00	2232	0.23	0.23	0.0048	0.0048
4-5	Ditch Pond	BASE	2.02	102.53	104.00	2309	0.27	0.16	0.0151	0.0127
4-5	Ditch Pond	BASE	2.52	102.64	104.00	2708	0.36	0.16	0.0281	0.0192
4-5	Ditch Pond	BASE	3.02	102.78	104.00	3177	0.43	0.16	0.0444	0.0258
4-5	Ditch Pond	BASE	3.50	103.11	104.00	4266	1.20	0.22	0.0771	0.0335
4-5	Ditch Pond	BASE	4.00	103.51	104.00	5610	1.45	0.30	0.1320	0.0444
4-5	Ditch Pond	BASE	4.51	103.72	104.00	6319	0.70	0.30	0.1770	0.0569
4-5	Ditch Pond	BASE	5.02	103.80	104.00	6591	0.58	0.43	0.2037	0.0721
4-5	Ditch Pond	BASE	5.52	103.79	104.00	6568	0.27	0.35	0.2213	0.0882
4-5	Ditch Pond	BASE	6.02	103.78	104.00	6518	0.22	0.25	0.2316	0.1006
4-5	Ditch Pond	BASE	6.52	103.77	104.00	6497	0.19	0.21	0.2402	0.1100
4-5	Ditch Pond	BASE	7.02	103.77	104.00	6490	0.19	0.19	0.2480	0.1182
4-5	Ditch Pond	BASE	7.52	103.76	104.00	6466	0.12	0.16	0.2544	0.1253
4-5	Ditch Pond	BASE	8.02	103.75	104.00	6442	0.11	0.13	0.2593	0.1313
4-5	Ditch Pond	BASE	8.52	103.73	104.00	6373	0.01	0.12	0.2619	0.1364
4-5	Ditch Pond	BASE	9.02	103.70	104.00	6271	0.00	0.10	0.2622	0.1410
4-5	Ditch Pond	BASE	9.52	103.67	104.00	6174	0.00	0.10	0.2622	0.1452
4-5	Ditch Pond	BASE	10.02	103.65	104.00	6083	0.00	0.09	0.2622	0.1489
4-5	Ditch Pond	BASE	10.52	103.62	104.00	5999	0.00	0.08	0.2622	0.1524
4-5	Ditch Pond	BASE	11.02	103.60	104.00	5920	0.00	0.08	0.2622	0.1556
4-5	Ditch Pond	BASE	11.52	103.58	104.00	5844	0.00	0.07	0.2622	0.1586
4-5	Ditch Pond	BASE	12.01	103.55	104.00	5775	0.00	0.07	0.2622	0.1614
4-5	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
4-5	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
4-5	GWT	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0001	0.0000
4-5	GWT	BASE	1.52	0.00	0.00	0	0.23	0.00	0.0048	0.0000
4-5	GWT	BASE	2.02	0.00	0.00	0	0.16	0.00	0.0127	0.0000
4-5	GWT	BASE	2.52	0.00	0.00	0	0.16	0.00	0.0192	0.0000
4-5	GWT	BASE	3.02	0.00	0.00	0	0.16	0.00	0.0258	0.0000
4-5	GWT	BASE	3.50	0.00	0.00	0	0.22	0.00	0.0335	0.0000
4-5	GWT	BASE	4.00	0.00	0.00	0	0.30	0.00	0.0444	0.0000
4-5	GWT	BASE	4.51	0.00	0.00	0	0.30	0.00	0.0569	0.0000
4-5	GWT	BASE	5.02	0.00	0.00	0	0.27	0.00	0.0687	0.0000
4-5	GWT	BASE	5.52	0.00	0.00	0	0.22	0.00	0.0787	0.0000
4-5	GWT	BASE	6.02	0.00	0.00	0	0.19	0.00	0.0871	0.0000
4-5	GWT	BASE	6.52	0.00	0.00	0	0.17	0.00	0.0943	0.0000
4-5	GWT	BASE	7.02	0.00	0.00	0	0.15	0.00	0.1009	0.0000
4-5	GWT	BASE	7.52	0.00	0.00	0	0.14	0.00	0.1069	0.0000
4-5	GWT	BASE	8.02	0.00	0.00	0	0.13	0.00	0.1125	0.0000
4-5	GWT	BASE	8.52	0.00	0.00	0	0.12	0.00	0.1176	0.0000
4-5	GWT	BASE	9.02	0.00	0.00	0	0.10	0.00	0.1222	0.0000
4-5	GWT	BASE	9.52	0.00	0.00	0	0.10	0.00	0.1263	0.0000
4-5	GWT	BASE	10.02	0.00	0.00	0	0.09	0.00	0.1301	0.0000
4-5	GWT	BASE	10.52	0.00	0.00	0	0.08	0.00	0.1336	0.0000
4-5	GWT	BASE	11.02	0.00	0.00	0	0.08	0.00	0.1368	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
4-5	GWT	BASE	11.52	0.00	0.00	0	0.07	0.00	0.1398	0.0000
4-5	GWT	BASE	12.01	0.00	0.00	0	0.07	0.00	0.1426	0.0000
4-5	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	1.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	2.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	2.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	3.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	3.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	4.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	4.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	5.02	100.00	103.00	0	0.16	0.00	0.0034	0.0000
4-5	SurfaceOutflow	BASE	5.52	100.00	103.00	0	0.13	0.00	0.0095	0.0000
4-5	SurfaceOutflow	BASE	6.02	100.00	103.00	0	0.07	0.00	0.0135	0.0000
4-5	SurfaceOutflow	BASE	6.52	100.00	103.00	0	0.04	0.00	0.0157	0.0000
4-5	SurfaceOutflow	BASE	7.02	100.00	103.00	0	0.04	0.00	0.0173	0.0000
4-5	SurfaceOutflow	BASE	7.52	100.00	103.00	0	0.02	0.00	0.0184	0.0000
4-5	SurfaceOutflow	BASE	8.02	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	8.52	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	9.02	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	9.52	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	10.02	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	10.52	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	11.02	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	11.52	100.00	103.00	0	0.00	0.00	0.0188	0.0000
4-5	SurfaceOutflow	BASE	12.01	100.00	103.00	0	0.00	0.00	0.0188	0.0000
5-6	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
5-6	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
5-6	Ditch Pond	BASE	1.02	102.50	104.00	2223	0.03	0.02	0.0006	0.0005
5-6	Ditch Pond	BASE	1.52	102.50	104.00	2235	0.30	0.30	0.0074	0.0072
5-6	Ditch Pond	BASE	2.02	102.59	104.00	2527	0.35	0.16	0.0209	0.0169
5-6	Ditch Pond	BASE	2.50	102.76	104.00	3082	0.50	0.17	0.0379	0.0237
5-6	Ditch Pond	BASE	3.00	102.94	104.00	3719	0.58	0.19	0.0602	0.0312
5-6	Ditch Pond	BASE	3.50	103.35	104.00	5072	1.67	0.27	0.1065	0.0408
5-6	Ditch Pond	BASE	4.00	103.81	104.00	6639	1.98	0.61	0.1814	0.0589
5-6	Ditch Pond	BASE	4.51	103.88	104.00	6878	0.95	1.07	0.2430	0.0944
5-6	Ditch Pond	BASE	5.01	103.86	104.00	6802	0.79	0.82	0.2787	0.1333
5-6	Ditch Pond	BASE	5.51	103.82	104.00	6674	0.37	0.50	0.3026	0.1607
5-6	Ditch Pond	BASE	6.01	103.80	104.00	6596	0.30	0.34	0.3164	0.1781
5-6	Ditch Pond	BASE	6.51	103.79	104.00	6566	0.26	0.28	0.3280	0.1910
5-6	Ditch Pond	BASE	7.01	103.79	104.00	6556	0.25	0.26	0.3386	0.2021
5-6	Ditch Pond	BASE	7.51	103.78	104.00	6524	0.17	0.20	0.3472	0.2116
5-6	Ditch Pond	BASE	8.01	103.77	104.00	6499	0.15	0.17	0.3538	0.2193
5-6	Ditch Pond	BASE	8.51	103.75	104.00	6433	0.02	0.11	0.3573	0.2251
5-6	Ditch Pond	BASE	9.01	103.72	104.00	6336	0.00	0.10	0.3577	0.2296
5-6	Ditch Pond	BASE	9.51	103.69	104.00	6243	0.00	0.09	0.3577	0.2336
5-6	Ditch Pond	BASE	10.01	103.67	104.00	6155	0.00	0.09	0.3577	0.2373
5-6	Ditch Pond	BASE	10.51	103.64	104.00	6073	0.00	0.08	0.3577	0.2407
5-6	Ditch Pond	BASE	11.01	103.62	104.00	5996	0.00	0.07	0.3577	0.2439
5-6	Ditch Pond	BASE	11.51	103.60	104.00	5922	0.00	0.07	0.3577	0.2469

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
5-6	Ditch Pond	BASE	12.01	103.58	104.00	5852	0.00	0.07	0.3577	0.2497
5-6	Ditch Pond	BASE	12.02	103.58	104.00	5852	0.00	0.07	0.3577	0.2497
5-6	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
5-6	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
5-6	GWT	BASE	1.02	0.00	0.00	0	0.02	0.00	0.0005	0.0000
5-6	GWT	BASE	1.52	0.00	0.00	0	0.30	0.00	0.0072	0.0000
5-6	GWT	BASE	2.02	0.00	0.00	0	0.16	0.00	0.0169	0.0000
5-6	GWT	BASE	2.50	0.00	0.00	0	0.17	0.00	0.0237	0.0000
5-6	GWT	BASE	3.00	0.00	0.00	0	0.19	0.00	0.0312	0.0000
5-6	GWT	BASE	3.50	0.00	0.00	0	0.27	0.00	0.0408	0.0000
5-6	GWT	BASE	4.00	0.00	0.00	0	0.37	0.00	0.0540	0.0000
5-6	GWT	BASE	4.51	0.00	0.00	0	0.30	0.00	0.0681	0.0000
5-6	GWT	BASE	5.01	0.00	0.00	0	0.24	0.00	0.0793	0.0000
5-6	GWT	BASE	5.51	0.00	0.00	0	0.20	0.00	0.0883	0.0000
5-6	GWT	BASE	6.01	0.00	0.00	0	0.17	0.00	0.0959	0.0000
5-6	GWT	BASE	6.51	0.00	0.00	0	0.15	0.00	0.1026	0.0000
5-6	GWT	BASE	7.01	0.00	0.00	0	0.14	0.00	0.1087	0.0000
5-6	GWT	BASE	7.51	0.00	0.00	0	0.13	0.00	0.1144	0.0000
5-6	GWT	BASE	8.01	0.00	0.00	0	0.12	0.00	0.1197	0.0000
5-6	GWT	BASE	8.51	0.00	0.00	0	0.11	0.00	0.1246	0.0000
5-6	GWT	BASE	9.01	0.00	0.00	0	0.10	0.00	0.1291	0.0000
5-6	GWT	BASE	9.51	0.00	0.00	0	0.09	0.00	0.1331	0.0000
5-6	GWT	BASE	10.01	0.00	0.00	0	0.09	0.00	0.1368	0.0000
5-6	GWT	BASE	10.51	0.00	0.00	0	0.08	0.00	0.1402	0.0000
5-6	GWT	BASE	11.01	0.00	0.00	0	0.07	0.00	0.1434	0.0000
5-6	GWT	BASE	11.51	0.00	0.00	0	0.07	0.00	0.1464	0.0000
5-6	GWT	BASE	12.01	0.00	0.00	0	0.07	0.00	0.1492	0.0000
5-6	GWT	BASE	12.02	0.00	0.00	0	0.07	0.00	0.1493	0.0000
5-6	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	1.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	2.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	2.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	3.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	3.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	4.00	100.00	103.00	0	0.24	0.00	0.0050	0.0000
5-6	SurfaceOutflow	BASE	4.51	100.00	103.00	0	0.77	0.00	0.0263	0.0000
5-6	SurfaceOutflow	BASE	5.01	100.00	103.00	0	0.58	0.00	0.0540	0.0000
5-6	SurfaceOutflow	BASE	5.51	100.00	103.00	0	0.31	0.00	0.0724	0.0000
5-6	SurfaceOutflow	BASE	6.01	100.00	103.00	0	0.17	0.00	0.0823	0.0000
5-6	SurfaceOutflow	BASE	6.51	100.00	103.00	0	0.13	0.00	0.0884	0.0000
5-6	SurfaceOutflow	BASE	7.01	100.00	103.00	0	0.11	0.00	0.0933	0.0000
5-6	SurfaceOutflow	BASE	7.51	100.00	103.00	0	0.07	0.00	0.0972	0.0000
5-6	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.04	0.00	0.0996	0.0000
5-6	SurfaceOutflow	BASE	8.51	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	9.01	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	9.51	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	10.01	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	10.51	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	11.01	100.00	103.00	0	0.00	0.00	0.1005	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
5-6	SurfaceOutflow	BASE	11.51	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	12.01	100.00	103.00	0	0.00	0.00	0.1005	0.0000
5-6	SurfaceOutflow	BASE	12.02	100.00	103.00	0	0.00	0.00	0.1005	0.0000
6-7	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
6-7	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
6-7	Ditch Pond	BASE	1.02	102.50	104.00	2224	0.05	0.05	0.0011	0.0010
6-7	Ditch Pond	BASE	1.52	102.51	104.00	2239	0.35	0.34	0.0094	0.0090
6-7	Ditch Pond	BASE	2.01	102.63	104.00	2667	0.40	0.17	0.0246	0.0192
6-7	Ditch Pond	BASE	2.50	102.83	104.00	3333	0.59	0.19	0.0451	0.0266
6-7	Ditch Pond	BASE	3.01	103.05	104.00	4062	0.70	0.21	0.0718	0.0349
6-7	Ditch Pond	BASE	3.50	103.49	104.00	5548	1.97	0.30	0.1265	0.0454
6-7	Ditch Pond	BASE	4.00	103.93	104.00	7030	2.31	1.58	0.2151	0.0845
6-7	Ditch Pond	BASE	4.51	103.91	104.00	6976	1.11	1.33	0.2864	0.1452
6-7	Ditch Pond	BASE	5.01	103.88	104.00	6865	0.92	0.97	0.3282	0.1925
6-7	Ditch Pond	BASE	5.51	103.83	104.00	6716	0.43	0.58	0.3560	0.2244
6-7	Ditch Pond	BASE	6.01	103.81	104.00	6631	0.35	0.39	0.3721	0.2445
6-7	Ditch Pond	BASE	6.51	103.80	104.00	6598	0.30	0.32	0.3856	0.2593
6-7	Ditch Pond	BASE	7.01	103.80	104.00	6587	0.29	0.30	0.3978	0.2722
6-7	Ditch Pond	BASE	7.51	103.79	104.00	6551	0.19	0.24	0.4079	0.2832
6-7	Ditch Pond	BASE	8.01	103.78	104.00	6524	0.17	0.19	0.4155	0.2921
6-7	Ditch Pond	BASE	8.51	103.76	104.00	6452	0.02	0.12	0.4196	0.2985
6-7	Ditch Pond	BASE	9.01	103.73	104.00	6358	0.00	0.10	0.4200	0.3030
6-7	Ditch Pond	BASE	9.51	103.70	104.00	6266	0.00	0.09	0.4200	0.3070
6-7	Ditch Pond	BASE	10.01	103.68	104.00	6180	0.00	0.08	0.4200	0.3106
6-7	Ditch Pond	BASE	10.51	103.65	104.00	6100	0.00	0.08	0.4200	0.3140
6-7	Ditch Pond	BASE	11.01	103.63	104.00	6023	0.00	0.07	0.4200	0.3172
6-7	Ditch Pond	BASE	11.51	103.61	104.00	5951	0.00	0.07	0.4200	0.3201
6-7	Ditch Pond	BASE	12.00	103.59	104.00	5883	0.00	0.07	0.4200	0.3229
6-7	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
6-7	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
6-7	GWT	BASE	1.02	0.00	0.00	0	0.05	0.00	0.0010	0.0000
6-7	GWT	BASE	1.52	0.00	0.00	0	0.34	0.00	0.0090	0.0000
6-7	GWT	BASE	2.01	0.00	0.00	0	0.17	0.00	0.0192	0.0000
6-7	GWT	BASE	2.50	0.00	0.00	0	0.19	0.00	0.0266	0.0000
6-7	GWT	BASE	3.01	0.00	0.00	0	0.21	0.00	0.0349	0.0000
6-7	GWT	BASE	3.50	0.00	0.00	0	0.30	0.00	0.0454	0.0000
6-7	GWT	BASE	4.00	0.00	0.00	0	0.39	0.00	0.0597	0.0000
6-7	GWT	BASE	4.51	0.00	0.00	0	0.29	0.00	0.0738	0.0000
6-7	GWT	BASE	5.01	0.00	0.00	0	0.23	0.00	0.0845	0.0000
6-7	GWT	BASE	5.51	0.00	0.00	0	0.19	0.00	0.0931	0.0000
6-7	GWT	BASE	6.01	0.00	0.00	0	0.16	0.00	0.1004	0.0000
6-7	GWT	BASE	6.51	0.00	0.00	0	0.15	0.00	0.1069	0.0000
6-7	GWT	BASE	7.01	0.00	0.00	0	0.14	0.00	0.1128	0.0000
6-7	GWT	BASE	7.51	0.00	0.00	0	0.13	0.00	0.1184	0.0000
6-7	GWT	BASE	8.01	0.00	0.00	0	0.12	0.00	0.1236	0.0000
6-7	GWT	BASE	8.51	0.00	0.00	0	0.11	0.00	0.1284	0.0000
6-7	GWT	BASE	9.01	0.00	0.00	0	0.10	0.00	0.1328	0.0000
6-7	GWT	BASE	9.51	0.00	0.00	0	0.09	0.00	0.1368	0.0000
6-7	GWT	BASE	10.01	0.00	0.00	0	0.08	0.00	0.1404	0.0000
6-7	GWT	BASE	10.51	0.00	0.00	0	0.08	0.00	0.1438	0.0000
6-7	GWT	BASE	11.01	0.00	0.00	0	0.07	0.00	0.1469	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
6-7	GWT	BASE	11.51	0.00	0.00	0	0.07	0.00	0.1499	0.0000
6-7	GWT	BASE	12.00	0.00	0.00	0	0.07	0.00	0.1527	0.0000
6-7	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	1.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	2.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	2.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	3.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	3.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	4.00	100.00	103.00	0	1.20	0.00	0.0248	0.0000
6-7	SurfaceOutflow	BASE	4.51	100.00	103.00	0	1.04	0.00	0.0714	0.0000
6-7	SurfaceOutflow	BASE	5.01	100.00	103.00	0	0.74	0.00	0.1080	0.0000
6-7	SurfaceOutflow	BASE	5.51	100.00	103.00	0	0.39	0.00	0.1313	0.0000
6-7	SurfaceOutflow	BASE	6.01	100.00	103.00	0	0.23	0.00	0.1441	0.0000
6-7	SurfaceOutflow	BASE	6.51	100.00	103.00	0	0.18	0.00	0.1525	0.0000
6-7	SurfaceOutflow	BASE	7.01	100.00	103.00	0	0.16	0.00	0.1593	0.0000
6-7	SurfaceOutflow	BASE	7.51	100.00	103.00	0	0.11	0.00	0.1648	0.0000
6-7	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.07	0.00	0.1684	0.0000
6-7	SurfaceOutflow	BASE	8.51	100.00	103.00	0	0.01	0.00	0.1701	0.0000
6-7	SurfaceOutflow	BASE	9.01	100.00	103.00	0	0.00	0.00	0.1702	0.0000
6-7	SurfaceOutflow	BASE	9.51	100.00	103.00	0	0.00	0.00	0.1702	0.0000
6-7	SurfaceOutflow	BASE	10.01	100.00	103.00	0	0.00	0.00	0.1702	0.0000
6-7	SurfaceOutflow	BASE	10.51	100.00	103.00	0	0.00	0.00	0.1702	0.0000
6-7	SurfaceOutflow	BASE	11.01	100.00	103.00	0	0.00	0.00	0.1702	0.0000
6-7	SurfaceOutflow	BASE	11.51	100.00	103.00	0	0.00	0.00	0.1702	0.0000
6-7	SurfaceOutflow	BASE	12.00	100.00	103.00	0	0.00	0.00	0.1702	0.0000
8	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
8	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
8	Ditch Pond	BASE	1.02	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
8	Ditch Pond	BASE	1.52	102.50	104.00	2225	0.08	0.08	0.0018	0.0018
8	Ditch Pond	BASE	2.02	102.50	104.00	2226	0.10	0.10	0.0056	0.0056
8	Ditch Pond	BASE	2.52	102.50	104.00	2228	0.14	0.14	0.0107	0.0107
8	Ditch Pond	BASE	3.02	102.50	104.00	2235	0.15	0.14	0.0168	0.0166
8	Ditch Pond	BASE	3.52	102.52	104.00	2294	0.15	0.12	0.0231	0.0219
8	Ditch Pond	BASE	4.02	102.55	104.00	2395	0.15	0.11	0.0294	0.0266
8	Ditch Pond	BASE	4.52	102.59	104.00	2531	0.16	0.10	0.0360	0.0309
8	Ditch Pond	BASE	5.02	102.64	104.00	2691	0.17	0.10	0.0429	0.0349
8	Ditch Pond	BASE	5.52	102.71	104.00	2926	0.23	0.10	0.0511	0.0389
8	Ditch Pond	BASE	6.02	102.79	104.00	3199	0.25	0.10	0.0609	0.0431
8	Ditch Pond	BASE	6.52	102.87	104.00	3462	0.25	0.11	0.0712	0.0475
8	Ditch Pond	BASE	7.02	102.94	104.00	3714	0.26	0.11	0.0819	0.0520
8	Ditch Pond	BASE	7.52	103.01	104.00	3956	0.27	0.11	0.0929	0.0567
8	Ditch Pond	BASE	8.02	103.08	104.00	4189	0.28	0.12	0.1042	0.0615
8	Ditch Pond	BASE	8.52	103.18	104.00	4515	0.41	0.13	0.1184	0.0665
8	Ditch Pond	BASE	9.02	103.29	104.00	4887	0.43	0.14	0.1357	0.0721
8	Ditch Pond	BASE	9.52	103.40	104.00	5237	0.44	0.15	0.1538	0.0781
8	Ditch Pond	BASE	10.02	103.49	104.00	5566	0.45	0.16	0.1724	0.0845
8	Ditch Pond	BASE	10.52	103.61	104.00	5960	0.59	0.17	0.1940	0.0913
8	Ditch Pond	BASE	11.02	103.74	104.00	6386	0.63	0.19	0.2192	0.0987
8	Ditch Pond	BASE	11.52	103.83	104.00	6717	0.77	0.58	0.2481	0.1146

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	Ditch Pond	BASE	12.02	103.86	104.00	6804	0.79	0.76	0.2804	0.1422
8	Ditch Pond	BASE	12.52	103.85	104.00	6765	0.60	0.65	0.3091	0.1713
8	Ditch Pond	BASE	13.02	103.84	104.00	6740	0.57	0.58	0.3331	0.1965
8	Ditch Pond	BASE	13.52	103.83	104.00	6718	0.50	0.52	0.3553	0.2193
8	Ditch Pond	BASE	14.02	103.83	104.00	6709	0.49	0.50	0.3759	0.2403
8	Ditch Pond	BASE	14.52	103.83	104.00	6710	0.50	0.49	0.3963	0.2608
8	Ditch Pond	BASE	15.02	103.83	104.00	6713	0.50	0.49	0.4168	0.2812
8	Ditch Pond	BASE	15.52	103.83	104.00	6693	0.43	0.45	0.4359	0.3007
8	Ditch Pond	BASE	16.02	103.82	104.00	6682	0.42	0.42	0.4533	0.3187
8	Ditch Pond	BASE	16.52	103.82	104.00	6657	0.35	0.37	0.4690	0.3350
8	Ditch Pond	BASE	17.02	103.81	104.00	6643	0.34	0.34	0.4831	0.3498
8	Ditch Pond	BASE	17.52	103.81	104.00	6641	0.34	0.34	0.4970	0.3638
8	Ditch Pond	BASE	18.02	103.81	104.00	6641	0.34	0.34	0.5109	0.3777
8	Ditch Pond	BASE	18.52	103.81	104.00	6643	0.34	0.34	0.5248	0.3916
8	Ditch Pond	BASE	19.02	103.81	104.00	6644	0.34	0.34	0.5387	0.4055
8	Ditch Pond	BASE	19.52	103.81	104.00	6620	0.27	0.29	0.5511	0.4185
8	Ditch Pond	BASE	20.02	103.80	104.00	6604	0.25	0.26	0.5619	0.4299
8	Ditch Pond	BASE	20.52	103.80	104.00	6600	0.25	0.26	0.5724	0.4406
8	Ditch Pond	BASE	21.02	103.80	104.00	6600	0.25	0.25	0.5829	0.4512
8	Ditch Pond	BASE	21.52	103.79	104.00	6574	0.18	0.21	0.5918	0.4608
8	Ditch Pond	BASE	22.02	103.79	104.00	6555	0.17	0.18	0.5990	0.4689
8	Ditch Pond	BASE	22.52	103.78	104.00	6520	0.10	0.14	0.6044	0.4755
8	Ditch Pond	BASE	23.02	103.77	104.00	6493	0.09	0.10	0.6082	0.4804
8	Ditch Pond	BASE	23.52	103.76	104.00	6481	0.09	0.09	0.6117	0.4845
8	Ditch Pond	BASE	24.02	103.76	104.00	6475	0.00	0.09	0.6135	0.4882
8	Ditch Pond	BASE	24.52	103.74	104.00	6412	0.00	0.06	0.6135	0.4912
8	Ditch Pond	BASE	25.02	103.73	104.00	6357	0.00	0.06	0.6135	0.4936
8	Ditch Pond	BASE	25.52	103.71	104.00	6305	0.00	0.05	0.6135	0.4959
8	Ditch Pond	BASE	26.02	103.70	104.00	6255	0.00	0.05	0.6135	0.4980
8	Ditch Pond	BASE	26.52	103.68	104.00	6207	0.00	0.05	0.6135	0.5001
8	Ditch Pond	BASE	27.02	103.67	104.00	6160	0.00	0.05	0.6135	0.5020
8	Ditch Pond	BASE	27.52	103.66	104.00	6114	0.00	0.05	0.6135	0.5039
8	Ditch Pond	BASE	28.02	103.64	104.00	6070	0.00	0.04	0.6135	0.5058
8	Ditch Pond	BASE	28.52	103.63	104.00	6026	0.00	0.04	0.6135	0.5076
8	Ditch Pond	BASE	29.02	103.62	104.00	5984	0.00	0.04	0.6135	0.5093
8	Ditch Pond	BASE	29.52	103.60	104.00	5943	0.00	0.04	0.6135	0.5110
8	Ditch Pond	BASE	30.01	103.59	104.00	5904	0.00	0.04	0.6135	0.5126
8	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	1.52	0.00	0.00	0	0.08	0.00	0.0018	0.0000
8	GWT	BASE	2.02	0.00	0.00	0	0.10	0.00	0.0056	0.0000
8	GWT	BASE	2.52	0.00	0.00	0	0.14	0.00	0.0107	0.0000
8	GWT	BASE	3.02	0.00	0.00	0	0.14	0.00	0.0166	0.0000
8	GWT	BASE	3.52	0.00	0.00	0	0.12	0.00	0.0219	0.0000
8	GWT	BASE	4.02	0.00	0.00	0	0.11	0.00	0.0266	0.0000
8	GWT	BASE	4.52	0.00	0.00	0	0.10	0.00	0.0309	0.0000
8	GWT	BASE	5.02	0.00	0.00	0	0.10	0.00	0.0349	0.0000
8	GWT	BASE	5.52	0.00	0.00	0	0.10	0.00	0.0389	0.0000
8	GWT	BASE	6.02	0.00	0.00	0	0.10	0.00	0.0431	0.0000
8	GWT	BASE	6.52	0.00	0.00	0	0.11	0.00	0.0475	0.0000
8	GWT	BASE	7.02	0.00	0.00	0	0.11	0.00	0.0520	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	GWT	BASE	7.52	0.00	0.00	0	0.11	0.00	0.0567	0.0000
8	GWT	BASE	8.02	0.00	0.00	0	0.12	0.00	0.0615	0.0000
8	GWT	BASE	8.52	0.00	0.00	0	0.13	0.00	0.0665	0.0000
8	GWT	BASE	9.02	0.00	0.00	0	0.14	0.00	0.0721	0.0000
8	GWT	BASE	9.52	0.00	0.00	0	0.15	0.00	0.0781	0.0000
8	GWT	BASE	10.02	0.00	0.00	0	0.16	0.00	0.0845	0.0000
8	GWT	BASE	10.52	0.00	0.00	0	0.17	0.00	0.0913	0.0000
8	GWT	BASE	11.02	0.00	0.00	0	0.19	0.00	0.0987	0.0000
8	GWT	BASE	11.52	0.00	0.00	0	0.19	0.00	0.1065	0.0000
8	GWT	BASE	12.02	0.00	0.00	0	0.17	0.00	0.1139	0.0000
8	GWT	BASE	12.52	0.00	0.00	0	0.15	0.00	0.1206	0.0000
8	GWT	BASE	13.02	0.00	0.00	0	0.14	0.00	0.1265	0.0000
8	GWT	BASE	13.52	0.00	0.00	0	0.13	0.00	0.1320	0.0000
8	GWT	BASE	14.02	0.00	0.00	0	0.12	0.00	0.1370	0.0000
8	GWT	BASE	14.52	0.00	0.00	0	0.11	0.00	0.1419	0.0000
8	GWT	BASE	15.02	0.00	0.00	0	0.11	0.00	0.1465	0.0000
8	GWT	BASE	15.52	0.00	0.00	0	0.10	0.00	0.1509	0.0000
8	GWT	BASE	16.02	0.00	0.00	0	0.10	0.00	0.1551	0.0000
8	GWT	BASE	16.52	0.00	0.00	0	0.10	0.00	0.1592	0.0000
8	GWT	BASE	17.02	0.00	0.00	0	0.09	0.00	0.1630	0.0000
8	GWT	BASE	17.52	0.00	0.00	0	0.09	0.00	0.1668	0.0000
8	GWT	BASE	18.02	0.00	0.00	0	0.09	0.00	0.1705	0.0000
8	GWT	BASE	18.52	0.00	0.00	0	0.09	0.00	0.1741	0.0000
8	GWT	BASE	19.02	0.00	0.00	0	0.08	0.00	0.1776	0.0000
8	GWT	BASE	19.52	0.00	0.00	0	0.08	0.00	0.1811	0.0000
8	GWT	BASE	20.02	0.00	0.00	0	0.08	0.00	0.1843	0.0000
8	GWT	BASE	20.52	0.00	0.00	0	0.08	0.00	0.1876	0.0000
8	GWT	BASE	21.02	0.00	0.00	0	0.08	0.00	0.1907	0.0000
8	GWT	BASE	21.52	0.00	0.00	0	0.07	0.00	0.1938	0.0000
8	GWT	BASE	22.02	0.00	0.00	0	0.07	0.00	0.1968	0.0000
8	GWT	BASE	22.52	0.00	0.00	0	0.07	0.00	0.1997	0.0000
8	GWT	BASE	23.02	0.00	0.00	0	0.07	0.00	0.2024	0.0000
8	GWT	BASE	23.52	0.00	0.00	0	0.06	0.00	0.2051	0.0000
8	GWT	BASE	24.02	0.00	0.00	0	0.06	0.00	0.2078	0.0000
8	GWT	BASE	24.52	0.00	0.00	0	0.06	0.00	0.2103	0.0000
8	GWT	BASE	25.02	0.00	0.00	0	0.06	0.00	0.2127	0.0000
8	GWT	BASE	25.52	0.00	0.00	0	0.05	0.00	0.2150	0.0000
8	GWT	BASE	26.02	0.00	0.00	0	0.05	0.00	0.2171	0.0000
8	GWT	BASE	26.52	0.00	0.00	0	0.05	0.00	0.2192	0.0000
8	GWT	BASE	27.02	0.00	0.00	0	0.05	0.00	0.2211	0.0000
8	GWT	BASE	27.52	0.00	0.00	0	0.05	0.00	0.2230	0.0000
8	GWT	BASE	28.02	0.00	0.00	0	0.04	0.00	0.2249	0.0000
8	GWT	BASE	28.52	0.00	0.00	0	0.04	0.00	0.2267	0.0000
8	GWT	BASE	29.02	0.00	0.00	0	0.04	0.00	0.2284	0.0000
8	GWT	BASE	29.52	0.00	0.00	0	0.04	0.00	0.2301	0.0000
8	GWT	BASE	30.01	0.00	0.00	0	0.04	0.00	0.2317	0.0000
8	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	1.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	2.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	2.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	SurfaceOutflow	BASE	3.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	3.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	4.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	4.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	5.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	5.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	6.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	6.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	7.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	7.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	8.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	8.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	9.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	9.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	10.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	10.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	11.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	11.52	100.00	103.00	0	0.39	0.00	0.0081	0.0000
8	SurfaceOutflow	BASE	12.02	100.00	103.00	0	0.59	0.00	0.0283	0.0000
8	SurfaceOutflow	BASE	12.52	100.00	103.00	0	0.50	0.00	0.0507	0.0000
8	SurfaceOutflow	BASE	13.02	100.00	103.00	0	0.44	0.00	0.0700	0.0000
8	SurfaceOutflow	BASE	13.52	100.00	103.00	0	0.40	0.00	0.0873	0.0000
8	SurfaceOutflow	BASE	14.02	100.00	103.00	0	0.38	0.00	0.1033	0.0000
8	SurfaceOutflow	BASE	14.52	100.00	103.00	0	0.38	0.00	0.1189	0.0000
8	SurfaceOutflow	BASE	15.02	100.00	103.00	0	0.38	0.00	0.1347	0.0000
8	SurfaceOutflow	BASE	15.52	100.00	103.00	0	0.34	0.00	0.1498	0.0000
8	SurfaceOutflow	BASE	16.02	100.00	103.00	0	0.32	0.00	0.1635	0.0000
8	SurfaceOutflow	BASE	16.52	100.00	103.00	0	0.28	0.00	0.1759	0.0000
8	SurfaceOutflow	BASE	17.02	100.00	103.00	0	0.25	0.00	0.1868	0.0000
8	SurfaceOutflow	BASE	17.52	100.00	103.00	0	0.25	0.00	0.1970	0.0000
8	SurfaceOutflow	BASE	18.02	100.00	103.00	0	0.25	0.00	0.2072	0.0000
8	SurfaceOutflow	BASE	18.52	100.00	103.00	0	0.25	0.00	0.2175	0.0000
8	SurfaceOutflow	BASE	19.02	100.00	103.00	0	0.25	0.00	0.2278	0.0000
8	SurfaceOutflow	BASE	19.52	100.00	103.00	0	0.21	0.00	0.2374	0.0000
8	SurfaceOutflow	BASE	20.02	100.00	103.00	0	0.18	0.00	0.2456	0.0000
8	SurfaceOutflow	BASE	20.52	100.00	103.00	0	0.18	0.00	0.2531	0.0000
8	SurfaceOutflow	BASE	21.02	100.00	103.00	0	0.18	0.00	0.2604	0.0000
8	SurfaceOutflow	BASE	21.52	100.00	103.00	0	0.14	0.00	0.2670	0.0000
8	SurfaceOutflow	BASE	22.02	100.00	103.00	0	0.11	0.00	0.2721	0.0000
8	SurfaceOutflow	BASE	22.52	100.00	103.00	0	0.07	0.00	0.2758	0.0000
8	SurfaceOutflow	BASE	23.02	100.00	103.00	0	0.04	0.00	0.2780	0.0000
8	SurfaceOutflow	BASE	23.52	100.00	103.00	0	0.03	0.00	0.2794	0.0000
8	SurfaceOutflow	BASE	24.02	100.00	103.00	0	0.02	0.00	0.2804	0.0000
8	SurfaceOutflow	BASE	24.52	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	25.02	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	25.52	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	26.02	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	26.52	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	27.02	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	27.52	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	28.02	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	28.52	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	29.02	100.00	103.00	0	0.00	0.00	0.2809	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	SurfaceOutflow	BASE	29.52	100.00	103.00	0	0.00	0.00	0.2809	0.0000
8	SurfaceOutflow	BASE	30.01	100.00	103.00	0	0.00	0.00	0.2809	0.0000

ICPR Output Data Summaries for Historical Average Events
Assuming Hydrologic Soil Group D

Post-Improvement Conditions - HSG D Assumed

Simulation	Basin	Group	Time Max hrs	Flow Max cfs	Volume in	Volume ft3
001	A	BASE	0.00	0.00	0.000	0
0102	A	BASE	0.73	0.10	0.051	181
0203	A	BASE	0.67	0.20	0.108	381
03-04	A	BASE	0.67	0.29	0.165	582
0405	A	BASE	0.84	0.27	0.222	782
0506	A	BASE	0.84	0.33	0.281	988
0607	A	BASE	0.84	0.38	0.329	1160
0708	A	BASE	0.84	0.42	0.380	1339
0809	A	BASE	0.84	0.49	0.446	1570
091	A	BASE	0.84	0.56	0.514	1809
1-15	A	BASE	0.84	0.78	0.722	2543
15-2	A	BASE	2.07	0.56	1.111	3913
2-3	A	BASE	2.04	0.86	1.680	5917
3-4	A	BASE	2.04	1.38	2.686	9459
4-5	A	BASE	4.00	1.55	3.416	12027
5-6	A	BASE	4.00	2.09	4.634	16316
6-7	A	BASE	4.00	2.43	5.419	19082
8	A	BASE	12.00	0.83	7.944	27970

Post-Improvement Conditions - HSG D Assumed

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Ditch Pond	BASE	001	0.00	102.50	104.00	0.0000	2222	0.00	0.00	0.00	0.00
Ditch Pond	BASE	0102	0.75	102.50	104.00	0.0001	2226	0.75	0.10	0.75	0.10
Ditch Pond	BASE	0203	0.67	102.50	104.00	0.0002	2231	0.67	0.20	0.67	0.20
Ditch Pond	BASE	0304	0.67	102.50	104.00	0.0003	2235	0.67	0.29	0.67	0.29
Ditch Pond	BASE	0405	0.83	102.50	104.00	0.0002	2233	0.83	0.27	0.83	0.26
Ditch Pond	BASE	0506	1.30	102.51	104.00	0.0017	2268	0.83	0.33	0.83	0.32
Ditch Pond	BASE	0607	1.38	102.55	104.00	0.0036	2375	0.83	0.37	0.92	0.34
Ditch Pond	BASE	0708	1.43	102.58	104.00	0.0049	2500	0.83	0.42	0.93	0.35
Ditch Pond	BASE	0809	1.49	102.63	104.00	0.0045	2657	0.83	0.48	0.90	0.36
Ditch Pond	BASE	091	1.54	102.68	104.00	0.0046	2813	0.83	0.54	0.88	0.37
Ditch Pond	BASE	1-15	1.71	102.82	104.00	0.0050	3292	0.83	0.72	0.83	0.39
Ditch Pond	BASE	15-2	3.48	103.01	104.00	0.0050	3946	2.08	0.51	1.47	0.32
Ditch Pond	BASE	2-3	3.60	103.32	104.00	0.0050	4969	2.08	0.77	1.28	0.34
Ditch Pond	BASE	3-4	3.64	103.76	104.00	0.0050	6463	2.08	1.26	1.10	0.34
Ditch Pond	BASE	4-5	5.15	103.80	104.00	0.0049	6612	4.00	1.45	5.13	0.45
Ditch Pond	BASE	5-6	4.27	103.89	104.00	0.0050	6917	4.00	1.98	4.26	1.22
Ditch Pond	BASE	6-7	4.14	103.95	104.00	0.0050	7119	4.00	2.32	4.14	1.84
Ditch Pond	BASE	8	12.08	103.86	104.00	0.0043	6806	12.00	0.80	12.07	0.76
GWT	BASE	001	0.00	0.00	0.00	0.0000	0	0.00	0.00	0.00	0.00
GWT	BASE	0102	0.00	0.00	0.00	0.0000	0	0.75	0.10	0.00	0.00
GWT	BASE	0203	0.00	0.00	0.00	0.0000	0	0.67	0.20	0.00	0.00
GWT	BASE	0304	0.00	0.00	0.00	0.0000	0	0.67	0.29	0.00	0.00
GWT	BASE	0405	0.00	0.00	0.00	0.0000	0	0.83	0.26	0.00	0.00
GWT	BASE	0506	0.00	0.00	0.00	0.0000	0	0.83	0.32	0.00	0.00
GWT	BASE	0607	0.00	0.00	0.00	0.0000	0	0.92	0.34	0.00	0.00
GWT	BASE	0708	0.00	0.00	0.00	0.0000	0	0.93	0.35	0.00	0.00
GWT	BASE	0809	0.00	0.00	0.00	0.0000	0	0.90	0.36	0.00	0.00
GWT	BASE	091	0.00	0.00	0.00	0.0000	0	0.88	0.37	0.00	0.00
GWT	BASE	1-15	0.00	0.00	0.00	0.0000	0	0.83	0.39	0.00	0.00
GWT	BASE	15-2	0.00	0.00	0.00	0.0000	0	1.47	0.32	0.00	0.00
GWT	BASE	2-3	0.00	0.00	0.00	0.0000	0	1.28	0.34	0.00	0.00
GWT	BASE	3-4	0.00	0.00	0.00	0.0000	0	1.10	0.34	0.00	0.00
GWT	BASE	4-5	0.00	0.00	0.00	0.0000	0	4.21	0.31	0.00	0.00
GWT	BASE	5-6	0.00	0.00	0.00	0.0000	0	4.07	0.37	0.00	0.00
GWT	BASE	6-7	0.00	0.00	0.00	0.0000	0	3.94	0.39	0.00	0.00
GWT	BASE	8	0.00	0.00	0.00	0.0000	0	11.33	0.19	0.00	0.00
SurfaceOutflow	BASE	001	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0102	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0203	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0304	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0405	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0506	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0607	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0708	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	0809	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	091	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	1-15	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	15-2	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	2-3	0.00	100.00	103.00	100.0000	0	0.00	0.00	0.00	0.00
SurfaceOutflow	BASE	3-4	0.00	100.00	103.00	100.0000	0	3.64	0.01	0.00	0.00
SurfaceOutflow	BASE	4-5	0.00	100.00	103.00	100.0000	0	5.15	0.20	0.00	0.00

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
SurfaceOutflow	BASE	5-6	0.00	100.00	103.00	100.0000	0	4.27	0.87	0.00	0.00
SurfaceOutflow	BASE	6-7	0.00	100.00	103.00	100.0000	0	4.14	1.47	0.00	0.00
SurfaceOutflow	BASE	8	0.00	100.00	103.00	100.0000	0	12.08	0.59	0.00	0.00

Post-Improvement Conditions - Using CN - HSG D Assumed

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
3-4	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
3-4	Ditch Pond	BASE	0.50	102.51	104.00	2241	0.06	0.00	0.0012	0.0000
3-4	Ditch Pond	BASE	1.01	102.68	104.00	2819	0.36	0.01	0.0099	0.0002
3-4	Ditch Pond	BASE	1.51	102.99	104.00	3860	0.79	0.04	0.0336	0.0012
3-4	Ditch Pond	BASE	2.00	103.40	104.00	5260	1.36	0.08	0.0777	0.0036
3-4	Ditch Pond	BASE	2.50	103.78	104.00	6517	1.29	0.19	0.1327	0.0092
3-4	Ditch Pond	BASE	3.00	103.88	104.00	6874	0.92	0.89	0.1781	0.0314
3-4	Ditch Pond	BASE	3.50	103.84	104.00	6740	0.39	0.55	0.2053	0.0610
3-4	Ditch Pond	BASE	4.00	103.80	104.00	6600	0.15	0.26	0.2165	0.0778
3-4	Ditch Pond	BASE	4.50	103.77	104.00	6494	0.02	0.11	0.2200	0.0855
3-4	Ditch Pond	BASE	5.00	103.75	104.00	6423	0.00	0.06	0.2204	0.0892
3-4	Ditch Pond	BASE	5.50	103.73	104.00	6365	0.00	0.06	0.2204	0.0917
3-4	Ditch Pond	BASE	6.00	103.71	104.00	6314	0.00	0.05	0.2204	0.0939
3-4	Ditch Pond	BASE	6.50	103.70	104.00	6267	0.00	0.05	0.2204	0.0959
3-4	Ditch Pond	BASE	7.00	103.69	104.00	6224	0.00	0.04	0.2204	0.0978
3-4	Ditch Pond	BASE	7.50	103.68	104.00	6184	0.00	0.04	0.2204	0.0995
3-4	Ditch Pond	BASE	8.00	103.67	104.00	6147	0.00	0.04	0.2204	0.1010
3-4	Ditch Pond	BASE	8.01	103.67	104.00	6147	0.00	0.04	0.2204	0.1011
3-4	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
3-4	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
3-4	GWT	BASE	1.01	0.00	0.00	0	0.01	0.00	0.0002	0.0000
3-4	GWT	BASE	1.51	0.00	0.00	0	0.04	0.00	0.0012	0.0000
3-4	GWT	BASE	2.00	0.00	0.00	0	0.08	0.00	0.0036	0.0000
3-4	GWT	BASE	2.50	0.00	0.00	0	0.13	0.00	0.0079	0.0000
3-4	GWT	BASE	3.00	0.00	0.00	0	0.13	0.00	0.0131	0.0000
3-4	GWT	BASE	3.50	0.00	0.00	0	0.10	0.00	0.0179	0.0000
3-4	GWT	BASE	4.00	0.00	0.00	0	0.09	0.00	0.0219	0.0000
3-4	GWT	BASE	4.50	0.00	0.00	0	0.07	0.00	0.0252	0.0000
3-4	GWT	BASE	5.00	0.00	0.00	0	0.06	0.00	0.0280	0.0000
3-4	GWT	BASE	5.50	0.00	0.00	0	0.06	0.00	0.0305	0.0000
3-4	GWT	BASE	6.00	0.00	0.00	0	0.05	0.00	0.0328	0.0000
3-4	GWT	BASE	6.50	0.00	0.00	0	0.05	0.00	0.0348	0.0000
3-4	GWT	BASE	7.00	0.00	0.00	0	0.04	0.00	0.0366	0.0000
3-4	GWT	BASE	7.50	0.00	0.00	0	0.04	0.00	0.0383	0.0000
3-4	GWT	BASE	8.00	0.00	0.00	0	0.04	0.00	0.0399	0.0000
3-4	GWT	BASE	8.01	0.00	0.00	0	0.04	0.00	0.0399	0.0000
3-4	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	1.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	1.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	2.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
3-4	SurfaceOutflow	BASE	2.50	100.00	103.00	0	0.06	0.00	0.0013	0.0000
3-4	SurfaceOutflow	BASE	3.00	100.00	103.00	0	0.76	0.00	0.0182	0.0000
3-4	SurfaceOutflow	BASE	3.50	100.00	103.00	0	0.44	0.00	0.0431	0.0000
3-4	SurfaceOutflow	BASE	4.00	100.00	103.00	0	0.18	0.00	0.0559	0.0000
3-4	SurfaceOutflow	BASE	4.50	100.00	103.00	0	0.04	0.00	0.0603	0.0000
3-4	SurfaceOutflow	BASE	5.00	100.00	103.00	0	0.00	0.00	0.0612	0.0000
3-4	SurfaceOutflow	BASE	5.50	100.00	103.00	0	0.00	0.00	0.0612	0.0000
3-4	SurfaceOutflow	BASE	6.00	100.00	103.00	0	0.00	0.00	0.0612	0.0000
3-4	SurfaceOutflow	BASE	6.50	100.00	103.00	0	0.00	0.00	0.0612	0.0000
3-4	SurfaceOutflow	BASE	7.00	100.00	103.00	0	0.00	0.00	0.0612	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
3-4	SurfaceOutflow	BASE	7.50	100.00	103.00	0	0.00	0.00	0.0612	0.0000
3-4	SurfaceOutflow	BASE	8.00	100.00	103.00	0	0.00	0.00	0.0612	0.0000
3-4	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.00	0.00	0.0612	0.0000
4-5	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
4-5	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
4-5	Ditch Pond	BASE	1.02	102.50	104.00	2222	0.00	0.00	0.0001	0.0000
4-5	Ditch Pond	BASE	1.51	102.60	104.00	2547	0.23	0.01	0.0047	0.0001
4-5	Ditch Pond	BASE	2.00	102.75	104.00	3065	0.27	0.02	0.0148	0.0005
4-5	Ditch Pond	BASE	2.51	102.92	104.00	3643	0.39	0.03	0.0286	0.0015
4-5	Ditch Pond	BASE	3.00	103.10	104.00	4235	0.46	0.04	0.0459	0.0029
4-5	Ditch Pond	BASE	3.51	103.43	104.00	5365	1.31	0.08	0.0826	0.0055
4-5	Ditch Pond	BASE	4.00	103.83	104.00	6686	1.54	0.46	0.1411	0.0166
4-5	Ditch Pond	BASE	4.51	103.88	104.00	6864	0.74	0.85	0.1892	0.0443
4-5	Ditch Pond	BASE	5.01	103.86	104.00	6790	0.62	0.66	0.2169	0.0751
4-5	Ditch Pond	BASE	5.51	103.82	104.00	6679	0.29	0.40	0.2355	0.0970
4-5	Ditch Pond	BASE	6.01	103.80	104.00	6611	0.23	0.27	0.2463	0.1109
4-5	Ditch Pond	BASE	6.51	103.80	104.00	6585	0.20	0.22	0.2553	0.1210
4-5	Ditch Pond	BASE	7.01	103.79	104.00	6575	0.20	0.20	0.2635	0.1297
4-5	Ditch Pond	BASE	7.51	103.78	104.00	6549	0.13	0.16	0.2702	0.1372
4-5	Ditch Pond	BASE	8.01	103.78	104.00	6530	0.12	0.13	0.2753	0.1432
4-5	Ditch Pond	BASE	8.51	103.76	104.00	6482	0.02	0.08	0.2781	0.1474
4-5	Ditch Pond	BASE	9.01	103.75	104.00	6434	0.00	0.04	0.2784	0.1499
4-5	Ditch Pond	BASE	9.51	103.74	104.00	6395	0.00	0.04	0.2784	0.1516
4-5	Ditch Pond	BASE	10.01	103.73	104.00	6358	0.00	0.04	0.2784	0.1532
4-5	Ditch Pond	BASE	10.51	103.72	104.00	6323	0.00	0.04	0.2784	0.1547
4-5	Ditch Pond	BASE	11.01	103.71	104.00	6291	0.00	0.03	0.2784	0.1561
4-5	Ditch Pond	BASE	11.51	103.70	104.00	6260	0.00	0.03	0.2784	0.1575
4-5	Ditch Pond	BASE	12.01	103.69	104.00	6230	0.00	0.03	0.2784	0.1587
4-5	Ditch Pond	BASE	12.01	103.69	104.00	6230	0.00	0.03	0.2784	0.1587
4-5	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
4-5	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
4-5	GWT	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
4-5	GWT	BASE	1.51	0.00	0.00	0	0.01	0.00	0.0001	0.0000
4-5	GWT	BASE	2.00	0.00	0.00	0	0.02	0.00	0.0005	0.0000
4-5	GWT	BASE	2.51	0.00	0.00	0	0.03	0.00	0.0015	0.0000
4-5	GWT	BASE	3.00	0.00	0.00	0	0.04	0.00	0.0029	0.0000
4-5	GWT	BASE	3.51	0.00	0.00	0	0.08	0.00	0.0055	0.0000
4-5	GWT	BASE	4.00	0.00	0.00	0	0.13	0.00	0.0098	0.0000
4-5	GWT	BASE	4.51	0.00	0.00	0	0.12	0.00	0.0151	0.0000
4-5	GWT	BASE	5.01	0.00	0.00	0	0.10	0.00	0.0196	0.0000
4-5	GWT	BASE	5.51	0.00	0.00	0	0.09	0.00	0.0235	0.0000
4-5	GWT	BASE	6.01	0.00	0.00	0	0.07	0.00	0.0269	0.0000
4-5	GWT	BASE	6.51	0.00	0.00	0	0.07	0.00	0.0298	0.0000
4-5	GWT	BASE	7.01	0.00	0.00	0	0.06	0.00	0.0325	0.0000
4-5	GWT	BASE	7.51	0.00	0.00	0	0.06	0.00	0.0349	0.0000
4-5	GWT	BASE	8.01	0.00	0.00	0	0.05	0.00	0.0371	0.0000
4-5	GWT	BASE	8.51	0.00	0.00	0	0.05	0.00	0.0392	0.0000
4-5	GWT	BASE	9.01	0.00	0.00	0	0.04	0.00	0.0410	0.0000
4-5	GWT	BASE	9.51	0.00	0.00	0	0.04	0.00	0.0428	0.0000
4-5	GWT	BASE	10.01	0.00	0.00	0	0.04	0.00	0.0444	0.0000
4-5	GWT	BASE	10.51	0.00	0.00	0	0.04	0.00	0.0458	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
4-5	GWT	BASE	11.01	0.00	0.00	0	0.03	0.00	0.0473	0.0000
4-5	GWT	BASE	11.51	0.00	0.00	0	0.03	0.00	0.0486	0.0000
4-5	GWT	BASE	12.01	0.00	0.00	0	0.03	0.00	0.0498	0.0000
4-5	GWT	BASE	12.01	0.00	0.00	0	0.03	0.00	0.0499	0.0000
4-5	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	1.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	2.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	2.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	3.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	3.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
4-5	SurfaceOutflow	BASE	4.00	100.00	103.00	0	0.33	0.00	0.0068	0.0000
4-5	SurfaceOutflow	BASE	4.51	100.00	103.00	0	0.73	0.00	0.0292	0.0000
4-5	SurfaceOutflow	BASE	5.01	100.00	103.00	0	0.55	0.00	0.0555	0.0000
4-5	SurfaceOutflow	BASE	5.51	100.00	103.00	0	0.32	0.00	0.0734	0.0000
4-5	SurfaceOutflow	BASE	6.01	100.00	103.00	0	0.20	0.00	0.0840	0.0000
4-5	SurfaceOutflow	BASE	6.51	100.00	103.00	0	0.15	0.00	0.0912	0.0000
4-5	SurfaceOutflow	BASE	7.01	100.00	103.00	0	0.14	0.00	0.0973	0.0000
4-5	SurfaceOutflow	BASE	7.51	100.00	103.00	0	0.10	0.00	0.1023	0.0000
4-5	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.08	0.00	0.1061	0.0000
4-5	SurfaceOutflow	BASE	8.51	100.00	103.00	0	0.03	0.00	0.1083	0.0000
4-5	SurfaceOutflow	BASE	9.01	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	9.51	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	10.01	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	10.51	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	11.01	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	11.51	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	12.01	100.00	103.00	0	0.00	0.00	0.1089	0.0000
4-5	SurfaceOutflow	BASE	12.01	100.00	103.00	0	0.00	0.00	0.1089	0.0000
5-6	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
5-6	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
5-6	Ditch Pond	BASE	1.02	102.50	104.00	2227	0.03	0.00	0.0006	0.0000
5-6	Ditch Pond	BASE	1.50	102.64	104.00	2693	0.30	0.01	0.0072	0.0002
5-6	Ditch Pond	BASE	2.01	102.83	104.00	3343	0.37	0.02	0.0210	0.0008
5-6	Ditch Pond	BASE	2.51	103.05	104.00	4062	0.55	0.04	0.0399	0.0021
5-6	Ditch Pond	BASE	3.01	103.27	104.00	4808	0.64	0.06	0.0647	0.0042
5-6	Ditch Pond	BASE	3.50	103.66	104.00	6146	1.79	0.11	0.1140	0.0076
5-6	Ditch Pond	BASE	4.00	103.97	104.00	7161	2.08	1.75	0.1946	0.0465
5-6	Ditch Pond	BASE	4.51	103.92	104.00	7000	0.99	1.22	0.2588	0.1089
5-6	Ditch Pond	BASE	5.01	103.88	104.00	6881	0.82	0.87	0.2961	0.1522
5-6	Ditch Pond	BASE	5.51	103.84	104.00	6739	0.38	0.52	0.3208	0.1810
5-6	Ditch Pond	BASE	6.01	103.82	104.00	6660	0.31	0.35	0.3351	0.1991
5-6	Ditch Pond	BASE	6.51	103.81	104.00	6630	0.27	0.29	0.3471	0.2123
5-6	Ditch Pond	BASE	7.01	103.81	104.00	6618	0.26	0.27	0.3580	0.2238
5-6	Ditch Pond	BASE	7.51	103.80	104.00	6586	0.17	0.21	0.3669	0.2336
5-6	Ditch Pond	BASE	8.01	103.79	104.00	6562	0.15	0.17	0.3736	0.2415
5-6	Ditch Pond	BASE	8.51	103.77	104.00	6503	0.02	0.09	0.3772	0.2469
5-6	Ditch Pond	BASE	9.01	103.75	104.00	6448	0.00	0.05	0.3776	0.2498
5-6	Ditch Pond	BASE	9.51	103.74	104.00	6410	0.00	0.04	0.3776	0.2515
5-6	Ditch Pond	BASE	10.01	103.73	104.00	6375	0.00	0.04	0.3776	0.2530

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
5-6	Ditch Pond	BASE	10.51	103.72	104.00	6342	0.00	0.03	0.3776	0.2545
5-6	Ditch Pond	BASE	11.01	103.71	104.00	6310	0.00	0.03	0.3776	0.2558
5-6	Ditch Pond	BASE	11.51	103.70	104.00	6280	0.00	0.03	0.3776	0.2571
5-6	Ditch Pond	BASE	12.00	103.70	104.00	6253	0.00	0.03	0.3776	0.2583
5-6	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
5-6	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
5-6	GWT	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
5-6	GWT	BASE	1.50	0.00	0.00	0	0.01	0.00	0.0002	0.0000
5-6	GWT	BASE	2.01	0.00	0.00	0	0.02	0.00	0.0008	0.0000
5-6	GWT	BASE	2.51	0.00	0.00	0	0.04	0.00	0.0021	0.0000
5-6	GWT	BASE	3.01	0.00	0.00	0	0.06	0.00	0.0042	0.0000
5-6	GWT	BASE	3.50	0.00	0.00	0	0.11	0.00	0.0076	0.0000
5-6	GWT	BASE	4.00	0.00	0.00	0	0.14	0.00	0.0129	0.0000
5-6	GWT	BASE	4.51	0.00	0.00	0	0.12	0.00	0.0184	0.0000
5-6	GWT	BASE	5.01	0.00	0.00	0	0.10	0.00	0.0228	0.0000
5-6	GWT	BASE	5.51	0.00	0.00	0	0.08	0.00	0.0265	0.0000
5-6	GWT	BASE	6.01	0.00	0.00	0	0.07	0.00	0.0296	0.0000
5-6	GWT	BASE	6.51	0.00	0.00	0	0.06	0.00	0.0323	0.0000
5-6	GWT	BASE	7.01	0.00	0.00	0	0.06	0.00	0.0348	0.0000
5-6	GWT	BASE	7.51	0.00	0.00	0	0.05	0.00	0.0371	0.0000
5-6	GWT	BASE	8.01	0.00	0.00	0	0.05	0.00	0.0392	0.0000
5-6	GWT	BASE	8.51	0.00	0.00	0	0.04	0.00	0.0412	0.0000
5-6	GWT	BASE	9.01	0.00	0.00	0	0.04	0.00	0.0429	0.0000
5-6	GWT	BASE	9.51	0.00	0.00	0	0.04	0.00	0.0446	0.0000
5-6	GWT	BASE	10.01	0.00	0.00	0	0.04	0.00	0.0461	0.0000
5-6	GWT	BASE	10.51	0.00	0.00	0	0.03	0.00	0.0475	0.0000
5-6	GWT	BASE	11.01	0.00	0.00	0	0.03	0.00	0.0489	0.0000
5-6	GWT	BASE	11.51	0.00	0.00	0	0.03	0.00	0.0502	0.0000
5-6	GWT	BASE	12.00	0.00	0.00	0	0.03	0.00	0.0514	0.0000
5-6	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	1.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	2.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	2.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	3.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	3.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
5-6	SurfaceOutflow	BASE	4.00	100.00	103.00	0	1.61	0.00	0.0336	0.0000
5-6	SurfaceOutflow	BASE	4.51	100.00	103.00	0	1.11	0.00	0.0905	0.0000
5-6	SurfaceOutflow	BASE	5.01	100.00	103.00	0	0.78	0.00	0.1294	0.0000
5-6	SurfaceOutflow	BASE	5.51	100.00	103.00	0	0.44	0.00	0.1546	0.0000
5-6	SurfaceOutflow	BASE	6.01	100.00	103.00	0	0.28	0.00	0.1695	0.0000
5-6	SurfaceOutflow	BASE	6.51	100.00	103.00	0	0.23	0.00	0.1800	0.0000
5-6	SurfaceOutflow	BASE	7.01	100.00	103.00	0	0.21	0.00	0.1890	0.0000
5-6	SurfaceOutflow	BASE	7.51	100.00	103.00	0	0.16	0.00	0.1965	0.0000
5-6	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.12	0.00	0.2022	0.0000
5-6	SurfaceOutflow	BASE	8.51	100.00	103.00	0	0.05	0.00	0.2057	0.0000
5-6	SurfaceOutflow	BASE	9.01	100.00	103.00	0	0.00	0.00	0.2068	0.0000
5-6	SurfaceOutflow	BASE	9.51	100.00	103.00	0	0.00	0.00	0.2069	0.0000
5-6	SurfaceOutflow	BASE	10.01	100.00	103.00	0	0.00	0.00	0.2069	0.0000
5-6	SurfaceOutflow	BASE	10.51	100.00	103.00	0	0.00	0.00	0.2069	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
5-6	SurfaceOutflow	BASE	11.01	100.00	103.00	0	0.00	0.00	0.2069	0.0000
5-6	SurfaceOutflow	BASE	11.51	100.00	103.00	0	0.00	0.00	0.2069	0.0000
5-6	SurfaceOutflow	BASE	12.00	100.00	103.00	0	0.00	0.00	0.2069	0.0000
6-7	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
6-7	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
6-7	Ditch Pond	BASE	1.02	102.51	104.00	2248	0.05	0.00	0.0011	0.0000
6-7	Ditch Pond	BASE	1.51	102.67	104.00	2789	0.35	0.01	0.0092	0.0002
6-7	Ditch Pond	BASE	2.01	102.88	104.00	3516	0.43	0.03	0.0254	0.0010
6-7	Ditch Pond	BASE	2.51	103.12	104.00	4322	0.65	0.05	0.0478	0.0025
6-7	Ditch Pond	BASE	3.00	103.37	104.00	5140	0.75	0.07	0.0764	0.0049
6-7	Ditch Pond	BASE	3.50	103.81	104.00	6619	2.10	0.34	0.1354	0.0134
6-7	Ditch Pond	BASE	4.00	104.01	104.00	7298	2.43	2.23	0.2285	0.0663
6-7	Ditch Pond	BASE	4.51	103.94	104.00	7066	1.15	1.42	0.3042	0.1435
6-7	Ditch Pond	BASE	5.01	103.90	104.00	6933	0.95	1.01	0.3474	0.1937
6-7	Ditch Pond	BASE	5.51	103.85	104.00	6774	0.44	0.59	0.3760	0.2268
6-7	Ditch Pond	BASE	6.01	103.83	104.00	6689	0.36	0.40	0.3926	0.2474
6-7	Ditch Pond	BASE	6.51	103.82	104.00	6655	0.31	0.33	0.4064	0.2627
6-7	Ditch Pond	BASE	7.01	103.81	104.00	6643	0.30	0.31	0.4190	0.2759
6-7	Ditch Pond	BASE	7.51	103.80	104.00	6606	0.20	0.24	0.4293	0.2872
6-7	Ditch Pond	BASE	8.01	103.79	104.00	6581	0.18	0.20	0.4371	0.2962
6-7	Ditch Pond	BASE	8.51	103.77	104.00	6514	0.02	0.10	0.4413	0.3024
6-7	Ditch Pond	BASE	9.01	103.76	104.00	6454	0.00	0.05	0.4417	0.3055
6-7	Ditch Pond	BASE	9.51	103.75	104.00	6416	0.00	0.04	0.4417	0.3073
6-7	Ditch Pond	BASE	10.01	103.74	104.00	6382	0.00	0.03	0.4417	0.3088
6-7	Ditch Pond	BASE	10.51	103.73	104.00	6350	0.00	0.03	0.4417	0.3102
6-7	Ditch Pond	BASE	11.01	103.72	104.00	6319	0.00	0.03	0.4417	0.3115
6-7	Ditch Pond	BASE	11.51	103.71	104.00	6290	0.00	0.03	0.4417	0.3128
6-7	Ditch Pond	BASE	12.00	103.70	104.00	6263	0.00	0.03	0.4417	0.3139
6-7	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
6-7	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
6-7	GWT	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
6-7	GWT	BASE	1.51	0.00	0.00	0	0.01	0.00	0.0002	0.0000
6-7	GWT	BASE	2.01	0.00	0.00	0	0.03	0.00	0.0010	0.0000
6-7	GWT	BASE	2.51	0.00	0.00	0	0.05	0.00	0.0025	0.0000
6-7	GWT	BASE	3.00	0.00	0.00	0	0.07	0.00	0.0049	0.0000
6-7	GWT	BASE	3.50	0.00	0.00	0	0.13	0.00	0.0091	0.0000
6-7	GWT	BASE	4.00	0.00	0.00	0	0.15	0.00	0.0148	0.0000
6-7	GWT	BASE	4.51	0.00	0.00	0	0.11	0.00	0.0202	0.0000
6-7	GWT	BASE	5.01	0.00	0.00	0	0.09	0.00	0.0246	0.0000
6-7	GWT	BASE	5.51	0.00	0.00	0	0.08	0.00	0.0281	0.0000
6-7	GWT	BASE	6.01	0.00	0.00	0	0.07	0.00	0.0311	0.0000
6-7	GWT	BASE	6.51	0.00	0.00	0	0.06	0.00	0.0338	0.0000
6-7	GWT	BASE	7.01	0.00	0.00	0	0.06	0.00	0.0362	0.0000
6-7	GWT	BASE	7.51	0.00	0.00	0	0.05	0.00	0.0385	0.0000
6-7	GWT	BASE	8.01	0.00	0.00	0	0.05	0.00	0.0405	0.0000
6-7	GWT	BASE	8.51	0.00	0.00	0	0.04	0.00	0.0424	0.0000
6-7	GWT	BASE	9.01	0.00	0.00	0	0.04	0.00	0.0441	0.0000
6-7	GWT	BASE	9.51	0.00	0.00	0	0.04	0.00	0.0457	0.0000
6-7	GWT	BASE	10.01	0.00	0.00	0	0.03	0.00	0.0472	0.0000
6-7	GWT	BASE	10.51	0.00	0.00	0	0.03	0.00	0.0486	0.0000
6-7	GWT	BASE	11.01	0.00	0.00	0	0.03	0.00	0.0499	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
6-7	GWT	BASE	11.51	0.00	0.00	0	0.03	0.00	0.0512	0.0000
6-7	GWT	BASE	12.00	0.00	0.00	0	0.03	0.00	0.0524	0.0000
6-7	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	1.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	2.01	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	2.51	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	3.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
6-7	SurfaceOutflow	BASE	3.50	100.00	103.00	0	0.21	0.00	0.0043	0.0000
6-7	SurfaceOutflow	BASE	4.00	100.00	103.00	0	2.09	0.00	0.0515	0.0000
6-7	SurfaceOutflow	BASE	4.51	100.00	103.00	0	1.30	0.00	0.1233	0.0000
6-7	SurfaceOutflow	BASE	5.01	100.00	103.00	0	0.92	0.00	0.1691	0.0000
6-7	SurfaceOutflow	BASE	5.51	100.00	103.00	0	0.52	0.00	0.1987	0.0000
6-7	SurfaceOutflow	BASE	6.01	100.00	103.00	0	0.34	0.00	0.2163	0.0000
6-7	SurfaceOutflow	BASE	6.51	100.00	103.00	0	0.27	0.00	0.2289	0.0000
6-7	SurfaceOutflow	BASE	7.01	100.00	103.00	0	0.25	0.00	0.2397	0.0000
6-7	SurfaceOutflow	BASE	7.51	100.00	103.00	0	0.19	0.00	0.2487	0.0000
6-7	SurfaceOutflow	BASE	8.01	100.00	103.00	0	0.15	0.00	0.2557	0.0000
6-7	SurfaceOutflow	BASE	8.51	100.00	103.00	0	0.06	0.00	0.2600	0.0000
6-7	SurfaceOutflow	BASE	9.01	100.00	103.00	0	0.01	0.00	0.2614	0.0000
6-7	SurfaceOutflow	BASE	9.51	100.00	103.00	0	0.00	0.00	0.2616	0.0000
6-7	SurfaceOutflow	BASE	10.01	100.00	103.00	0	0.00	0.00	0.2616	0.0000
6-7	SurfaceOutflow	BASE	10.51	100.00	103.00	0	0.00	0.00	0.2616	0.0000
6-7	SurfaceOutflow	BASE	11.01	100.00	103.00	0	0.00	0.00	0.2616	0.0000
6-7	SurfaceOutflow	BASE	11.51	100.00	103.00	0	0.00	0.00	0.2616	0.0000
6-7	SurfaceOutflow	BASE	12.00	100.00	103.00	0	0.00	0.00	0.2616	0.0000
8	Ditch Pond	BASE	0.00	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
8	Ditch Pond	BASE	0.50	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
8	Ditch Pond	BASE	1.02	102.50	104.00	2222	0.00	0.00	0.0000	0.0000
8	Ditch Pond	BASE	1.52	102.54	104.00	2342	0.08	0.00	0.0018	0.0000
8	Ditch Pond	BASE	2.02	102.60	104.00	2569	0.10	0.01	0.0056	0.0002
8	Ditch Pond	BASE	2.52	102.68	104.00	2840	0.14	0.01	0.0107	0.0005
8	Ditch Pond	BASE	3.02	102.77	104.00	3117	0.15	0.02	0.0169	0.0011
8	Ditch Pond	BASE	3.52	102.84	104.00	3375	0.16	0.02	0.0233	0.0018
8	Ditch Pond	BASE	4.02	102.92	104.00	3622	0.17	0.03	0.0302	0.0028
8	Ditch Pond	BASE	4.52	102.99	104.00	3862	0.18	0.03	0.0374	0.0039
8	Ditch Pond	BASE	5.02	103.06	104.00	4094	0.19	0.03	0.0450	0.0052
8	Ditch Pond	BASE	5.52	103.14	104.00	4366	0.25	0.04	0.0541	0.0068
8	Ditch Pond	BASE	6.02	103.22	104.00	4661	0.27	0.05	0.0649	0.0085
8	Ditch Pond	BASE	6.52	103.31	104.00	4946	0.28	0.05	0.0762	0.0105
8	Ditch Pond	BASE	7.02	103.39	104.00	5218	0.28	0.06	0.0878	0.0127
8	Ditch Pond	BASE	7.52	103.47	104.00	5480	0.29	0.06	0.0997	0.0151
8	Ditch Pond	BASE	8.02	103.54	104.00	5731	0.30	0.06	0.1120	0.0177
8	Ditch Pond	BASE	8.52	103.64	104.00	6056	0.43	0.07	0.1272	0.0205
8	Ditch Pond	BASE	9.02	103.75	104.00	6423	0.46	0.08	0.1458	0.0236
8	Ditch Pond	BASE	9.52	103.82	104.00	6656	0.47	0.35	0.1650	0.0325
8	Ditch Pond	BASE	10.02	103.83	104.00	6709	0.48	0.45	0.1847	0.0492
8	Ditch Pond	BASE	10.52	103.85	104.00	6766	0.62	0.57	0.2075	0.0703
8	Ditch Pond	BASE	11.02	103.86	104.00	6797	0.66	0.64	0.2339	0.0952
8	Ditch Pond	BASE	11.52	103.87	104.00	6847	0.80	0.75	0.2641	0.1239

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	Ditch Pond	BASE	12.02	103.88	104.00	6873	0.82	0.82	0.2977	0.1563
8	Ditch Pond	BASE	12.52	103.86	104.00	6819	0.62	0.68	0.3274	0.1871
8	Ditch Pond	BASE	13.02	103.86	104.00	6789	0.59	0.60	0.3523	0.2135
8	Ditch Pond	BASE	13.52	103.85	104.00	6764	0.52	0.54	0.3751	0.2371
8	Ditch Pond	BASE	14.02	103.85	104.00	6753	0.51	0.51	0.3963	0.2588
8	Ditch Pond	BASE	14.52	103.84	104.00	6752	0.51	0.51	0.4174	0.2800
8	Ditch Pond	BASE	15.02	103.84	104.00	6752	0.51	0.51	0.4384	0.3010
8	Ditch Pond	BASE	15.52	103.84	104.00	6731	0.44	0.46	0.4579	0.3210
8	Ditch Pond	BASE	16.02	103.83	104.00	6718	0.42	0.43	0.4758	0.3395
8	Ditch Pond	BASE	16.52	103.83	104.00	6693	0.35	0.38	0.4919	0.3563
8	Ditch Pond	BASE	17.02	103.82	104.00	6679	0.34	0.35	0.5063	0.3714
8	Ditch Pond	BASE	17.52	103.82	104.00	6676	0.34	0.34	0.5205	0.3857
8	Ditch Pond	BASE	18.02	103.82	104.00	6676	0.34	0.34	0.5346	0.3999
8	Ditch Pond	BASE	18.52	103.82	104.00	6676	0.34	0.34	0.5489	0.4141
8	Ditch Pond	BASE	19.02	103.82	104.00	6676	0.34	0.34	0.5630	0.4283
8	Ditch Pond	BASE	19.52	103.82	104.00	6652	0.27	0.30	0.5757	0.4416
8	Ditch Pond	BASE	20.02	103.81	104.00	6636	0.26	0.27	0.5866	0.4532
8	Ditch Pond	BASE	20.52	103.81	104.00	6633	0.26	0.26	0.5973	0.4641
8	Ditch Pond	BASE	21.02	103.81	104.00	6632	0.26	0.26	0.6080	0.4749
8	Ditch Pond	BASE	21.52	103.80	104.00	6606	0.18	0.21	0.6171	0.4846
8	Ditch Pond	BASE	22.02	103.80	104.00	6587	0.17	0.18	0.6244	0.4929
8	Ditch Pond	BASE	22.52	103.79	104.00	6554	0.10	0.13	0.6299	0.4994
8	Ditch Pond	BASE	23.02	103.78	104.00	6530	0.09	0.10	0.6337	0.5043
8	Ditch Pond	BASE	23.52	103.78	104.00	6521	0.09	0.09	0.6373	0.5083
8	Ditch Pond	BASE	24.02	103.78	104.00	6517	0.00	0.09	0.6391	0.5120
8	Ditch Pond	BASE	24.52	103.76	104.00	6464	0.00	0.04	0.6391	0.5145
8	Ditch Pond	BASE	25.02	103.75	104.00	6438	0.00	0.02	0.6391	0.5157
8	Ditch Pond	BASE	25.52	103.75	104.00	6419	0.00	0.02	0.6391	0.5166
8	Ditch Pond	BASE	26.02	103.74	104.00	6401	0.00	0.02	0.6391	0.5174
8	Ditch Pond	BASE	26.52	103.74	104.00	6382	0.00	0.02	0.6391	0.5182
8	Ditch Pond	BASE	27.02	103.73	104.00	6364	0.00	0.02	0.6391	0.5190
8	Ditch Pond	BASE	27.52	103.72	104.00	6347	0.00	0.02	0.6391	0.5197
8	Ditch Pond	BASE	28.02	103.72	104.00	6330	0.00	0.02	0.6391	0.5205
8	Ditch Pond	BASE	28.52	103.71	104.00	6313	0.00	0.02	0.6391	0.5212
8	Ditch Pond	BASE	29.02	103.71	104.00	6296	0.00	0.02	0.6391	0.5219
8	Ditch Pond	BASE	29.52	103.70	104.00	6280	0.00	0.02	0.6391	0.5226
8	Ditch Pond	BASE	30.01	103.70	104.00	6264	0.00	0.02	0.6391	0.5233
8	GWT	BASE	0.00	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	0.50	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	1.02	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	1.52	0.00	0.00	0	0.00	0.00	0.0000	0.0000
8	GWT	BASE	2.02	0.00	0.00	0	0.01	0.00	0.0002	0.0000
8	GWT	BASE	2.52	0.00	0.00	0	0.01	0.00	0.0005	0.0000
8	GWT	BASE	3.02	0.00	0.00	0	0.02	0.00	0.0011	0.0000
8	GWT	BASE	3.52	0.00	0.00	0	0.02	0.00	0.0018	0.0000
8	GWT	BASE	4.02	0.00	0.00	0	0.03	0.00	0.0028	0.0000
8	GWT	BASE	4.52	0.00	0.00	0	0.03	0.00	0.0039	0.0000
8	GWT	BASE	5.02	0.00	0.00	0	0.03	0.00	0.0052	0.0000
8	GWT	BASE	5.52	0.00	0.00	0	0.04	0.00	0.0068	0.0000
8	GWT	BASE	6.02	0.00	0.00	0	0.05	0.00	0.0085	0.0000
8	GWT	BASE	6.52	0.00	0.00	0	0.05	0.00	0.0105	0.0000
8	GWT	BASE	7.02	0.00	0.00	0	0.06	0.00	0.0127	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	GWT	BASE	7.52	0.00	0.00	0	0.06	0.00	0.0151	0.0000
8	GWT	BASE	8.02	0.00	0.00	0	0.06	0.00	0.0177	0.0000
8	GWT	BASE	8.52	0.00	0.00	0	0.07	0.00	0.0205	0.0000
8	GWT	BASE	9.02	0.00	0.00	0	0.08	0.00	0.0236	0.0000
8	GWT	BASE	9.52	0.00	0.00	0	0.08	0.00	0.0269	0.0000
8	GWT	BASE	10.02	0.00	0.00	0	0.08	0.00	0.0301	0.0000
8	GWT	BASE	10.52	0.00	0.00	0	0.07	0.00	0.0331	0.0000
8	GWT	BASE	11.02	0.00	0.00	0	0.07	0.00	0.0360	0.0000
8	GWT	BASE	11.52	0.00	0.00	0	0.06	0.00	0.0387	0.0000
8	GWT	BASE	12.02	0.00	0.00	0	0.06	0.00	0.0412	0.0000
8	GWT	BASE	12.52	0.00	0.00	0	0.05	0.00	0.0436	0.0000
8	GWT	BASE	13.02	0.00	0.00	0	0.05	0.00	0.0457	0.0000
8	GWT	BASE	13.52	0.00	0.00	0	0.05	0.00	0.0477	0.0000
8	GWT	BASE	14.02	0.00	0.00	0	0.04	0.00	0.0496	0.0000
8	GWT	BASE	14.52	0.00	0.00	0	0.04	0.00	0.0514	0.0000
8	GWT	BASE	15.02	0.00	0.00	0	0.04	0.00	0.0531	0.0000
8	GWT	BASE	15.52	0.00	0.00	0	0.04	0.00	0.0547	0.0000
8	GWT	BASE	16.02	0.00	0.00	0	0.04	0.00	0.0563	0.0000
8	GWT	BASE	16.52	0.00	0.00	0	0.04	0.00	0.0578	0.0000
8	GWT	BASE	17.02	0.00	0.00	0	0.03	0.00	0.0593	0.0000
8	GWT	BASE	17.52	0.00	0.00	0	0.03	0.00	0.0606	0.0000
8	GWT	BASE	18.02	0.00	0.00	0	0.03	0.00	0.0620	0.0000
8	GWT	BASE	18.52	0.00	0.00	0	0.03	0.00	0.0634	0.0000
8	GWT	BASE	19.02	0.00	0.00	0	0.03	0.00	0.0647	0.0000
8	GWT	BASE	19.52	0.00	0.00	0	0.03	0.00	0.0659	0.0000
8	GWT	BASE	20.02	0.00	0.00	0	0.03	0.00	0.0672	0.0000
8	GWT	BASE	20.52	0.00	0.00	0	0.03	0.00	0.0683	0.0000
8	GWT	BASE	21.02	0.00	0.00	0	0.03	0.00	0.0695	0.0000
8	GWT	BASE	21.52	0.00	0.00	0	0.03	0.00	0.0707	0.0000
8	GWT	BASE	22.02	0.00	0.00	0	0.03	0.00	0.0717	0.0000
8	GWT	BASE	22.52	0.00	0.00	0	0.02	0.00	0.0728	0.0000
8	GWT	BASE	23.02	0.00	0.00	0	0.02	0.00	0.0738	0.0000
8	GWT	BASE	23.52	0.00	0.00	0	0.02	0.00	0.0747	0.0000
8	GWT	BASE	24.02	0.00	0.00	0	0.02	0.00	0.0757	0.0000
8	GWT	BASE	24.52	0.00	0.00	0	0.02	0.00	0.0766	0.0000
8	GWT	BASE	25.02	0.00	0.00	0	0.02	0.00	0.0775	0.0000
8	GWT	BASE	25.52	0.00	0.00	0	0.02	0.00	0.0783	0.0000
8	GWT	BASE	26.02	0.00	0.00	0	0.02	0.00	0.0791	0.0000
8	GWT	BASE	26.52	0.00	0.00	0	0.02	0.00	0.0799	0.0000
8	GWT	BASE	27.02	0.00	0.00	0	0.02	0.00	0.0807	0.0000
8	GWT	BASE	27.52	0.00	0.00	0	0.02	0.00	0.0815	0.0000
8	GWT	BASE	28.02	0.00	0.00	0	0.02	0.00	0.0822	0.0000
8	GWT	BASE	28.52	0.00	0.00	0	0.02	0.00	0.0829	0.0000
8	GWT	BASE	29.02	0.00	0.00	0	0.02	0.00	0.0836	0.0000
8	GWT	BASE	29.52	0.00	0.00	0	0.02	0.00	0.0843	0.0000
8	GWT	BASE	30.01	0.00	0.00	0	0.02	0.00	0.0850	0.0000
8	SurfaceOutflow	BASE	0.00	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	0.50	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	1.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	1.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	2.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	2.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	SurfaceOutflow	BASE	3.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	3.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	4.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	4.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	5.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	5.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	6.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	6.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	7.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	7.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	8.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	8.52	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	9.02	100.00	103.00	0	0.00	0.00	0.0000	0.0000
8	SurfaceOutflow	BASE	9.52	100.00	103.00	0	0.27	0.00	0.0057	0.0000
8	SurfaceOutflow	BASE	10.02	100.00	103.00	0	0.38	0.00	0.0191	0.0000
8	SurfaceOutflow	BASE	10.52	100.00	103.00	0	0.50	0.00	0.0371	0.0000
8	SurfaceOutflow	BASE	11.02	100.00	103.00	0	0.57	0.00	0.0592	0.0000
8	SurfaceOutflow	BASE	11.52	100.00	103.00	0	0.69	0.00	0.0852	0.0000
8	SurfaceOutflow	BASE	12.02	100.00	103.00	0	0.76	0.00	0.1151	0.0000
8	SurfaceOutflow	BASE	12.52	100.00	103.00	0	0.62	0.00	0.1435	0.0000
8	SurfaceOutflow	BASE	13.02	100.00	103.00	0	0.55	0.00	0.1678	0.0000
8	SurfaceOutflow	BASE	13.52	100.00	103.00	0	0.49	0.00	0.1893	0.0000
8	SurfaceOutflow	BASE	14.02	100.00	103.00	0	0.47	0.00	0.2092	0.0000
8	SurfaceOutflow	BASE	14.52	100.00	103.00	0	0.47	0.00	0.2286	0.0000
8	SurfaceOutflow	BASE	15.02	100.00	103.00	0	0.47	0.00	0.2479	0.0000
8	SurfaceOutflow	BASE	15.52	100.00	103.00	0	0.42	0.00	0.2663	0.0000
8	SurfaceOutflow	BASE	16.02	100.00	103.00	0	0.40	0.00	0.2832	0.0000
8	SurfaceOutflow	BASE	16.52	100.00	103.00	0	0.34	0.00	0.2985	0.0000
8	SurfaceOutflow	BASE	17.02	100.00	103.00	0	0.32	0.00	0.3121	0.0000
8	SurfaceOutflow	BASE	17.52	100.00	103.00	0	0.31	0.00	0.3251	0.0000
8	SurfaceOutflow	BASE	18.02	100.00	103.00	0	0.31	0.00	0.3379	0.0000
8	SurfaceOutflow	BASE	18.52	100.00	103.00	0	0.31	0.00	0.3508	0.0000
8	SurfaceOutflow	BASE	19.02	100.00	103.00	0	0.31	0.00	0.3636	0.0000
8	SurfaceOutflow	BASE	19.52	100.00	103.00	0	0.27	0.00	0.3756	0.0000
8	SurfaceOutflow	BASE	20.02	100.00	103.00	0	0.24	0.00	0.3861	0.0000
8	SurfaceOutflow	BASE	20.52	100.00	103.00	0	0.23	0.00	0.3958	0.0000
8	SurfaceOutflow	BASE	21.02	100.00	103.00	0	0.23	0.00	0.4053	0.0000
8	SurfaceOutflow	BASE	21.52	100.00	103.00	0	0.19	0.00	0.4140	0.0000
8	SurfaceOutflow	BASE	22.02	100.00	103.00	0	0.16	0.00	0.4211	0.0000
8	SurfaceOutflow	BASE	22.52	100.00	103.00	0	0.11	0.00	0.4266	0.0000
8	SurfaceOutflow	BASE	23.02	100.00	103.00	0	0.08	0.00	0.4305	0.0000
8	SurfaceOutflow	BASE	23.52	100.00	103.00	0	0.07	0.00	0.4336	0.0000
8	SurfaceOutflow	BASE	24.02	100.00	103.00	0	0.06	0.00	0.4363	0.0000
8	SurfaceOutflow	BASE	24.52	100.00	103.00	0	0.01	0.00	0.4379	0.0000
8	SurfaceOutflow	BASE	25.02	100.00	103.00	0	0.00	0.00	0.4382	0.0000
8	SurfaceOutflow	BASE	25.52	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	26.02	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	26.52	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	27.02	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	27.52	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	28.02	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	28.52	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	29.02	100.00	103.00	0	0.00	0.00	0.4383	0.0000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
8	SurfaceOutflow	BASE	29.52	100.00	103.00	0	0.00	0.00	0.4383	0.0000
8	SurfaceOutflow	BASE	30.01	100.00	103.00	0	0.00	0.00	0.4383	0.0000

Post-Improvement Conditions - Using CN - HSG D Assumed

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
DitchBlock	BASE	001	0.00	0.00	0.000	0.00	102.50	0.00	100.00
DitchBlock	BASE	0102	0.00	0.00	0.000	1.53	102.57	0.00	100.00
DitchBlock	BASE	0203	0.00	0.00	0.000	1.49	102.65	0.00	100.00
DitchBlock	BASE	0304	0.00	0.00	0.000	1.48	102.71	0.00	100.00
DitchBlock	BASE	0405	0.00	0.00	0.000	2.25	102.76	0.00	100.00
DitchBlock	BASE	0506	0.00	0.00	0.000	2.25	102.82	0.00	100.00
DitchBlock	BASE	0607	0.00	0.00	0.000	2.25	102.87	0.00	100.00
DitchBlock	BASE	0708	0.00	0.00	0.000	2.24	102.91	0.00	100.00
DitchBlock	BASE	0809	0.00	0.00	0.000	2.24	102.97	0.00	100.00
DitchBlock	BASE	091	0.00	0.00	0.000	2.25	103.02	0.00	100.00
DitchBlock	BASE	1-15	0.00	0.00	0.000	2.25	103.18	0.00	100.00
DitchBlock	BASE	15-2	0.00	0.00	0.000	4.04	103.40	0.00	100.00
DitchBlock	BASE	2-3	0.00	0.00	0.000	4.05	103.71	0.00	100.00
DitchBlock	BASE	3-4	3.03	0.76	0.016	3.03	103.88	0.00	100.00
DitchBlock	BASE	4-5	4.27	0.83	0.021	4.27	103.89	0.00	100.00
DitchBlock	BASE	5-6	4.11	1.70	-0.030	4.11	103.97	0.00	100.00
DitchBlock	BASE	6-7	4.07	2.12	-0.041	4.07	104.01	0.00	100.00
DitchBlock	BASE	8	12.03	0.76	0.012	12.03	103.88	0.00	100.00
PA	BASE	001	0.00	0.00	0.000	0.00	102.50	0.00	0.00
PA	BASE	0102	1.42	0.00	0.000	1.53	102.57	0.00	0.00
PA	BASE	0203	1.36	0.01	0.000	1.49	102.65	0.00	0.00
PA	BASE	0304	1.33	0.01	0.000	1.48	102.71	0.00	0.00
PA	BASE	0405	1.98	0.01	0.000	2.25	102.76	0.00	0.00
PA	BASE	0506	1.95	0.02	0.000	2.25	102.82	0.00	0.00
PA	BASE	0607	1.95	0.02	0.000	2.25	102.87	0.00	0.00
PA	BASE	0708	1.94	0.03	0.000	2.24	102.91	0.00	0.00
PA	BASE	0809	1.92	0.03	0.000	2.24	102.97	0.00	0.00
PA	BASE	091	1.92	0.03	0.000	2.25	103.02	0.00	0.00
PA	BASE	1-15	1.89	0.05	0.000	2.25	103.18	0.00	0.00
PA	BASE	15-2	3.29	0.07	0.000	4.04	103.40	0.00	0.00
PA	BASE	2-3	3.23	0.10	0.000	4.05	103.71	0.00	0.00
PA	BASE	3-4	2.70	0.13	-0.001	3.03	103.88	0.00	0.00
PA	BASE	4-5	4.13	0.13	-0.001	4.27	103.89	0.00	0.00
PA	BASE	5-6	3.95	0.14	-0.001	4.11	103.97	0.00	0.00
PA	BASE	6-7	3.83	0.15	-0.001	4.07	104.01	0.00	0.00
PA	BASE	8	9.33	0.08	0.000	12.03	103.88	0.00	0.00

Appendix B

Excerpts from SJRWMD File of Record for ERP Application and Permit
Covering the Thornhill Drive Paving Project

SA-98 THORNHILL DRIVE

ENVIRONMENTAL RESOURCE PERMIT SUPPORT DOCUMENT

November, 2002

Griffey Engineering, Inc.
2001 Old Highway 441, Suite 2
Mount Dora, Florida 32757
Project # 02036RDW

11-6-02

SECTION B

STORMWATER SUMMARY & CALCULATIONS

SA-99 THORNHILL DRIVE
STORMWATER CALCULATIONS

PROJECT DESCRIPTION

This project is for the improvement and widening of one (1) existing unpaved residential road, Thornhill Drive. Thornhill Drive is owned and maintained by Lake County and is part of this years special assessment projects. The referenced property is located south of SR 46 in Mount Plymouth, Florida, Section 32, Township 19 south, Range 28 east. The proposed improvements to Thornhill Drive include replacing the existing residential dirt road with an asphalt-paved road and constructing a roadside swale to infiltrate stormwater runoff. No proposed construction will occur within wetlands.

METHODOLOGY

POST-DEVELOPMENT DRAINAGE BASIN-1

Basin-1 is composed of 0.98 acres of contributing watershed area. Stormwater runoff from the improved roadway flows down the superelevated section and is intercepted by the roadside swale system. The geometric properties of the swale segments were summed and modeled as a single swale for ease of calculations and data comparisons. The subsequent Ponds drawdown analysis demonstrates that the required treatment volume and total retention volume is infiltrated within 72 hours and 336 hours respectively for the 25-year, 24-hour and 25-year, 96-hour storm events. The pre/post-development volume difference generated by a 25-year, 24-hour storm event is retained within the roadside swale system. Likewise, the pre/post-development volume differenced generated by a 25-year, 96-hour storm event is retained within the roadside swale system. Please note that allowances for infiltration were included in the 25-year, 96-hour storm routing.

DATA CONSOLIDATION FOR PONDS ANALYSIS

Modeling of a swale drainage system requires several simplifications to the Ponds input data so that the software will perform infiltration and routing calculations. The data simplifications are due to the slope of the swale bottom (usually parallel to the slope of the roadway). The following assumptions and idealizations were used to facilitate the routing and infiltration calculations:

1. A single location along the length of the proposed roadway was selected to determine the "Aquifer Data" input values. The selected location for analysis was at the geotechnical soil boring location with the worst drainage characteristics, boring AB-1. The natural ground elevation at boring AB-1 was interpolated between existing contours on either side of the boring. Aquifer base elevation and seasonal high water elevation were determined by subtracting recommended depths in the geotechnical report from the interpolated natural ground elevation. This idealization depicts a constant depth from natural grade to the seasonal high water elevation over the length of the roadway.

2. Input values provided for the Equivalent Pond Length and Equivalent Pond Width data fields in the "Geometric Data" section were based on the typical swale cross-section dimensions. Equivalent Pond/Swale Length is not the sum of all swale

which impound stormwater. Please see the following Special Assessment Idealized Swale Drawdown Exhibit for an illustration of the effective swale length. Equivalent Pond/Swale Width is based on the average swale top width over the length of the project.

3 The pond/swale top and bottom stage areas were based on the swale cross-section area at the corresponding elevation. Please not that the average end area volume resultant is significantly less than the total retained volume as indicated in the Swale Storage Volume calculations.

SUMMARY

The following is a summary of the design criteria required for the infiltration swales and the quantities provided in the swales.

WATER QUALITY

Area	Criteria	Required	Provided
Basin-1	Treatment Volume	3,542 cf	5,462 cf[-1]
	Volume Recovery Time	72 hrs	2.4 hrs[-1]

-1 Cumulative sum of swale segment volumes within specified drainage basin.

WATER QUANTITY

Area	Criteria	Required	Provided
Basin-1	25-Year, 24-Hour Storm	4,840 cf[-2]	5,462 cf[-1]
	25-Year, 96-Hour Storm	15,675 cf[-3]	0 cf[-4]

-1 Cumulative sum of swale segment volumes within specified drainage basin.
-2 Pre/Post-development volume difference
-3 Pre-development runoff volume leaving site
-4 Post-development runoff volume leaving site (infiltration included in routing)

MOST EFFECTIVE RECHARGE AREA

Area	Criteria	Required	Provided
Basin-1	Recharge Volume	4,249 cf	5,462 cf[-1]
	Volume Recovery Time	336 hrs	2.4 hrs[-1]

-1 Cumulative sum of swale segment volumes within specified drainage basin.

The subsequent sections of this report contain the detailed information and calculations developed for this analysis.

BASIN-1

TREATMENT VOLUME:

Area = 42,500 sf

Total Area= 42,500 sf

Impervious Area:

Pavement	15,300 sf
Driveway	1,696 sf
∑ Imperv. Area	16,996 sf

% Impervious = 40.0%

Total Impervious = 16,996 sf

Pervious Area:

Pervious Area: 25,504 sf

Retention Volume Required:

Offline:

V = ½" x 42,500 sf / (12 "/ft) or V = 1¼" x 16,996 sf / (12 "/ft)

V = 1,771 cf V = 1,770 cf

Online:

V = ½" x 42,500 sf / (12 "/ft)

V = 1,771 cf

Total Retention Required:

VReq'd = 1,771 + 1,771

VReq'd = 3,542 cf

RECHARGE VOLUME:

Area = 42,500 sf

Total Area= 42,500 sf

Directley Connected Impervious Area:

Pavement	15,300 sf
Driveway	1,696 sf
∑ Imperv. Area	16,996 sf

% Impervious = 40.0%

Total Impervious = 16,996 sf

Pervious Area:

Pervious Area: 25,504 sf

Most Effective Recharge Area
Recharge Volume Required:

V = 3" x 16,996 sf / (12 "/ft)
V = 4,249 cf

Total Retention Required:

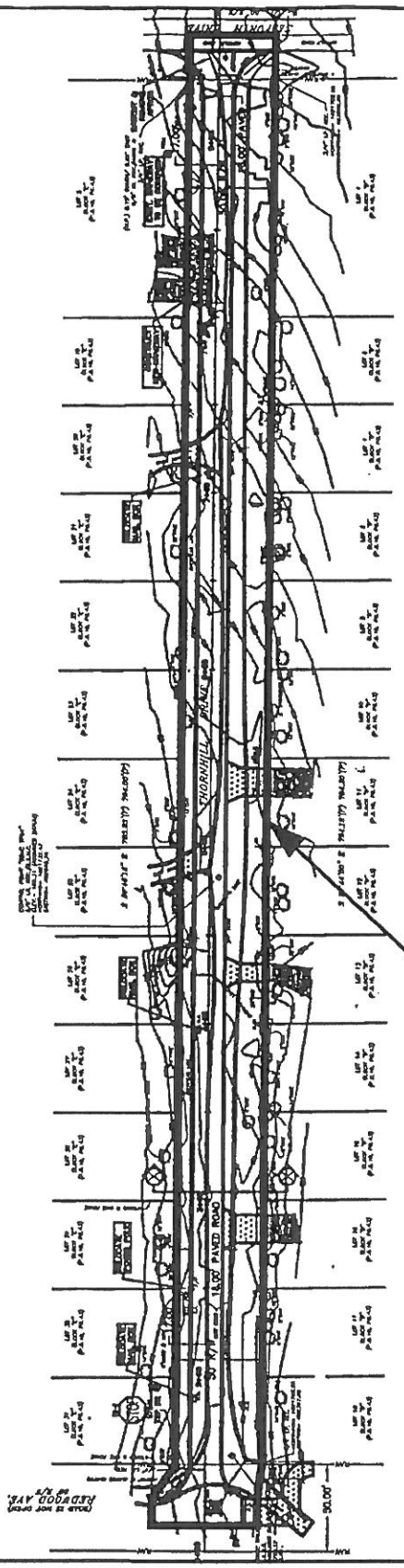
VReq'd = 4,249 cf

SWALE STORAGE VOLUME:

The storage provided within swale system SWALE-1 was determined using the following stage storage relationship.

Swale Segment #	Start Station	End Station	Offset (ft)		Slope (%)	Depth (ft)	Bottom Width (ft)	Side Slope (H:V)	Effective Length (ft)	Cross-sect. Area St (sf)	Cross-sect. Area En (sf)	Retained Volume (cf)
1	1+50.00	2+65.00	21.50	R	0.35%	1.50	4.00	3	115.00	12.75	8.00	1,222
2	3+00.00	3+39.00	21.50	R	0.35%	1.50	4.00	3	39.00	12.75	11.03	492
3	3+50.00	4+10.00	21.50	R	0.35%	1.50	4.00	3	60.00	12.75	10.15	716
4	4+50.00	5+15.00	21.50	R	0.35%	1.50	4.00	3	65.00	12.75	9.95	766
5	5+75.00	6+34.00	21.50	R	2.27%	1.50	4.00	3	59.00	12.75	0.72	426
6	6+45.00	6+84.00	21.50	R	2.27%	1.50	4.00	3	39.00	12.75	3.59	347
7	6+95.00	7+34.00	21.50	R	2.27%	1.50	4.00	3	39.00	12.75	3.59	347
8	7+45.00	7+84.00	21.50	R	2.27%	1.50	4.00	3	39.00	12.75	3.59	347
9	7+95.00	8+34.00	21.50	R	2.27%	1.50	4.00	3	39.00	12.75	3.59	347
10	8+45.00	9+25.00	21.50	R	2.27%	1.50	4.00	3	66.08	12.75	0.00	450
								Total =	560.08			5,462 cf

"SA-98 THORNHILL DRIVE"
SECTION 32, TOWNSHIP 19 SOUTH, RANGE 28 EAST; LAKE COUNTY, FLORIDA



Tc=10 min

BASIN-1
AREA =
0.98 AC

NORTH

SCALE: 1" = 100'

Donald A. Griffey, PE #36799 GRIFFEY ENGINEERING, INC. 2001 OLD HWY 441, SUITE 2 MOUNT DORA, FL 32757	SA-98 THORNHILL DRIVE LAKE COUNTY, FLORIDA DRAINAGE BASIN MAP	GRIFFEY ENGINEERING 2001 OLD HWY 441, SUITE 2 MOUNT DORA, FLORIDA 32757 (352) 383-4786 FAX (352) 383-0828

FILE#: 02036RDW	DATE: 9/17/02	REVISED: –	DRAWN: GSH

BASIN-1 25-YEAR, 24-HOUR

PRE-DEVELOPMENT

DESCRIPTION	AREAS				CURVE #
DIRT ROAD-TYPE A	15,300	FT^2	0.35	ACRES	72
LAWNS-TYPE A-GOOD CONDITION	27,200	FT^2	0.62	ACRES	39
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
TOTAL AREA	42,500	FT^2	0.98	ACRES	

PRECIPITATION	8.4	INCHES		
COMPOSITE CURVE #	50.88			
S = (1000/CN)-10	9.65			
Q = [P-(0.2)*(S)]^2/[P+(0.8)*(S)]	2.60	INCHES		
PRE-DEVELOPMENT VOLUME	**9,193**	**FT^3**	**0.211**	**ACRE-FT**

POST-DEVELOPMENT

DESCRIPTION	AREAS				CURVE #
PAVEMENT	15,300	FT^2	0.35	ACRES	98
DRIVEWAYS	1,696	FT^2	0.04	ACRES	98
LAWNS-TYPE A-GOOD CONDITION	25,504	FT^2	0.59	ACRES	39
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
TOTAL AREA	42,500	FT^2	0.98	ACRES	

PRECIPITATION	8.4	INCHES		
COMPOSITE CURVE #	62.59			
S = (1000/CN)-10	5.98			
Q = [P-(0.2)*(S)]^2/[P+(0.8)*(S)]	3.96	INCHES		
POST-DEVELOPMENT VOLUME	**14,033**	**FT^3**	**0.322**	**ACRE-FT**
PRE-POST VOLUME	**4,840**	**FT^3**	**0.111**	**ACRE-FT**

BASIN-I 25-YEAR, 96-HOUR

PRE-DEVELOPMENT

DESCRIPTION	AREAS				CURVE #
DIRT ROAD-TYPE A	15,300	FT^2	0.35	ACRES	72
LAWNS-TYPE A-GOOD CONDITION	27,200	FT^2	0.62	ACRES	39
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
TOTAL AREA	42,500	FT^2	0.98	ACRES	

PRECIPITATION	11.0	INCHES		
COMPOSITE CURVE #	50.88			
S = (1000/CN)-10	9.65			
Q = [P-(0.2)*(S)]^2/[P+(0.8)*(S)]	4.39	INCHES		
PRE-DEVELOPMENT VOLUME	**15,558**	**FT^3**	**0.357**	**ACRE-FT**

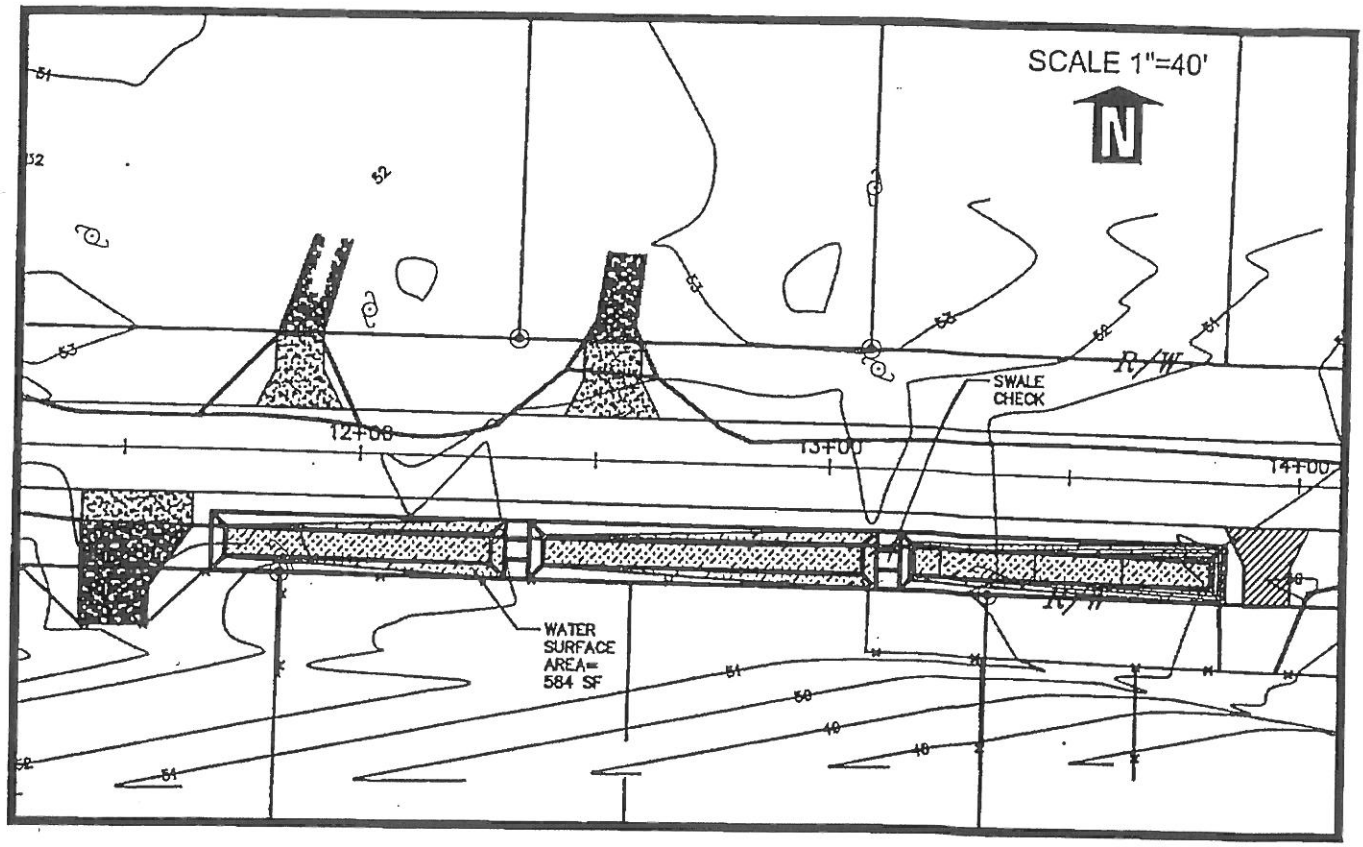
POST-DEVELOPMENT

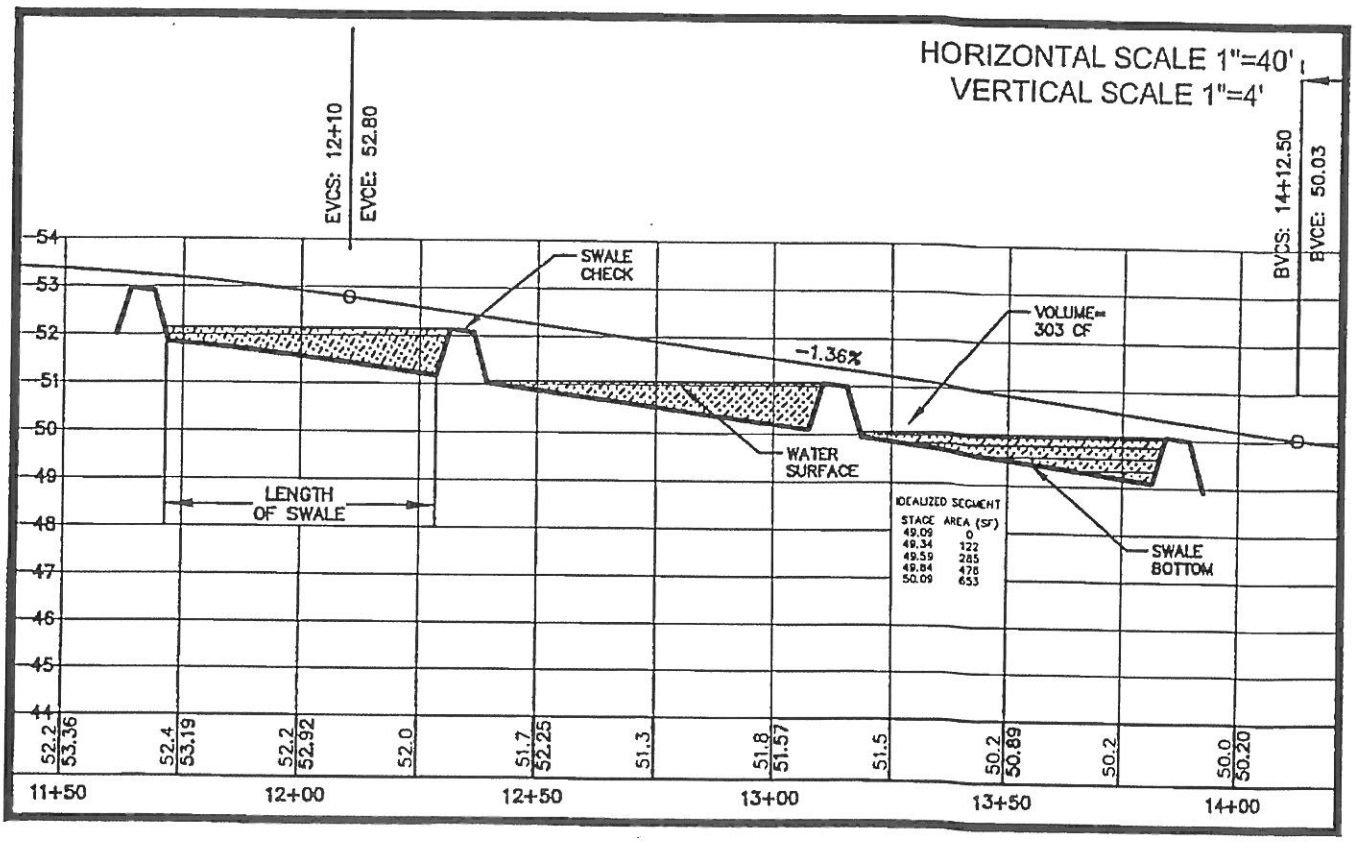
DESCRIPTION	AREAS				CURVE #
PAVEMENT	15,300	FT^2	0.35	ACRES	98
DRIVEWAYS	1,696	FT^2	0.04	ACRES	98
LAWNS-TYPE A-GOOD CONDITION	25,504	FT^2	0.59	ACRES	39
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
		FT^2	0.00	ACRES	
TOTAL AREA	42,500	FT^2	0.98	ACRES	

PRECIPITATION	11.0	INCHES		
COMPOSITE CURVE #	62.59			
S = (1000/CN)-10	5.98			
Q = [P-(0.2)*(S)]^2/[P+(0.8)*(S)]	6.09	INCHES		
POST-DEVELOPMENT VOLUME	**21,576**	**FT^3**	**0.495**	**ACRE-FT**
PRE-POST VOLUME	**6,017**	**FT^3**	**0.138**	**ACRE-FT**

SPECIAL ASSESSMENT

IDEALIZED SWALE DRAWDOWN EXHIBIT





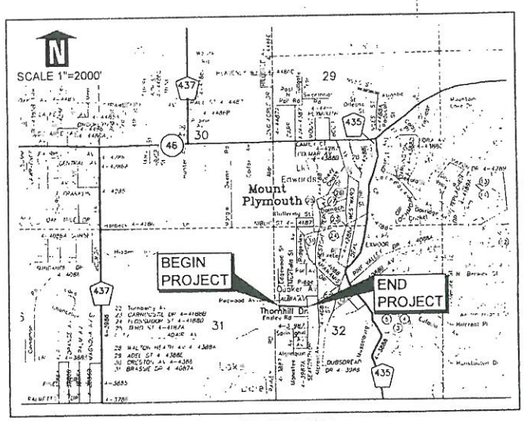
THORNHILL DRIVE
SPECIAL ASSESSMENT

PROJECT NO. SA - 98

LAKE COUNTY, FLORIDA

SHEET INDEX

NO.	DESCRIPTION
1.	COVER SHEET
2.	NOTES & DETAILS
3.	PLAN & PROFILE
4.	CROSS SECTIONS



LOCATION MAP

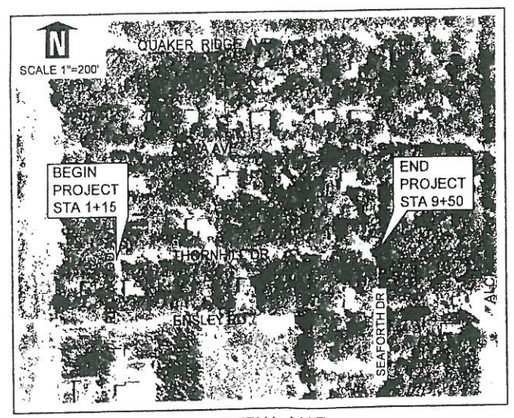
COUNTY COMMISSIONERS

DISTRICT 1 - JENNIFER HILL
DISTRICT 2 - ROBERT A. POOL, CHAIRMAN
DISTRICT 3 - DEBBIE STIVENDER
DISTRICT 4 - CATHERINE C. HANSON
DISTRICT 5 - WELTON G. CADWELL, VICE CHAIRMAN

COUNTY MANAGER - WILLIAM A. (BILL) NERON

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
123 N. SINCLAIR AVE.
TAVARES, FL. 32778
PHONE: (352) 253-4944

FINAL PERMITTED PLANS
DATE December 05, 2002
INITIAL RA



AERIAL MAP

Donald A. Griffey Reg # 36799
11-6-02

GRIFFEY ENGINEERING
2001 OLD HWY 441, SUITE 2
MOUNT DORA, FLORIDA 32757
(352) 383-4786
FAX (352) 383-0828

LAKE COUNTY
PUBLIC WORKS DEPARTMENT
123 N. SINCLAIR AVE
TAVARES, FLORIDA 32778-7800
PHONE (352) 253-4944
FAX (352) 253-4915

SPECIAL ASSESSMENT - 98
THORNHILL DRIVE

COVER SHEET

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Rev.#	Date	Drawn By: K.G.N
	-	Checked By: G.S.H.
		Drawing #: 02036_COVER
		Project #: 02036RDW
Date:	10-18-02	Scale: AS NOTED

STANDARD ABBREVIATIONS

A		F		M		Q		U	
AC	Acre	F.G.	Finished Grade	MATL	Material	Q	Flow Rate	U.G.	Underground
ALT.	Alternate	FT.	Feet/Foot	MAX	Maximum	QTY.	Quantity	U.G.P.	Underground Power
ASPH.	Asphalt	FUT	Future	MES.	Mitered End Section			U.N.O.	Unless Noted Otherwise
B		G		MFR.	Manufacturer	R		U.T.C.	Underground Telephone Cable
BL	Base Line	GND	Ground	MH.	Manhole	R	Right/Radius	UTIL	Utility
B.M	Bench Mark	GP	Grade Point	MIN.	Minimum	R/W	Right Of Way	V	
BOT.	Bottom	H		MISC.	Miscellaneous	R.C.	Reinforced Concrete	VAR	VARIES
C		HORIZ	Horizontal	MON.	Monument	RCP	Reinforced Concrete Pipe	W	
CL	Center Line	H.W	High Water	MHW	Mean High Water	RCPA	Reinforced Concrete Pipe Arch	W	West
CLR	Clear/Clearance	I		N		RD	Road	W/	With
CMP	Corrugated Metal Pipe	I.D	Inside Diameter	N	North	REF.	Reference	W/O	With Out
CLF	Chain Link Fence	IN.	Inches	N & C	Nail & Cap	REV.	Revision	W.L.	Water Line
CONST	Combination Pole Construct/ Construction	INT.	Intersection	N & D	Nail & Disk	RPM	Reflective Pavement Markers	WM	Water Main
CULV	Culvert	INV.	Invert	N/A	Not Applicable	REQD.	Required	W.R.A.	Water Retention Area
D		I.P	Iron Pipe	NIC	Not In Contract	S		W.S.	Water Surface
DET	Detail	J		N.T.S.	Not To Scale	S	South	W S EL	Water Surface Elevation
DIA	Diameter	J.B.	Junction Box	O		SHT.	Sheet	Y	
D/W	Driveway	JT	Joint	O.C.	On Center	STA.	Station	Y	
E		L		O D	Outside Diameter	STD.	Standard	YD(S)	YARD(S)
E	East	L	Length/Left	OH.	Overhead	SS	Storm Sewer		
EA.	Each	L.F.	Linear Feet	OPNG.	Opening	T			
EL	Elevation	LMRK	Lime Rock	OPT.	Option	T & B	Top & Bottom		
ELLIP	Elliptical	L.P.	Light Pole	P		TBM	Temporary Bench Mark		
ENGR	Engineer	LTD	Lighted	PC	Point Of Curve	TAN.	Tangent		
EOC	Edge of Concrete	L W	Low Water	PCC	Point Of Compound Curve	TEL.	Telephone		
EOP	Edge of Pavement			P.C.M	Permanent Control Monument	TOB	Top Of Bank		
EOT	Edge of Travel Way			PI	Point Of Intersection	TOS	Top Of Slope		
ESMT	Easement			POB	Point Of Beginning	T.P.	Telephone Pole		
EXIST	Existing			PP	Power Pole	TYP.	Typical		
				PROP	Proposed				
				PRC	Point Of Reverse Curve				
				PT	Point Of Tangency				

Utility Adjustment Legend

EXISTING	PROPOSED	
—◇—	—◆—	Power Pole
—OE (7.5KV)—	—◆—OE (7.5KV)—◆—	Overhead Electric
—○—	—●—	Telephone Pole
—OT (100PR)—	—●—OT (100PR)—●	Overhead Telephone Cable
--- OH (CATV) ---	—OH (CATV)—	Overhead Cable Television
—◇—	—◆—	Combination Pole
		Guy Wire And Anchor Pin
---BE (7.5KV)---	—BE (7.5KV)—	Buried Electric
=BE 4MTD (7.5KV)=	=BE 4MTD (7.5KV)=	Buried Electric Duct
---BT (200PR)---	—BT (200PR)—	Buried Telephone Cable
---BT 6MTD---	=BT 6MTD=	Buried Telephone Duct
--UG (CATV)---	—UG (CATV)—	Underground Cable Television
		Tower
		Light Pole
---6" GM---	—6" GM—	Gas Main
---6" WM---	—6" WM—	Water Main
---6" SAN---	—8" SAN—	Sanitary Sewer
		Manhole
		Water Meter
---GV---	—GV—	Valve
		Fire Hydrant

Locations Legend

- = CATCH BASIN
- = TYPE II INLET
- = GATE
- = CURB INLET
- = CABLE TV BOX
- = MITERED END SECTION
- = FIRE HYDRANT
- = ROAD SIGN
- = LIGHT
- = SPRINKLER
- = L.O.S.
- = MANHOLE
- = TRANSFORMER
- = VALVE
- = GAS MARKER
- = TELEPHONE BOX
- = WATER METER
- = GUY WIRE
- = MAIL BOX
- = SWALE CHECK
- = MONITOR WELL

Monumentation Legend

- = CALC POINT
- = ANGLE IRON
- = IRON PIPE
- = AXLE
- = PK NAIL
- = BENCH MARK
- = IRON PIN
- = SURVEY NAIL
- = OCT CM
- = NAIL & DISK
- = RR SPIKE
- = HUB & TACK
- = ETCHED X
- = SQUARE CM
- = RND CM
- = WOOD POST
- = METAL PLATE

SIZE AND RLS NUMBER AS SHOWN.
ALL MONUMENTS ARE FOUND UNLESS OTHERWISE NOTED

Tree Legend

- = CITRUS TREE
- = CYPRESS TREE
- = PINE TREE
- = CEDAR
- = OAK TREE
- = MISC TREE
- = BAY TREE
- = PALM TREE

NOTE: Tree Size Shown Is The Diameter.

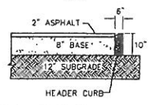
GENERAL NOTES

1. STRIPING
   a. All striping to be lead and solvent free thermoplastic
   b. Striping to conform to M.U.T.C.D., latest Edition
   c. Striping to be reflectorized.
   d. All centerline striping shall have reflective raised pavement markings (RPM'S) unless otherwise noted
2. EROSION CONTROL
   a. Seed and mulch swales. Unless noted otherwise.
   b. Use F.D.O.T. Index 102 for erosion control.
   c. Sod immediately around new mitered end sections and slopes over 3% to F.D.O.T. specifications
3. Replace all traffic control signs that are disturbed
4. Contractor is responsible for notifying utilities prior to construction.
5. Contractor is responsible for the coordination of the relocation of all utilities as required.
6. The established clear zone is to be ten feet from new edge of pavement. All above ground structures such as mail boxes, traffic control signs, street signs, fences, etc., are to be removed and replaced outside of the clear zone. The contractor is responsible for the coordination of removal and replacement of these structures. Daily access to mail boxes shall be maintained. The County Engineer may waive some of these requirements if necessary.
7. Trim and remove all trees and shrubs as required by the Lake County Engineer. Contractor will replace landscaping that is removed or destroyed within the limits of construction. Replaced landscaping is to be placed off of the right-of-way.
8. Replace all sod with original type on all residential frontage lots and as shown on plans. Sod all slopes 3% or greater within right-of-way from EOP.
9. All construction to meet the standards and specifications of Lake County, Florida, and the F.D.O.T. Standards and Specifications for Road and Bridge Construction, latest edition.
10. Pave all driveways within right-of-way. Single residential drives shall be a minimum 10.0' wide with 8.0' radii. Driveway not to exceed 14% slope. Construct concrete aprons at existing concrete driveways.
11. A constant slope shall be maintained between designated areas of cut and fill.
12. Construct all mitered end sections per F.D.O.T Index #272
13. Open cut and repair all roadway crossings for storm water systems proposed, unless specified otherwise.
14. All proposed elevations are shown with a border, i.e. XX.XX All other spot elevations shown are existing.
15. Pavement shall mean all asphalt and base associated with a driving surface as shown on plans.
16. Remove pavement of side streets and driveways that are within limits of the proposed edge of pavement of County Road and construct per cross section shown on plan.
17. Trim all trees to obtain an 8' clearance off the edge pavement and 18' vertical clearance.
18. All striping, roadway signs and signal work, if applicable shall be coordinated with Lake County Traffic Operations. Contractor shall notify Lake County Traffic Operations (352) 742-1766 at least 48 hours prior to the commencement of any signal work.
19. Contractor shall be responsible for verifying all control and benchmarch data prior to construction. Discrepancies in data should be brought to the attention of the Lake County Survey Manager (352) 253-4991.

CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL THROUGHOUT CONSTRUCTION ACCORDING TO THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 600 SERIES.

THE LOCATION OF UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.

HEADER CURB DETAIL
N.T.S.



LEGEND

- PROPOSED CONC. DRIVEWAY
- EXISTING CONC. DRIVEWAY
- PROPOSED PAVEMENT
- EXISTING DIRT ROAD
- EXISTING LOT LINE
- EXISTING R.O.W.
- EXISTING TOPO
- SILT FENCE
- EXISTING POWER
- EXISTING TREES
- EXISTING TELEPHONE PED
- EXISTING MAIL BOX
- EXISTING TREE TO BE REMOVED
- SWALE CHECK

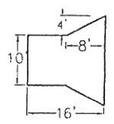
STOP SIGN DETAIL
N.T.S.

STOP

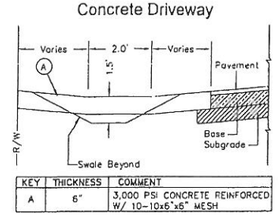
R1-1
36" HIGH INTENSITY

W/ 24"
THERMO-PLASTIC
STOP BAR

TYPICAL DRIVEWAY
N.T.S.

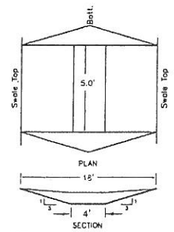


Typical Section At Concrete Driveway



KEY	THICKNESS	COMMENT
A	6"	3,000 PSI CONCRETE REINFORCED W/ 10-10x6'x6" MESH

Swale Check Typical



NOTE:
1) ENTIRE SWALE CHECK TO BE SODDED
2) SOD FROM R/W TO EDGE OF PAVEMENT
3) ALL DIVEWAYS TO BE CONSTRUCTED AS SWALE CHECKS. SEE DETAIL BELOW

EROSION & SEDIMENT CONTROL

Prior to initiating construction of planned improvements, all swales will be excavated and rough graded to provide sediment and runoff control during construction.

All disturbed areas will be brought to final grade and seeded and mulched or sodded as soon as possible.

Areas which may erode due to slopes or concentrated runoff during construction will be protected with silt fence per FDOT Road Design Standard Index 102

Upon completion of site improvements, the retention ponds, swales, and other storm water management devices will be final graded and sodded as specified in the approved construction plans.

ROUTINE MAINTENANCE -- STORM WATER

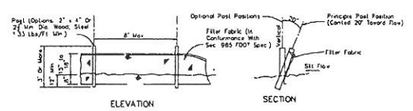
After completion of construction, swales will be mowed and maintained as part of the county road maintenance.

Trash and debris that accumulates within the retention ponds, swales, pipes, and inlets will be manually collected and disposed of with other normal solid waste

Any erosion, loss of grass, etc., will be repaired or replaced routinely and as needed.

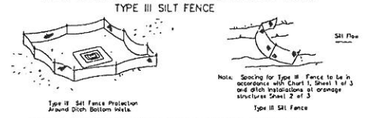
NOTE:

EROSION, SEDIMENT AND TURBIDITY CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION OF THE PROJECT. THESE CONTROL MEASURES ARE ONLY THE MINIMUM REQUIRED AND ADDITIONAL CONTROLS SHALL BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.



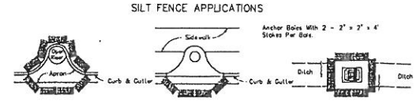
Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

TYPE III SILT FENCE



Do not deploy in a manner that silt fences will act as a dam across permanent flowing waterbourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

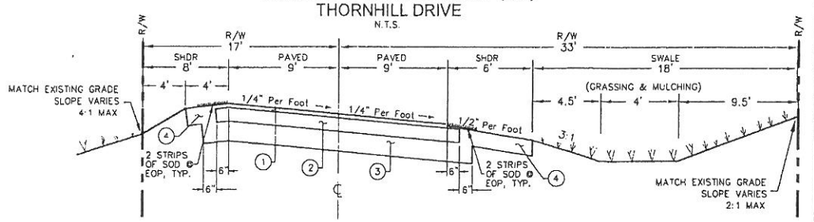
SILT FENCE APPLICATIONS



PARTIAL INLET COMPLETED INLET DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

STANDARD PAVING SECTION (X-X)
THORNHILL DRIVE
N.T.S.



KEY	THICKNESS	SPECIFICATIONS
1	1 1/2"	S-III ASPHALT
2	6"	Limerock - 98% Compaction, A.A.S.H.T.O. T-180 Primed & Sanded
3	12"	Stabilized Subgrade In 2 Lifts, 98% DENSITY, F.B.V. = 50 P.S.I.
4	6"	Stabilized Shoulder to 50 F.B.V. (Each Side)

NOTE: 1. ALL STRIPING TO BE THERMOPLASTIC.
2. SOD ALL DISTURBED AREAS OVER 3% SLOPE.
3. FINISH GRADE OF SHOULDER TO BE 3" BELOW EDGE OF PAVEMENT TO ALLOW FOR SOD.
4. MINIMUM TWO STRIPS OF SOD @ EOP
5. DESIGN SPEED 35 MILES PER HOUR.

Donald A. Griffey Reg # 36799
11-6-02

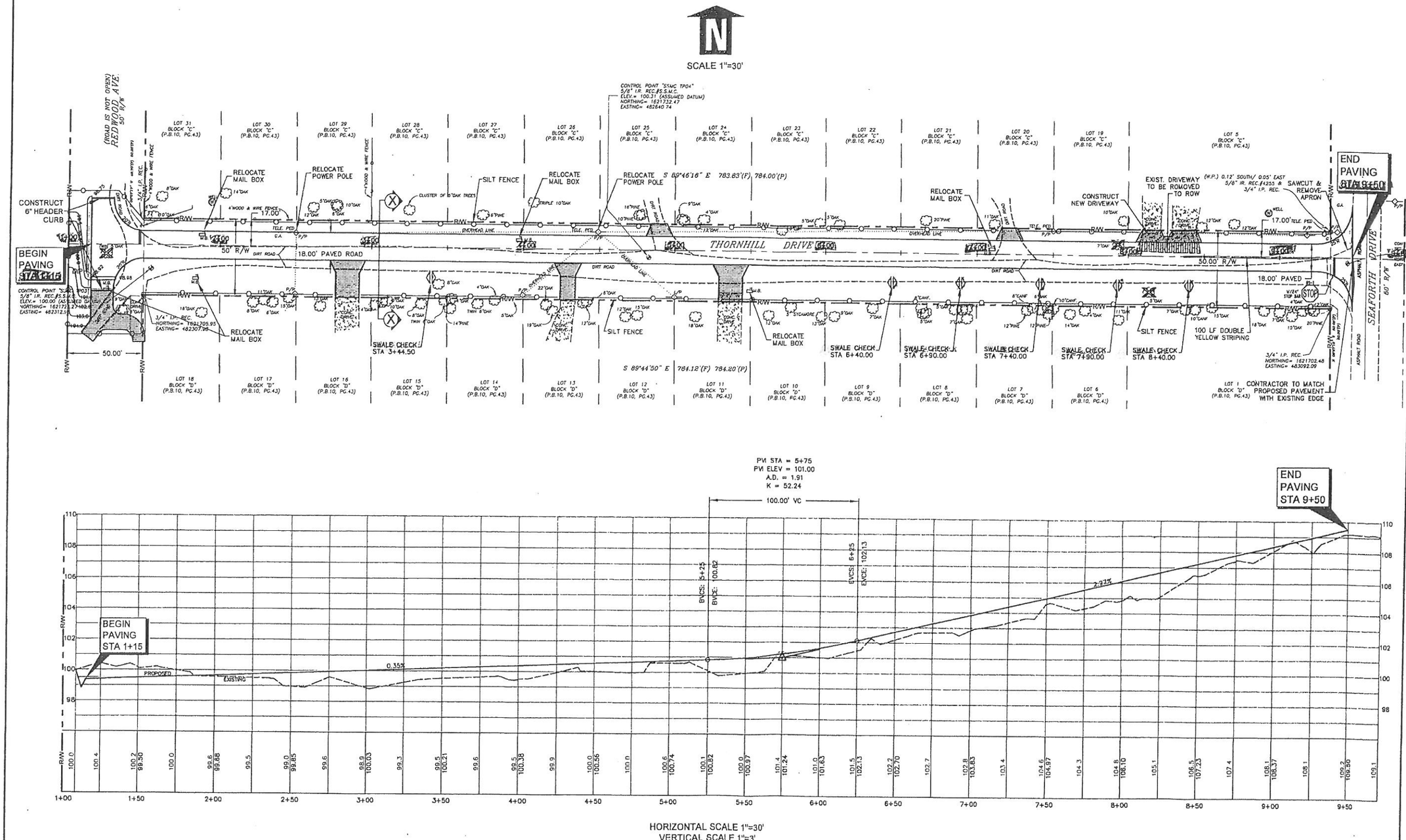
GRIFFEY ENGINEERING
2001 OLD HWY 441, SUITE 2
MOUNT DORA, FLORIDA 32757
(352) 383-4786
FAX (352) 383-0828

LAKE COUNTY
PUBLIC WORKS DEPARTMENT
123 N. SINCLAIR AVE
TAVARES, FLORIDA 32778-7800
PHONE (352) 253-4944
FAX (352) 253-4915

SPECIAL ASSESSMENT - 98
THORNHILL DRIVE

NOTES & DETAILS

Rev.#	Date	Drawn By: K.G.N.
		Checked By: G.S.H.
		Drawing #: 02036_1
		Project #: 02036RDW
Date: 10-18-02		Scale: AS NOTED



Donald A. Griffey Reg # 36799
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GRIFFEY ENGINEERING
2001 OLD HWY 441, SUITE 2
MOUNT DORA, FLORIDA 32757
[352] 383-4766
FAX [352] 383-0828

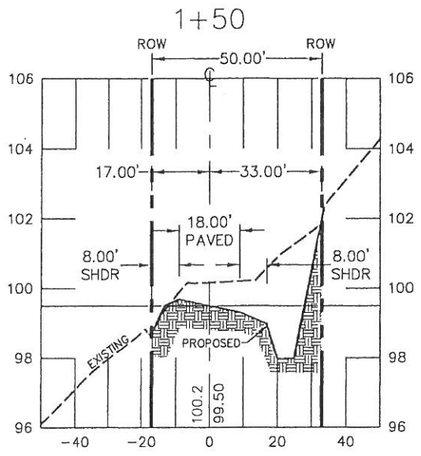
LAKE COUNTY
PUBLIC WORKS DEPARTMENT
123 N. SINCLAIR AVE
TAVARES, FLORIDA 32778-7800
PHONE [352] 253-4944
FAX [352] 253-4915

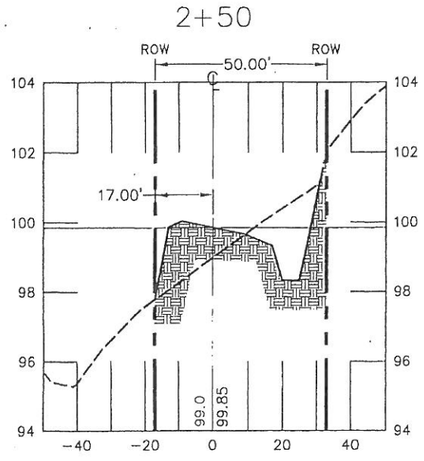
SPECIAL ASSESSMENT - 98
THORNHILL DRIVE

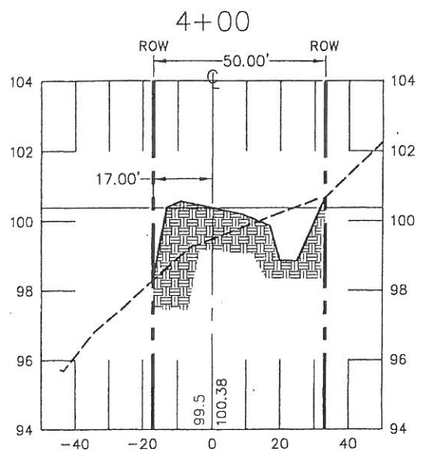
PLAN & PROFILE

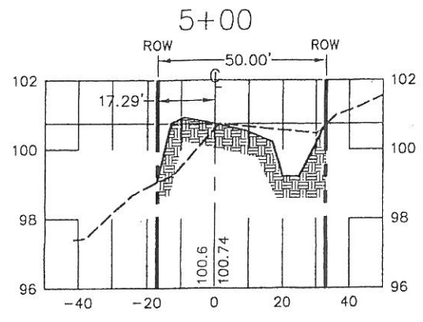
Rev.# Date	Drawn By:
	Checked By: G.S.H.
	Drawing #: 02036_1
	Project #: 02036RDW
Date: 10-18-02	Scale: 1"=30'

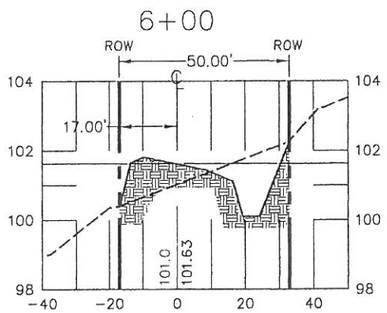
Sheet 3 of 4

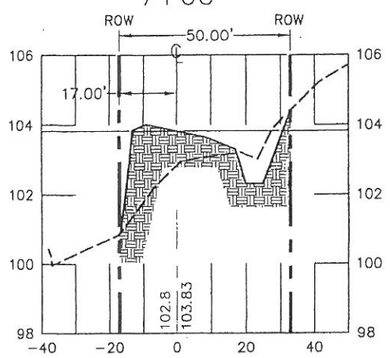


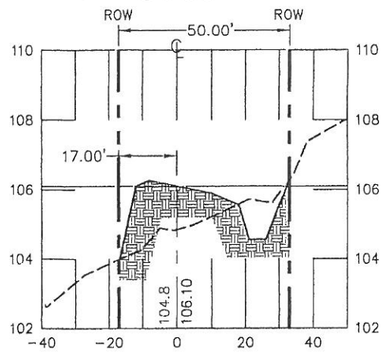


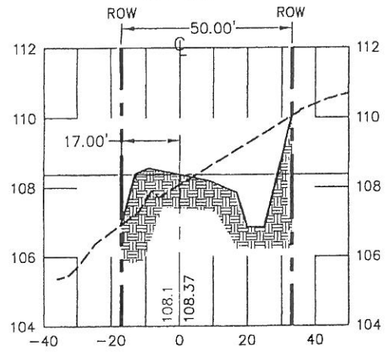












HORIZONTAL SCALE 1"=20'
VERTICAL SCALE 1"=2'

Donald A. Griffey Reg # 36799
11-1-02

GRIFFEY ENGINEERING
2001 OLD HWY 441, SUITE 2
MOUNT DORA, FLORIDA 32757
[352] 383-4786
FAX [352] 383-0828

LAKE COUNTY
PUBLIC WORKS DEPARTMENT
123 N. SINCLAIR AVE
TAVARES, FLORIDA 32778-7800
PHONE [352] 253-4944
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SPECIAL ASSESSMENT - 98
THORNHILL DRIVE

CROSS SECTIONS

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NOV 12 2002
PDS
ALTAMONTE SVC. CTR.

Rev.# Date	Drawn By: K.G.N.
	Checked By: G.S.H.
	Drawing #: 02038_1
	Project #: 02038RDW
Date: 10-18-02	Scale: 1"=20'

Sheet 4 of 4

86493-1 X

Appendix C

1. Annotated excerpt from The State of Florida's FDEP and Water Management District's "Environmental Resource Permit Stormwater Quality Applicant's Handbook" (Draft, 2010) showing predicted removal efficiencies for different soil types and scenarios.

2. Spreadsheet Calculations of Total Pollutant Removal Efficiencies for the Thornhill Drive Paving Project – Assuming Different HSG Types

3. Water Quality Spreadsheets Comparing Pre and Post-Paving Conditions for Thoroughbred Trail

Mean Annual Mass Removal Efficiencies (%) for 1.25-inches of Retention for Zone 2

NDCIA	Percent DCIA																	
CN	0-15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
30	99.0	98.7	98.1	97.3	96.4	95.2	93.9	92.4	90.9	89.3	87.7	86.0	84.3	82.6	80.9	79.2	77.6	76.0
35	98.3	98.3	97.7	97.0	96.1	94.9	93.7	92.3	90.8	89.2	87.6	85.9	84.2	82.5	80.9	79.2	77.6	76.0
40	98.0	97.8	97.3	96.6	95.7	94.6	93.4	92.0	90.5	89.0	87.4	85.8	84.1	82.5	80.8	79.2	77.6	76.0
45	97.3	97.1	96.7	96.1	95.2	94.2	93.0	91.7	90.3	88.8	87.2	85.6	84.0	82.4	80.7	79.1	77.6	76.0
50	96.4	96.3	96.0	95.4	94.6	93.6	92.5	91.3	89.9	88.5	87.0	85.4	83.8	82.2	80.7	79.1	77.5	76.0
55	95.3	95.3	95.1	94.6	93.9	93.0	91.9	90.8	89.5	88.1	86.7	85.2	83.6	82.1	80.6	79.0	77.5	76.0
60	94.1	94.1	94.0	93.6	92.9	92.2	91.2	90.1	88.9	87.7	86.3	84.9	83.4	81.9	80.4	78.9	77.5	76.0
65	92.7	92.7	92.6	92.3	91.6	91.1	90.3	89.3	88.3	87.1	85.8	84.5	83.1	81.7	80.3	78.8	77.4	76.0
70	91.0	91.0	91.0	90.8	90.4	89.8	89.1	88.3	87.4	86.3	85.2	83.9	82.7	81.4	80.0	78.7	77.3	76.0
75	89.1	89.1	89.1	89.0	88.7	88.3	87.7	87.0	86.2	85.3	84.3	83.3	82.1	80.9	79.7	78.5	77.3	76.0
80	86.9	86.9	86.9	86.9	86.7	86.4	86.0	85.5	84.8	84.1	83.3	82.3	81.4	80.4	79.3	78.2	77.1	76.0
85	84.5	84.5	84.5	84.5	84.4	84.2	84.0	83.6	83.1	82.5	81.9	81.2	80.4	79.6	78.8	77.9	76.9	76.0
90	81.7	81.7	81.7	81.7	81.7	81.7	81.5	81.3	80.9	80.6	80.1	79.7	79.1	78.6	78.0	77.4	76.7	76.0
95	78.7	78.7	78.7	78.7	78.7	78.6	78.6	78.4	78.3	78.2	78.0	77.8	77.5	77.3	77.0	76.7	76.3	76.0
98	77.1	77.1	77.1	77.1	77.0	77.0	76.9	76.9	76.8	76.8	76.7	76.6	76.5	76.4	76.3	76.2	76.1	76.0

Mean Annual Mass Removal Efficiencies (%) for 1.50-inches of Retention for Zone 2

NDCIA	Percent DCIA																	
CN	0-15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
30	99.5	99.1	98.7	98.2	97.6	96.8	95.9	94.9	93.7	92.5	91.3	89.9	88.6	87.2	85.7	84.3	82.9	81.5
35	99.0	98.8	98.5	98.0	97.4	96.6	95.7	94.7	93.6	92.4	91.2	89.8	88.5	87.1	85.7	84.3	82.9	81.5
40	98.5	98.4	98.1	97.6	97.1	96.3	95.5	94.5	93.4	92.2	91.0	89.7	88.4	87.1	85.7	84.3	82.9	81.5
45	98.0	97.9	97.6	97.2	96.7	96.0	95.1	94.2	93.1	92.0	90.8	89.6	88.3	87.0	85.6	84.2	82.9	81.5
50	97.2	97.2	97.0	96.7	96.2	95.5	94.7	93.8	92.8	91.8	90.6	89.4	88.2	86.9	85.5	84.2	82.8	81.5
55	96.4	96.4	96.3	96.0	95.6	95.0	94.2	93.4	92.4	91.4	90.3	89.2	88.0	86.7	85.4	84.1	82.8	81.5
60	95.5	95.5	95.4	95.2	94.8	94.3	93.6	92.8	92.0	91.0	90.0	88.9	87.7	86.5	85.3	84.0	82.8	81.5
65	94.4	94.4	94.4	94.2	93.9	93.4	92.8	92.1	91.3	90.5	89.5	88.5	87.4	86.3	85.1	83.9	82.7	81.5
70	93.1	93.1	93.1	93.0	92.7	92.3	91.9	91.2	90.6	89.8	88.9	88.0	87.0	86.0	84.9	83.8	82.6	81.5
75	91.6	91.6	91.6	91.6	91.4	91.1	90.7	90.2	89.6	88.9	88.2	87.4	86.5	85.6	84.6	83.6	82.6	81.5
80	89.9	89.9	89.9	89.9	89.8	89.6	89.3	88.9	88.4	87.9	87.3	86.6	85.9	85.1	84.2	83.3	82.4	81.5
85	88.0	88.0	88.0	88.0	87.9	87.8	87.6	87.3	87.0	86.6	86.1	85.6	85.0	84.4	83.7	83.0	82.3	81.5
90	85.8	85.8	85.8	85.8	85.8	85.7	85.6	85.5	85.3	85.0	84.7	84.4	84.0	83.5	83.1	82.6	82.0	81.5
95	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.3	83.2	83.1	83.0	82.8	82.6	82.4	82.2	82.0	81.8	81.5
98	82.2	82.2	82.2	82.2	82.2	82.2	82.1	82.1	82.1	82.0	82.0	81.9	81.9	81.8	81.7	81.7	81.6	81.5

HSG A →

HSG C →

HSG D →

Lake County BMP - Paving Thornhill Road and Providing Ditch Retention - HSG Type A Soils													Effective Event Mean Concentration (EMC) Based on - Single Family Residential Land Use			Pollutant Load Removed from Storm Water Discharge (Pounds)		
Storm Event Range (Inches)	No. of Events	Single Event Volume Generated Prior to BMP (acre-Feet)	Single Event Volume Generated to BMP (acre-Feet)	Single Event Volume Discharged from BMP - From ICPR[1] Model (acre-Feet)	Total Reduction in Volume with BMP for Single Event (acre-ft)	Number of Rain Events for Range for Average Year	Cumulative Total Volume Generated Prior to BMP (acre-feet)	Total Reduction in Volume with BMP per year (acre-feet)	Percentage of Pre-BMP Volume Removed (%)	Cumulative System Input % based on Rainfall Data	Annual Reduction in Volume from Pre-BMP Conditions (acre-ft)	Cumulative Percentage Removed From Pre-BMP Condition (%)	EMC TN (mg/L)	EMC TP (mg/L)	EMC TSS (mg/L)	TN (lb)	TP (lb)	TSS (lb)
0.0-0.1	2119	0.000	0.000	0.000	0.000	40.27	0.000	0.000	100.0	0.0	0.000	100.00	1.85	0.31	37.50	0.00	0.00	0.00
0.1-0.2	805	0.002	0.004	0.000	0.002	15.30	0.035	0.035	100.0	0.2	0.035	100.00	1.85	0.31	37.50	0.18	0.03	3.62
0.2-0.3	439	0.005	0.009	0.000	0.005	8.34	0.076	0.041	100.0	0.7	0.041	100.00	1.85	0.31	37.50	0.21	0.03	4.18
0.3-0.4	366	0.008	0.013	0.000	0.008	6.96	0.129	0.052	100.0	1.4	0.052	100.00	1.85	0.31	37.50	0.26	0.04	5.33
0.4-0.5	262	0.010	0.018	0.000	0.010	4.98	0.179	0.050	100.0	2.4	0.050	100.00	1.85	0.31	37.50	0.25	0.04	5.12
0.5-0.6	216	0.013	0.023	0.000	0.013	4.10	0.231	0.052	100.0	3.6	0.052	100.00	1.85	0.31	37.50	0.26	0.04	5.31
0.6-0.7	63	0.015	0.026	0.000	0.015	1.20	0.249	0.018	100.0	5.1	0.018	100.00	1.85	0.31	37.50	0.09	0.01	1.80
0.7-0.8	196	0.017	0.030	0.000	0.017	3.72	0.311	0.063	100.0	6.7	0.063	100.00	1.85	0.31	37.50	0.31	0.05	6.38
0.8-0.9	80	0.019	0.035	0.000	0.019	1.52	0.341	0.029	100.0	8.6	0.029	100.00	1.85	0.31	37.50	0.15	0.02	3.01
0.9-1.0	150	0.022	0.039	0.000	0.022	2.85	0.403	0.063	100.0	10.7	0.063	100.00	1.85	0.31	37.50	0.32	0.05	6.39
1.0-1.5	289	0.029	0.053	0.000	0.029	5.49	0.565	0.162	100.0	13.6	0.162	100.00	1.85	0.31	37.50	0.81	0.14	16.51
1.5-2.0	139	0.042	0.076	0.000	0.042	2.64	0.677	0.112	100.0	17.7	0.112	100.00	1.85	0.31	37.50	0.56	0.09	11.42
2.0-3.0	99	0.060	0.107	0.000	0.060	1.88	0.790	0.113	100.0	23.5	0.113	100.00	1.85	0.31	37.50	0.57	0.10	11.51
3.0-4.0	24	0.091	0.159	0.000	0.091	0.46	0.831	0.041	100.0	32.2	0.041	100.00	1.85	0.31	37.50	0.21	0.03	4.23
4.0-5.0	15	0.117	0.198	0.000	0.117	0.29	0.865	0.033	100.0	43.0	0.033	100.00	1.85	0.31	37.50	0.17	0.03	3.40
5.0-6.0	4	0.166	0.267	0.000	0.166	0.08	0.877	0.013	100.0	57.5	0.013	100.00	1.85	0.31	37.50	0.06	0.01	1.29
6.0-7.0	1	0.203	0.313	0.000	0.203	0.02	0.881	0.004	100.0	74.5	0.004	100.00	1.85	0.31	37.50	0.02	0.00	0.39
7.0-8.0	0	0.000	0.000	0.000	0.000	0.00	0.881	0.000	100.0	74.5	0.000	100.00	1.85	0.31	37.50	0.00	0.00	0.00
> 8.0	2	0.333	0.469	0.000	0.333	0.04	0.894	0.013	100.0	100.0	0.013	100.00	1.85	0.31	37.50	0.06	0.01	1.29
													Total Pounds Removed			**4.50**	**0.75**	**91.2**
													Total Pounds Pre BMP			**4.50**	**0.75**	**91.17**
													Total Pounds Post BMP			**0.00**	**0.00**	**0.00**

Notes: 1. Infiltration rate used in ICPR is taken from NRCS Soil Survey data. Rates are K_H = 25.4 ft/day and K_V = 17.0 ft/day

Lake County BMP - Paving Thornhill Road and Providing Ditch Retention - HSG Type C Soils													Effective Event Mean Concentration (EMC) Based on - Single Family Residential Land Use			Pollutant Load Removed from Storm Water Discharge (Pounds)		
Storm Event Range (Inches)	No. of Events	Single Event Volume Generated Prior to BMP (acre-Feet)	Single Event Volume Generated to BMP (acre-Feet)	Single Event Volume Discharged from BMP - From ICPR[1] Model (acre-Feet)	Total Reduction in Volume with BMP for Single Event (acre-ft)	Number of Rain Events for Range for Average Year	Cumulative Total Volume Generated Prior to BMP (acre-feet)	Total Reduction in Volume with BMP per year (acre-feet)	Percentage of Pre-BMP Volume Removed (%)	Cumulative System Input % based on Rainfall Data	Annual Reduction in Volume from Pre-BMP Conditions (acre-ft)	Cumulative Percentage Removed From Pre-BMP Condition (%)	EMC TN (mg/L)	EMC TP (mg/L)	EMC TSS (mg/L)	TN (lb)	TP (lb)	TSS (lb)
0.0-0.1	2119	0.000	0.000	0.000	0.000	40.27	0.000	0.000	100.0	0.0	0.000	100.00	1.85	0.31	37.50	0.00	0.00	0.00
0.1-0.2	805	0.002	0.004	0.000	0.002	15.30	0.035	0.035	100.0	0.2	0.035	100.00	1.85	0.31	37.50	0.18	0.03	3.62
0.2-0.3	439	0.005	0.009	0.000	0.005	8.34	0.076	0.041	100.0	0.6	0.041	100.00	1.85	0.31	37.50	0.21	0.03	4.18
0.3-0.4	366	0.008	0.013	0.000	0.008	6.96	0.129	0.052	100.0	1.1	0.052	100.00	1.85	0.31	37.50	0.26	0.04	5.33
0.4-0.5	262	0.010	0.018	0.000	0.010	4.98	0.179	0.050	100.0	1.9	0.050	100.00	1.85	0.31	37.50	0.25	0.04	5.12
0.5-0.6	216	0.013	0.023	0.000	0.013	4.10	0.231	0.052	100.0	2.9	0.052	100.00	1.85	0.31	37.50	0.26	0.04	5.31
0.6-0.7	63	0.015	0.026	0.000	0.015	1.20	0.249	0.018	100.0	4.0	0.018	100.00	1.85	0.31	37.50	0.09	0.01	1.80
0.7-0.8	196	0.017	0.030	0.000	0.017	3.72	0.312	0.063	100.0	5.3	0.063	100.00	1.85	0.31	37.50	0.32	0.05	6.43
0.8-0.9	80	0.020	0.035	0.000	0.020	1.52	0.342	0.030	100.0	6.8	0.030	100.00	1.85	0.31	37.50	0.15	0.03	3.09
0.9-1.0	150	0.023	0.040	0.000	0.023	2.85	0.408	0.066	100.0	8.5	0.066	100.00	1.85	0.31	37.50	0.33	0.06	6.75
1.0-1.5	289	0.034	0.055	0.000	0.034	5.49	0.595	0.187	100.0	10.9	0.187	100.00	1.85	0.31	37.50	0.94	0.16	19.10
1.5-2.0	139	0.057	0.084	0.000	0.057	2.64	0.745	0.150	100.0	14.5	0.150	100.00	1.85	0.31	37.50	0.75	0.13	15.30
2.0-3.0	99	0.093	0.126	0.000	0.093	1.88	0.921	0.175	100.0	20.0	0.175	100.00	1.85	0.31	37.50	0.88	0.15	17.88
3.0-4.0	24	0.163	0.203	0.000	0.162	0.46	0.995	0.074	99.8	28.8	0.074	99.99	1.85	0.31	37.50	0.37	0.06	7.55
4.0-5.0	15	0.215	0.260	0.019	0.197	0.29	1.056	0.056	91.3	40.0	0.056	99.48	1.85	0.31	37.50	0.28	0.05	5.72
5.0-6.0	4	0.304	0.355	0.106	0.198	0.08	1.079	0.015	65.3	55.3	0.015	98.75	1.85	0.31	37.50	0.08	0.01	1.54
6.0-7.0	1	0.366	0.416	0.170	0.196	0.02	1.086	0.004	53.5	73.4	0.004	98.46	1.85	0.31	37.50	0.02	0.00	0.38
7.0-8.0	0	0.000	0.000	0.000	0.000	0.00	1.086	0.000	100.0	73.4	0.000	98.46	1.85	0.31	37.50	0.00	0.00	0.00
> 8.0	2	0.561	0.616	0.281	0.280	0.04	1.108	0.011	49.9	100.0	0.011	97.52	1.85	0.31	37.50	0.05	0.01	1.09
													Total Pounds Removed			**5.43**	**0.91**	**110.16**
													Total Pounds Pre BMP			**5.57**	**0.93**	**112.96**
													Total Pounds Post BMP			**0.14**	**0.02**	**2.80**

Notes: 1. Infiltration rate used in ICPR is taken from NRCS Soil Survey data. Rates are K_H = 20.0 ft/day and K_V = 13.0 ft/day

Lake County BMP - Paving Thornhill Road and Providing Ditch Retention - HSG Type D Soils													Effective Event Mean Concentration (EMC) Based on - Single Family Residential Land Use			Pollutant Load Removed from Storm Water Discharge (Pounds)		
Storm Event Range (Inches)	No. of Events	Single Event Volume Generated Prior to BMP (acre-Feet)	Single Event Volume Generated to BMP (acre-Feet)	Single Event Volume Discharged from BMP - From ICPR[1] Model (acre-Feet)	Total Reduction in Volume with BMP for Single Event (acre-ft)	Number of Rain Events for Range for Average Year	Cumulative Total Volume Generated Prior to BMP (acre-feet)	Total Reduction in Volume with BMP per year (acre-feet)	Percentage of Pre-BMP Volume Removed (%)	Cumulative System Input % based on Rainfall Data	Annual Reduction in Volume from Pre-BMP Conditions (acre-ft)	Cumulative Percentage Removed From Pre-BMP Condition (%)	EMC TN (mg/L)	EMC TP (mg/L)	EMC TSS (mg/L)	TN (lb)	TP (lb)	TSS (lb)
0.0-0.1	2119	0.000	0.000	0.000	0.000	40.27	0.000	0.000	100.0	0.0	0.000	100.00	1.85	0.31	37.50	0.00	0.00	0.00
0.1-0.2	805	0.002	0.004	0.000	0.002	15.30	0.035	0.035	100.0	0.2	0.035	100.00	1.85	0.31	37.50	0.18	0.03	3.62
0.2-0.3	439	0.005	0.009	0.000	0.005	8.34	0.076	0.041	100.0	0.5	0.041	100.00	1.85	0.31	37.50	0.21	0.03	4.18
0.3-0.4	366	0.008	0.013	0.000	0.008	6.96	0.129	0.052	100.0	1.1	0.052	100.00	1.85	0.31	37.50	0.26	0.04	5.33
0.4-0.5	262	0.010	0.018	0.000	0.010	4.98	0.179	0.050	100.0	1.8	0.050	100.00	1.85	0.31	37.50	0.25	0.04	5.12
0.5-0.6	216	0.013	0.023	0.000	0.013	4.10	0.232	0.053	100.0	2.7	0.053	100.00	1.85	0.31	37.50	0.27	0.04	5.37
0.6-0.7	63	0.015	0.027	0.000	0.015	1.20	0.250	0.018	100.0	3.8	0.018	100.00	1.85	0.31	37.50	0.09	0.02	1.87
0.7-0.8	196	0.018	0.031	0.000	0.018	3.72	0.317	0.067	100.0	5.1	0.067	100.00	1.85	0.31	37.50	0.34	0.06	6.86
0.8-0.9	80	0.022	0.036	0.000	0.022	1.52	0.350	0.033	100.0	6.6	0.033	100.00	1.85	0.31	37.50	0.17	0.03	3.37
0.9-1.0	150	0.026	0.042	0.000	0.026	2.85	0.424	0.073	100.0	8.3	0.073	100.00	1.85	0.31	37.50	0.37	0.06	7.49
1.0-1.5	289	0.039	0.058	0.000	0.039	5.49	0.637	0.213	100.0	10.7	0.213	100.00	1.85	0.31	37.50	1.07	0.18	21.72
1.5-2.0	139	0.065	0.090	0.000	0.065	2.64	0.808	0.172	100.0	14.4	0.172	100.00	1.85	0.31	37.50	0.86	0.14	17.51
2.0-3.0	99	0.106	0.136	0.000	0.106	1.88	1.007	0.199	100.0	20.0	0.199	100.00	1.85	0.31	37.50	1.00	0.17	20.30
3.0-4.0	24	0.181	0.217	0.061	0.120	0.46	1.090	0.055	66.2	28.9	0.055	97.44	1.85	0.31	37.50	0.28	0.05	5.59
4.0-5.0	15	0.237	0.276	0.109	0.129	0.29	1.158	0.037	54.1	40.2	0.037	94.91	1.85	0.31	37.50	0.18	0.03	3.74
5.0-6.0	4	0.330	0.375	0.207	0.123	0.08	1.183	0.009	37.4	55.6	0.009	93.69	1.85	0.31	37.50	0.05	0.01	0.96
6.0-7.0	1	0.394	0.438	0.262	0.133	0.02	1.190	0.003	33.7	73.6	0.003	93.31	1.85	0.31	37.50	0.01	0.00	0.26
7.0-8.0	0	0.000	0.000	0.000	0.000	0.00	1.190	0.000	100.0	73.6	0.000	93.31	1.85	0.31	37.50	0.00	0.00	0.00
> 8.0	2	0.595	0.642	0.438	0.157	0.04	1.213	0.006	26.3	100.0	0.006	92.06	1.85	0.31	37.50	0.03	0.01	0.61
													Total Pounds Removed			**5.62**	**0.94**	**113.89**
													Total Pounds Pre BMP			**6.10**	**1.02**	**123.71**
													Total Pounds Post BMP			**0.48**	**0.08**	**9.82**

Notes: 1. Infiltration rate used in ICPR is taken from NRCS Soil Survey data. Rates are K_H = 10.0 ft/day and K_V = 6.5 ft/day

LAKE COUNTY - DIRT ROAD PAVING PROJECT
SPREADSHEET WATER QUALITY MODELING

THOROUGHBRED TRAIL - HSG A SOILS
POLLUTANT LOADING ESTIMATE
EXISTING CONDITIONS

Basin Description: Existing - A

Date: 08/30/12

Annual Rainfall: 43.7 inches
BMP: 0 No Treatment

Land Use Description	Land Use Area (acres)	NDCIA CN	%DCIA	Runoff Coefficient	Runoff Volume ac-ft/yr	ANNUAL POLLUTANT LOAD (lb/year)						
						BOD	TSS	TN	TP	Cu	Pb	Zn
Residential-Single Family	2.99	49	15	0.1332	1.45	18.54	90.71	6.35	0.75	0.03	0.01	0.12
Residential-Med Density	0.00	-	25	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential-High Density	0.00	-	50	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial / Institutional	0.00	-	80	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	-	72	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agriculture - Pasture / General	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agriculture - Row & Field Crops	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agriculture - Citrus	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mining	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreation / Open Space	2.99	39	0	0.0064	0.07	0.27	1.59	0.22	0.01	0.00	0.00	0.00
Transportation / Utilities	0.00	-	50	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wetland	0.00	-	100	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water	0.00	-	100	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Road Surface	2.00	72	90	0.7348	5.35	0.00	15389.34	32.74	15.57	0.00	0.00	0.00
Total for Basin	**7.98**				**6.87**	**18.80**	**15481.64**	**39.31**	**16.33**	**0.03**	**0.01**	**0.12**
Removed by BMP's						0.00	0.00	0.00	0.00	0.00	0.00	0.00

LAKE COUNTY - DIRT ROAD PAVING PROJECT
SPREADSHEET WATER QUALITY MODELING

THOROUGHBRED TRAIL - HSG - A SOILS
POLLUTANT LOADING ESTIMATE
PROPOSED CONDITIONS

Basin Description: Proposed - A

Date: 08/30/12

Annual Rainfall: 43.7 inches
BMP: 0 No Treatment

Land Use Description	Land Use Area (acres)	NDCIA CN	%DCIA	Runoff Coefficient	Runoff Volume ac-ft/yr	ANNUAL POLLUTANT LOAD (lb/year)						
						BOD	TSS	TN	TP	Cu	Pb	Zn
Residential-Single Family	2.99	49	15	0.1332	1.45	18.54	90.71	7.30	1.22	0.03	0.01	0.12
Residential-Med Density	0.00	-	25	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential-High Density	0.00	-	50	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial / Institutional	0.00	-	80	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	-	72	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agriculture - Pasture / General	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agriculture - Row & Field Crops	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agriculture - Citrus	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mining	0.00	-	0	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreation / Open Space	0.00	39	0	0.0064	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation / Utilities	0.00	-	50	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wetland	0.00	-	100	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water	0.00	-	100	-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavement	2.00	98	100	0.8090	5.89	0.00	597.62	21.95	2.68	0.00	0.00	0.00
Total for Basin	**4.99**				**7.34**	**18.54**	**688.33**	**29.25**	**3.90**	**0.03**	**0.01**	**0.12**
Removed by BMP's						0.00	0.00	0.00	0.00	0.00	0.00	0.00